

Railyards Specific Plan Draft Environmental Impact Report

SCH No. 2006032058
Technical Appendices (Traffic)

August 2007

(P05-097)



Prepared for
City of Sacramento

Prepared by
PBS&J/EIP

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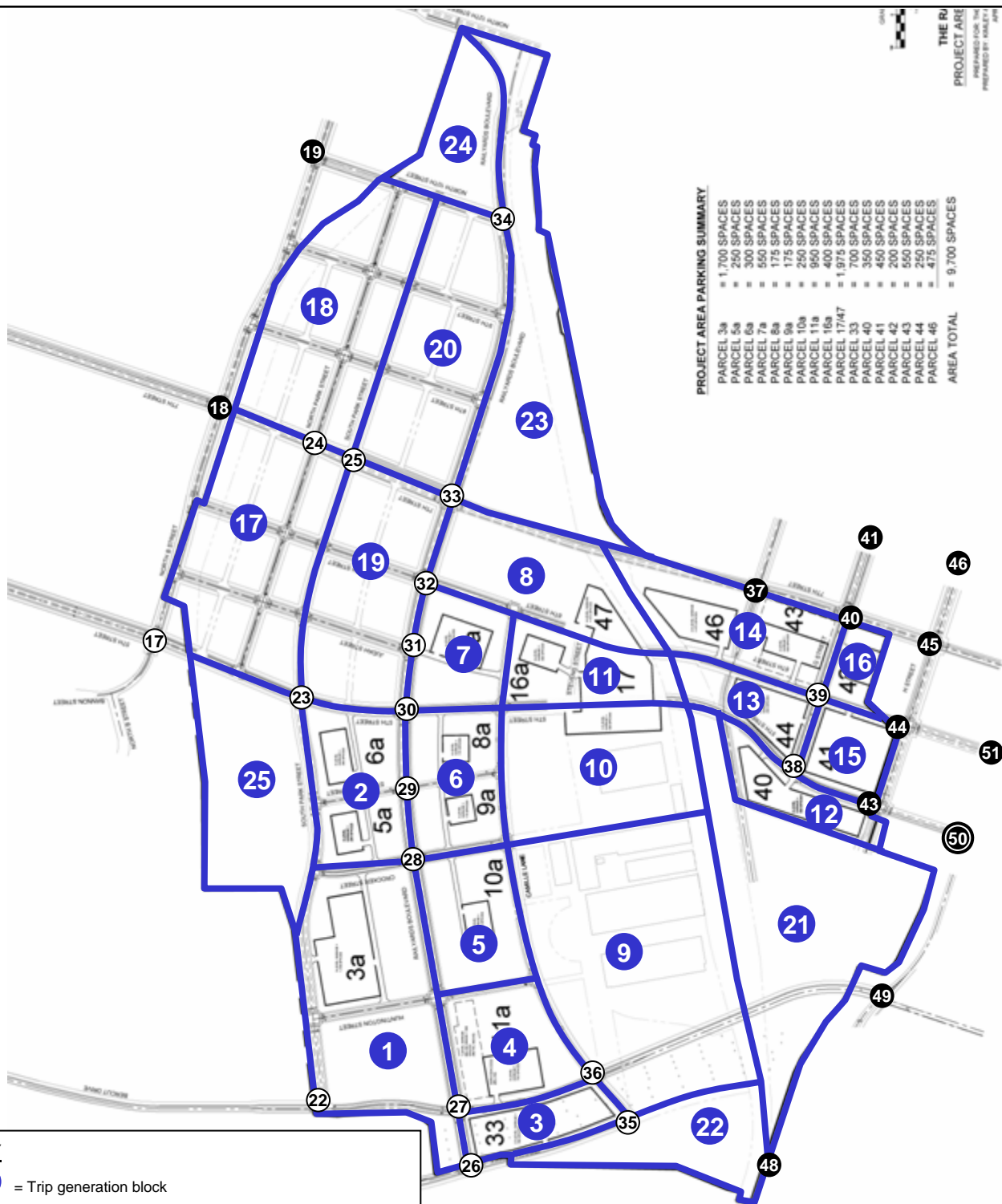
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APPENDIX Q
TRANSPORTATION AND CIRCULATION APPENDICES

Trip Generation



PROJECT AREA PARKING SUMMARY

PARCEL 3a	= 1,700 SPACES
PARCEL 5a	= 250 SPACES
PARCEL 6a	= 300 SPACES
PARCEL 7a	= 550 SPACES
PARCEL 8a	= 175 SPACES
PARCEL 9a	= 175 SPACES
PARCEL 10a	= 250 SPACES
PARCEL 11a	= 950 SPACES
PARCEL 16a	= 400 SPACES
PARCEL 17/47	= 1,975 SPACES
PARCEL 33	= 700 SPACES
PARCEL 40	= 350 SPACES
PARCEL 41	= 450 SPACES
PARCEL 42	= 200 SPACES
PARCEL 43	= 550 SPACES
PARCEL 44	= 250 SPACES
PARCEL 45	= 475 SPACES
PARCEL 46	= 475 SPACES
AREA TOTAL	= 9,700 SPACES

- KEY**
- 9 = Trip generation block
 - 10 = Existing study intersection
 - 13 = Existing study intersection (pedestrian & bike analysis)
 - 40 = Proposed intersection

Source (Base Map): Project Area Parking Plan, Kimley-Horn and Associates, Inc., April 3, 2007



Figure x
BLOCKS FOR TRIP GENERATION

Initial Phase with Maximum Office (Baseline & 2013)

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	32 KSF	555	66	9	75	20	95	115
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	808 Units	5,487	206	213	419	230	185	415
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,646	429	322	751	768	841	1,609
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.7%)		-1,889	-36	-29	-65	-81	-83	-164
Internal Trips Within This Block (-12.8%)		-2,262	-28	-28	-56	-118	-118	-235
Trips To-From Other Blocks within the Project (-3.4%)		-600	-14	-14	-27	-15	-15	-31
New External Trips (73%) of Total Trips for Block		12,895	351	252	603	554	625	1,179
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	526 Units	2,207	34	147	181	120	74	194
Other	0	0	0	0	0	0	0	0
Total Trips for Block		8,673	244	214	458	386	467	853
Transit Adjustments (-1.7%)		-148	-9	-3	-12	-6	-11	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-867	-16	-17	-33	-39	-40	-79
Internal Trips Within This Block (-14.9%)		-1,289	-14	-14	-28	-59	-59	-117
Trips To-From Other Blocks within the Project (-3.3%)		-283	-8	-8	-17	-8	-8	-16
New External Trips (70%) of Total Trips for Block		6,086	197	172	368	274	349	623
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-3.9%)		-449	-5	-5	-10	-12	-12	-24
New External Trips (84%) of Total Trips for Block		9,662	131	83	214	439	477	916
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	65 KSF	957	117	16	133	26	126	152
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	106 Units	623	11	49	60	32	20	52
Total Trips for Block		9,059	232	132	364	389	505	894
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-955	-17	-12	-29	-41	-47	-88
Internal Trips Within This Block (-8.4%)		-761	-15	-15	-30	-33	-33	-66
Trips To-From Other Blocks within the Project (-3.6%)		-326	-7	-7	-13	-9	-9	-19
New External Trips (77%) of Total Trips for Block		7,016	193	98	291	306	416	721

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	129 KSF	1,623	202	28	230	38	185	223
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	162 Units	834	14	62	76	44	27	71
Total Trips for Block		10,102	323	158	481	421	579	1,000
Transit Adjustments (-1.8%)		-186	-12	-4	-16	-7	-14	-21
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-1,012	-18	-14	-32	-44	-50	-94
Internal Trips Within This Block (-10.1%)		-1,018	-16	-16	-33	-42	-42	-83
Trips To-From Other Blocks within the Project (-3.5%)		-350	-9	-9	-17	-10	-10	-20
New External Trips (75%) of Total Trips for Block		7,536	268	115	383	318	463	781
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	294 Units	1,332	22	92	114	71	44	115
Total Trips for Block		7,897	234	160	394	341	442	783
Transit Adjustments (-1.7%)		-137	-8	-3	-11	-6	-11	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-794	-15	-13	-28	-35	-38	-73
Internal Trips Within This Block (-14.9%)		-1,178	-15	-15	-29	-51	-51	-102
Trips To-From Other Blocks within the Project (-3.3%)		-257	-7	-7	-14	-8	-8	-15
New External Trips (70%) of Total Trips for Block		5,531	189	122	312	241	334	576
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	86 KSF	1,188	146	20	166	30	145	175
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	100 Units	522	25	16	41	31	28	59
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,676	663	457	1,120	859	998	1,857
Transit Adjustments (-1.8%)		-356	-14	-6	-20	-12	-18	-30
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-2,002	-63	-51	-114	-95	-87	-181
Internal Trips Within This Block (-3.8%)		-747	-30	-30	-61	-45	-45	-89
Trips To-From Other Blocks within the Project (-3.7%)		-736	-20	-20	-40	-20	-20	-40
New External Trips (80%) of Total Trips for Block		15,835	535	350	885	688	828	1,517

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	40 KSF	659	79	11	90	21	103	124
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	72 Units	301	5	20	24	17	10	27
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,543	307	204	510	767	889	1,656
Transit Adjustments (-1.4%)		-228	-6	-3	-9	-10	-15	-24
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-1,823	-29	-22	-51	-85	-92	-176
Internal Trips Within This Block (-2.5%)		-422	-18	-18	-36	-28	-28	-57
Trips To-From Other Blocks within the Project (-3.8%)		-625	-9	-9	-18	-18	-18	-36
New External Trips (81%) of Total Trips for Block		13,445	245	152	396	626	736	1,364
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	30 KSF	528	63	9	72	19	93	112
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	236 Units	1,113	18	79	97	60	36	96
Total Trips for Block		4,610	126	116	242	209	269	478
Transit Adjustments (-1.7%)		-77	-5	-2	-7	-3	-7	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-466	-8	-10	-18	-21	-21	-42
Internal Trips Within This Block (-15.3%)		-704	-8	-8	-16	-32	-32	-64
Trips To-From Other Blocks within the Project (-3.2%)		-149	-4	-4	-9	-5	-5	-9
New External Trips (70%) of Total Trips for Block		3,213	100	91	192	148	204	353
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	115 KSF	1,488	185	25	210	35	173	208
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		5,109	239	59	298	194	345	539
Transit Adjustments (-2.4%)		-123	-12	-1	-13	-4	-12	-16
Walk, Bike & Other Non-Auto Travel Adjustments (-9%)		-462	-11	-5	-16	-19	-25	-44
Internal Trips Within This Block (-4.3%)		-221	-2	-2	-4	-7	-7	-15
Trips To-From Other Blocks within the Project (-3.7%)		-191	-6	-6	-11	-6	-6	-12
New External Trips (80%) of Total Trips for Block		4,111	208	45	254	158	295	453
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	250 KSF	2,701	343	47	390	61	298	359
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		6,096	633	133	766	218	655	873
Transit Adjustments (-4%)		-246	-24	-4	-28	-5	-22	-27
Walk, Bike & Other Non-Auto Travel Adjustments (-5.8%)		-356	-21	-5	-26	-15	-26	-41
Internal Trips Within This Block (-2.1%)		-129	-1	-1	-2	-4	-4	-8
Trips To-From Other Blocks within the Project (-3.9%)		-238	-15	-15	-31	-10	-10	-20
New External Trips (84%) of Total Trips for Block		5,127	572	108	679	184	593	776
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	680 KSF	5,837	765	104	869	143	697	840
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		7,549	792	121	913	217	777	994
Transit Adjustments (-4.6%)		-346	-43	-6	-49	-9	-40	-49
Walk, Bike & Other Non-Auto Travel Adjustments (-4.8%)		-362	-24	-5	-29	-13	-29	-42
Internal Trips Within This Block (-1.4%)		-105	-1	-1	-2	-3	-3	-7
Trips To-From Other Blocks within the Project (-4%)		-299	-18	-18	-36	-11	-11	-23
New External Trips (85%) of Total Trips for Block		6,437	706	91	797	180	693	873

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	192 KSF	2,205	278	38	316	50	244	294
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		8,315	365	93	458	320	536	856
Transit Adjustments (-2.3%)		-190	-17	-3	-20	-6	-16	-22
Walk, Bike & Other Non-Auto Travel Adjustments (-9.3%)		-771	-18	-7	-25	-32	-41	-73
Internal Trips Within This Block (-4.5%)		-373	-3	-3	-6	-12	-12	-25
Trips To-From Other Blocks within the Project (-3.7%)		-310	-9	-9	-18	-9	-9	-19
New External Trips (80%) of Total Trips for Block		6,670	318	71	389	260	457	718
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	300 KSF	3,109	398	54	452	71	344	415
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		4,223	416	66	482	119	396	515
Transit Adjustments (-4.4%)		-186	-22	-3	-25	-4	-20	-24
Walk, Bike & Other Non-Auto Travel Adjustments (-5.1%)		-216	-13	-3	-16	-8	-16	-24
Internal Trips Within This Block (-1.6%)		-68	-1	-1	-1	-2	-2	-4
Trips To-From Other Blocks within the Project (-3.9%)		-167	-10	-10	-19	-6	-6	-12
New External Trips (85%) of Total Trips for Block		3,586	371	50	421	99	352	451
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 20: Bounded by South Park, N. 10th, Railyards, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
----- Total Trips for Block		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
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Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
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Total Project Trips								
Office (General Office Building)	2,071 KSF	23,010	2,908	397	3,305	570	2,775	3,345
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	2,304 Units	12,419	335	678	1,012	606	423	1,029
Other		3,528	258	65	323	102	445	546
Total Project Trips		136,936	5,157	2,334	7,490	5,719	8,251	13,970
Transit Adjustments (-1.6%)		-2,223	-172	-38	-210	-72	-186	-257
Walk, Bike & Other Non-Auto Travel Adjustments (-9.7%)		-13,302	-307	-204	-511	-587	-659	-1,244
Internal Trips Within This Block (-6.8%)		-9,279	-152	-152	-304	-437	-437	-873
Trips To-From Other Blocks within the Project (-3.6%)		-4,982	-140	-140	-280	-147	-147	-295
New External Trips (78%) of Total Project Trips		107,150	4,385	1,800	6,185	4,476	6,822	11,301

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		78.2%				82.6%			80.9%

Initial Phase with Maximum Residential (Baseline & 2013)

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	837 Units	5,596	208	220	428	237	188	425
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,200	365	320	685	755	749	1,504
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-1,883	-34	-30	-64	-81	-81	-162
Internal Trips Within This Block (-11.9%)		-2,052	-23	-23	-46	-101	-101	-201
Trips To-From Other Blocks within the Project (-3.7%)		-633	-17	-17	-34	-28	-28	-56
New External Trips (73%) of Total Trips for Block		12,632	291	250	541	546	539	1,085
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	595 Units	2,467	38	163	201	135	83	218
Other	0	0	0	0	0	0	0	0
Total Trips for Block		7,853	115	212	327	373	340	713
Transit Adjustments (-1.2%)		-91	-2	-2	-4	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-862	-12	-19	-31	-39	-37	-76
Internal Trips Within This Block (-12%)		-940	-11	-11	-22	-46	-46	-91
Trips To-From Other Blocks within the Project (-3.6%)		-285	-8	-8	-16	-13	-13	-26
New External Trips (72%) of Total Trips for Block		5,675	82	172	254	271	240	511
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-4.2%)		-483	-7	-7	-13	-23	-23	-46
New External Trips (84%) of Total Trips for Block		9,628	129	81	211	428	466	894
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	165 Units	846	15	62	77	45	27	72
Total Trips for Block		8,325	119	129	248	376	386	762
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-949	-13	-13	-26	-42	-44	-86
Internal Trips Within This Block (-6.5%)		-544	-13	-13	-25	-26	-26	-52
Trips To-From Other Blocks within the Project (-3.9%)		-326	-6	-6	-12	-15	-15	-31
New External Trips (78%) of Total Trips for Block		6,506	88	98	185	293	301	594

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	281 Units	1,283	21	89	110	69	42	111
Total Trips for Block		8,928	128	157	285	408	409	817
Transit Adjustments (-1.1%)		-101	-1	-3	-4	-5	-5	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,010	-14	-15	-29	-45	-47	-92
Internal Trips Within This Block (-9.1%)		-812	-14	-14	-29	-39	-39	-78
Trips To-From Other Blocks within the Project (-3.7%)		-334	-7	-7	-13	-16	-16	-31
New External Trips (75%) of Total Trips for Block		6,670	92	118	210	304	303	606
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	363 Units	1,592	25	109	134	86	53	139
Total Trips for Block		7,077	104	159	263	328	315	643
Transit Adjustments (-1.1%)		-81	-1	-2	-3	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11.1%)		-789	-11	-15	-26	-35	-35	-70
Internal Trips Within This Block (-12.7%)		-899	-11	-11	-23	-43	-43	-86
Trips To-From Other Blocks within the Project (-3.6%)		-253	-6	-6	-12	-12	-12	-23
New External Trips (71%) of Total Trips for Block		5,055	74	124	199	234	221	455
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	139 Units	685	28	27	54	40	34	74
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,347	604	459	1,062	860	964	1,824
Transit Adjustments (-1.7%)		-330	-10	-6	-16	-11	-16	-27
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-2,004	-62	-51	-113	-95	-87	-181
Internal Trips Within This Block (-3.5%)		-682	-35	-35	-69	-48	-48	-96
Trips To-From Other Blocks within the Project (-4%)		-780	-25	-25	-51	-37	-37	-74
New External Trips (80%) of Total Trips for Block		15,552	472	343	814	669	775	1,445

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	108 Units	631	11	49	60	32	20	52
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,214	234	222	456	761	796	1,557
Transit Adjustments (-1.2%)		-195	-2	-3	-5	-10	-9	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,837	-27	-24	-51	-85	-91	-175
Internal Trips Within This Block (-2.5%)		-399	-21	-21	-41	-19	-19	-37
Trips To-From Other Blocks within the Project (-4.1%)		-658	-11	-11	-21	-32	-32	-65
New External Trips (81%) of Total Trips for Block		13,125	174	163	338	615	645	1,262
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	263 Units	1,215	20	85	105	65	40	105
Total Trips for Block		4,184	65	113	178	195	180	375
Transit Adjustments (-1.2%)		-49	-1	-2	-3	-2	-3	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-461	-7	-9	-16	-21	-19	-40
Internal Trips Within This Block (-12.4%)		-518	-7	-7	-13	-25	-25	-50
Trips To-From Other Blocks within the Project (-3.6%)		-151	-4	-4	-9	-7	-7	-14
New External Trips (72%) of Total Trips for Block		3,005	46	91	137	140	126	266
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	96 Units	401	6	26	33	23	14	36
Total Trips for Block		4,022	60	60	121	182	186	367
Transit Adjustments (-1.1%)		-45	-1	-1	-2	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-459	-7	-6	-13	-20	-21	-41
Internal Trips Within This Block (-6.3%)		-254	-6	-6	-12	-13	-13	-26
Trips To-From Other Blocks within the Project (-3.9%)		-156	-3	-3	-6	-7	-7	-14
New External Trips (77%) of Total Trips for Block		3,108	43	44	89	139	143	281
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	227 Units	1,079	18	77	95	58	35	93
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		4,474	308	163	471	215	392	607
Transit Adjustments (-2.4%)		-109	-5	-3	-8	-3	-5	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-8.6%)		-384	-13	-10	-23	-18	-21	-39
Internal Trips Within This Block (-8.2%)		-368	-5	-5	-9	-18	-18	-35
Trips To-From Other Blocks within the Project (-3.9%)		-173	-13	-13	-25	-13	-13	-26
New External Trips (77%) of Total Trips for Block		3,441	273	133	405	164	336	499
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	619 Units	2,557	40	168	208	140	86	226
Total Trips for Block		4,269	67	185	252	214	166	380
Transit Adjustments (-1.2%)		-52	-1	-3	-4	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-444	-6	-15	-21	-21	-16	-37
Internal Trips Within This Block (-7%)		-299	-4	-4	-8	-14	-14	-28
Trips To-From Other Blocks within the Project (-3.9%)		-166	-6	-6	-13	-8	-8	-15
New External Trips (77%) of Total Trips for Block		3,308	50	157	206	168	126	295

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	160 Units	827	14	61	75	43	27	70
Total Trips for Block		6,937	101	116	217	313	319	632
Transit Adjustments (-1.1%)		-78	-1	-2	-3	-4	-3	-7
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-788	-11	-11	-22	-35	-36	-71
Internal Trips Within This Block (-7.6%)		-524	-11	-11	-22	-25	-25	-50
Trips To-From Other Blocks within the Project (-3.8%)		-265	-5	-5	-10	-12	-12	-25
New External Trips (76%) of Total Trips for Block		5,282	73	87	160	237	243	479
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	273 Units	1,253	21	87	108	67	41	108
Total Trips for Block		2,367	39	99	138	115	93	208
Transit Adjustments (-1.2%)		-28	0	-2	-2	-1	-2	-3
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-249	-4	-8	-12	-12	-9	-21
Internal Trips Within This Block (-8.2%)		-195	-3	-3	-6	-9	-9	-18
Trips To-From Other Blocks within the Project (-3.8%)		-90	-3	-3	-7	-4	-4	-8
New External Trips (76%) of Total Trips for Block		1,805	29	83	112	89	69	158
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th									
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0	
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0	
Subtotal Residential	0 Units	0	0	0	0	0	0	0	
-----		-----		-----		-----		-----	
Total Trips for Block		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Total Project Trips								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	4,126 Units	20,432	465	1,223	1,688	1,041	689	1,729
Other		3,528	258	65	323	102	445	546
Total Project Trips		122,636	2,463	2,493	4,955	5,606	5,847	11,452
Transit Adjustments (-0.9%)		-1,159	-25	-29	-54	-50	-55	-104
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-13,446	-239	-237	-476	-608	-608	-1,214
Internal Trips Within This Block (-6.9%)		-8,486	-163	-163	-325	-425	-425	-850
Trips To-From Other Blocks within the Project (-3.9%)		-4,753	-120	-120	-240	-227	-227	-455
New External Trips (77%) of Total Project Trips		94,792	1,916	1,945	3,860	4,296	4,532	8,829

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		77.3%				77.9%			77.1%

Initial Phase with Maximum Office (2030)

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	32 KSF	555	66	9	75	20	95	115
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	808 Units	5,487	206	213	419	230	185	415
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,646	429	322	751	768	841	1,609
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.7%)		-1,889	-36	-29	-65	-81	-83	-164
Internal Trips Within This Block (-12.8%)		-2,262	-28	-28	-56	-118	-118	-235
Trips To-From Other Blocks within the Project (-3.5%)		-612	-14	-14	-28	-16	-16	-31
New External Trips (73%) of Total Trips for Block		12,883	351	251	602	554	624	1,179
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	526 Units	2,207	34	147	181	120	74	194
Other	0	0	0	0	0	0	0	0
Total Trips for Block		8,673	244	214	458	386	467	853
Transit Adjustments (-3.4%)		-295	-18	-8	-26	-12	-23	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-867	-16	-17	-33	-39	-40	-79
Internal Trips Within This Block (-14.7%)		-1,272	-14	-14	-28	-58	-58	-116
Trips To-From Other Blocks within the Project (-3.3%)		-283	-8	-8	-17	-8	-8	-16
New External Trips (69%) of Total Trips for Block		5,956	188	167	355	269	338	607
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-4%)		-459	-5	-5	-10	-12	-12	-24
New External Trips (84%) of Total Trips for Block		9,652	131	83	214	439	477	916
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	65 KSF	957	117	16	133	26	126	152
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	106 Units	623	11	49	60	32	20	52
Total Trips for Block		9,059	232	132	364	389	505	894
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-955	-17	-12	-29	-41	-47	-88
Internal Trips Within This Block (-8.4%)		-761	-15	-15	-30	-33	-33	-66
Trips To-From Other Blocks within the Project (-3.7%)		-333	-7	-7	-14	-10	-10	-19
New External Trips (77%) of Total Trips for Block		7,010	193	98	291	305	415	721

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	129 KSF	1,623	202	28	230	38	185	223
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	162 Units	834	14	62	76	44	27	71
Total Trips for Block		10,102	323	158	481	421	579	1,000
Transit Adjustments (-3.7%)		-370	-26	-7	-33	-13	-30	-43
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-1,012	-18	-14	-32	-44	-50	-94
Internal Trips Within This Block (-9.9%)		-1,003	-16	-16	-32	-41	-41	-82
Trips To-From Other Blocks within the Project (-3.5%)		-350	-9	-9	-17	-10	-10	-20
New External Trips (73%) of Total Trips for Block		7,367	255	113	367	313	448	761
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	294 Units	1,332	22	92	114	71	44	115
Total Trips for Block		7,897	234	160	394	341	442	783
Transit Adjustments (-3.5%)		-276	-18	-6	-24	-10	-23	-33
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-794	-15	-13	-28	-35	-38	-73
Internal Trips Within This Block (-14.7%)		-1,159	-14	-14	-29	-51	-51	-101
Trips To-From Other Blocks within the Project (-3.3%)		-257	-7	-7	-14	-7	-7	-15
New External Trips (69%) of Total Trips for Block		5,411	180	120	300	238	323	561
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	86 KSF	1,188	146	20	166	30	145	175
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	100 Units	522	25	16	41	31	28	59
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,676	663	457	1,120	859	998	1,857
Transit Adjustments (-3.6%)		-708	-28	-11	-39	-22	-37	-59
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-2,002	-63	-51	-114	-95	-87	-181
Internal Trips Within This Block (-3.6%)		-718	-30	-30	-60	-44	-44	-87
Trips To-From Other Blocks within the Project (-3.7%)		-737	-20	-20	-40	-20	-20	-39
New External Trips (79%) of Total Trips for Block		15,512	522	345	867	679	810	1,490

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	40 KSF	659	79	11	90	21	103	124
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	72 Units	301	5	20	24	17	10	27
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,543	307	204	510	767	889	1,656
Transit Adjustments (-2.8%)		-456	-14	-6	-20	-19	-30	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-1,823	-29	-22	-51	-85	-92	-176
Internal Trips Within This Block (-2.5%)		-406	-17	-17	-35	-28	-28	-55
Trips To-From Other Blocks within the Project (-3.8%)		-629	-9	-9	-18	-18	-18	-35
New External Trips (80%) of Total Trips for Block		13,230	238	149	387	618	722	1,342
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	30 KSF	528	63	9	72	19	93	112
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	236 Units	1,113	18	79	97	60	36	96
Total Trips for Block		4,610	126	116	242	209	269	478
Transit Adjustments (-3.3%)		-153	-9	-4	-13	-7	-14	-21
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-466	-8	-10	-18	-21	-21	-42
Internal Trips Within This Block (-14.9%)		-689	-8	-8	-16	-32	-32	-63
Trips To-From Other Blocks within the Project (-3.2%)		-150	-4	-4	-9	-5	-5	-9
New External Trips (68%) of Total Trips for Block		3,152	97	90	186	145	198	343
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	115 KSF	1,488	185	25	210	35	173	208
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		5,109	239	59	298	194	345	539
Transit Adjustments (-4.8%)		-245	-21	-4	-25	-7	-23	-30
Walk, Bike & Other Non-Auto Travel Adjustments (-9%)		-462	-11	-5	-16	-19	-25	-44
Internal Trips Within This Block (-4.3%)		-219	-2	-2	-4	-7	-7	-14
Trips To-From Other Blocks within the Project (-3.7%)		-190	-6	-6	-11	-6	-6	-12
New External Trips (78%) of Total Trips for Block		3,994	200	43	242	155	284	439
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	250 KSF	2,701	343	47	390	61	298	359
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		6,096	633	133	766	218	655	873
Transit Adjustments (-8%)		-489	-48	-7	-55	-11	-44	-55
Walk, Bike & Other Non-Auto Travel Adjustments (-5.8%)		-356	-21	-5	-26	-15	-26	-41
Internal Trips Within This Block (-2.1%)		-127	-1	-1	-2	-4	-4	-8
Trips To-From Other Blocks within the Project (-3.8%)		-232	-15	-15	-30	-10	-10	-20
New External Trips (80%) of Total Trips for Block		4,892	548	105	652	178	571	748
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	680 KSF	5,837	765	104	869	143	697	840
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		7,549	792	121	913	217	777	994
Transit Adjustments (-9.1%)		-686	-85	-12	-97	-17	-79	-96
Walk, Bike & Other Non-Auto Travel Adjustments (-4.8%)		-362	-24	-5	-29	-13	-29	-42
Internal Trips Within This Block (-1.4%)		-103	-1	-1	-2	-3	-3	-7
Trips To-From Other Blocks within the Project (-3.8%)		-290	-17	-17	-35	-11	-11	-22
New External Trips (81%) of Total Trips for Block		6,108	665	86	750	173	655	827

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	192 KSF	2,205	278	38	316	50	244	294
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		8,315	365	93	458	320	536	856
Transit Adjustments (-4.6%)		-379	-33	-5	-38	-12	-33	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-9.3%)		-771	-18	-7	-25	-32	-41	-73
Internal Trips Within This Block (-4.4%)		-369	-3	-3	-6	-12	-12	-24
Trips To-From Other Blocks within the Project (-3.7%)		-308	-9	-9	-17	-9	-9	-18
New External Trips (78%) of Total Trips for Block		6,488	302	69	372	255	441	695
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	300 KSF	3,109	398	54	452	71	344	415
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		4,223	416	66	482	119	396	515
Transit Adjustments (-8.8%)		-370	-45	-6	-51	-9	-39	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-5.1%)		-216	-13	-3	-16	-8	-16	-24
Internal Trips Within This Block (-1.6%)		-67	-1	-1	-1	-2	-2	-4
Trips To-From Other Blocks within the Project (-3.8%)		-162	-9	-9	-18	-6	-6	-11
New External Trips (81%) of Total Trips for Block		3,408	348	47	395	94	333	427
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th									
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0	
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0	
Subtotal Residential	0 Units	0	0	0	0	0	0	0	
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Total Trips for Block		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Total Project Trips								
Office (General Office Building)	2,071 KSF	23,010	2,908	397	3,305	570	2,775	3,345
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	2,304 Units	12,419	335	678	1,012	606	423	1,029
Other		3,528	258	65	323	102	445	546
Total Project Trips		136,936	5,157	2,334	7,490	5,719	8,251	13,970
Transit Adjustments (-3.2%)		-4,427	-345	-76	-421	-139	-375	-513
Walk, Bike & Other Non-Auto Travel Adjustments (-9.7%)		-13,302	-307	-204	-511	-587	-659	-1,244
Internal Trips Within This Block (-6.7%)		-9,155	-150	-150	-300	-432	-432	-864
Trips To-From Other Blocks within the Project (-3.6%)		-4,992	-139	-139	-278	-146	-146	-292
New External Trips (77%) of Total Project Trips		105,060	4,215	1,765	5,979	4,415	6,639	11,057

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		76.7%				79.8%			79.1%

Initial Phase with Maximum Residential (2030)

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	837 Units	5,596	208	220	428	237	188	425
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,200	365	320	685	755	749	1,504
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-1,883	-34	-30	-64	-81	-81	-162
Internal Trips Within This Block (-11.9%)		-2,052	-23	-23	-46	-101	-101	-201
Trips To-From Other Blocks within the Project (-3.7%)		-633	-17	-17	-34	-28	-28	-55
New External Trips (73%) of Total Trips for Block		12,632	291	251	541	546	539	1,085
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	595 Units	2,467	38	163	201	135	83	218
Other	0	0	0	0	0	0	0	0
Total Trips for Block		7,853	115	212	327	373	340	713
Transit Adjustments (-2.3%)		-182	-3	-7	-10	-9	-9	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-862	-12	-19	-31	-39	-37	-76
Internal Trips Within This Block (-11.8%)		-929	-11	-11	-22	-45	-45	-90
Trips To-From Other Blocks within the Project (-3.6%)		-281	-8	-8	-15	-13	-13	-26
New External Trips (71%) of Total Trips for Block		5,600	81	167	249	267	236	503
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-4.2%)		-482	-7	-7	-13	-23	-23	-45
New External Trips (84%) of Total Trips for Block		9,629	129	81	211	428	466	895
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	165 Units	846	15	62	77	45	27	72
Total Trips for Block		8,325	119	129	248	376	386	762
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-949	-13	-13	-26	-42	-44	-86
Internal Trips Within This Block (-6.5%)		-544	-13	-13	-25	-26	-26	-52
Trips To-From Other Blocks within the Project (-3.9%)		-326	-6	-6	-11	-15	-15	-30
New External Trips (78%) of Total Trips for Block		6,506	88	98	185	293	301	594

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	281 Units	1,283	21	89	110	69	42	111
Total Trips for Block		8,928	128	157	285	408	409	817
Transit Adjustments (-2.3%)		-201	-3	-5	-8	-10	-9	-19
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,010	-14	-15	-29	-45	-47	-92
Internal Trips Within This Block (-9%)		-801	-14	-14	-28	-39	-39	-77
Trips To-From Other Blocks within the Project (-3.7%)		-330	-6	-6	-13	-15	-15	-30
New External Trips (74%) of Total Trips for Block		6,586	91	117	207	299	299	599
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	363 Units	1,592	25	109	134	86	53	139
Total Trips for Block		7,077	104	159	263	328	315	643
Transit Adjustments (-2.3%)		-162	-3	-5	-8	-7	-8	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-11.1%)		-789	-11	-15	-26	-35	-35	-70
Internal Trips Within This Block (-12.5%)		-887	-11	-11	-23	-43	-43	-85
Trips To-From Other Blocks within the Project (-3.5%)		-250	-6	-6	-12	-11	-11	-23
New External Trips (70%) of Total Trips for Block		4,989	73	122	194	232	218	450
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	139 Units	685	28	27	54	40	34	74
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,347	604	459	1,062	860	964	1,824
Transit Adjustments (-3.4%)		-657	-22	-11	-33	-21	-33	-54
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-2,004	-62	-51	-113	-95	-87	-181
Internal Trips Within This Block (-3.4%)		-661	-34	-34	-68	-47	-47	-94
Trips To-From Other Blocks within the Project (-4%)		-765	-25	-25	-49	-36	-36	-72
New External Trips (79%) of Total Trips for Block		15,260	461	339	799	661	760	1,422

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	108 Units	631	11	49	60	32	20	52
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,214	234	222	456	761	796	1,557
Transit Adjustments (-2.4%)		-391	-5	-6	-11	-17	-19	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,837	-27	-24	-51	-85	-91	-175
Internal Trips Within This Block (-2.4%)		-393	-20	-20	-41	-18	-18	-36
Trips To-From Other Blocks within the Project (-4%)		-649	-10	-10	-21	-32	-32	-63
New External Trips (80%) of Total Trips for Block		12,944	172	161	332	609	636	1,248
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	263 Units	1,215	20	85	105	65	40	105
Total Trips for Block		4,184	65	113	178	195	180	375
Transit Adjustments (-2.3%)		-97	-2	-4	-6	-5	-4	-9
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-461	-7	-9	-16	-21	-19	-40
Internal Trips Within This Block (-12.2%)		-512	-6	-6	-13	-25	-25	-49
Trips To-From Other Blocks within the Project (-3.6%)		-149	-4	-4	-8	-7	-7	-13
New External Trips (71%) of Total Trips for Block		2,965	45	89	135	138	126	263
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	96 Units	401	6	26	33	23	14	36
Total Trips for Block		4,022	60	60	121	182	186	367
Transit Adjustments (-2.2%)		-90	-1	-2	-3	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-459	-7	-6	-13	-20	-21	-41
Internal Trips Within This Block (-6.2%)		-250	-6	-6	-12	-13	-13	-26
Trips To-From Other Blocks within the Project (-3.8%)		-154	-3	-3	-5	-7	-7	-14
New External Trips (76%) of Total Trips for Block		3,070	44	44	88	138	141	278
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	227 Units	1,079	18	77	95	58	35	93
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		4,474	308	163	471	215	392	607
Transit Adjustments (-4.9%)		-217	-11	-4	-15	-6	-12	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-8.6%)		-384	-13	-10	-23	-18	-21	-39
Internal Trips Within This Block (-8.1%)		-363	-5	-5	-9	-17	-17	-35
Trips To-From Other Blocks within the Project (-3.7%)		-167	-12	-12	-25	-12	-12	-25
New External Trips (75%) of Total Trips for Block		3,342	267	132	398	161	329	490
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	619 Units	2,557	40	168	208	140	86	226
Total Trips for Block		4,269	67	185	252	214	166	380
Transit Adjustments (-2.4%)		-104	-2	-6	-8	-5	-5	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-444	-6	-15	-21	-21	-16	-37
Internal Trips Within This Block (-6.9%)		-295	-4	-4	-8	-14	-14	-28
Trips To-From Other Blocks within the Project (-3.8%)		-163	-6	-6	-13	-7	-7	-15
New External Trips (76%) of Total Trips for Block		3,262	49	154	203	167	124	290

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	160 Units	827	14	61	75	43	27	70
Total Trips for Block		6,937	101	116	217	313	319	632
Transit Adjustments (-2.2%)		-156	-3	-3	-6	-7	-7	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-788	-11	-11	-22	-35	-36	-71
Internal Trips Within This Block (-7.4%)		-515	-10	-10	-21	-25	-25	-49
Trips To-From Other Blocks within the Project (-3.8%)		-261	-5	-5	-10	-12	-12	-24
New External Trips (75%) of Total Trips for Block		5,216	72	87	158	234	239	474
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	273 Units	1,253	21	87	108	67	41	108
Total Trips for Block		2,367	39	99	138	115	93	208
Transit Adjustments (-2.5%)		-58	-2	-3	-5	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-249	-4	-8	-12	-12	-9	-21
Internal Trips Within This Block (-8.1%)		-192	-3	-3	-5	-9	-9	-18
Trips To-From Other Blocks within the Project (-3.8%)		-89	-3	-3	-7	-4	-4	-8
New External Trips (75%) of Total Trips for Block		1,779	27	82	109	87	69	156
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th									
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0	
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0	
Subtotal Residential	0 Units	0	0	0	0	0	0	0	
-----		-----		-----		-----		-----	
Total Trips for Block		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Total Project Trips								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	4,126 Units	20,432	465	1,223	1,688	1,041	689	1,729
Other		3,528	258	65	323	102	445	546
Total Project Trips		122,636	2,463	2,493	4,955	5,606	5,847	11,452
Transit Adjustments (-1.9%)		-2,315	-57	-56	-113	-94	-112	-205
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-13,446	-239	-237	-476	-608	-608	-1,214
Internal Trips Within This Block (-6.8%)		-8,395	-160	-160	-320	-421	-421	-842
Trips To-From Other Blocks within the Project (-3.8%)		-4,699	-118	-118	-236	-222	-222	-444
New External Trips (76%) of Total Project Trips		93,781	1,888	1,922	3,810	4,261	4,484	8,747

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		76.5%				76.9%			76.4%

Full Project with Maximum Office

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	32 KSF	555	66	9	75	20	95	115
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	808 Units	5,487	206	213	419	230	185	415
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,646	429	322	751	768	841	1,609
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.7%)		-1,889	-36	-29	-65	-81	-83	-164
Internal Trips Within This Block (-12.8%)		-2,262	-28	-28	-56	-118	-118	-235
Trips To-From Other Blocks within the Project (-7.1%)		-1,254	-11	-11	-21	-48	-48	-97
New External Trips (69%) of Total Trips for Block		12,240	354	255	609	521	592	1,113
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	526 Units	2,207	34	147	181	120	74	194
Other	0	0	0	0	0	0	0	0
Total Trips for Block		8,673	244	214	458	386	467	853
Transit Adjustments (-3.4%)		-295	-18	-8	-26	-12	-23	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-867	-16	-17	-33	-39	-40	-79
Internal Trips Within This Block (-14.7%)		-1,272	-14	-14	-28	-58	-58	-116
Trips To-From Other Blocks within the Project (-6.7%)		-580	-6	-6	-13	-25	-25	-50
New External Trips (65%) of Total Trips for Block		5,659	190	169	359	252	321	573
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8.2%)		-940	-4	-4	-8	-38	-38	-75
New External Trips (80%) of Total Trips for Block		9,171	132	84	216	413	451	865
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	65 KSF	957	117	16	133	26	126	152
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	106 Units	623	11	49	60	32	20	52
Total Trips for Block		9,059	232	132	364	389	505	894
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-955	-17	-12	-29	-41	-47	-88
Internal Trips Within This Block (-8.4%)		-761	-15	-15	-30	-33	-33	-66
Trips To-From Other Blocks within the Project (-7.5%)		-683	-5	-5	-10	-30	-30	-59
New External Trips (74%) of Total Trips for Block		6,660	195	100	294	285	395	681

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	129 KSF	1,623	202	28	230	38	185	223
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	162 Units	834	14	62	76	44	27	71
Total Trips for Block		10,102	323	158	481	421	579	1,000
Transit Adjustments (-3.7%)		-370	-26	-7	-33	-13	-30	-43
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-1,012	-18	-14	-32	-44	-50	-94
Internal Trips Within This Block (-9.9%)		-1,003	-16	-16	-32	-41	-41	-82
Trips To-From Other Blocks within the Project (-7.1%)		-717	-7	-7	-13	-31	-31	-62
New External Trips (69%) of Total Trips for Block		7,000	257	115	371	292	427	719
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	294 Units	1,332	22	92	114	71	44	115
Total Trips for Block		7,897	234	160	394	341	442	783
Transit Adjustments (-3.5%)		-276	-18	-6	-24	-10	-23	-33
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-794	-15	-13	-28	-35	-38	-73
Internal Trips Within This Block (-14.7%)		-1,159	-14	-14	-29	-51	-51	-101
Trips To-From Other Blocks within the Project (-6.7%)		-527	-5	-5	-11	-23	-23	-46
New External Trips (65%) of Total Trips for Block		5,141	181	121	303	222	307	530
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	800 KSF	6,615	871	119	990	166	809	975
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		6,615	871	119	990	166	809	975
Transit Adjustments (-11.1%)		-734	-97	-13	-110	-18	-90	-108
Walk, Bike & Other Non-Auto Travel Adjustments (-2.8%)		-185	-25	-3	-28	-5	-22	-27
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8%)		-529	-15	-15	-29	-34	-34	-67
New External Trips (78%) of Total Trips for Block		5,167	734	88	823	109	663	773
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	86 KSF	1,188	146	20	166	30	145	175
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	100 Units	522	25	16	41	31	28	59
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,676	663	457	1,120	859	998	1,857
Transit Adjustments (-3.6%)		-708	-28	-11	-39	-22	-37	-59
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-2,002	-63	-51	-114	-95	-87	-181
Internal Trips Within This Block (-3.6%)		-718	-30	-30	-60	-44	-44	-87
Trips To-From Other Blocks within the Project (-7.7%)		-1,510	-15	-15	-31	-61	-61	-122
New External Trips (75%) of Total Trips for Block		14,738	526	350	876	638	769	1,407

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	40 KSF	659	79	11	90	21	103	124
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	72 Units	301	5	20	24	17	10	27
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,543	307	204	510	767	889	1,656
Transit Adjustments (-2.8%)		-456	-14	-6	-20	-19	-30	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-1,823	-29	-22	-51	-85	-92	-176
Internal Trips Within This Block (-2.5%)		-406	-17	-17	-35	-28	-28	-55
Trips To-From Other Blocks within the Project (-7.8%)		-1,288	-7	-7	-14	-55	-55	-110
New External Trips (76%) of Total Trips for Block		12,570	240	151	391	580	684	1,267
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	30 KSF	528	63	9	72	19	93	112
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	236 Units	1,113	18	79	97	60	36	96
Total Trips for Block		4,610	126	116	242	209	269	478
Transit Adjustments (-3.3%)		-153	-9	-4	-13	-7	-14	-21
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-466	-8	-10	-18	-21	-21	-42
Internal Trips Within This Block (-14.9%)		-689	-8	-8	-16	-32	-32	-63
Trips To-From Other Blocks within the Project (-6.7%)		-307	-3	-3	-7	-14	-14	-28
New External Trips (65%) of Total Trips for Block		2,995	98	91	188	135	188	324
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	115 KSF	1,488	185	25	210	35	173	208
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		5,109	239	59	298	194	345	539
Transit Adjustments (-4.8%)		-245	-21	-4	-25	-7	-23	-30
Walk, Bike & Other Non-Auto Travel Adjustments (-9%)		-462	-11	-5	-16	-19	-25	-44
Internal Trips Within This Block (-4.3%)		-219	-2	-2	-4	-7	-7	-14
Trips To-From Other Blocks within the Project (-7.6%)		-389	-4	-4	-9	-18	-18	-36
New External Trips (74%) of Total Trips for Block		3,795	201	44	245	143	272	415
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	250 KSF	2,701	343	47	390	61	298	359
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		6,096	633	133	766	218	655	873
Transit Adjustments (-8%)		-489	-48	-7	-55	-11	-44	-55
Walk, Bike & Other Non-Auto Travel Adjustments (-5.8%)		-356	-21	-5	-26	-15	-26	-41
Internal Trips Within This Block (-2.1%)		-127	-1	-1	-2	-4	-4	-8
Trips To-From Other Blocks within the Project (-7.8%)		-476	-12	-12	-23	-31	-31	-61
New External Trips (76%) of Total Trips for Block		4,648	551	108	659	157	550	707
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	680 KSF	5,837	765	104	869	143	697	840
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		7,549	792	121	913	217	777	994
Transit Adjustments (-9.1%)		-686	-85	-12	-97	-17	-79	-96
Walk, Bike & Other Non-Auto Travel Adjustments (-4.8%)		-362	-24	-5	-29	-13	-29	-42
Internal Trips Within This Block (-1.4%)		-103	-1	-1	-2	-3	-3	-7
Trips To-From Other Blocks within the Project (-7.9%)		-595	-13	-13	-27	-34	-34	-68
New External Trips (77%) of Total Trips for Block		5,803	669	90	758	150	632	781

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	192 KSF	2,205	278	38	316	50	244	294
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		8,315	365	93	458	320	536	856
Transit Adjustments (-4.6%)		-379	-33	-5	-38	-12	-33	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-9.3%)		-771	-18	-7	-25	-32	-41	-73
Internal Trips Within This Block (-4.4%)		-369	-3	-3	-6	-12	-12	-24
Trips To-From Other Blocks within the Project (-7.6%)		-632	-7	-7	-13	-29	-29	-57
New External Trips (74%) of Total Trips for Block		6,164	304	71	376	235	421	657
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	300 KSF	3,109	398	54	452	71	344	415
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		4,223	416	66	482	119	396	515
Transit Adjustments (-8.8%)		-370	-45	-6	-51	-9	-39	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-5.1%)		-216	-13	-3	-16	-8	-16	-24
Internal Trips Within This Block (-1.6%)		-67	-1	-1	-1	-2	-2	-4
Trips To-From Other Blocks within the Project (-7.9%)		-332	-7	-7	-14	-18	-18	-35
New External Trips (77%) of Total Trips for Block		3,238	350	49	400	82	321	404
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,355 Units	5,332	80	342	422	295	181	476
Total Trips for Block		5,332	80	342	422	295	181	476
Transit Adjustments (-2.6%)		-139	-3	-11	-14	-9	-6	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-512	-6	-27	-33	-25	-16	-41
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8.2%)		-435	-6	-6	-13	-17	-17	-34
New External Trips (80%) of Total Trips for Block		4,246	65	298	362	244	142	386
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,273 Units	5,023	76	322	398	278	170	448
Total Trips for Block		5,023	76	322	398	278	170	448
Transit Adjustments (-2.6%)		-131	-3	-11	-14	-9	-5	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-482	-6	-25	-31	-24	-15	-39
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8.2%)		-410	-6	-6	-12	-16	-16	-32
New External Trips (80%) of Total Trips for Block		4,000	61	280	341	229	134	363
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,603 Units	6,267	94	400	494	347	213	560
Total Trips for Block		9,025	135	427	562	467	344	811
Transit Adjustments (-2.5%)		-224	-4	-14	-18	-14	-9	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-922	-12	-35	-47	-44	-33	-77
Internal Trips Within This Block (-5.3%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-7.6%)		-688	-8	-8	-17	-27	-27	-53
New External Trips (74%) of Total Trips for Block		6,715	105	364	468	360	253	612

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 20: Bounded by South Park, N. 10th, Railyards, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,865 Units	7,255	108	462	570	403	247	650
----- Total Trips for Block		10,013	149	489	638	523	378	901
Transit Adjustments (-2.5%)		-250	-5	-15	-20	-15	-11	-26
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-1,016	-14	-39	-53	-49	-36	-85
Internal Trips Within This Block (-4.7%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-7.7%)		-769	-9	-9	-19	-30	-30	-60
New External Trips (75%) of Total Trips for Block		7,503	115	420	534	406	278	685

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	122 KSF	1,550	193	26	219	37	178	215
Retail (Shopping Center)	27 KSF	2,900	43	28	71	127	137	264
Subtotal Residential	200 Units	1,417	59	38	97	63	55	118
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		7,157	553	157	710	292	628	920
Transit Adjustments (-5.8%)		-416	-33	-7	-40	-11	-34	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-7.7%)		-551	-22	-9	-31	-23	-33	-56
Internal Trips Within This Block (-9.8%)		-702	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-7.1%)		-510	-11	-11	-21	-30	-30	-61
New External Trips (70%) of Total Trips for Block		4,978	479	122	601	196	500	696
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	15 KSF	1,979	31	20	50	86	93	179
Subtotal Residential	1,400 Units	7,719	239	352	591	355	261	616
Total Trips for Block		9,698	270	372	641	441	354	795
Transit Adjustments (-2.5%)		-245	-9	-12	-21	-13	-10	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-971	-23	-30	-53	-41	-33	-74
Internal Trips Within This Block (-3.5%)		-341	-5	-5	-9	-16	-16	-33
Trips To-From Other Blocks within the Project (-7.8%)		-757	-10	-10	-19	-27	-27	-53
New External Trips (76%) of Total Trips for Block		7,384	224	316	539	344	268	612
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	60 KSF	4,872	70	45	115	215	232	447
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		7,546	111	221	332	361	322	683
Transit Adjustments (-2.3%)		-177	-3	-7	-10	-9	-8	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-822	-11	-19	-30	-37	-35	-72
Internal Trips Within This Block (-11.1%)		-840	-10	-10	-20	-41	-41	-81
Trips To-From Other Blocks within the Project (-7%)		-531	-5	-5	-9	-20	-20	-41
New External Trips (69%) of Total Trips for Block		5,176	82	180	263	254	218	472
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	40 KSF	3,743	55	35	90	164	178	342
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		6,417	96	211	307	310	268	578
Transit Adjustments (-2.4%)		-152	-2	-7	-9	-8	-7	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-10.8%)		-691	-9	-18	-27	-31	-29	-60
Internal Trips Within This Block (-10.1%)		-646	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-7.1%)		-458	-4	-4	-9	-18	-18	-35
New External Trips (70%) of Total Trips for Block		4,470	73	174	246	222	183	406
Total Project Trips								
Office (General Office Building)	2,993 KSF	31,175	3,972	542	4,514	773	3,762	4,535
Retail (Shopping Center)	1,566 KSF	116,989	1,937	1,376	3,312	5,273	5,510	10,783
Subtotal Residential	11,300 Units	50,780	1,072	2,947	4,018	2,639	1,730	4,369
Other		4,819	516	130	645	167	703	869
Total Project Trips		203,762	7,497	4,995	12,489	8,852	11,705	20,556
Transit Adjustments (-3.4%)		-6,895	-504	-173	-677	-245	-555	-799
Walk, Bike & Other Non-Auto Travel Adjustments (-9.5%)		-19,454	-435	-409	-844	-866	-911	-1,775
Internal Trips Within This Block (-6.2%)		-12,635	-193	-193	-385	-596	-596	-1,193
Trips To-From Other Blocks within the Project (-7.5%)		-15,317	-180	-180	-361	-671	-671	-1,342
New External Trips (73%) of Total Project Trips		149,461	6,185	4,039	10,222	6,473	8,972	15,447

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
		73.4%			81.8%			75.1%

Full Project with Maximum Residential

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	837 Units	5,596	208	220	428	237	188	425
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,200	365	320	685	755	749	1,504
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-1,883	-34	-30	-64	-81	-81	-162
Internal Trips Within This Block (-11.9%)		-2,052	-23	-23	-46	-101	-101	-201
Trips To-From Other Blocks within the Project (-4.7%)		-812	-10	-10	-20	-39	-39	-78
New External Trips (72%) of Total Trips for Block		12,454	297	257	555	535	528	1,063
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	595 Units	2,467	38	163	201	135	83	218
Other	0	0	0	0	0	0	0	0
Total Trips for Block		7,853	115	212	327	373	340	713
Transit Adjustments (-2.3%)		-182	-3	-7	-10	-9	-9	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-862	-12	-19	-31	-39	-37	-76
Internal Trips Within This Block (-11.8%)		-929	-11	-11	-22	-45	-45	-90
Trips To-From Other Blocks within the Project (-4.6%)		-360	-5	-5	-9	-18	-18	-36
New External Trips (70%) of Total Trips for Block		5,520	84	170	255	262	231	493
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-619	-4	-4	-8	-32	-32	-64
New External Trips (83%) of Total Trips for Block		9,492	132	84	216	419	457	876
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	165 Units	846	15	62	77	45	27	72
Total Trips for Block		8,325	119	129	248	376	386	762
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-949	-13	-13	-26	-42	-44	-86
Internal Trips Within This Block (-6.5%)		-544	-13	-13	-25	-26	-26	-52
Trips To-From Other Blocks within the Project (-5%)		-418	-3	-3	-7	-21	-21	-42
New External Trips (77%) of Total Trips for Block		6,414	90	100	190	287	295	582

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	281 Units	1,283	21	89	110	69	42	111
Total Trips for Block		8,928	128	157	285	408	409	817
Transit Adjustments (-2.3%)		-201	-3	-5	-8	-10	-9	-19
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,010	-14	-15	-29	-45	-47	-92
Internal Trips Within This Block (-9%)		-801	-14	-14	-28	-39	-39	-77
Trips To-From Other Blocks within the Project (-4.7%)		-423	-4	-4	-8	-21	-21	-43
New External Trips (73%) of Total Trips for Block		6,493	93	119	212	293	293	586
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	363 Units	1,592	25	109	134	86	53	139
Total Trips for Block		7,077	104	159	263	328	315	643
Transit Adjustments (-2.3%)		-162	-3	-5	-8	-7	-8	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-11.1%)		-789	-11	-15	-26	-35	-35	-70
Internal Trips Within This Block (-12.5%)		-887	-11	-11	-23	-43	-43	-85
Trips To-From Other Blocks within the Project (-4.5%)		-321	-4	-4	-7	-16	-16	-32
New External Trips (70%) of Total Trips for Block		4,919	75	124	199	227	213	440
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	728 Units	2,968	46	194	240	163	100	263
Total Trips for Block		2,968	46	194	240	163	100	263
Transit Adjustments (-2.6%)		-77	-2	-6	-8	-5	-3	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-285	-4	-15	-19	-14	-9	-23
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-159	-4	-4	-7	-8	-8	-16
New External Trips (82%) of Total Trips for Block		2,447	36	169	206	136	80	216
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	139 Units	685	28	27	54	40	34	74
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,347	604	459	1,062	860	964	1,824
Transit Adjustments (-3.4%)		-657	-22	-11	-33	-21	-33	-54
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-2,004	-62	-51	-113	-95	-87	-181
Internal Trips Within This Block (-3.4%)		-661	-34	-34	-68	-47	-47	-94
Trips To-From Other Blocks within the Project (-5.1%)		-981	-15	-15	-30	-51	-51	-102
New External Trips (78%) of Total Trips for Block		15,044	471	349	819	646	746	1,393

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	108 Units	631	11	49	60	32	20	52
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,214	234	222	456	761	796	1,557
Transit Adjustments (-2.4%)		-391	-5	-6	-11	-17	-19	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,837	-27	-24	-51	-85	-91	-175
Internal Trips Within This Block (-2.4%)		-393	-20	-20	-41	-18	-18	-36
Trips To-From Other Blocks within the Project (-5.1%)		-832	-6	-6	-12	-45	-45	-89
New External Trips (79%) of Total Trips for Block		12,761	176	165	341	596	623	1,222
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	263 Units	1,215	20	85	105	65	40	105
Total Trips for Block		4,184	65	113	178	195	180	375
Transit Adjustments (-2.3%)		-97	-2	-4	-6	-5	-4	-9
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-461	-7	-9	-16	-21	-19	-40
Internal Trips Within This Block (-12.2%)		-512	-6	-6	-13	-25	-25	-49
Trips To-From Other Blocks within the Project (-4.6%)		-191	-3	-3	-5	-9	-9	-19
New External Trips (70%) of Total Trips for Block		2,923	47	91	138	135	123	258
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	96 Units	401	6	26	33	23	14	36
Total Trips for Block		4,022	60	60	121	182	186	367
Transit Adjustments (-2.2%)		-90	-1	-2	-3	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-459	-7	-6	-13	-20	-21	-41
Internal Trips Within This Block (-6.2%)		-250	-6	-6	-12	-13	-13	-26
Trips To-From Other Blocks within the Project (-4.9%)		-197	-2	-2	-3	-10	-10	-20
New External Trips (75%) of Total Trips for Block		3,026	45	45	90	135	138	272
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	227 Units	1,079	18	77	95	58	35	93
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		4,474	308	163	471	215	392	607
Transit Adjustments (-4.9%)		-217	-11	-4	-15	-6	-12	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-8.6%)		-384	-13	-10	-23	-18	-21	-39
Internal Trips Within This Block (-8.1%)		-363	-5	-5	-9	-17	-17	-35
Trips To-From Other Blocks within the Project (-4.8%)		-215	-7	-7	-15	-18	-18	-35
New External Trips (74%) of Total Trips for Block		3,295	272	137	408	156	324	480
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	619 Units	2,557	40	168	208	140	86	226
Total Trips for Block		4,269	67	185	252	214	166	380
Transit Adjustments (-2.4%)		-104	-2	-6	-8	-5	-5	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-444	-6	-15	-21	-21	-16	-37
Internal Trips Within This Block (-6.9%)		-295	-4	-4	-8	-14	-14	-28
Trips To-From Other Blocks within the Project (-4.9%)		-210	-4	-4	-8	-10	-10	-21
New External Trips (75%) of Total Trips for Block		3,216	51	156	208	164	121	284

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	160 Units	827	14	61	75	43	27	70
Total Trips for Block		6,937	101	116	217	313	319	632
Transit Adjustments (-2.2%)		-156	-3	-3	-6	-7	-7	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-788	-11	-11	-22	-35	-36	-71
Internal Trips Within This Block (-7.4%)		-515	-10	-10	-21	-25	-25	-49
Trips To-From Other Blocks within the Project (-4.8%)		-335	-3	-3	-6	-17	-17	-34
New External Trips (74%) of Total Trips for Block		5,142	74	89	162	230	235	464
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	273 Units	1,253	21	87	108	67	41	108
Total Trips for Block		2,367	39	99	138	115	93	208
Transit Adjustments (-2.5%)		-58	-2	-3	-5	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-249	-4	-8	-12	-12	-9	-21
Internal Trips Within This Block (-8.1%)		-192	-3	-3	-5	-9	-9	-18
Trips To-From Other Blocks within the Project (-4.8%)		-114	-2	-2	-4	-6	-6	-11
New External Trips (74%) of Total Trips for Block		1,754	28	83	112	85	67	153
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,355 Units	5,332	80	342	422	295	181	476
Total Trips for Block		5,332	80	342	422	295	181	476
Transit Adjustments (-2.6%)		-139	-3	-11	-14	-9	-6	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-512	-6	-27	-33	-25	-16	-41
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-286	-7	-7	-13	-14	-14	-29
New External Trips (82%) of Total Trips for Block		4,395	64	297	362	247	145	391
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,273 Units	5,023	76	322	398	278	170	448
Total Trips for Block		5,023	76	322	398	278	170	448
Transit Adjustments (-2.6%)		-131	-3	-11	-14	-9	-5	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-482	-6	-25	-31	-24	-15	-39
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-270	-6	-6	-12	-13	-13	-27
New External Trips (82%) of Total Trips for Block		4,140	61	280	341	232	137	368
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,603 Units	6,267	94	400	494	347	213	560
Total Trips for Block		9,025	135	427	562	467	344	811
Transit Adjustments (-2.5%)		-224	-4	-14	-18	-14	-9	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-922	-12	-35	-47	-44	-33	-77
Internal Trips Within This Block (-5.3%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-5%)		-453	-8	-8	-17	-23	-23	-45
New External Trips (77%) of Total Trips for Block		6,950	104	363	468	364	257	620

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 20: Bounded by South Park, N. 10th, Railyards, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,865 Units	7,255	108	462	570	403	247	650
----- Total Trips for Block		10,013	149	489	638	523	378	901
Transit Adjustments (-2.5%)		-250	-5	-15	-20	-15	-11	-26
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-1,016	-14	-39	-53	-49	-36	-85
Internal Trips Within This Block (-4.7%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-5.1%)		-506	-10	-10	-19	-25	-25	-51
New External Trips (78%) of Total Trips for Block		7,765	114	419	534	411	283	694

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	122 KSF	1,550	193	26	219	37	178	215
Retail (Shopping Center)	27 KSF	2,900	43	28	71	127	137	264
Subtotal Residential	200 Units	1,417	59	38	97	63	55	118
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		7,157	553	157	710	292	628	920
Transit Adjustments (-5.8%)		-416	-33	-7	-40	-11	-34	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-7.7%)		-551	-22	-9	-31	-23	-33	-56
Internal Trips Within This Block (-9.8%)		-702	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-4.7%)		-336	-11	-11	-22	-26	-26	-51
New External Trips (72%) of Total Trips for Block		5,153	479	122	601	201	505	705
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	15 KSF	1,979	31	20	50	86	93	179
Subtotal Residential	1,400 Units	7,719	239	352	591	355	261	616
Total Trips for Block		9,698	270	372	641	441	354	795
Transit Adjustments (-2.5%)		-245	-9	-12	-21	-13	-10	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-971	-23	-30	-53	-41	-33	-74
Internal Trips Within This Block (-3.5%)		-341	-5	-5	-9	-16	-16	-33
Trips To-From Other Blocks within the Project (-5.1%)		-498	-10	-10	-20	-23	-23	-45
New External Trips (79%) of Total Trips for Block		7,643	223	316	538	348	272	620
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	60 KSF	4,872	70	45	115	215	232	447
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		7,546	111	221	332	361	322	683
Transit Adjustments (-2.3%)		-177	-3	-7	-10	-9	-8	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-822	-11	-19	-30	-37	-35	-72
Internal Trips Within This Block (-11.1%)		-840	-10	-10	-20	-41	-41	-81
Trips To-From Other Blocks within the Project (-4.6%)		-349	-5	-5	-10	-17	-17	-35
New External Trips (71%) of Total Trips for Block		5,358	82	180	262	257	221	478
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	40 KSF	3,743	55	35	90	164	178	342
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		6,417	96	211	307	310	268	578
Transit Adjustments (-2.4%)		-152	-2	-7	-9	-8	-7	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-10.8%)		-691	-9	-18	-27	-31	-29	-60
Internal Trips Within This Block (-10.1%)		-646	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-4.7%)		-302	-4	-4	-9	-15	-15	-30
New External Trips (72%) of Total Trips for Block		4,627	73	174	246	225	186	411
Total Project Trips								
Office (General Office Building)	164 KSF	2,246	277	37	314	59	283	342
Retail (Shopping Center)	1,566 KSF	116,989	1,937	1,376	3,312	5,273	5,510	10,783
Subtotal Residential	13,850 Units	61,761	1,248	3,686	4,934	3,237	2,096	5,332
Other		4,819	516	130	645	167	703	869
Total Project Trips		185,815	3,978	5,229	9,205	8,736	8,592	17,326
Transit Adjustments (-2.2%)		-4,126	-121	-146	-267	-187	-205	-391
Walk, Bike & Other Non-Auto Travel Adjustments (-10.6%)		-19,698	-346	-454	-800	-896	-847	-1,741
Internal Trips Within This Block (-6.4%)		-11,874	-203	-203	-405	-585	-585	-1,170
Trips To-From Other Blocks within the Project (-4.9%)		-9,186	-135	-135	-271	-477	-477	-954
New External Trips (76%) of Total Project Trips		140,931	3,173	4,290	7,462	6,591	6,478	13,070

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
		75.8%			81.1%			75.4%

Initial Phase with Maximum Office (Baseline & 2013)

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	32 KSF	555	66	9	75	20	95	115
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	808 Units	5,487	206	213	419	230	185	415
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,646	429	322	751	768	841	1,609
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.7%)		-1,889	-36	-29	-65	-81	-83	-164
Internal Trips Within This Block (-12.8%)		-2,262	-28	-28	-56	-118	-118	-235
Trips To-From Other Blocks within the Project (-3.4%)		-600	-14	-14	-27	-15	-15	-31
New External Trips (73%) of Total Trips for Block		12,895	351	252	603	554	625	1,179
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	526 Units	2,207	34	147	181	120	74	194
Other	0	0	0	0	0	0	0	0
Total Trips for Block		8,673	244	214	458	386	467	853
Transit Adjustments (-1.7%)		-148	-9	-3	-12	-6	-11	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-867	-16	-17	-33	-39	-40	-79
Internal Trips Within This Block (-14.9%)		-1,289	-14	-14	-28	-59	-59	-117
Trips To-From Other Blocks within the Project (-3.3%)		-283	-8	-8	-17	-8	-8	-16
New External Trips (70%) of Total Trips for Block		6,086	197	172	368	274	349	623
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-3.9%)		-449	-5	-5	-10	-12	-12	-24
New External Trips (84%) of Total Trips for Block		9,662	131	83	214	439	477	916
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	65 KSF	957	117	16	133	26	126	152
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	106 Units	623	11	49	60	32	20	52
Total Trips for Block		9,059	232	132	364	389	505	894
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-955	-17	-12	-29	-41	-47	-88
Internal Trips Within This Block (-8.4%)		-761	-15	-15	-30	-33	-33	-66
Trips To-From Other Blocks within the Project (-3.6%)		-326	-7	-7	-13	-9	-9	-19
New External Trips (77%) of Total Trips for Block		7,016	193	98	291	306	416	721

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	129 KSF	1,623	202	28	230	38	185	223
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	162 Units	834	14	62	76	44	27	71
Total Trips for Block		10,102	323	158	481	421	579	1,000
Transit Adjustments (-1.8%)		-186	-12	-4	-16	-7	-14	-21
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-1,012	-18	-14	-32	-44	-50	-94
Internal Trips Within This Block (-10.1%)		-1,018	-16	-16	-33	-42	-42	-83
Trips To-From Other Blocks within the Project (-3.5%)		-350	-9	-9	-17	-10	-10	-20
New External Trips (75%) of Total Trips for Block		7,536	268	115	383	318	463	781
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	294 Units	1,332	22	92	114	71	44	115
Total Trips for Block		7,897	234	160	394	341	442	783
Transit Adjustments (-1.7%)		-137	-8	-3	-11	-6	-11	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-794	-15	-13	-28	-35	-38	-73
Internal Trips Within This Block (-14.9%)		-1,178	-15	-15	-29	-51	-51	-102
Trips To-From Other Blocks within the Project (-3.3%)		-257	-7	-7	-14	-8	-8	-15
New External Trips (70%) of Total Trips for Block		5,531	189	122	312	241	334	576
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	86 KSF	1,188	146	20	166	30	145	175
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	100 Units	522	25	16	41	31	28	59
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,676	663	457	1,120	859	998	1,857
Transit Adjustments (-1.8%)		-356	-14	-6	-20	-12	-18	-30
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-2,002	-63	-51	-114	-95	-87	-181
Internal Trips Within This Block (-3.8%)		-747	-30	-30	-61	-45	-45	-89
Trips To-From Other Blocks within the Project (-3.7%)		-736	-20	-20	-40	-20	-20	-40
New External Trips (80%) of Total Trips for Block		15,835	535	350	885	688	828	1,517

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	40 KSF	659	79	11	90	21	103	124
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	72 Units	301	5	20	24	17	10	27
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,543	307	204	510	767	889	1,656
Transit Adjustments (-1.4%)		-228	-6	-3	-9	-10	-15	-24
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-1,823	-29	-22	-51	-85	-92	-176
Internal Trips Within This Block (-2.5%)		-422	-18	-18	-36	-28	-28	-57
Trips To-From Other Blocks within the Project (-3.8%)		-625	-9	-9	-18	-18	-18	-36
New External Trips (81%) of Total Trips for Block		13,445	245	152	396	626	736	1,364
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	30 KSF	528	63	9	72	19	93	112
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	236 Units	1,113	18	79	97	60	36	96
Total Trips for Block		4,610	126	116	242	209	269	478
Transit Adjustments (-1.7%)		-77	-5	-2	-7	-3	-7	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-466	-8	-10	-18	-21	-21	-42
Internal Trips Within This Block (-15.3%)		-704	-8	-8	-16	-32	-32	-64
Trips To-From Other Blocks within the Project (-3.2%)		-149	-4	-4	-9	-5	-5	-9
New External Trips (70%) of Total Trips for Block		3,213	100	91	192	148	204	353
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	115 KSF	1,488	185	25	210	35	173	208
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		5,109	239	59	298	194	345	539
Transit Adjustments (-2.4%)		-123	-12	-1	-13	-4	-12	-16
Walk, Bike & Other Non-Auto Travel Adjustments (-9%)		-462	-11	-5	-16	-19	-25	-44
Internal Trips Within This Block (-4.3%)		-221	-2	-2	-4	-7	-7	-15
Trips To-From Other Blocks within the Project (-3.7%)		-191	-6	-6	-11	-6	-6	-12
New External Trips (80%) of Total Trips for Block		4,111	208	45	254	158	295	453
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	250 KSF	2,701	343	47	390	61	298	359
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		6,096	633	133	766	218	655	873
Transit Adjustments (-4%)		-246	-24	-4	-28	-5	-22	-27
Walk, Bike & Other Non-Auto Travel Adjustments (-5.8%)		-356	-21	-5	-26	-15	-26	-41
Internal Trips Within This Block (-2.1%)		-129	-1	-1	-2	-4	-4	-8
Trips To-From Other Blocks within the Project (-3.9%)		-238	-15	-15	-31	-10	-10	-20
New External Trips (84%) of Total Trips for Block		5,127	572	108	679	184	593	776
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	680 KSF	5,837	765	104	869	143	697	840
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		7,549	792	121	913	217	777	994
Transit Adjustments (-4.6%)		-346	-43	-6	-49	-9	-40	-49
Walk, Bike & Other Non-Auto Travel Adjustments (-4.8%)		-362	-24	-5	-29	-13	-29	-42
Internal Trips Within This Block (-1.4%)		-105	-1	-1	-2	-3	-3	-7
Trips To-From Other Blocks within the Project (-4%)		-299	-18	-18	-36	-11	-11	-23
New External Trips (85%) of Total Trips for Block		6,437	706	91	797	180	693	873

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	192 KSF	2,205	278	38	316	50	244	294
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		8,315	365	93	458	320	536	856
Transit Adjustments (-2.3%)		-190	-17	-3	-20	-6	-16	-22
Walk, Bike & Other Non-Auto Travel Adjustments (-9.3%)		-771	-18	-7	-25	-32	-41	-73
Internal Trips Within This Block (-4.5%)		-373	-3	-3	-6	-12	-12	-25
Trips To-From Other Blocks within the Project (-3.7%)		-310	-9	-9	-18	-9	-9	-19
New External Trips (80%) of Total Trips for Block		6,670	318	71	389	260	457	718
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	300 KSF	3,109	398	54	452	71	344	415
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		4,223	416	66	482	119	396	515
Transit Adjustments (-4.4%)		-186	-22	-3	-25	-4	-20	-24
Walk, Bike & Other Non-Auto Travel Adjustments (-5.1%)		-216	-13	-3	-16	-8	-16	-24
Internal Trips Within This Block (-1.6%)		-68	-1	-1	-1	-2	-2	-4
Trips To-From Other Blocks within the Project (-3.9%)		-167	-10	-10	-19	-6	-6	-12
New External Trips (85%) of Total Trips for Block		3,586	371	50	421	99	352	451
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th									
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0	
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0	
Subtotal Residential	0 Units	0	0	0	0	0	0	0	
-----		-----		-----		-----		-----	
Total Trips for Block		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Total Project Trips								
Office (General Office Building)	2,071 KSF	23,010	2,908	397	3,305	570	2,775	3,345
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	2,304 Units	12,419	335	678	1,012	606	423	1,029
Other		3,528	258	65	323	102	445	546
Total Project Trips		136,936	5,157	2,334	7,490	5,719	8,251	13,970
Transit Adjustments (-1.6%)		-2,223	-172	-38	-210	-72	-186	-257
Walk, Bike & Other Non-Auto Travel Adjustments (-9.7%)		-13,302	-307	-204	-511	-587	-659	-1,244
Internal Trips Within This Block (-6.8%)		-9,279	-152	-152	-304	-437	-437	-873
Trips To-From Other Blocks within the Project (-3.6%)		-4,982	-140	-140	-280	-147	-147	-295
New External Trips (78%) of Total Project Trips		107,150	4,385	1,800	6,185	4,476	6,822	11,301

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		78.2%				82.6%			80.9%

Table Xb: Transit Trips for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)							
City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	274	10	7	17	12	17	29
Block 2: Bounded by South Park, 5th, Railyards, Crocker	173	11	5	16	7	13	20
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	149	2	1	3	7	7	14
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	167	8	3	11	7	13	20
Block 6: Bounded by Railyards, 5th, Camille, Crocker	214	13	5	18	7	17	24
Block 7: Bounded by Railyards, 6th, Camille, 5th	160	10	4	14	6	13	19
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	410	16	7	23	14	29	43
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	268	8	4	12	12	18	30
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	90	5	3	8	4	9	13
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	141	12	2	14	4	13	17
Block 13: Bounded by Rail Lines, 6th, G, 5th	278	39	7	46	9	36	45
Block 14: Bounded by Rail Lines, 7th, G, 6th	390	49	7	56	10	45	55
Block 15: Bounded by G, 6th, H, 6th	218	19	3	22	6	20	26
Block 16: Bounded by G, 7th, Property Boundary, 6th	210	25	3	28	4	23	27
Block 17: Bounded by N. B, 7th, South Park, 5th	0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th	0	0	0	0	0	0	0
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	0	0	0	0	0	0	0
Block 21: SITF Site	0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th	0	0	0	0	0	0	0
Total New Transit Trips	3,142	227	61	288	109	273	382

Source: Dowling Associates, Inc. 2006

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
1 OS	1	1	0.75						
1 RRMU	2	1	4.31		200,000				
1 RRMU	3a	1	2.84						
2 OS	3b	1	0.13						
2 RRMU	3c	1	0.93			500			
2 RRMU	3d	1	0.73	168	28,000		32,000		32,000
2 OS	3e	1	0.67						
2 RRMU	3f	1	0.28	140					
Subtotal				308	228,000	500	32,000	0	32,000
2 RRMU	5a	2	1.14	104					
2 RRMU	5b	2	0.68	80	27,000		29,000		29,000
2 RRMU	6a	2	1.28	242					
2 RRMU	6b	2	1.07	100	43,000		47,000		47,000
2 OS	6c	2	0.15						
Subtotal				526	70,000	0	76,000	0	76,000
1 RRMU	33	3	2.62						
1 RRMU	11a	4	4.42		223,000				
1 OS	11b	4	0.27						
Subtotal				0	223,000	0	0	0	0
1 RRMU	10a	5	3.88	106	116,000		65,000		65,000
1 OS	10b	5	0.57						
Subtotal				106	116,000	0	65,000	0	65,000
1 RRMU	8a	6	0.61	22	27,000		27,000		27,000
1 RRMU	8b	6	1.22	48	33,000		38,000		38,000
1 RRMU	9a	6	0.60	44	26,000		26,000		26,000
1 RRMU	9b	6	1.27	48	34,000		38,000		38,000
Subtotal				162	120,000	0	129,000	0	129,000
2 RRMU	7a	7	2.06	186	18,000		18,000		18,000
2 RRMU	7b	7	1.19	108	54,000		58,000		58,000
2 OS	7c	7	0.03						
Subtotal				294	72,000	0	76,000	0	76,000
3 ORMU	47a	8	2.21						
1 RRMU	47b	8	0.78						

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 ORMU	48	8	2.56						
Subtotal				0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
1 RRMU	12	9	1.17		71,000		43,000		43,000
1 RRMU	13a	9	0.11		3,500				
1 RRMU	13b	9	0.23		8,000				
1 RRMU	13c	9	0.12		5,600				
1 OS	13d	9	0.60						
1 RRMU	14	9	0.62		13,000	100			
1 RRMU	23	9	0.34				22,500	Restaurant	
1 RRMU	24	9	0.73				42,028	19816 Rest; 11165 Retail; 7730 Office	
1 RRMU	25	9	0.53				38,711	21014 Restaurant; 21014 Office	
1 RRMU	26	9	0.33				28,500	14250 Retail; 14250 Office	
1 RRMU	27	9	0.65				28,043	25000 Exhibit; 3043 Retail	
1 RRMU	28	9	2.24				93,134	Exhibit	
1 RRMU	29	9	1.67				69,696	Exhibit	
1 OS	30a	9	5.07						
1 OS	30b	9	1.35						
1 OS	31a	9	2.66						
1 OS	31b	9	0.32						
1 TU	38	9	16.78						
1 OS	45	9	0.33						
Subtotal				0	101,100	100	43,000	322,612	43,000
1 RRMU	15a	10	3.33	72	65,500		40,000	100,000	40,000
1 OS	15b	10	0.05						
1 OS	18a	10	1.05						
1 RRMU	18b	10	0.25		38,500				
1 RRMU	20	10	1.30				56,278	Market	
1 OS	21	10	5.30						
1 RRMU	22	10	0.15				6,500	Retail	
Subtotal				72	104,000	0	40,000	162,778	40,000
2 RRMU	16a	11	1.67	236	28,000		30,000		30,000
2 OS	16b	11	0.07						
1 RRMU	17	11	1.48						
Subtotal				236	28,000	0	30,000	0	30,000
2 ORMU	40	12	1.93		38,000		115,200		
2 ORMU	44	13	1.96		16,500		250,000		
2 ORMU	43	14	2.56		12,000		500,000		

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
2 ORMU	46	14	2.89				180,000		
Subtotal				0	12,000	0	680,000	0	0
1 ORMU	41	15	2.43		85,000		192,000		
1 ORMU	42	16	1.19		6,200		300,000		
3 OS	60	17	1.12						
3 OS	61	17	0.71						
3 OS	62	17	0.92						
3 RMU	69N	17	1.64						
3 RMU	69S	17	1.21						
3 RMU	70N	17	1.10						
3 RMU	70S	17	0.88						
3 RMU	71N	17	0.77						
3 RMU	71S	17	0.84						
Subtotal				0	0	0	0	0	0
4 OS	63	18	0.97						
4 OS	64	18	0.89						
4 OS	65	18	0.92						
4 RMU	66N	18	0.33						
4 RMU	66S	18	1.07						
4 RMU	67N	18	1.27						
4 RMU	67S	18	1.12						
4 RMU	68N	18	1.48						
4 RMU	68S	18	1.17						
Subtotal				0	0	0	0	0	0
3 OS	57a	19	0.12						
3 RMU	57N	19	1.24						
3 RMU	57S	19	1.38						
3 RMU	58N	19	1.17						
3 RMU	58S	19	1.15						
3 RMU	59N	19	1.27						
3 RMU	59S	19	1.11						
Subtotal				0	0	0	0	0	0
4 RMU	52N	20	0.98						
4 RMU	52S	20	1.30						
4 RMU	53N	20	1.38						

Dowling Associates, Inc

Baseline_Initial_Phase_Max_Office_2007_05_08.xls \ Lots

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THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
4 RMU	53S	20	1.49						
4 RMU	54N	20	1.35						
4 RMU	54S	20	1.68						
4 OS	54a	20	0.12						
Subtotal				0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 TU	39	21	15.34						
3 OS	34	22	1.26						
3 RMU	35	22	4.00						
Subtotal				0	0	0	0	0	0
4 RMU	49a	23	4.87						
1 ORMU	49b	23	0.73						
1 ORMU	49c	23	1.00						
3 OS	50	23	1.26						
Subtotal				0	0	0	0	0	0
4 RMU	51	24	4.70						
3 OS	72	25	10.37						
Subtotal				0		1,537,200			
TOTAL Max		180.39	1,704	1,219,800	600	2,028,200	485,390	491,000	
Min			1,704			491,000			
Check				2,504	1,401,366		2,193,194		

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips^a	Non-Work Trips^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office¹	5.4%	0.1%		5.6%
Retail²	0.4%	0.7%		1.1%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^{3,c}				
AM Peak Hour	1.2%	0.3%	0.1%	1.7%
PM Peak Hour	1.0%	0.3%	0.2%	1.5%
Daily	0.8%	0.3%	0.2%	1.3%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office¹	1.5%	1.2%		2.8%
Retail²	0.1%	11.4%		11.6%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office¹	6.1%	0.2%		6.3%
Retail²	0.5%	0.8%		1.3%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	1.5%	0.4%	0.1%	2.1%
PM Peak Hour	1.3%	0.3%	0.2%	1.9%
Daily	0.9%	0.4%	0.3%	1.6%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001.
 Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 1: Bounded by South Park, Crocker, Railyards, Bercut													
Office (General Office Building)	32.0 KSF	ITE (710)	555	66	9	75	20	95	115	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%
Residential													
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%
High Rise Residential Condominium	308 Units	ITE (232)	1,385	22	96	118	74	46	120	19%	81%	62%	38%
Subtotal Residential	808 Units		5,487	206	213	419	230	185	415				
Other													
Total Trips for Block			17,646	429	322	751	768	841	1,609				
Transit Adjustments													
Office (-5.6%)													
Retail (-1.1%)													
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)													
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-16	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-527	-16	-17	-33	-20	-16	-36				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,889	-36	-29	-65	-81	-83	-164				
Internal Trips Within This Block			-2,262	-28	-28	-56	-118	-118	-235				
Trips To-From Other Blocks within the Project			-600	-14	-14	-27	-15	-15	-31				
New External Trips													
Office (General Office Building)				59	6	65	13	80	93				
Retail (Shopping Center)				120	71	190	397	421	818				
Subtotal Residential				172	175	347	144	124	268				
Other				0	0	0	0	0	0				
Total				12,895	351	252	603	554	625	1,179			
New External Trips Percent of Total Project Trips				73%	82%	78%	80%	72%	74%	73%			
Transit Trips													
Office (6.3%)				35	4	1	5	1	6	7			
Retail (1.3%)				151	2	1	3	7	7	14			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				88	4	5	9	4	4	8			
Other				0	0	0	0	0	0	0			
Total Transit Trips				274	10	7	17	12	17	29			

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 2: Bounded by South Park, 5th, Railyards, Crocker													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	526 Units	ITE (232)	2,207	34	147	181	120	74	194	19%	81%	62%	38%
Subtotal Residential	526 Units		2,207	34	147	181	120	74	194				
Other													
Total Trips for Block			8,673	244	214	458	386	467	853				
Transit Adjustments													
Office (-5.6%)			-60	-7	-1	-8	-2	-7	-9				
Retail (-1.1%)			-59	-1	0	-1	-2	-3	-5				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-29	-1	-2	-3	-2	-1	-3				
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-148	-9	-3	-12	-6	-11	-17				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-212	-3	-11	-14	-11	-6	-17				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-867	-16	-17	-33	-39	-40	-79				
Internal Trips Within This Block			-1,289	-14	-14	-28	-59	-59	-117				
Trips To-From Other Blocks within the Project			-283	-8	-8	-17	-8	-8	-16				
New External Trips													
Office (General Office Building)				116	15	131	18	116	134				
Retail (Shopping Center)				57	35	92	181	186	367				
Subtotal Residential				23	122	146	75	47	122				
Other				0	0	0	0	0	0				
Total				6,086	197	172	368	274	349	623			
New External Trips Percent of Total Project Trips				70%	81%	80%	80%	71%	75%	73%			
Transit Trips													
Office (6.3%)				68	9	1	10	2	8	10			
Retail (1.3%)				70	1	1	2	3	3	6			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				35	1	3	4	2	2	4			
Other				0	0	0	0	0	0	0			
Total Transit Trips				173	11	5	16	7	13	20			

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-449	-5	-5	-10	-12	-12	-24					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				131	83	214	439	477	916					
Subtotal Residential				0	0	0	0	0	0					
Total			9,662	131	83	214	439	477	916					
New External Trips Percent of Total Project Trips			84%	85%	84%	85%	86%	86%	86%					
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0					
Retail (1.3%)			149	2	1	3	7	7	14					
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0					
Total Transit Trips			149	2	1	3	7	7	14					

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 5: Bounded by Railyards, Crocker, Camille, Huntington													
Office (General Office Building)	65.0 KSF	ITE (710)	957	117	16	133	26	126	152	88%	12%	17%	83%
Retail (Shopping Center) (90%)	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	106 Units	ITE (232)	623	11	49	60	32	20	52	19%	81%	62%	38%
Subtotal Residential	106 Units		623	11	49	60	32	20	52				
Other													
Total Trips for Block			9,059	232	132	364	389	505	894				
Transit Adjustments													
Office (-5.6%)													
Retail (-1.1%)													
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)													
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-27	-4	0	-4	-1	-3	-4				
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-60	-1	-4	-5	-2	-2	-4				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-955	-17	-12	-29	-41	-47	-88				
Internal Trips Within This Block			-761	-15	-15	-30	-33	-33	-66				
Trips To-From Other Blocks within the Project			-326	-7	-7	-13	-9	-9	-19				
New External Trips													
Office (General Office Building)				108	13	121	17	114	131				
Retail (Shopping Center) (90%)				79	51	130	270	293	563				
Subtotal Residential				6	34	41	19	8	27				
Total				7,016	193	98	291	306	416				
New External Trips Percent of Total Project Trips				77%	83%	74%	80%	79%	82%				
Transit Trips													
Office (6.3%)				60	7	1	8	2	8				
Retail (1.3%)				97	1	1	2	4	5				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				10	0	1	1	1	0				
Total Transit Trips				167	8	3	11	7	13				

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 6: Bounded by Railyards, 5th, Camille, Crocker													
Office (General Office Building)	129.0 KSF	ITE (710)	1,623	202	28	230	38	185	223	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	162 Units	ITE (232)	834	14	62	76	44	27	71	19%	81%	62%	38%
Subtotal Residential	162 Units		834	14	62	76	44	27	71				
Other													
Total Trips for Block			10,102	323	158	481	421	579	1,000				
Transit Adjustments													
Office (-5.6%)			-91	-11	-2	-13	-2	-10	-12				
Retail (-1.1%)			-84	-1	-1	-2	-4	-4	-8				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-11	0	-1	-1	-1	0	-1				
Other													
Total Transit Adjustments			-186	-12	-4	-16	-7	-14	-21				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-45	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-80	-1	-5	-6	-4	-2	-6				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,012	-18	-14	-32	-44	-50	-94				
Internal Trips Within This Block			-1,018	-16	-16	-33	-42	-42	-83				
Trips To-From Other Blocks within the Project			-350	-9	-9	-17	-10	-10	-20				
New External Trips													
Office (General Office Building)				179	21	200	24	160	184				
Retail (Shopping Center)				81	50	130	269	292	561				
Subtotal Residential				8	44	52	25	11	36				
Total				7,536	268	115	383	318	463				
New External Trips Percent of Total Project Trips				75%	83%	73%	80%	76%	80%				
Transit Trips													
Office (6.3%)				102	12	2	14	2	12				
Retail (1.3%)				99	1	1	2	4	5				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				13	0	2	2	1	0				
Total Transit Trips				214	13	5	18	7	17				

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 7: Bounded by Railyards, 6th, Camille, 5th													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	294 Units	ITE (232)	1,332	22	92	114	71	44	115	19%	81%	62%	38%
Subtotal Residential	294 Units		1,332	22	92	114	71	44	115				
Other													
Total Trips for Block			7,897	234	160	394	341	442	783				
Transit Adjustments													
Office (-5.6%)			-60	-7	-1	-8	-2	-7	-9				
Retail (-1.1%)			-60	-1	0	-1	-3	-3	-6				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-17	0	-2	-2	-1	-1	-2				
Other													
Total Transit Adjustments			-137	-8	-3	-11	-6	-11	-17				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-128	-2	-7	-9	-6	-4	-10				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-794	-15	-13	-28	-35	-38	-73				
Internal Trips Within This Block			-1,178	-15	-15	-29	-51	-51	-102				
Trips To-From Other Blocks within the Project			-257	-7	-7	-14	-8	-8	-15				
New External Trips													
Office (General Office Building)				117	14	131	18	117	135				
Retail (Shopping Center)				59	35	94	183	198	380				
Subtotal Residential				14	73	86	41	19	61				
Total				5,531	189	122	312	241	334				
New External Trips Percent of Total Project Trips				70%	81%	77%	79%	71%	76%				74%
Transit Trips													
Office (6.3%)				68	9	1	10	2	8				10
Retail (1.3%)				71	1	1	2	3	4				7
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				21	0	2	2	1	1				2
Total Transit Trips				160	10	4	14	6	13				19

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	86.0 KSF	ITE (710)	1,188	146	20	166	30	145	175	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	100 Units		522	25	16	41	31	28	59				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,676	663	457	1,120	859	998	1,857				
Transit Adjustments													
Office (-5.6%)			-67	-8	-1	-9	-2	-8	-10				
Retail (-1.1%)			-177	-5	-5	-10	-9	-7	-16				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-7	-1	0	-1	-1	0	-1				
Other (Museum Exhibit Space) (-5.6%)			-105	0	0	0	0	-3	-3				
Total Transit Adjustments			-356	-14	-6	-20	-12	-18	-30				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-33	-4	-1	-5	-1	-4	-5				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-50	-2	-1	-3	-3	-2	-5				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,002	-63	-51	-114	-95	-87	-181				
Internal Trips Within This Block			-747	-30	-30	-61	-45	-45	-89				
Trips To-From Other Blocks within the Project			-736	-20	-20	-40	-20	-20	-40				
New External Trips													
Office (General Office Building)				118	13	131	18	115	133				
Retail & Restaurant (see footnote)				403	331	734	635	541	1,175				
Subtotal Residential				14	6	20	18	11	29				
Other (Museum Exhibit Space)				0	0	0	18	161	180				
Total				15,835	535	350	885	688	828				
New External Trips Percent of Total Project Trips				80%	81%	77%	79%	80%	83%	82%			
Transit Trips													
Office (6.3%)				75	9	1	10	2	9	11			
Retail (1.3%)				209	6	6	12	10	9	19			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				8	1	0	1	1	0	1			
Other (Museum Exhibit Space) (6.3%)				118	0	0	0	1	11	12			
Total Transit Trips				410	16	7	23	14	29	43			

Footnote:

Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated									Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak			
				In	Out	Total	In	Out	Total	In	Out	In	Out		
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26															
Office (General Office Building)	40.0 KSF	ITE (710)	659	79	11	90	21	103	124	88%	12%	17%	83%		
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469						
Residential															
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%		
High Rise Residential Condominium	72 Units	ITE (232)	301	5	20	24	17	10	27	19%	81%	62%	38%		
Subtotal Residential	72 Units		301	5	20	24	17	10	27						
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36			50%	50%		
Total Trips for Block			16,543	307	204	510	767	889	1,656						
Transit Adjustments															
Office (-5.6%)			-37	-4	-1	-5	-1	-6	-7						
Retail (-1.1%)			-167	-2	-2	-4	-8	-8	-16						
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-4	0	0	0	0	0	0						
Other (Performing Arts) (-5.6%)			-20	0	0	0	-1	-1	-1						
Total Transit Adjustments			-228	-6	-3	-9	-10	-15	-24						
Walk, Bike & Other Non-Auto Travel Adjustments															
Office (-2.8%)			-18	-3	0	-3	-1	-2	-3						
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170						
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-29	0	-2	-2	-1	-1	-2						
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1						
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,823	-29	-22	-51	-85	-92	-176						
Internal Trips Within This Block			-422	-18	-18	-36	-28	-28	-57						
Trips To-From Other Blocks within the Project			-625	-9	-9	-18	-18	-18	-36						
New External Trips															
Office (General Office Building)				65	7	72	13	80	93						
Retail & Market (see footnote)				177	137	314	587	636	1,223						
Subtotal Residential				3	8	11	10	4	14						
Other (Performing Arts)				0	0	0	16	16	34						
Total			13,445	245	152	396	626	736	1,364						
New External Trips Percent of Total Project Trips			81%	80%	74%	78%	82%	83%	82%						
Transit Trips															
Office (6.3%)			42	5	1	6	1	7	8						
Retail (1.3%)			198	3	2	5	9	10	19						
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			5	0	1	1	1	0	1						
Other (Performing Arts) (6.3%)			23	0	0	0	1	1	2						
Total Transit Trips			268	8	4	12	12	18	30						
Footnote:															
Retail & Market															
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%		
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%		
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%		

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 11: Bounded by Camille, 6th, Rail Lines, 5th													
Office (General Office Building)	30.0 KSF	ITE (710)	528	63	9	72	19	93	112	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	236 Units	ITE (232)	1,113	18	79	97	60	36	96	19%	81%	62%	38%
Subtotal Residential	236 Units		1,113	18	79	97	60	36	96				
Other													
Total Trips for Block			4,610	126	116	242	209	269	478				
Transit Adjustments													
Office (-5.6%)			-30	-4	0	-4	-1	-5	-6				
Retail (-1.1%)			-33	-1	0	-1	-1	-2	-3				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-14	0	-2	-2	-1	0	-1				
Other													
Total Transit Adjustments			-77	-5	-2	-7	-3	-7	-10				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-15	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-107	-1	-7	-8	-5	-3	-8				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-466	-8	-10	-18	-21	-21	-42				
Internal Trips Within This Block			-704	-8	-8	-16	-32	-32	-64				
Trips To-From Other Blocks within the Project			-149	-4	-4	-9	-5	-5	-9				
New External Trips													
Office (General Office Building)				54	8	62	13	81	94				
Retail (Shopping Center)				33	20	53	99	101	200				
Subtotal Residential				13	64	77	37	22	59				
Total				3,213	100	91	192	148	204	353			
New External Trips Percent of Total Project Trips				70%	80%	79%	79%	71%	76%	74%			
Transit Trips													
Office (6.3%)				33	4	1	5	1	6	7			
Retail (1.3%)				39	1	0	1	2	2	4			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				18	0	2	2	1	1	2			
Total Transit Trips				90	5	3	8	4	9	13			

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 12: Bounded by Rail Lines, 5th, I Street, LRT													
Office (General Office Building)	115.2 KSF	ITE (710)	1,488	185	25	210	35	173	208	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			5,109	239	59	298	194	345	539				
Transit Adjustments													
Office (-5.6%)			-83	-11	-1	-12	-2	-10	-12				
Retail (-1.1%)			-40	-1	0	-1	-2	-2	-4				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other (-5.6%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-123	-12	-1	-13	-4	-12	-16				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-42	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-462	-11	-5	-16	-19	-25	-44				
Internal Trips Within This Block			-221	-2	-2	-4	-7	-7	-15				
Trips To-From Other Blocks within the Project			-191	-6	-6	-11	-6	-6	-12				
New External Trips													
Office (General Office Building)				164	20	183	26	152	179				
Retail (Shopping Center)				45	26	71	131	143	274				
Subtotal Residential				0	0	0	0	0	0				
Other				0	0	0	0	0	0				
Total				4,111	208	45	254	158	295	453			
New External Trips Percent of Total Project Trips				80%	87%	77%	85%	81%	85%	84%			
Transit Trips													
Office (6.3%)				94	11	2	13	2	11	13			
Retail (1.3%)				47	1	0	1	2	2	4			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				0	0	0	0	0	0	0			
Other (6.3%)				0	0	0	0	0	0	0			
Total Transit Trips				141	12	2	14	4	13	17			

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 13: Bounded by Rail Lines, 6th, G, 5th													
Office (General Office Building)	250.0 KSF	ITE (710)	2,701	343	47	390	61	298	359	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other (Transit)	514	Prkng ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%
Total Trips for Block			6,096	633	133	766	218	655	873				
Transit Adjustments													
Office (-5.6%)			-151	-19	-3	-22	-3	-17	-20				
Retail (-1.1%)			-23	-1	0	-1	-1	-1	-2				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other (Transit) (-5.6%)			-72	-4	-1	-5	-1	-4	-5				
Total Transit Adjustments			-246	-24	-4	-28	-5	-22	-27				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-76	-10	-1	-11	-2	-8	-10				
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-356	-21	-5	-26	-15	-26	-41				
Internal Trips Within This Block			-129	-1	-1	-2	-4	-4	-8				
Trips To-From Other Blocks within the Project			-238	-15	-15	-31	-10	-10	-20				
New External Trips													
Office (General Office Building)				299	32	331	49	264	313				
Retail (Shopping Center)				25	14	39	72	82	154				
Subtotal Residential				0	0	0	0	0	0				
Other (Transit)				247	62	309	62	247	309				
Total				5,127	572	108	679	184	593	776			
New External Trips Percent of Total Project Trips				84%	90%	81%	89%	84%	90%	89%			
Transit Trips													
Office (6.3%)				170	22	3	25	4	19	23			
Retail (1.3%)				27	1	0	1	1	1	2			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				0	0	0	0	0	0	0			
Other (Transit) (6.3%)				81	16	4	20	4	16	20			
Total Transit Trips				278	39	7	46	9	36	45			

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 14: Bounded by Rail Lines, 7th, G, 6th													
Office (General Office Building)	680.0 KSF	ITE (710)	5,837	765	104	869	143	697	840	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			7,549	792	121	913	217	777	994				
Transit Adjustments													
Office (-5.6%)			-327	-43	-6	-49	-8	-39	-47				
Retail (-1.1%)			-19	0	0	0	-1	-1	-2				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-346	-43	-6	-49	-9	-40	-49				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-163	-21	-3	-24	-4	-20	-24				
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-362	-24	-5	-29	-13	-29	-42				
Internal Trips Within This Block			-105	-1	-1	-2	-3	-3	-7				
Trips To-From Other Blocks within the Project			-299	-18	-18	-36	-11	-11	-23				
New External Trips													
Office (General Office Building)				683	79	762	121	626	748				
Retail (Shopping Center)				23	12	35	59	67	126				
Subtotal Residential				0	0	0	0	0	0				
Total				6,437	706	91	797	180	693	873			
New External Trips Percent of Total Project Trips				85%	89%	75%	87%	83%	89%	88%			
Transit Trips													
Office (6.3%)				368	48	7	55	9	44	53			
Retail (1.3%)				22	1	0	1	1	1	2			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				0	0	0	0	0	0	0			
Total Transit Trips				390	49	7	56	10	45	55			

Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 15: Bounded by G, 6th, H, 6th													
Office (General Office Building)	192.0 KSF	ITE (710)	2,205	278	38	316	50	244	294	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			8,315	365	93	458	320	536	856				
Transit Adjustments													
Office (-5.6%)			-123	-16	-2	-18	-3	-13	-16				
Retail (-1.1%)			-67	-1	-1	-2	-3	-3	-6				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-190	-17	-3	-20	-6	-16	-22				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-62	-8	-1	-9	-1	-7	-8				
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-771	-18	-7	-25	-32	-41	-73				
Internal Trips Within This Block			-373	-3	-3	-6	-12	-12	-25				
Trips To-From Other Blocks within the Project			-310	-9	-9	-18	-9	-9	-19				
New External Trips													
Office (General Office Building)				246	30	276	37	215	252				
Retail (Shopping Center)				72	41	114	223	242	466				
Subtotal Residential				0	0	0	0	0	0				
Total			6,670	318	71	389	260	457	718				
New External Trips Percent of Total Project Trips			80%	87%	77%	85%	81%	85%	84%				
Transit Trips													
Office (6.3%)			139	18	2	20	3	16	19				
Retail (1.3%)			79	1	1	2	3	4	7				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			218	19	3	22	6	20	26				

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 16: Bounded by G, 7th, Property Boundary, 6th													
Office (General Office Building)	300.0 KSF	ITE (710)	3,109	398	54	452	71	344	415	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			4,223	416	66	482	119	396	515				
Transit Adjustments													
Office (-5.6%)			-174	-22	-3	-25	-4	-19	-23				
Retail (-1.1%)			-12	0	0	0	0	-1	-1				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-186	-22	-3	-25	-4	-20	-24				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-87	-11	-2	-13	-2	-10	-12				
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-216	-13	-3	-16	-8	-16	-24				
Internal Trips Within This Block			-68	-1	-1	-1	-2	-2	-4				
Trips To-From Other Blocks within the Project			-167	-10	-10	-19	-6	-6	-12				
New External Trips													
Office (General Office Building)				356	41	396	60	309	369				
Retail (Shopping Center)				15	9	24	39	43	82				
Subtotal Residential				0	0	0	0	0	0				
Total				3,586	371	50	421	99	352	451			
New External Trips Percent of Total Project Trips				85%	89%	76%	87%	83%	89%	88%			
Transit Trips													
Office (6.3%)				196	25	3	28	4	22	26			
Retail (1.3%)				14	0	0	0	0	1	1			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				0	0	0	0	0	0	0			
Total Transit Trips				210	25	3	28	4	23	27			

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-5.6%)			0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips													
Office (6.3%)			0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 21: SITF Site
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 21: SITF Site														
Office (General Office Building)	KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	Units		0	0	0	0	0	0	0	0				
Other (Transit)	Prkng	ITE(093)	0	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other (Transit) (-5.6%)			0	0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			0	0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####				
Other (Transit)			0	0	0	0	0	0	0	0				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Other (Transit) (6.3%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-5.6%)			0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips													
Office (6.3%)			0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Initial Phase with Maximum Office (Baseline & 2013)

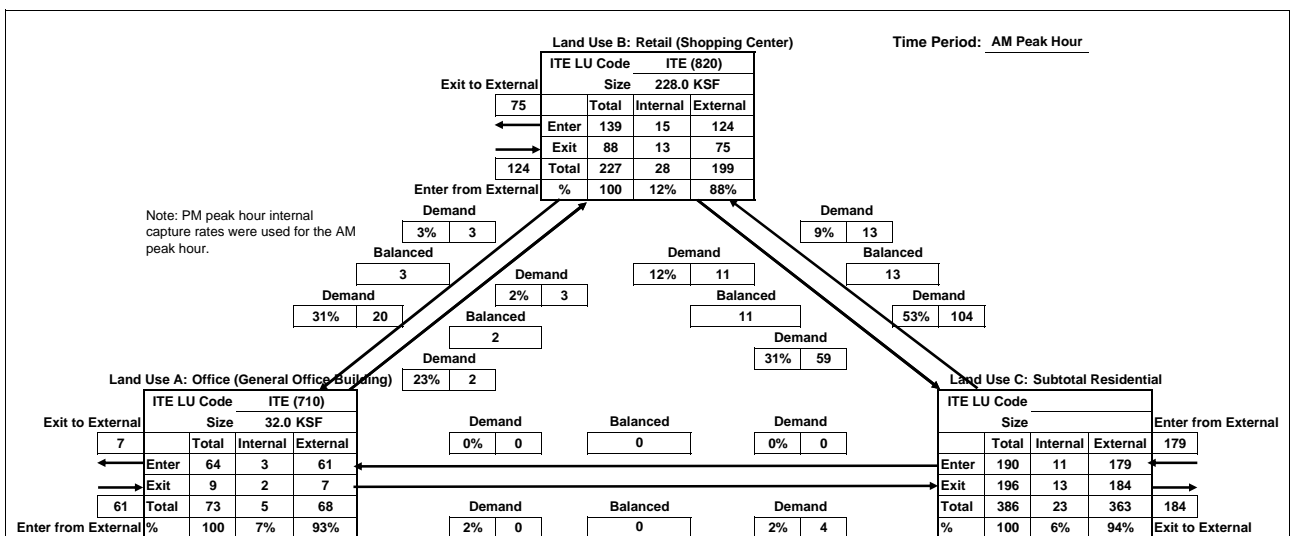
Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 24: Bounded by Property Boundary, Railyards, N. 10th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Analyst: Dowling

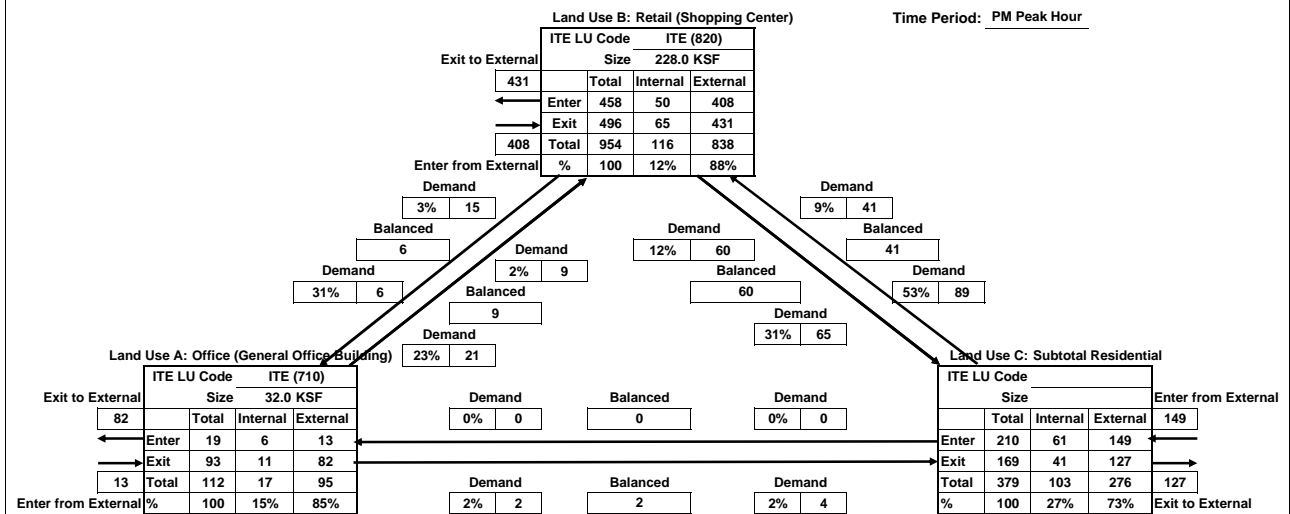
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	61	124	179	365	
Exit	7	75	184	265	
Total	68	199	363	630	INTERNAL CAPTURE
Single-Use Trip	73	227	386	686	8%



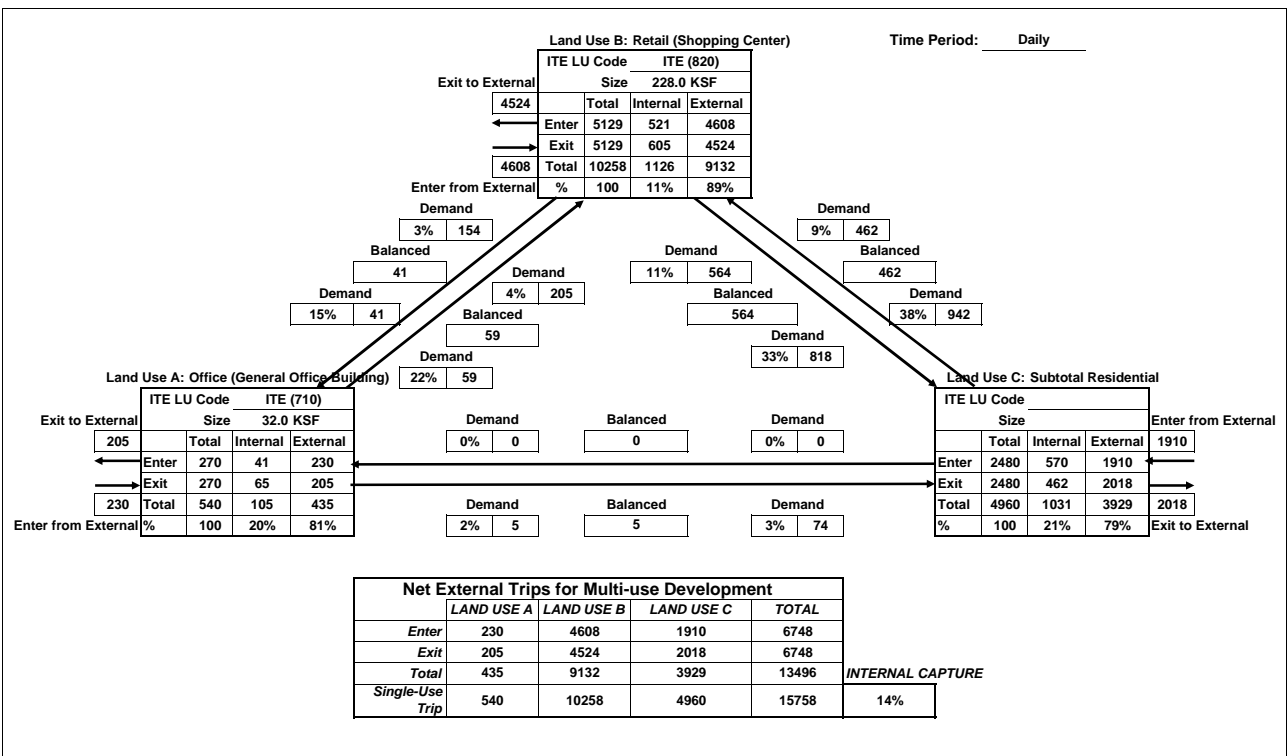
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	13	408	149	570	
Exit	82	431	127	640	
Total	95	838	276	1210	INTERNAL CAPTURE
Single-Use Trip	112	954	379	1445	16%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

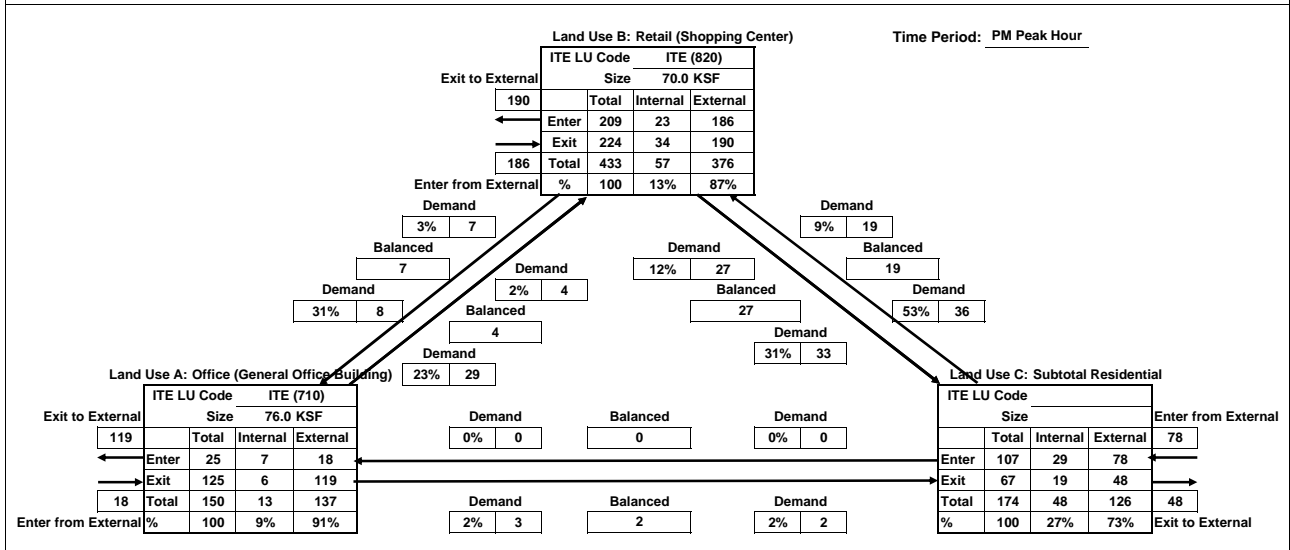
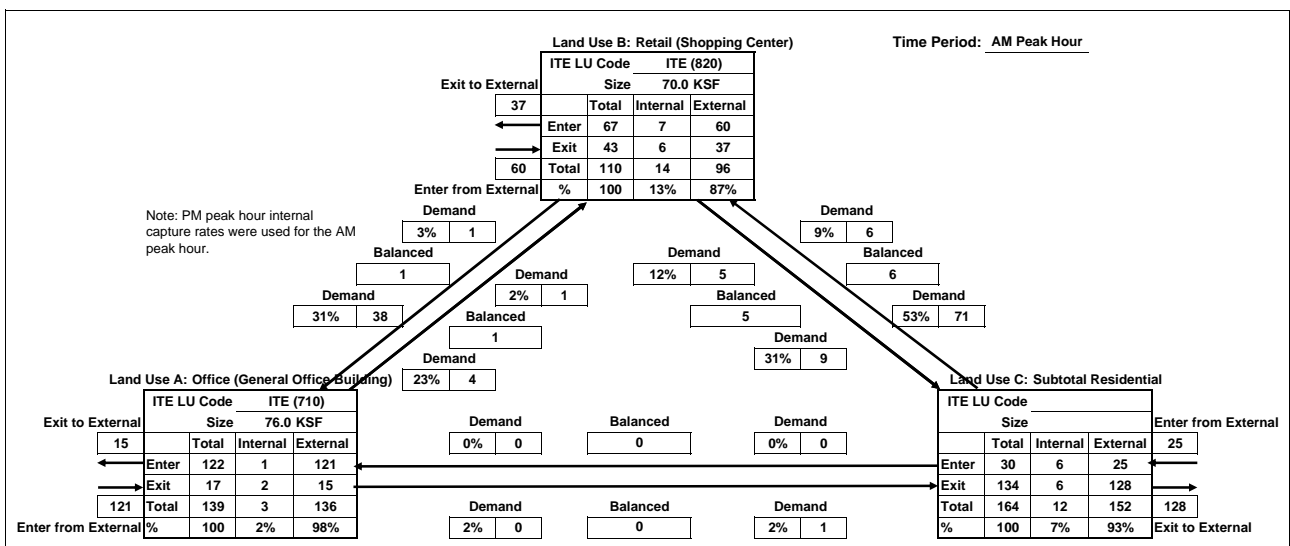
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)



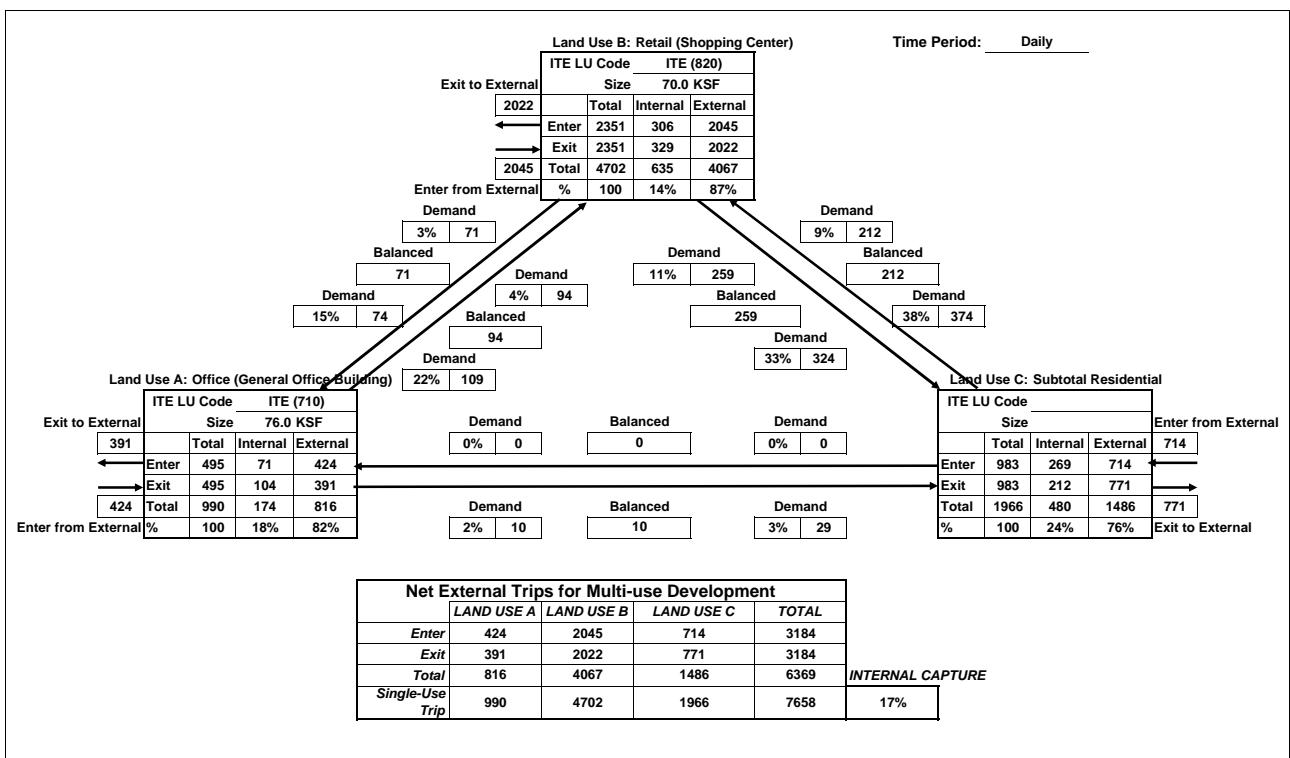
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

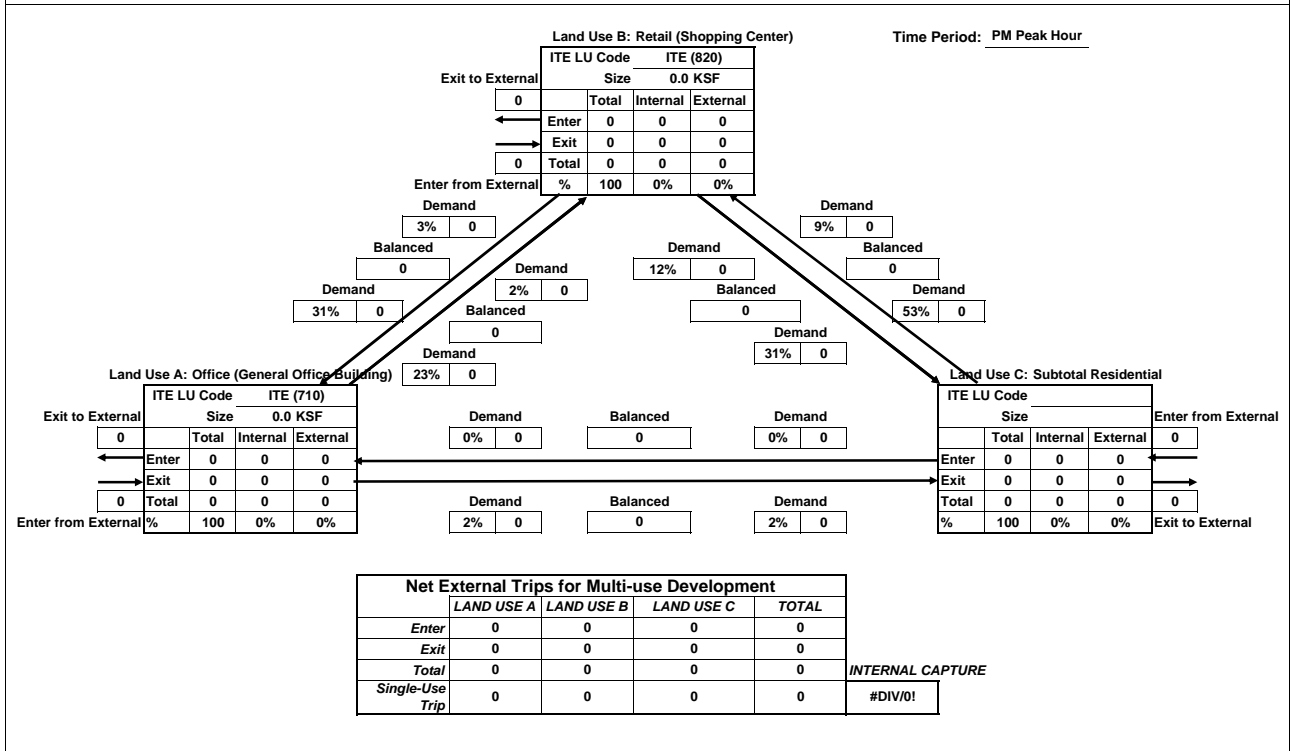
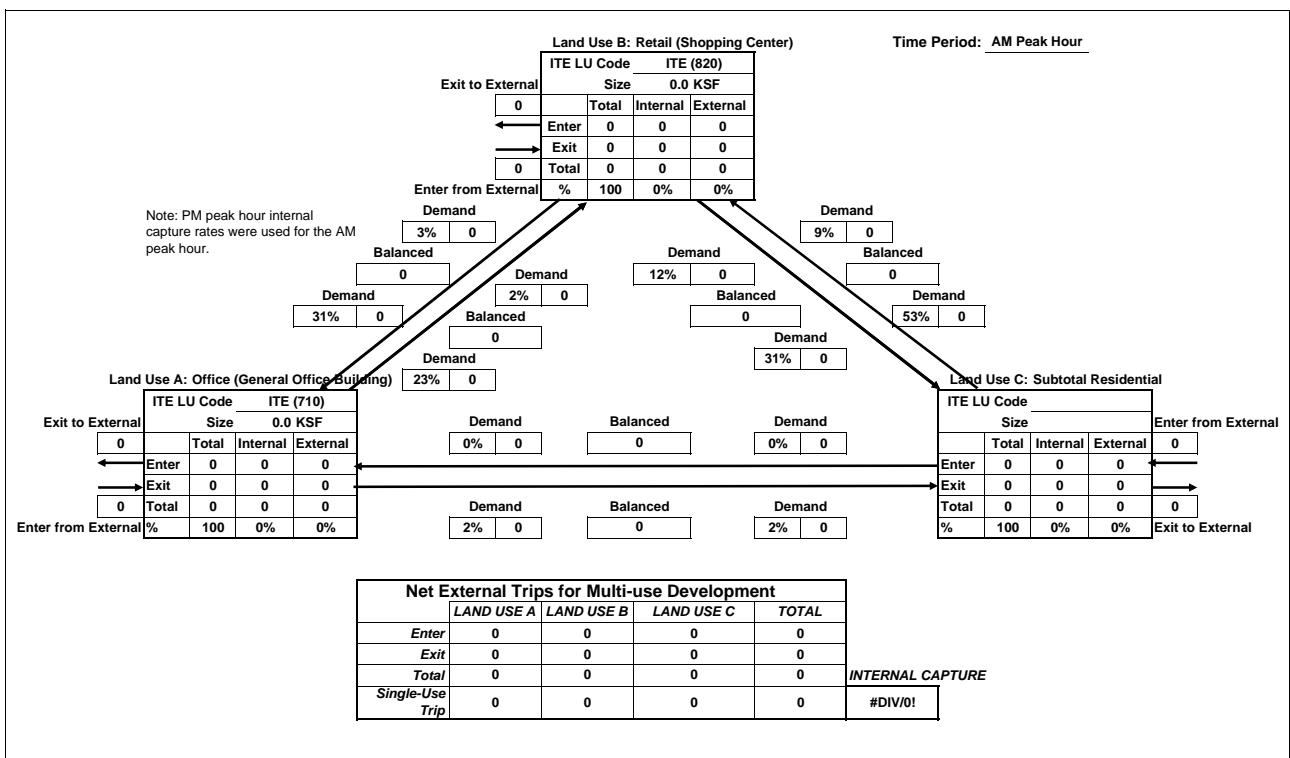


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



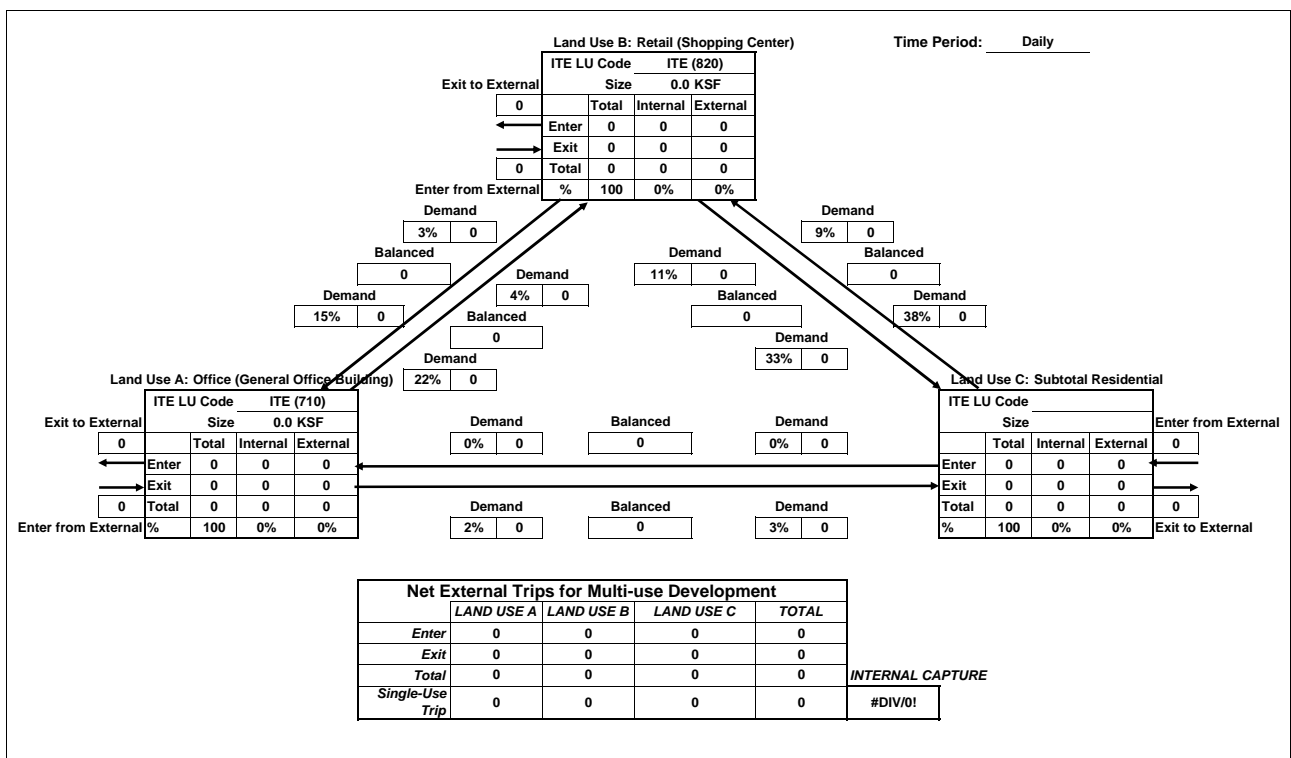
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

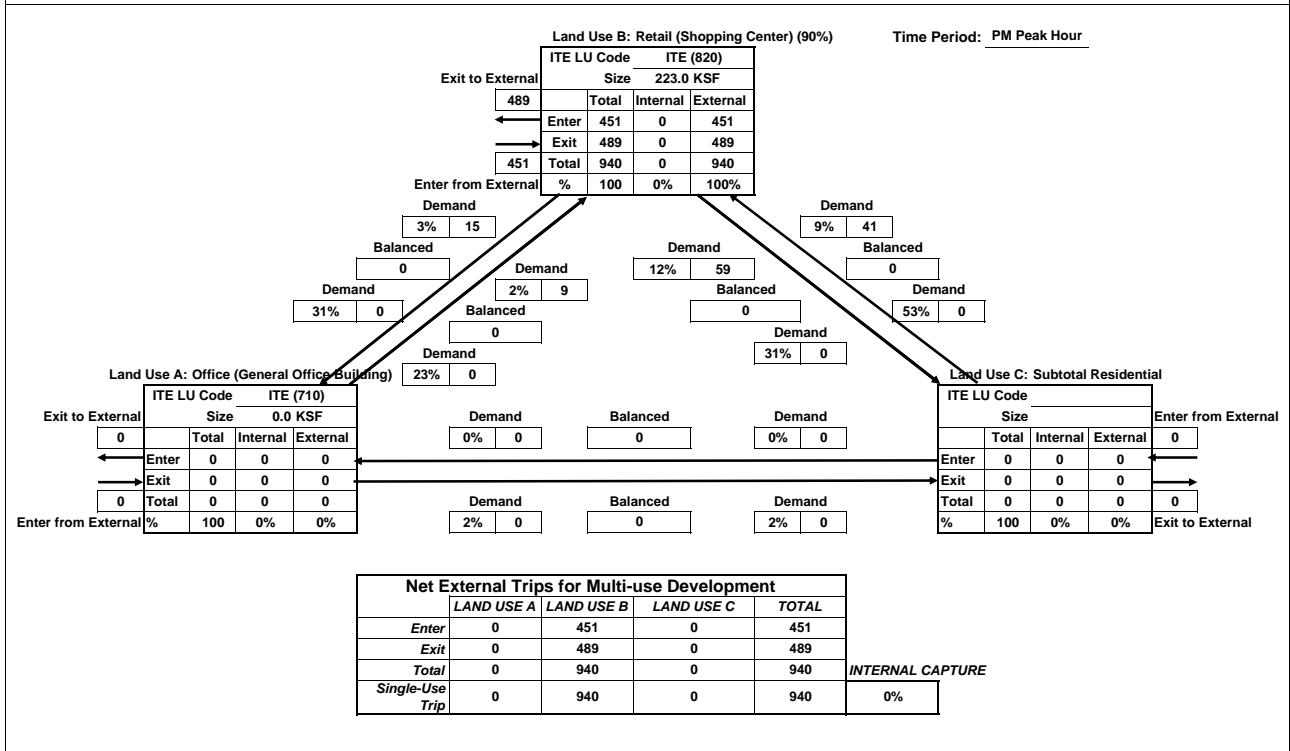
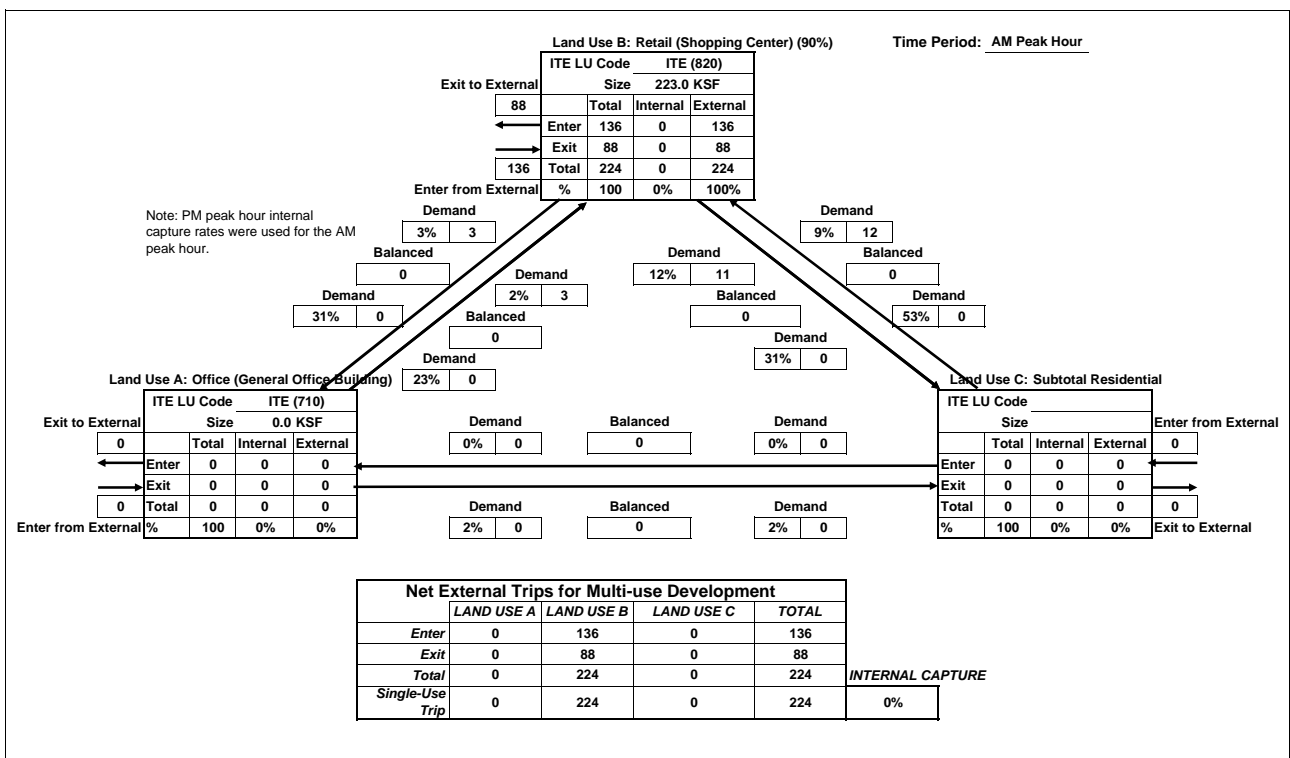


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



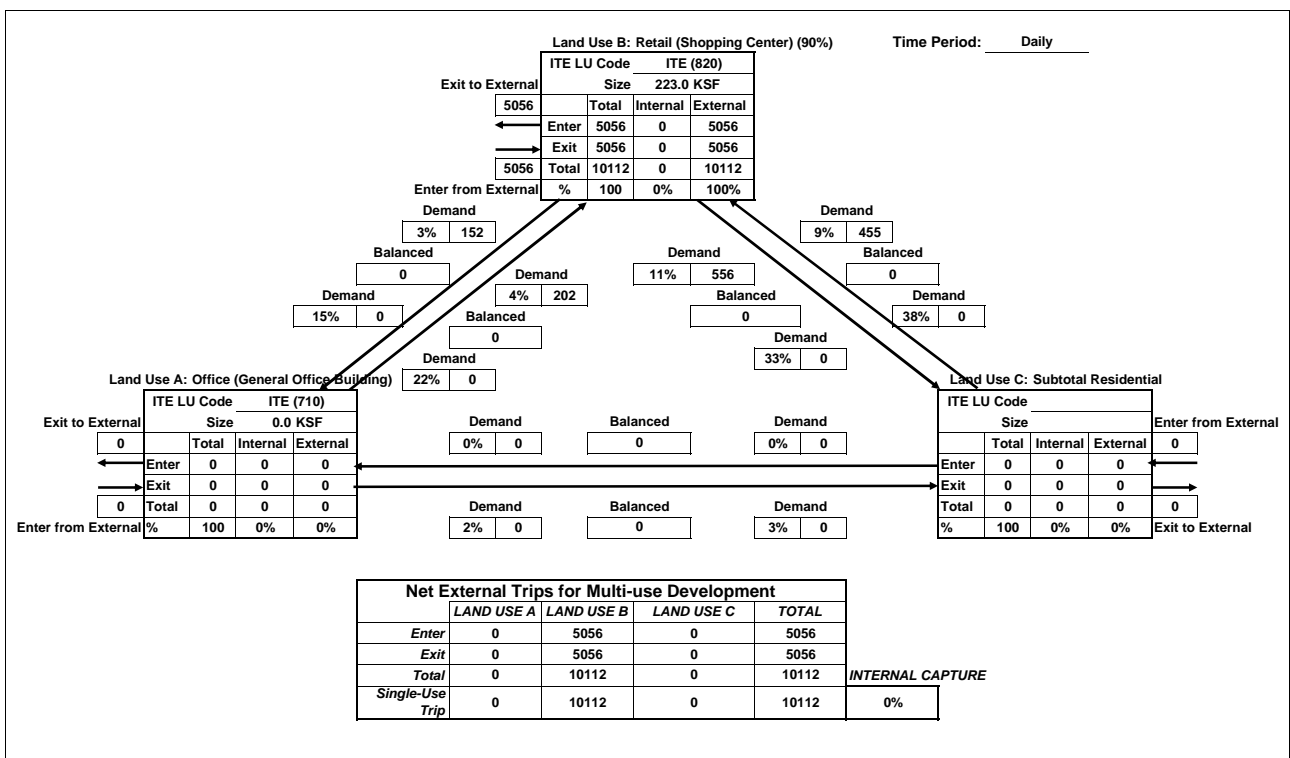
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

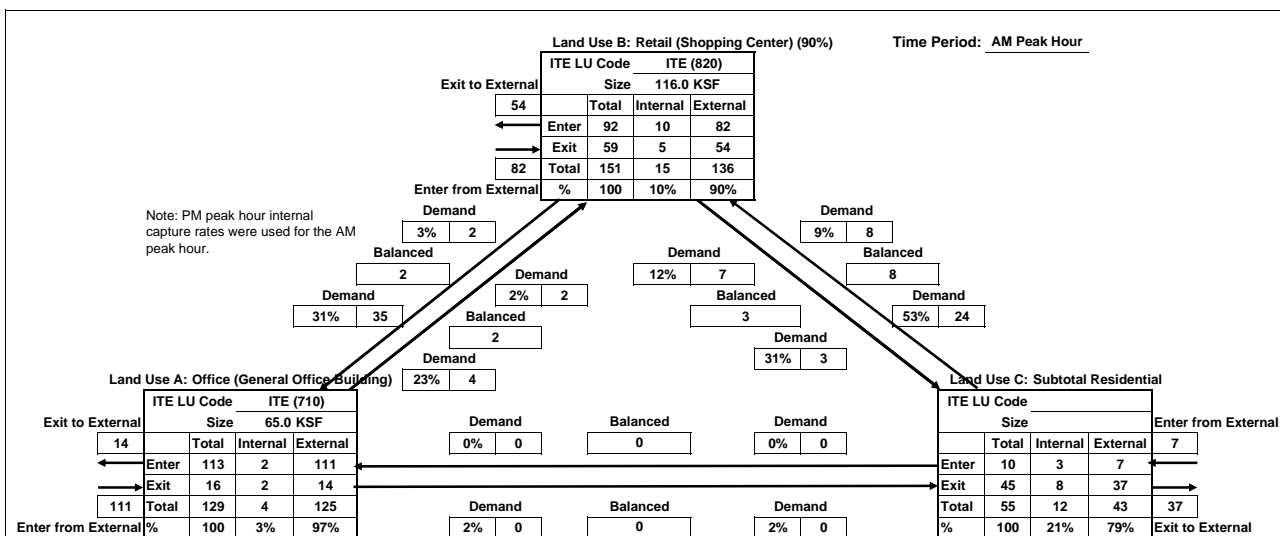
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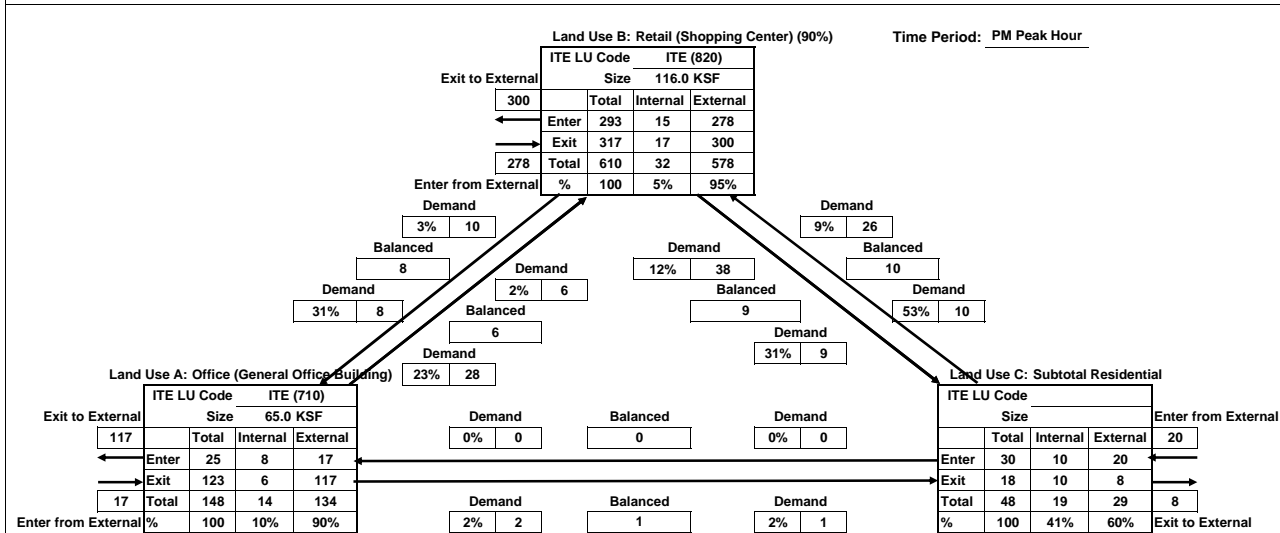
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	111	82	7	200	
Exit	14	54	37	105	
Total	125	136	43	305	INTERNAL CAPTURE
Single-Use Trip	129	151	55	335	9%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	278	20	315	
Exit	117	300	8	425	
Total	134	578	29	740	INTERNAL CAPTURE
Single-Use Trip	148	610	48	806	8%

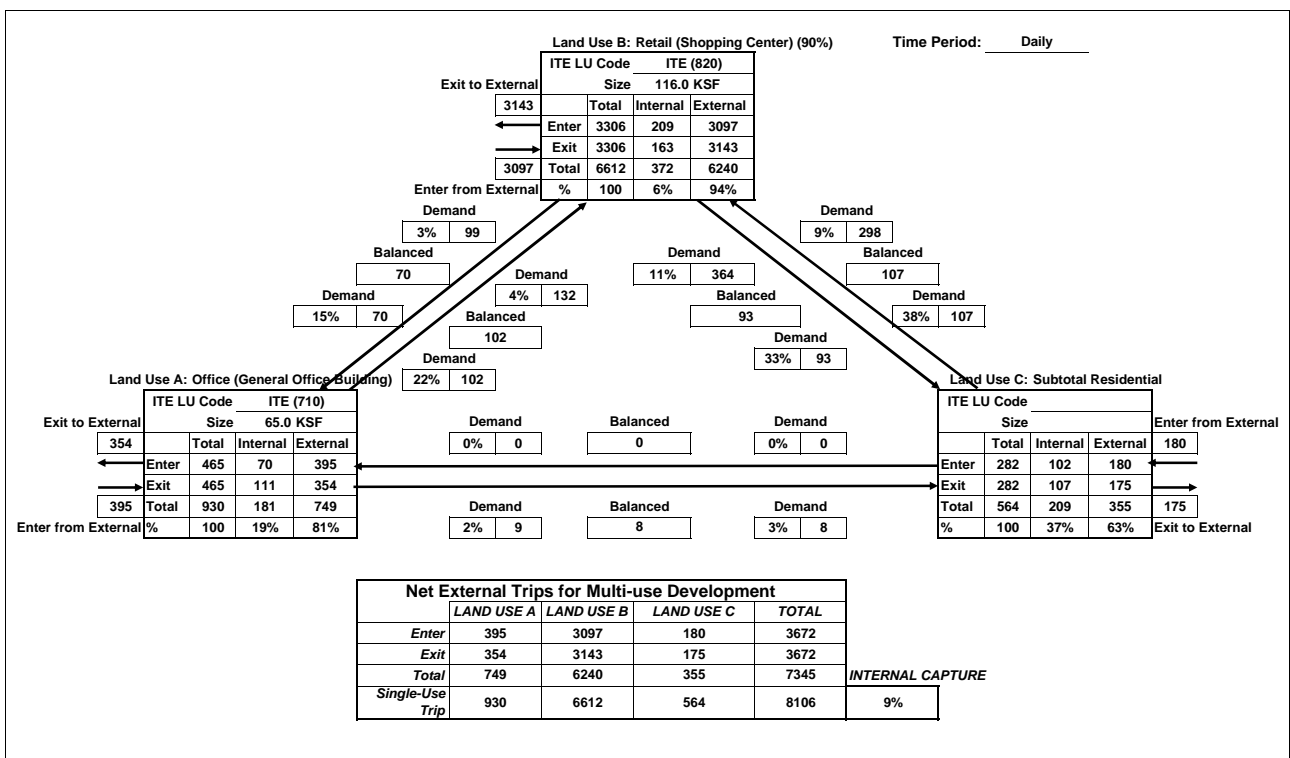
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

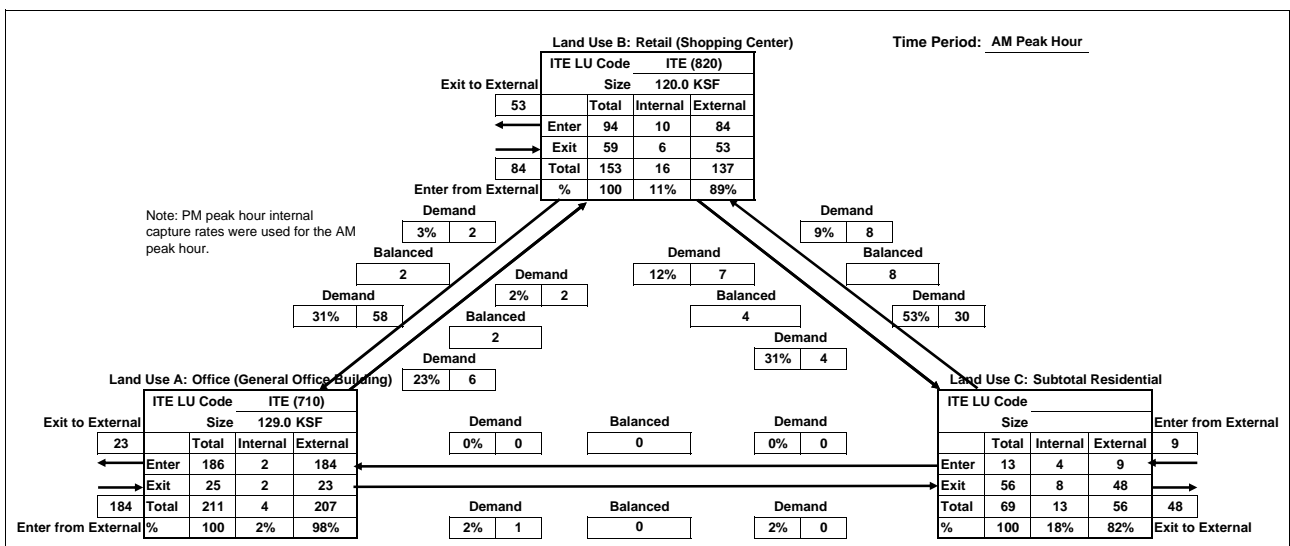


Analyst: Dowling

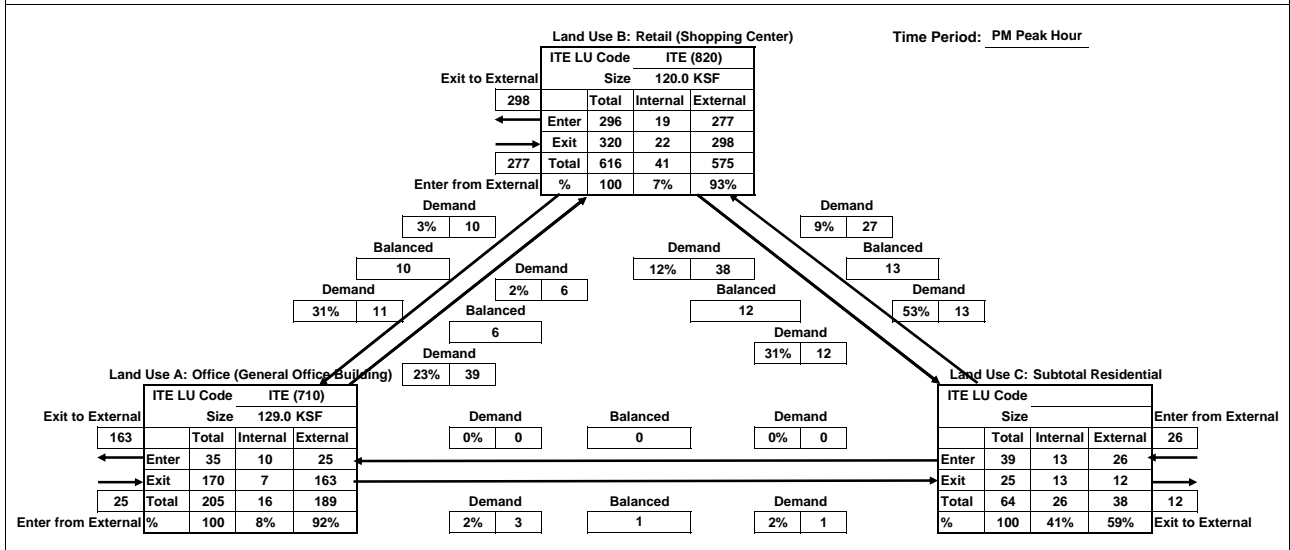
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	184	84	9	277	
Exit	23	53	48	124	
Total	207	137	56	400	INTERNAL CAPTURE
Single-Use Trip	211	153	69	433	8%



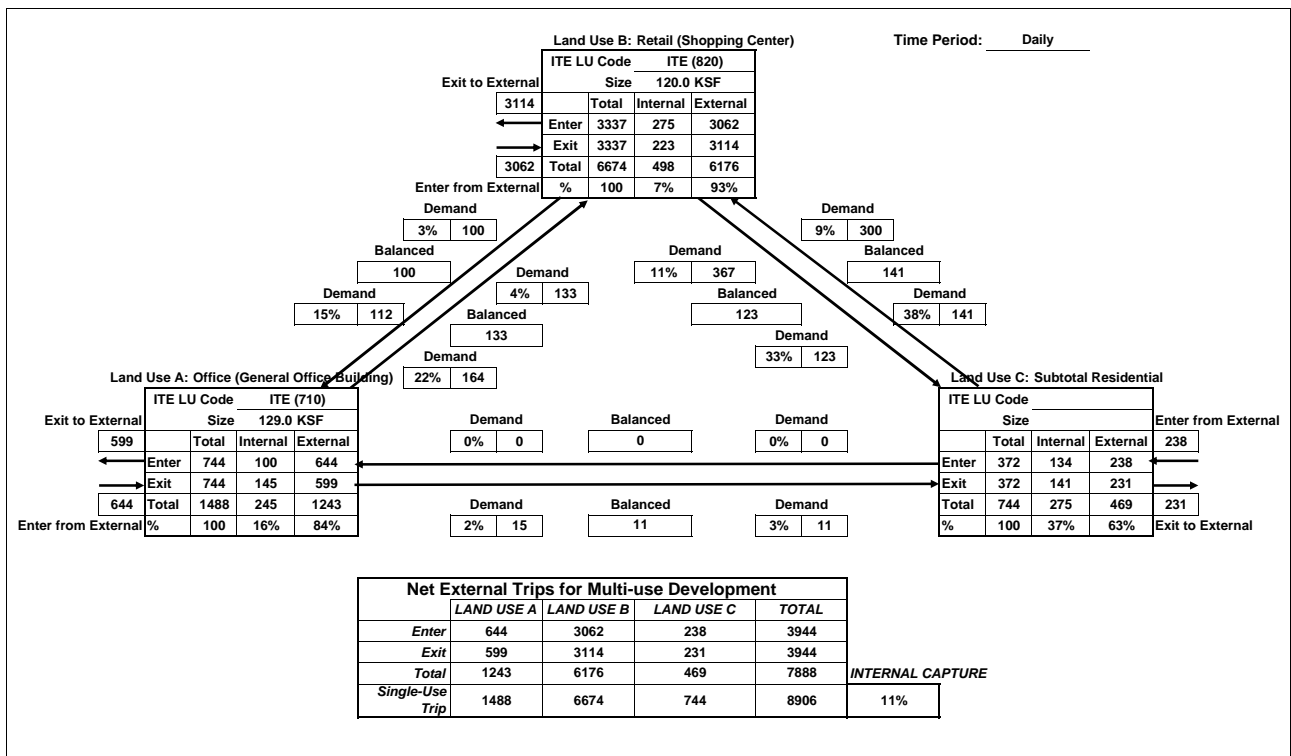
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	25	277	26	328	
Exit	163	298	12	473	
Total	189	575	38	802	INTERNAL CAPTURE
Single-Use Trip	205	616	64	885	9%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

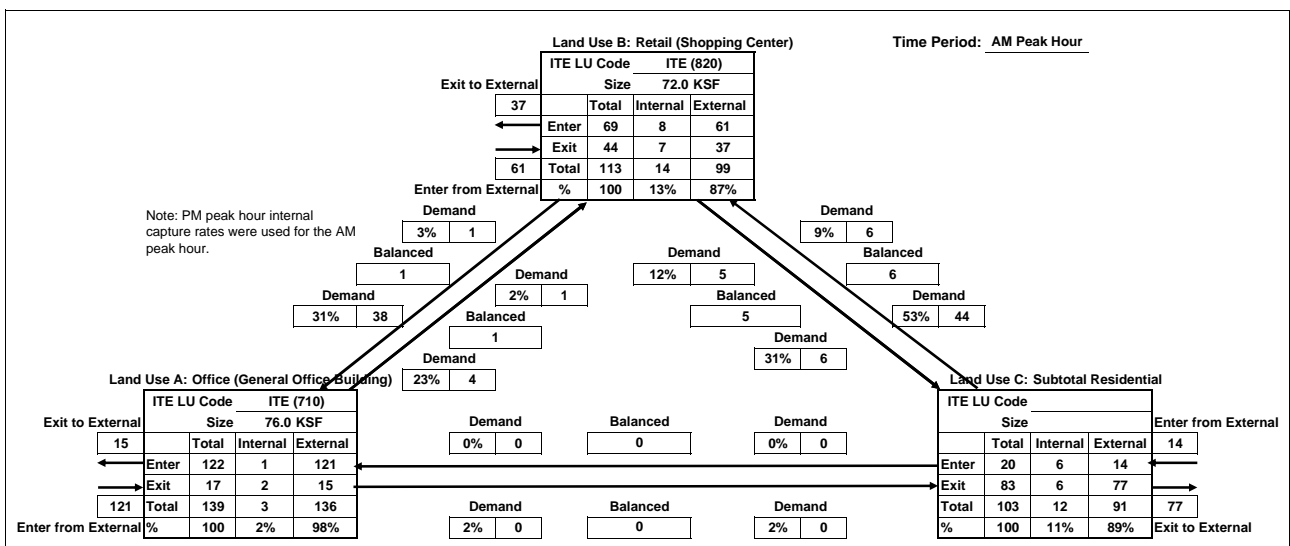
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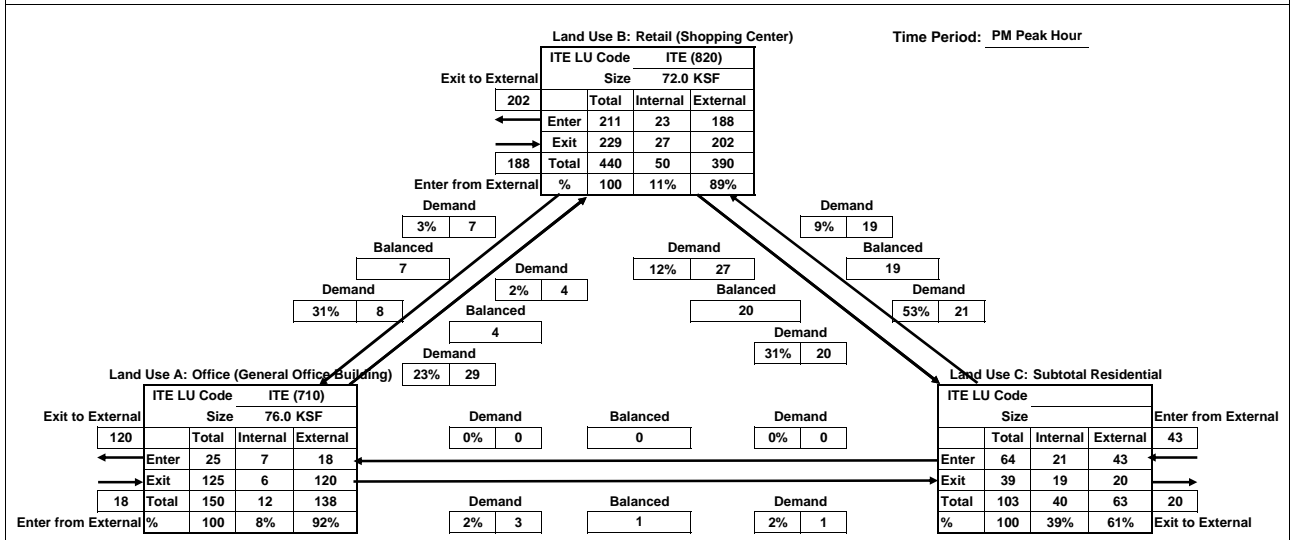
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	121	61	14	196	
Exit	15	37	77	129	
Total	136	99	91	326	INTERNAL CAPTURE
Single-Use Trip	139	113	103	355	8%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	18	188	43	249	
Exit	120	202	20	342	
Total	138	390	63	591	INTERNAL CAPTURE
Single-Use Trip	150	440	103	693	15%

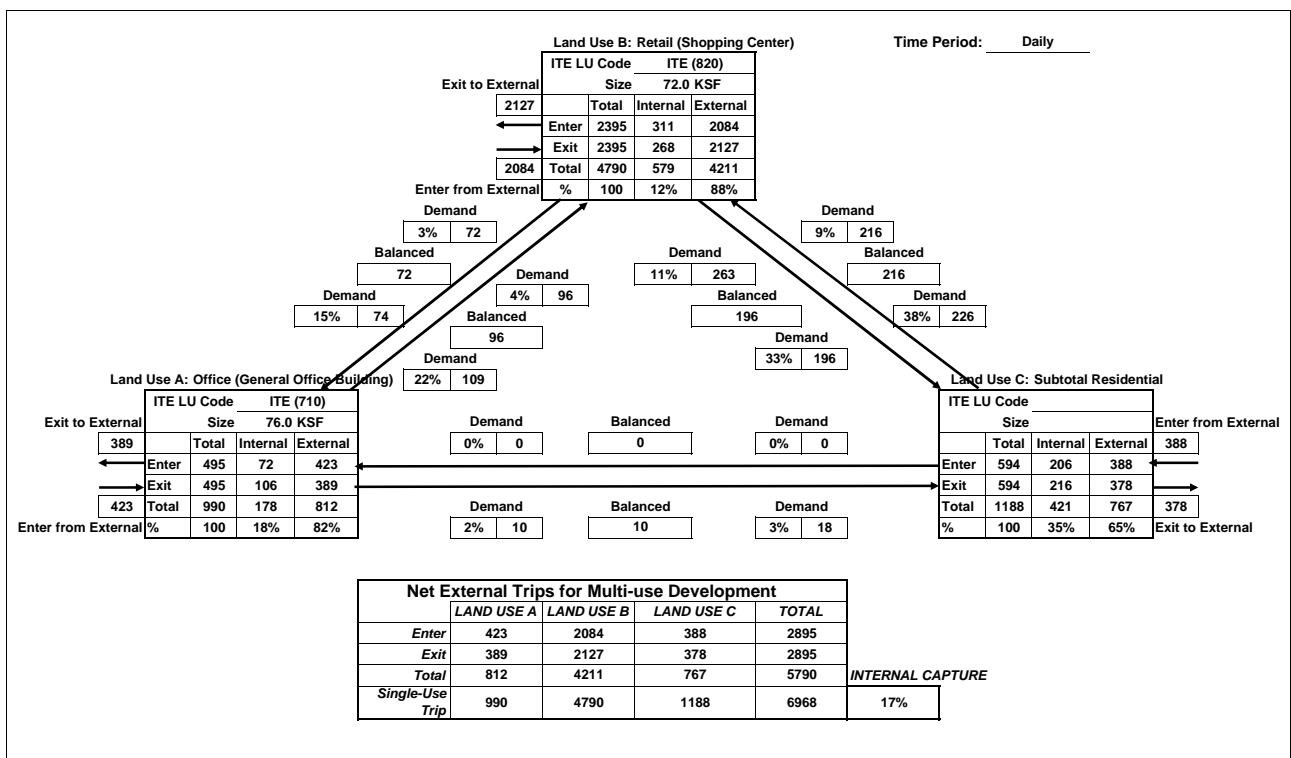
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

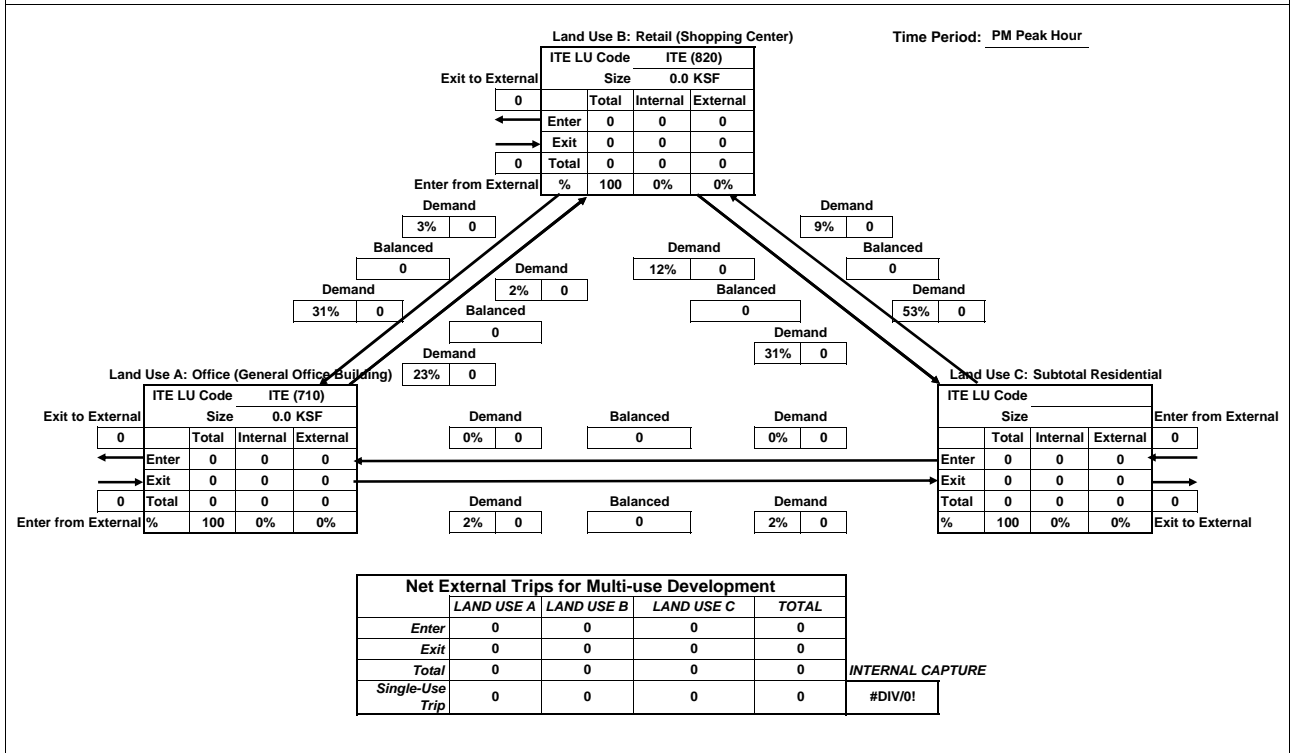
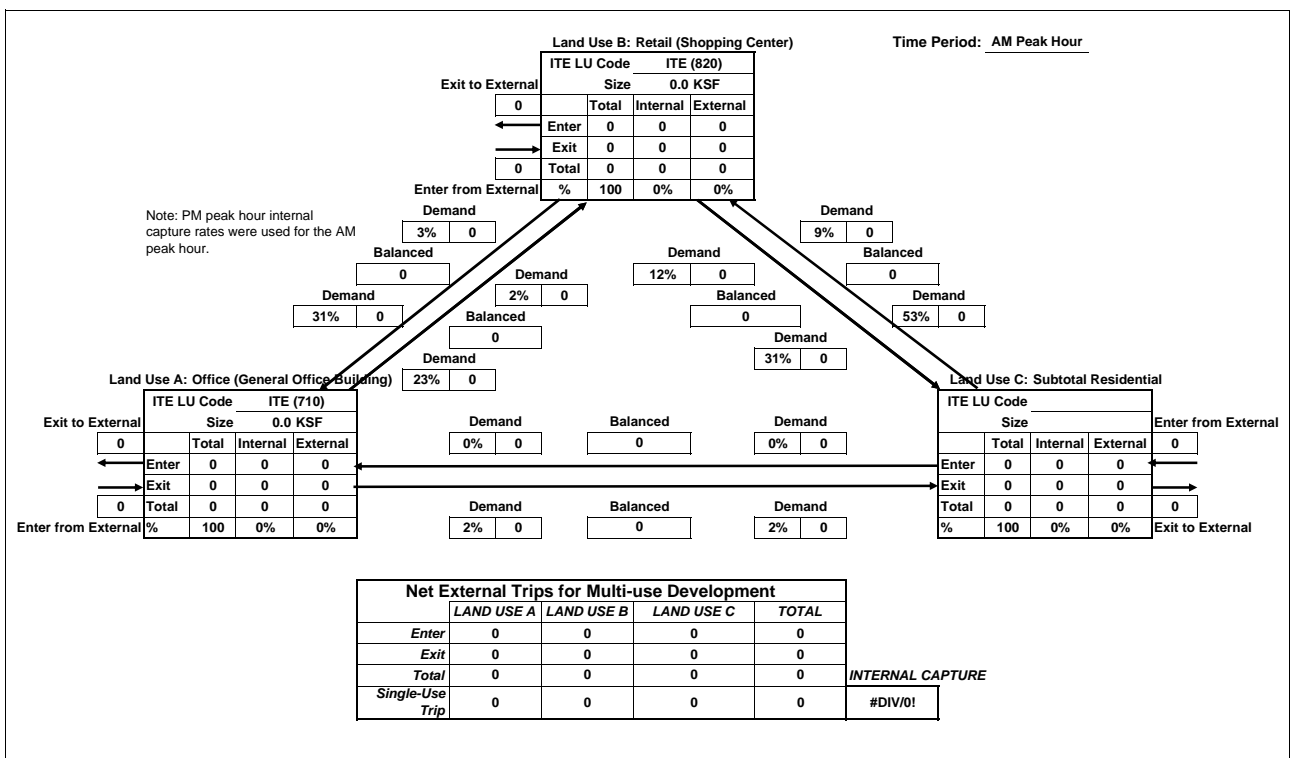


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



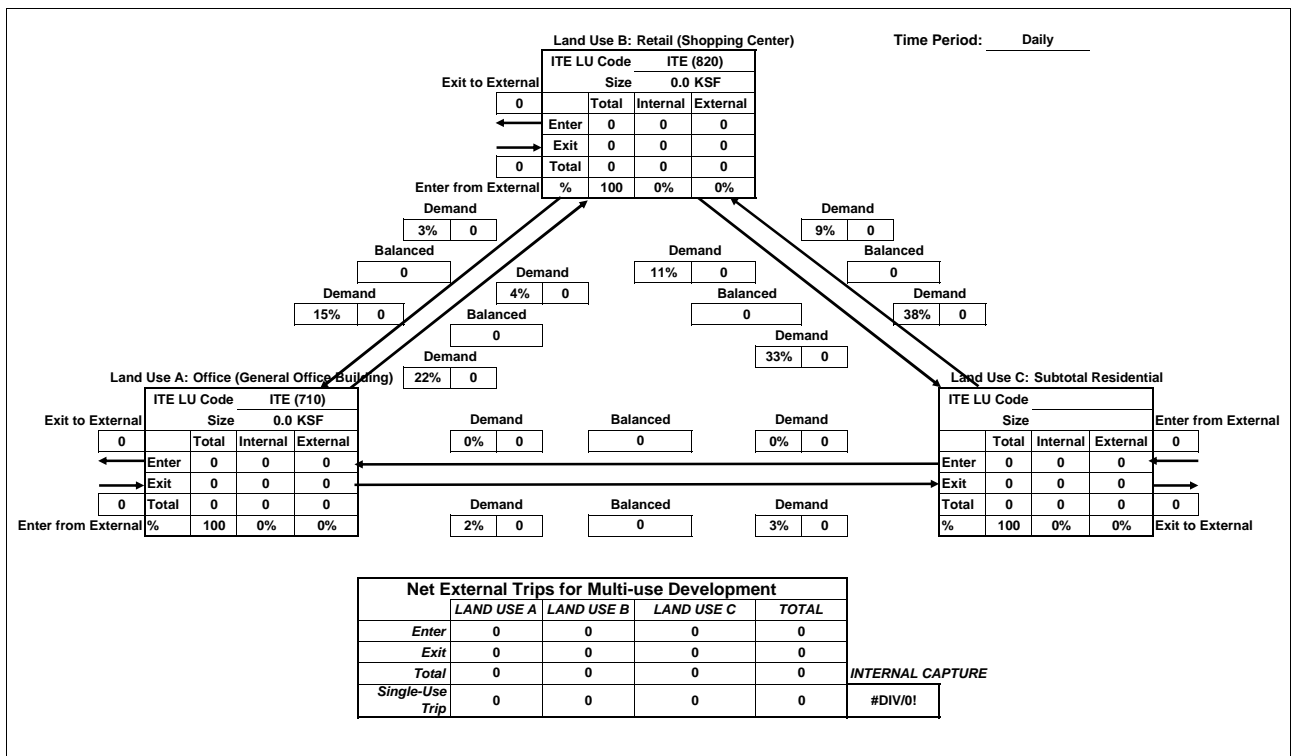
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

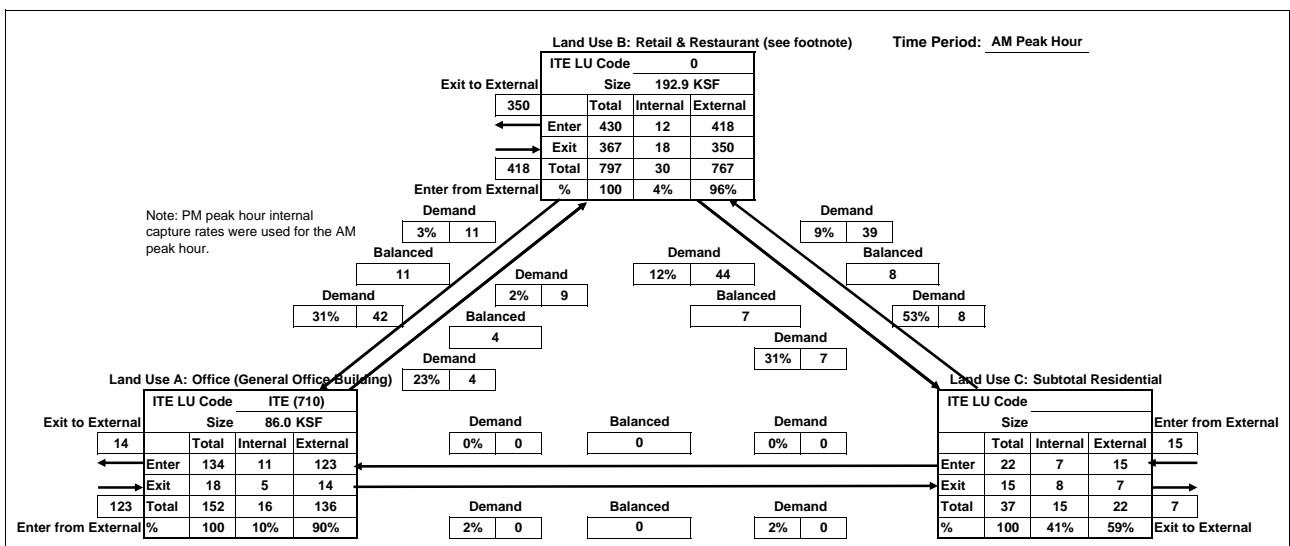
Time Period: Daily



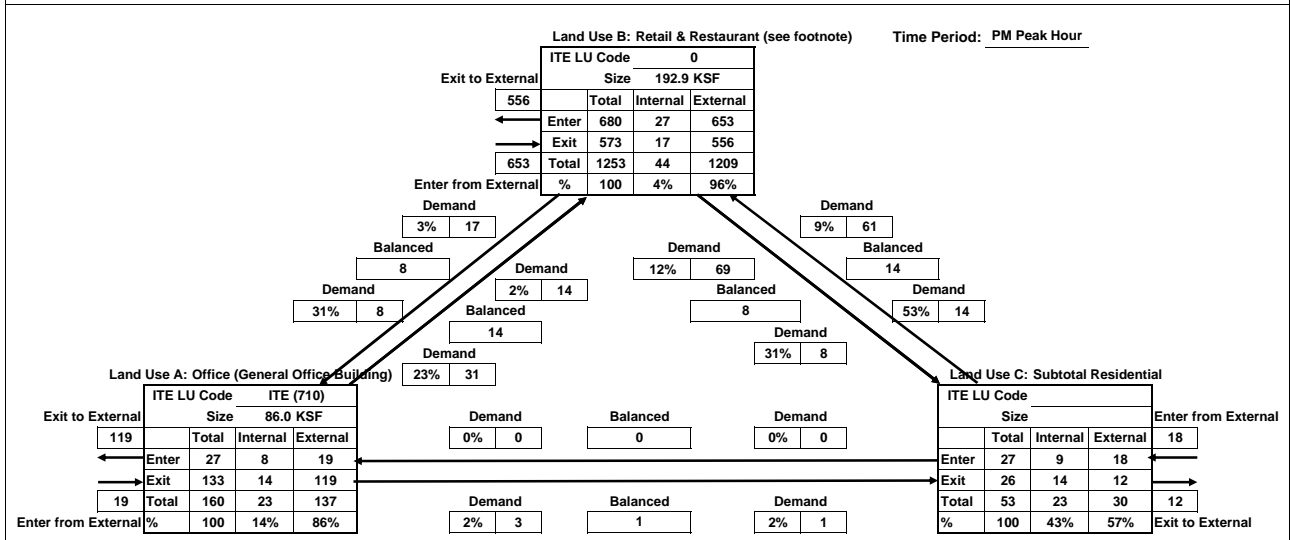
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	123	418	15	555	
Exit	14	350	7	371	
Total	136	767	22	925	INTERNAL CAPTURE
Single-Use Trip	152	797	37	986	6%



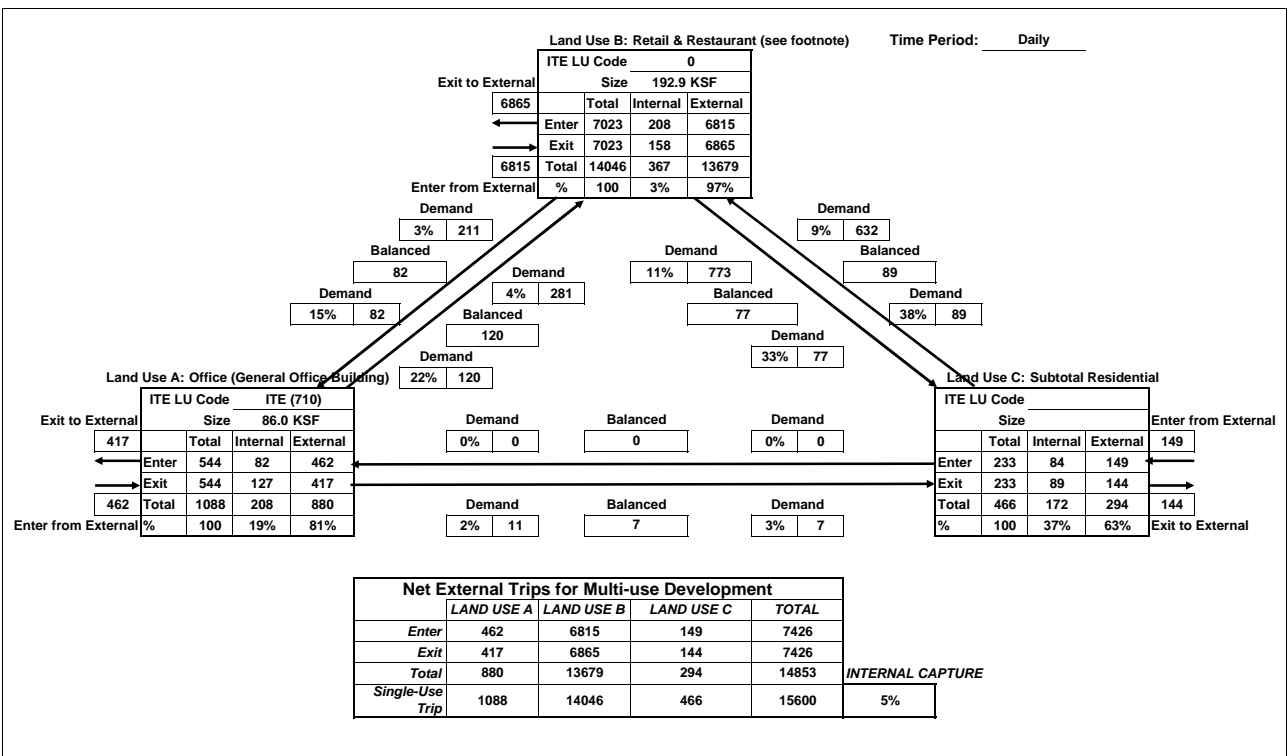
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	19	653	18	690	
Exit	119	556	12	687	
Total	137	1209	30	1377	INTERNAL CAPTURE
Single-Use Trip	160	1253	53	1466	6%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

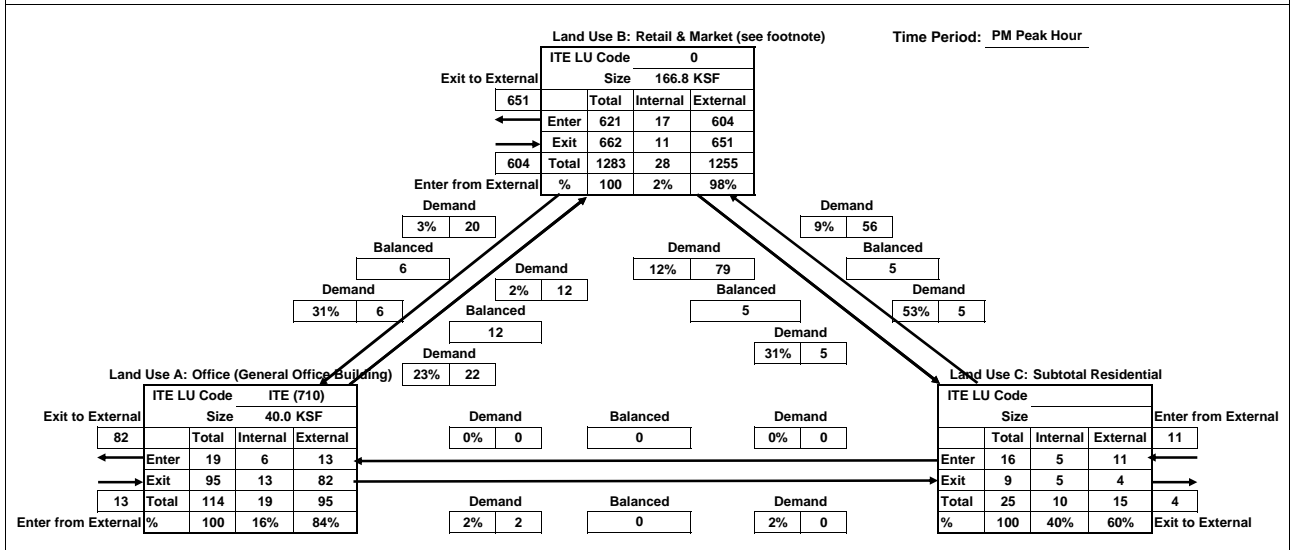
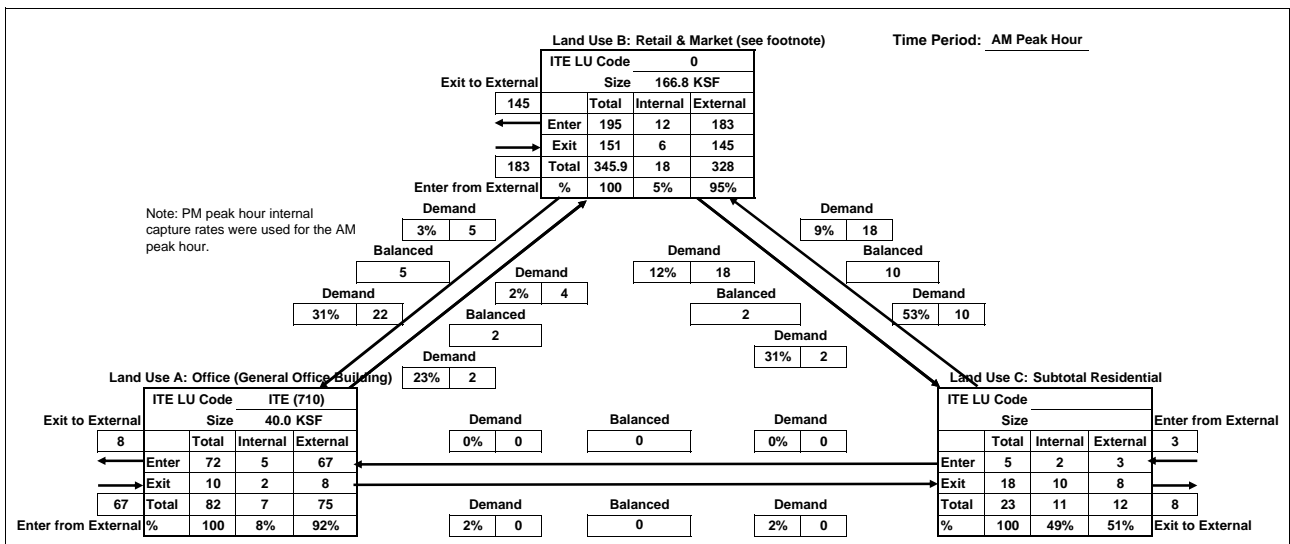
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

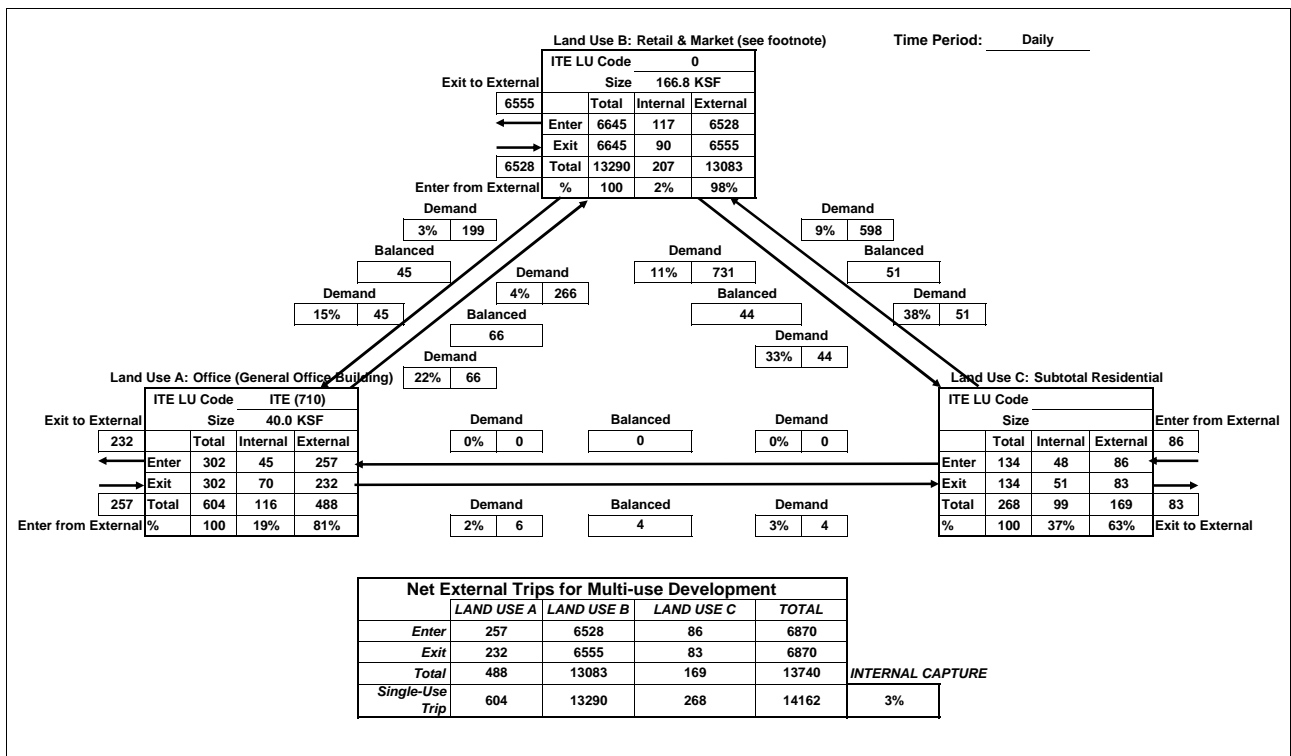


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

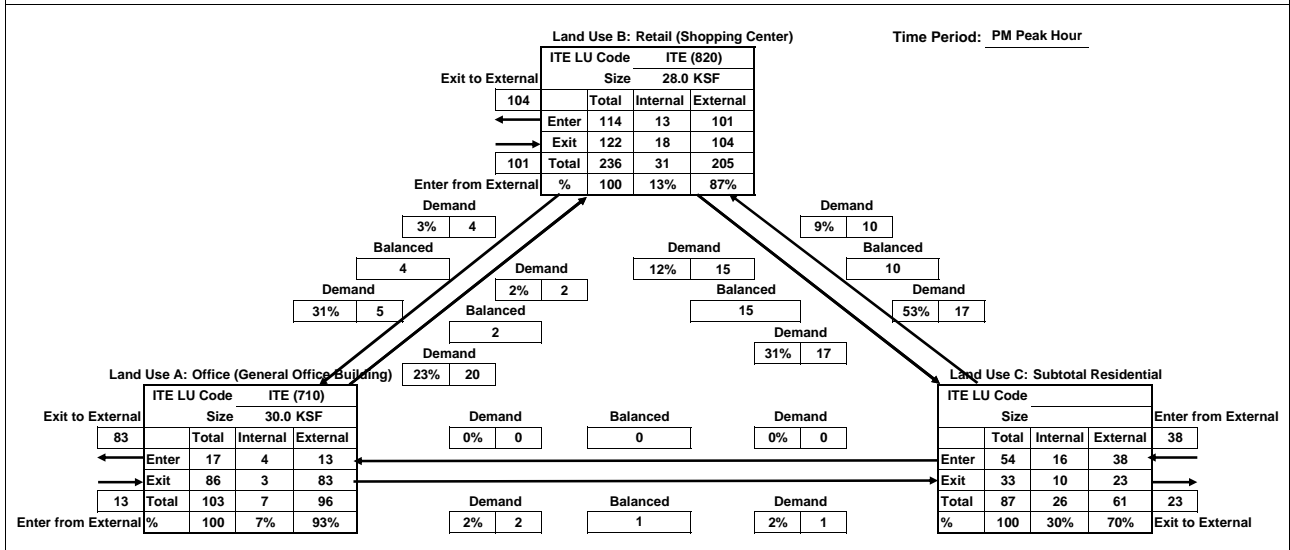
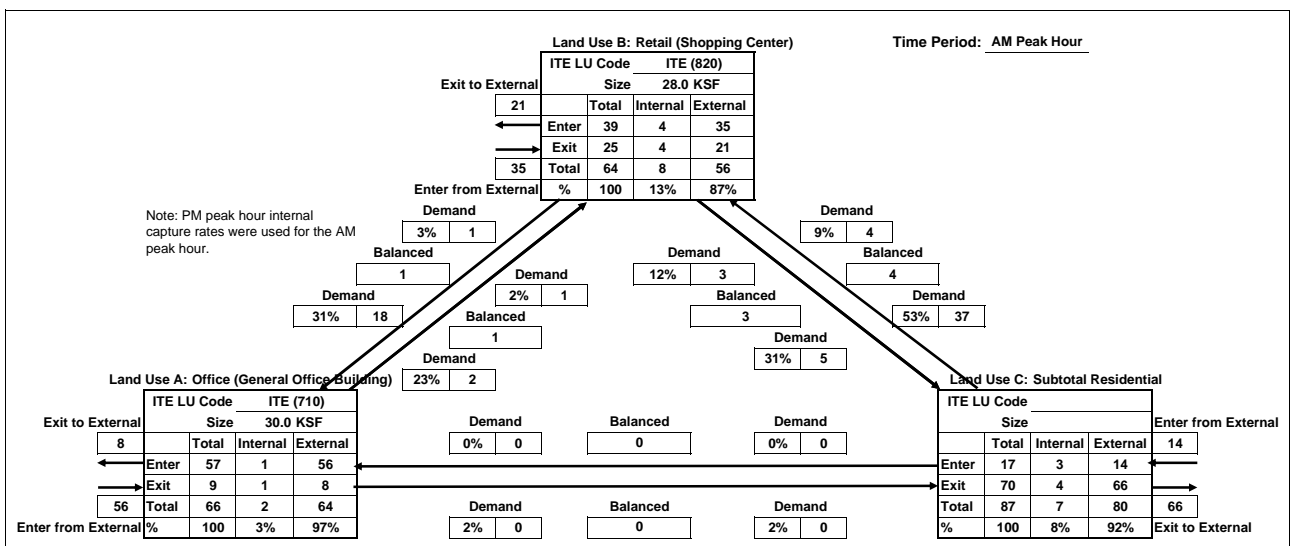


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

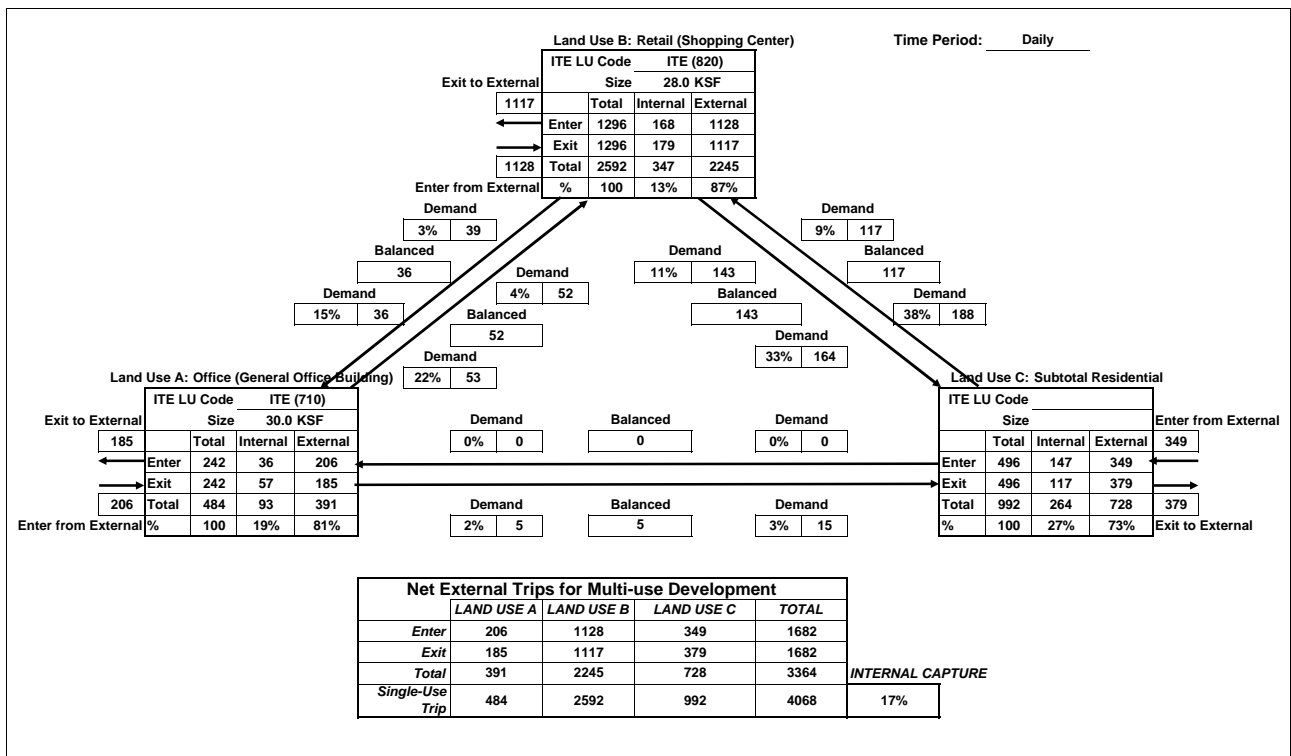


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

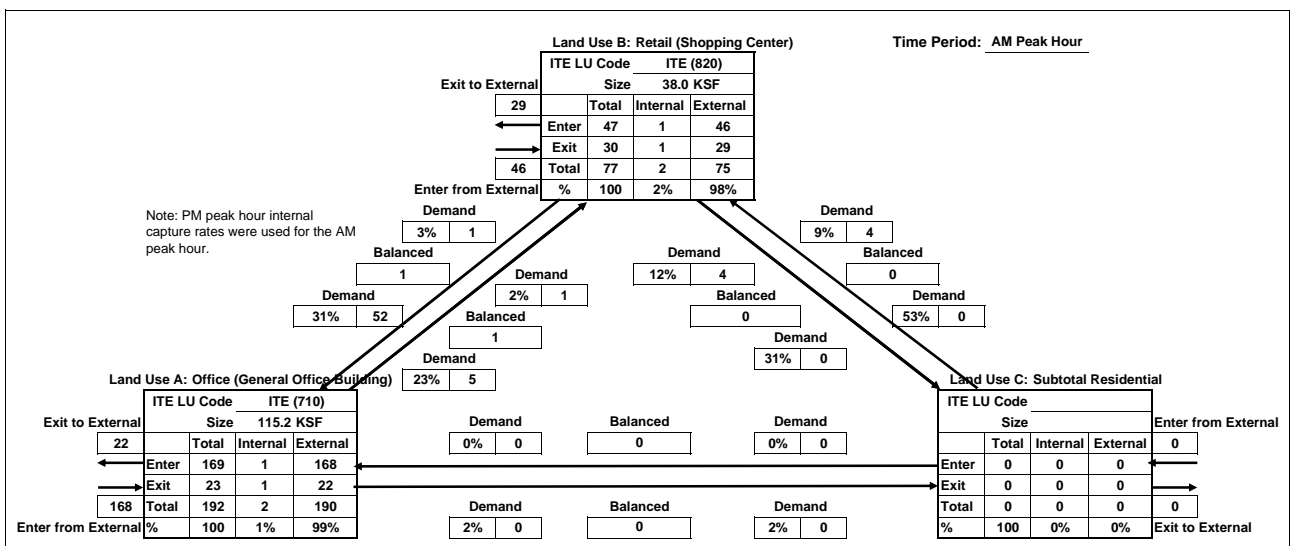


Analyst: Dowling

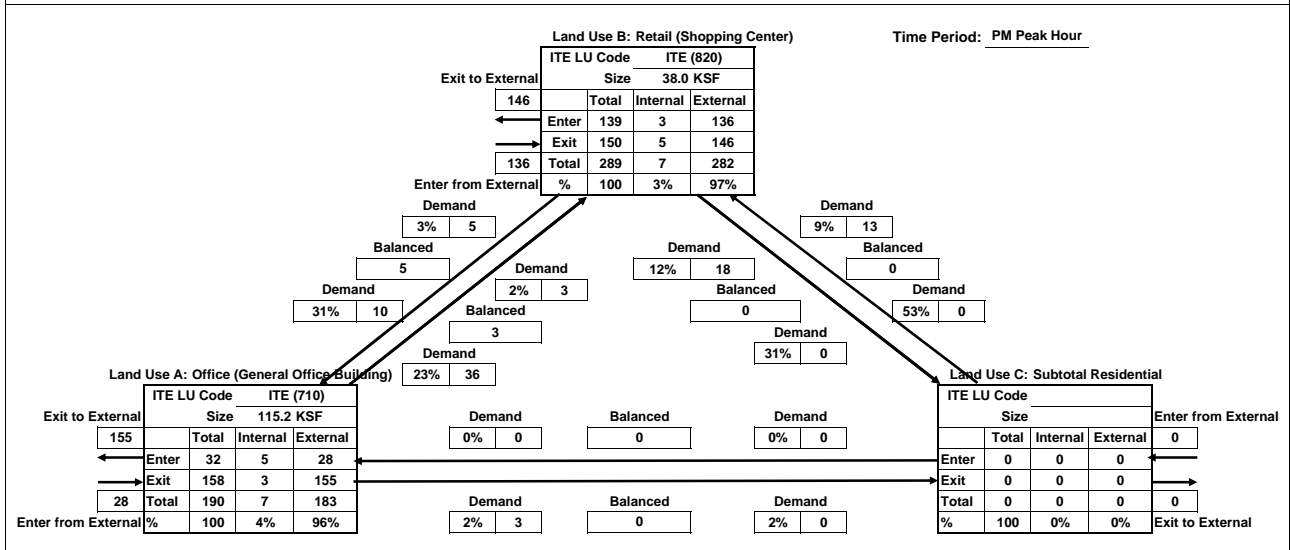
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	168	46	0	214	
Exit	22	29	0	51	
Total	190	75	0	265	INTERNAL CAPTURE
Single-Use Trip	192	77	0	269	1%



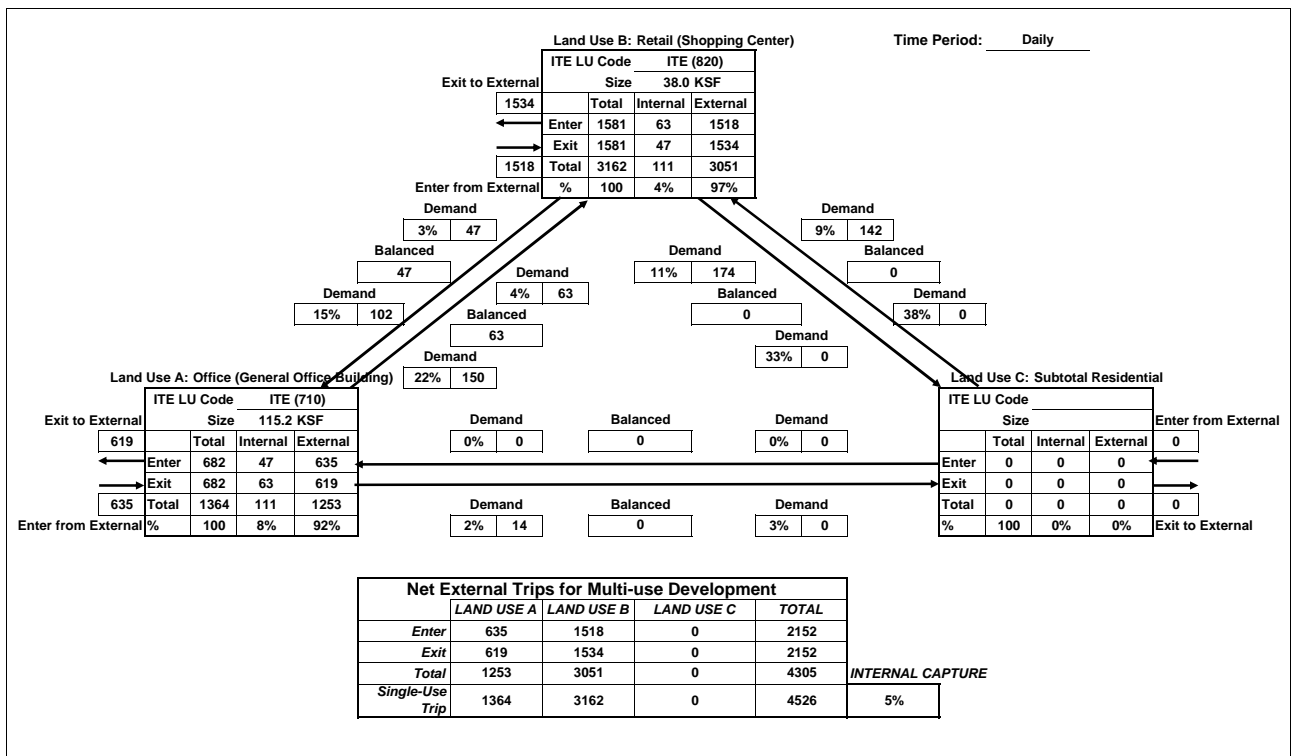
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	28	136	0	164	
Exit	155	146	0	301	
Total	183	282	0	464	INTERNAL CAPTURE
Single-Use Trip	190	289	0	479	3%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

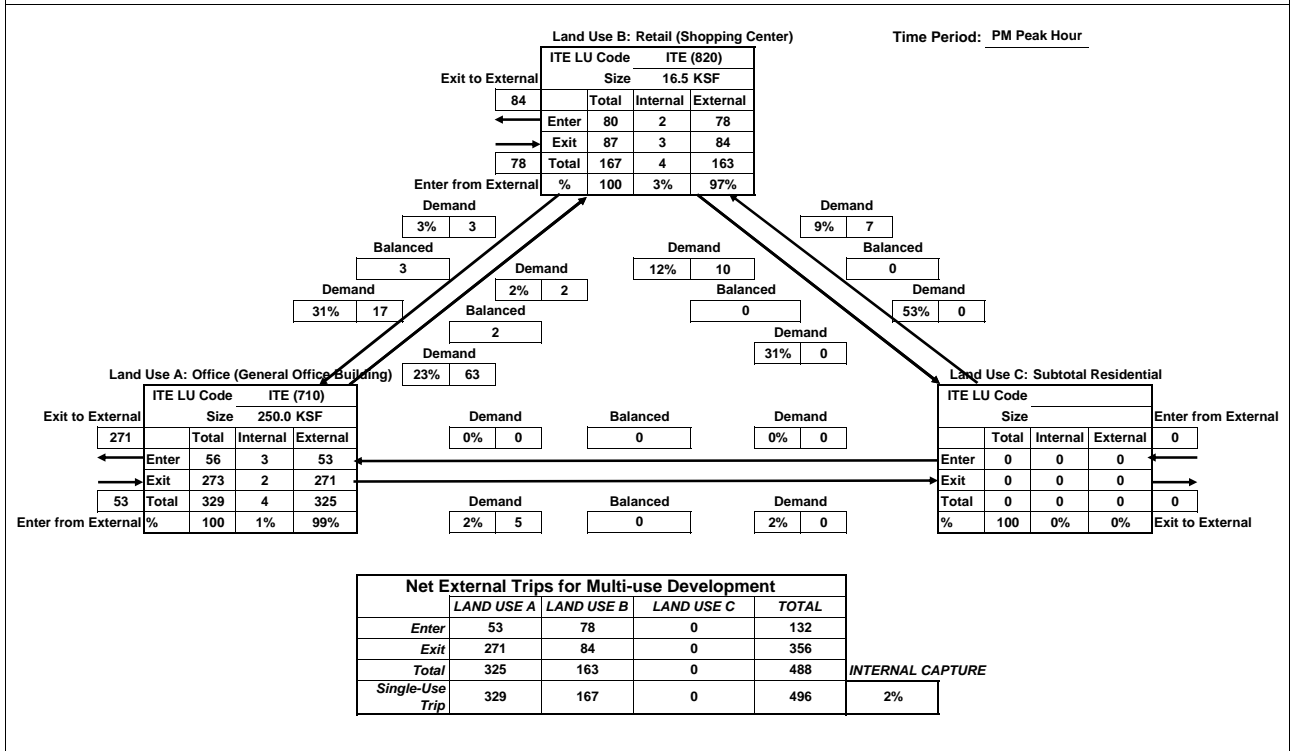
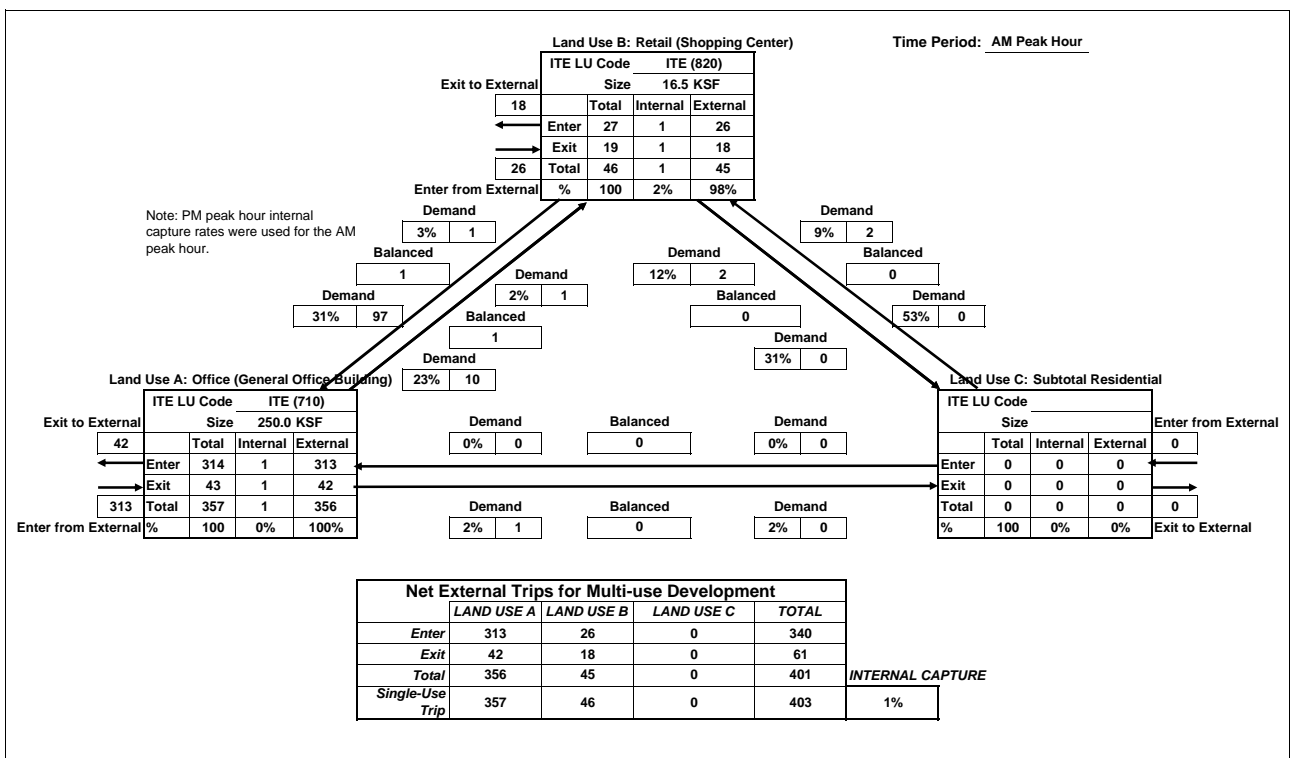


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



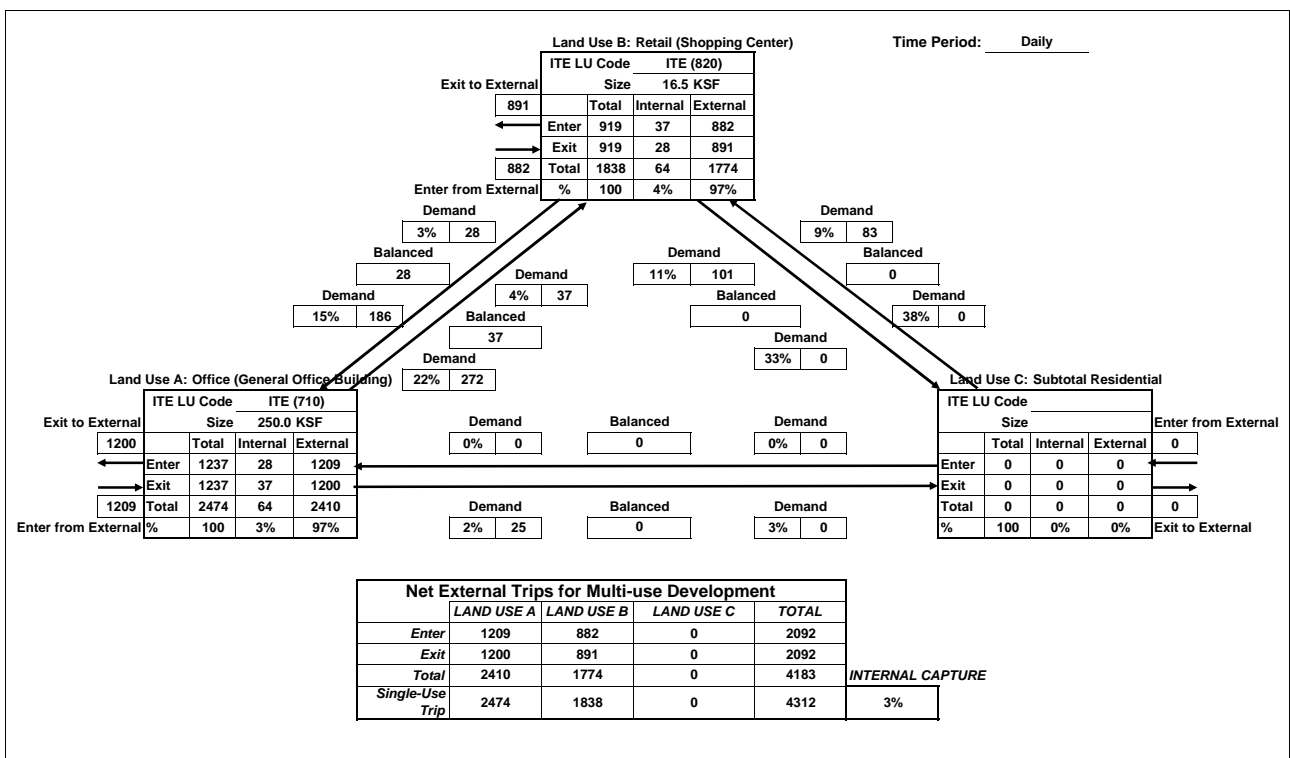
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

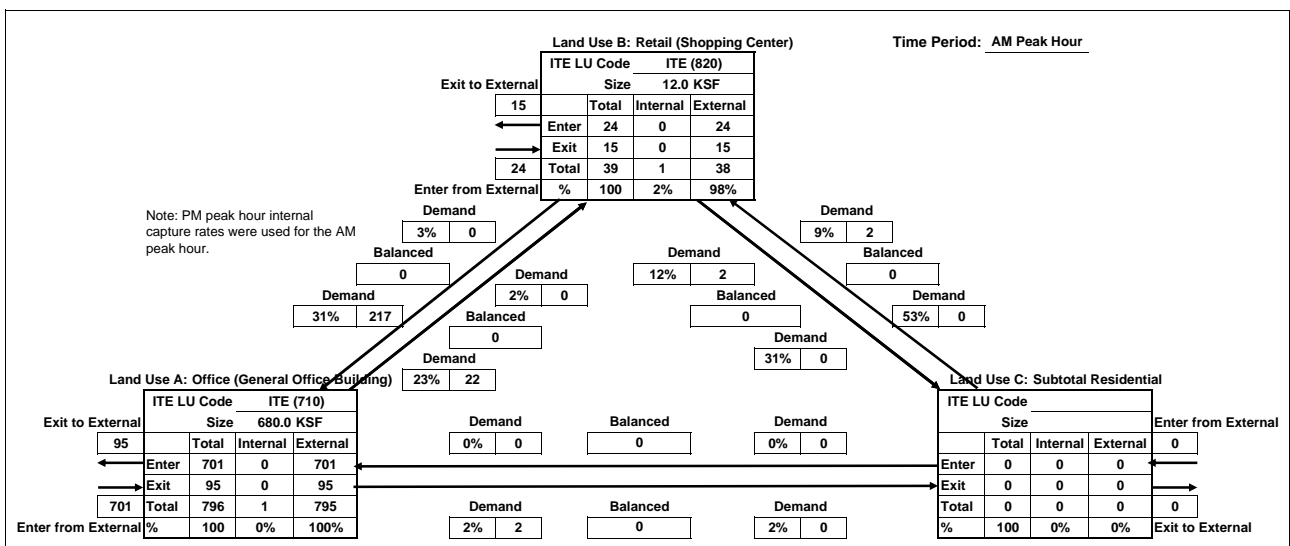


Analyst: Dowling

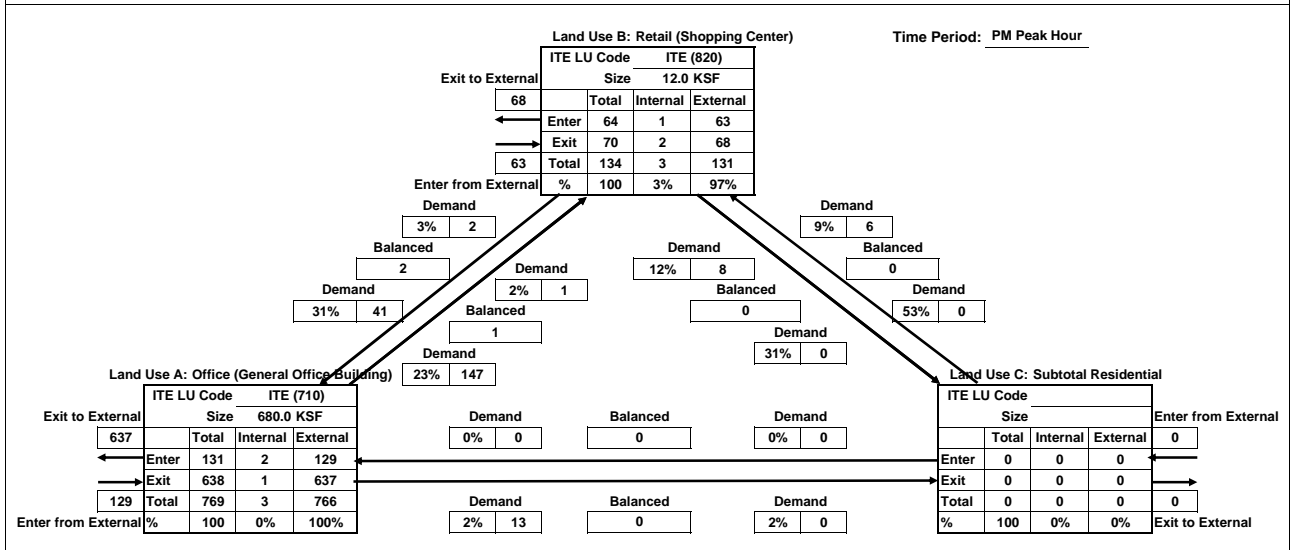
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	701	24	0	724	
Exit	95	15	0	109	
Total	795	38	0	833	INTERNAL CAPTURE
Single-Use Trip	796	39	0	835	0%



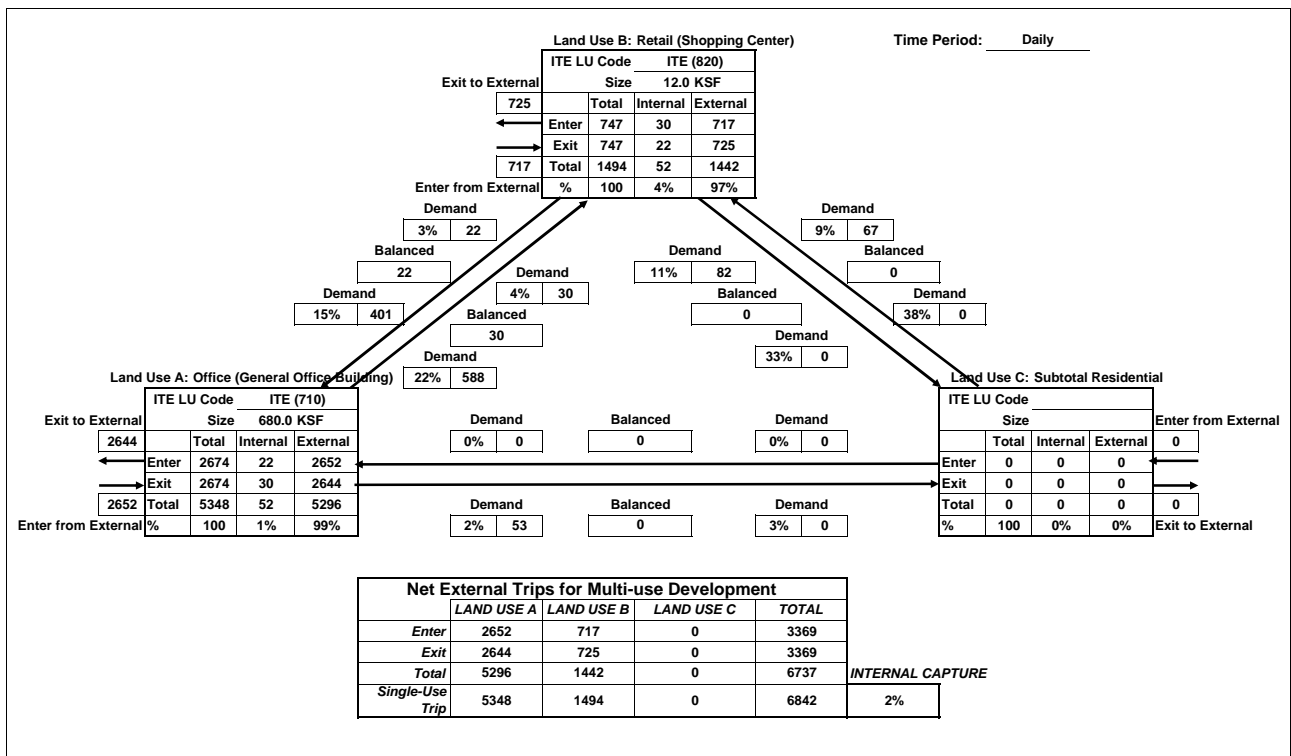
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	129	63	0	192	
Exit	637	68	0	705	
Total	766	131	0	896	INTERNAL CAPTURE
Single-Use Trip	769	134	0	903	1%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

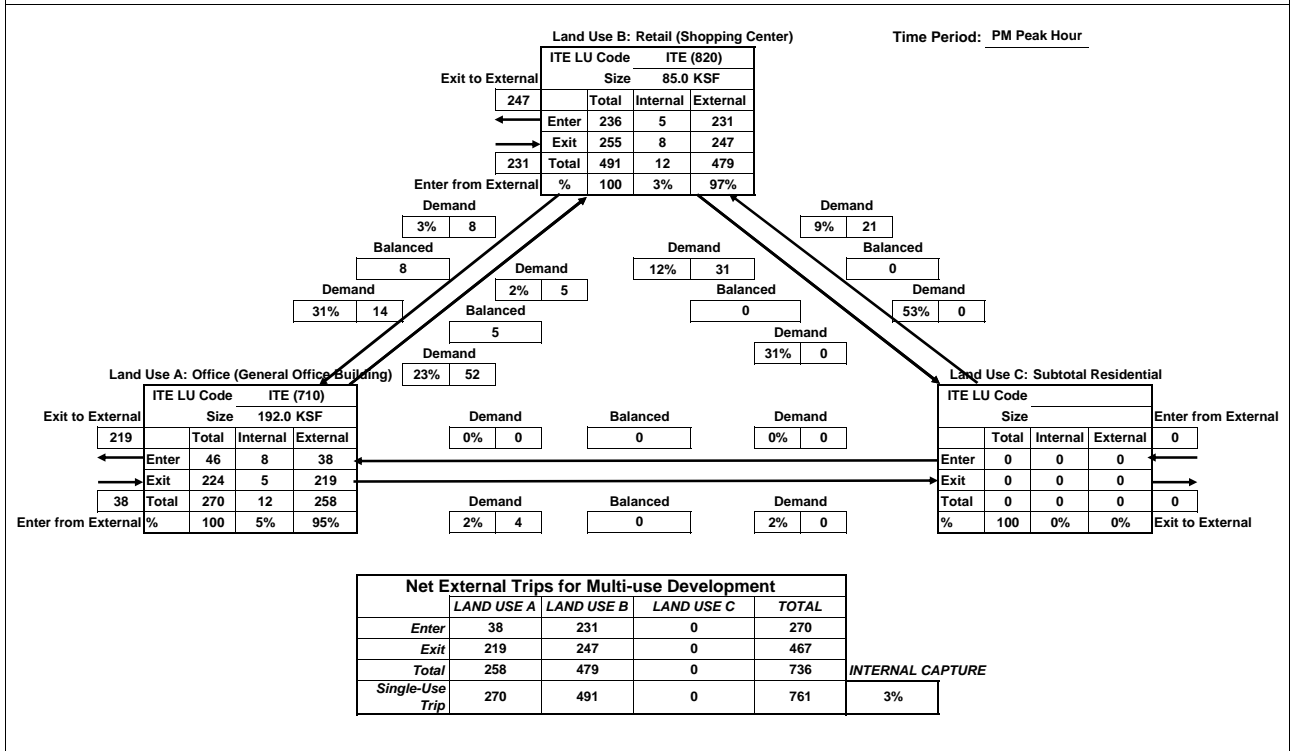
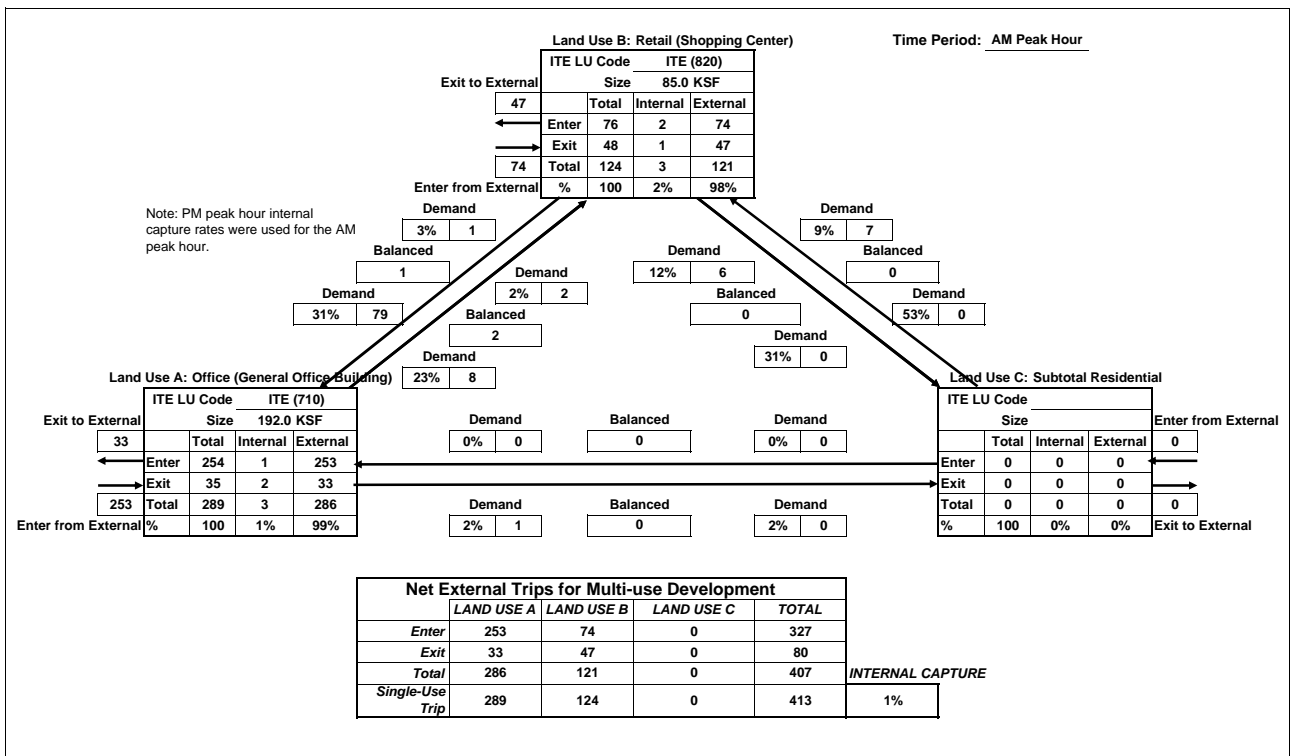


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

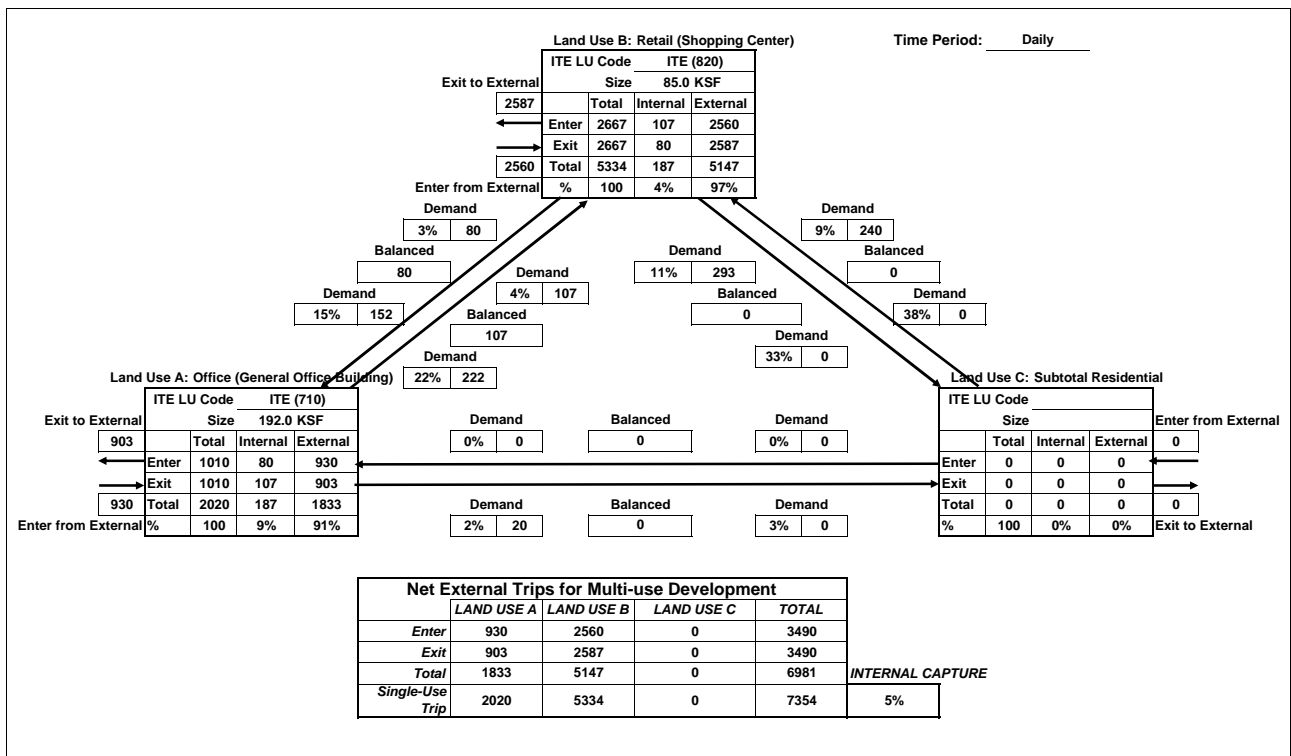


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

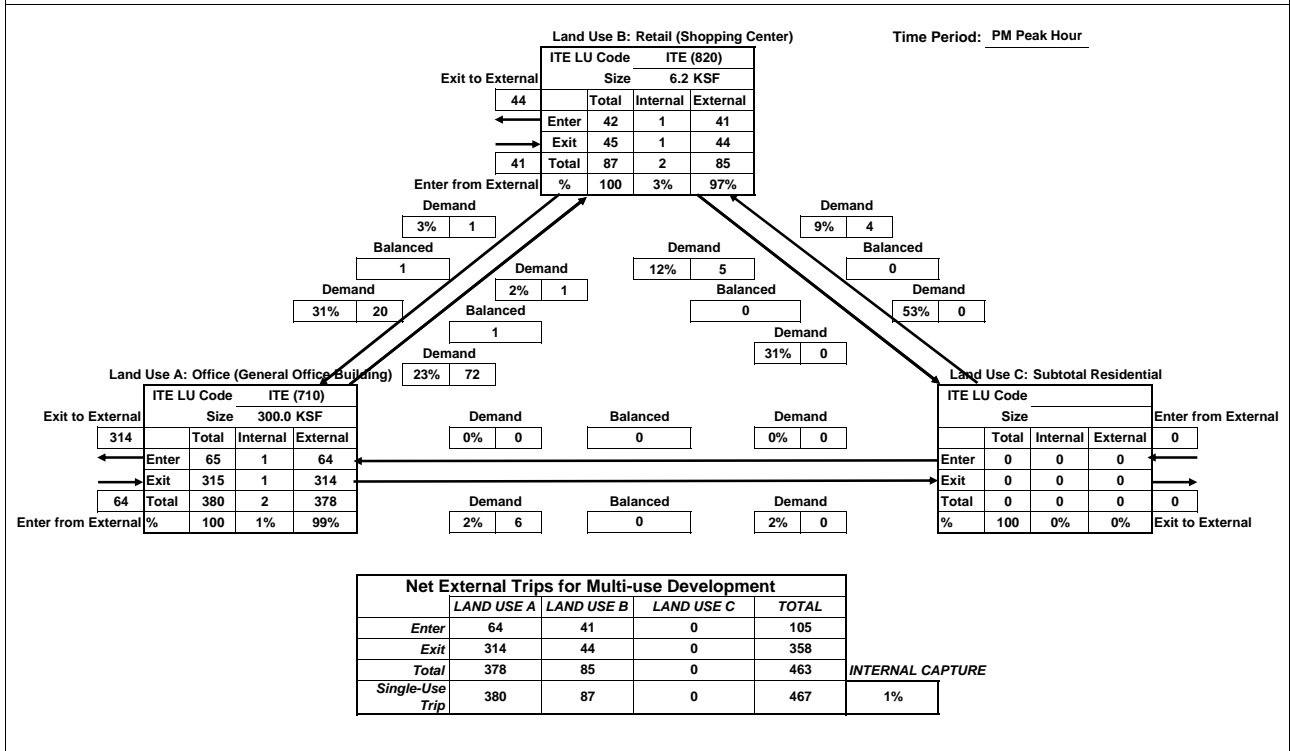
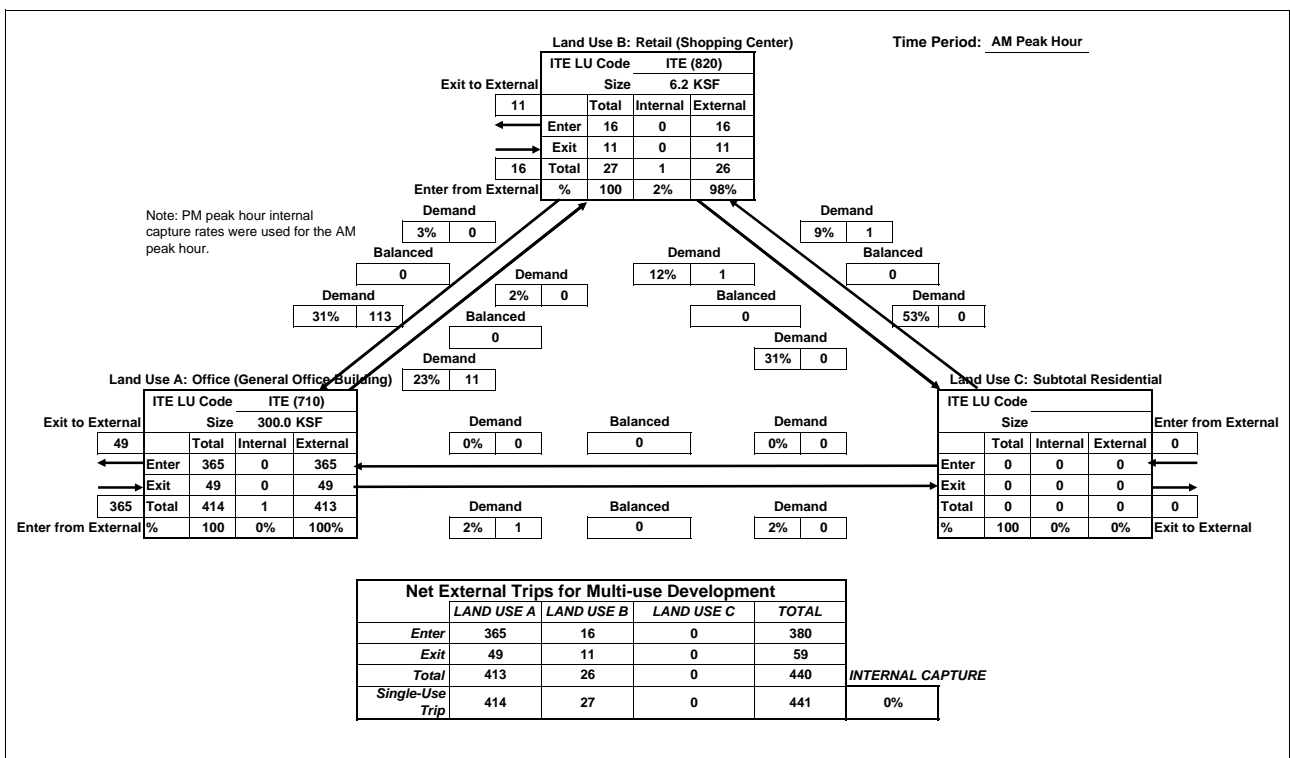


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

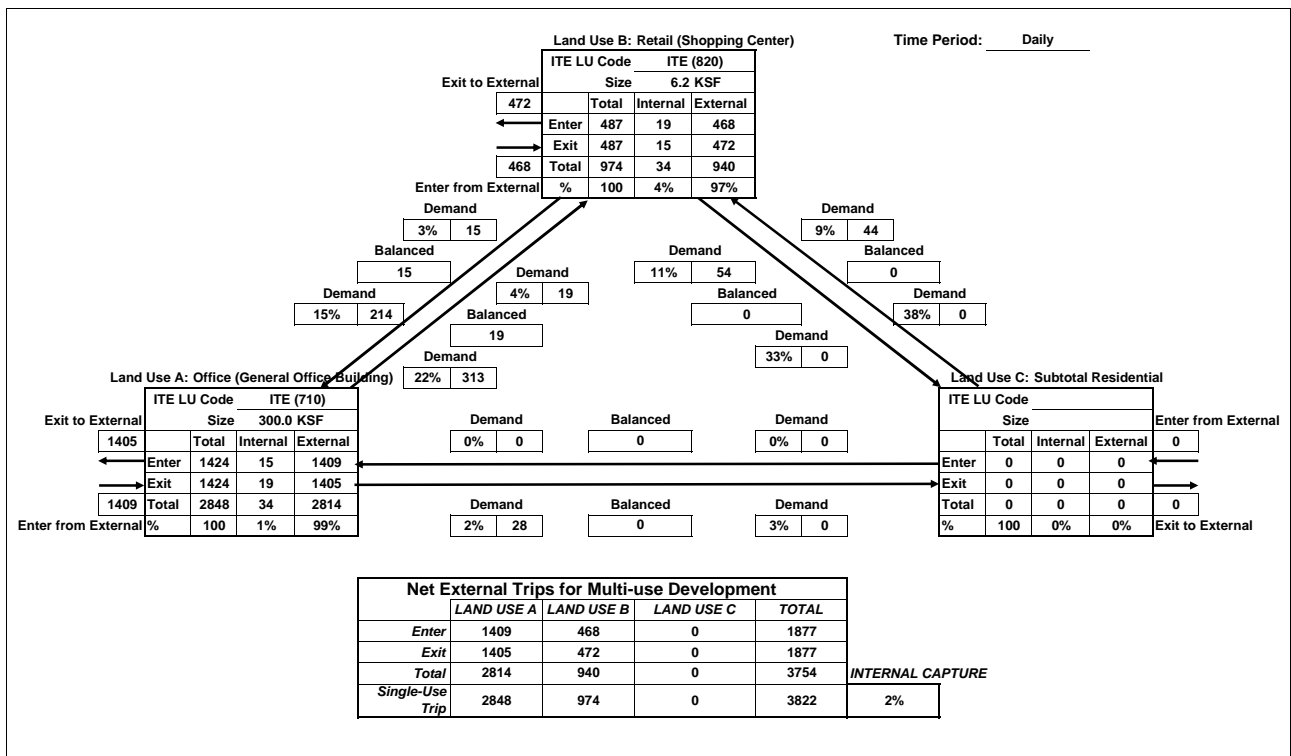


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

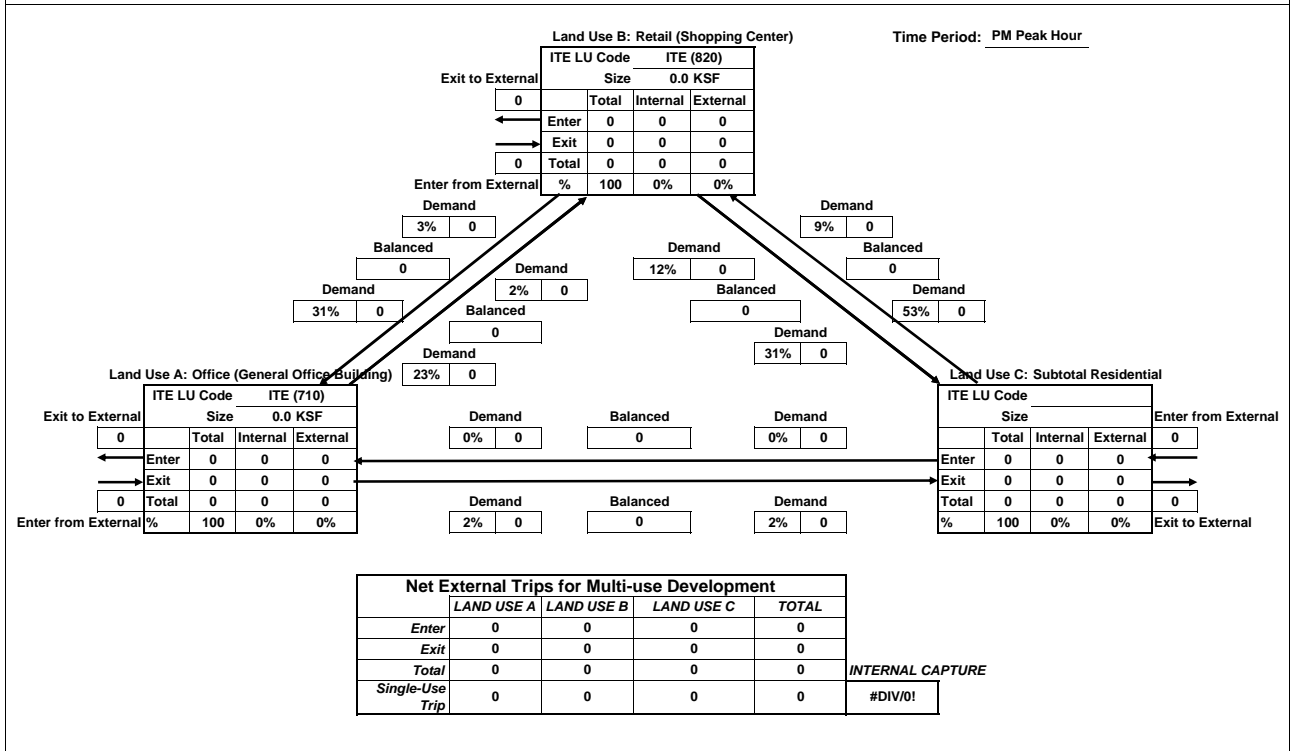
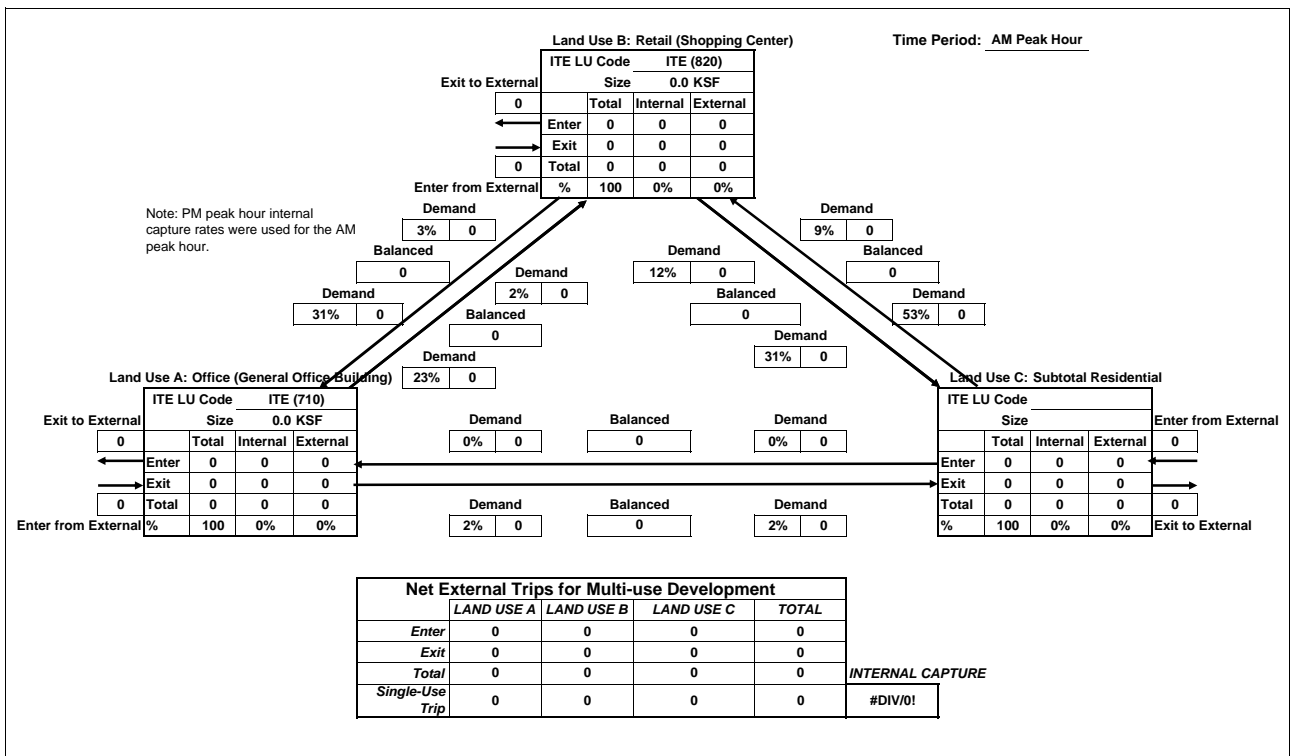


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



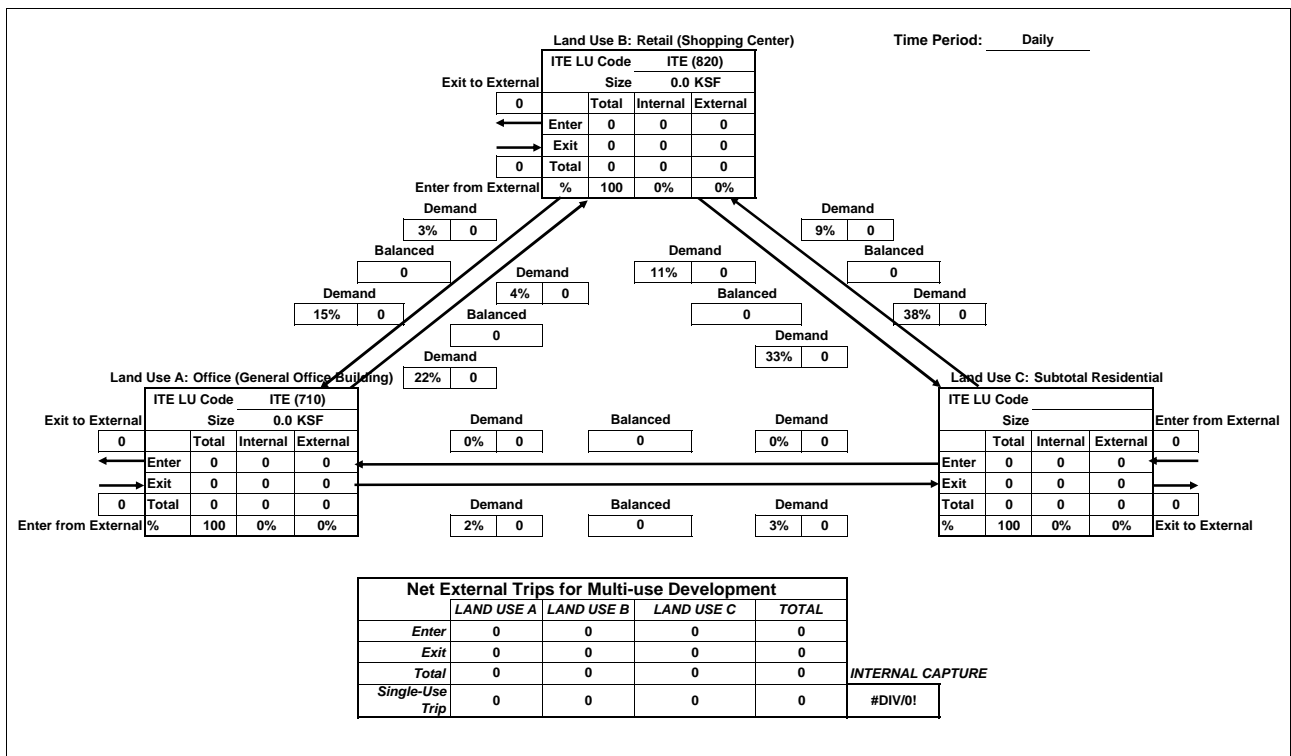
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

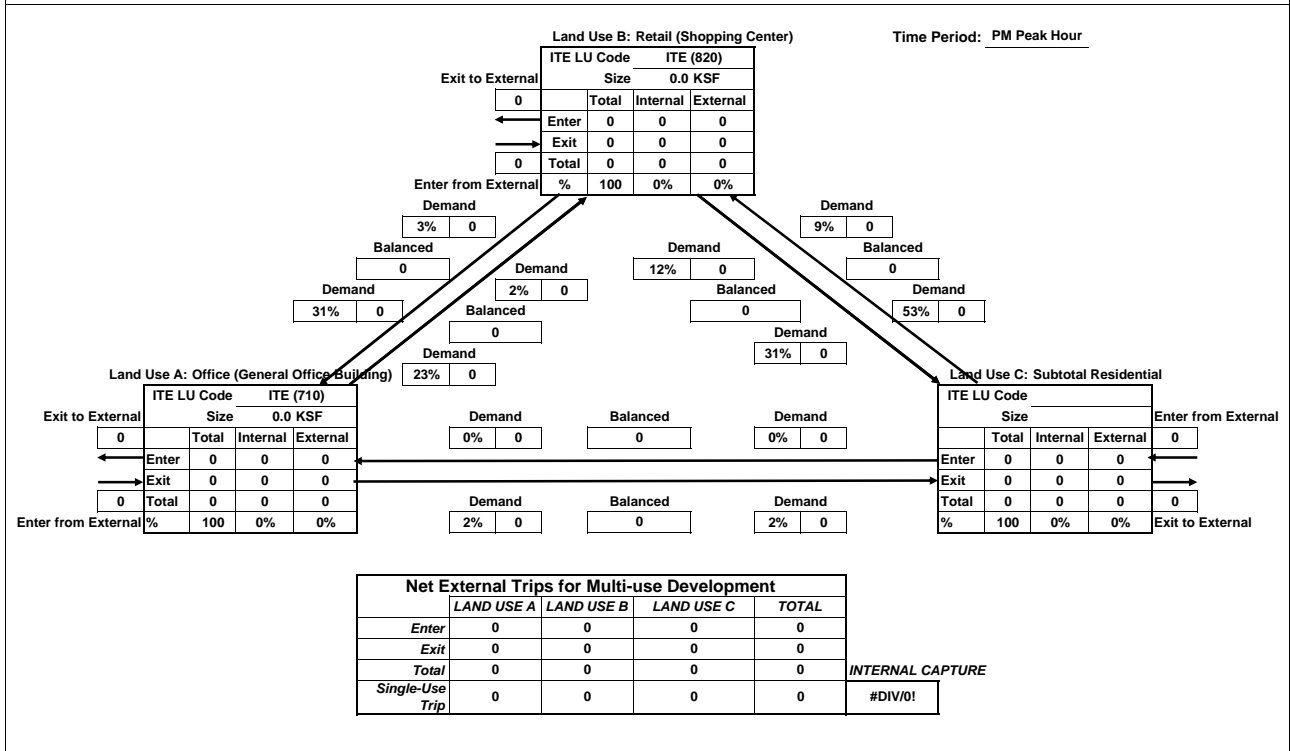
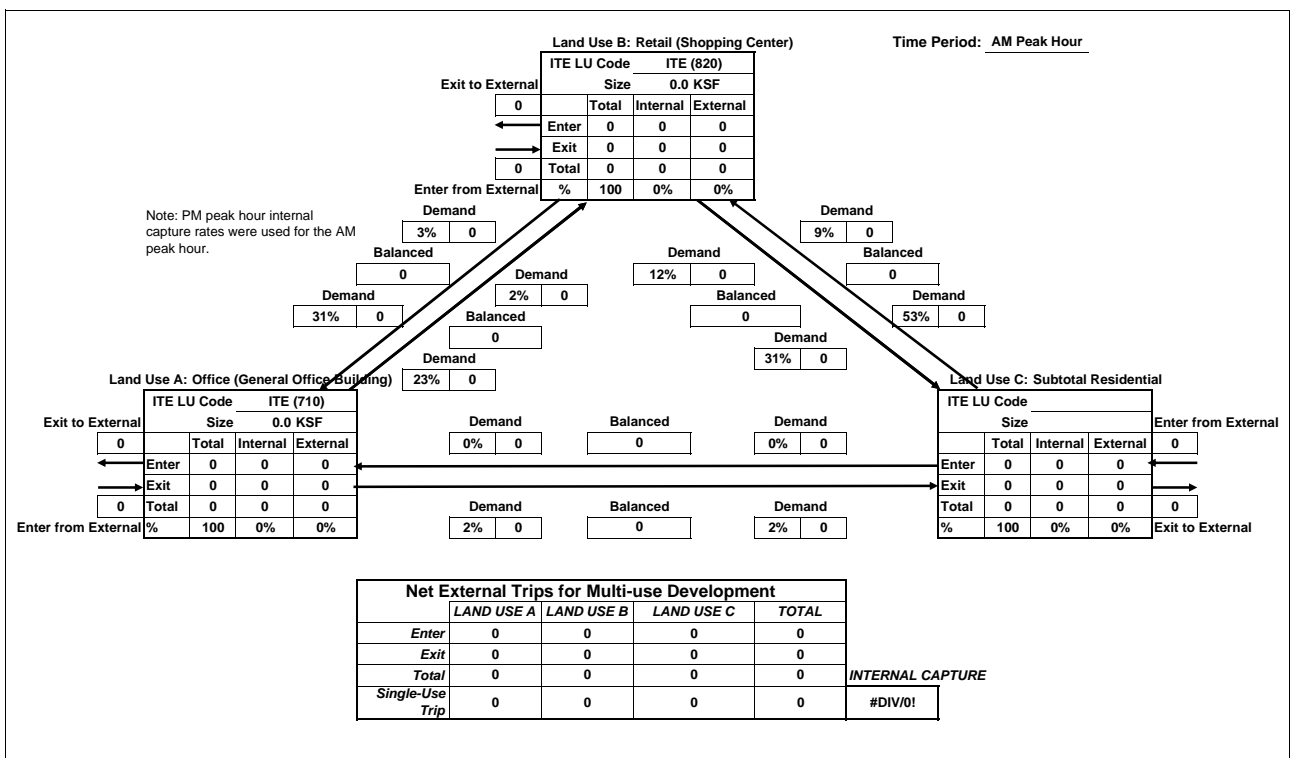


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



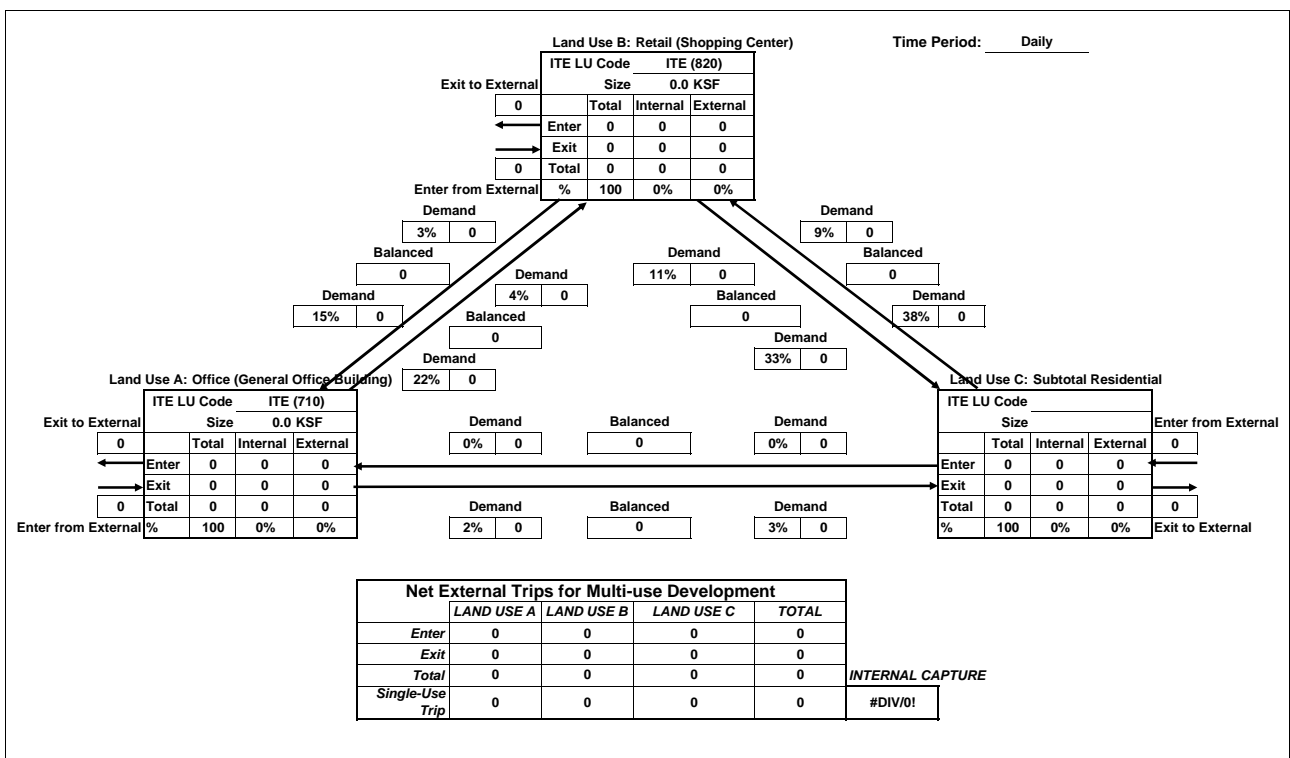
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

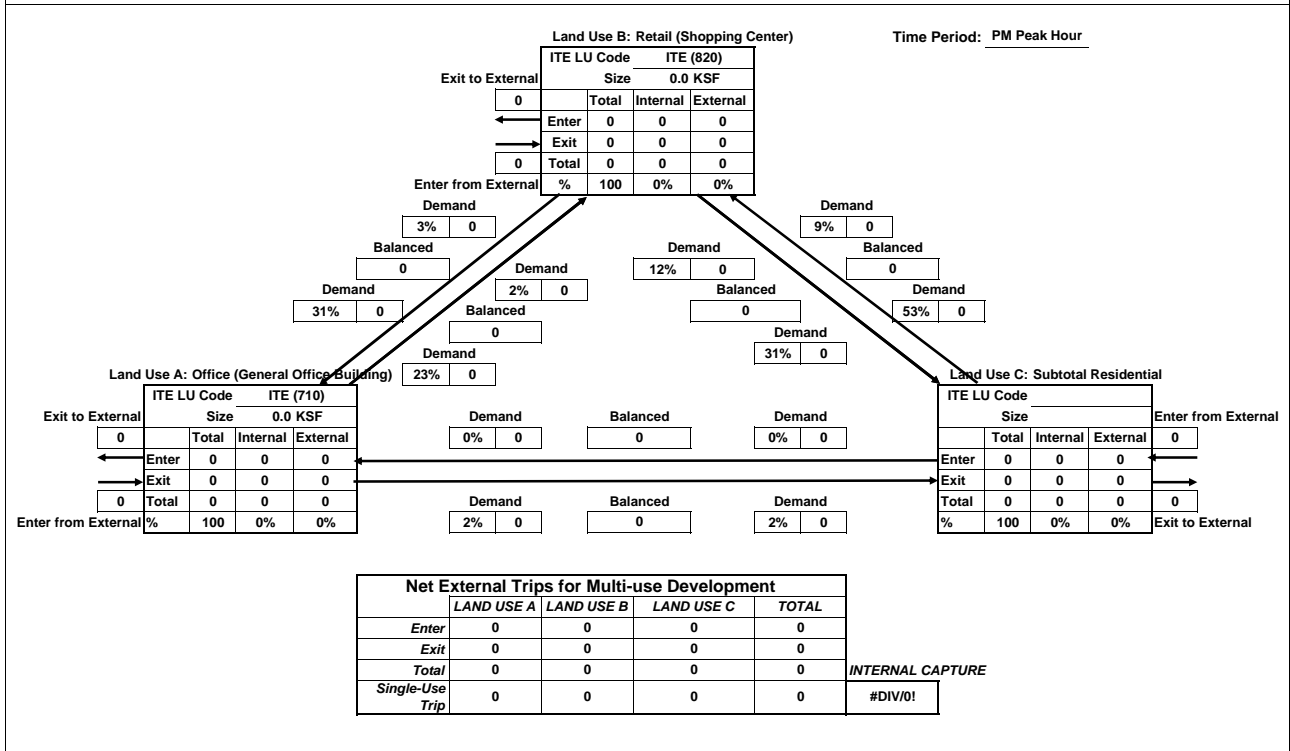
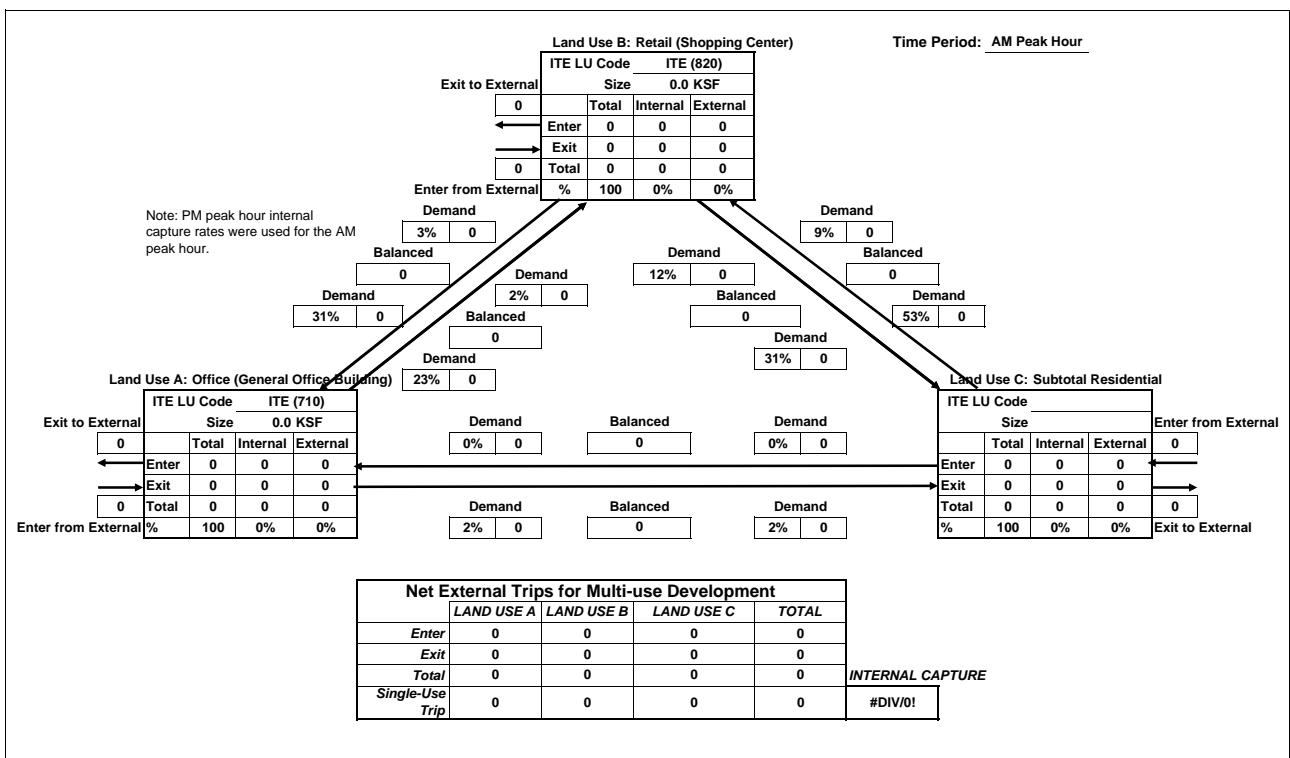


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



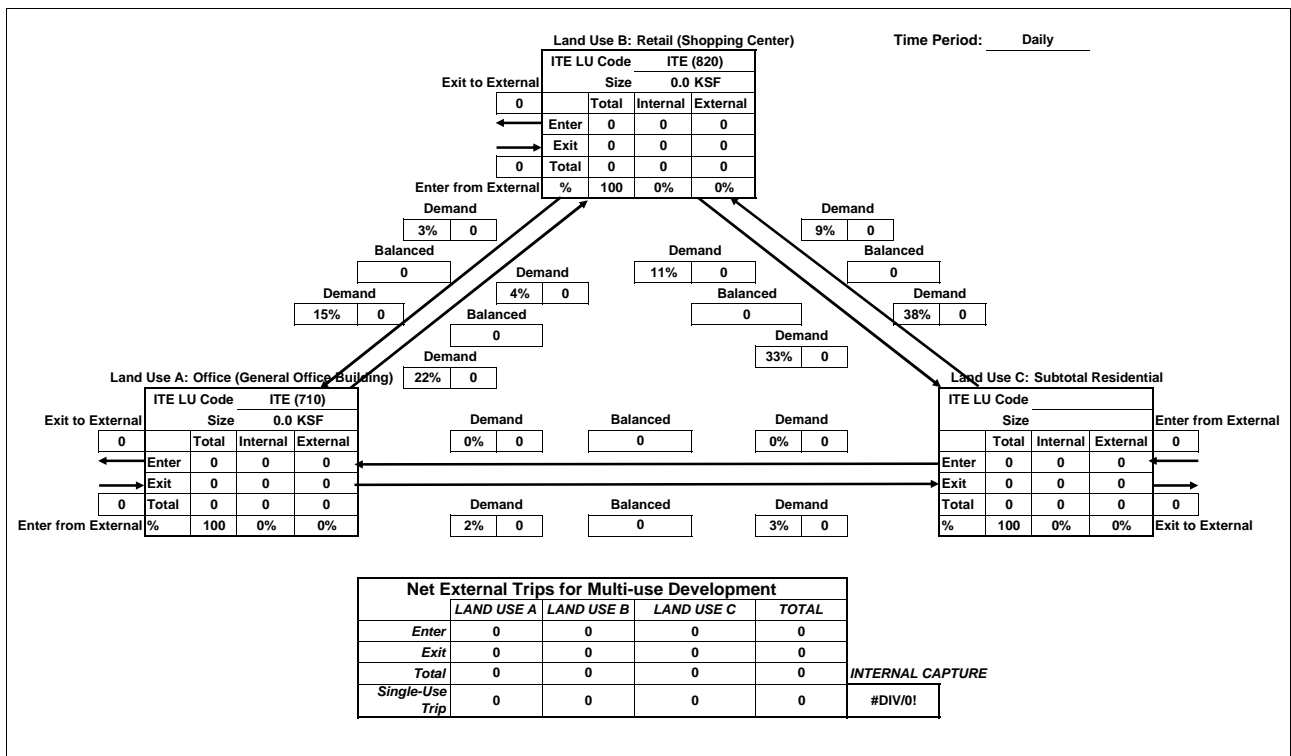
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

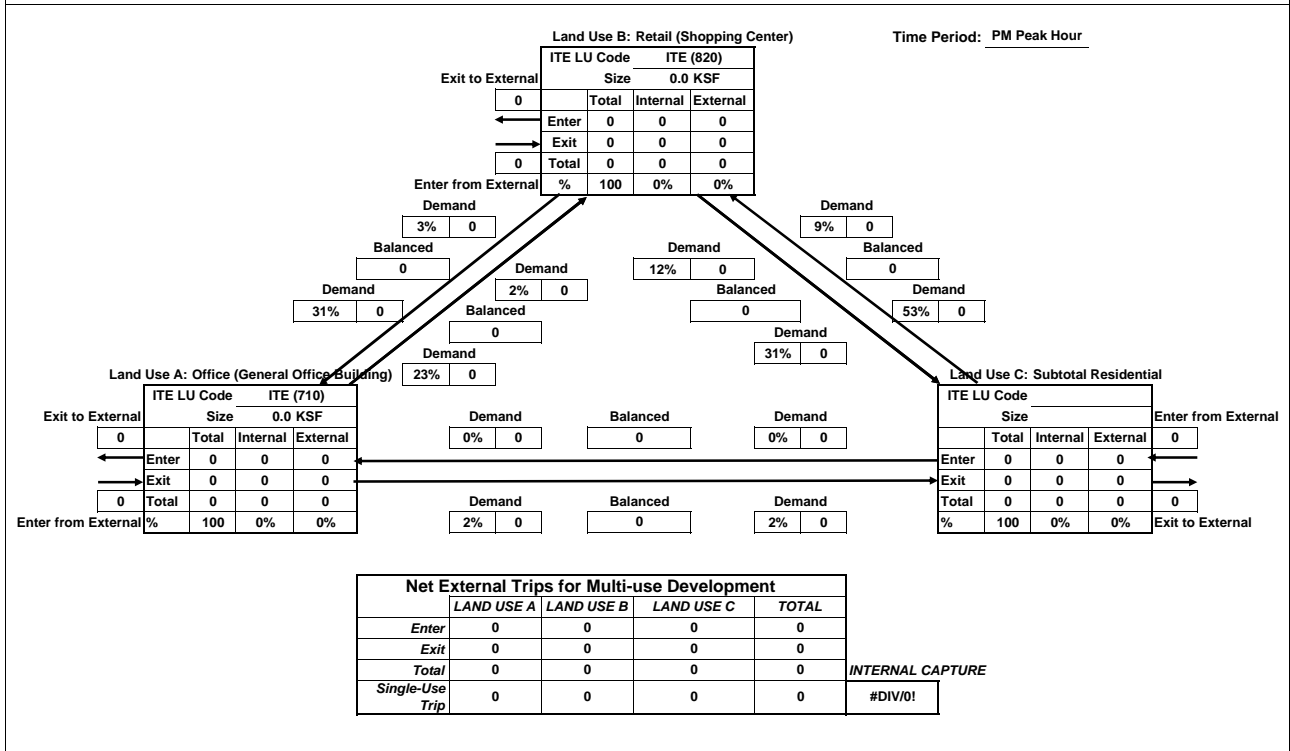
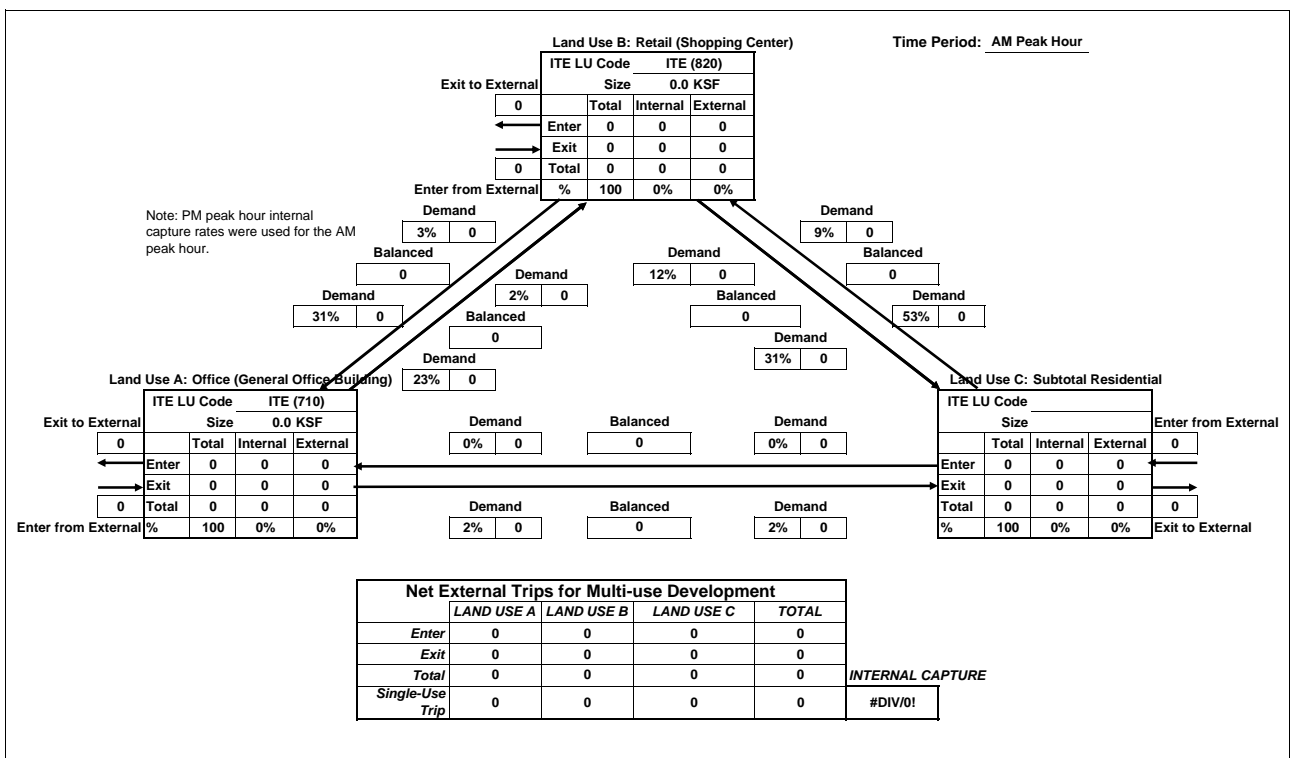


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



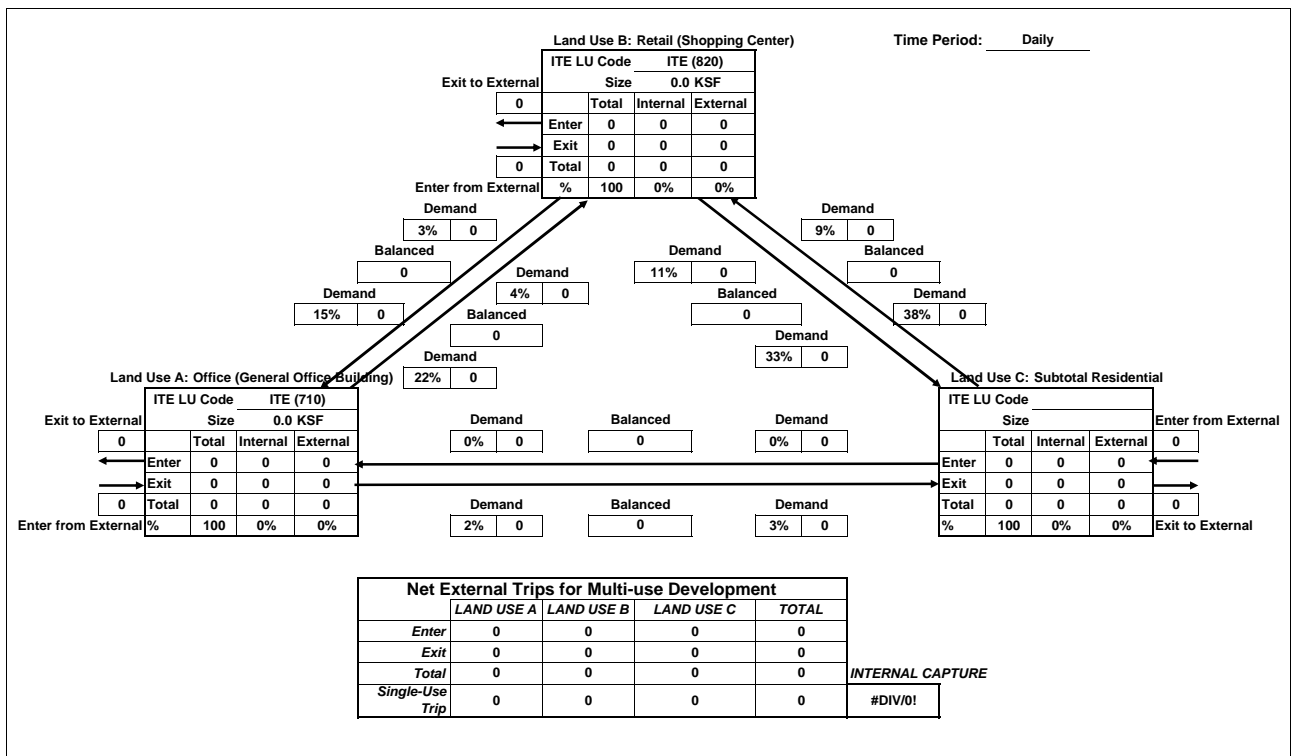
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 20: Bounded by South Park, N. 10th, Railyards, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

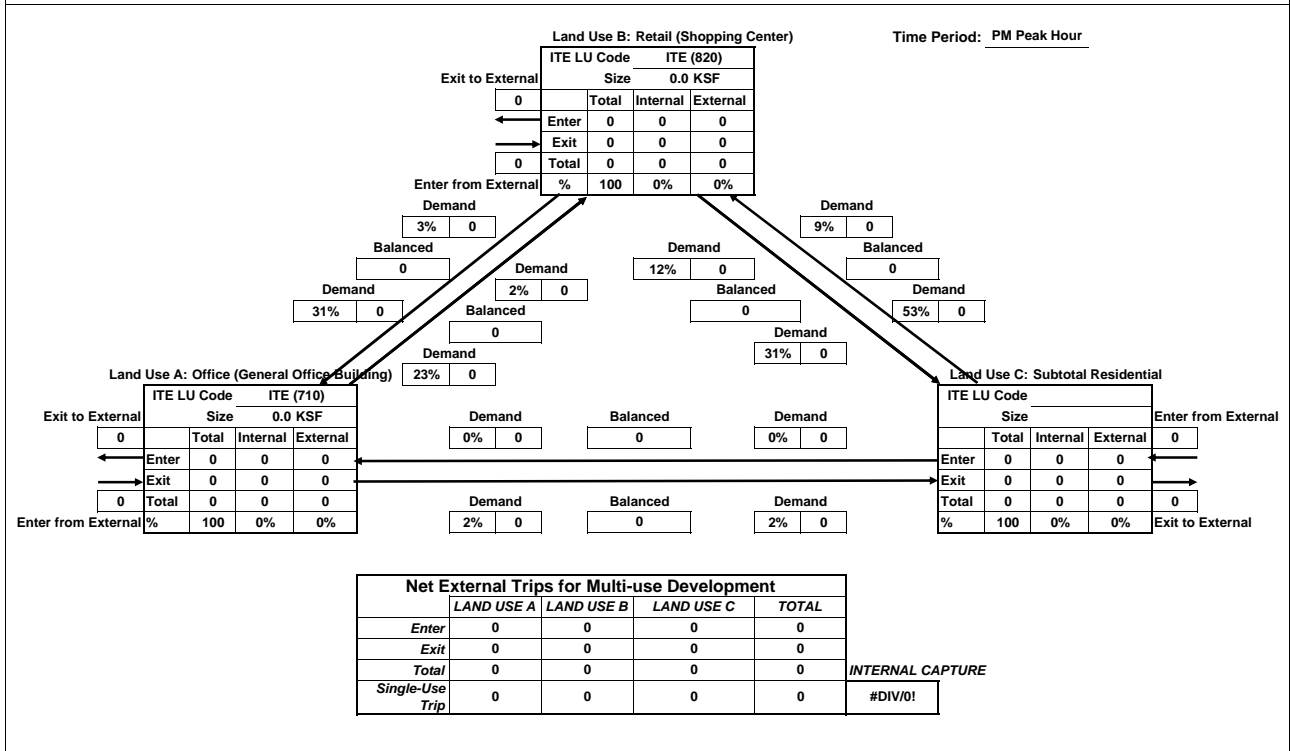
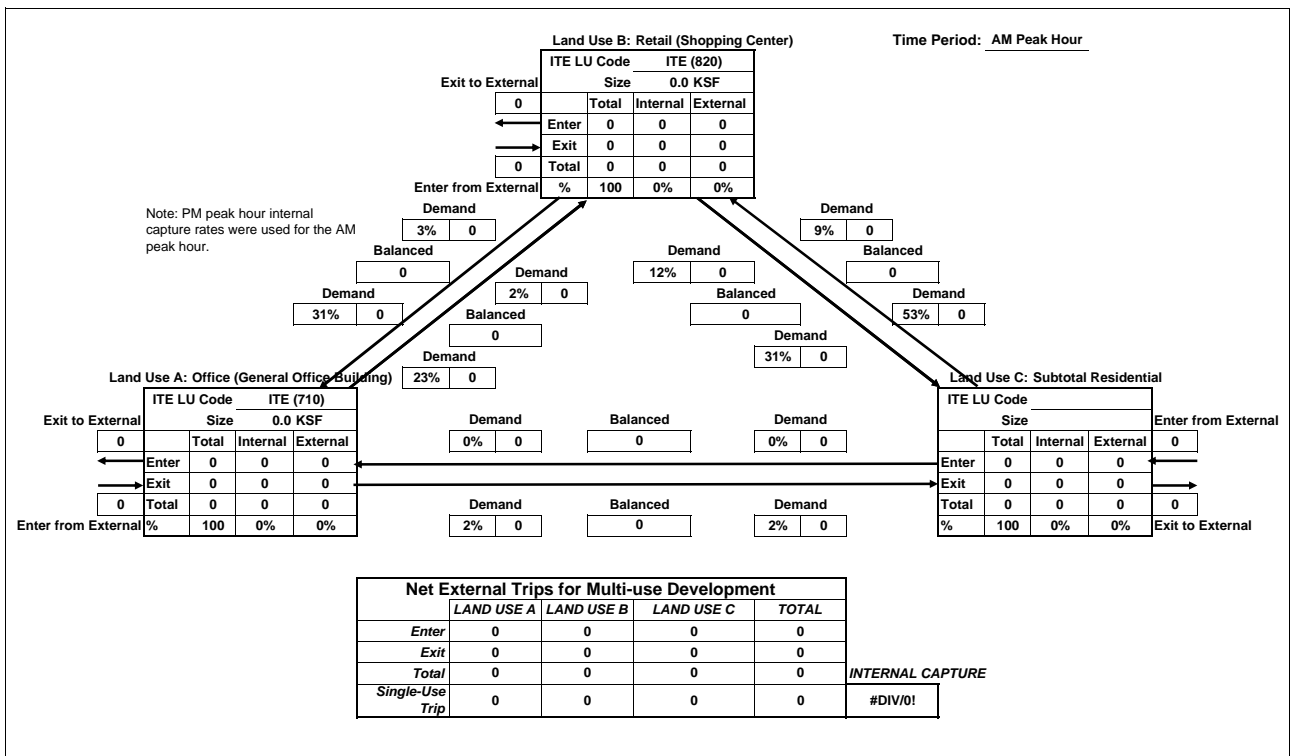


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

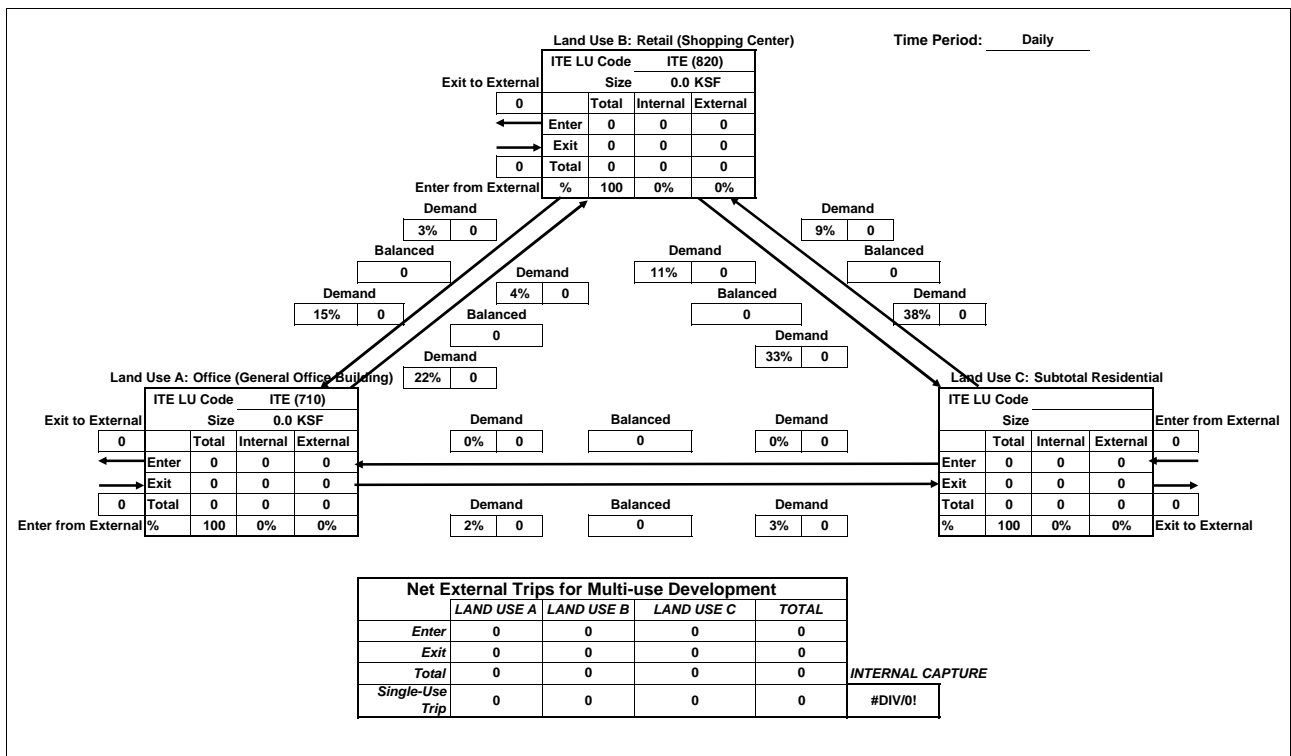


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

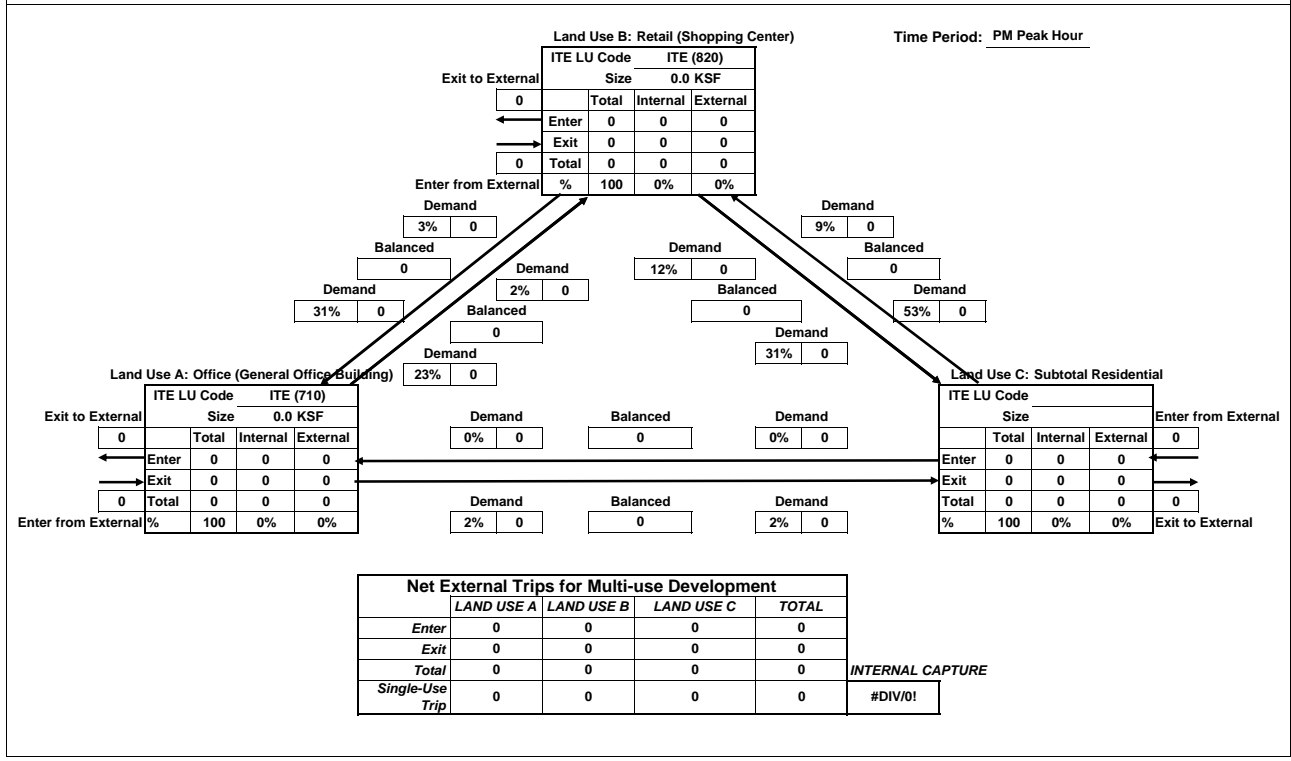
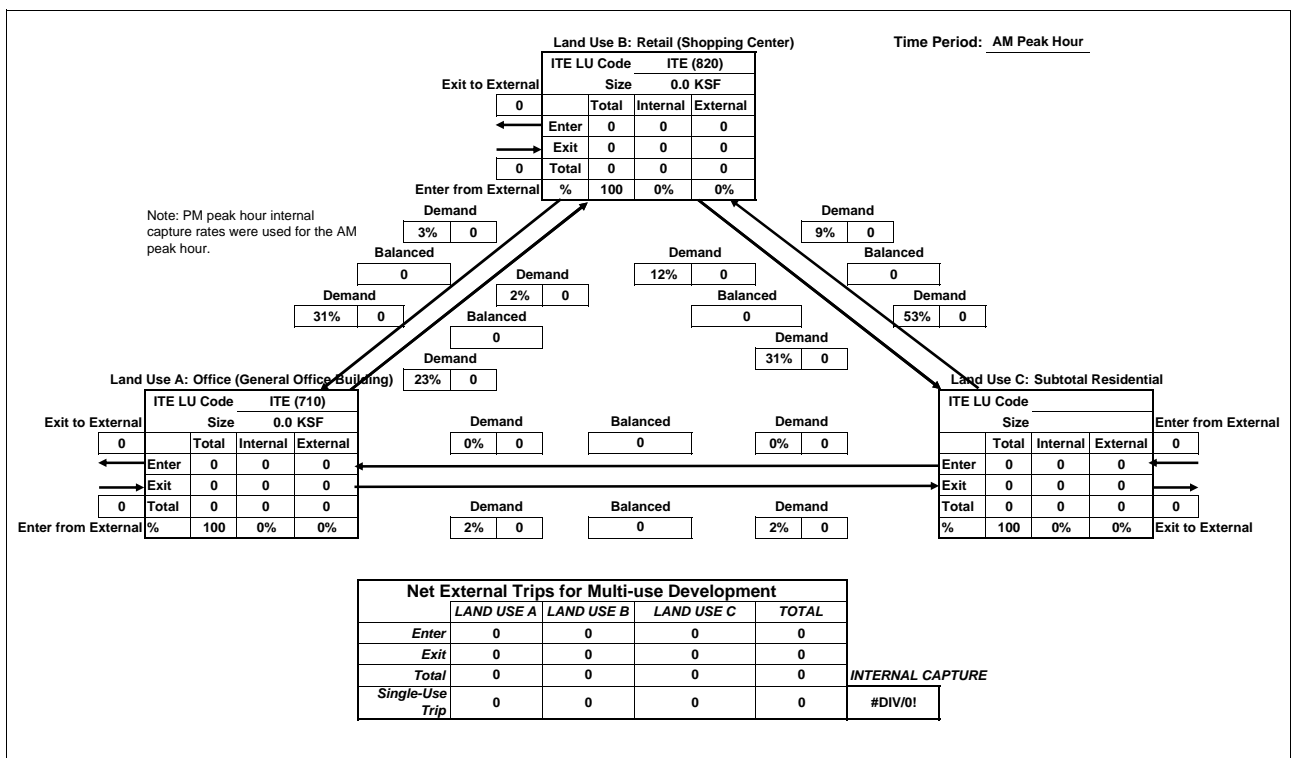
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



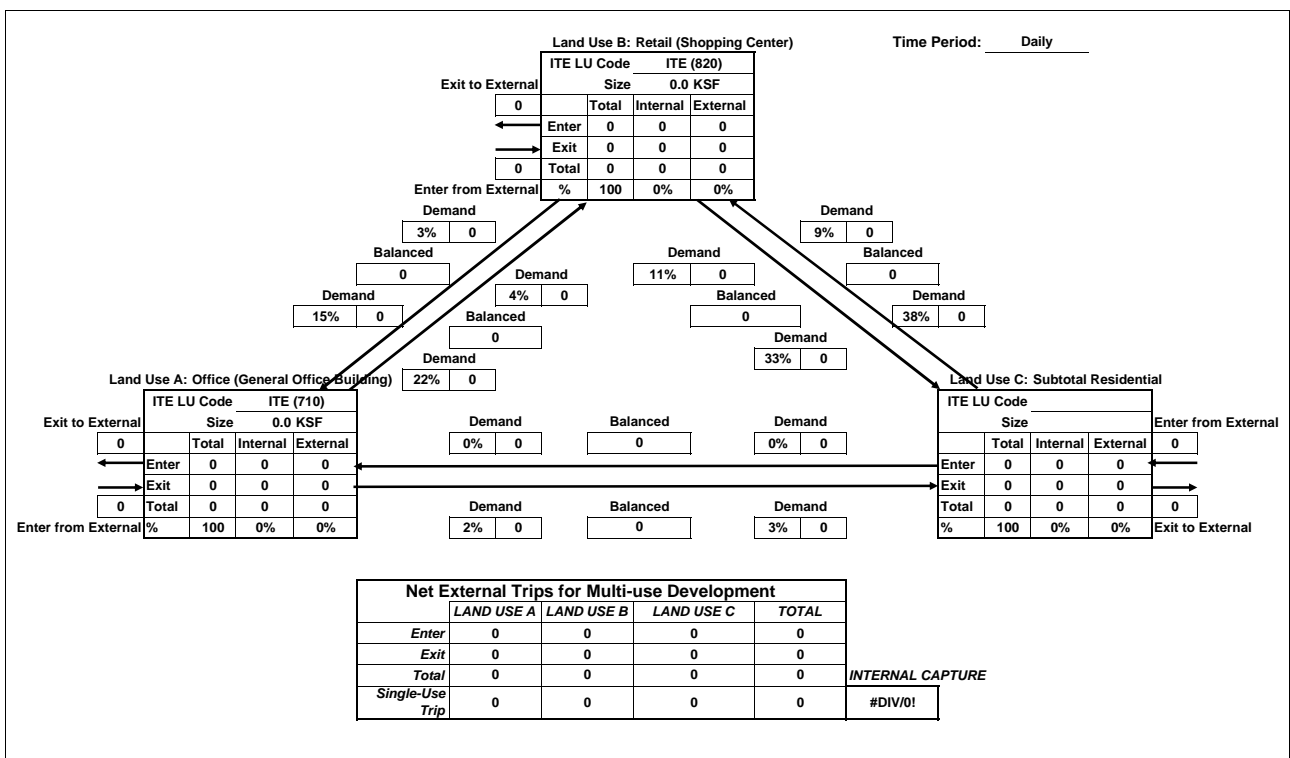
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

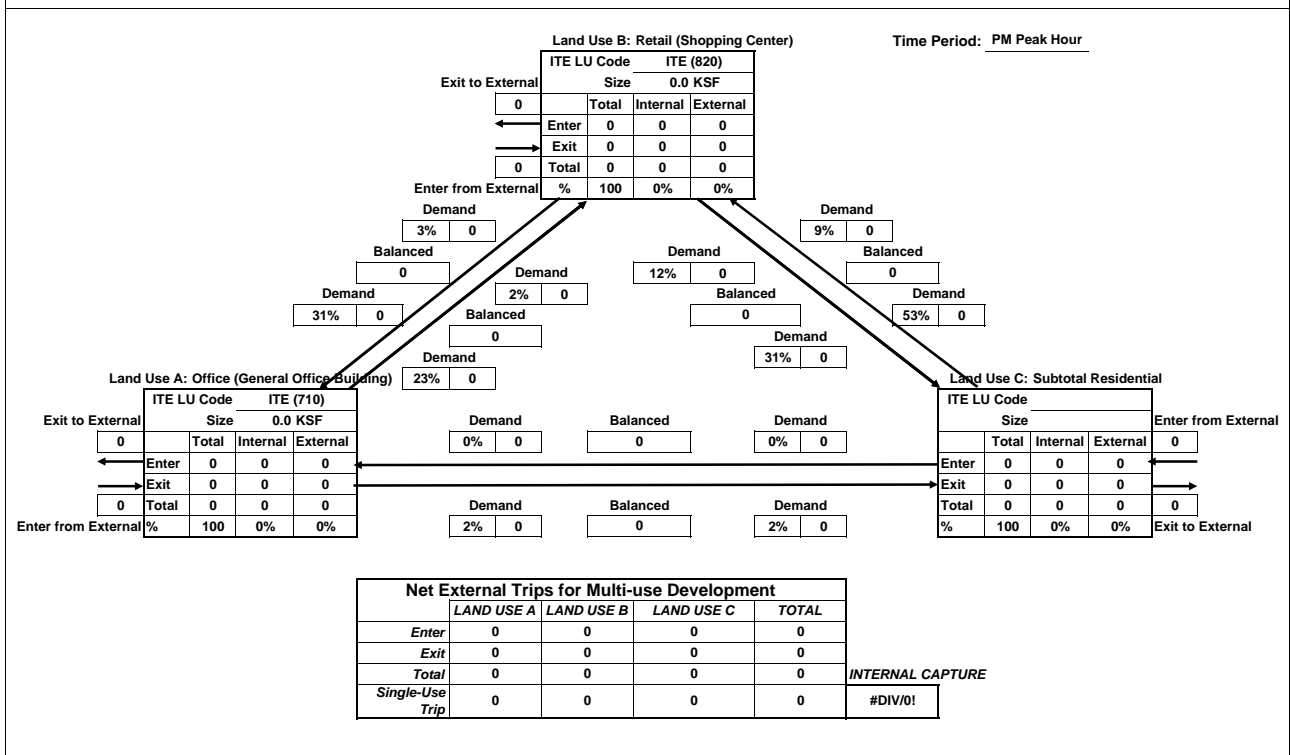
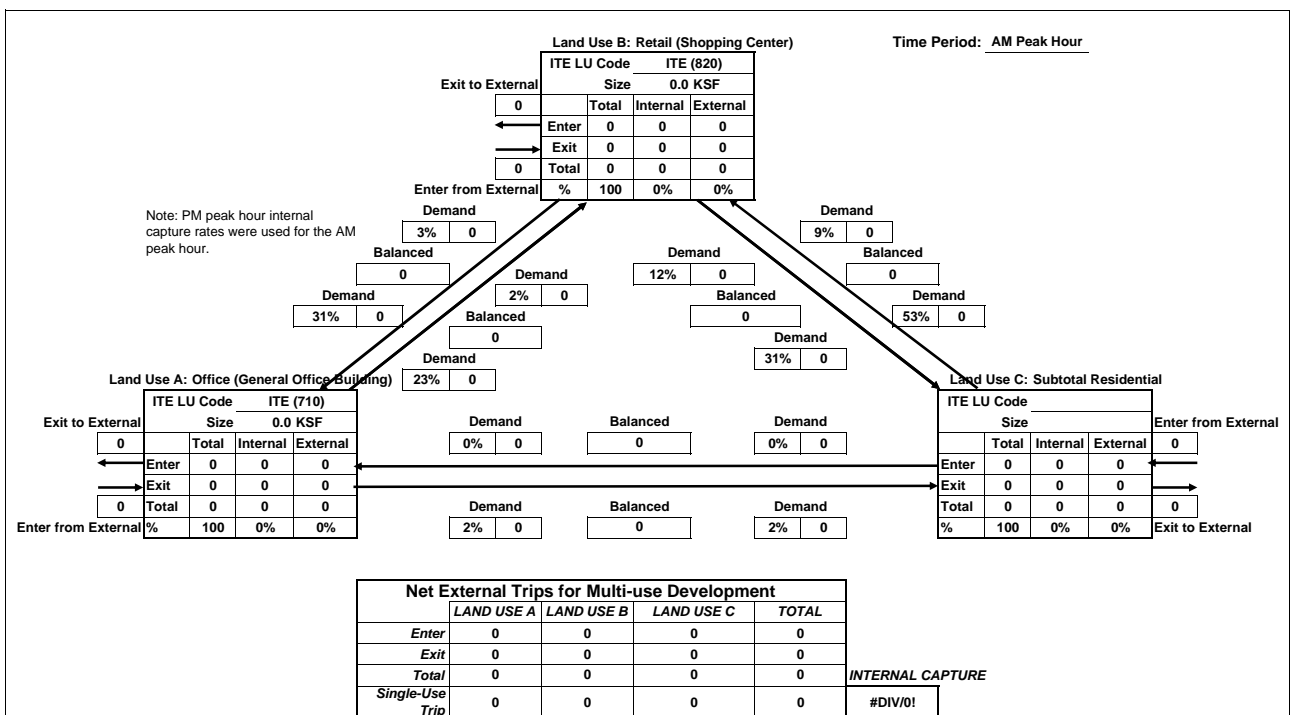


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

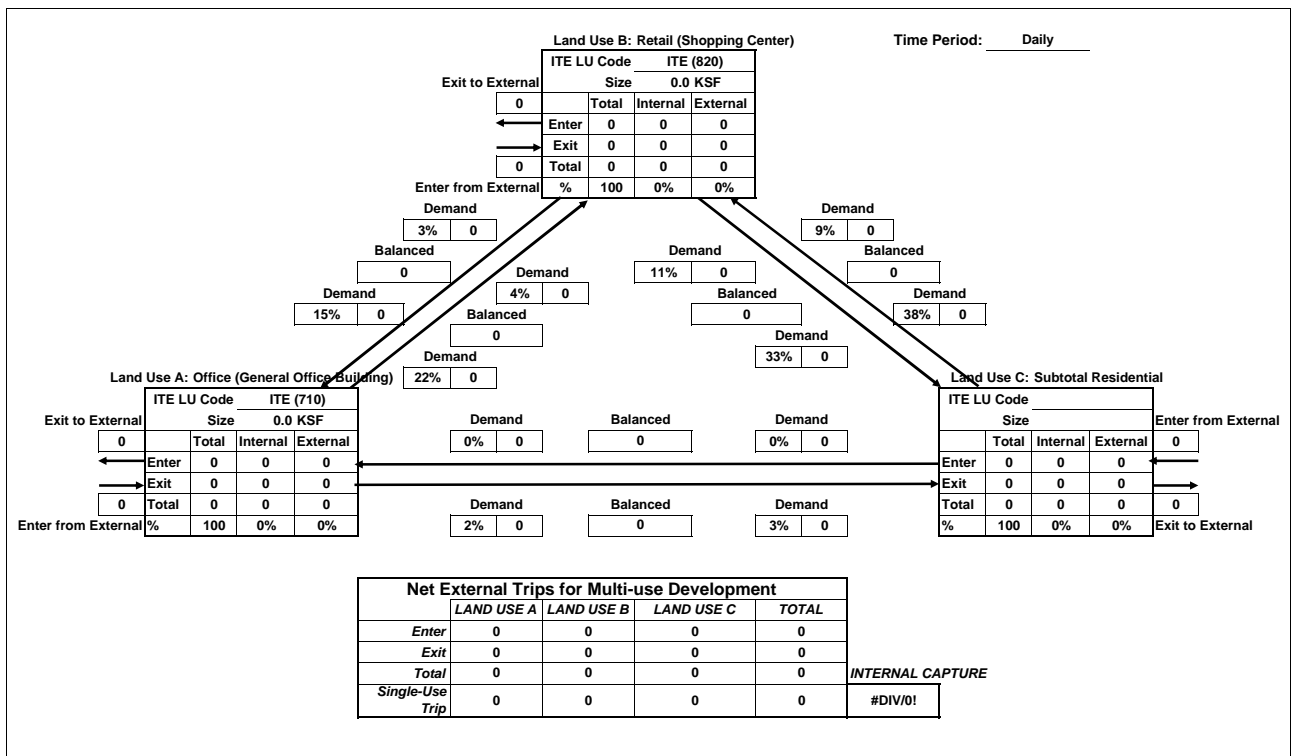


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

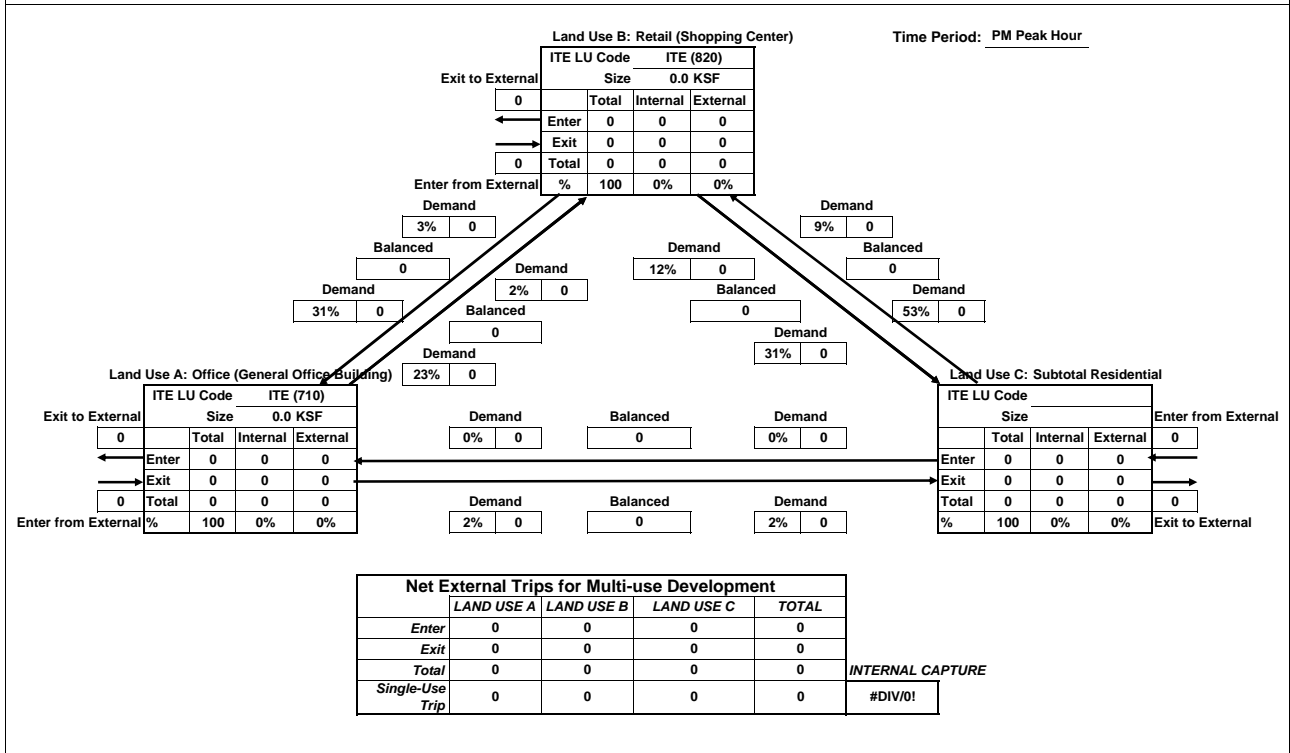
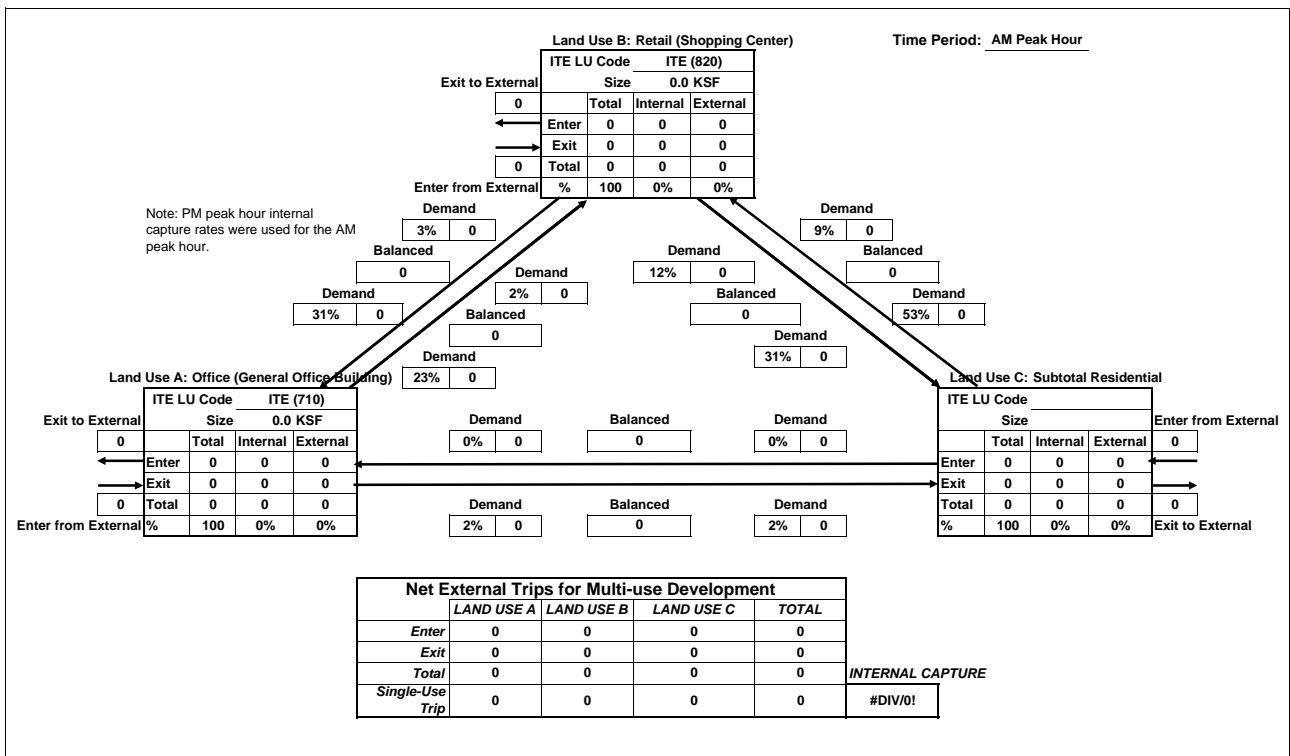


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



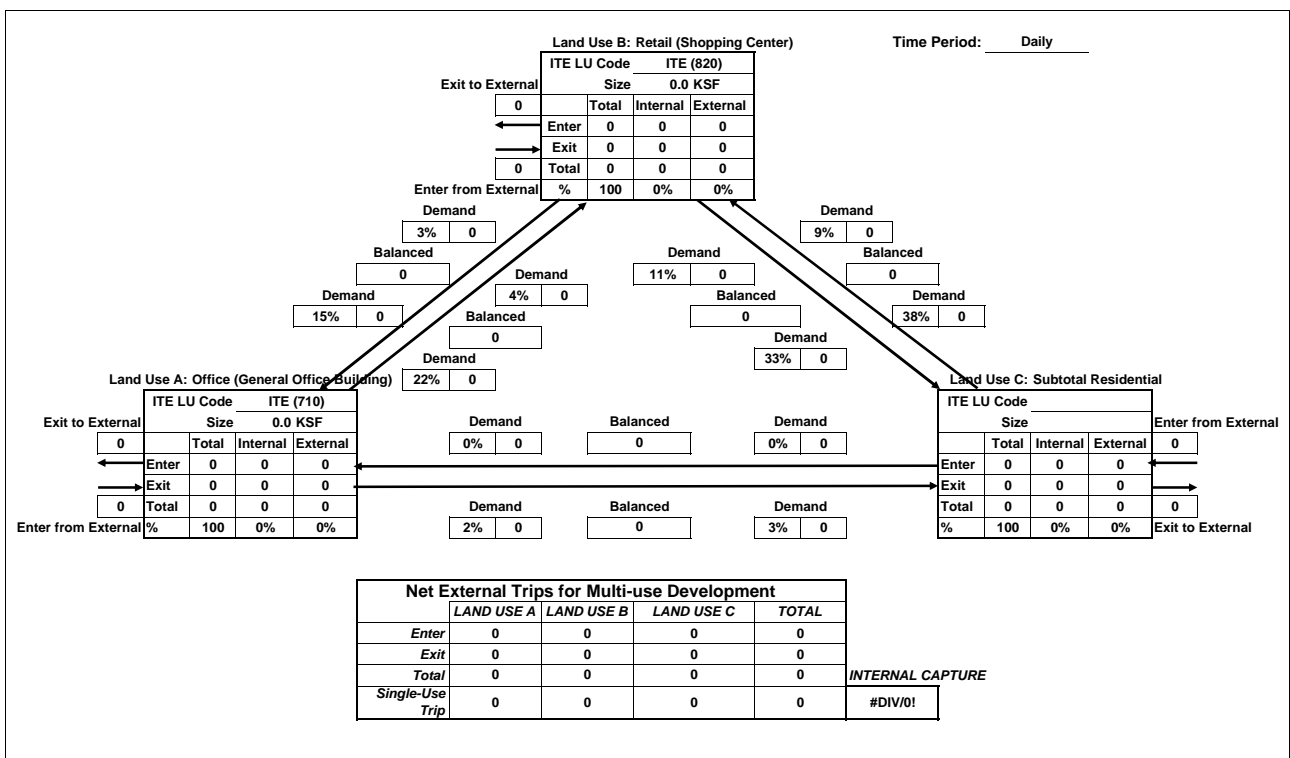
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 24: Bounded by Property Boundary, Railyards, N. 10th

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

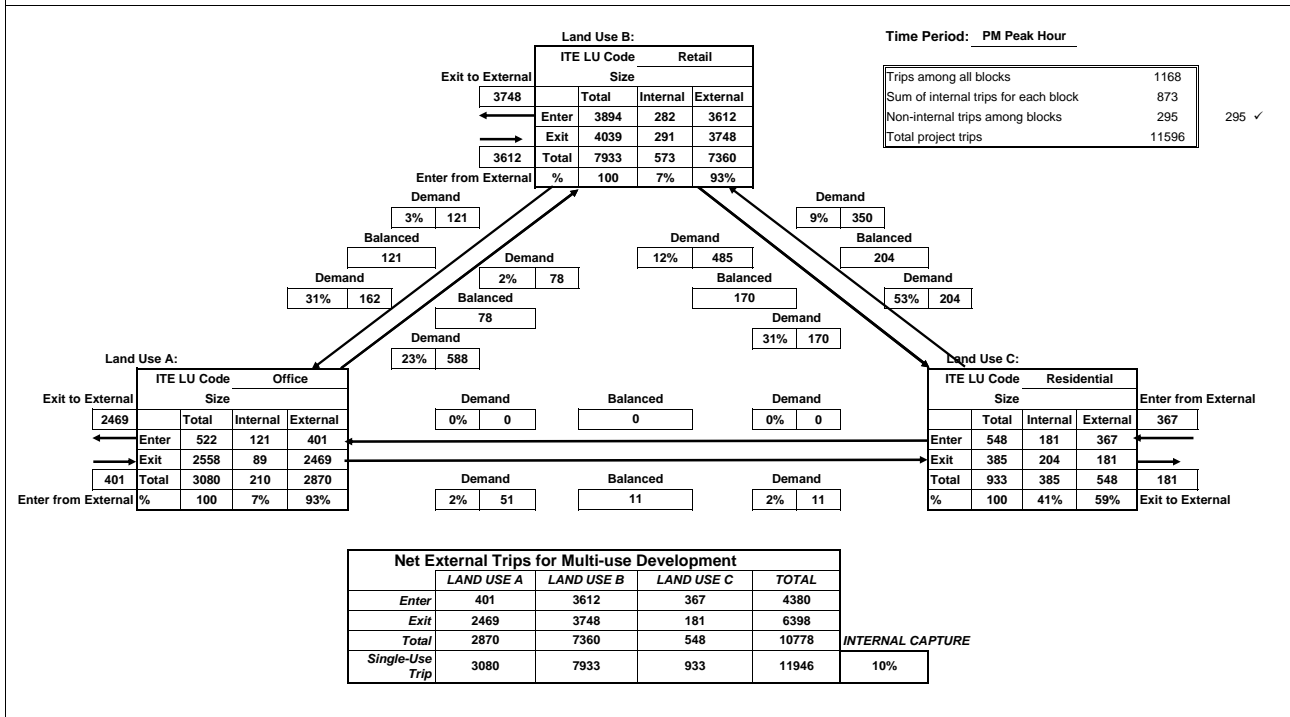
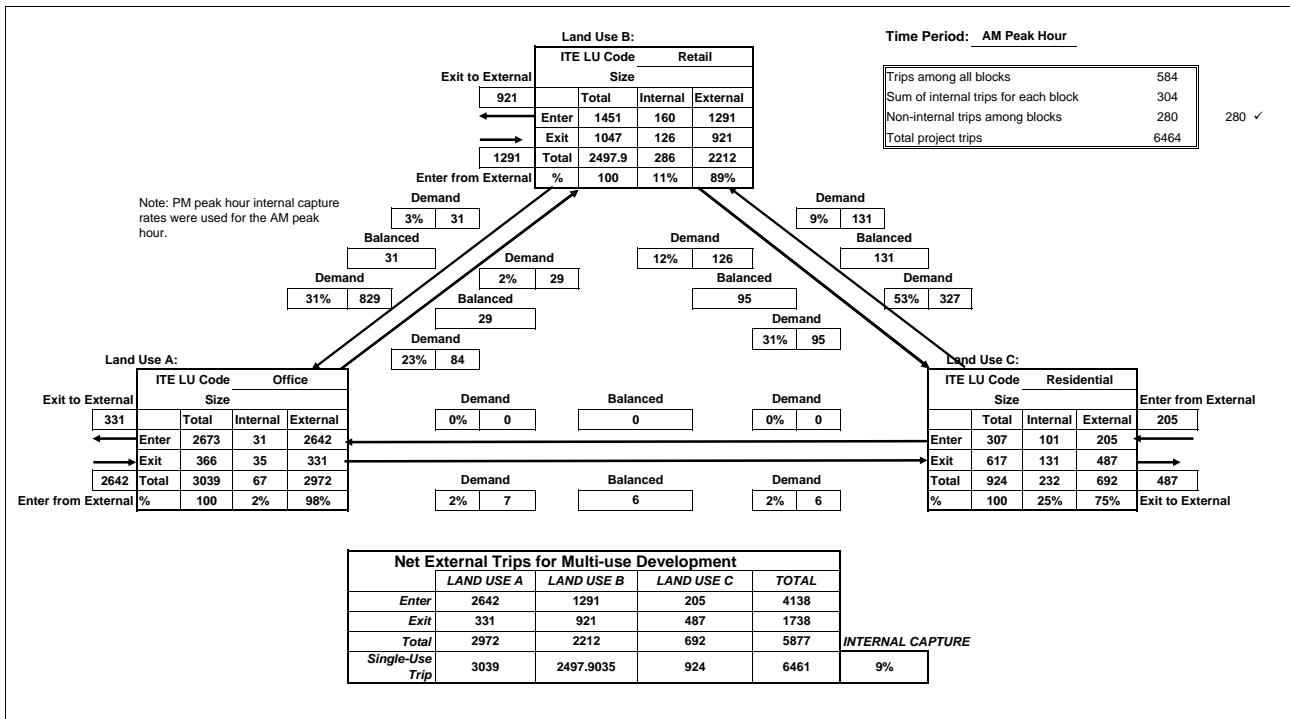


**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling

Name of Development: Downtown Study
Initial Phase with Maximum Office (Baseline & 2013)

Date: 8/17/2007



Analyst: Dowling

Date: 8/17/2007

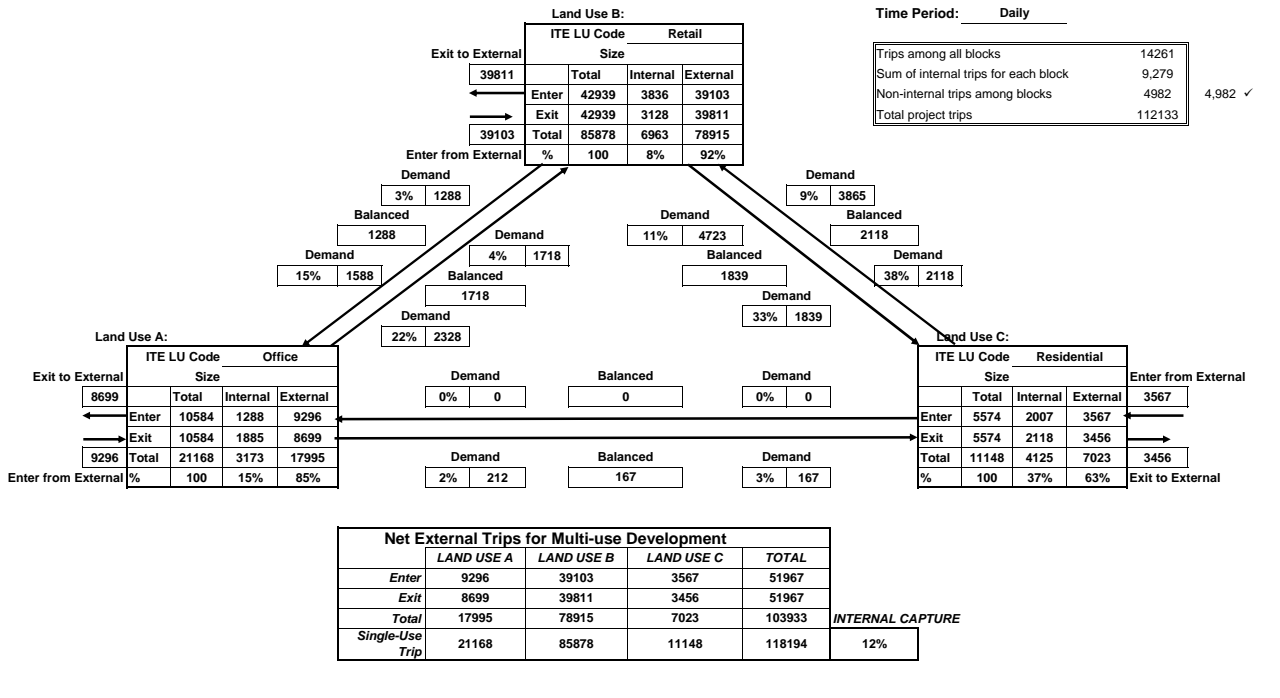
**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Name of Development: Downtown Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

Trips among all blocks	14261
Sum of internal trips for each block	9,279
Non-internal trips among blocks	4982
Total project trips	112133

4,982 ✓



Initial Phase with Maximum Residential (Baseline & 2013)

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	837 Units	5,596	208	220	428	237	188	425
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,200	365	320	685	755	749	1,504
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-1,883	-34	-30	-64	-81	-81	-162
Internal Trips Within This Block (-11.9%)		-2,052	-23	-23	-46	-101	-101	-201
Trips To-From Other Blocks within the Project (-3.7%)		-633	-17	-17	-34	-28	-28	-56
New External Trips (73%) of Total Trips for Block		12,632	291	250	541	546	539	1,085
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	595 Units	2,467	38	163	201	135	83	218
Other	0	0	0	0	0	0	0	0
Total Trips for Block		7,853	115	212	327	373	340	713
Transit Adjustments (-1.2%)		-91	-2	-2	-4	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-862	-12	-19	-31	-39	-37	-76
Internal Trips Within This Block (-12%)		-940	-11	-11	-22	-46	-46	-91
Trips To-From Other Blocks within the Project (-3.6%)		-285	-8	-8	-16	-13	-13	-26
New External Trips (72%) of Total Trips for Block		5,675	82	172	254	271	240	511
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-4.2%)		-483	-7	-7	-13	-23	-23	-46
New External Trips (84%) of Total Trips for Block		9,628	129	81	211	428	466	894
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	165 Units	846	15	62	77	45	27	72
Total Trips for Block		8,325	119	129	248	376	386	762
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-949	-13	-13	-26	-42	-44	-86
Internal Trips Within This Block (-6.5%)		-544	-13	-13	-25	-26	-26	-52
Trips To-From Other Blocks within the Project (-3.9%)		-326	-6	-6	-12	-15	-15	-31
New External Trips (78%) of Total Trips for Block		6,506	88	98	185	293	301	594

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	281 Units	1,283	21	89	110	69	42	111
Total Trips for Block		8,928	128	157	285	408	409	817
Transit Adjustments (-1.1%)		-101	-1	-3	-4	-5	-5	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,010	-14	-15	-29	-45	-47	-92
Internal Trips Within This Block (-9.1%)		-812	-14	-14	-29	-39	-39	-78
Trips To-From Other Blocks within the Project (-3.7%)		-334	-7	-7	-13	-16	-16	-31
New External Trips (75%) of Total Trips for Block		6,670	92	118	210	304	303	606
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	363 Units	1,592	25	109	134	86	53	139
Total Trips for Block		7,077	104	159	263	328	315	643
Transit Adjustments (-1.1%)		-81	-1	-2	-3	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11.1%)		-789	-11	-15	-26	-35	-35	-70
Internal Trips Within This Block (-12.7%)		-899	-11	-11	-23	-43	-43	-86
Trips To-From Other Blocks within the Project (-3.6%)		-253	-6	-6	-12	-12	-12	-23
New External Trips (71%) of Total Trips for Block		5,055	74	124	199	234	221	455
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	139 Units	685	28	27	54	40	34	74
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,347	604	459	1,062	860	964	1,824
Transit Adjustments (-1.7%)		-330	-10	-6	-16	-11	-16	-27
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-2,004	-62	-51	-113	-95	-87	-181
Internal Trips Within This Block (-3.5%)		-682	-35	-35	-69	-48	-48	-96
Trips To-From Other Blocks within the Project (-4%)		-780	-25	-25	-51	-37	-37	-74
New External Trips (80%) of Total Trips for Block		15,552	472	343	814	669	775	1,445

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	108 Units	631	11	49	60	32	20	52
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,214	234	222	456	761	796	1,557
Transit Adjustments (-1.2%)		-195	-2	-3	-5	-10	-9	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,837	-27	-24	-51	-85	-91	-175
Internal Trips Within This Block (-2.5%)		-399	-21	-21	-41	-19	-19	-37
Trips To-From Other Blocks within the Project (-4.1%)		-658	-11	-11	-21	-32	-32	-65
New External Trips (81%) of Total Trips for Block		13,125	174	163	338	615	645	1,262
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	263 Units	1,215	20	85	105	65	40	105
Total Trips for Block		4,184	65	113	178	195	180	375
Transit Adjustments (-1.2%)		-49	-1	-2	-3	-2	-3	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-461	-7	-9	-16	-21	-19	-40
Internal Trips Within This Block (-12.4%)		-518	-7	-7	-13	-25	-25	-50
Trips To-From Other Blocks within the Project (-3.6%)		-151	-4	-4	-9	-7	-7	-14
New External Trips (72%) of Total Trips for Block		3,005	46	91	137	140	126	266
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	96 Units	401	6	26	33	23	14	36
Total Trips for Block		4,022	60	60	121	182	186	367
Transit Adjustments (-1.1%)		-45	-1	-1	-2	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-459	-7	-6	-13	-20	-21	-41
Internal Trips Within This Block (-6.3%)		-254	-6	-6	-12	-13	-13	-26
Trips To-From Other Blocks within the Project (-3.9%)		-156	-3	-3	-6	-7	-7	-14
New External Trips (77%) of Total Trips for Block		3,108	43	44	89	139	143	281
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	227 Units	1,079	18	77	95	58	35	93
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		4,474	308	163	471	215	392	607
Transit Adjustments (-2.4%)		-109	-5	-3	-8	-3	-5	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-8.6%)		-384	-13	-10	-23	-18	-21	-39
Internal Trips Within This Block (-8.2%)		-368	-5	-5	-9	-18	-18	-35
Trips To-From Other Blocks within the Project (-3.9%)		-173	-13	-13	-25	-13	-13	-26
New External Trips (77%) of Total Trips for Block		3,441	273	133	405	164	336	499
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	619 Units	2,557	40	168	208	140	86	226
Total Trips for Block		4,269	67	185	252	214	166	380
Transit Adjustments (-1.2%)		-52	-1	-3	-4	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-444	-6	-15	-21	-21	-16	-37
Internal Trips Within This Block (-7%)		-299	-4	-4	-8	-14	-14	-28
Trips To-From Other Blocks within the Project (-3.9%)		-166	-6	-6	-13	-8	-8	-15
New External Trips (77%) of Total Trips for Block		3,308	50	157	206	168	126	295

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	160 Units	827	14	61	75	43	27	70
Total Trips for Block		6,937	101	116	217	313	319	632
Transit Adjustments (-1.1%)		-78	-1	-2	-3	-4	-3	-7
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-788	-11	-11	-22	-35	-36	-71
Internal Trips Within This Block (-7.6%)		-524	-11	-11	-22	-25	-25	-50
Trips To-From Other Blocks within the Project (-3.8%)		-265	-5	-5	-10	-12	-12	-25
New External Trips (76%) of Total Trips for Block		5,282	73	87	160	237	243	479
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	273 Units	1,253	21	87	108	67	41	108
Total Trips for Block		2,367	39	99	138	115	93	208
Transit Adjustments (-1.2%)		-28	0	-2	-2	-1	-2	-3
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-249	-4	-8	-12	-12	-9	-21
Internal Trips Within This Block (-8.2%)		-195	-3	-3	-6	-9	-9	-18
Trips To-From Other Blocks within the Project (-3.8%)		-90	-3	-3	-7	-4	-4	-8
New External Trips (76%) of Total Trips for Block		1,805	29	83	112	89	69	158
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 20: Bounded by South Park, N. 10th, Railyards, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	
Subtotal Residential	0 Units	0	0	0	0	0	0	
-----		-----		-----		-----		
Total Trips for Block		0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Total Project Trips								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	4,126 Units	20,432	465	1,223	1,688	1,041	689	1,729
Other		3,528	258	65	323	102	445	546
Total Project Trips		122,636	2,463	2,493	4,955	5,606	5,847	11,452
Transit Adjustments (-0.9%)		-1,159	-25	-29	-54	-50	-55	-104
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-13,446	-239	-237	-476	-608	-608	-1,214
Internal Trips Within This Block (-6.9%)		-8,486	-163	-163	-325	-425	-425	-850
Trips To-From Other Blocks within the Project (-3.9%)		-4,753	-120	-120	-240	-227	-227	-455
New External Trips (77%) of Total Project Trips		94,792	1,916	1,945	3,860	4,296	4,532	8,829

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		77.3%				77.9%			77.1%

Table Xb: Transit Trips for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)							
City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	241	6	6	12	11	11	22
Block 2: Bounded by South Park, 5th, Railyards, Crocker	109	2	4	6	5	5	10
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	149	2	1	3	7	7	14
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	111	1	3	4	5	5	10
Block 6: Bounded by Railyards, 5th, Camille, Crocker	120	1	3	4	5	6	11
Block 7: Bounded by Railyards, 6th, Camille, 5th	96	2	3	5	5	5	10
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	382	12	7	19	13	27	40
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	231	3	3	6	11	11	22
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	58	1	2	3	3	3	6
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	53	1	1	2	3	2	5
Block 13: Bounded by Rail Lines, 6th, G, 5th	125	17	6	23	6	18	24
Block 14: Bounded by Rail Lines, 7th, G, 6th	63	2	3	5	3	3	6
Block 15: Bounded by G, 6th, H, 6th	92	1	3	4	4	4	8
Block 16: Bounded by G, 7th, Property Boundary, 6th	34	0	2	2	1	2	3
Block 17: Bounded by N. B, 7th, South Park, 5th	0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th	0	0	0	0	0	0	0
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	0	0	0	0	0	0	0
Block 21: SITF Site	0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th	0	0	0	0	0	0	0
Total New Transit Trips	1,864	51	47	98	82	109	191

Source: Dowling Associates, Inc. 2006

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 OS	1	1	0.75							
1 RRMU	2	1	4.31		200,000					
1 RRMU	3a	1	2.84							
2 OS	3b	1	0.13							
2 RRMU	3c	1	0.93			500				
2 RRMU	3d	1	0.73	197	28,000				32,000	29
2 OS	3e	1	0.67							
2 RRMU	3f	1	0.28	140						
Subtotal				337	228,000	500	0	0	32,000	29
2 RRMU	5a	2	1.14	104						
2 RRMU	5b	2	0.68	106	27,000				29,000	26
2 RRMU	6a	2	1.28	242						
2 RRMU	6b	2	1.07	143	43,000				47,000	43
2 OS	6c	2	0.15							
Subtotal				595	70,000	0	0	0	76,000	69
1 RRMU	33	3	2.62							
1 RRMU	11a	4	4.42		223,000					
1 OS	11b	4	0.27							
Subtotal				0	223,000	0	0	0	0	0
1 RRMU	10a	5	3.88	165	116,000				65,000	59
1 OS	10b	5	0.57							
Subtotal				165	116,000	0	0	0	65,000	59
1 RRMU	8a	6	0.61	47	27,000				27,000	25
1 RRMU	8b	6	1.22	83	33,000				38,000	35
1 RRMU	9a	6	0.60	68	26,000				26,000	24
1 RRMU	9b	6	1.27	83	34,000				38,000	35
Subtotal				281	120,000	0	0	0	129,000	119
2 RRMU	7a	7	2.06	202	18,000				18,000	16
2 RRMU	7b	7	1.19	161	54,000				58,000	53
2 OS	7c	7	0.03							
Subtotal				363	72,000	0	0	0	76,000	69
3 ORMU	47a	8	2.21							
1 RRMU	47b	8	0.78							
1 ORMU	48	8	2.56							

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				0	0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 RRMU	12	9	1.17	39	71,000				43,000	39
1 RRMU	13a	9	0.11		3,500					
1 RRMU	13b	9	0.23		8,000					
1 RRMU	13c	9	0.12		5,600					
1 OS	13d	9	0.60							
1 RRMU	14	9	0.62		13,000	100				
1 RRMU	23	9	0.34					22,500 Restaurant		
1 RRMU	24	9	0.73					42,028 19816 Rest; 11165 Retail; 7730 Office		
1 RRMU	25	9	0.53					38,711 21014 Restaurant; 21014 Office		
1 RRMU	26	9	0.33					28,500 14250 Retail; 14250 Office		
1 RRMU	27	9	0.65					28,043 25000 Exhibit; 3043 Retail		
1 RRMU	28	9	2.24					93,134 Exhibit		
1 RRMU	29	9	1.67					69,696 Exhibit		
1 OS	30a	9	5.07							
1 OS	30b	9	1.35							
1 OS	31a	9	2.66							
1 OS	31b	9	0.32							
1 TU	38	9	16.78							
1 OS	45	9	0.33							
Subtotal				39	101,100	100	0	322,612	43,000	39
1 RRMU	15a	10	3.33	108	65,500			100,000 1,8	40,000	36
1 OS	15b	10	0.05							
1 OS	18a	10	1.05							
1 RRMU	18b	10	0.25		38,500					
1 RRMU	20	10	1.30					56,278 Market		
1 OS	21	10	5.30							
1 RRMU	22	10	0.15					6,500 Retail		
Subtotal				108	104,000	0	0	162,778	40,000	36
2 RRMU	16a	11	1.67	263	28,000				30,000	27
2 OS	16b	11	0.07							
1 RRMU	17	11	1.48							
Subtotal				263	28,000	0	0	0	30,000	27
2 ORMU	40	12	1.93	96	38,000					
2 ORMU	44	13	1.96	227	16,500					
2 ORMU	43	14	2.56	455	12,000					
2 ORMU	46	14	2.89	164						

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				619	12,000	0	0	0	0	0
1 ORMU	41	15	2.43	160	85,000					
1 ORMU	42	16	1.19	273	6,200					
3 OS	60	17	1.12							
3 OS	61	17	0.71							
3 OS	62	17	0.92							
3 RMU	69N	17	1.64							
3 RMU	69S	17	1.21							
3 RMU	70N	17	1.10							
3 RMU	70S	17	0.88							
3 RMU	71N	17	0.77							
3 RMU	71S	17	0.84							
Subtotal				0	0	0	0	0	0	0
4 OS	63	18	0.97							
4 OS	64	18	0.89							
4 OS	65	18	0.92							
4 RMU	66N	18	0.33							
4 RMU	66S	18	1.07							
4 RMU	67N	18	1.27							
4 RMU	67S	18	1.12							
4 RMU	68N	18	1.48							
4 RMU	68S	18	1.17							
Subtotal				0	0	0	0	0	0	0
3 OS	57a	19	0.12							
3 RMU	57N	19	1.24							
3 RMU	57S	19	1.38							
3 RMU	58N	19	1.17							
3 RMU	58S	19	1.15							
3 RMU	59N	19	1.27							
3 RMU	59S	19	1.11							
Subtotal				0	0	0	0	0	0	0
4 RMU	52N	20	0.98							
4 RMU	52S	20	1.30							
4 RMU	53N	20	1.38							
4 RMU	53S	20	1.49							
4 RMU	54N	20	1.35							

Dowling Associates, Inc

Baseline_Initial_Phase_Max_Res_2007_05_08.xls \ Lots

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THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
4 RMU	54S	20	1.68							
4 OS	54a	20	0.12							
Subtotal				0	0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
3 TU	39	21	15.34							
3 OS	34	22	1.26							
3 RMU	35	22	4.00							
Subtotal				0	0	0	0	0	0	0
4 RMU	49a	23	4.87							
1 ORMU	49b	23	0.73							
1 ORMU	49c	23	1.00							
3 OS	50	23	1.26							
Subtotal				0	0	0	0	0	0	0
4 RMU	51	24	4.70							
3 OS	72	25	10.37							
Subtotal				1,375			0			
TOTAL Max		180.39	3,526	1,219,800	600	0	485,390		491,000	447
Min			2,151				0			
Check				4,326	1,401,366		164,994			

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips ^a	Non-Work Trips ^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office¹	5.4%	0.1%	5.6%	
Retail²	0.4%	0.7%	1.1%	
Residential^{3,c}	Home-Work	Home-Non-Work	Non Home-Based	
AM Peak Hour	1.2%	0.3%	0.1%	1.7%
PM Peak Hour	1.0%	0.3%	0.2%	1.5%
Daily	0.8%	0.3%	0.2%	1.3%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office¹	1.5%	1.2%	2.8%	
Retail²	0.1%	11.4%	11.6%	
Residential^c	Home-Work	Home-Non-Work	Non Home-Based	
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office¹	6.1%	0.2%	6.3%	
Retail²	0.5%	0.8%	1.3%	
Residential^c	Home-Work	Home-Non-Work	Non Home-Based	
AM Peak Hour	1.5%	0.4%	0.1%	2.1%
PM Peak Hour	1.3%	0.3%	0.2%	1.9%
Daily	0.9%	0.4%	0.3%	1.6%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001.
Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 1: Bounded by South Park, Crocker, Railyards, Bercut														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%	
Residential														
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%	
High Rise Residential Condominium	337 Units	ITE (232)	1,494	24	103	127	81	49	130	19%	81%	62%	38%	
Subtotal Residential	837 Units		5,596	208	220	428	237	188	425					
Other														
Total Trips for Block			17,200	365	320	685	755	749	1,504					
Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-537	-16	-18	-34	-21	-16	-37					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,883	-34	-30	-64	-81	-81	-162					
Internal Trips Within This Block			-2,052	-23	-23	-46	-101	-101	-201					
Trips To-From Other Blocks within the Project			-633	-17	-17	-34	-28	-28	-56					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				119	72	192	398	416	814					
Subtotal Residential				171	178	349	148	123	271					
Other				0	0	0	0	0	0					
Total				12,632	291	250	541	546	539	1,085				
New External Trips Percent of Total Project Trips				73%	80%	78%	79%	72%	72%	72%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				151	2	1	3	7	7	14				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				90	4	5	9	4	4	8				
Other				0	0	0	0	0	0	0				
Total Transit Trips				241	6	6	12	11	11	22				

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 2: Bounded by South Park, 5th, Railyards, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	595 Units	ITE (232)	2,467	38	163	201	135	83	218	19%	81%	62%	38%	
Subtotal Residential	595 Units		2,467	38	163	201	135	83	218					
Other														
Total Trips for Block			7,853	115	212	327	373	340	713					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-59	-1	0	-1	-2	-3	-5					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-32	-1	-2	-3	-2	-1	-3					
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-91	-2	-2	-4	-4	-4	-8					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-237	-3	-13	-16	-12	-7	-19					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-862	-12	-19	-31	-39	-37	-76					
Internal Trips Within This Block			-940	-11	-11	-22	-46	-46	-91					
Trips To-From Other Blocks within the Project			-285	-8	-8	-16	-13	-13	-26					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				56	36	92	182	187	369					
Subtotal Residential				26	136	162	89	53	142					
Other				0	0	0	0	0	0					
Total				5,675	82	172	254	271	240	511				
New External Trips Percent of Total Project Trips				72%	71%	81%	78%	73%	71%	72%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				70	1	1	2	3	3	6				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				39	1	3	4	2	2	4				
Other				0	0	0	0	0	0	0				
Total Transit Trips				109	2	4	6	5	5	10				

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-483	-7	-7	-13	-23	-23	-46					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				129	81	211	428	466	894					
Subtotal Residential				0	0	0	0	0	0					
Total			9,628	129	81	211	428	466	894					
New External Trips Percent of Total Project Trips			84%	84%	82%	83%	84%	84%	84%					
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0					
Retail (1.3%)			149	2	1	3	7	7	14					
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0					
Total Transit Trips			149	2	1	3	7	7	14					

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 5: Bounded by Railyards, Crocker, Camille, Huntington														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	165 Units	ITE (232)	846	15	62	77	45	27	72	19%	81%	62%	38%	
Subtotal Residential	165 Units		846	15	62	77	45	27	72					
Other														
Total Trips for Block			8,325	119	129	248	376	386	762					
Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-81	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-949	-13	-13	-26	-42	-44	-86					
Internal Trips Within This Block			-544	-13	-13	-25	-26	-26	-52					
Trips To-From Other Blocks within the Project			-326	-6	-6	-12	-15	-15	-31					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				79	52	130	266	290	556					
Subtotal Residential				9	46	55	26	11	37					
Total			6,506	88	98	185	293	301	594					
New External Trips Percent of Total Project Trips			78%	74%	76%	75%	78%	78%	78%					
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0					
Retail (1.3%)			97	1	1	2	4	5	9					
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			14	0	2	2	1	0	1					
Total Transit Trips			111	1	3	4	5	5	10					

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 6: Bounded by Railyards, 5th, Camille, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	281 Units	ITE (232)	1,283	21	89	110	69	42	111	19%	81%	62%	38%	
Subtotal Residential	281 Units		1,283	21	89	110	69	42	111					
Other														
Total Trips for Block			8,928	128	157	285	408	409	817					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-84	-1	-1	-2	-4	-4	-8					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-17	0	-2	-2	-1	-1	-2					
Other														
Total Transit Adjustments			-101	-1	-3	-4	-5	-5	-10					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-123	-2	-7	-9	-6	-4	-10					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,010	-14	-15	-29	-45	-47	-92					
Internal Trips Within This Block			-812	-14	-14	-29	-39	-39	-78					
Trips To-From Other Blocks within the Project			-334	-7	-7	-13	-16	-16	-31					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				80	50	130	263	287	550					
Subtotal Residential				12	68	80	40	16	56					
Total				6,670	92	118	210	304	303	606				
New External Trips Percent of Total Project Trips				75%	72%	75%	74%	74%	74%	74%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				99	1	1	2	4	5	9				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				21	0	2	2	1	1	2				
Total Transit Trips				120	1	3	4	5	6	11				

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 7: Bounded by Railyards, 6th, Camille, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	363 Units	ITE (232)	1,592	25	109	134	86	53	139	19%	81%	62%	38%	
Subtotal Residential	363 Units		1,592	25	109	134	86	53	139					
Other														
Total Trips for Block			7,077	104	159	263	328	315	643					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-60	-1	0	-1	-3	-3	-6					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-21	0	-2	-2	-1	-1	-2					
Other														
Total Transit Adjustments			-81	-1	-2	-3	-4	-4	-8					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-153	-2	-9	-11	-7	-5	-12					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-789	-11	-15	-26	-35	-35	-70					
Internal Trips Within This Block			-899	-11	-11	-23	-43	-43	-86					
Trips To-From Other Blocks within the Project			-253	-6	-6	-12	-12	-12	-23					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				58	37	95	183	195	379					
Subtotal Residential				16	88	104	51	26	77					
Total				5,055	74	124	199	234	221	455				
New External Trips Percent of Total Project Trips				71%	71%	78%	76%	71%	70%	71%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				71	1	1	2	3	4	7				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				25	1	2	3	2	1	3				
Total Transit Trips				96	2	3	5	5	5	10				

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	43.0 KSF	ITE (710)	696	84	11	95	22	105	127	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	39 Units	ITE (232)	163	3	11	13	9	6	15	19%	81%	62%	38%
Subtotal Residential	139 Units		685	28	27	54	40	34	74				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,347	604	459	1,062	860	964	1,824				
Transit Adjustments													
Office (-5.6%)			-39	-4	-1	-5	-1	-6	-7				
Retail (-1.1%)			-177	-5	-5	-10	-9	-7	-16				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-9	-1	0	-1	-1	0	-1				
Other (Museum Exhibit Space) (-5.6%)			-105	0	0	0	0	-3	-3				
Total Transit Adjustments			-330	-10	-6	-16	-11	-16	-27				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-19	-3	0	-3	-1	-3	-4				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-66	-2	-2	-4	-3	-3	-6				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,004	-62	-51	-113	-95	-87	-181				
Internal Trips Within This Block			-682	-35	-35	-69	-48	-48	-96				
Trips To-From Other Blocks within the Project			-780	-25	-25	-51	-37	-37	-74				
New External Trips													
Office (General Office Building)				62	7	69	13	77	89				
Retail & Restaurant (see footnote)				394	326	719	616	525	1,141				
Subtotal Residential				16	10	26	22	13	35				
Other (Museum Exhibit Space)				0	0	0	18	161	180				
Total			15,552	472	343	814	669	775	1,445				
New External Trips Percent of Total Project Trips			80%	78%	75%	77%	78%	80%	79%				
Transit Trips													
Office (6.3%)			44	5	1	6	1	7	8				
Retail (1.3%)			209	6	6	12	10	9	19				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			11	1	0	1	1	0	1				
Other (Museum Exhibit Space) (6.3%)			118	0	0	0	1	11	12				
Total Transit Trips			382	12	7	19	13	27	40				
Footnote:													
Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469					
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	108 Units	ITE (232)	631	11	49	60	32	20	52	19%	81%	62%	38%	
Subtotal Residential	108 Units		631	11	49	60	32	20	52					
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36			50%	50%	
Total Trips for Block			16,214	234	222	456	761	796	1,557					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-167	-2	-2	-4	-8	-8	-16					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-8	0	-1	-1	-1	0	-1					
Other (Performing Arts) (-5.6%)			-20	0	0	0	-1	-1	-1					
Total Transit Adjustments			-195	-2	-3	-5	-10	-9	-18					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-61	-1	-4	-5	-2	-2	-4					
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,837	-27	-24	-51	-85	-91	-175					
Internal Trips Within This Block			-399	-21	-21	-41	-19	-19	-37					
Trips To-From Other Blocks within the Project			-658	-11	-11	-21	-32	-32	-65					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail & Market (see footnote)			168	139	307	580	621	1,202						
Subtotal Residential			6	24	30	19	8	26						
Other (Performing Arts)			0	0	0	16	16	34						
Total			13,125	174	163	338	615	645	1,262					
New External Trips Percent of Total Project Trips			81%	74%	74%	74%	81%	81%	81%					
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0					
Retail (1.3%)			198	3	2	5	9	10	19					
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			10	0	1	1	1	0	1					
Other (Performing Arts) (6.3%)			23	0	0	0	1	1	2					
Total Transit Trips			231	3	3	6	11	11	22					
Footnote:														
Retail & Market														
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%	
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%	
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%	

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 11: Bounded by Camille, 6th, Rail Lines, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	263 Units	ITE (232)	1,215	20	85	105	65	40	105	19%	81%	62%	38%	
Subtotal Residential	263 Units		1,215	20	85	105	65	40	105					
Other														
Total Trips for Block			4,184	65	113	178	195	180	375					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-33	-1	0	-1	-1	-2	-3					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-16	0	-2	-2	-1	-1	-2					
Other														
Total Transit Adjustments			-49	-1	-2	-3	-2	-3	-5					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-117	-2	-6	-8	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-461	-7	-9	-16	-21	-19	-40					
Internal Trips Within This Block			-518	-7	-7	-13	-25	-25	-50					
Trips To-From Other Blocks within the Project			-151	-4	-4	-9	-7	-7	-14					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				33	21	54	99	102	201					
Subtotal Residential				14	70	84	41	24	65					
Total				3,005	46	91	137	140	126	266				
New External Trips Percent of Total Project Trips				72%	71%	81%	77%	72%	70%	71%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				39	1	0	1	2	2	4				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				19	0	2	2	1	1	2				
Total Transit Trips				58	1	2	3	3	3	6				

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 12: Bounded by Rail Lines, 5th, I Street, LRT														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	96 Units	ITE (232)	401	6	26	33	23	14	36	19%	81%	62%	38%	
Subtotal Residential	96 Units		401	6	26	33	23	14	36					
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%	
Total Trips for Block			4,022	60	60	121	182	186	367					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-40	-1	0	-1	-2	-2	-4					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-5	0	-1	-1	-1	0	-1					
Other (-5.6%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-45	-1	-1	-2	-3	-2	-5					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-39	-1	-2	-3	-2	-1	-3					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-459	-7	-6	-13	-20	-21	-41					
Internal Trips Within This Block			-254	-6	-6	-12	-13	-13	-26					
Trips To-From Other Blocks within the Project			-156	-3	-3	-6	-7	-7	-14					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				40	27	67	126	137	263					
Subtotal Residential				3	18	21	13	6	18					
Other				0	0	0	0	0	0					
Total				3,108	43	44	89	139	143	281				
New External Trips Percent of Total Project Trips				77%	72%	74%	73%	76%	77%	76%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				47	1	0	1	2	2	4				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				6	0	1	1	1	0	1				
Other (6.3%)				0	0	0	0	0	0	0				
Total Transit Trips				53	1	1	2	3	2	5				

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 13: Bounded by Rail Lines, 6th, G, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	227 Units	ITE (232)	1,079	18	77	95	58	35	93	19%	81%	62%	38%	
Subtotal Residential	227 Units		1,079	18	77	95	58	35	93					
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%	
Total Trips for Block			4,474	308	163	471	215	392	607					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-23	-1	0	-1	-1	-1	-2					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-14	0	-2	-2	-1	0	-1					
Other (Transit) (-5.6%)			-72	-4	-1	-5	-1	-4	-5					
Total Transit Adjustments			-109	-5	-3	-8	-3	-5	-8					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-104	-2	-6	-8	-5	-3	-8					
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-384	-13	-10	-23	-18	-21	-39					
Internal Trips Within This Block			-368	-5	-5	-9	-18	-18	-35					
Trips To-From Other Blocks within the Project			-173	-13	-13	-25	-13	-13	-26					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				17	14	31	65	67	132					
Subtotal Residential				9	57	66	37	21	58					
Other (Transit)				247	62	309	62	247	309					
Total				3,441	273	133	405	164	336	499				
New External Trips Percent of Total Project Trips				77%	89%	81%	86%	76%	86%	82%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				27	1	0	1	1	1	2				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				17	0	2	2	1	1	2				
Other (Transit) (6.3%)				81	16	4	20	4	16	20				
Total Transit Trips				125	17	6	23	6	18	24				

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 14: Bounded by Rail Lines, 7th, G, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	619 Units	ITE (232)	2,557	40	168	208	140	86	226	19%	81%	62%	38%	
Subtotal Residential	619 Units		2,557	40	168	208	140	86	226					
Other														
Total Trips for Block			4,269	67	185	252	214	166	380					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-19	0	0	0	-1	-1	-2					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-33	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-52	-1	-3	-4	-3	-2	-5					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-245	-3	-13	-16	-12	-7	-19					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-444	-6	-15	-21	-21	-16	-37					
Internal Trips Within This Block			-299	-4	-4	-8	-14	-14	-28					
Trips To-From Other Blocks within the Project			-166	-6	-6	-13	-8	-8	-15					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				19	13	32	56	58	114					
Subtotal Residential				30	144	174	113	68	181					
Total				3,308	50	157	206	168	126	295				
New External Trips Percent of Total Project Trips				77%	74%	85%	82%	79%	76%	78%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				22	1	0	1	1	1	2				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				41	1	3	4	2	2	4				
Total Transit Trips				63	2	3	5	3	3	6				

Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 15: Bounded by G, 6th, H, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	160 Units	ITE (232)	827	14	61	75	43	27	70	19%	81%	62%	38%	
Subtotal Residential	160 Units		827	14	61	75	43	27	70					
Other														
Total Trips for Block			6,937	101	116	217	313	319	632					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-67	-1	-1	-2	-3	-3	-6					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-11	0	-1	-1	-1	0	-1					
Other														
Total Transit Adjustments			-78	-1	-2	-3	-4	-3	-7					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-79	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-788	-11	-11	-22	-35	-36	-71					
Internal Trips Within This Block			-524	-11	-11	-22	-25	-25	-50					
Trips To-From Other Blocks within the Project			-265	-5	-5	-10	-12	-12	-25					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				65	42	107	212	232	444					
Subtotal Residential				8	45	54	25	11	35					
Total				5,282	73	87	160	237	243	479				
New External Trips Percent of Total Project Trips				76%	72%	75%	74%	76%	76%	76%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				79	1	1	2	3	4	7				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				13	0	2	2	1	0	1				
Total Transit Trips				92	1	3	4	4	4	8				

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 16: Bounded by G, 7th, Property Boundary, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	273 Units	ITE (232)	1,253	21	87	108	67	41	108	19%	81%	62%	38%	
Subtotal Residential	273 Units		1,253	21	87	108	67	41	108					
Other														
Total Trips for Block			2,367	39	99	138	115	93	208					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-12	0	0	0	0	-1	-1					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-16	0	-2	-2	-1	-1	-2					
Other														
Total Transit Adjustments			-28	0	-2	-2	-1	-2	-3					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-120	-2	-7	-9	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-249	-4	-8	-12	-12	-9	-21					
Internal Trips Within This Block			-195	-3	-3	-6	-9	-9	-18					
Trips To-From Other Blocks within the Project			-90	-3	-3	-7	-4	-4	-8					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				13	9	22	37	37	74					
Subtotal Residential				16	74	89	52	31	84					
Total				1,805	29	83	112	89	69	158				
New External Trips Percent of Total Project Trips				76%	74%	84%	81%	77%	74%	76%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				14	0	0	0	0	1	1				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				20	0	2	2	1	1	2				
Total Transit Trips				34	0	2	2	1	2	3				

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-5.6%)			0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips													
Office (6.3%)			0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 21: SITF Site
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 21: SITF Site														
Office (General Office Building)	KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	Units		0	0	0	0	0	0	0	0				
Other (Transit)	Prkng	ITE(093)	0	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other (Transit) (-5.6%)			0	0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			0	0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)				#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)				#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential				#####	#####	#####	#####	#####	#####	#####				
Other (Transit)				0	0	0	0	0	0	0				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Other (Transit) (6.3%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-5.6%)			0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####				
Transit Trips													
Office (6.3%)			0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

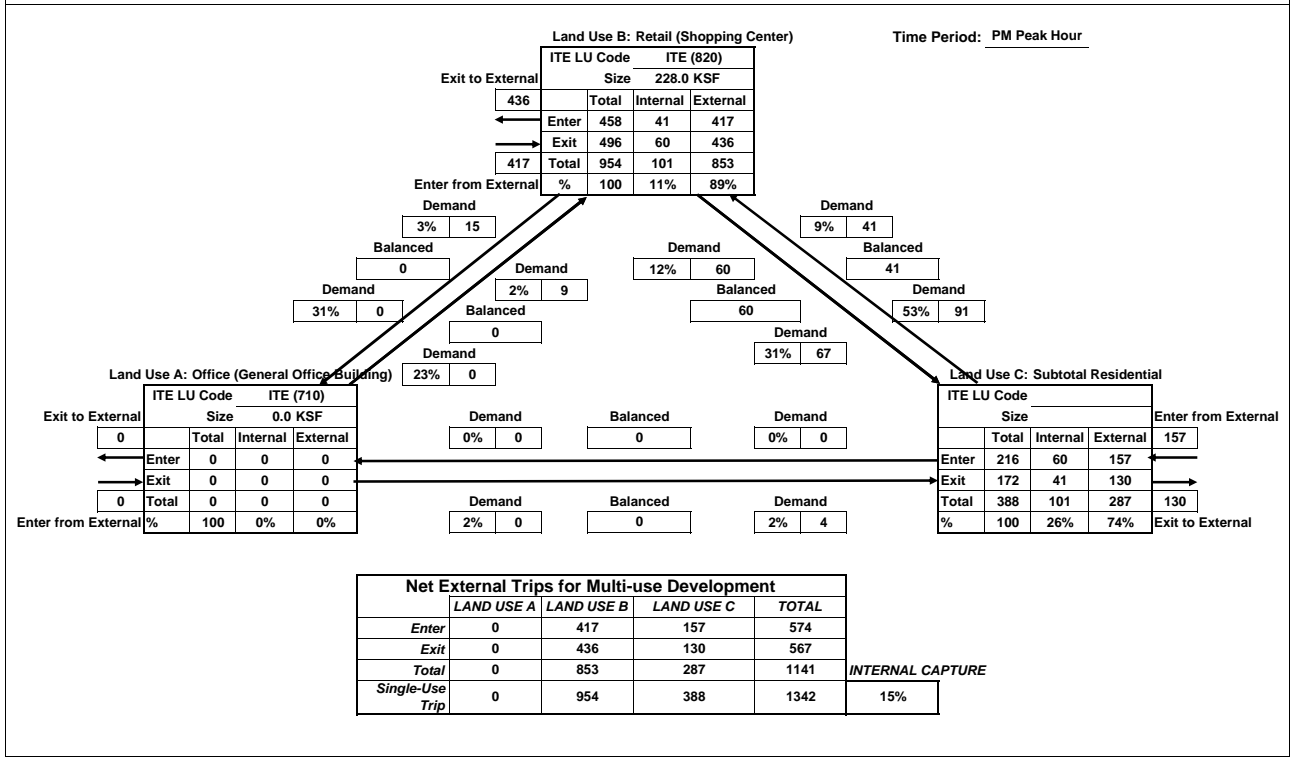
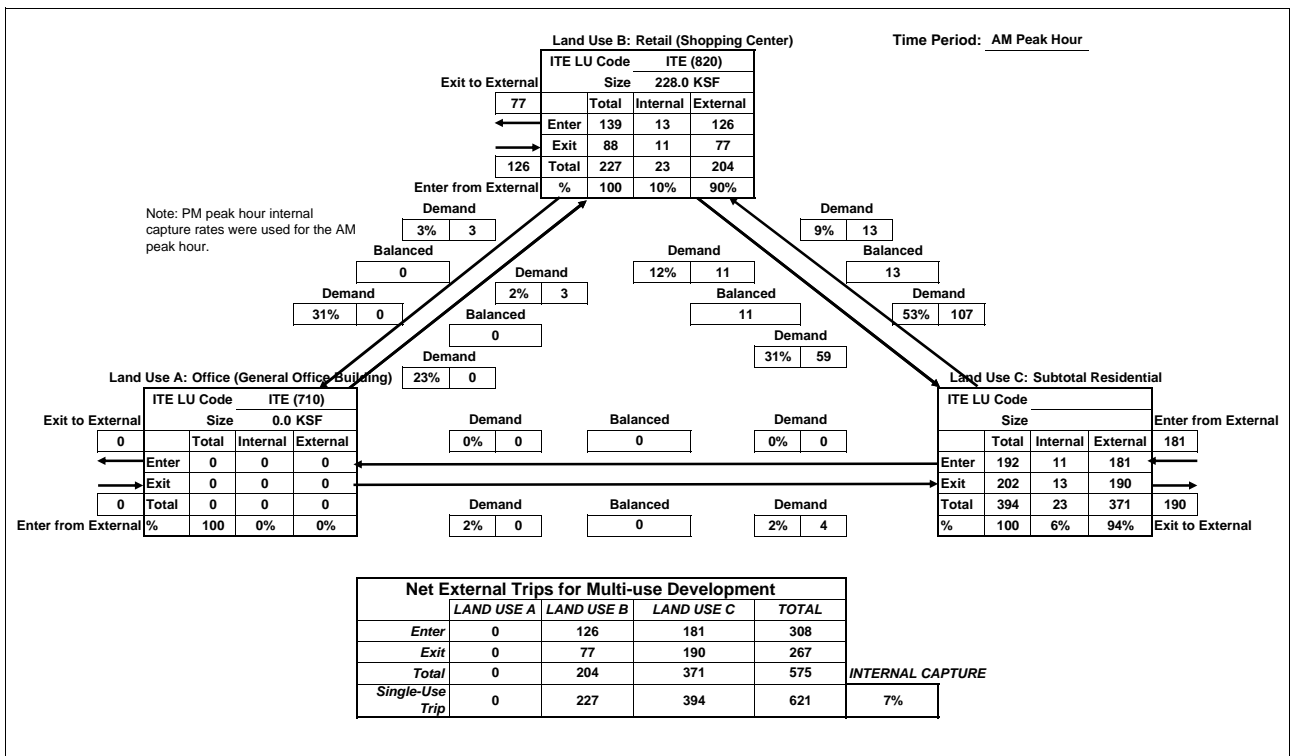
Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 24: Bounded by Property Boundary, Railyards, N. 10th													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-5.6%)			0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####				
Transit Trips													
Office (6.3%)			0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)



Analyst: Dowling

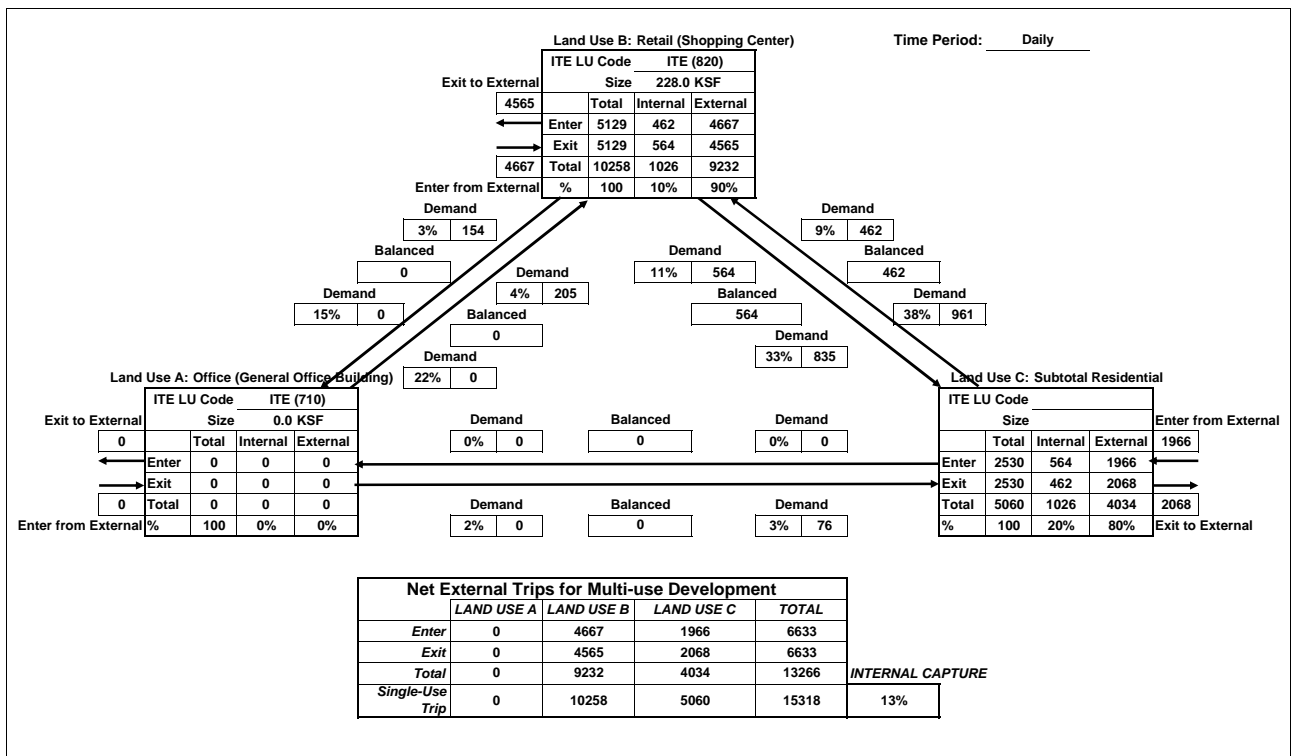
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Block 1: Bounded by South Park, Crocker, Railyards, Bercut

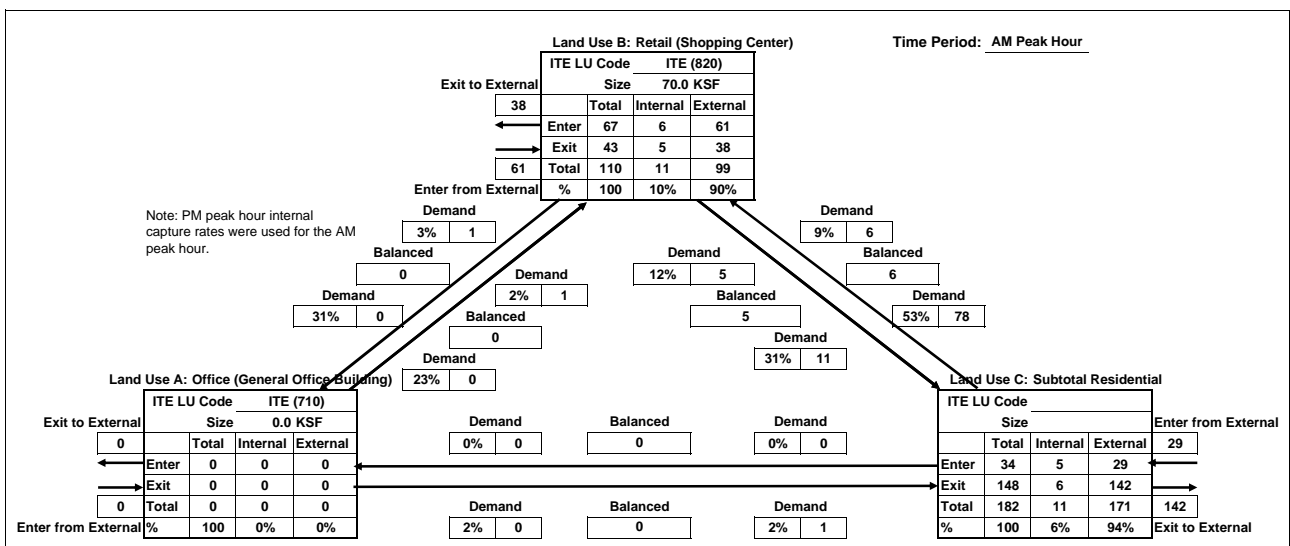
Time Period: Daily



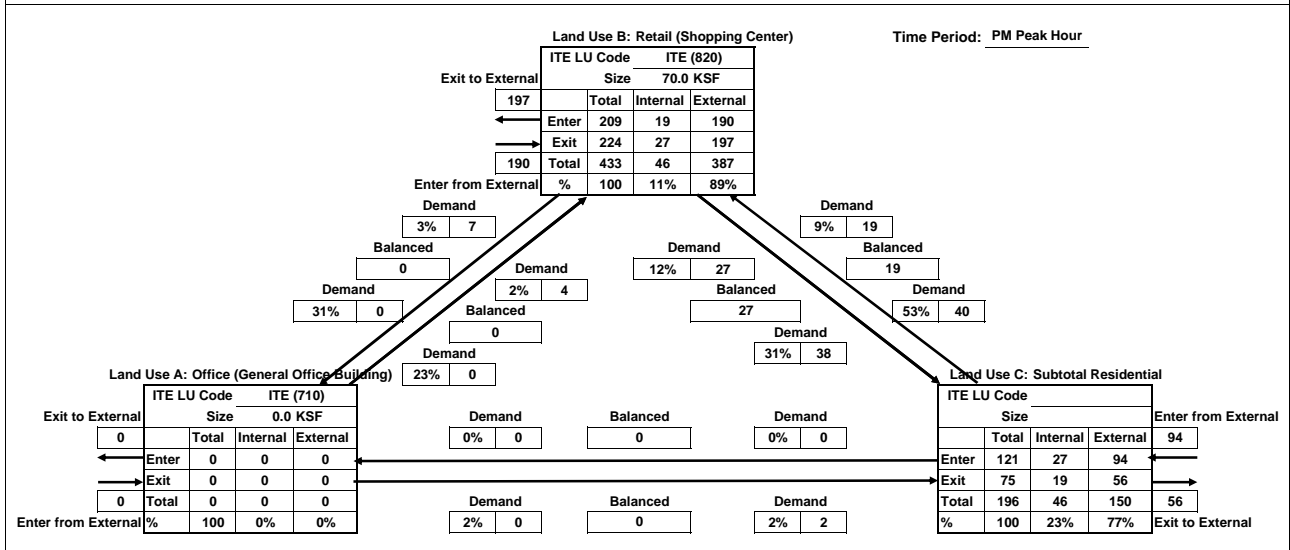
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	61	29	90	
Exit	0	38	142	180	
Total	0	99	171	270	INTERNAL CAPTURE
Single-Use Trip	0	110	182	292	8%



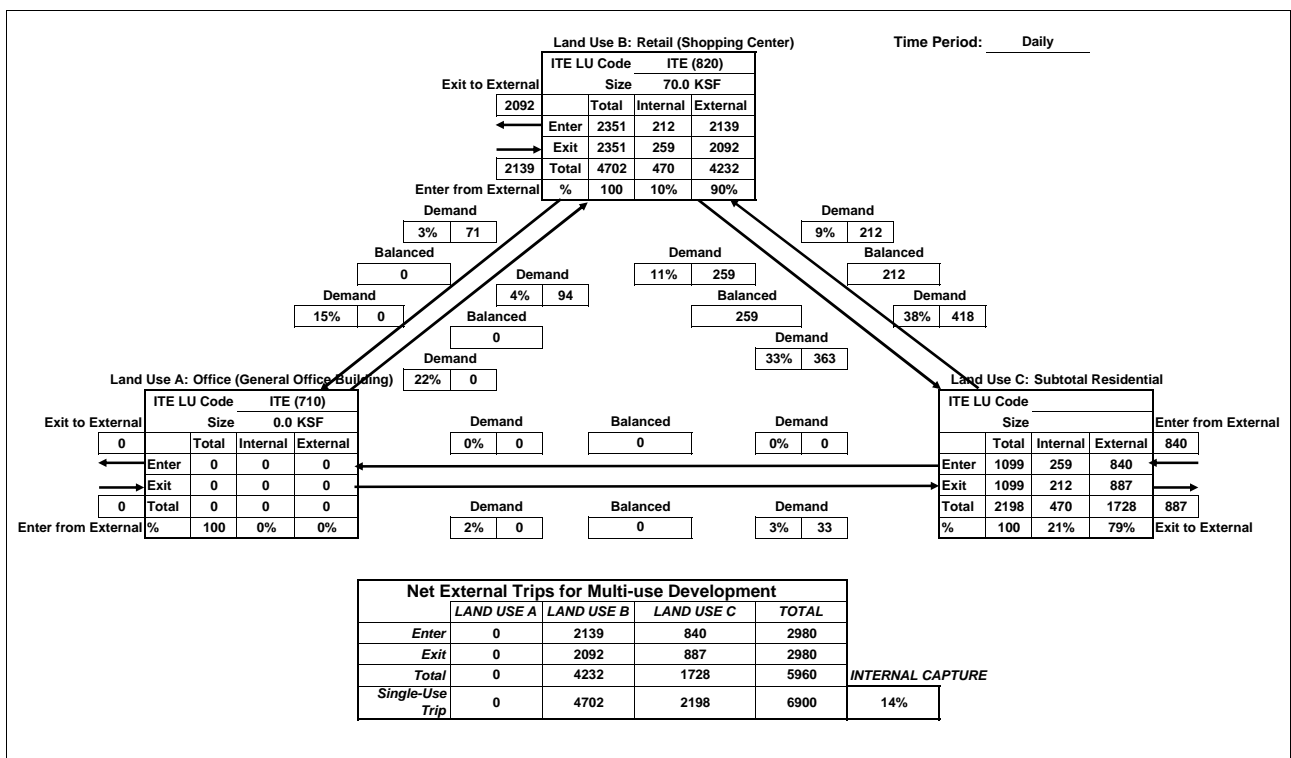
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	190	94	284	
Exit	0	197	56	253	
Total	0	387	150	538	INTERNAL CAPTURE
Single-Use Trip	0	433	196	629	15%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

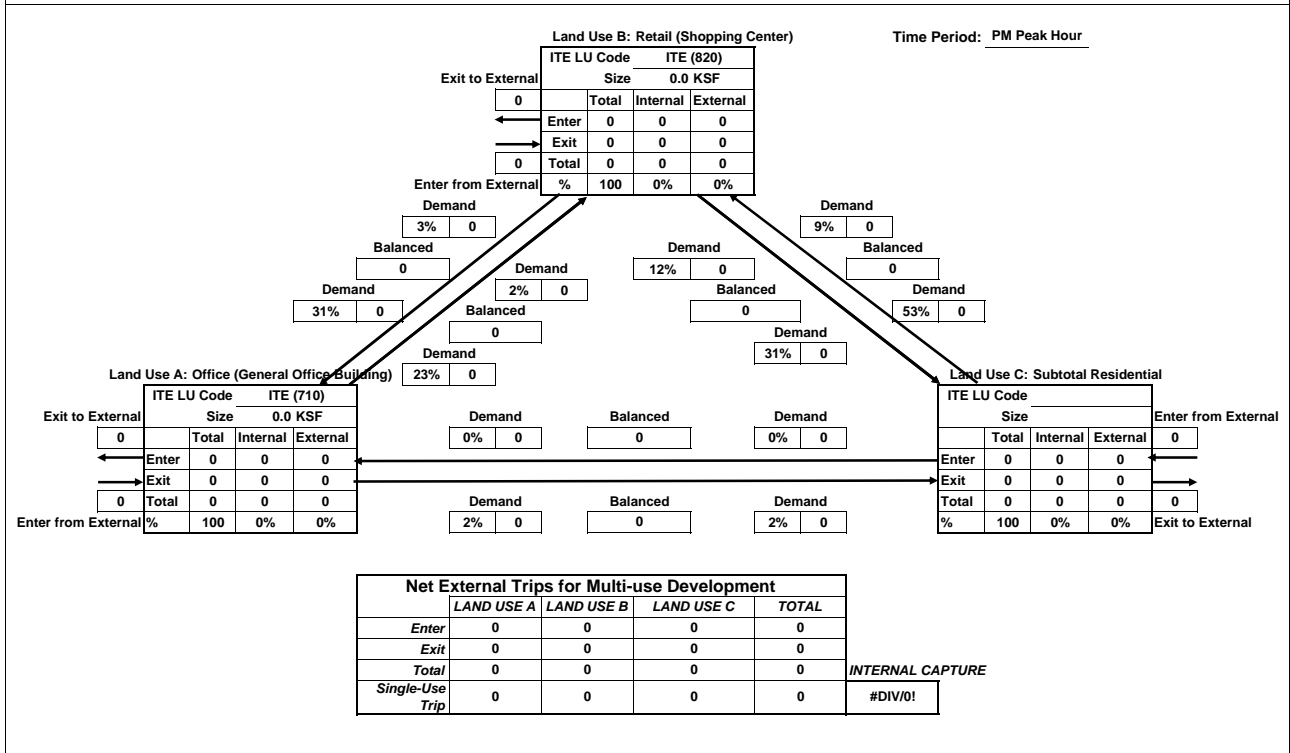
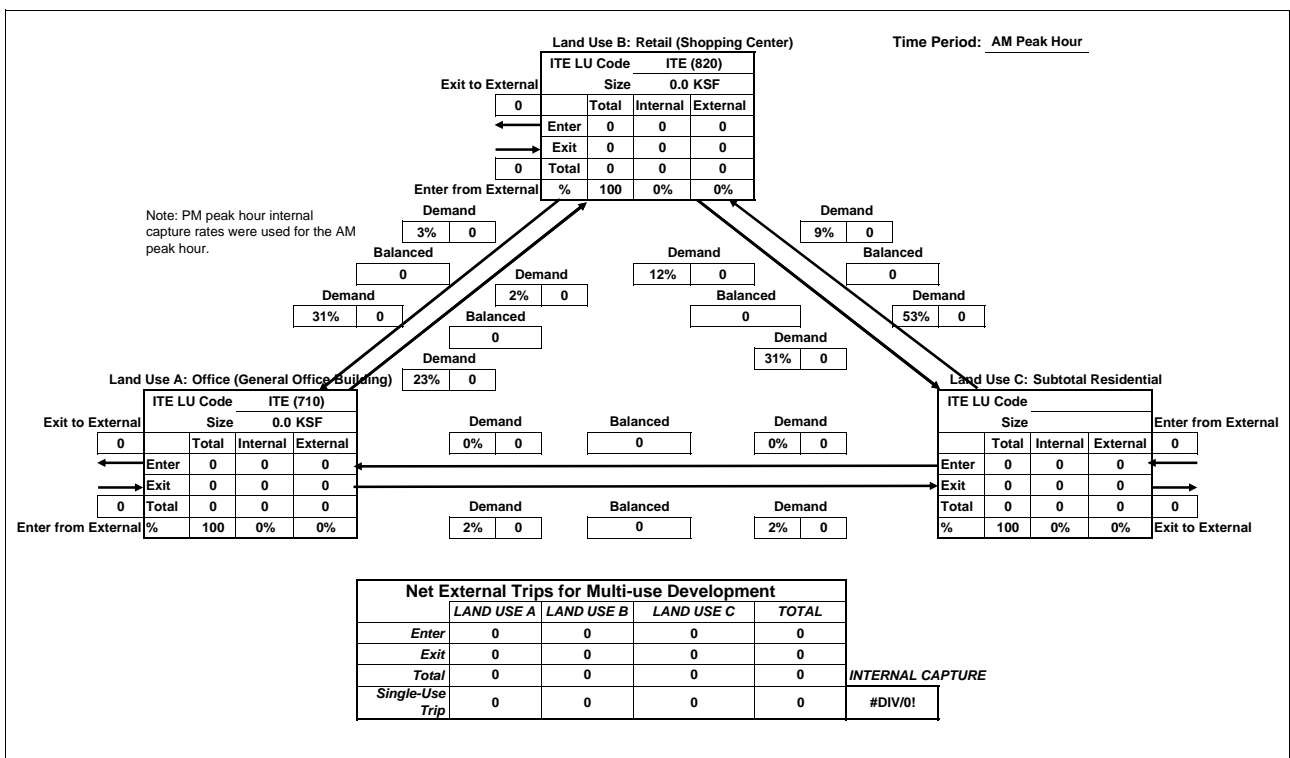


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



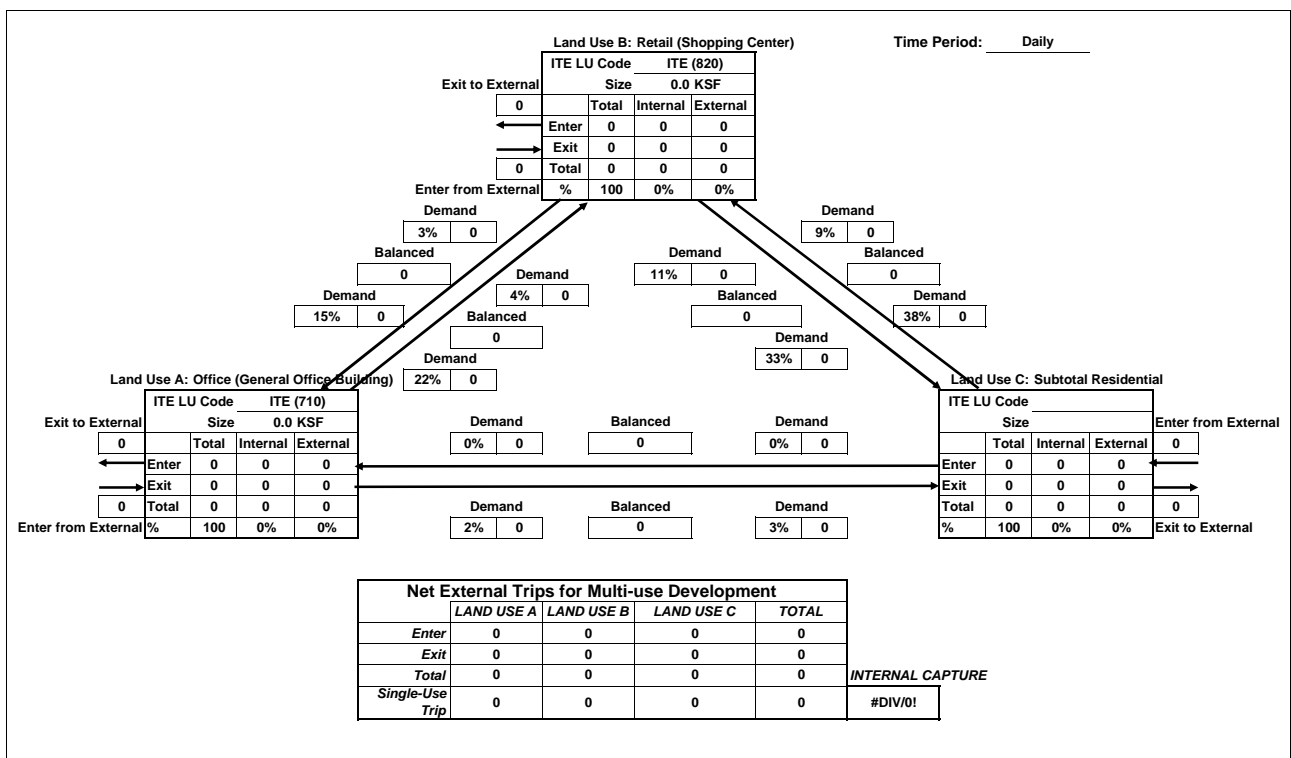
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

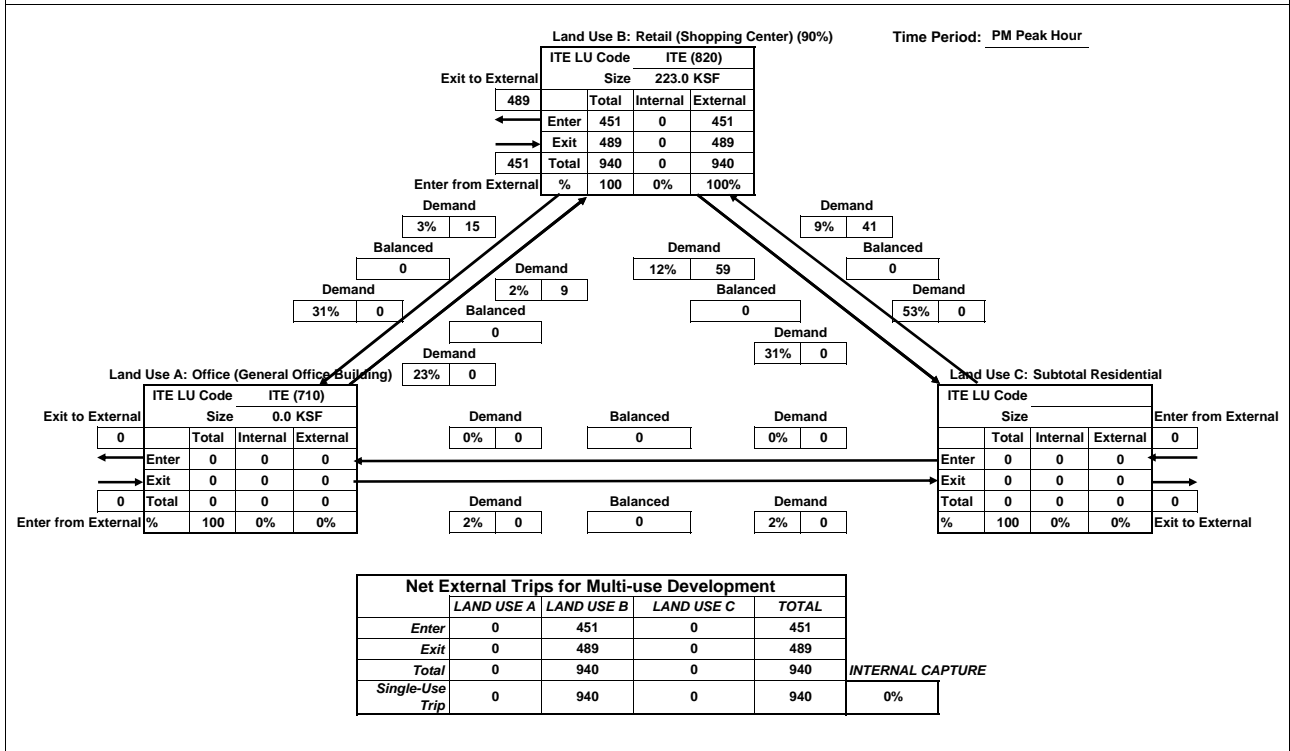
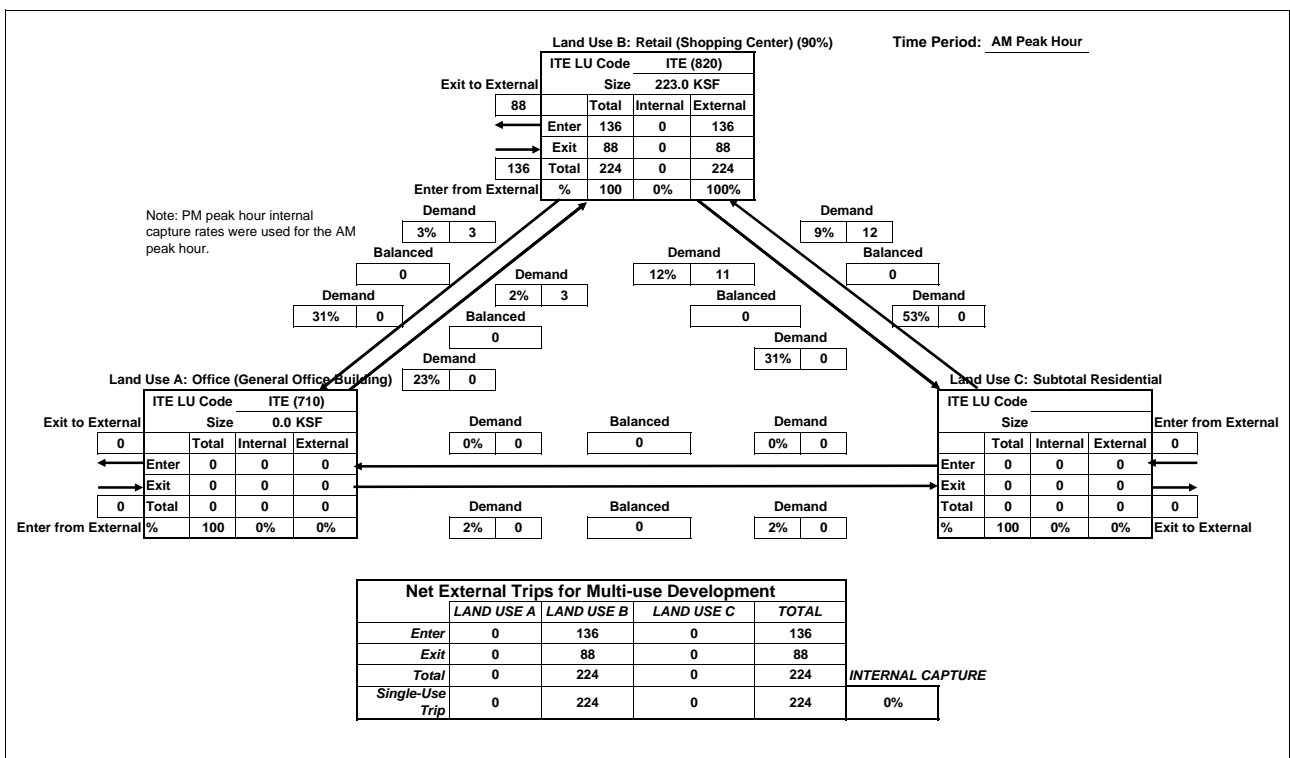
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)



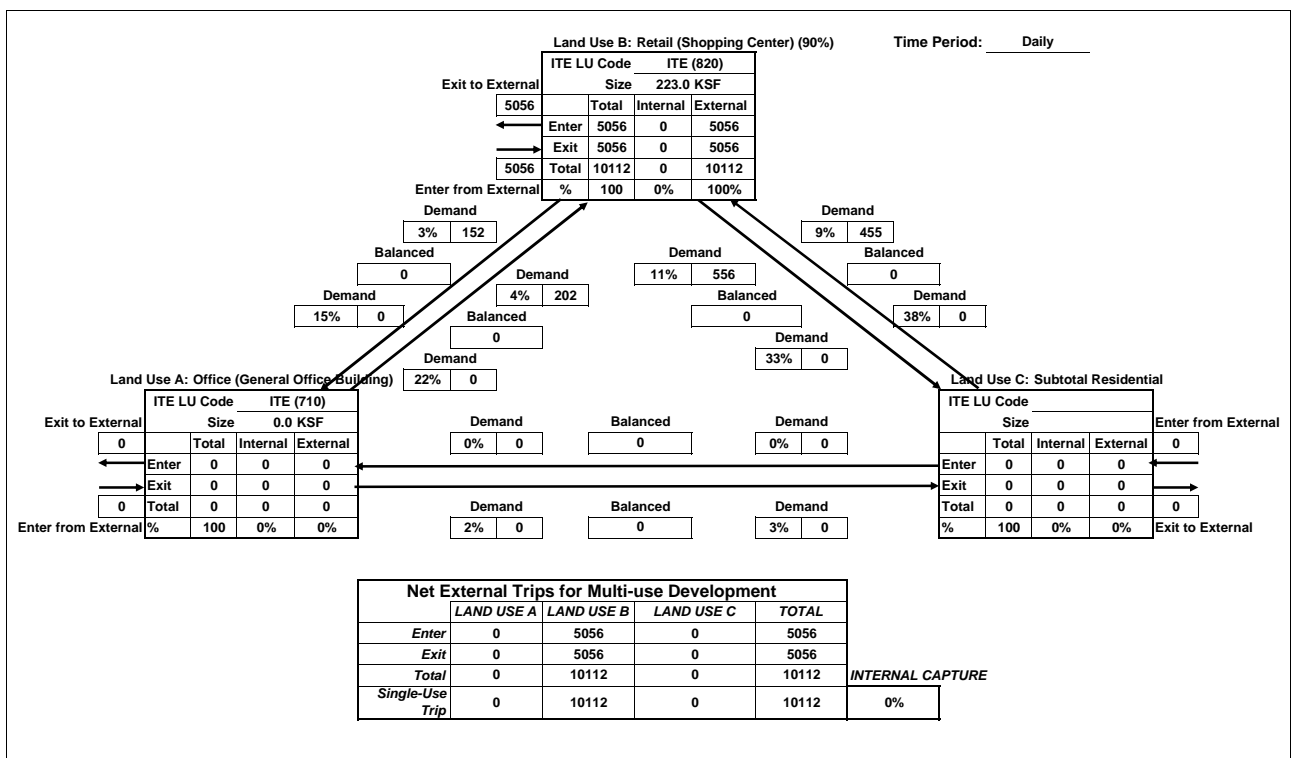
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Block 4: Bounded by Railyards, Huntington, Camille, Bercutt

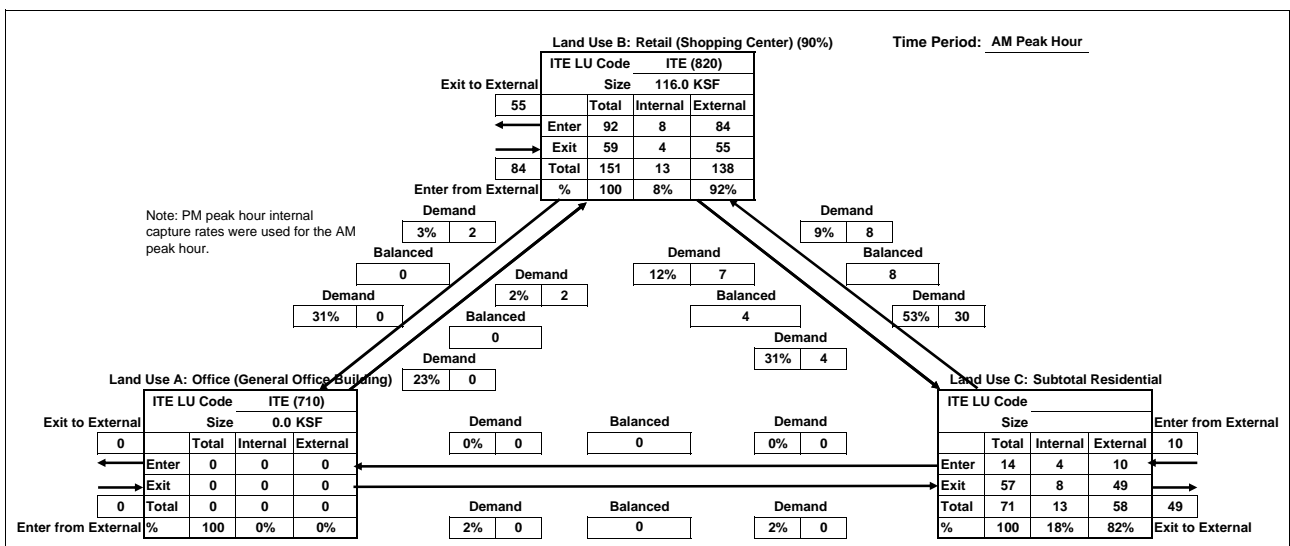


Analyst: Dowling

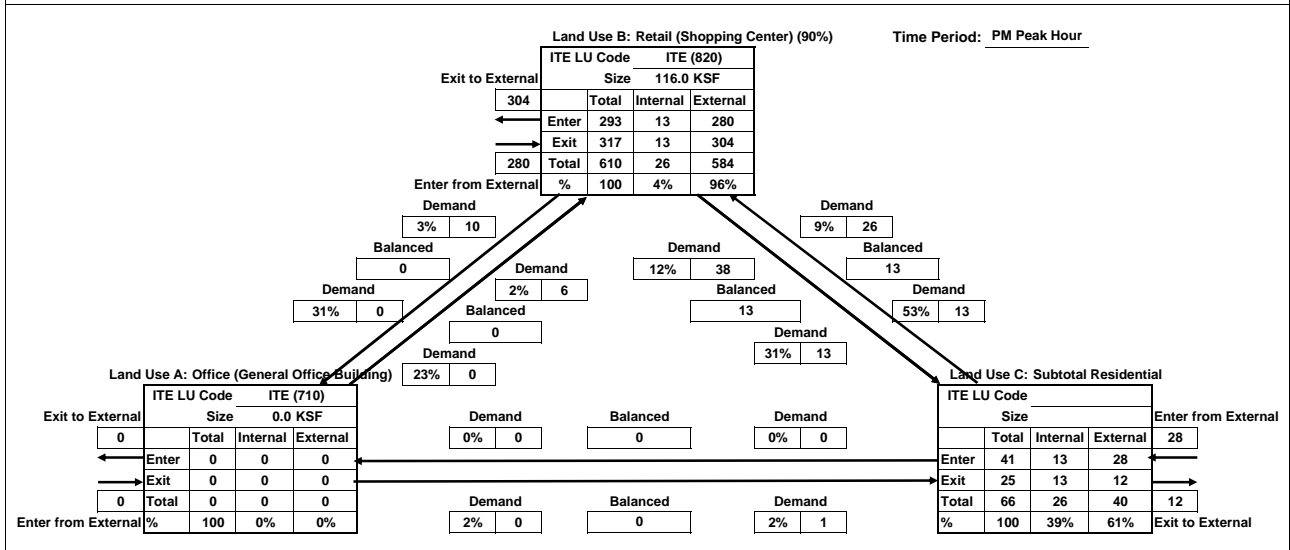
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	84	10	93	
Exit	0	55	49	103	
Total	0	138	58	197	INTERNAL CAPTURE
Single-Use Trip	0	151	71	222	11%



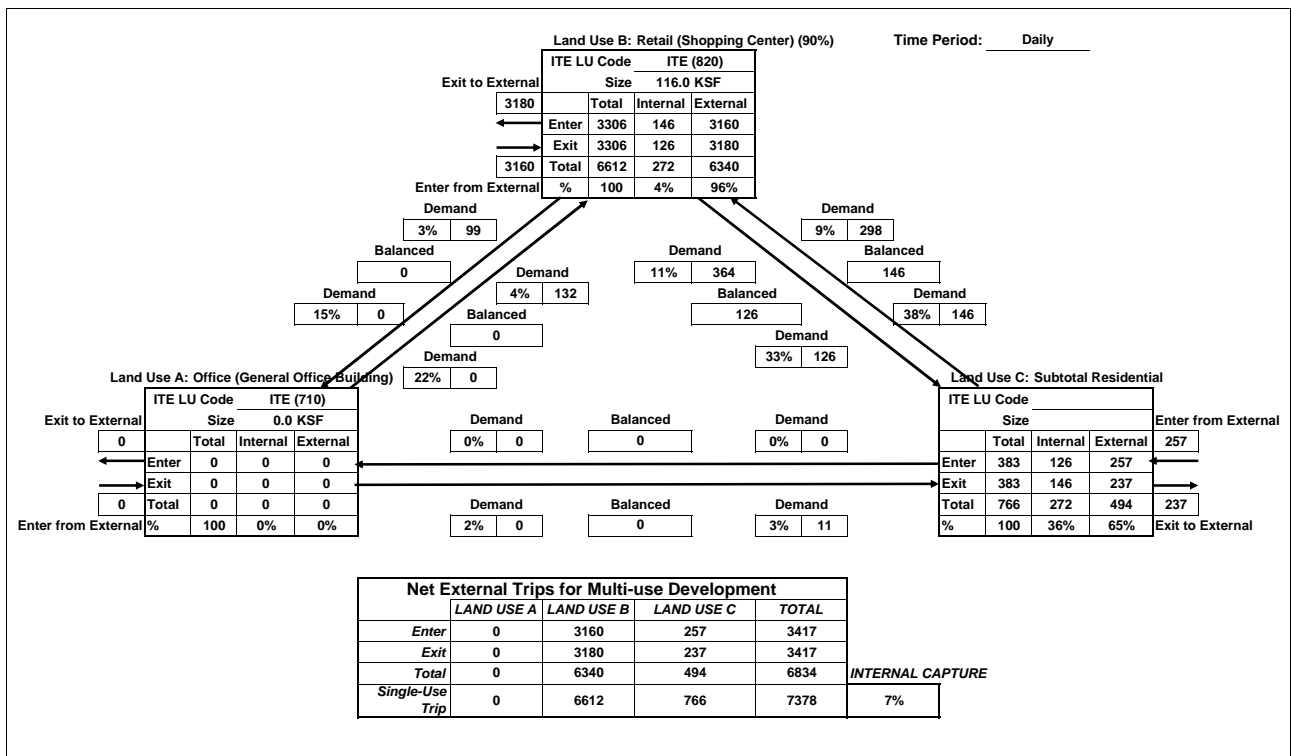
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	280	28	308	
Exit	0	304	12	316	
Total	0	584	40	624	INTERNAL CAPTURE
Single-Use Trip	0	610	66	676	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

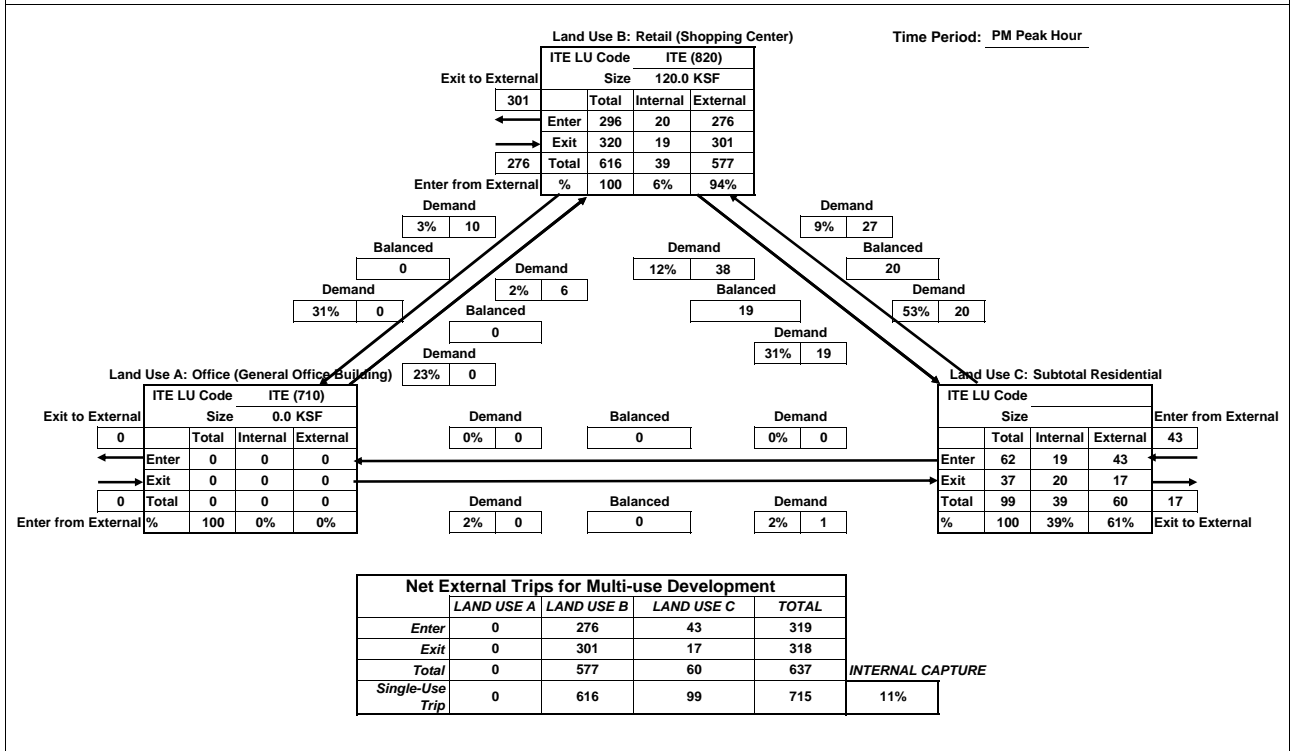
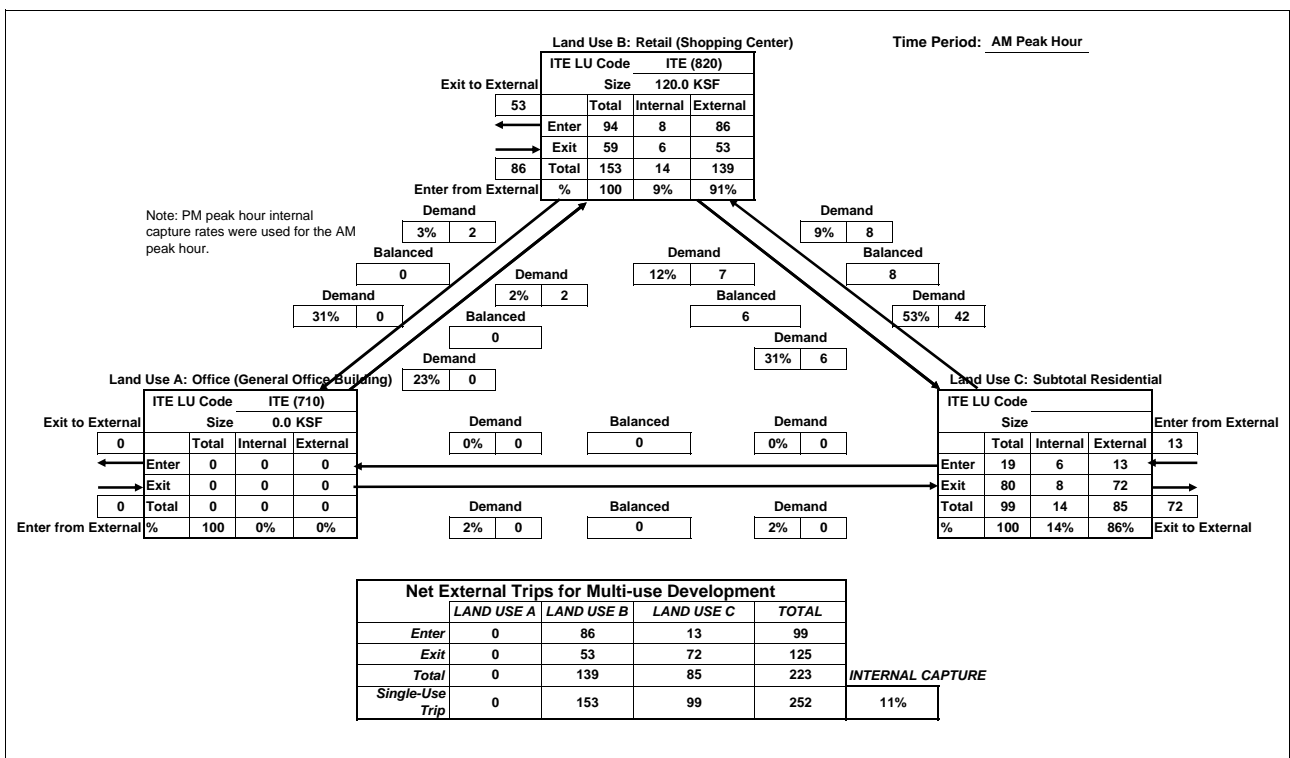


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



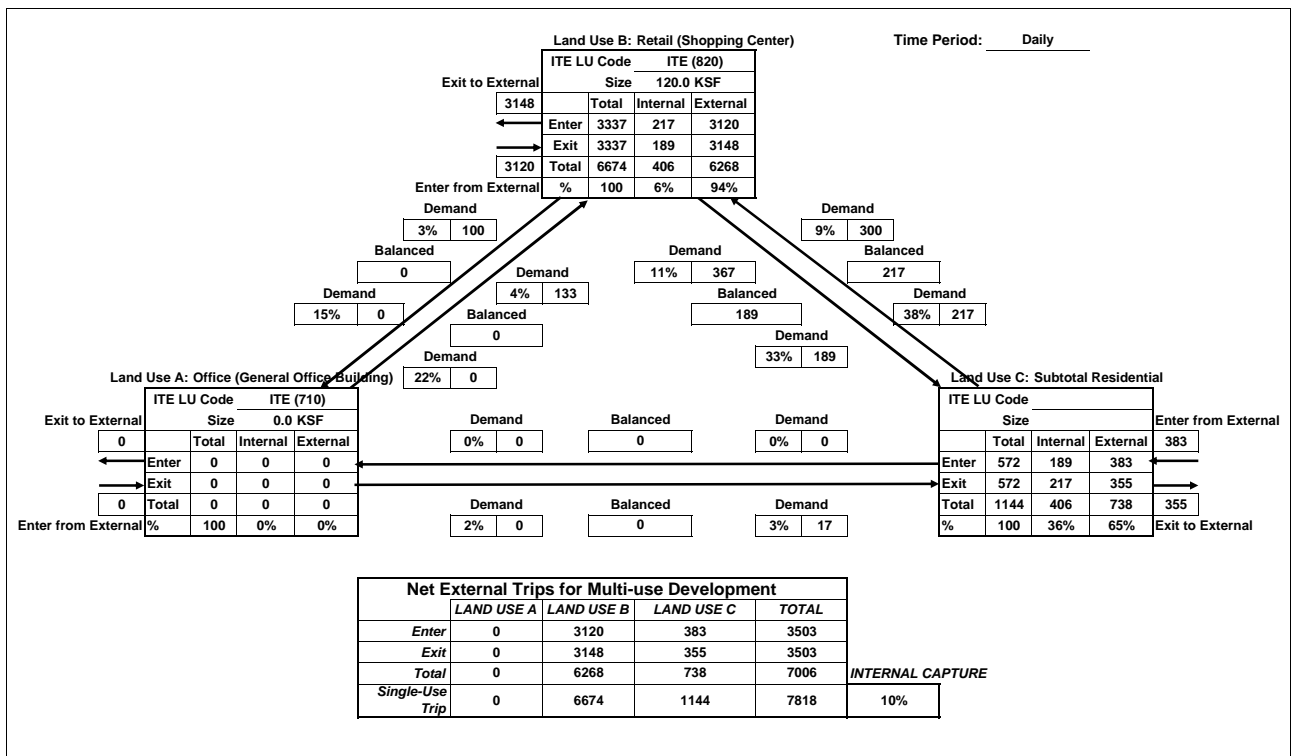
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

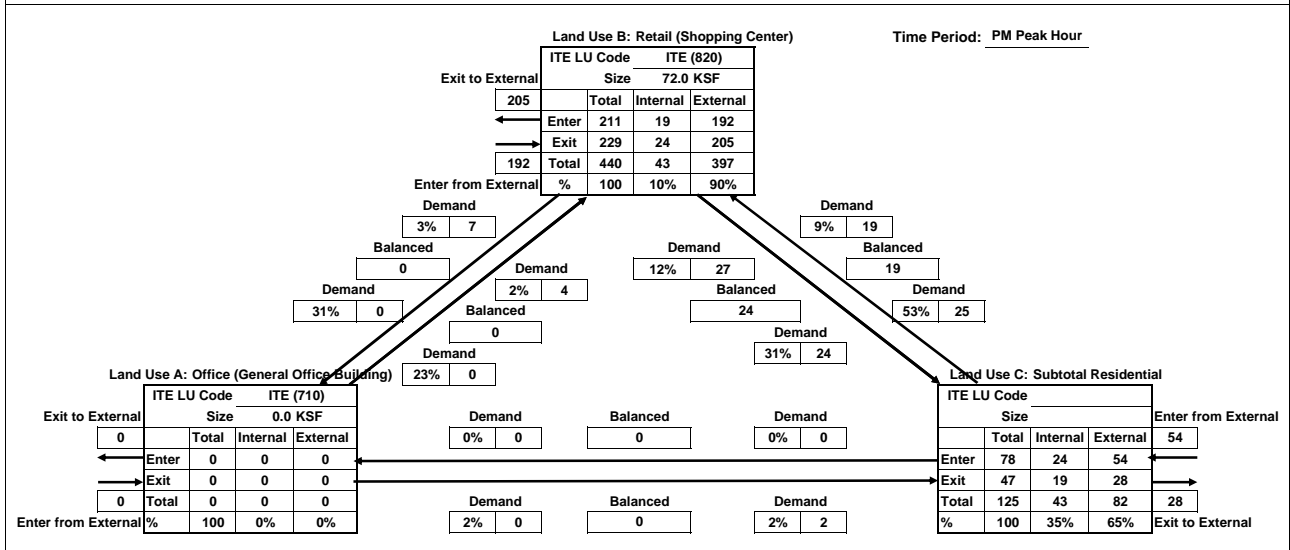
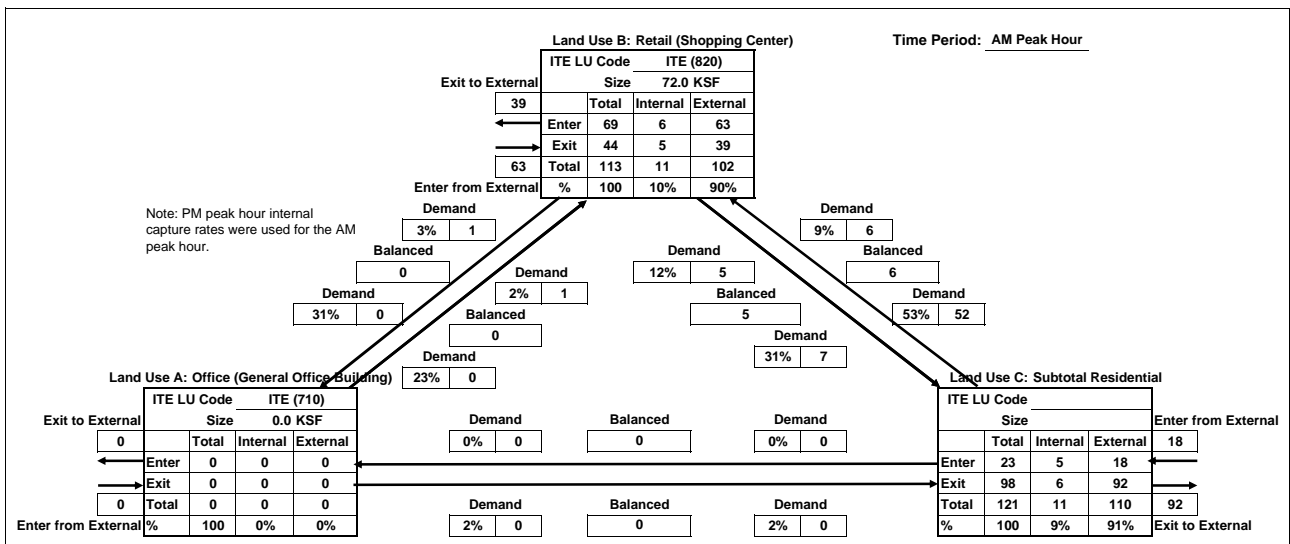


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



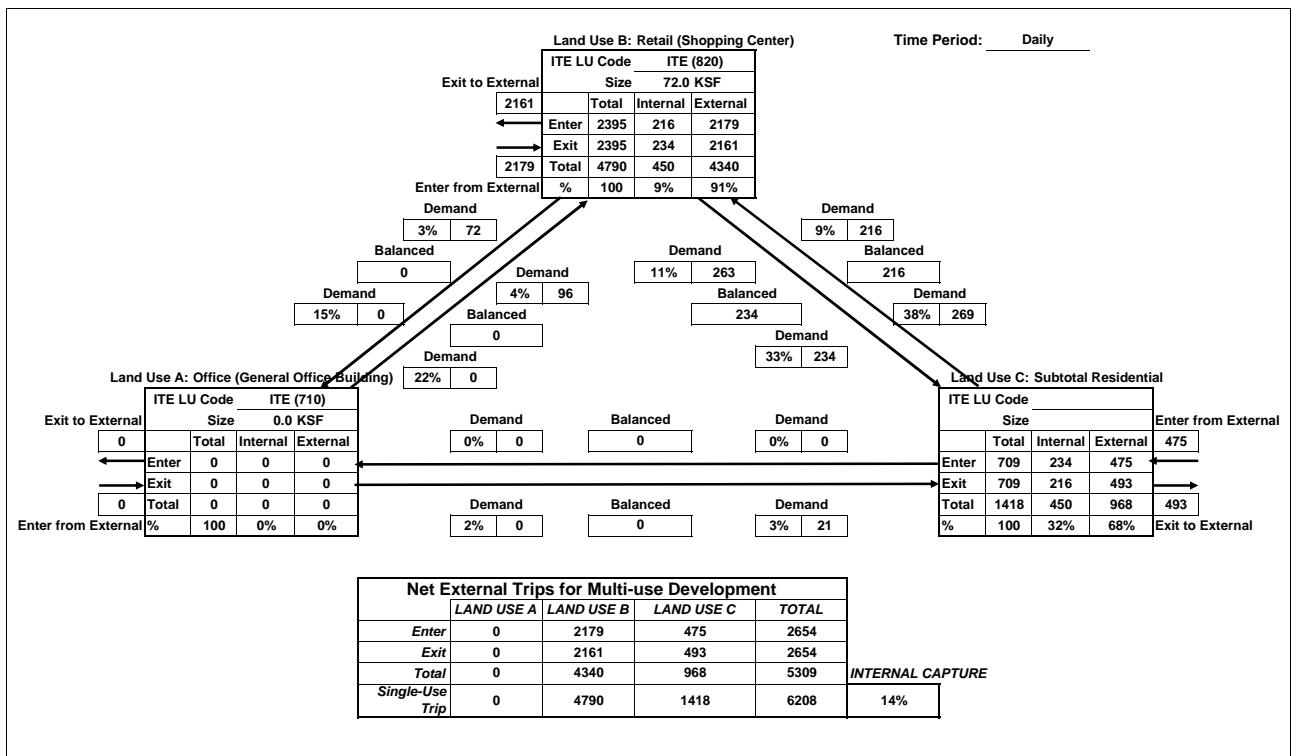
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

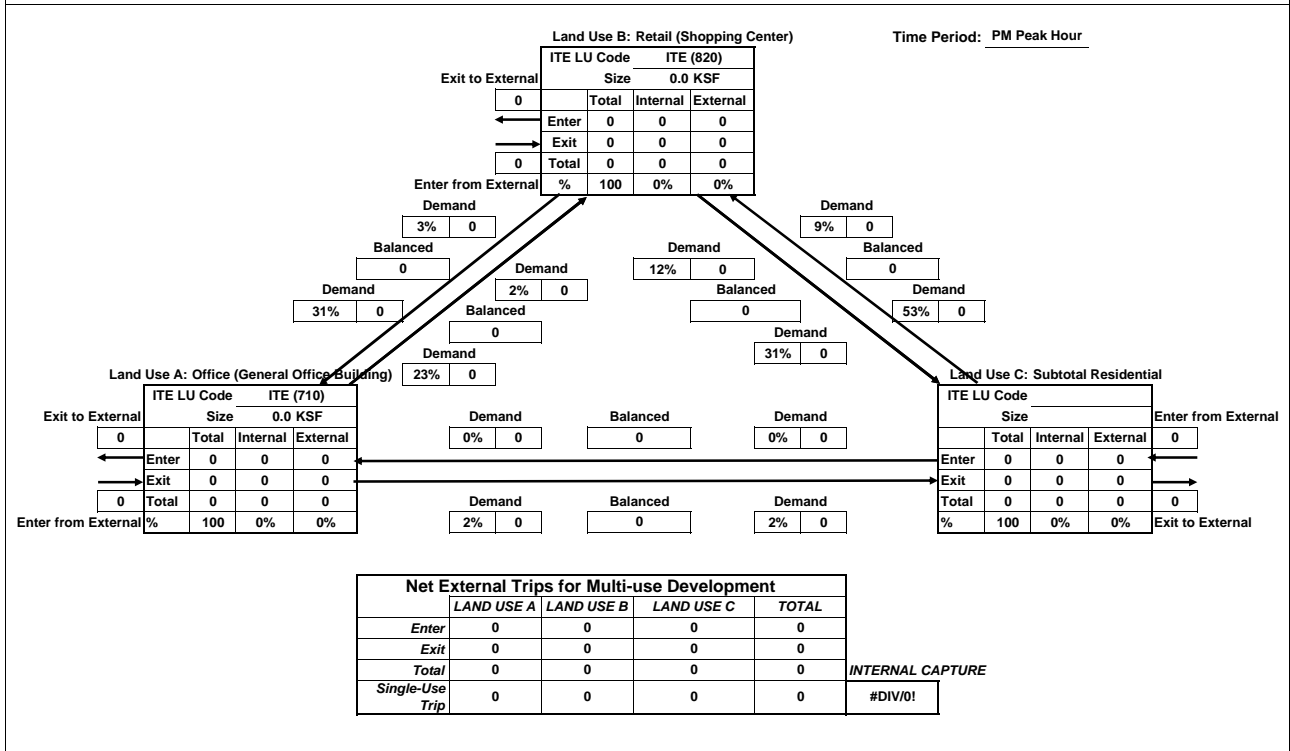
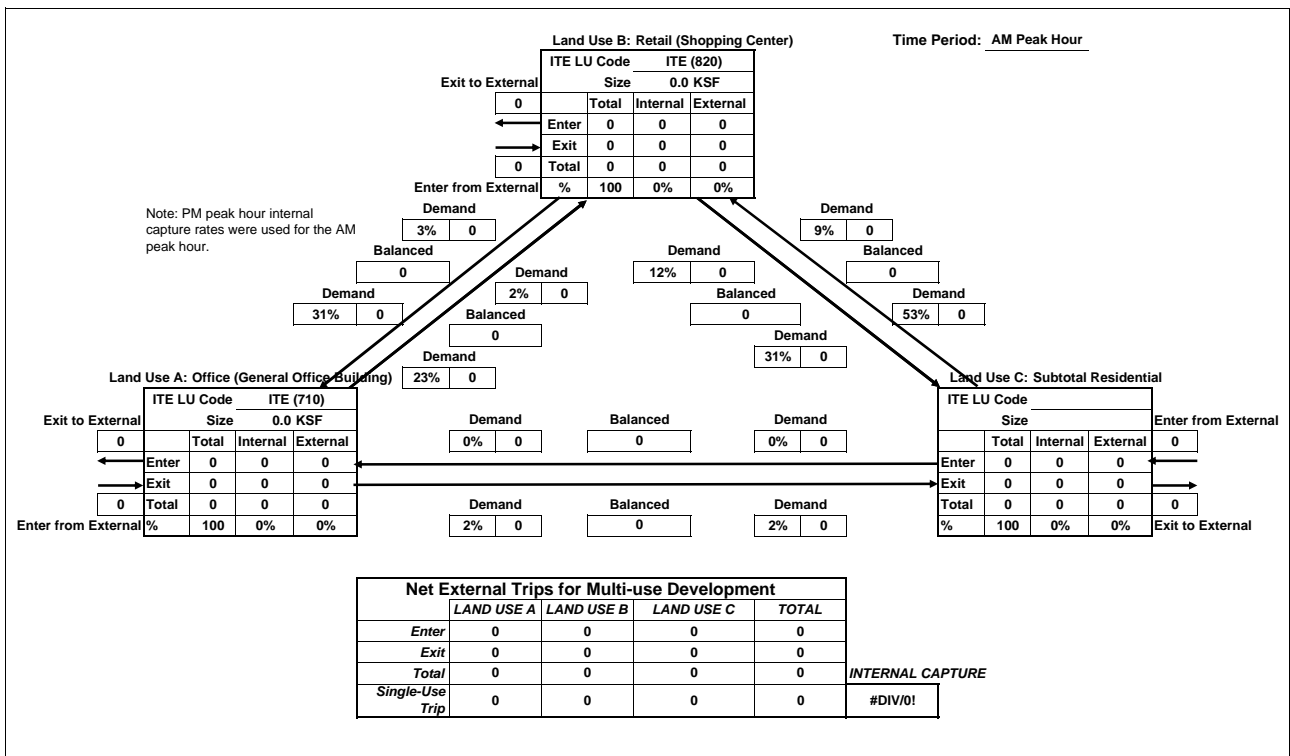


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



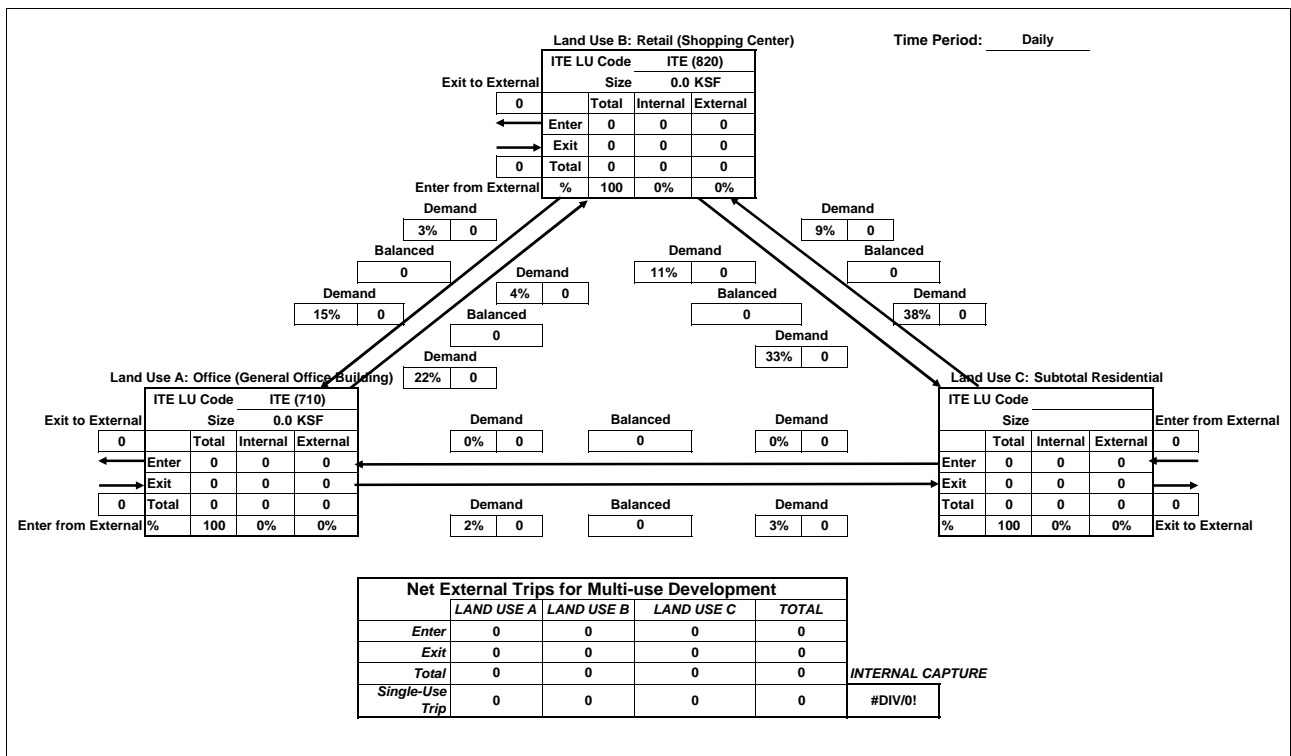
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

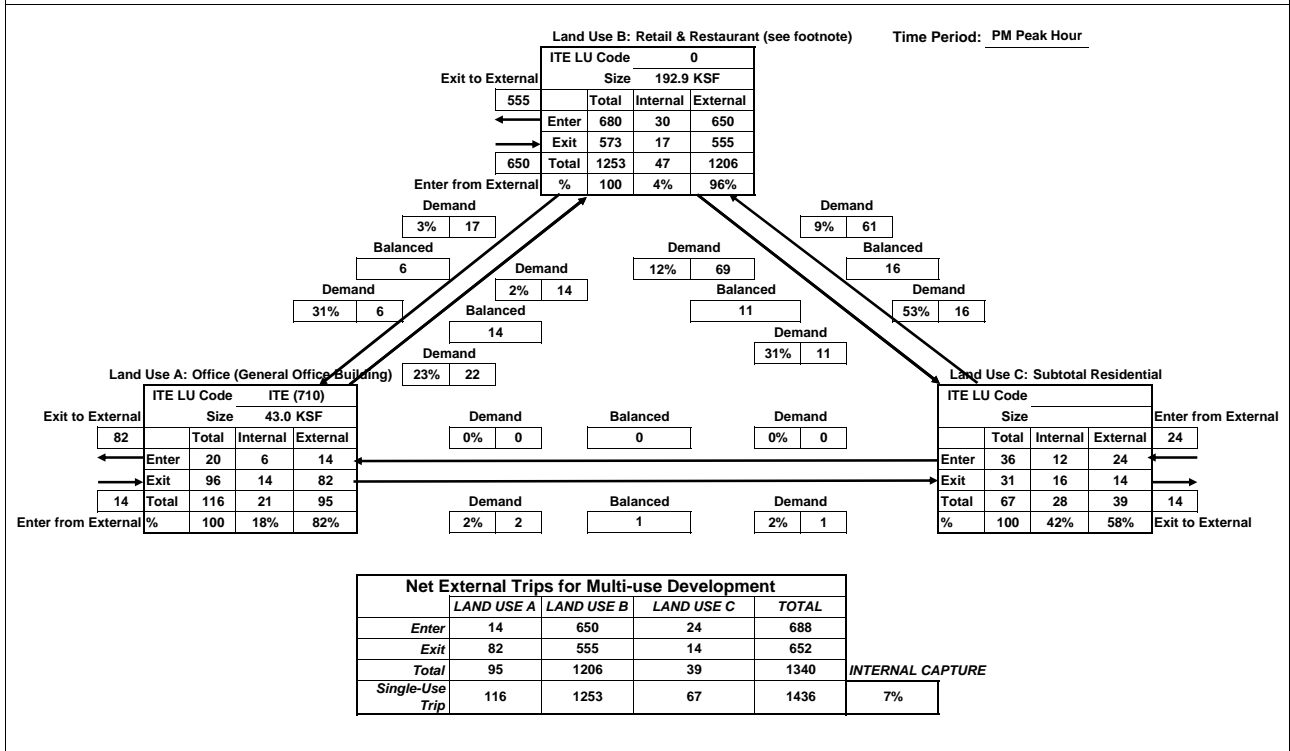
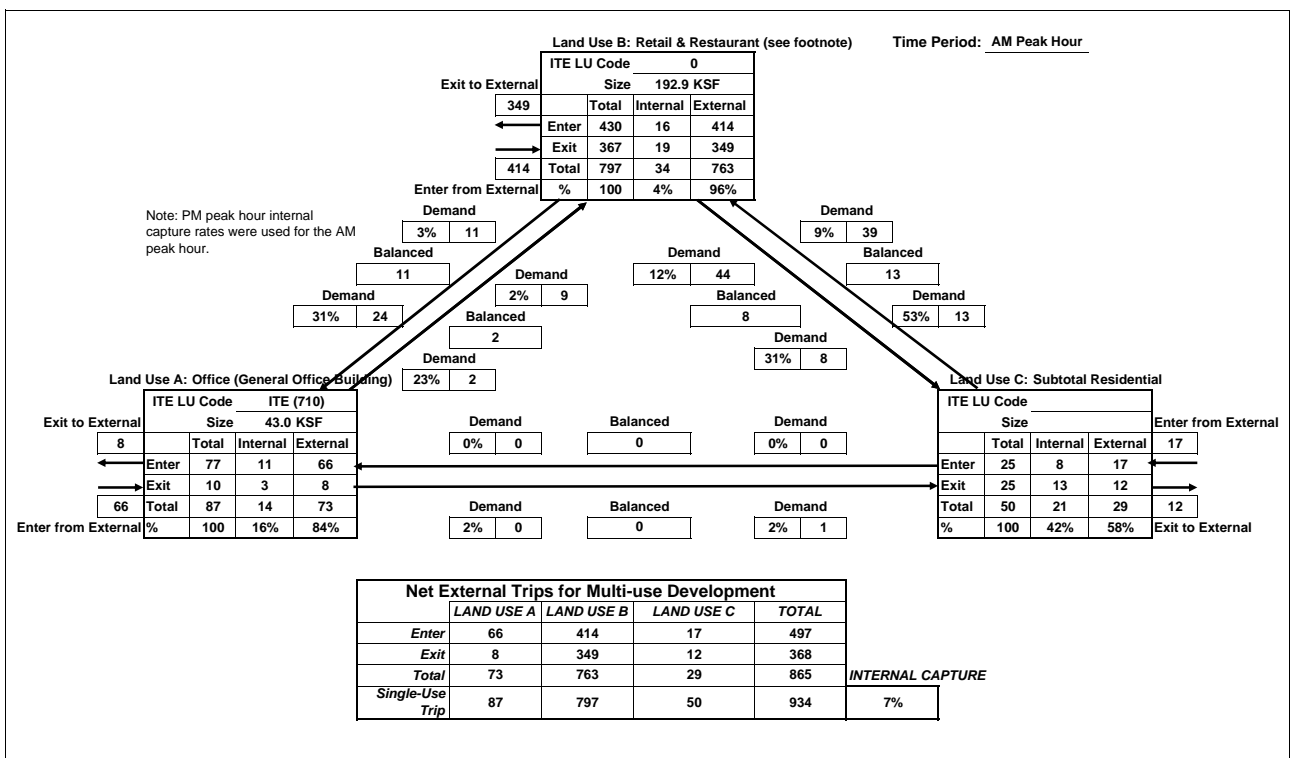
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)



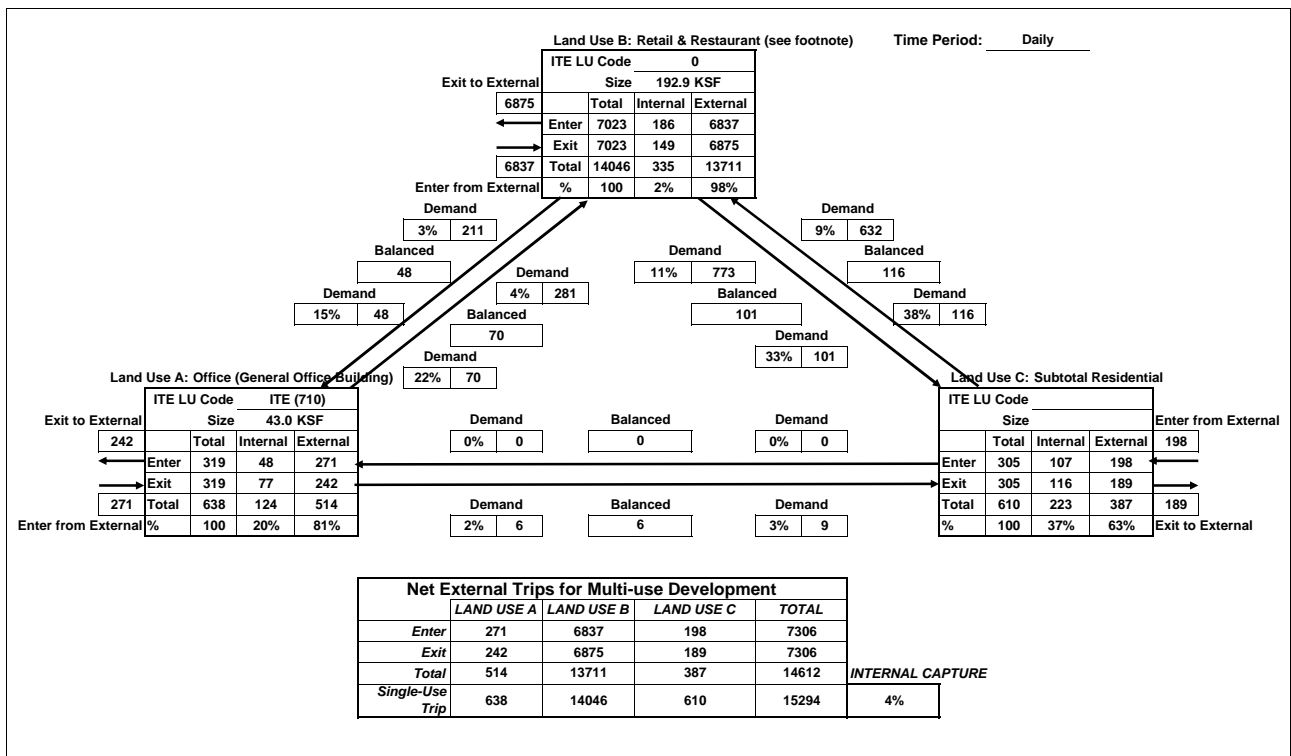
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

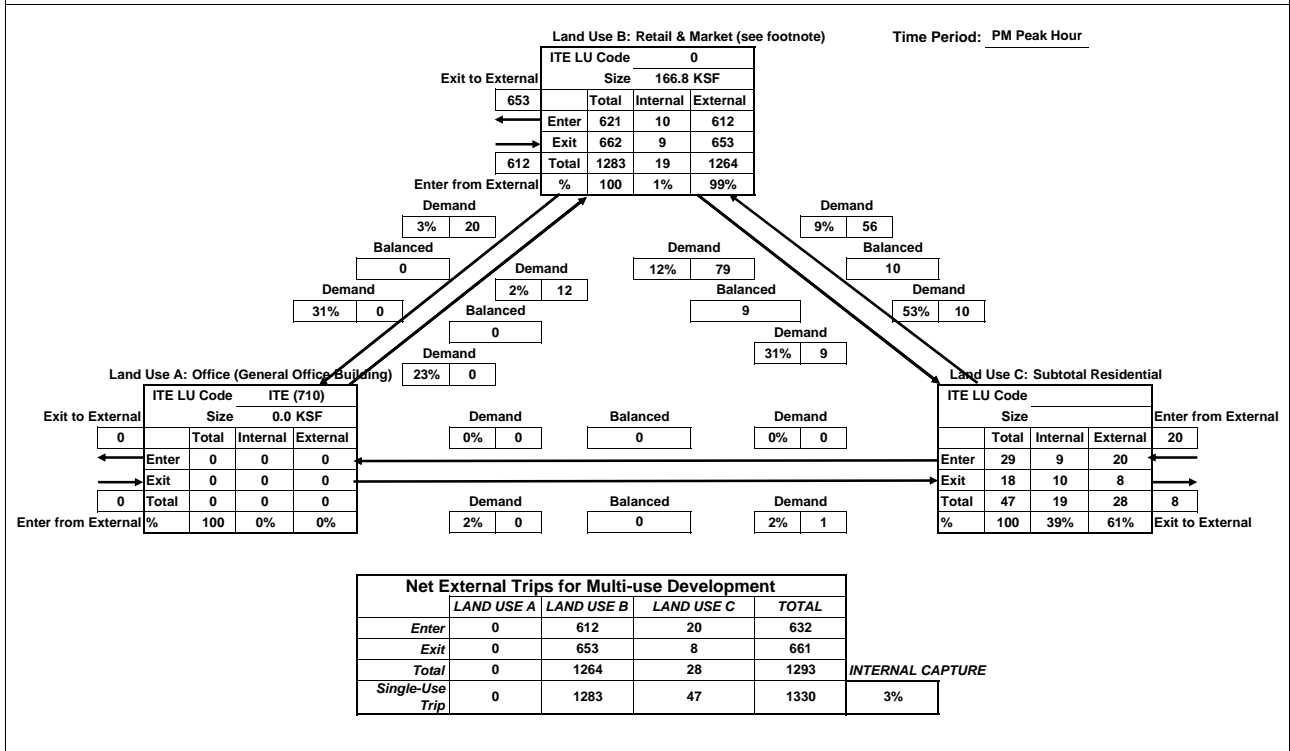
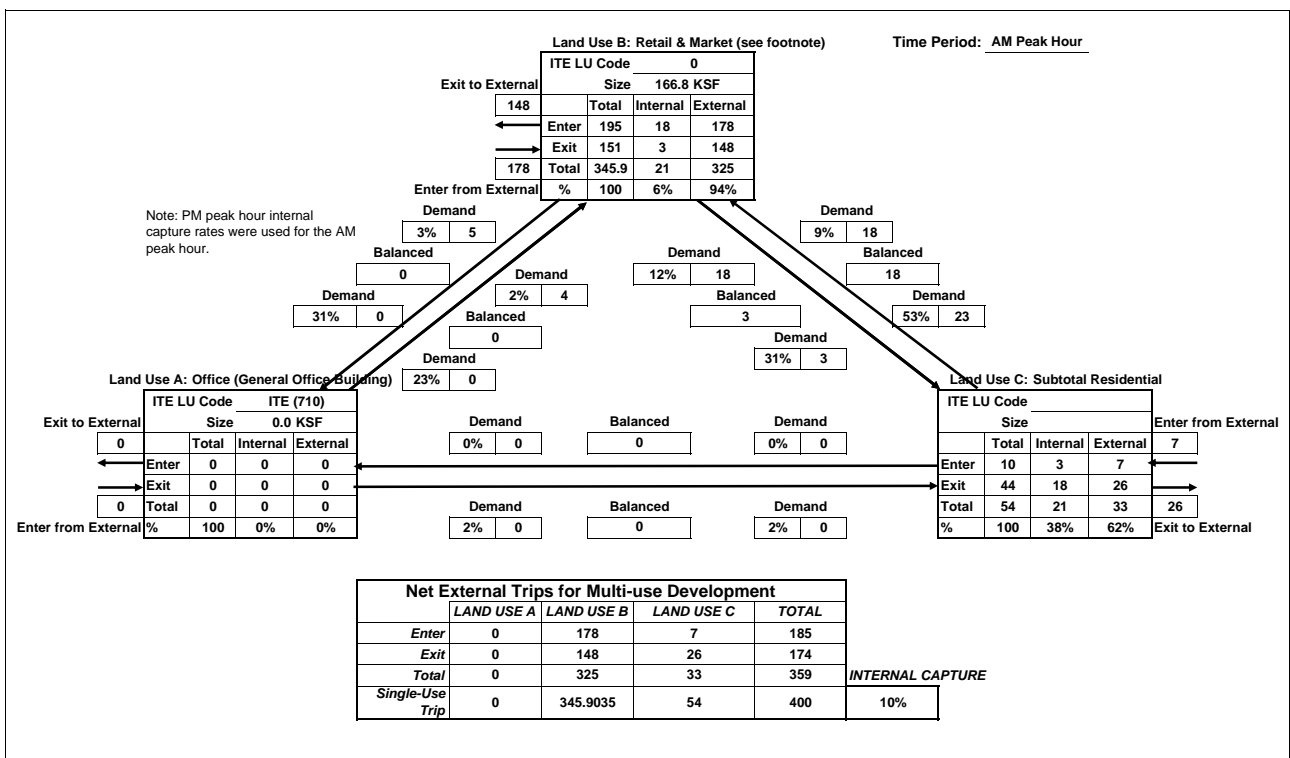
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

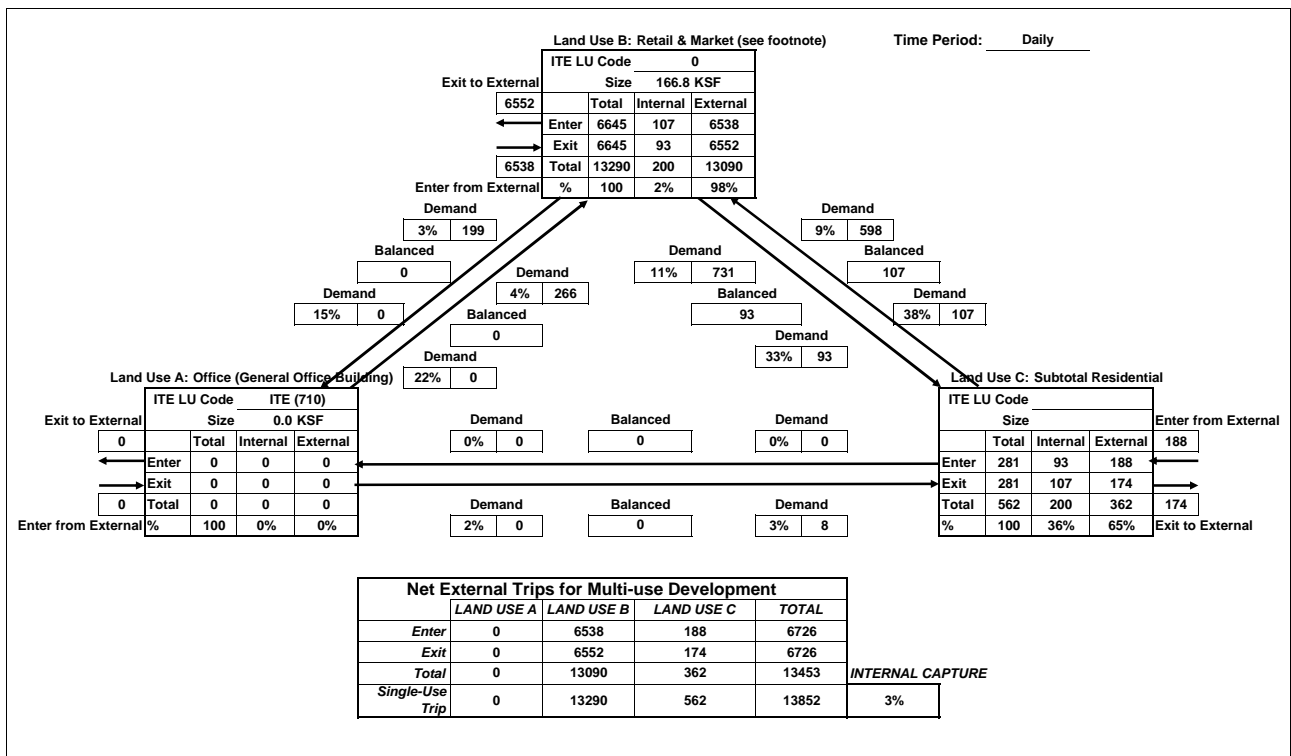


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

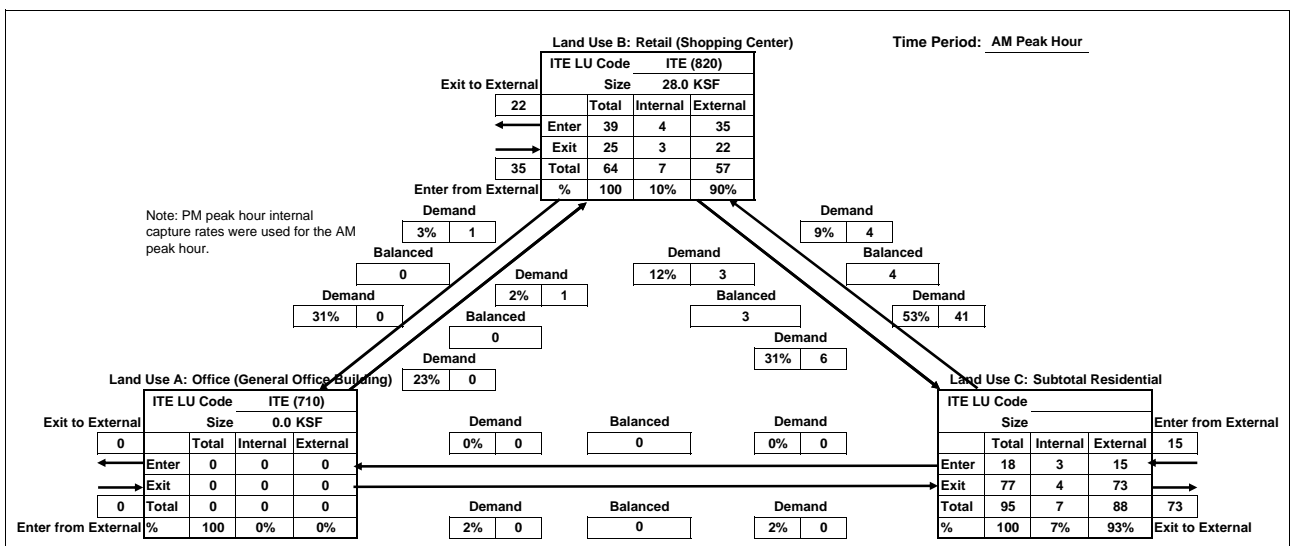


Analyst: Dowling

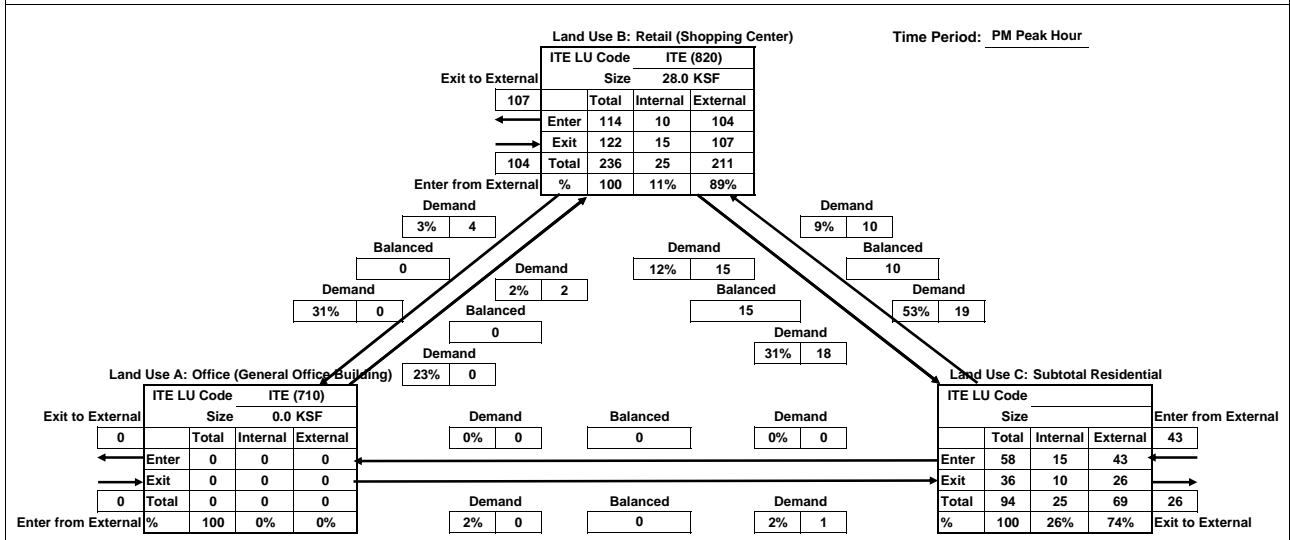
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	35	15	50	
Exit	0	22	73	95	
Total	0	57	88	146	INTERNAL CAPTURE
Single-Use Trip	0	64	95	159	8%



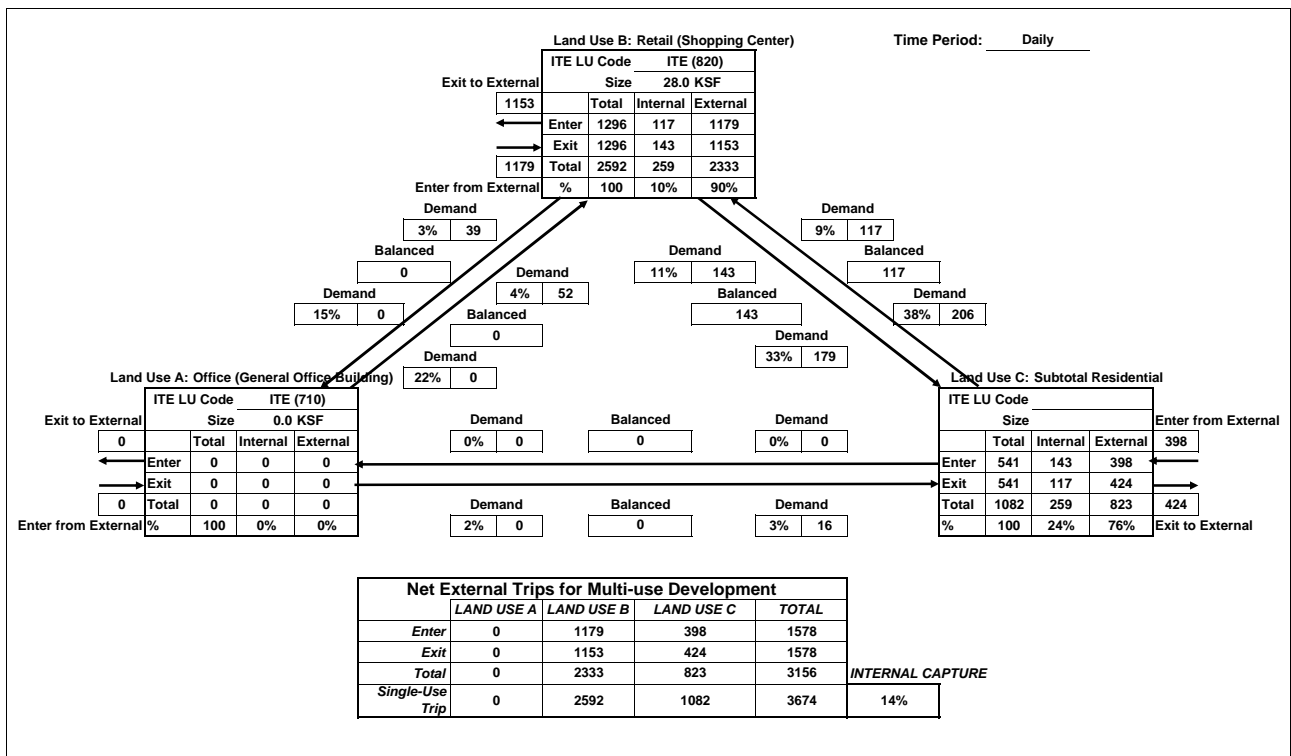
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	104	43	147	
Exit	0	107	26	133	
Total	0	211	69	280	INTERNAL CAPTURE
Single-Use Trip	0	236	94	330	15%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

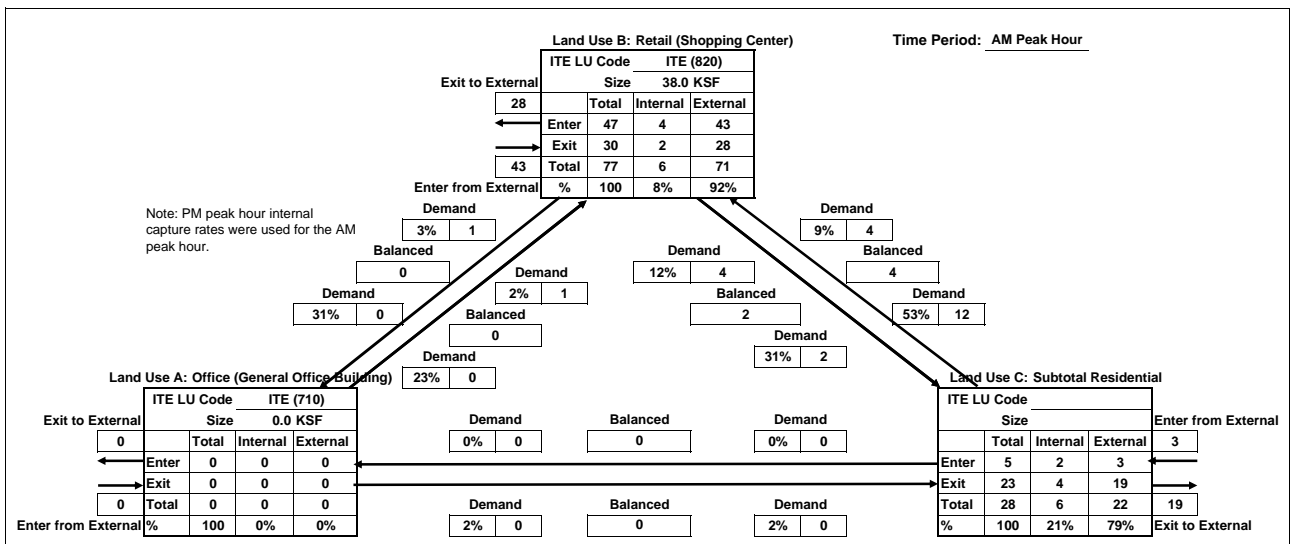


Analyst: Dowling

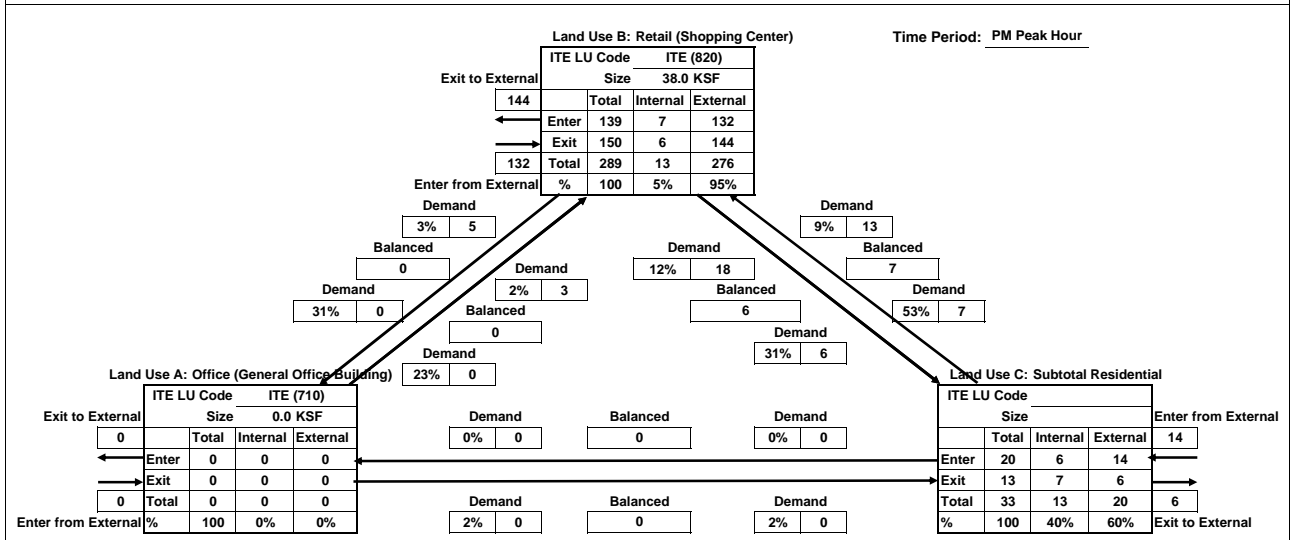
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	43	3	46	
Exit	0	28	19	47	
Total	0	71	22	93	INTERNAL CAPTURE
Single-Use Trip	0	77	28	105	11%



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	132	14	146	
Exit	0	144	6	150	
Total	0	276	20	296	INTERNAL CAPTURE
Single-Use Trip	0	289	33	322	8%

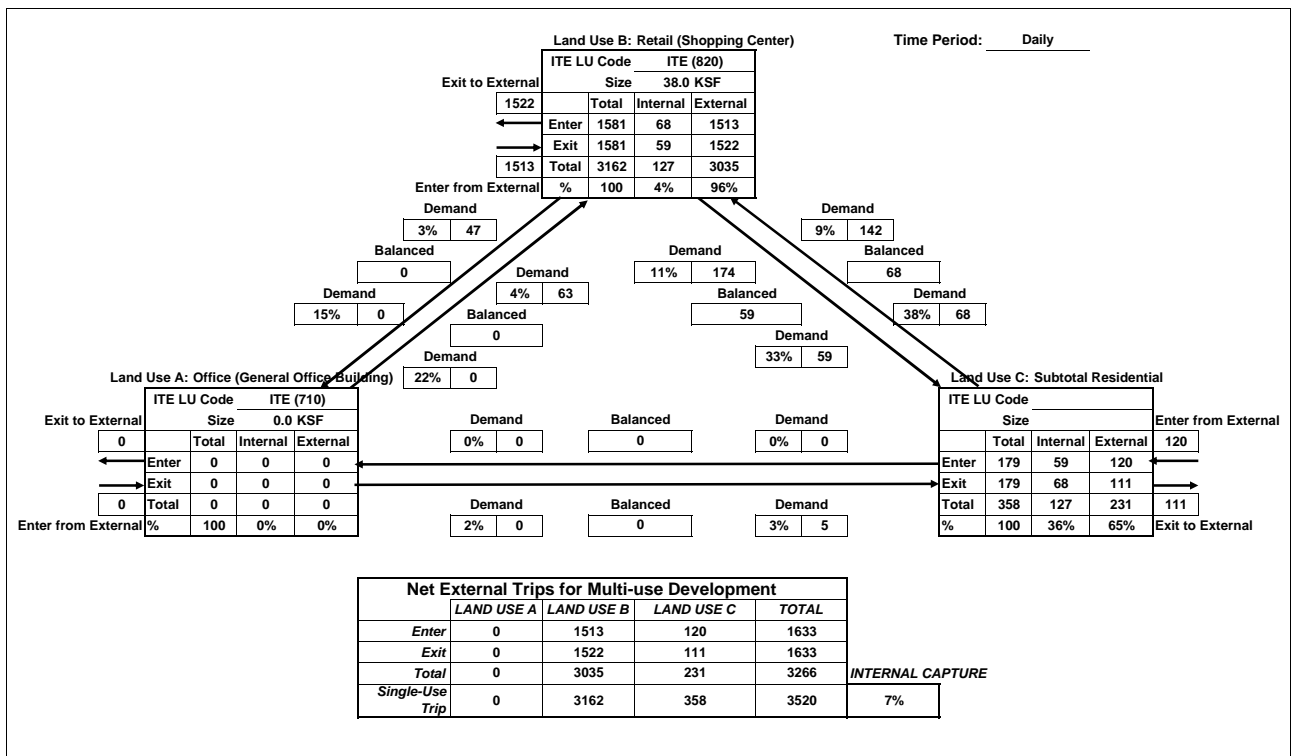
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

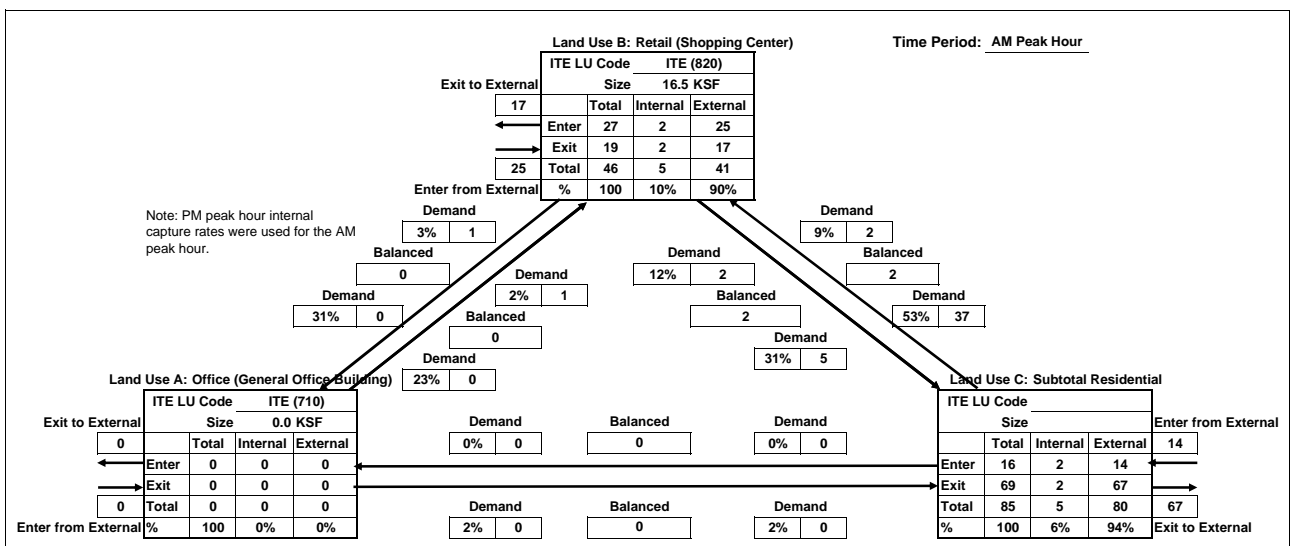


Analyst: Dowling

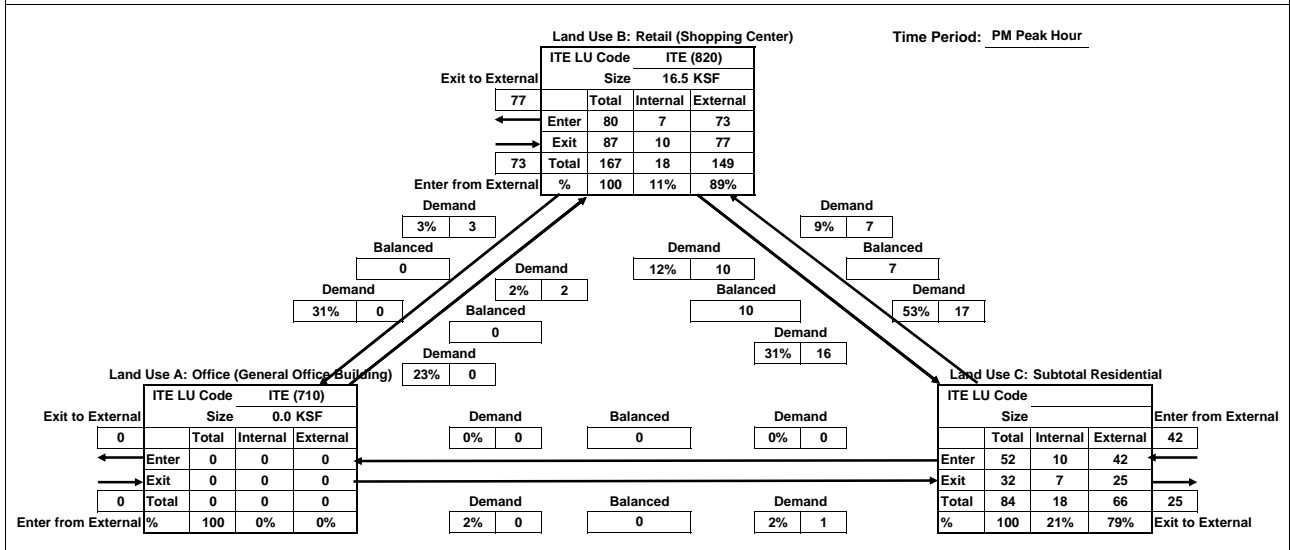
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	25	14	38	
Exit	0	17	67	83	
Total	0	41	80	122	INTERNAL CAPTURE
Single-Use Trip	0	46	85	131	7%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	73	42	114	
Exit	0	77	25	101	
Total	0	149	66	216	INTERNAL CAPTURE
Single-Use Trip	0	167	84	251	14%

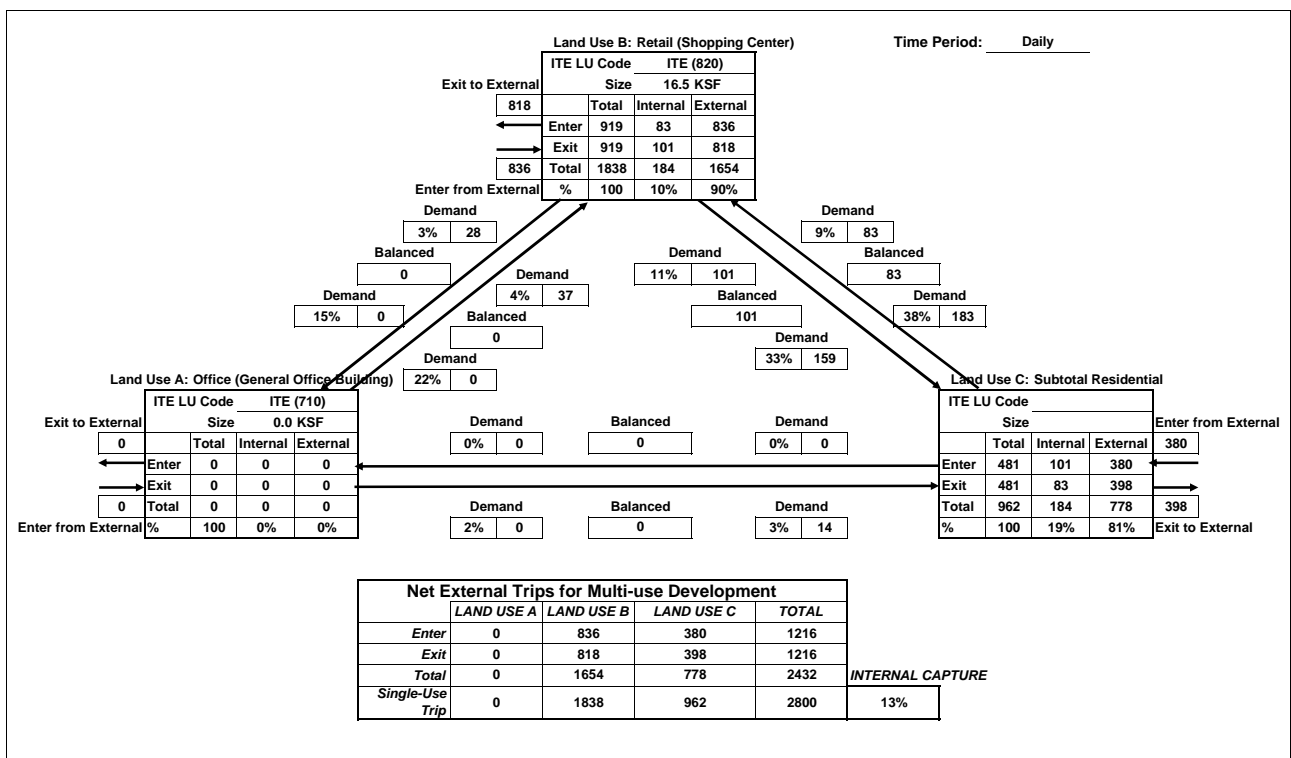
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

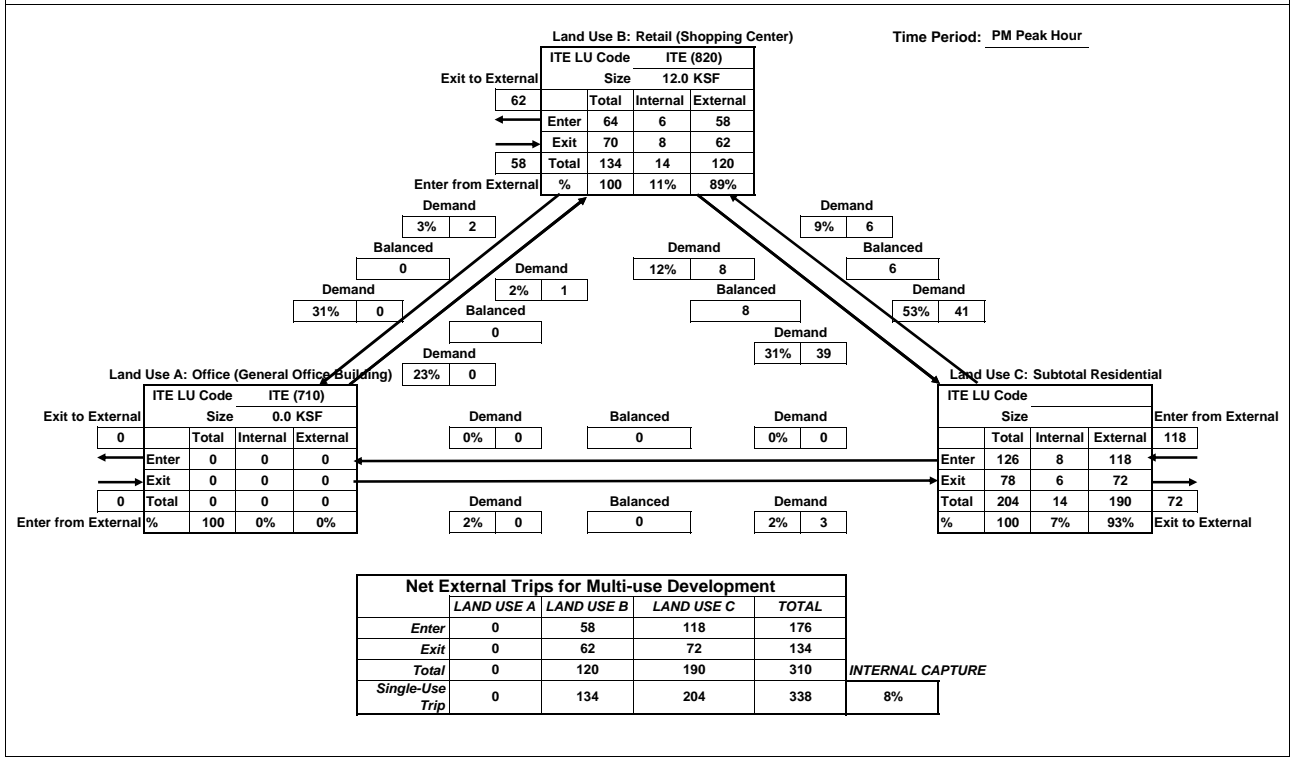
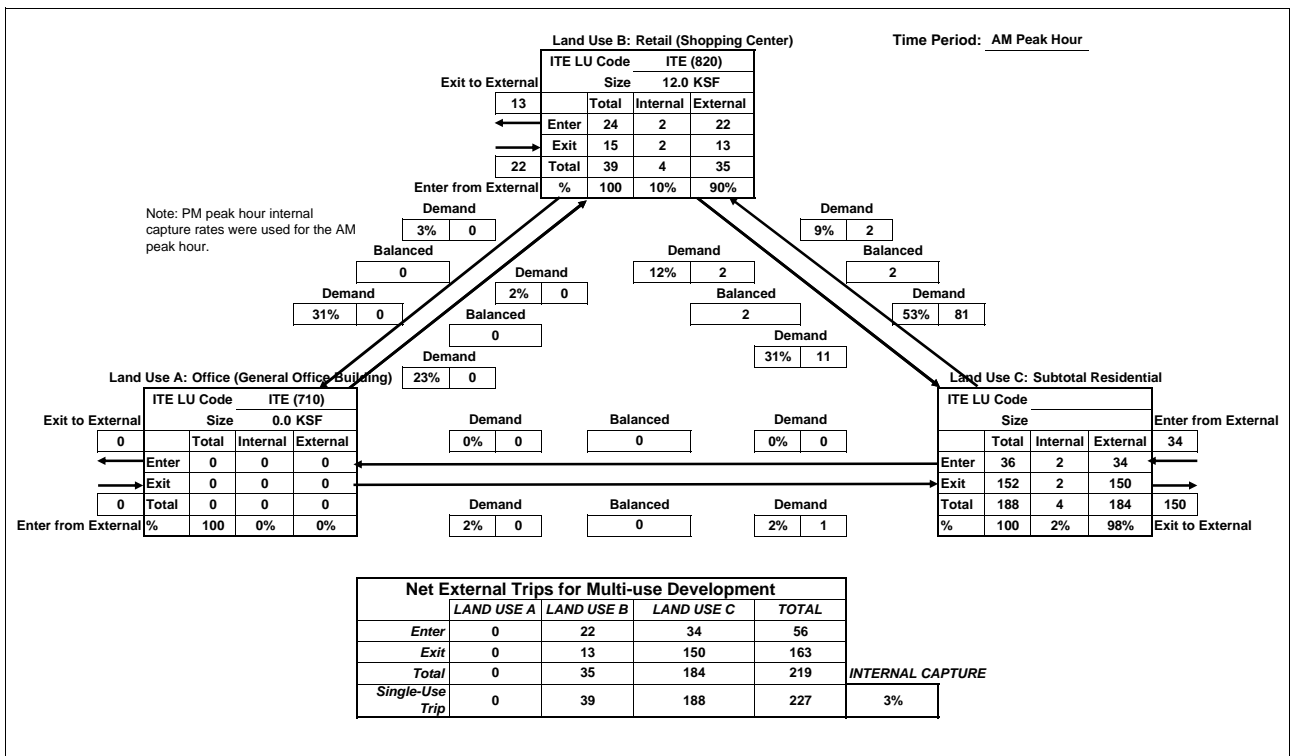
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



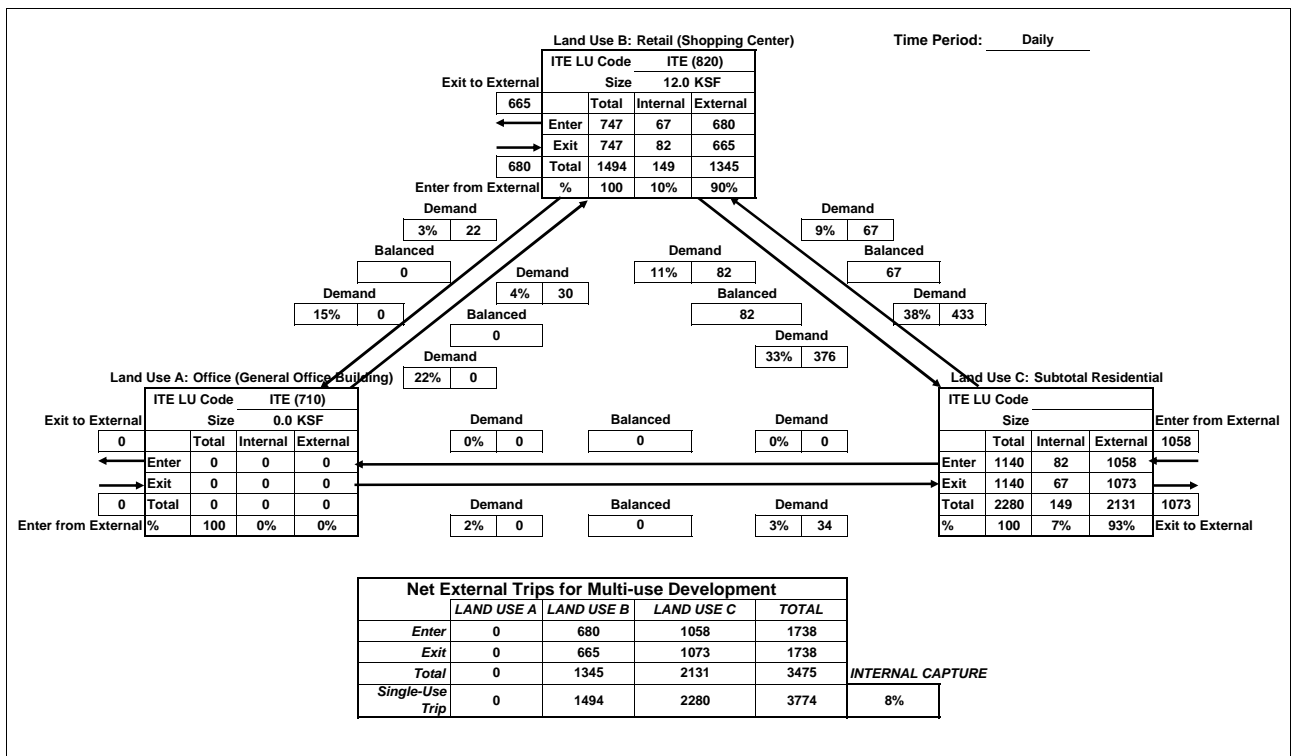
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

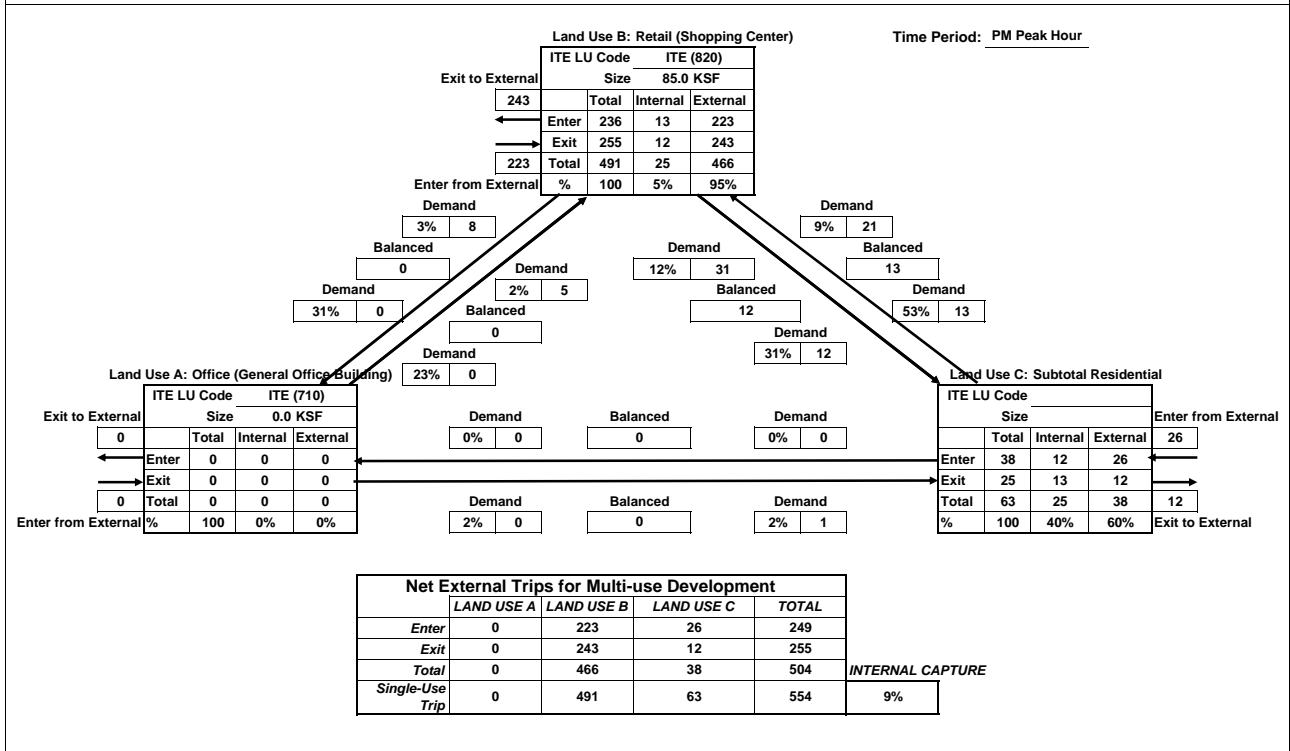
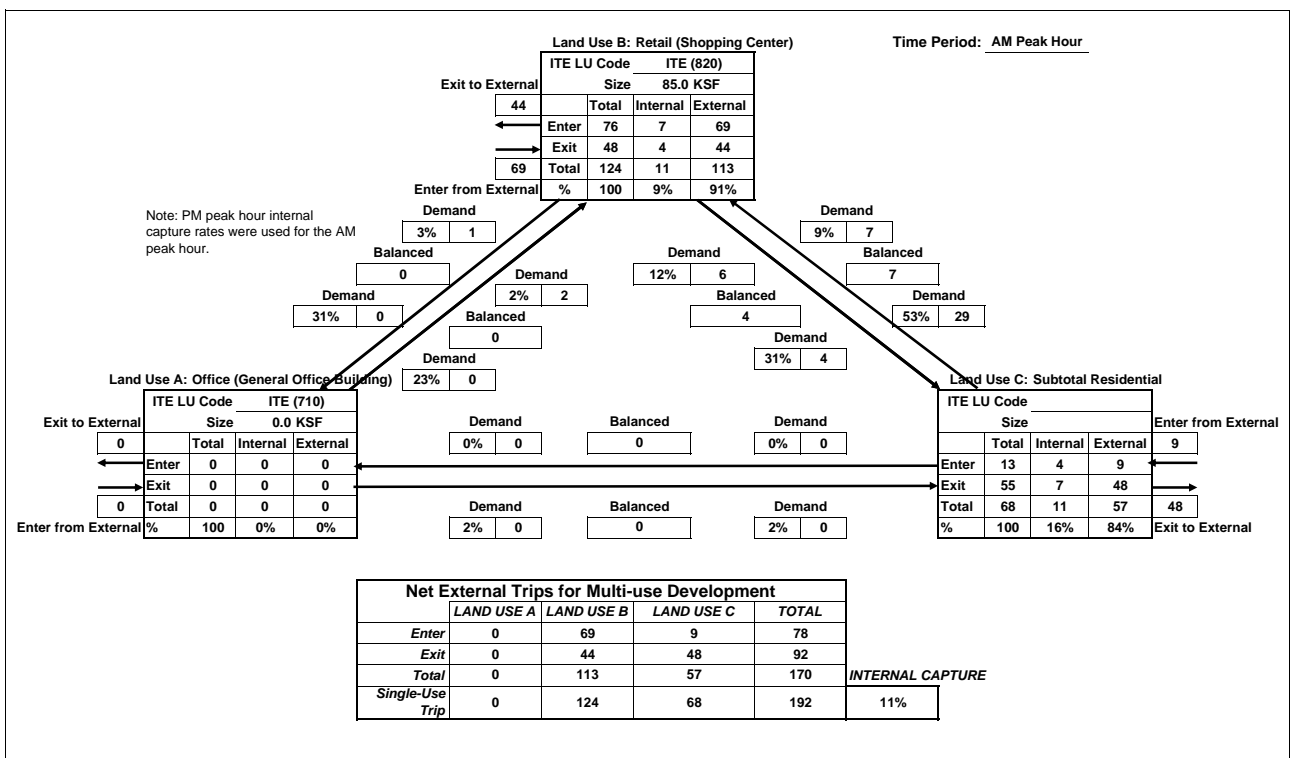


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

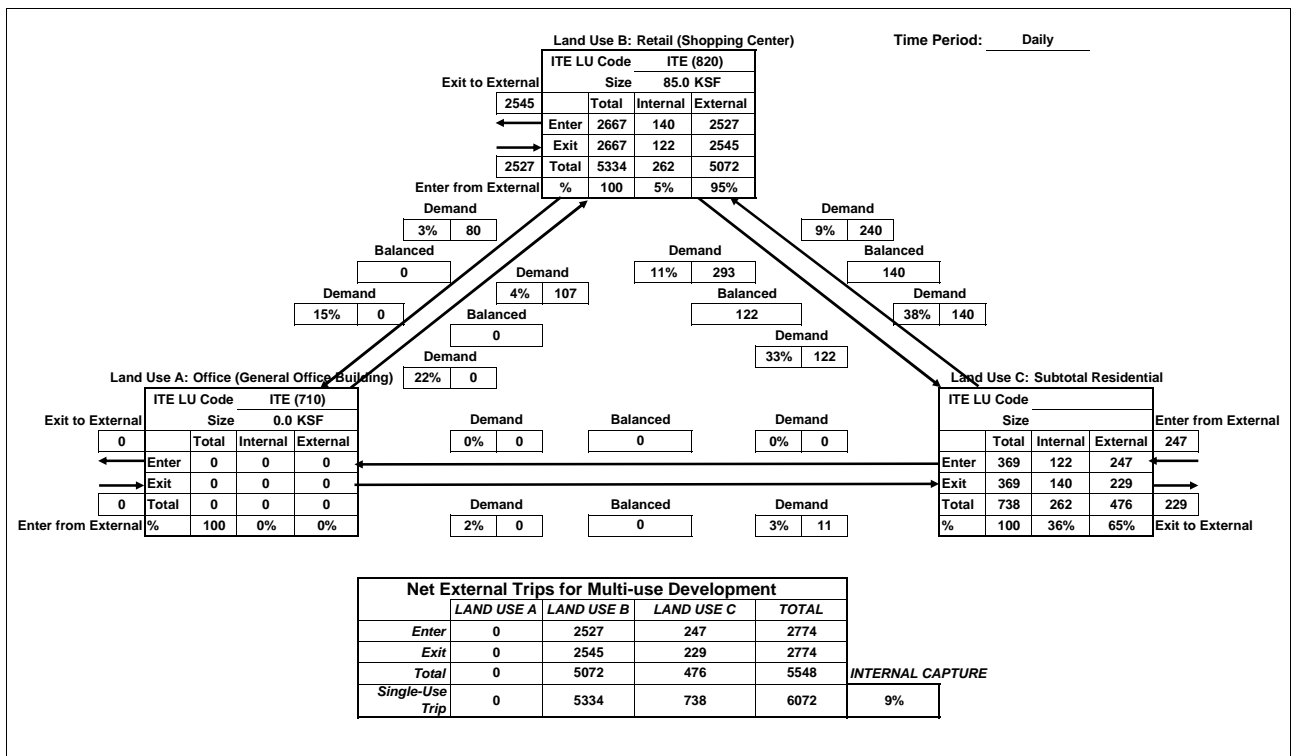


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

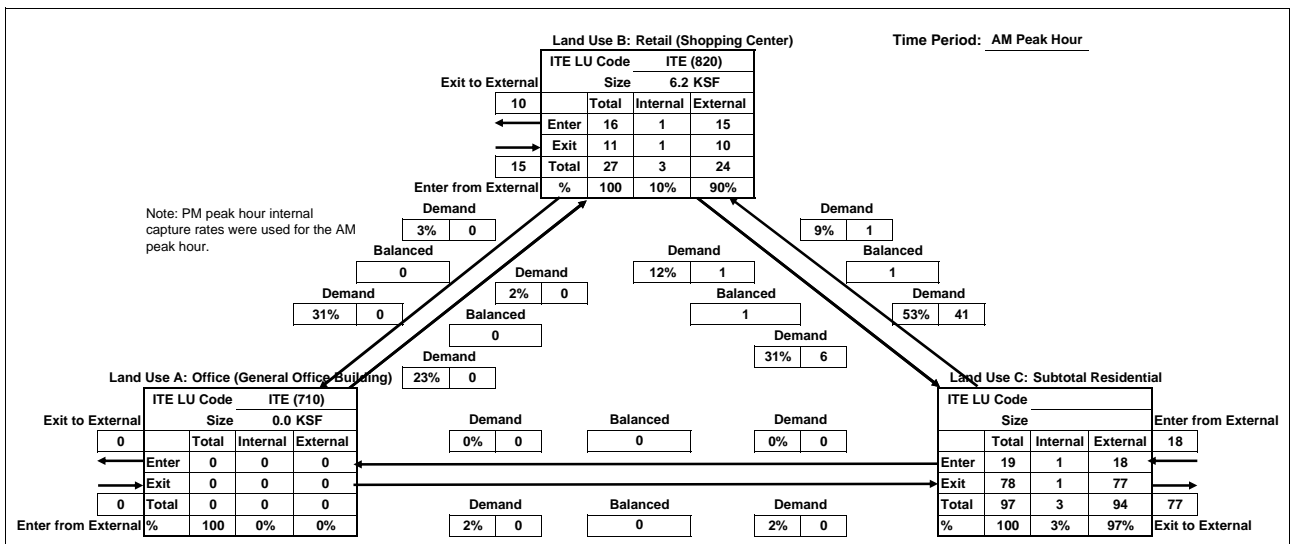


Analyst: Dowling

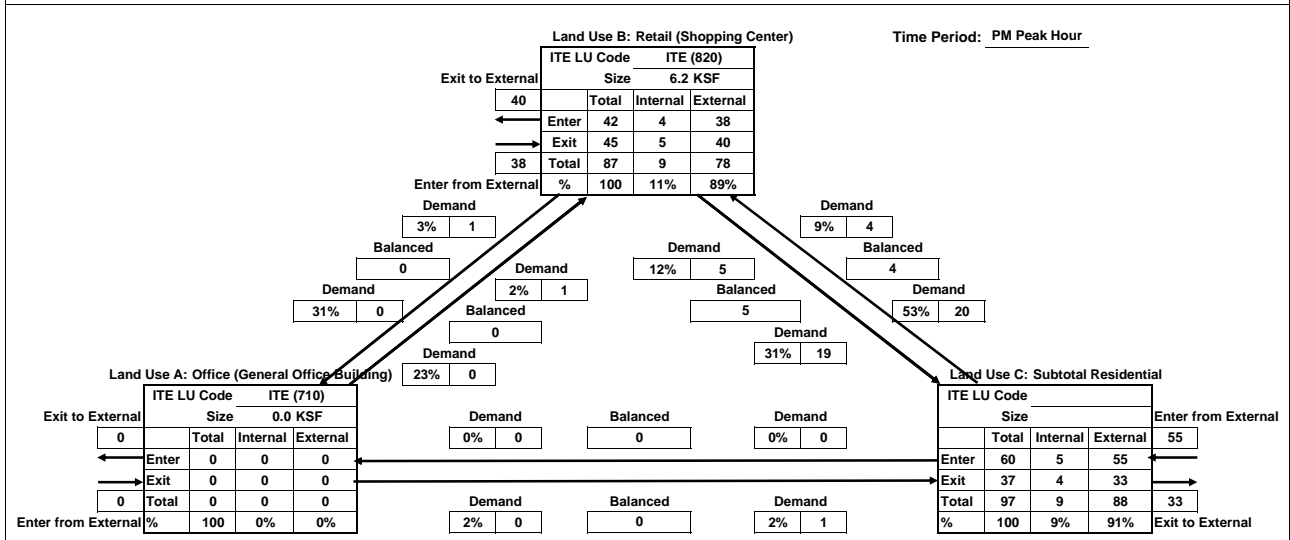
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	15	18	32	
Exit	0	10	77	86	
Total	0	24	94	118	INTERNAL CAPTURE
Single-Use Trip	0	27	97	124	4%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	38	55	93	
Exit	0	40	33	73	
Total	0	78	88	166	INTERNAL CAPTURE
Single-Use Trip	0	87	97	184	10%

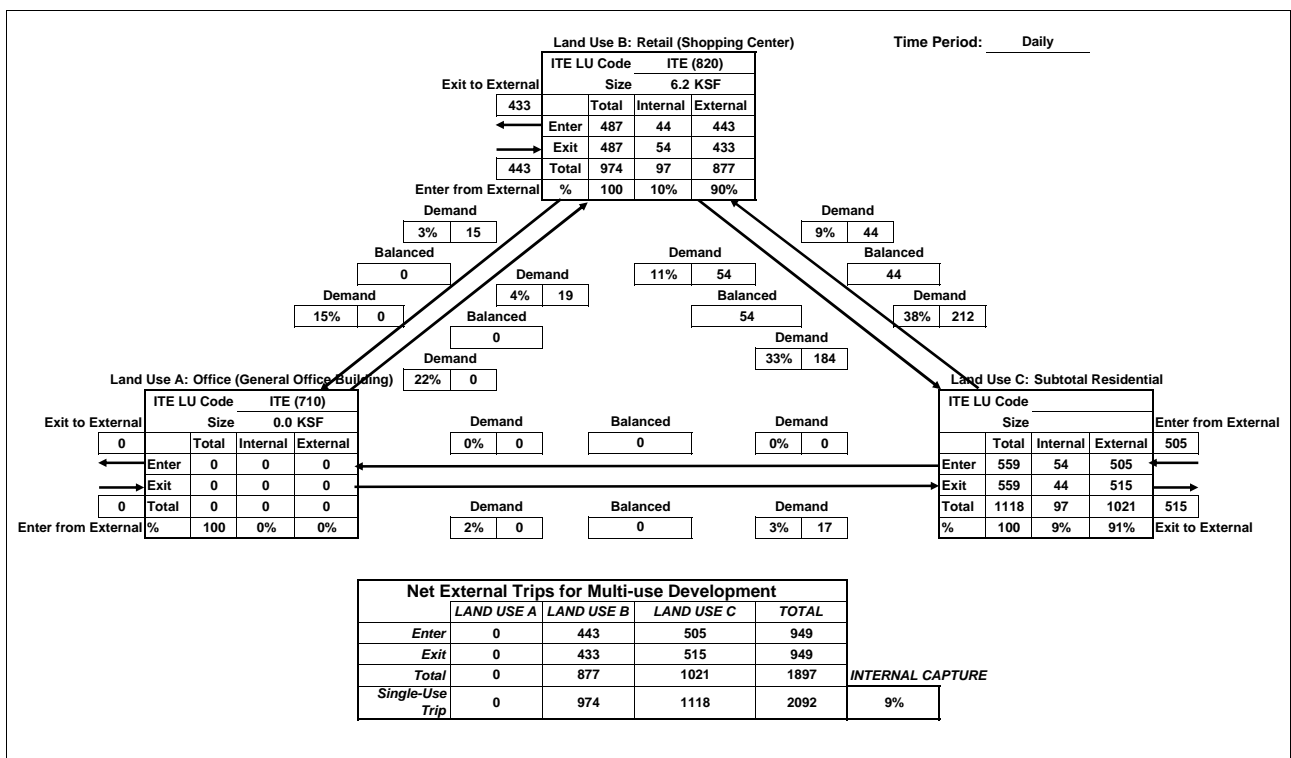
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

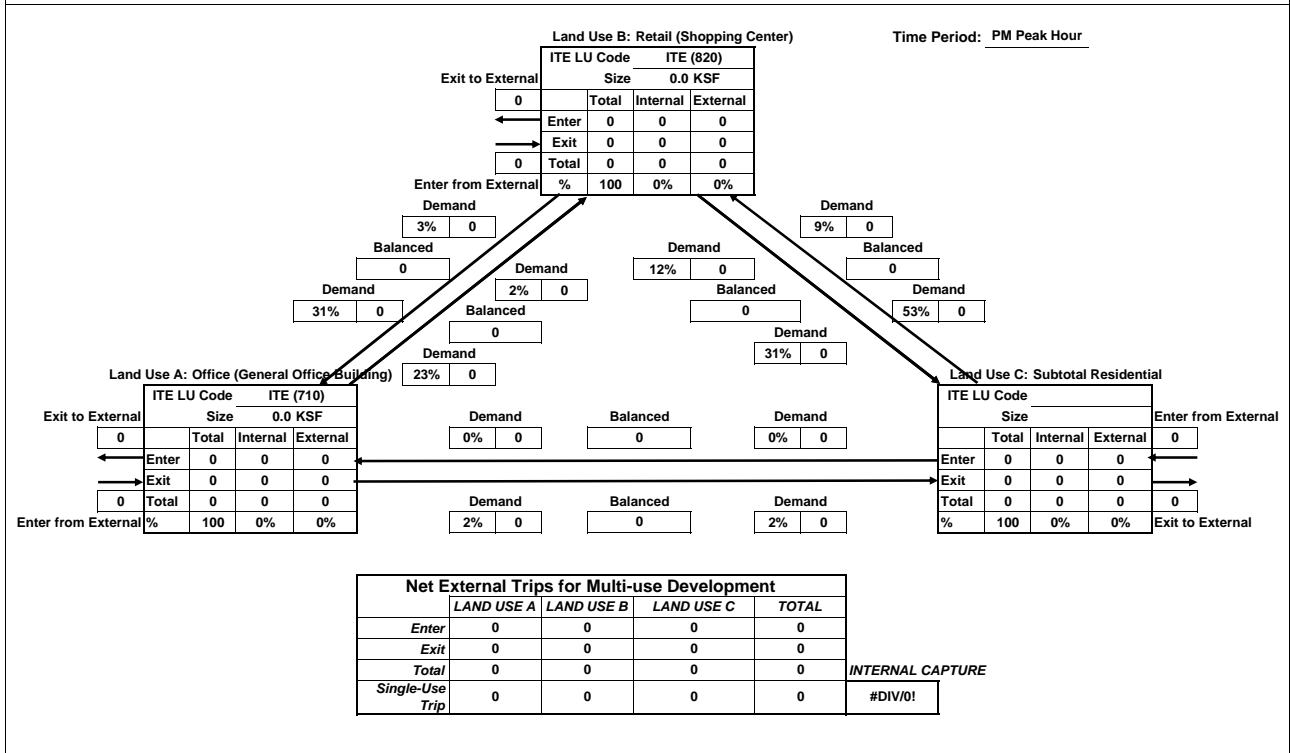
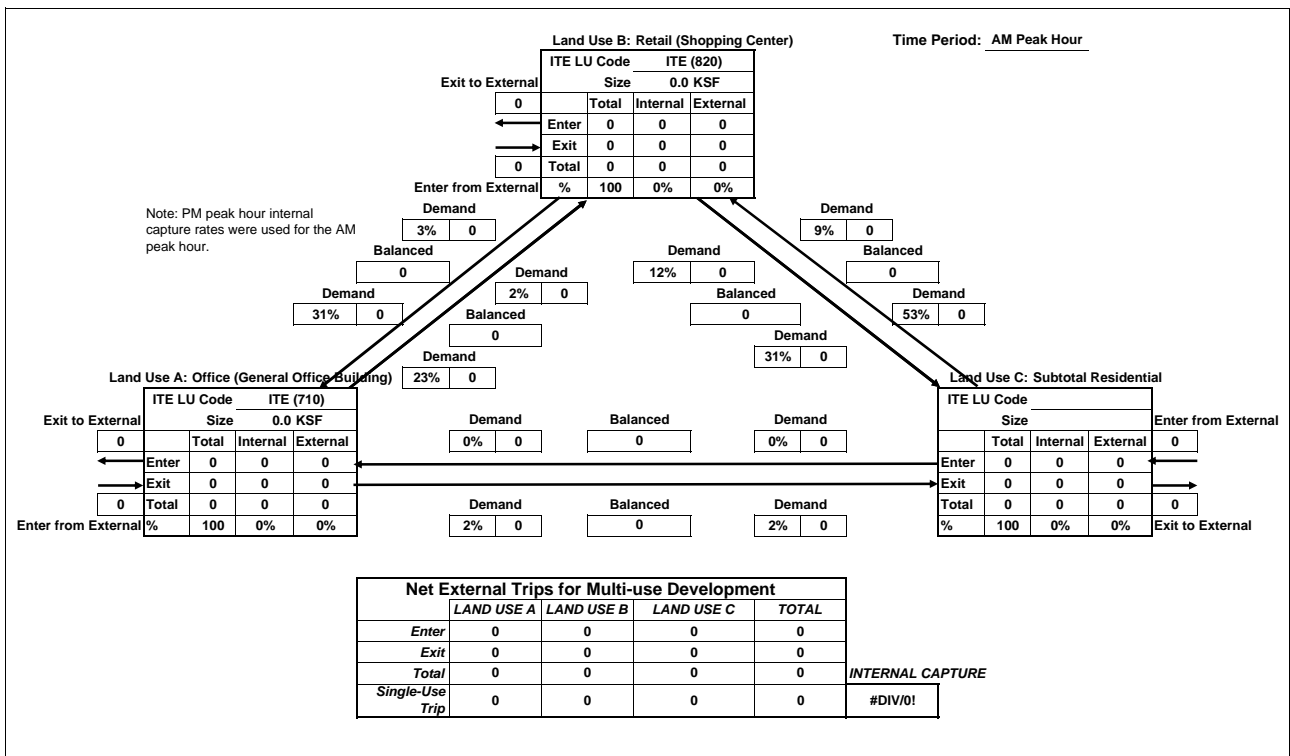


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



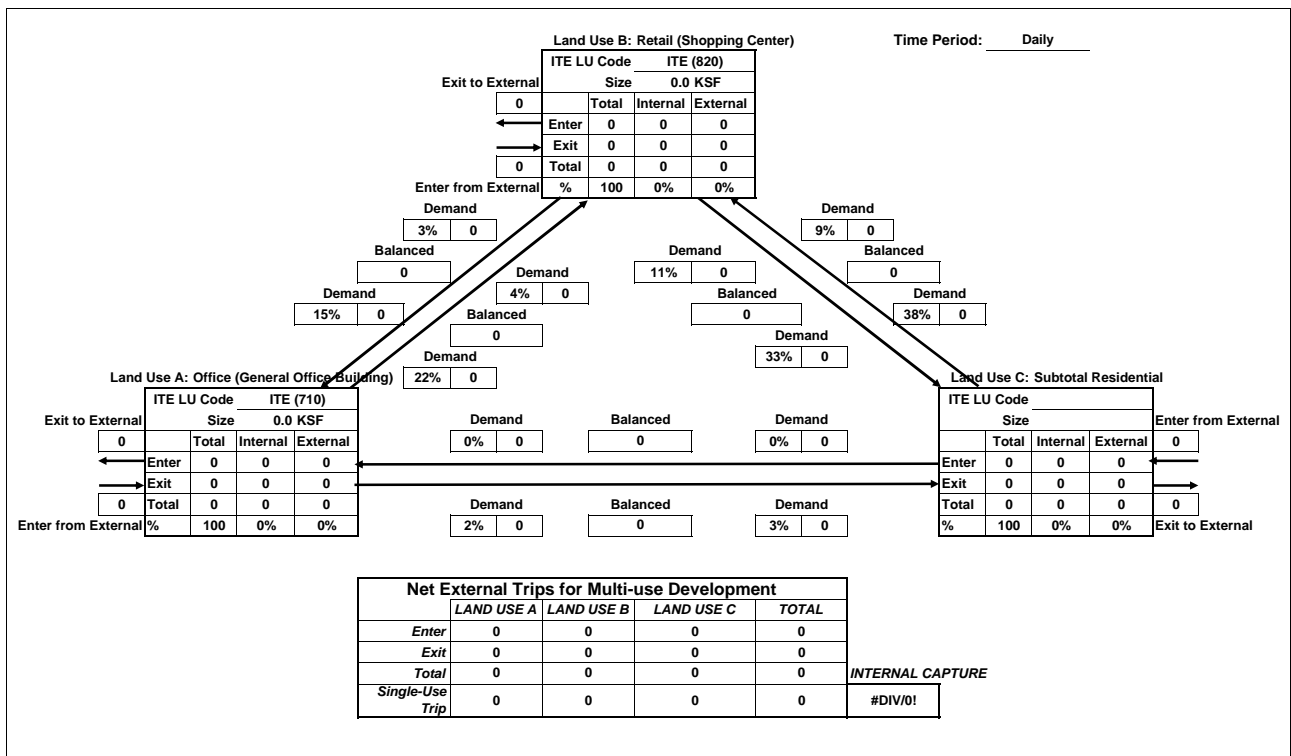
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

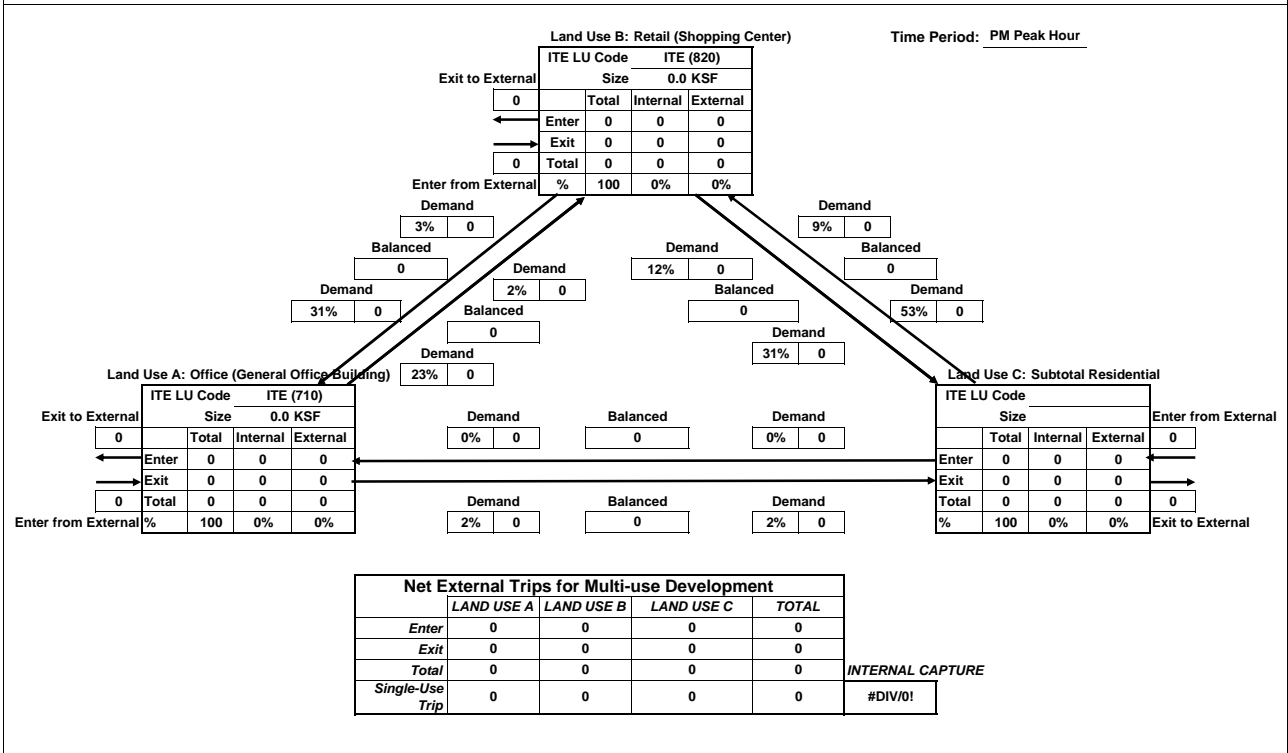
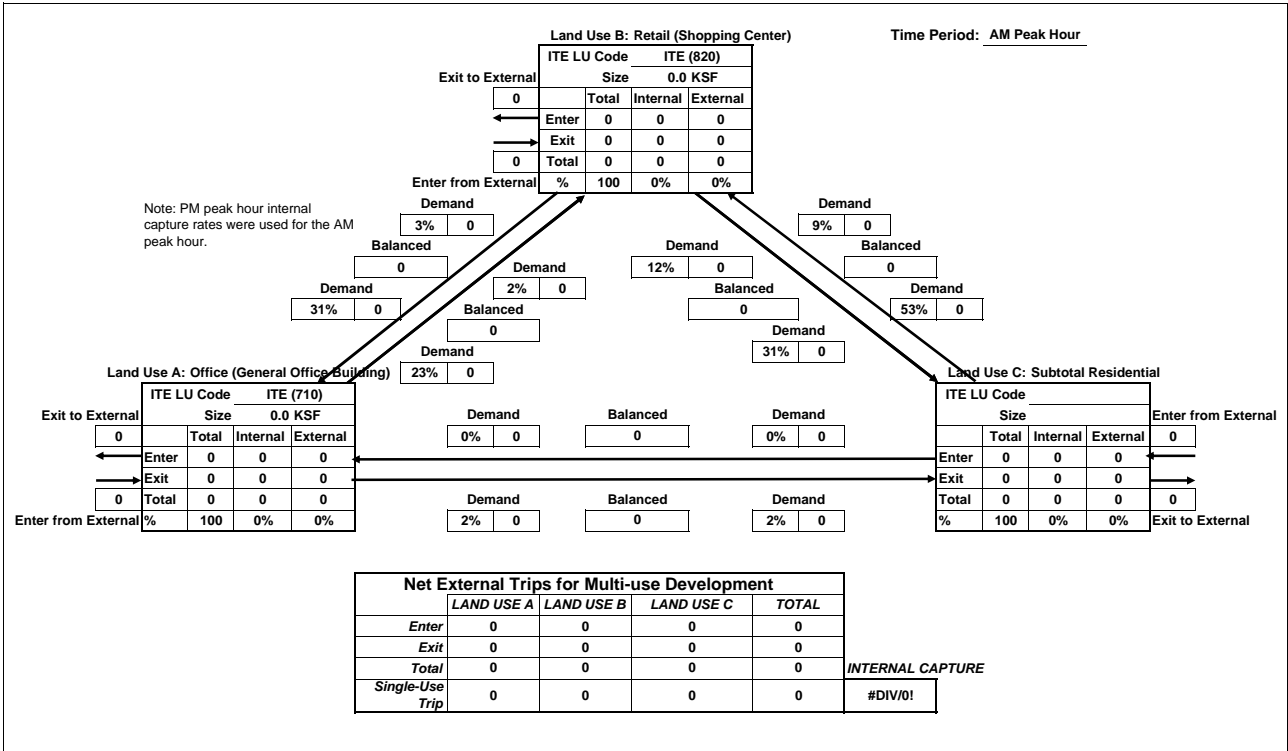
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

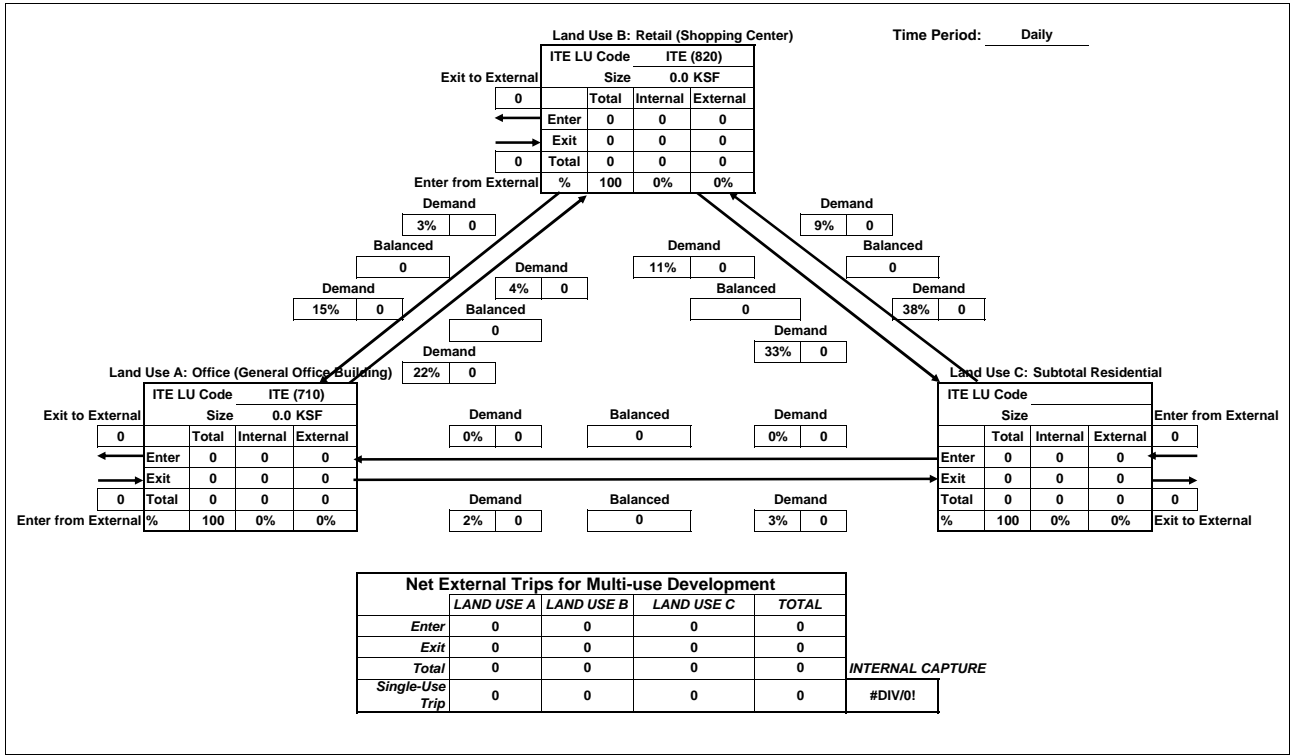


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

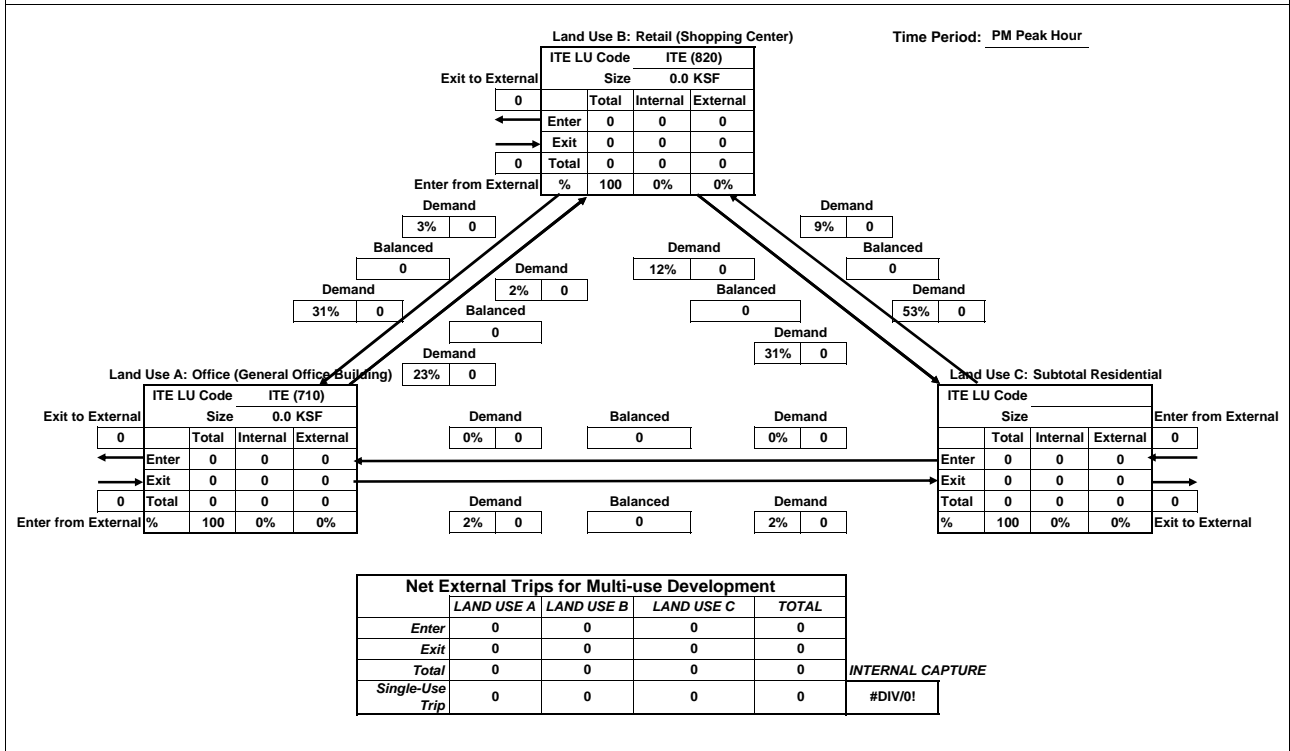
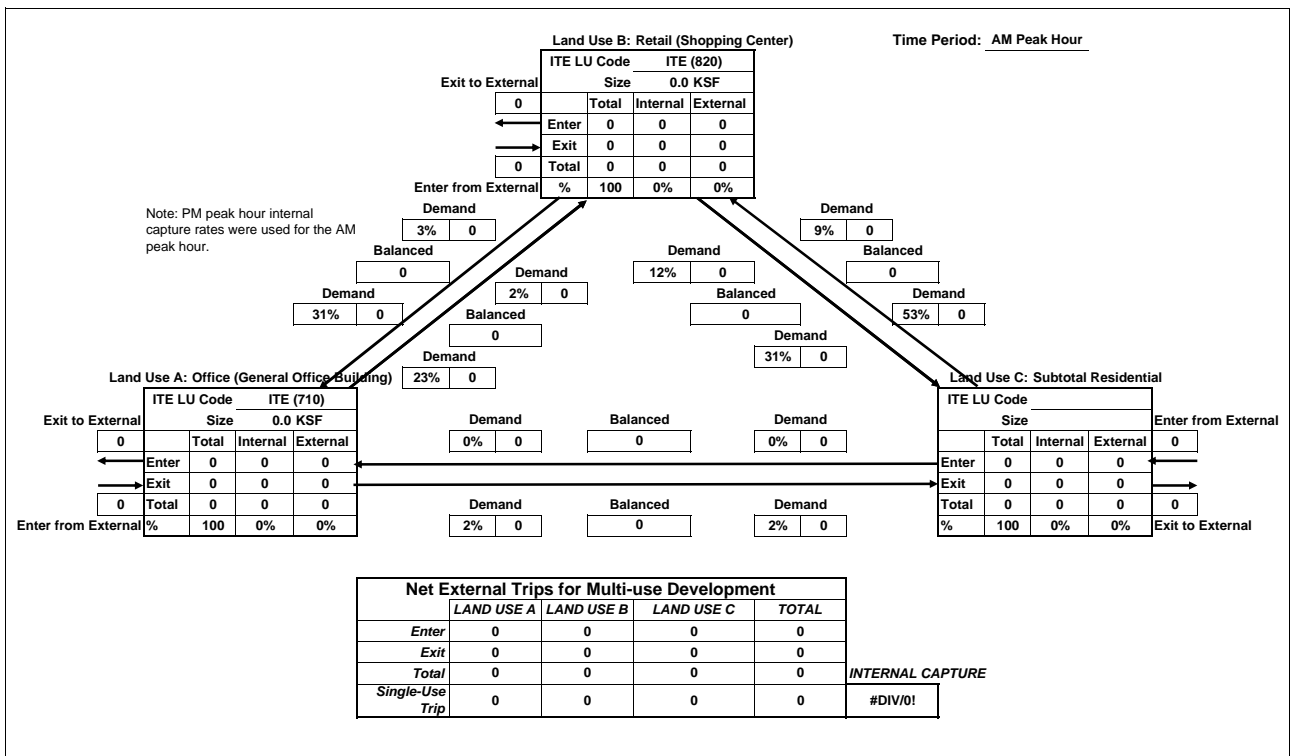


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



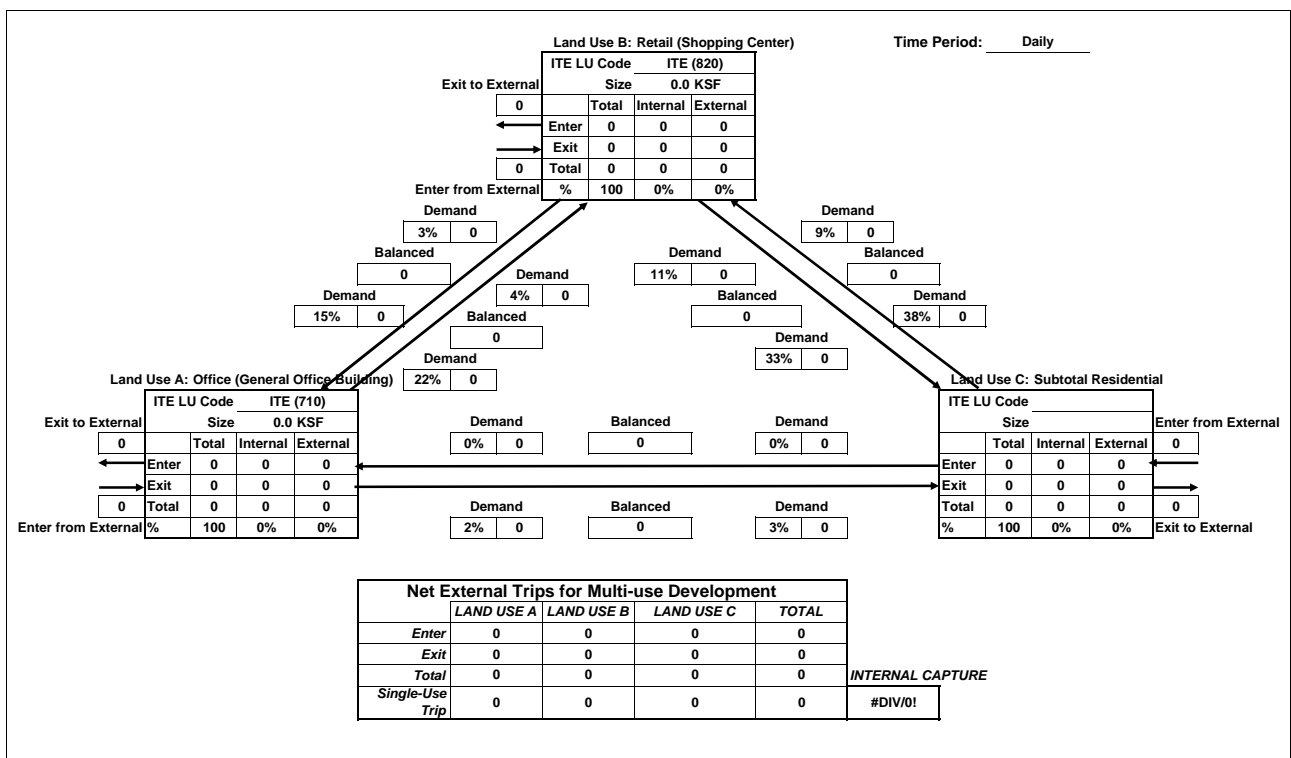
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

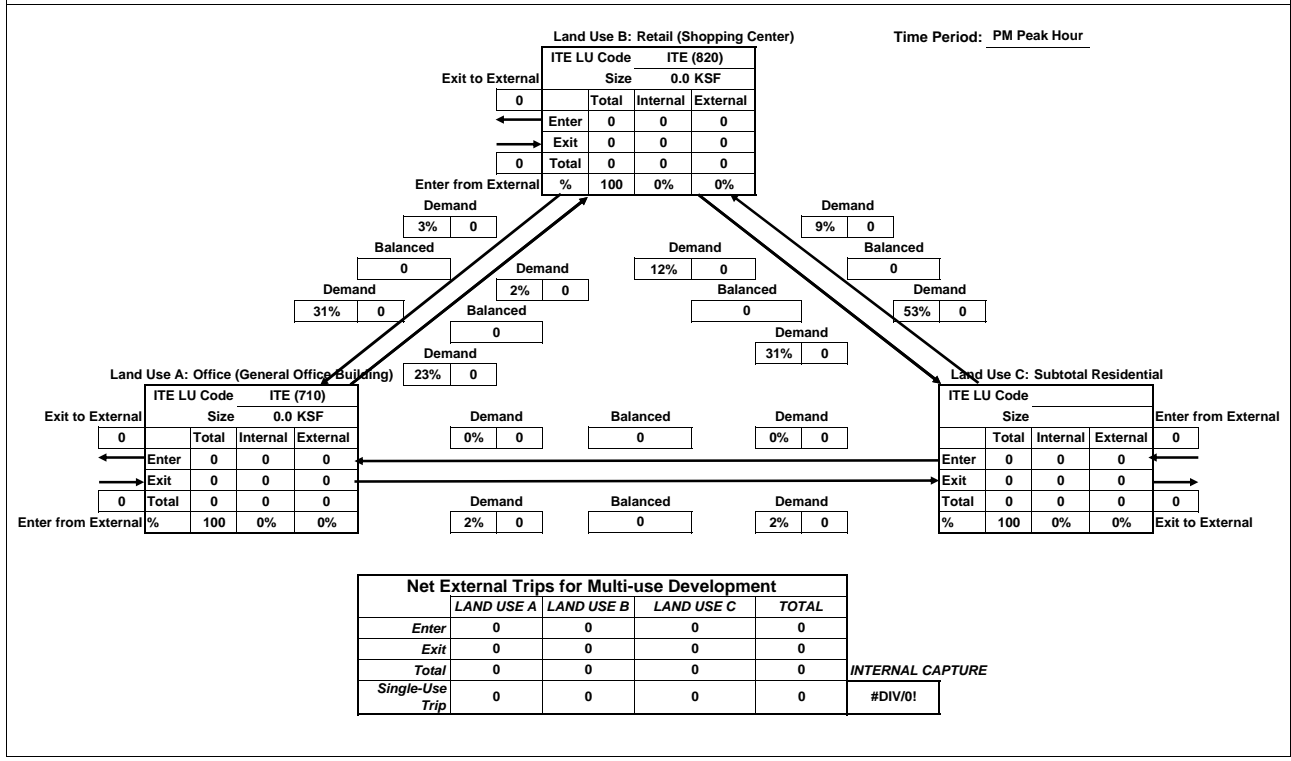
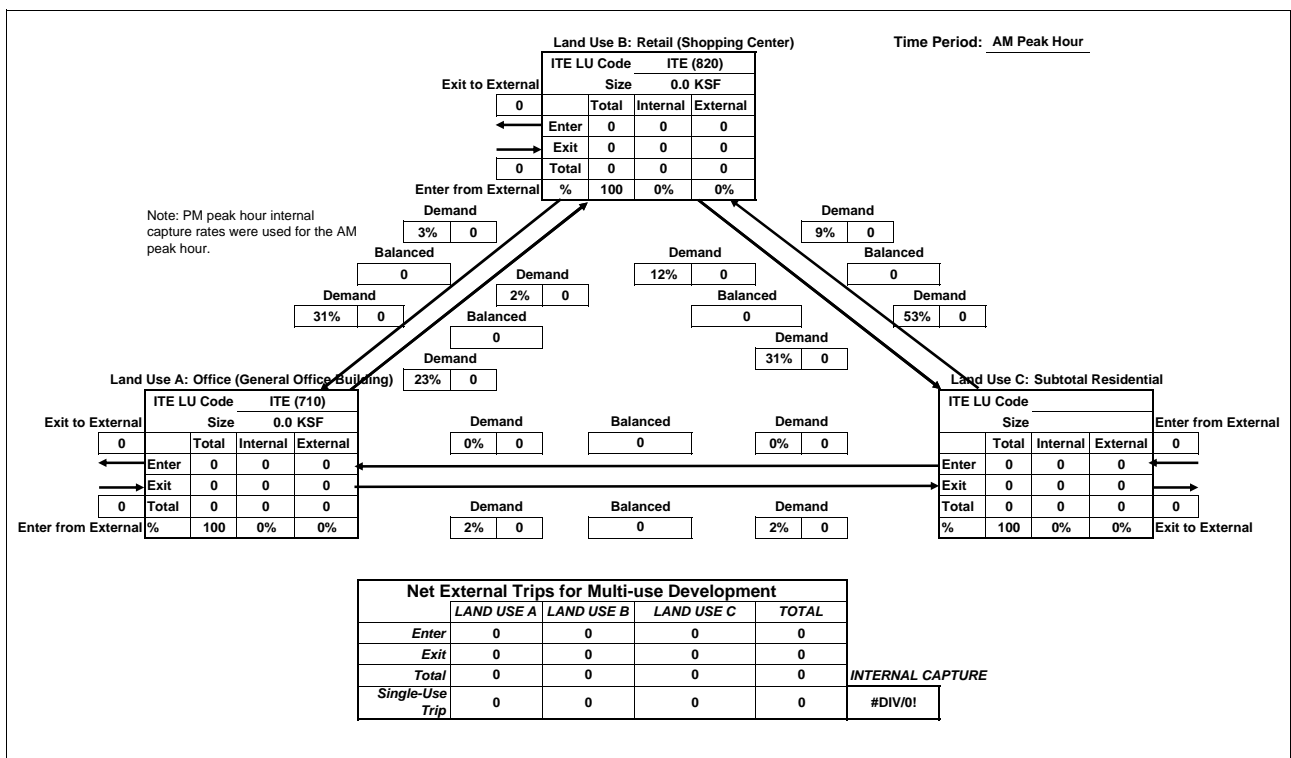
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 20: Bounded by South Park, N. 10th, Railyards, 7th

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)



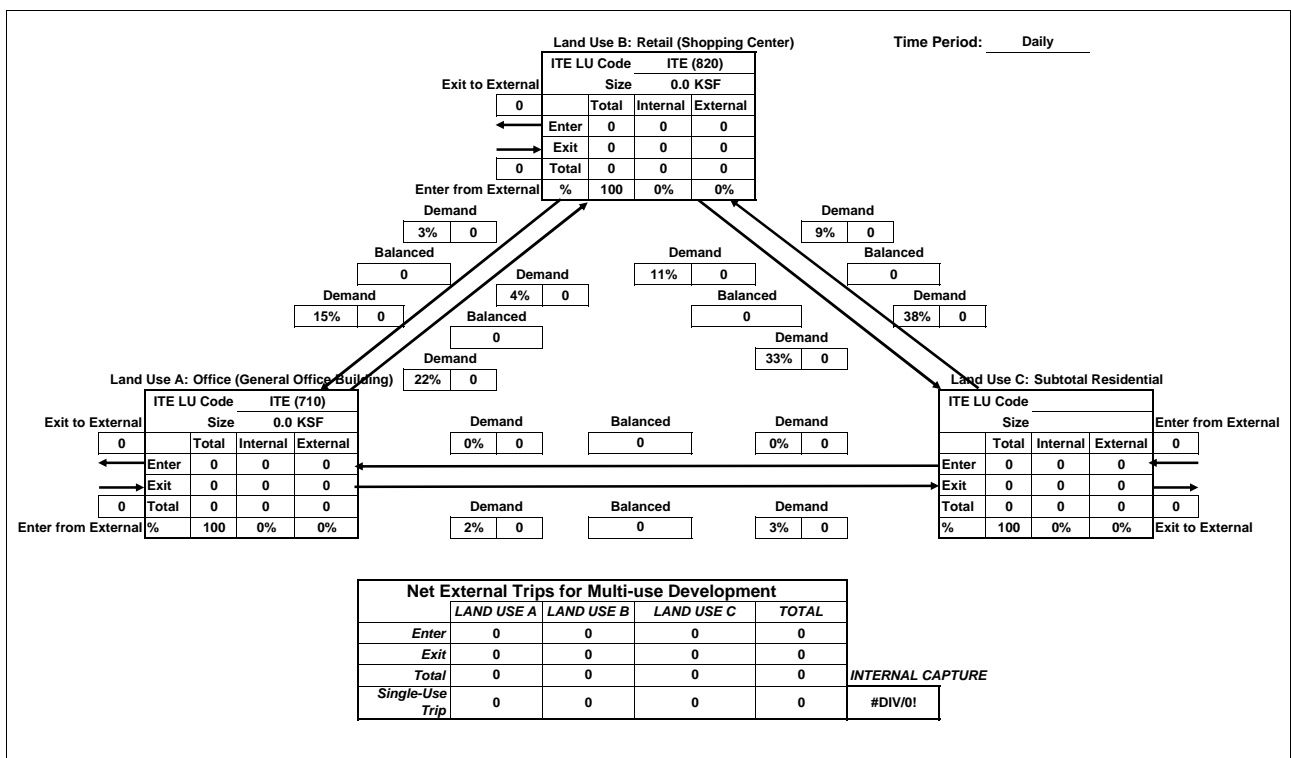
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 20: Bounded by South Park, N. 10th, Railyards, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

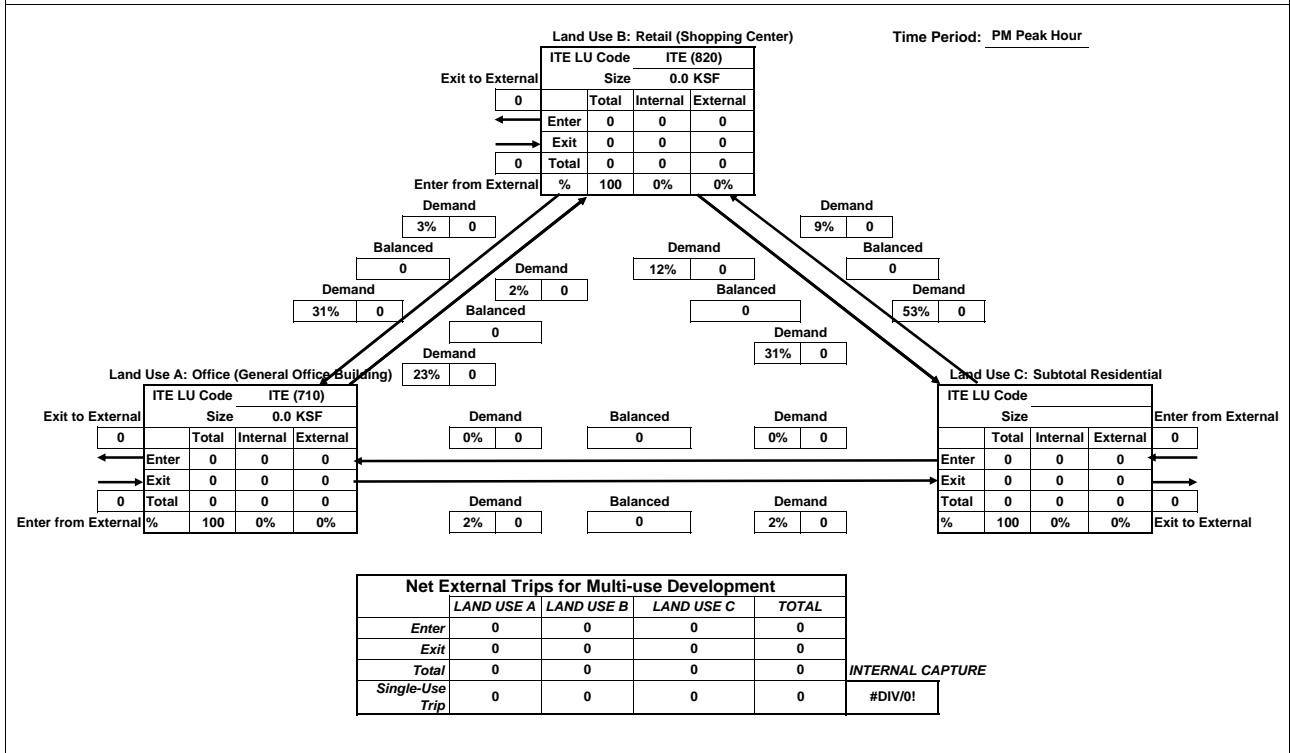
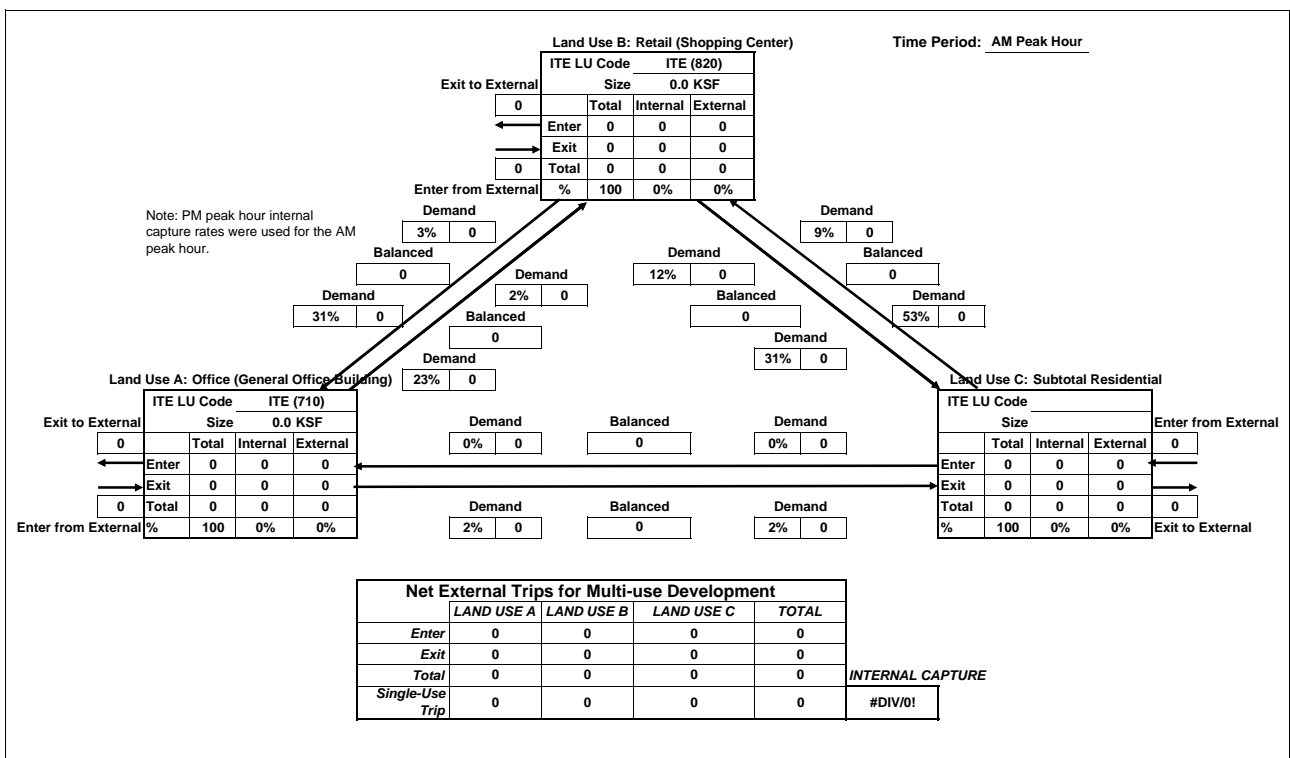


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

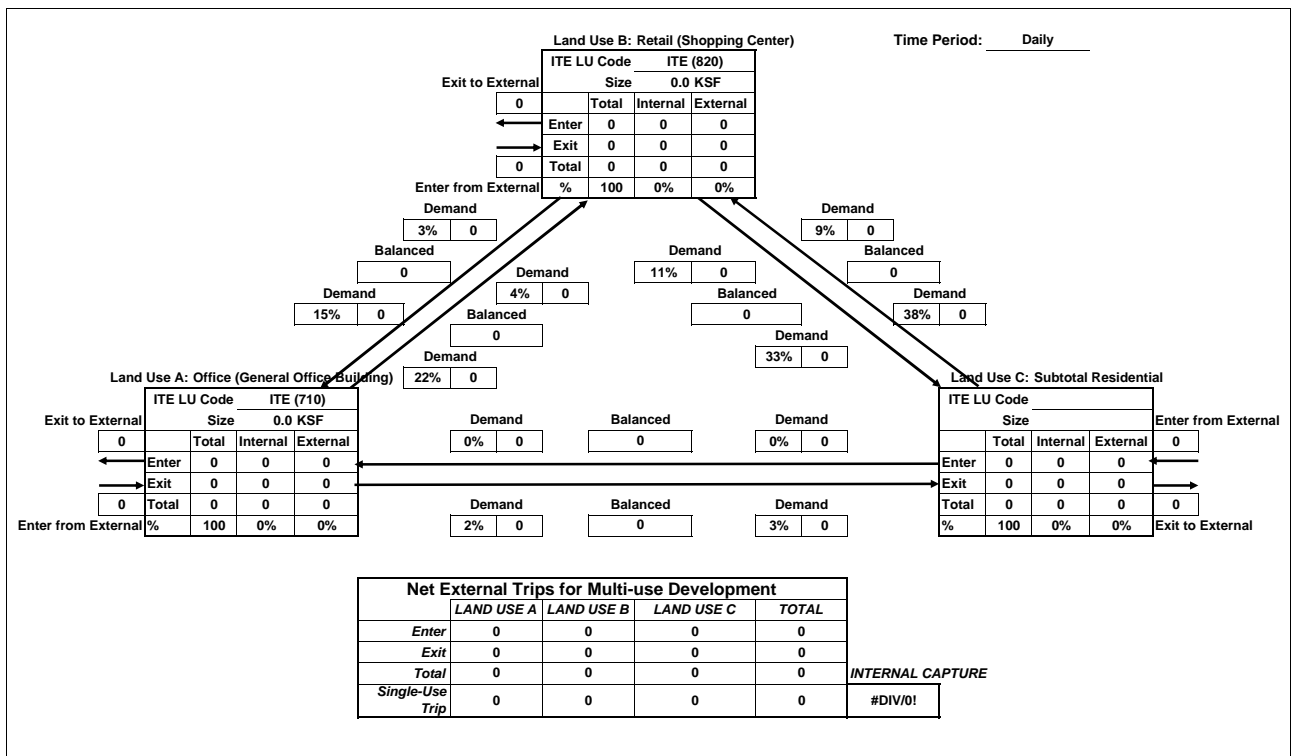


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily



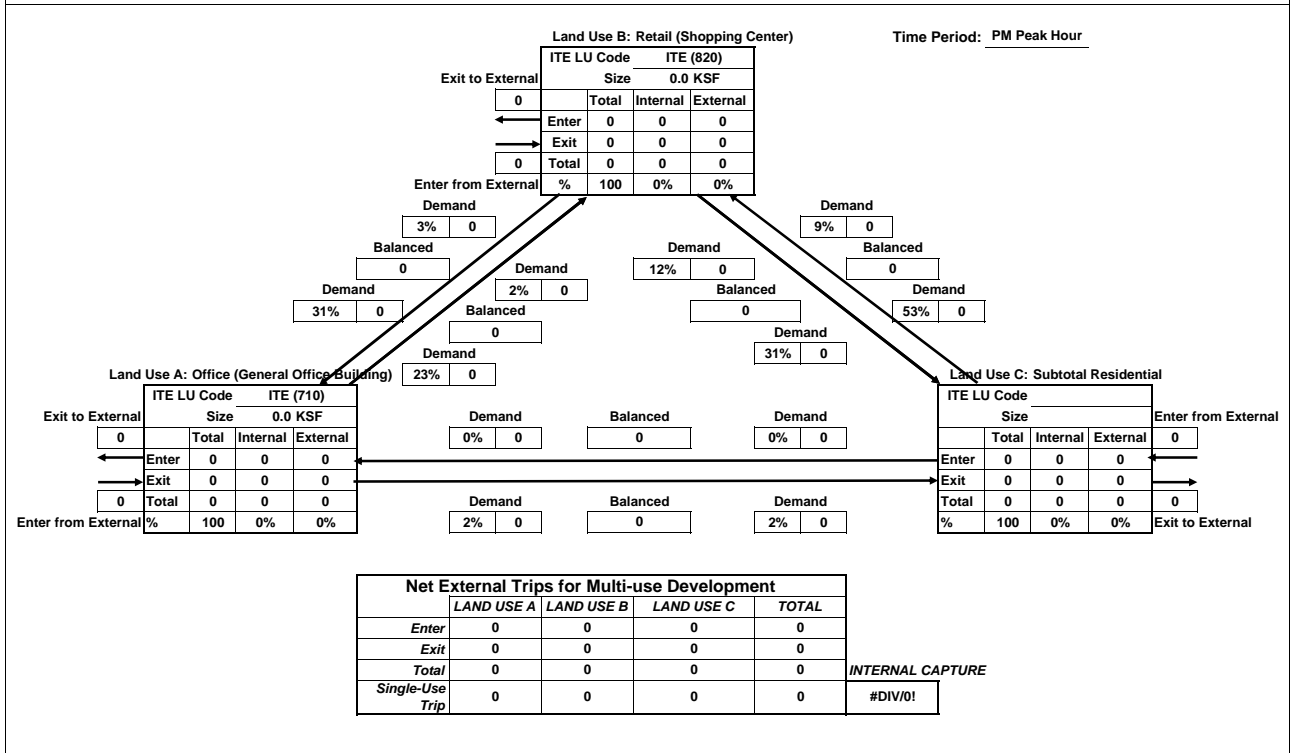
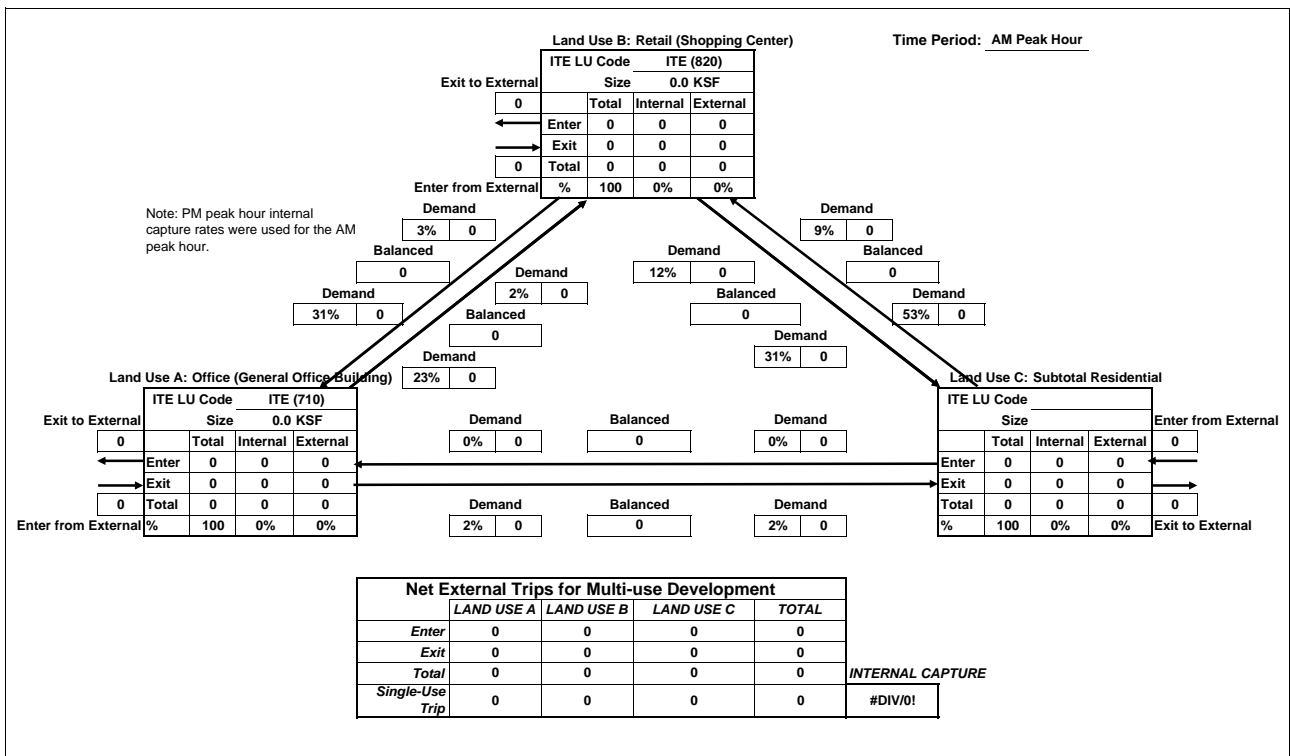
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary



Analyst: Dowling

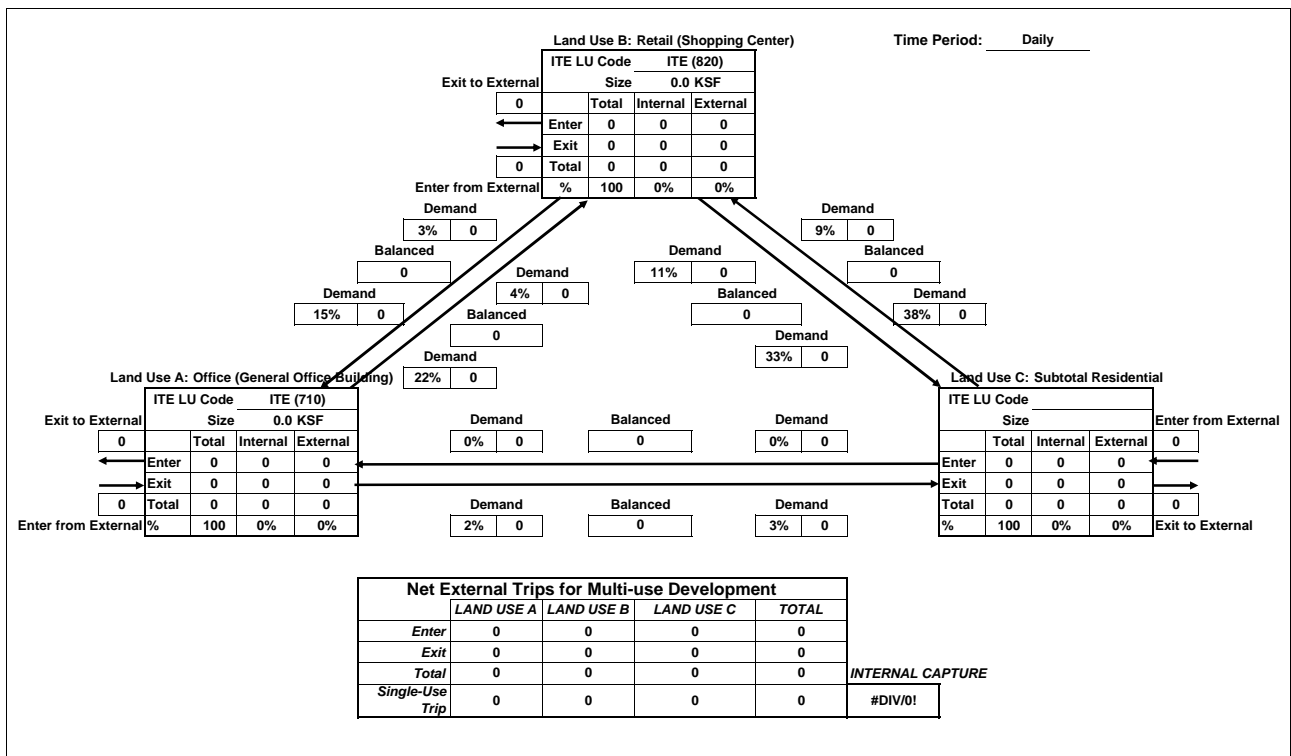
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Time Period: Daily

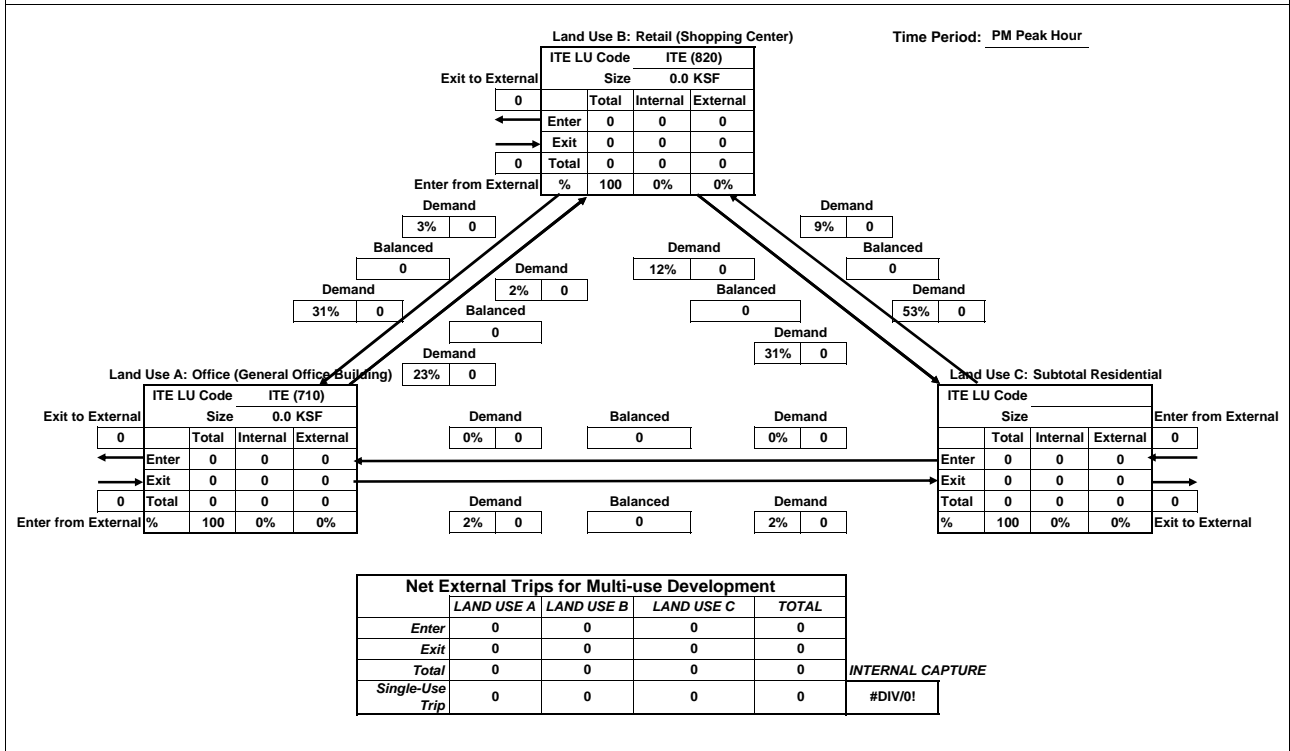
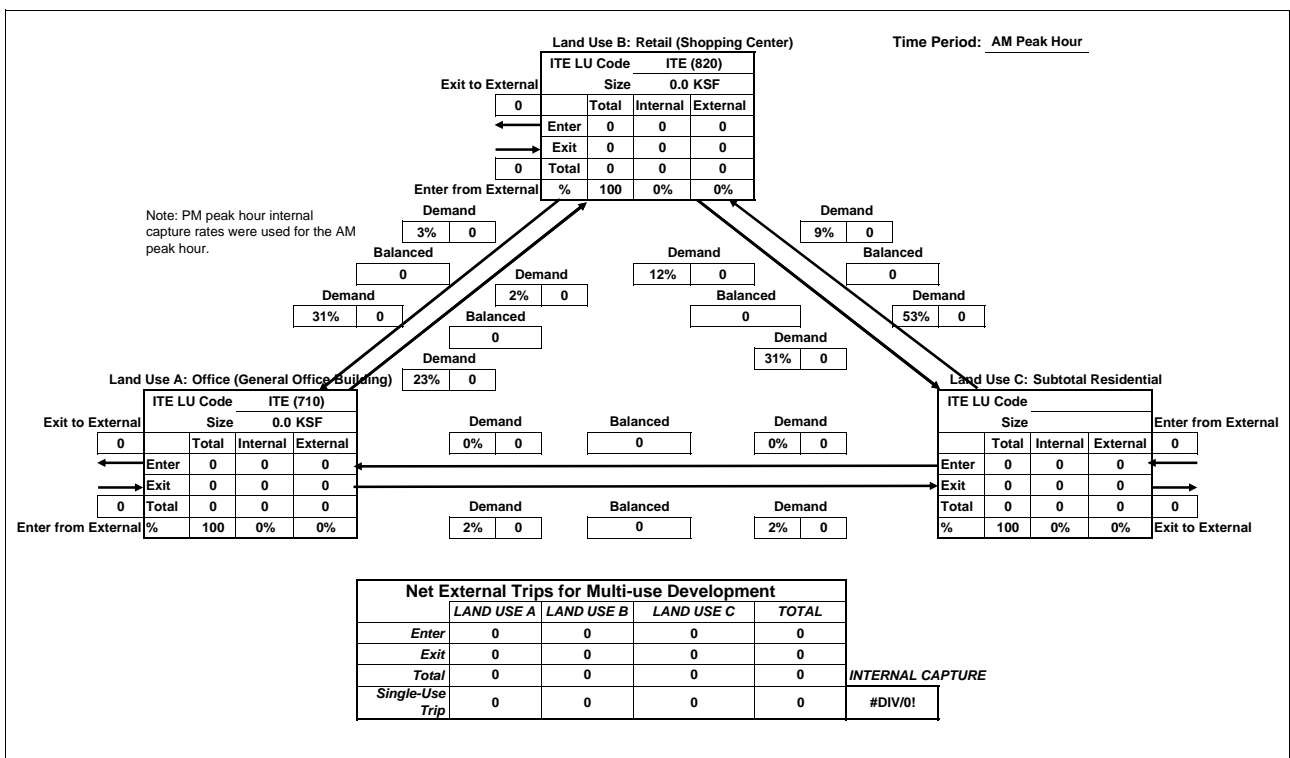


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



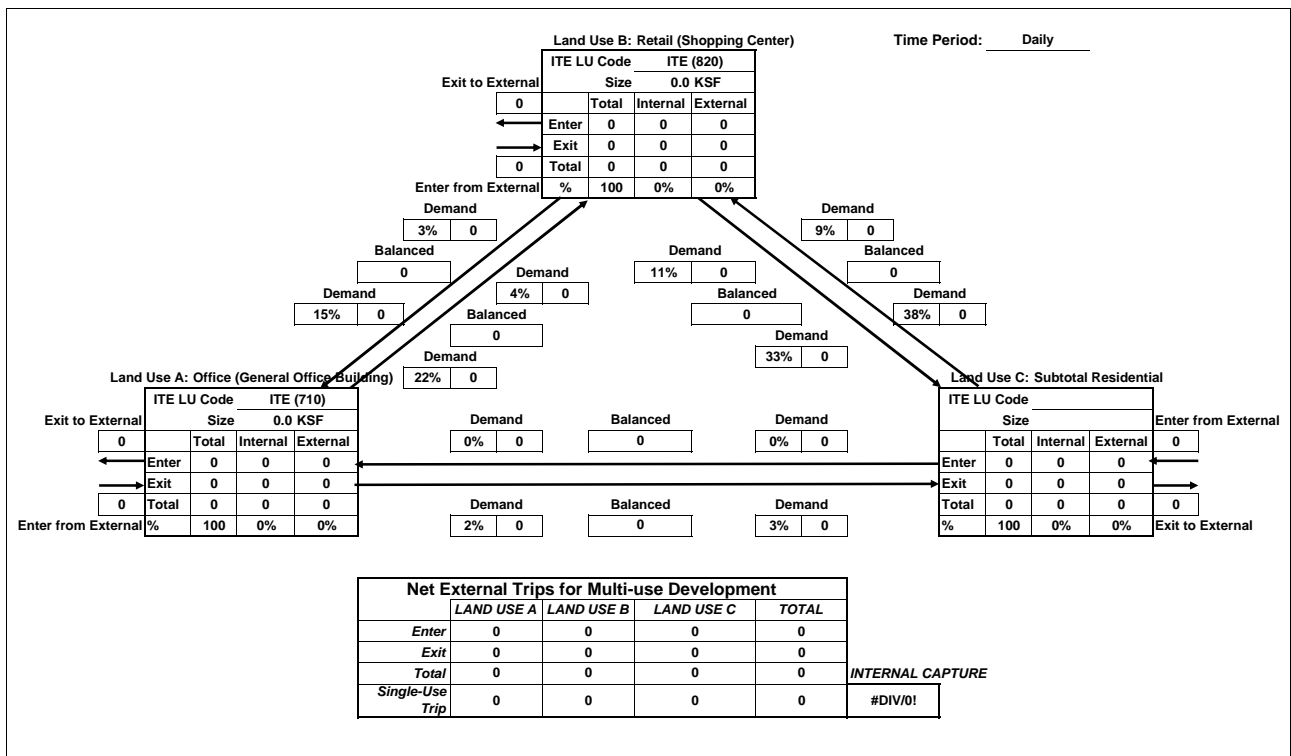
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

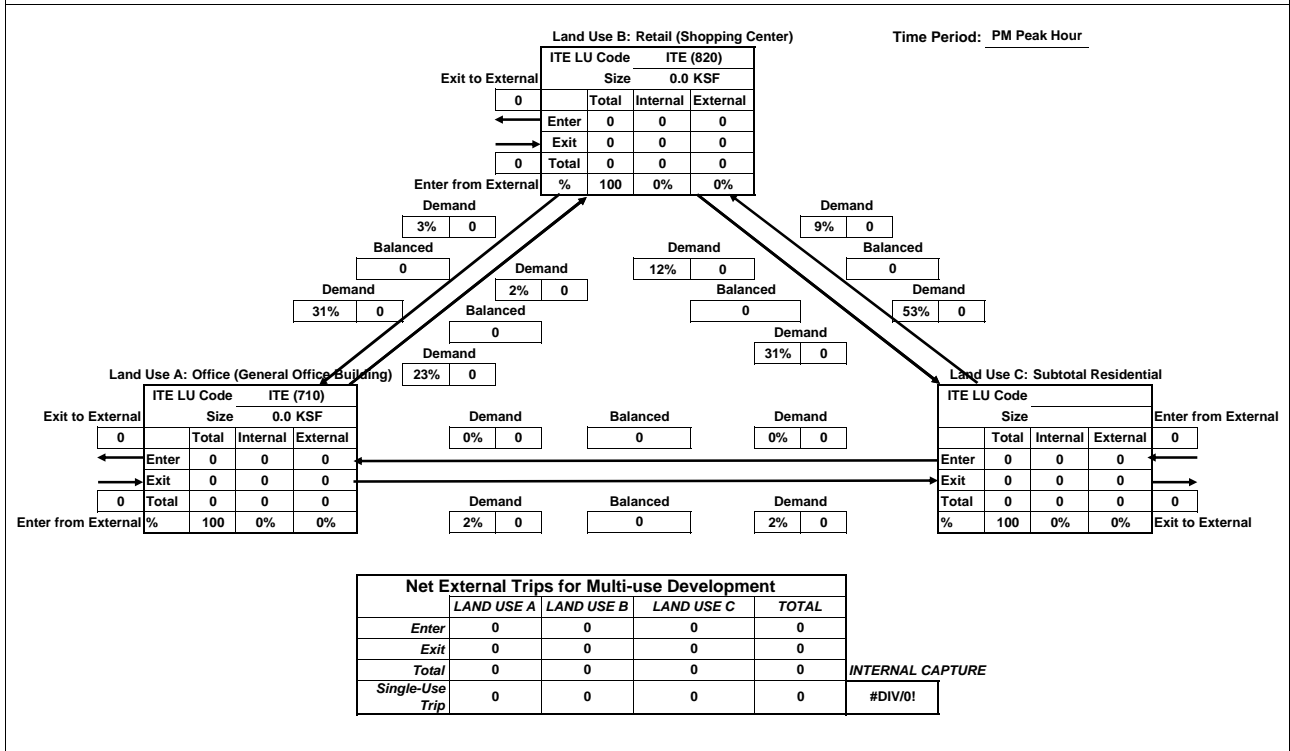
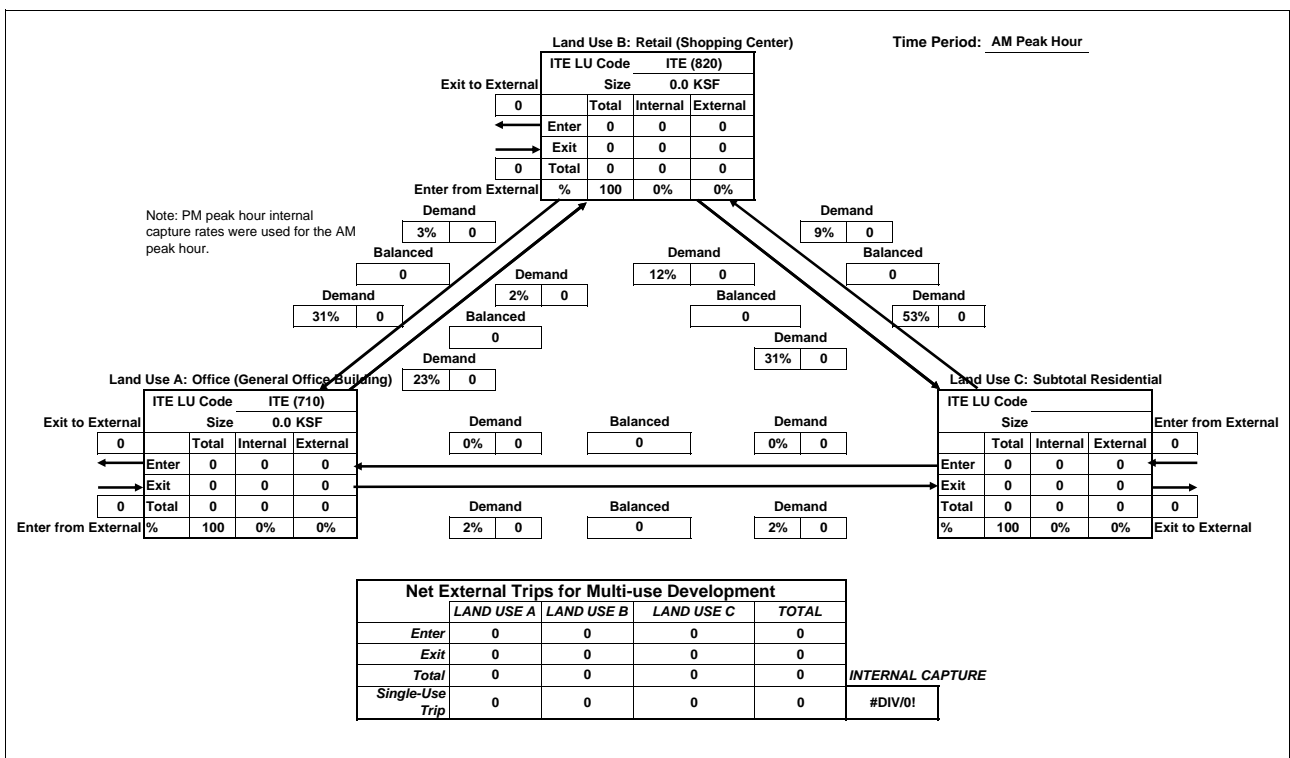


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



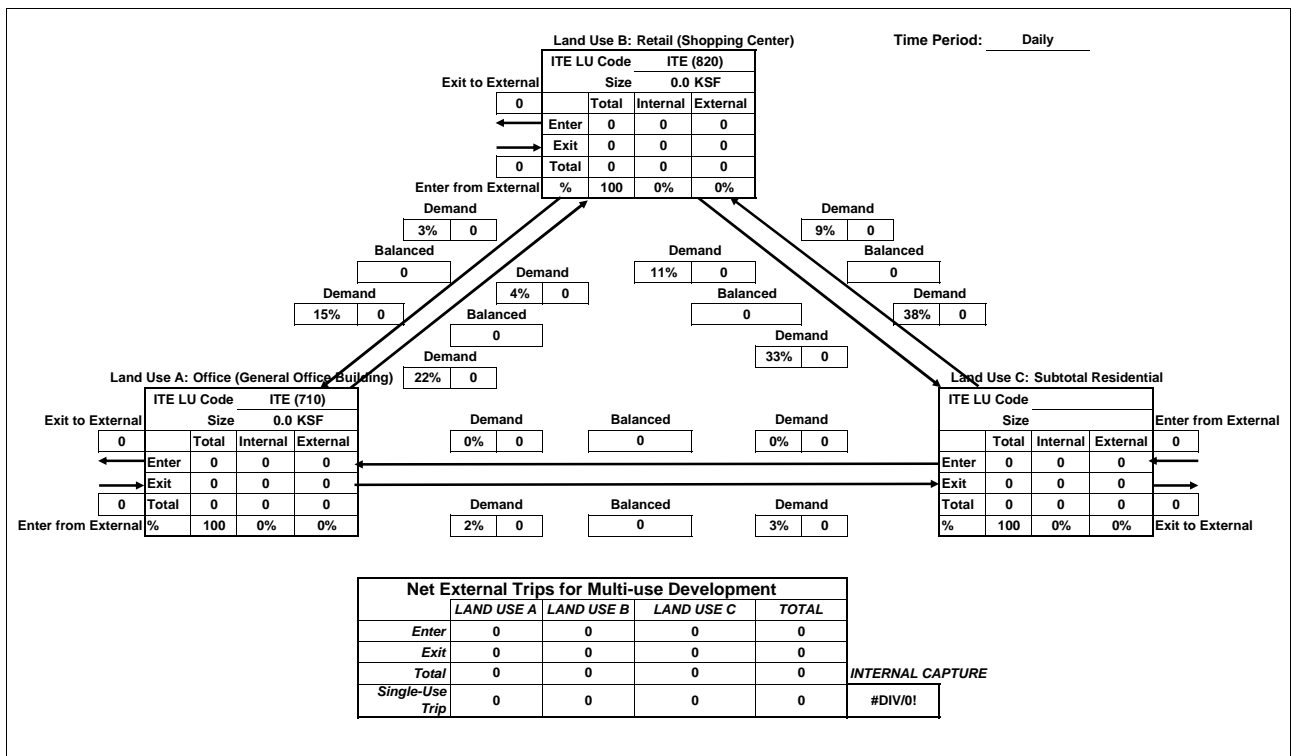
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Block 24: Bounded by Property Boundary, Railyards, N. 10th

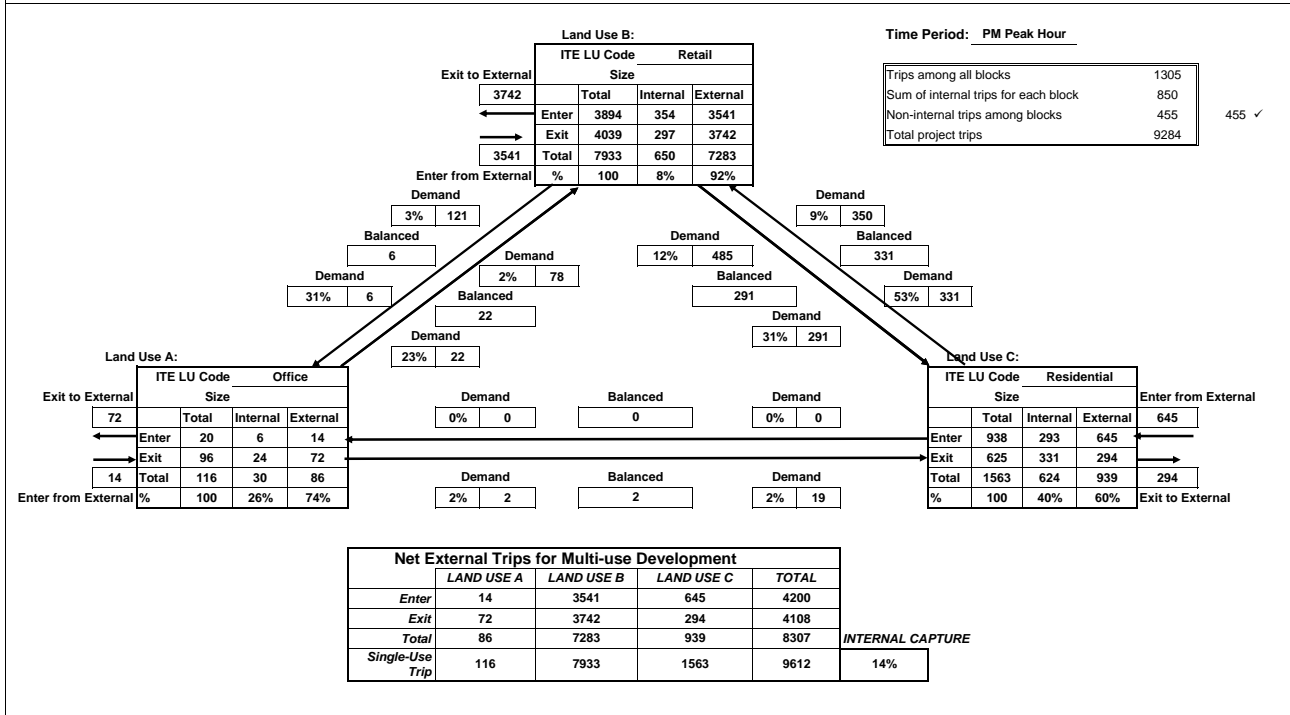
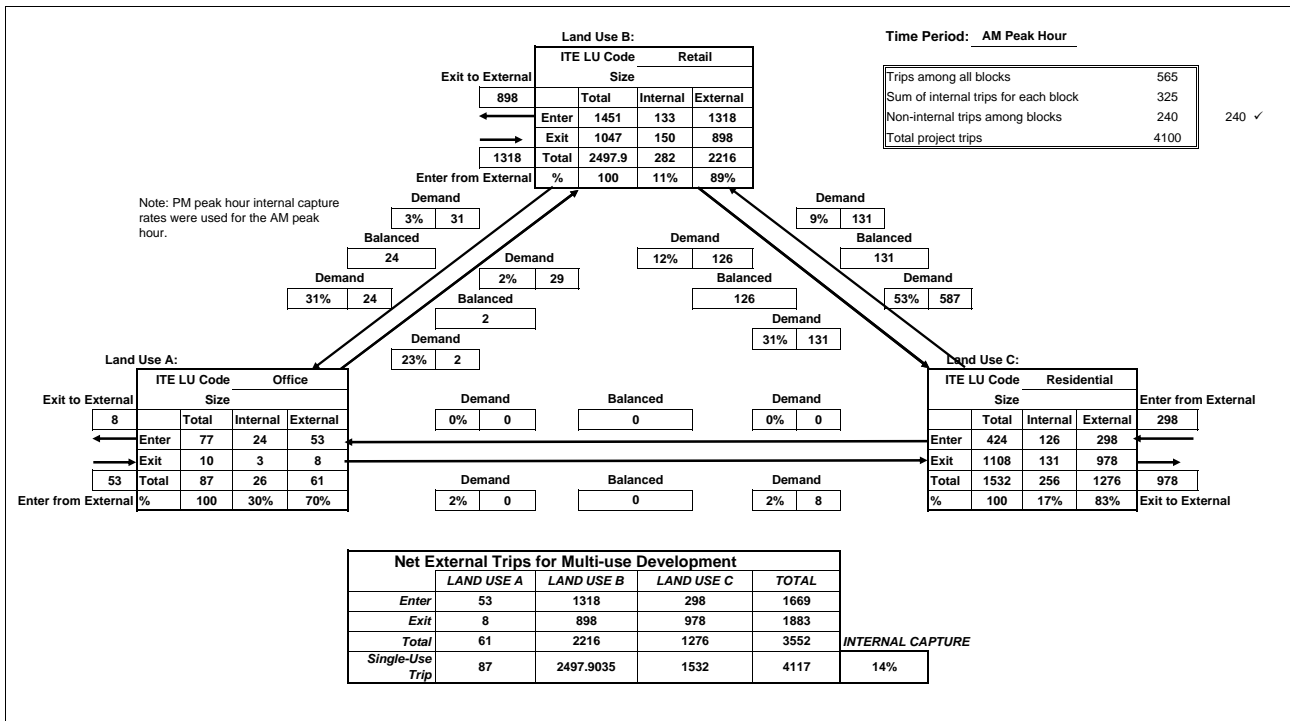


**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling

Name of Development: Downtown Study
Initial Phase with Maximum Residential (Baseline & 2013)

Date: 8/17/2007



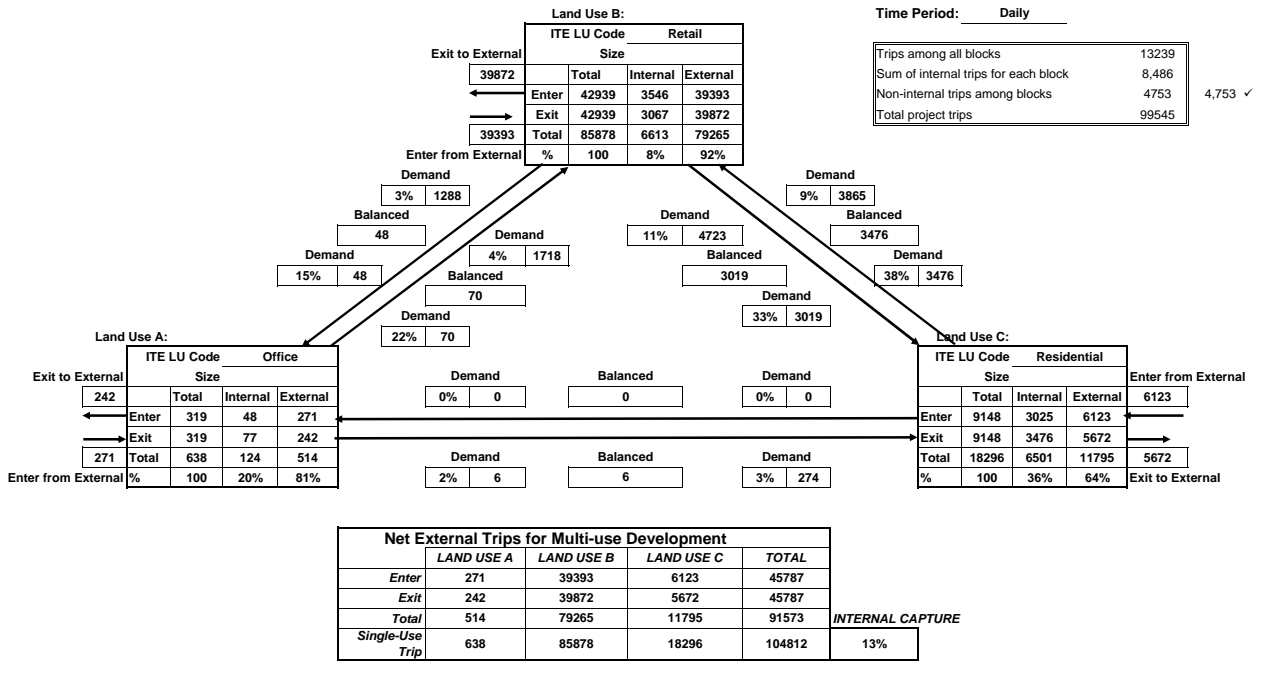
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 TRIPS AMONG ALL BLOCKS**

Name of Development: Downtown Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

Trips among all blocks	13239	
Sum of internal trips for each block	8,486	
Non-internal trips among blocks	4753	4,753 ✓
Total project trips	99545	



Initial Phase with Maximum Office (2030)

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	32 KSF	555	66	9	75	20	95	115
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	808 Units	5,487	206	213	419	230	185	415
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,646	429	322	751	768	841	1,609
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.7%)		-1,889	-36	-29	-65	-81	-83	-164
Internal Trips Within This Block (-12.8%)		-2,262	-28	-28	-56	-118	-118	-235
Trips To-From Other Blocks within the Project (-3.5%)		-612	-14	-14	-28	-16	-16	-31
New External Trips (73%) of Total Trips for Block		12,883	351	251	602	554	624	1,179
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	526 Units	2,207	34	147	181	120	74	194
Other	0	0	0	0	0	0	0	0
Total Trips for Block		8,673	244	214	458	386	467	853
Transit Adjustments (-3.4%)		-295	-18	-8	-26	-12	-23	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-867	-16	-17	-33	-39	-40	-79
Internal Trips Within This Block (-14.7%)		-1,272	-14	-14	-28	-58	-58	-116
Trips To-From Other Blocks within the Project (-3.3%)		-283	-8	-8	-17	-8	-8	-16
New External Trips (69%) of Total Trips for Block		5,956	188	167	355	269	338	607
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-4%)		-459	-5	-5	-10	-12	-12	-24
New External Trips (84%) of Total Trips for Block		9,652	131	83	214	439	477	916
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	65 KSF	957	117	16	133	26	126	152
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	106 Units	623	11	49	60	32	20	52
Total Trips for Block		9,059	232	132	364	389	505	894
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-955	-17	-12	-29	-41	-47	-88
Internal Trips Within This Block (-8.4%)		-761	-15	-15	-30	-33	-33	-66
Trips To-From Other Blocks within the Project (-3.7%)		-333	-7	-7	-14	-10	-10	-19
New External Trips (77%) of Total Trips for Block		7,010	193	98	291	305	415	721

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	129 KSF	1,623	202	28	230	38	185	223
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	162 Units	834	14	62	76	44	27	71
Total Trips for Block		10,102	323	158	481	421	579	1,000
Transit Adjustments (-3.7%)		-370	-26	-7	-33	-13	-30	-43
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-1,012	-18	-14	-32	-44	-50	-94
Internal Trips Within This Block (-9.9%)		-1,003	-16	-16	-32	-41	-41	-82
Trips To-From Other Blocks within the Project (-3.5%)		-350	-9	-9	-17	-10	-10	-20
New External Trips (73%) of Total Trips for Block		7,367	255	113	367	313	448	761
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	294 Units	1,332	22	92	114	71	44	115
Total Trips for Block		7,897	234	160	394	341	442	783
Transit Adjustments (-3.5%)		-276	-18	-6	-24	-10	-23	-33
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-794	-15	-13	-28	-35	-38	-73
Internal Trips Within This Block (-14.7%)		-1,159	-14	-14	-29	-51	-51	-101
Trips To-From Other Blocks within the Project (-3.3%)		-257	-7	-7	-14	-7	-7	-15
New External Trips (69%) of Total Trips for Block		5,411	180	120	300	238	323	561
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	86 KSF	1,188	146	20	166	30	145	175
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	100 Units	522	25	16	41	31	28	59
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,676	663	457	1,120	859	998	1,857
Transit Adjustments (-3.6%)		-708	-28	-11	-39	-22	-37	-59
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-2,002	-63	-51	-114	-95	-87	-181
Internal Trips Within This Block (-3.6%)		-718	-30	-30	-60	-44	-44	-87
Trips To-From Other Blocks within the Project (-3.7%)		-737	-20	-20	-40	-20	-20	-39
New External Trips (79%) of Total Trips for Block		15,512	522	345	867	679	810	1,490

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	40 KSF	659	79	11	90	21	103	124
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	72 Units	301	5	20	24	17	10	27
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,543	307	204	510	767	889	1,656
Transit Adjustments (-2.8%)		-456	-14	-6	-20	-19	-30	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-1,823	-29	-22	-51	-85	-92	-176
Internal Trips Within This Block (-2.5%)		-406	-17	-17	-35	-28	-28	-55
Trips To-From Other Blocks within the Project (-3.8%)		-629	-9	-9	-18	-18	-18	-35
New External Trips (80%) of Total Trips for Block		13,230	238	149	387	618	722	1,342
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	30 KSF	528	63	9	72	19	93	112
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	236 Units	1,113	18	79	97	60	36	96
Total Trips for Block		4,610	126	116	242	209	269	478
Transit Adjustments (-3.3%)		-153	-9	-4	-13	-7	-14	-21
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-466	-8	-10	-18	-21	-21	-42
Internal Trips Within This Block (-14.9%)		-689	-8	-8	-16	-32	-32	-63
Trips To-From Other Blocks within the Project (-3.2%)		-150	-4	-4	-9	-5	-5	-9
New External Trips (68%) of Total Trips for Block		3,152	97	90	186	145	198	343
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	115 KSF	1,488	185	25	210	35	173	208
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		5,109	239	59	298	194	345	539
Transit Adjustments (-4.8%)		-245	-21	-4	-25	-7	-23	-30
Walk, Bike & Other Non-Auto Travel Adjustments (-9%)		-462	-11	-5	-16	-19	-25	-44
Internal Trips Within This Block (-4.3%)		-219	-2	-2	-4	-7	-7	-14
Trips To-From Other Blocks within the Project (-3.7%)		-190	-6	-6	-11	-6	-6	-12
New External Trips (78%) of Total Trips for Block		3,994	200	43	242	155	284	439
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	250 KSF	2,701	343	47	390	61	298	359
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		6,096	633	133	766	218	655	873
Transit Adjustments (-8%)		-489	-48	-7	-55	-11	-44	-55
Walk, Bike & Other Non-Auto Travel Adjustments (-5.8%)		-356	-21	-5	-26	-15	-26	-41
Internal Trips Within This Block (-2.1%)		-127	-1	-1	-2	-4	-4	-8
Trips To-From Other Blocks within the Project (-3.8%)		-232	-15	-15	-30	-10	-10	-20
New External Trips (80%) of Total Trips for Block		4,892	548	105	652	178	571	748
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	680 KSF	5,837	765	104	869	143	697	840
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		7,549	792	121	913	217	777	994
Transit Adjustments (-9.1%)		-686	-85	-12	-97	-17	-79	-96
Walk, Bike & Other Non-Auto Travel Adjustments (-4.8%)		-362	-24	-5	-29	-13	-29	-42
Internal Trips Within This Block (-1.4%)		-103	-1	-1	-2	-3	-3	-7
Trips To-From Other Blocks within the Project (-3.8%)		-290	-17	-17	-35	-11	-11	-22
New External Trips (81%) of Total Trips for Block		6,108	665	86	750	173	655	827

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	192 KSF	2,205	278	38	316	50	244	294
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		8,315	365	93	458	320	536	856
Transit Adjustments (-4.6%)		-379	-33	-5	-38	-12	-33	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-9.3%)		-771	-18	-7	-25	-32	-41	-73
Internal Trips Within This Block (-4.4%)		-369	-3	-3	-6	-12	-12	-24
Trips To-From Other Blocks within the Project (-3.7%)		-308	-9	-9	-17	-9	-9	-18
New External Trips (78%) of Total Trips for Block		6,488	302	69	372	255	441	695
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	300 KSF	3,109	398	54	452	71	344	415
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		4,223	416	66	482	119	396	515
Transit Adjustments (-8.8%)		-370	-45	-6	-51	-9	-39	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-5.1%)		-216	-13	-3	-16	-8	-16	-24
Internal Trips Within This Block (-1.6%)		-67	-1	-1	-1	-2	-2	-4
Trips To-From Other Blocks within the Project (-3.8%)		-162	-9	-9	-18	-6	-6	-11
New External Trips (81%) of Total Trips for Block		3,408	348	47	395	94	333	427
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 20: Bounded by South Park, N. 10th, Railyards, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
----- Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Total Project Trips								
Office (General Office Building)	2,071 KSF	23,010	2,908	397	3,305	570	2,775	3,345
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	2,304 Units	12,419	335	678	1,012	606	423	1,029
Other		3,528	258	65	323	102	445	546
Total Project Trips		136,936	5,157	2,334	7,490	5,719	8,251	13,970
Transit Adjustments (-3.2%)		-4,427	-345	-76	-421	-139	-375	-513
Walk, Bike & Other Non-Auto Travel Adjustments (-9.7%)		-13,302	-307	-204	-511	-587	-659	-1,244
Internal Trips Within This Block (-6.7%)		-9,155	-150	-150	-300	-432	-432	-864
Trips To-From Other Blocks within the Project (-3.6%)		-4,992	-139	-139	-278	-146	-146	-292
New External Trips (77%) of Total Project Trips		105,060	4,215	1,765	5,979	4,415	6,639	11,057

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
		76.7%				79.8%		79.1%

Table Xb: Transit Trips for Initial Phase with Maximum Office (2030) (By City Block)							
City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	547	20	13	33	23	34	57
Block 2: Bounded by South Park, 5th, Railyards, Crocker	346	20	9	29	14	27	41
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	297	4	3	7	13	15	28
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	334	17	6	23	13	26	39
Block 6: Bounded by Railyards, 5th, Camille, Crocker	429	30	7	37	16	33	49
Block 7: Bounded by Railyards, 6th, Camille, 5th	321	20	7	27	12	26	38
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	819	32	15	47	27	57	84
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	533	16	6	22	25	36	60
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	179	10	5	15	8	18	25
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	280	24	4	28	8	27	35
Block 13: Bounded by Rail Lines, 6th, G, 5th	554	76	14	90	18	72	90
Block 14: Bounded by Rail Lines, 7th, G, 6th	775	97	13	110	20	89	109
Block 15: Bounded by G, 6th, H, 6th	435	37	7	44	13	39	52
Block 16: Bounded by G, 7th, Property Boundary, 6th	418	51	7	58	10	45	55
Block 17: Bounded by N. B, 7th, South Park, 5th	0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th	0	0	0	0	0	0	0
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	0	0	0	0	0	0	0
Block 21: SITF Site	0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th	0	0	0	0	0	0	0
Total New Transit Trips	6,267	454	116	570	220	544	762

Source: Dowling Associates, Inc. 2006

^b Table A27

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
1 OS	1	1	0.75						
1 RRMU	2	1	4.31		200,000				
1 RRMU	3a	1	2.84						
2 OS	3b	1	0.13						
2 RRMU	3c	1	0.93			500			
2 RRMU	3d	1	0.73	168	28,000		32,000		32,000
2 OS	3e	1	0.67						
2 RRMU	3f	1	0.28	140					
Subtotal				308	228,000	500	32,000	0	32,000
2 RRMU	5a	2	1.14	104					
2 RRMU	5b	2	0.68	80	27,000		29,000		29,000
2 RRMU	6a	2	1.28	242					
2 RRMU	6b	2	1.07	100	43,000		47,000		47,000
2 OS	6c	2	0.15						
Subtotal				526	70,000	0	76,000	0	76,000
1 RRMU	33	3	2.62						
1 RRMU	11a	4	4.42		223,000				
1 OS	11b	4	0.27						
Subtotal				0	223,000	0	0	0	0
1 RRMU	10a	5	3.88	106	116,000		65,000		65,000
1 OS	10b	5	0.57						
Subtotal				106	116,000	0	65,000	0	65,000
1 RRMU	8a	6	0.61	22	27,000		27,000		27,000
1 RRMU	8b	6	1.22	48	33,000		38,000		38,000
1 RRMU	9a	6	0.60	44	26,000		26,000		26,000
1 RRMU	9b	6	1.27	48	34,000		38,000		38,000
Subtotal				162	120,000	0	129,000	0	129,000
2 RRMU	7a	7	2.06	186	18,000		18,000		18,000
2 RRMU	7b	7	1.19	108	54,000		58,000		58,000
2 OS	7c	7	0.03						
Subtotal				294	72,000	0	76,000	0	76,000
3 ORMU	47a	8	2.21						
1 RRMU	47b	8	0.78						

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 ORMU	48	8	2.56						
Subtotal				0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
b T:	1 RRMU	12	9	1.17			71,000	43,000	43,000
	1 RRMU	13a	9	0.11			3,500		
	1 RRMU	13b	9	0.23			8,000		
	1 RRMU	13c	9	0.12			5,600		
	1 OS	13d	9	0.60					
	1 RRMU	14	9	0.62		13,000	100		
	1 RRMU	23	9	0.34				22,500 Restaurant	
	1 RRMU	24	9	0.73				42,028 19816 Rest; 11165 Retail; 7730 Office	
	1 RRMU	25	9	0.53				38,711 21014 Restaurant; 21014 Office	
	1 RRMU	26	9	0.33				28,500 14250 Retail; 14250 Office	
	1 RRMU	27	9	0.65				28,043 25000 Exhibit; 3043 Retail	
	1 RRMU	28	9	2.24				93,134 Exhibit	
	1 RRMU	29	9	1.67				69,696 Exhibit	
	1 OS	30a	9	5.07					
	1 OS	30b	9	1.35					
	1 OS	31a	9	2.66					
	1 OS	31b	9	0.32					
	1 TU	38	9	16.78					
	1 OS	45	9	0.33					
Subtotal				0	101,100	100	43,000	322,612	43,000
1 RRMU	15a	10	3.33	72	65,500		40,000	100,000 1,8	40,000
1 OS	15b	10	0.05						
1 OS	18a	10	1.05						
1 RRMU	18b	10	0.25		38,500				
1 RRMU	20	10	1.30					56,278 Market	
1 OS	21	10	5.30						
1 RRMU	22	10	0.15					6,500 Retail	
Subtotal				72	104,000	0	40,000	162,778	40,000
2 RRMU	16a	11	1.67	236	28,000		30,000		30,000
2 OS	16b	11	0.07						
1 RRMU	17	11	1.48						
Subtotal				236	28,000	0	30,000	0	30,000
2 ORMU	40	12	1.93		38,000		115,200		
2 ORMU	44	13	1.96		16,500		250,000		
2 ORMU	43	14	2.56		12,000		500,000		

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THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
2 ORMU	46	14	2.89				180,000		
Subtotal				0	12,000	0	680,000	0	0
1 ORMU	41	15	2.43		85,000		192,000		
1 ORMU	42	16	1.19		6,200		300,000		
3 OS	60	17	1.12						
3 OS	61	17	0.71						
3 OS	62	17	0.92						
3 RMU	69N	17	1.64						
3 RMU	69S	17	1.21						
3 RMU	70N	17	1.10						
3 RMU	70S	17	0.88						
3 RMU	71N	17	0.77						
3 RMU	71S	17	0.84						
Subtotal				0	0	0	0	0	0
4 OS	63	18	0.97						
4 OS	64	18	0.89						
4 OS	65	18	0.92						
4 RMU	66N	18	0.33						
4 RMU	66S	18	1.07						
4 RMU	67N	18	1.27						
4 RMU	67S	18	1.12						
4 RMU	68N	18	1.48						
4 RMU	68S	18	1.17						
Subtotal				0	0	0	0	0	0
3 OS	57a	19	0.12						
3 RMU	57N	19	1.24						
3 RMU	57S	19	1.38						
3 RMU	58N	19	1.17						
3 RMU	58S	19	1.15						
3 RMU	59N	19	1.27						
3 RMU	59S	19	1.11						
Subtotal				0	0	0	0	0	0
4 RMU	52N	20	0.98						
4 RMU	52S	20	1.30						
4 RMU	53N	20	1.38						

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THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
4 RMU	53S	20	1.49						
4 RMU	54N	20	1.35						
4 RMU	54S	20	1.68						
4 OS	54a	20	0.12						
Subtotal				0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 TU	39	21	15.34						
3 OS	34	22	1.26						
3 RMU	35	22	4.00						
Subtotal				0	0	0	0	0	0
4 RMU	49a	23	4.87						
1 ORMU	49b	23	0.73						
1 ORMU	49c	23	1.00						
3 OS	50	23	1.26						
Subtotal				0	0	0	0	0	0
4 RMU	51	24	4.70						
3 OS	72	25	10.37						
	Subtotal			0		1,537,200			
	TOTAL Max	180.39	1,704	1,219,800	600	2,028,200	485,390	491,000	
	Min		1,704			491,000			
	Check			2,504	1,401,366		2,193,194		

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips^a	Non-Work Trips^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office¹	10.9%	0.2%	11.1%	
Retail²	0.8%	1.4%	2.2%	
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^{3,c}				
AM Peak Hour	2.5%	0.7%	0.2%	3.4%
PM Peak Hour	2.1%	0.6%	0.4%	3.1%
Daily	1.5%	0.7%	0.4%	2.6%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office¹	1.5%	1.2%	2.8%	
Retail²	0.1%	11.4%	11.6%	
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office¹	12.2%	0.3%	12.5%	
Retail²	1.0%	1.7%	2.6%	
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	3.1%	0.8%	0.3%	4.1%
PM Peak Hour	2.6%	0.7%	0.5%	3.7%
Daily	1.9%	0.8%	0.5%	3.2%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001.
Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 1: Bounded by South Park, Crocker, Railyards, Bercut													
Office (General Office Building)	32.0 KSF	ITE (710)	555	66	9	75	20	95	115	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%
Residential													
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%
High Rise Residential Condominium	308 Units	ITE (232)	1,385	22	96	118	74	46	120	19%	81%	62%	38%
Subtotal Residential	808 Units		5,487	206	213	419	230	185	415				
Other													
Total Trips for Block			17,646	429	322	751	768	841	1,609				
Transit Adjustments													
Office (-11.1%)													
Retail (-2.2%)													
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)													
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-16	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-527	-16	-17	-33	-20	-16	-36				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,889	-36	-29	-65	-81	-83	-164				
Internal Trips Within This Block			-2,262	-28	-28	-56	-118	-118	-235				
Trips To-From Other Blocks within the Project			-612	-14	-14	-28	-16	-16	-31				
New External Trips													
Office (General Office Building)				59	6	65	13	80	93				
Retail (Shopping Center)				119	71	190	397	420	818				
Subtotal Residential				172	174	347	144	124	268				
Other				0	0	0	0	0	0				
Total				12,883	351	251	602	554	624	1,179			
New External Trips Percent of Total Project Trips				73%	82%	78%	80%	72%	74%	73%			
Transit Trips													
Office (12.5%)				69	8	1	9	2	12	14			
Retail (2.6%)				302	4	3	7	13	15	28			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				176	8	9	17	8	7	15			
Other				0	0	0	0	0	0	0			
Total Transit Trips				547	20	13	33	23	34	57			

^b Table A27

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 2: Bounded by South Park, 5th, Railyards, Crocker													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	526 Units	ITE (232)	2,207	34	147	181	120	74	194	19%	81%	62%	38%
Subtotal Residential	526 Units		2,207	34	147	181	120	74	194				
Other													
Total Trips for Block			8,673	244	214	458	386	467	853				
Transit Adjustments													
Office (-11.1%)			-120	-15	-2	-17	-3	-15	-18				
Retail (-2.2%)			-118	-2	-1	-3	-5	-6	-11				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-57	-1	-5	-6	-4	-2	-6				
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-295	-18	-8	-26	-12	-23	-35				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-212	-3	-11	-14	-11	-6	-17				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-867	-16	-17	-33	-39	-40	-79				
Internal Trips Within This Block			-1,272	-14	-14	-28	-58	-58	-116				
Trips To-From Other Blocks within the Project			-283	-8	-8	-17	-8	-8	-16				
New External Trips													
Office (General Office Building)				108	14	122	17	108	125				
Retail (Shopping Center)				56	34	90	178	183	362				
Subtotal Residential				23	119	143	74	46	120				
Other				0	0	0	0	0	0				
Total				5,956	188	167	355	269	338	607			
New External Trips Percent of Total Project Trips				69%	77%	78%	77%	70%	72%	71%			
Transit Trips													
Office (12.5%)			135	17	2	19	4	17	21				
Retail (2.6%)			140	2	1	3	6	7	13				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			71	1	6	7	4	3	7				
Other			0	0	0	0	0	0	0				
Total Transit Trips			346	20	9	29	14	27	41				

^b Table A27

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-459	-5	-5	-10	-12	-12	-24					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				131	83	214	439	477	916					
Subtotal Residential				0	0	0	0	0	0					
Total			9,652	131	83	214	439	477	916					
New External Trips Percent of Total Project Trips			84%	85%	84%	85%	86%	86%	86%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			297	4	3	7	13	15	28					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0					
Total Transit Trips			297	4	3	7	13	15	28					

^b Table A27

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 5: Bounded by Railyards, Crocker, Camille, Huntington													
Office (General Office Building)	65.0 KSF	ITE (710)	957	117	16	133	26	126	152	88%	12%	17%	83%
Retail (Shopping Center) (90%)	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	106 Units	ITE (232)	623	11	49	60	32	20	52	19%	81%	62%	38%
Subtotal Residential	106 Units		623	11	49	60	32	20	52				
Other													
Total Trips for Block			9,059	232	132	364	389	505	894				
Transit Adjustments													
Office (-11.1%)													
Retail (-2.2%)													
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)													
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-27	-4	0	-4	-1	-3	-4				
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-60	-1	-4	-5	-2	-2	-4				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-955	-17	-12	-29	-41	-47	-88				
Internal Trips Within This Block			-761	-15	-15	-30	-33	-33	-66				
Trips To-From Other Blocks within the Project			-333	-7	-7	-14	-10	-10	-19				
New External Trips													
Office (General Office Building)				108	13	121	17	114	131				
Retail (Shopping Center) (90%)				79	51	130	270	293	563				
Subtotal Residential				6	34	41	19	8	27				
Total			7,010	193	98	291	305	415	721				
New External Trips Percent of Total Project Trips			77%	83%	74%	80%	79%	82%	81%				
Transit Trips													
Office (12.5%)			120	15	2	17	3	16	19				
Retail (2.6%)			194	2	2	4	9	9	18				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			20	0	2	2	1	1	2				
Total Transit Trips			334	17	6	23	13	26	39				

^b Table A27

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 6: Bounded by Railyards, 5th, Camille, Crocker													
Office (General Office Building)	129.0 KSF	ITE (710)	1,623	202	28	230	38	185	223	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	162 Units	ITE (232)	834	14	62	76	44	27	71	19%	81%	62%	38%
Subtotal Residential	162 Units		834	14	62	76	44	27	71				
Other													
Total Trips for Block			10,102	323	158	481	421	579	1,000				
Transit Adjustments													
Office (-11.1%)			-180	-23	-3	-26	-4	-21	-25				
Retail (-2.2%)			-168	-2	-2	-4	-8	-8	-16				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-22	-1	-2	-3	-1	-1	-2				
Other													
Total Transit Adjustments			-370	-26	-7	-33	-13	-30	-43				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-45	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-80	-1	-5	-6	-4	-2	-6				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,012	-18	-14	-32	-44	-50	-94				
Internal Trips Within This Block			-1,003	-16	-16	-32	-41	-41	-82				
Trips To-From Other Blocks within the Project			-350	-9	-9	-17	-10	-10	-20				
New External Trips													
Office (General Office Building)				167	20	187	23	149	172				
Retail (Shopping Center)				80	49	129	265	288	553				
Subtotal Residential				8	43	51	25	11	36				
Total				7,367	255	113	367	313	448	761			
New External Trips Percent of Total Project Trips				73%	79%	71%	76%	74%	77%	76%			
Transit Trips													
Office (12.5%)			203	26	3	29	5	23	28				
Retail (2.6%)			199	3	2	5	9	9	18				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			27	1	2	3	2	1	3				
Total Transit Trips			429	30	7	37	16	33	49				

^b Table A27

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 7: Bounded by Railyards, 6th, Camille, 5th													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	294 Units	ITE (232)	1,332	22	92	114	71	44	115	19%	81%	62%	38%
Subtotal Residential	294 Units		1,332	22	92	114	71	44	115				
Other													
Total Trips for Block			7,897	234	160	394	341	442	783				
Transit Adjustments													
Office (-11.1%)			-120	-15	-2	-17	-3	-15	-18				
Retail (-2.2%)			-121	-2	-1	-3	-5	-6	-11				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-35	-1	-3	-4	-2	-2	-4				
Other													
Total Transit Adjustments			-276	-18	-6	-24	-10	-23	-33				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-128	-2	-7	-9	-6	-4	-10				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-794	-15	-13	-28	-35	-38	-73				
Internal Trips Within This Block			-1,159	-14	-14	-29	-51	-51	-101				
Trips To-From Other Blocks within the Project			-257	-7	-7	-14	-7	-7	-15				
New External Trips													
Office (General Office Building)				109	14	122	17	109	126				
Retail (Shopping Center)				58	34	93	181	195	376				
Subtotal Residential				13	72	85	41	18	59				
Total				5,411	180	120	300	238	323	561			
New External Trips Percent of Total Project Trips				69%	77%	75%	76%	70%	73%	72%			
Transit Trips													
Office (12.5%)			135	17	2	19	4	17	21				
Retail (2.6%)			143	2	1	3	6	7	13				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			43	1	4	5	2	2	4				
Total Transit Trips			321	20	7	27	12	26	38				

^b Table A27

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	86.0 KSF	ITE (710)	1,188	146	20	166	30	145	175	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	100 Units		522	25	16	41	31	28	59				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,676	663	457	1,120	859	998	1,857				
Transit Adjustments													
Office (-11.1%)			-132	-16	-2	-18	-3	-16	-19				
Retail (-2.2%)			-354	-11	-9	-20	-17	-15	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-14	-1	0	-1	-1	-1	-2				
Other (Museum Exhibit Space) (-11.1%)			-208	0	0	0	-1	-5	-6				
Total Transit Adjustments			-708	-28	-11	-39	-22	-37	-59				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-33	-4	-1	-5	-1	-4	-5				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-50	-2	-1	-3	-3	-2	-5				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,002	-63	-51	-114	-95	-87	-181				
Internal Trips Within This Block			-718	-30	-30	-60	-44	-44	-87				
Trips To-From Other Blocks within the Project			-737	-20	-20	-40	-20	-20	-39				
New External Trips													
Office (General Office Building)				111	12	123	17	108	125				
Retail & Restaurant (see footnote)				397	327	724	627	533	1,160				
Subtotal Residential				14	6	20	18	11	28				
Other (Museum Exhibit Space)				0	0	0	17	159	177				
Total			15,512	522	345	867	679	810	1,490				
New External Trips Percent of Total Project Trips			79%	79%	75%	77%	79%	81%	80%				
Transit Trips													
Office (12.5%)			149	18	3	21	4	18	22				
Retail (2.6%)			418	13	11	24	20	17	37				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			17	1	1	2	1	1	2				
Other (Museum Exhibit Space) (12.5%)			235	0	0	0	2	21	23				
Total Transit Trips			819	32	15	47	27	57	84				

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Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26													
Office (General Office Building)	40.0 KSF	ITE (710)	659	79	11	90	21	103	124	88%	12%	17%	83%
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469				
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	72 Units	ITE (232)	301	5	20	24	17	10	27	19%	81%	62%	38%
Subtotal Residential	72 Units		301	5	20	24	17	10	27				
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36			50%	50%
Total Trips for Block			16,543	307	204	510	767	889	1,656				
Transit Adjustments													
Office (-11.1%)			-73	-9	-1	-10	-2	-12	-14				
Retail (-2.2%)			-335	-5	-4	-9	-15	-17	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-8	0	-1	-1	-1	0	-1				
Other (Performing Arts) (-11.1%)			-40	0	0	0	-1	-1	-1				
Total Transit Adjustments			-456	-14	-6	-20	-19	-30	-48				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-18	-3	0	-3	-1	-2	-3				
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-29	0	-2	-2	-1	-1	-2				
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,823	-29	-22	-51	-85	-92	-176				
Internal Trips Within This Block			-406	-17	-17	-35	-28	-28	-55				
Trips To-From Other Blocks within the Project			-629	-9	-9	-18	-18	-18	-35				
New External Trips													
Office (General Office Building)				60	7	67	12	74	86				
Retail & Market (see footnote)				174	135	309	580	627	1,207				
Subtotal Residential				3	7	10	10	4	14				
Other (Performing Arts)				0	0	0	16	16	34				
Total			13,230	238	149	387	618	722	1,342				
New External Trips Percent of Total Project Trips			80%	77%	73%	76%	81%	81%	81%				
Transit Trips													
Office (12.5%)			82	10	1	11	3	13	16				
Retail (2.6%)			396	6	4	10	18	20	38				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			10	0	1	1	1	0	1				
Other (Performing Arts) (12.5%)			45	0	0	0	3	3	5				
Total Transit Trips			533	16	6	22	25	36	60				

^b Table A27

Retail & Market													
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 11: Bounded by Camille, 6th, Rail Lines, 5th													
Office (General Office Building)	30.0 KSF	ITE (710)	528	63	9	72	19	93	112	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	236 Units	ITE (232)	1,113	18	79	97	60	36	96	19%	81%	62%	38%
Subtotal Residential	236 Units		1,113	18	79	97	60	36	96				
Other													
Total Trips for Block			4,610	126	116	242	209	269	478				
Transit Adjustments													
Office (-11.1%)			-59	-7	-1	-8	-2	-10	-12				
Retail (-2.2%)			-65	-1	-1	-2	-3	-3	-6				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-29	-1	-2	-3	-2	-1	-3				
Other													
Total Transit Adjustments			-153	-9	-4	-13	-7	-14	-21				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-15	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-107	-1	-7	-8	-5	-3	-8				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-466	-8	-10	-18	-21	-21	-42				
Internal Trips Within This Block			-689	-8	-8	-16	-32	-32	-63				
Trips To-From Other Blocks within the Project			-150	-4	-4	-9	-5	-5	-9				
New External Trips													
Office (General Office Building)				51	7	58	12	76	88				
Retail (Shopping Center)				33	19	53	97	101	197				
Subtotal Residential				12	64	76	36	21	57				
Total				3,152	97	90	186	145	198	343			
New External Trips Percent of Total Project Trips				68%	77%	77%	77%	69%	74%	72%			
Transit Trips													
Office (12.5%)				66	8	1	9	2	12	14			
Retail (2.6%)				77	1	1	2	3	4	7			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				36	1	3	4	3	2	4			
Total Transit Trips				179	10	5	15	8	18	25			

^b Table A27

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 12: Bounded by Rail Lines, 5th, I Street, LRT													
Office (General Office Building)	115.2 KSF	ITE (710)	1,488	185	25	210	35	173	208	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			5,109	239	59	298	194	345	539				
Transit Adjustments													
Office (-11.1%)			-165	-20	-3	-23	-4	-19	-23				
Retail (-2.2%)			-80	-1	-1	-2	-3	-4	-7				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other (-11.1%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-245	-21	-4	-25	-7	-23	-30				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-42	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-462	-11	-5	-16	-19	-25	-44				
Internal Trips Within This Block			-219	-2	-2	-4	-7	-7	-14				
Trips To-From Other Blocks within the Project			-190	-6	-6	-11	-6	-6	-12				
New External Trips													
Office (General Office Building)				155	18	172	25	143	168				
Retail (Shopping Center)				45	25	70	130	141	271				
Subtotal Residential				0	0	0	0	0	0				
Other				0	0	0	0	0	0				
Total				3,994	200	43	242	155	284	439			
New External Trips Percent of Total Project Trips				78%	83%	72%	81%	80%	82%	81%			
Transit Trips													
Office (12.5%)				186	23	3	26	4	22	26			
Retail (2.6%)				94	1	1	2	4	5	9			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				0	0	0	0	0	0	0			
Other (12.5%)				0	0	0	0	0	0	0			
Total Transit Trips				280	24	4	28	8	27	35			

^b Table A27

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 13: Bounded by Rail Lines, 6th, G, 5th													
Office (General Office Building)	250.0 KSF	ITE (710)	2,701	343	47	390	61	298	359	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%
Total Trips for Block			6,096	633	133	766	218	655	873				
Transit Adjustments													
Office (-11.1%)			-300	-38	-5	-43	-7	-33	-40				
Retail (-2.2%)			-46	-1	0	-1	-2	-2	-4				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11				
Total Transit Adjustments			-489	-48	-7	-55	-11	-44	-55				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-76	-10	-1	-11	-2	-8	-10				
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-356	-21	-5	-26	-15	-26	-41				
Internal Trips Within This Block			-127	-1	-1	-2	-4	-4	-8				
Trips To-From Other Blocks within the Project			-232	-15	-15	-30	-10	-10	-20				
New External Trips													
Office (General Office Building)				281	30	311	45	248	294				
Retail (Shopping Center)				25	14	39	71	81	152				
Subtotal Residential				0	0	0	0	0	0				
Other (Transit)				242	61	303	61	242	303				
Total				4,892	548	105	652	178	571	748			
New External Trips Percent of Total Project Trips				80%	87%	79%	85%	82%	87%	86%			
Transit Trips													
Office (12.5%)				338	43	6	49	8	37	45			
Retail (2.6%)				55	1	0	1	2	3	5			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				0	0	0	0	0	0	0			
Other (Transit) (12.5%)				161	32	8	40	8	32	40			
Total Transit Trips				554	76	14	90	18	72	90			

^b Table A27

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 14: Bounded by Rail Lines, 7th, G, 6th													
Office (General Office Building)	680.0 KSF	ITE (710)	5,837	765	104	869	143	697	840	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			7,549	792	121	913	217	777	994				
Transit Adjustments													
Office (-11.1%)			-648	-84	-12	-96	-16	-77	-93				
Retail (-2.2%)			-38	-1	0	-1	-1	-2	-3				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-686	-85	-12	-97	-17	-79	-96				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-163	-21	-3	-24	-4	-20	-24				
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-362	-24	-5	-29	-13	-29	-42				
Internal Trips Within This Block			-103	-1	-1	-2	-3	-3	-7				
Trips To-From Other Blocks within the Project			-290	-17	-17	-35	-11	-11	-22				
New External Trips													
Office (General Office Building)				643	74	716	114	589	703				
Retail (Shopping Center)				22	12	34	59	66	125				
Subtotal Residential				0	0	0	0	0	0				
Total			6,108	665	86	750	173	655	827				
New External Trips Percent of Total Project Trips			81%	84%	71%	82%	80%	84%	83%				
Transit Trips													
Office (12.5%)			730	96	13	109	18	87	105				
Retail (2.6%)			45	1	0	1	2	2	4				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			775	97	13	110	20	89	109				

^b Table A27

Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 15: Bounded by G, 6th, H, 6th													
Office (General Office Building)	192.0 KSF	ITE (710)	2,205	278	38	316	50	244	294	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			8,315	365	93	458	320	536	856				
Transit Adjustments													
Office (-11.1%)			-245	-31	-4	-35	-6	-27	-33				
Retail (-2.2%)			-134	-2	-1	-3	-6	-6	-12				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-379	-33	-5	-38	-12	-33	-45				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-62	-8	-1	-9	-1	-7	-8				
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-771	-18	-7	-25	-32	-41	-73				
Internal Trips Within This Block			-369	-3	-3	-6	-12	-12	-24				
Trips To-From Other Blocks within the Project			-308	-9	-9	-17	-9	-9	-18				
New External Trips													
Office (General Office Building)				231	28	259	34	201	235				
Retail (Shopping Center)				71	41	113	221	239	460				
Subtotal Residential				0	0	0	0	0	0				
Total			6,488	302	69	372	255	441	695				
New External Trips Percent of Total Project Trips			78%	83%	75%	81%	80%	82%	81%				
Transit Trips													
Office (12.5%)			276	35	5	40	6	31	37				
Retail (2.6%)			159	2	2	4	7	8	15				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			435	37	7	44	13	39	52				

^b Table A27

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 16: Bounded by G, 7th, Property Boundary, 6th													
Office (General Office Building)	300.0 KSF	ITE (710)	3,109	398	54	452	71	344	415	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			4,223	416	66	482	119	396	515				
Transit Adjustments													
Office (-11.1%)			-345	-44	-6	-50	-8	-38	-46				
Retail (-2.2%)			-25	-1	0	-1	-1	-1	-2				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-370	-45	-6	-51	-9	-39	-48				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-87	-11	-2	-13	-2	-10	-12				
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-216	-13	-3	-16	-8	-16	-24				
Internal Trips Within This Block			-67	-1	-1	-1	-2	-2	-4				
Trips To-From Other Blocks within the Project			-162	-9	-9	-18	-6	-6	-11				
New External Trips													
Office (General Office Building)				334	38	372	56	290	347				
Retail (Shopping Center)				14	9	23	38	43	81				
Subtotal Residential				0	0	0	0	0	0				
Total				3,408	348	47	395	94	333	427			
New External Trips Percent of Total Project Trips				81%	84%	71%	82%	79%	84%	83%			
Transit Trips													
Office (12.5%)			389	50	7	57	9	43	52				
Retail (2.6%)			29	1	0	1	1	2	3				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			418	51	7	58	10	45	55				

^b Table A27

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 21: SITF Site
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 21: SITF Site														
Office (General Office Building)	KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	Units		0	0	0	0	0	0	0	0				
Other (Transit)	Prkng	ITE(093)	0	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other (Transit) (-11.1%)			0	0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			0	0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####				
Other (Transit)			0	0	0	0	0	0	0	0				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Other (Transit) (12.5%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Initial Phase with Maximum Office (2030)

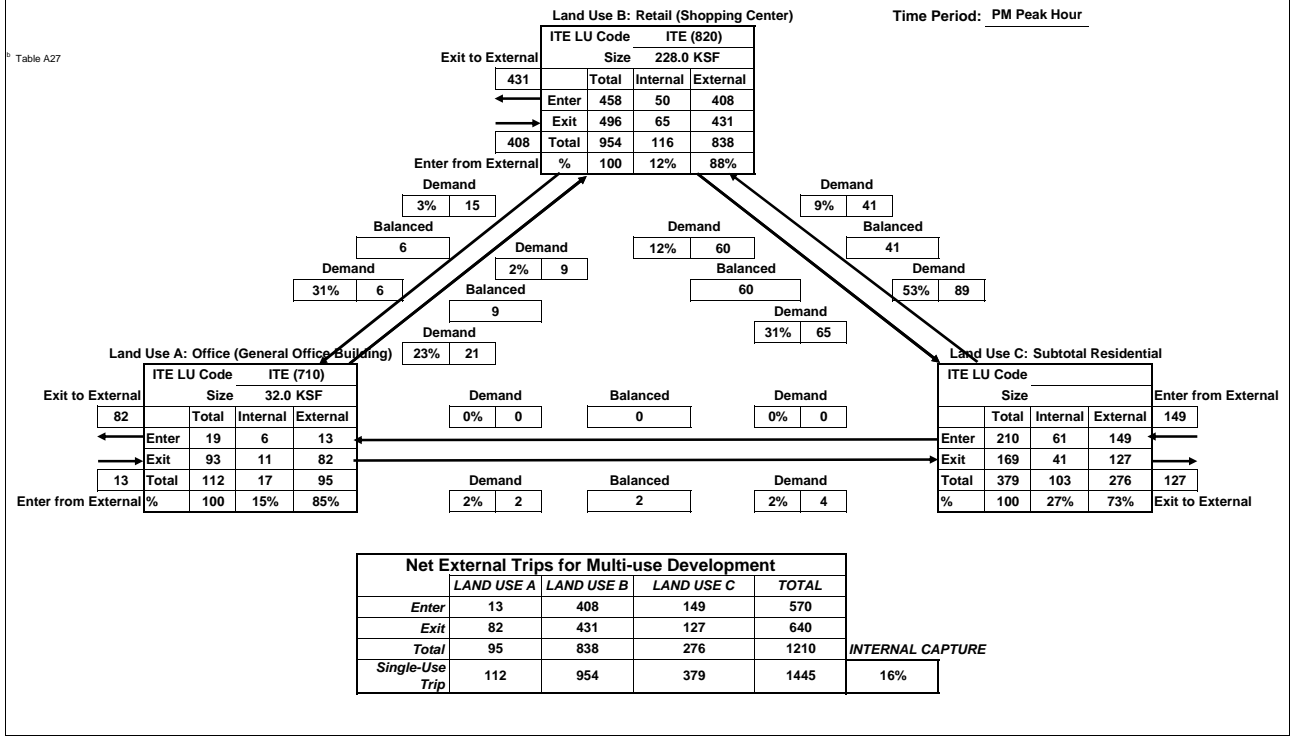
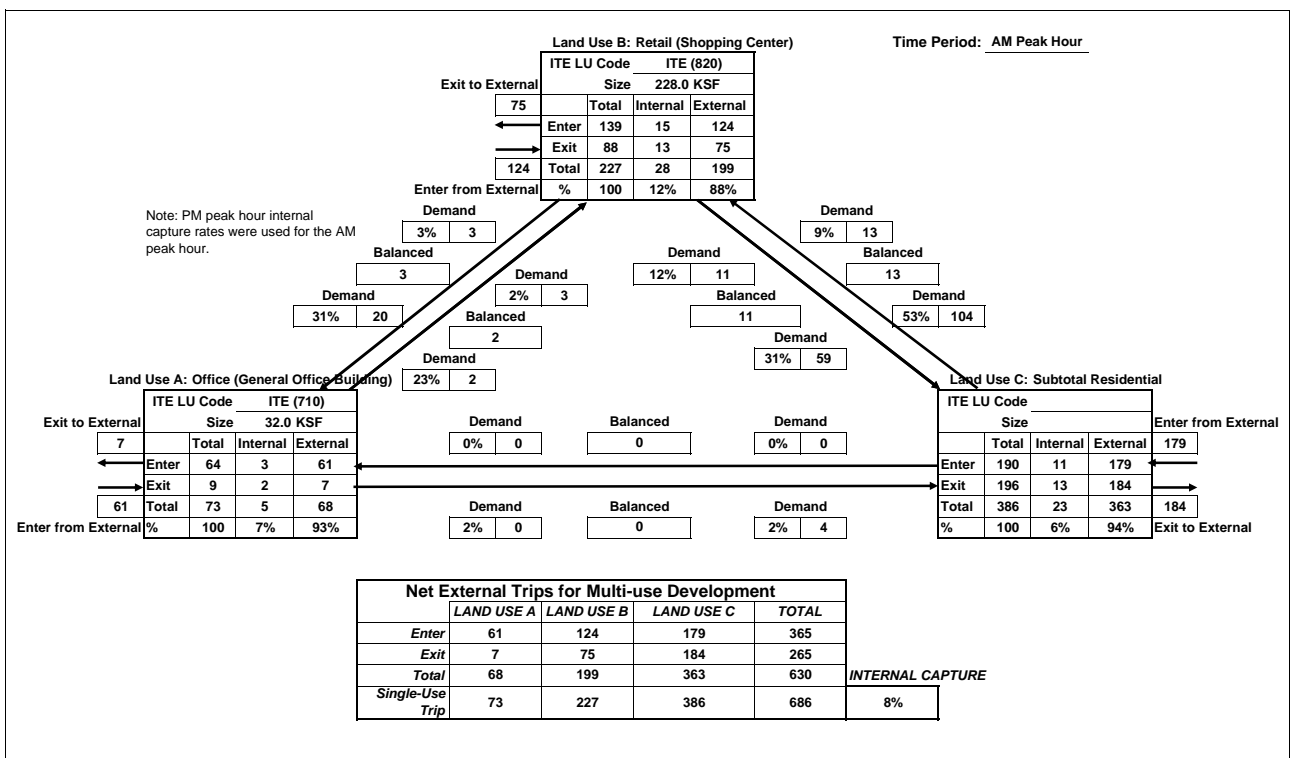
Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 24: Bounded by Property Boundary, Railyards, N. 10th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



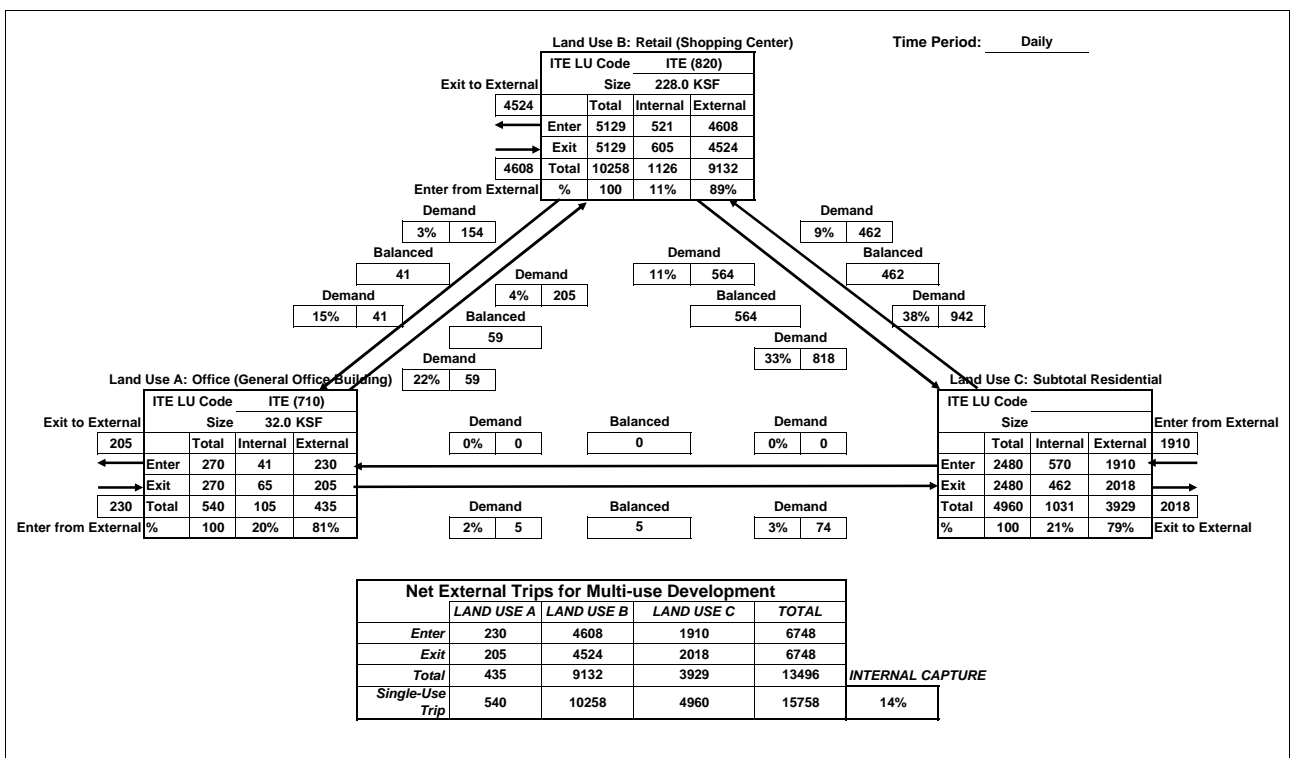
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

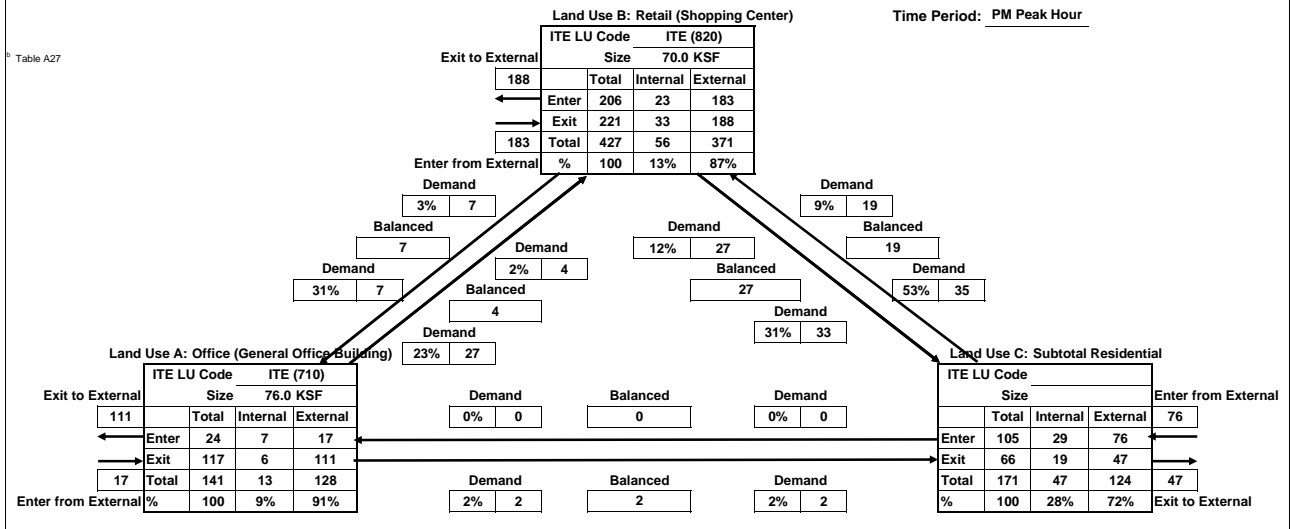
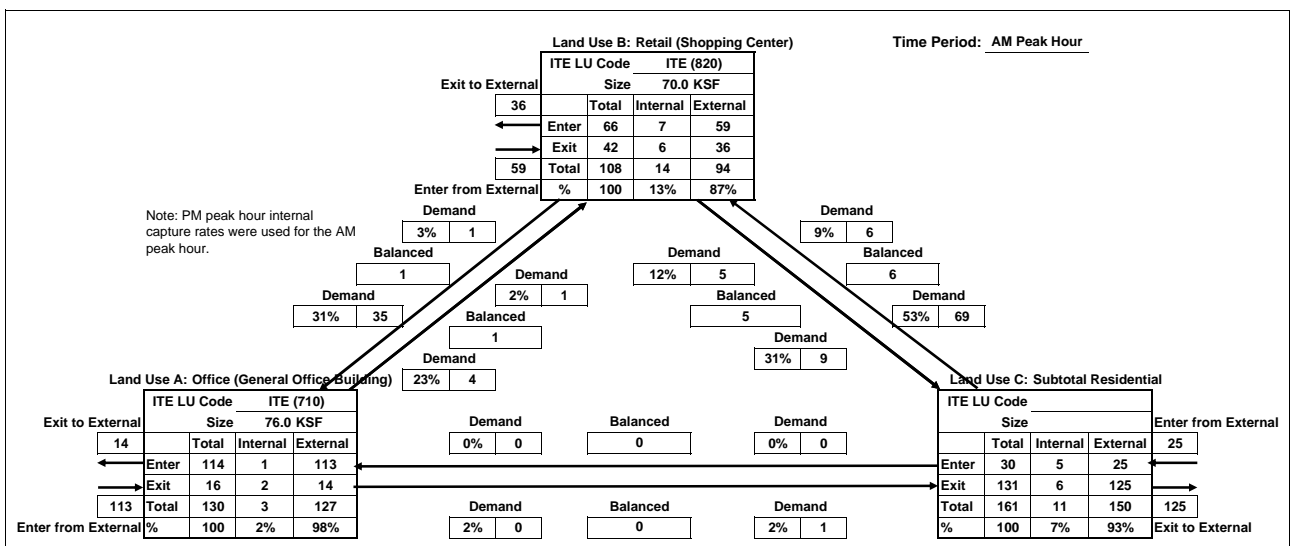
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



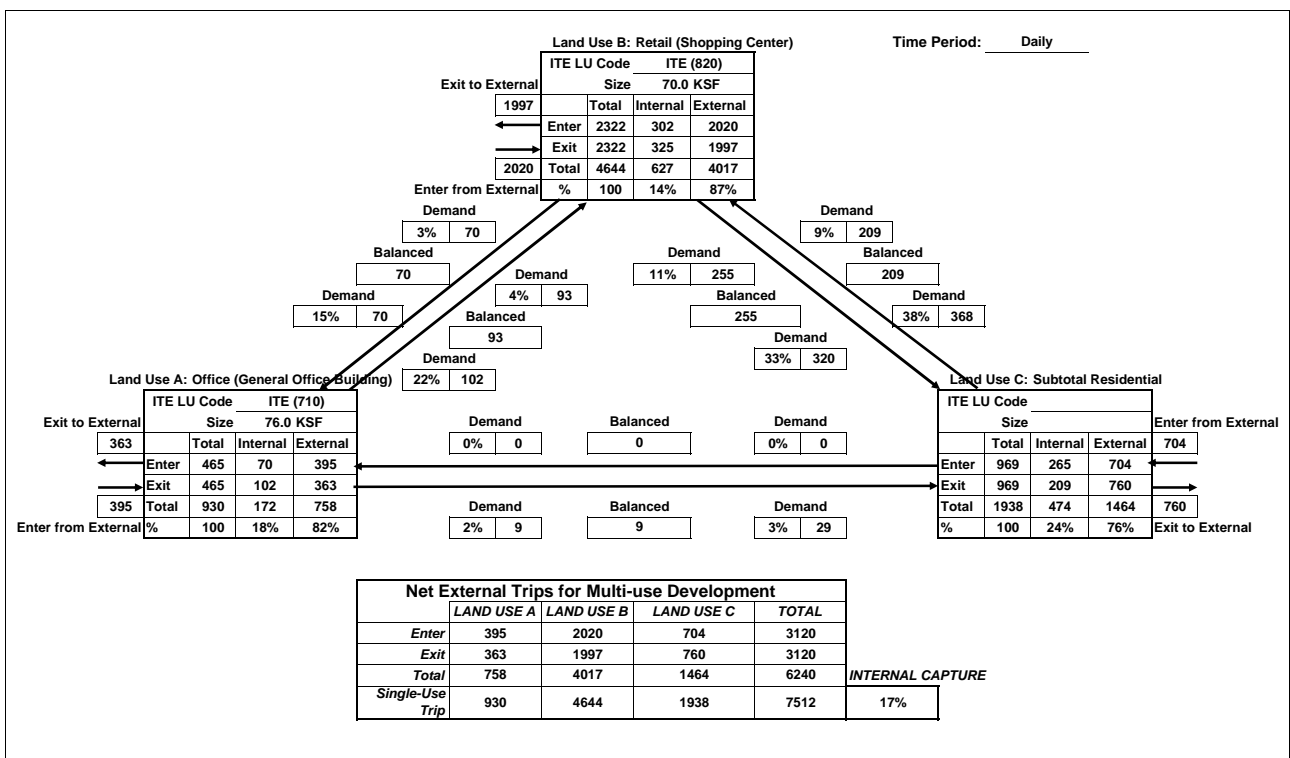
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

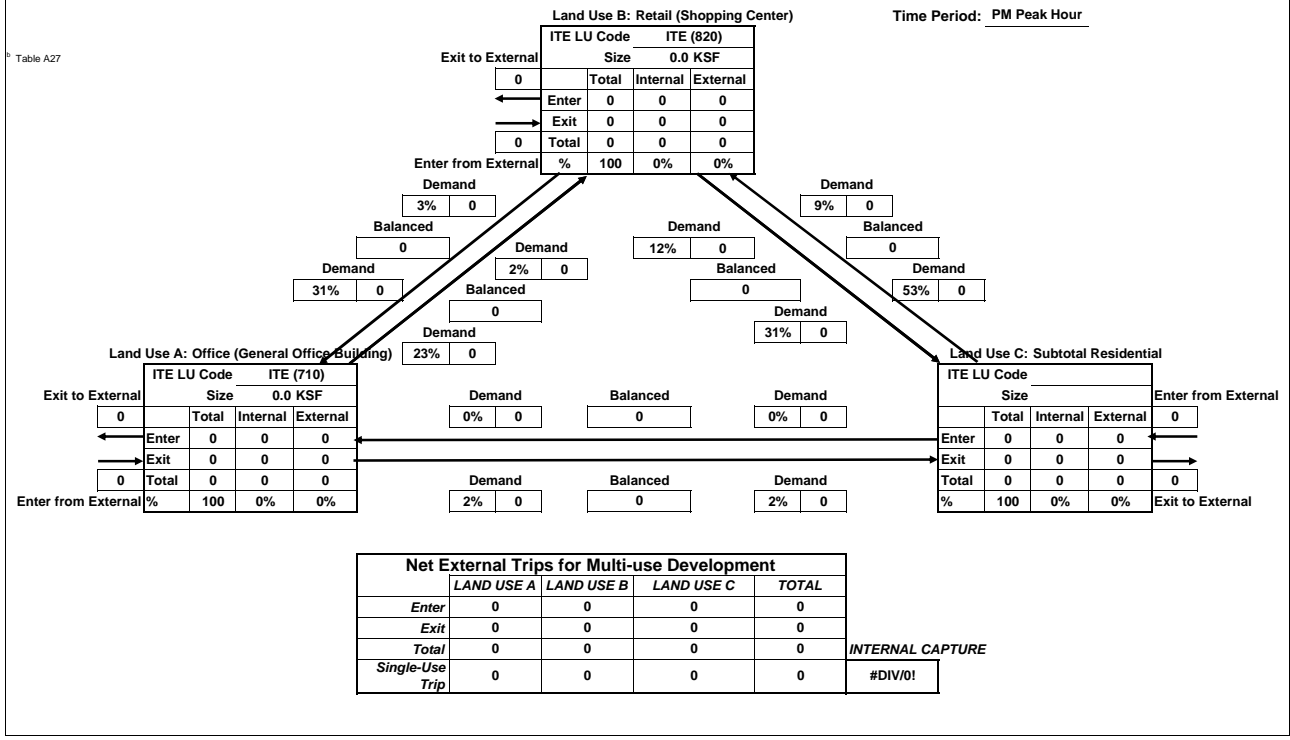
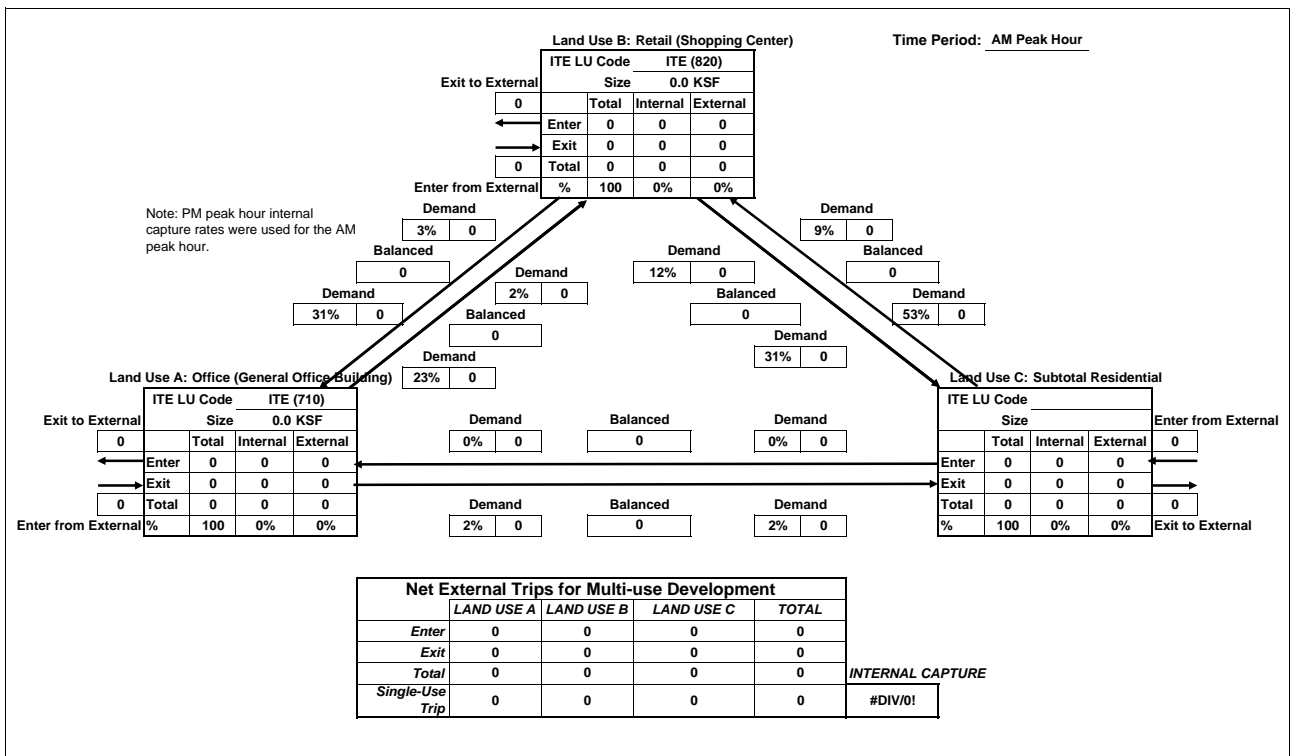
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



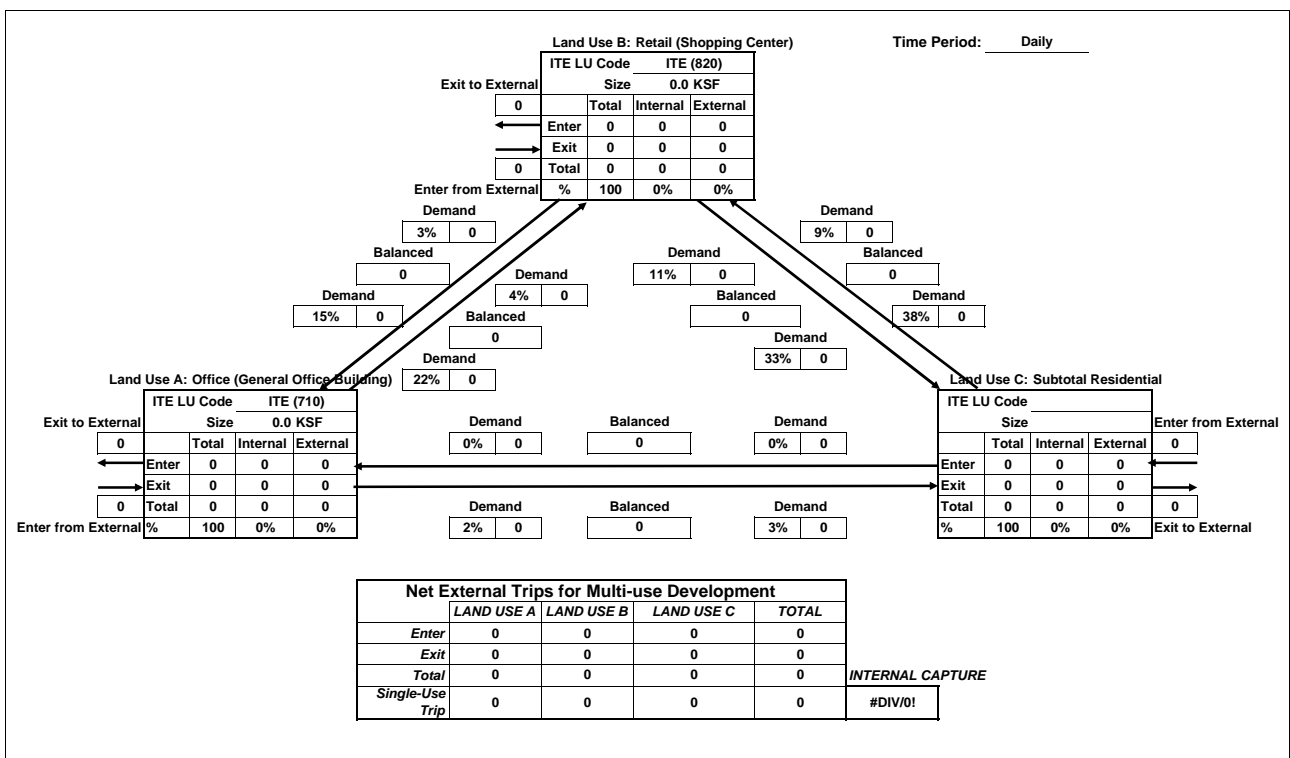
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

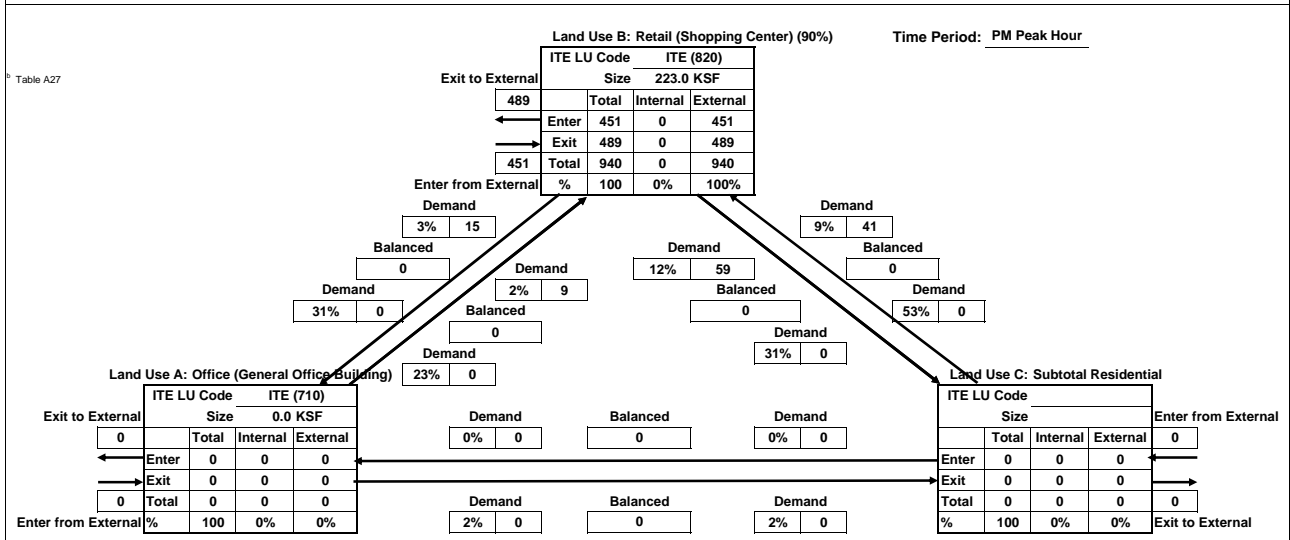
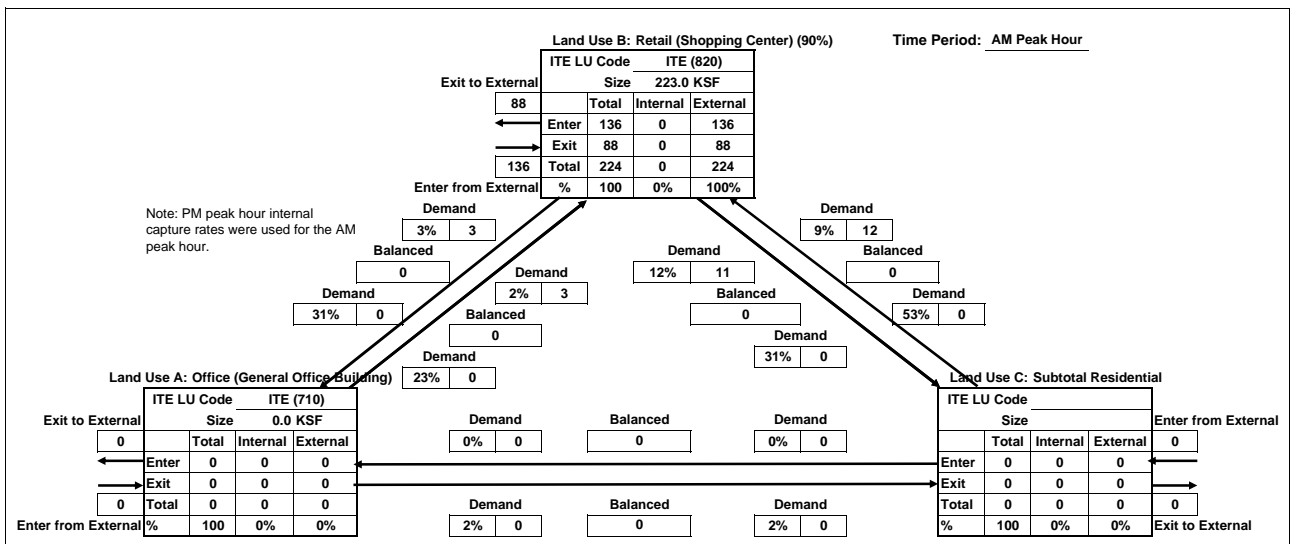
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



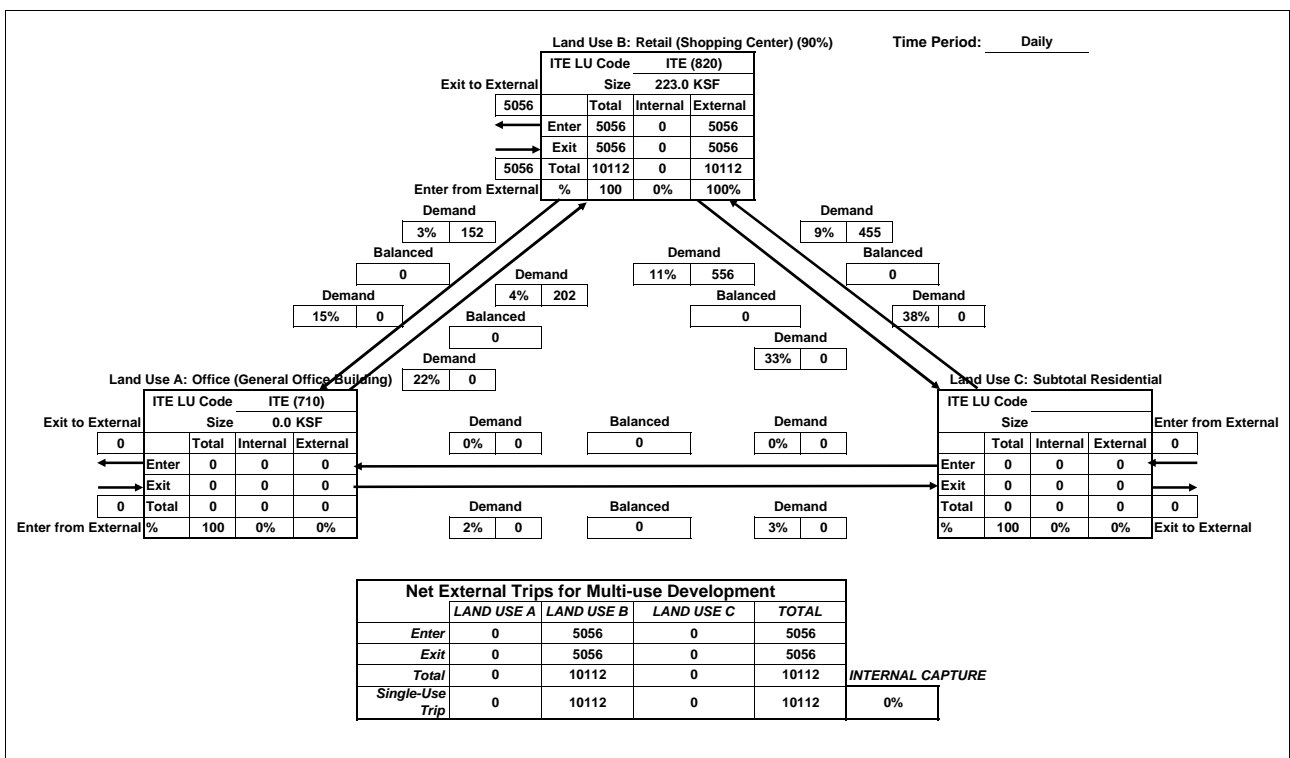
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

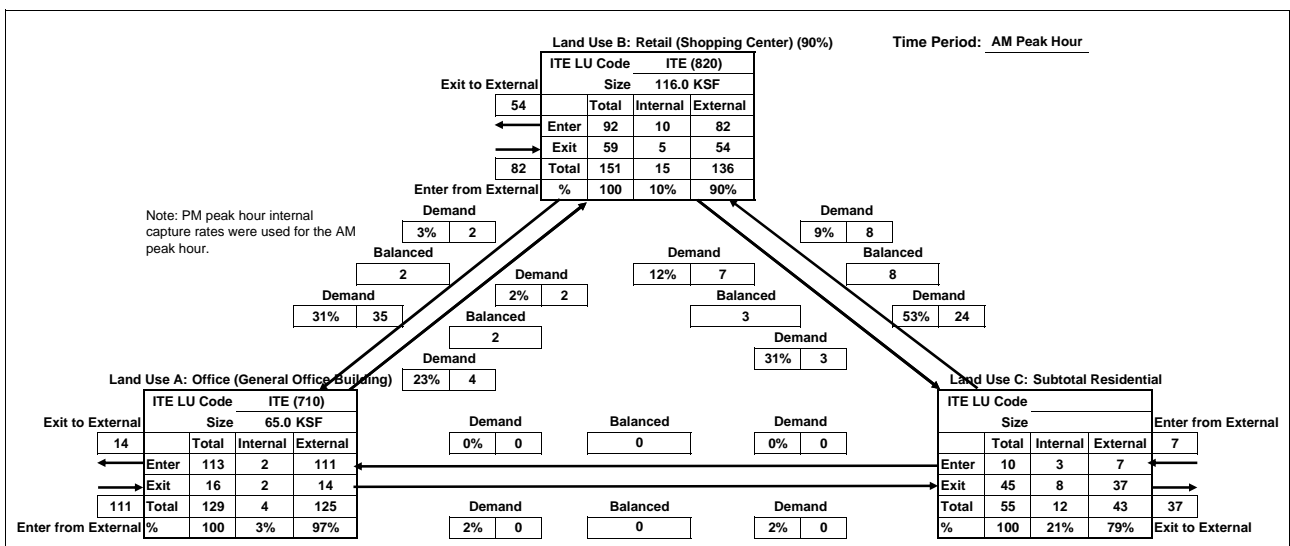
Time Period: Daily



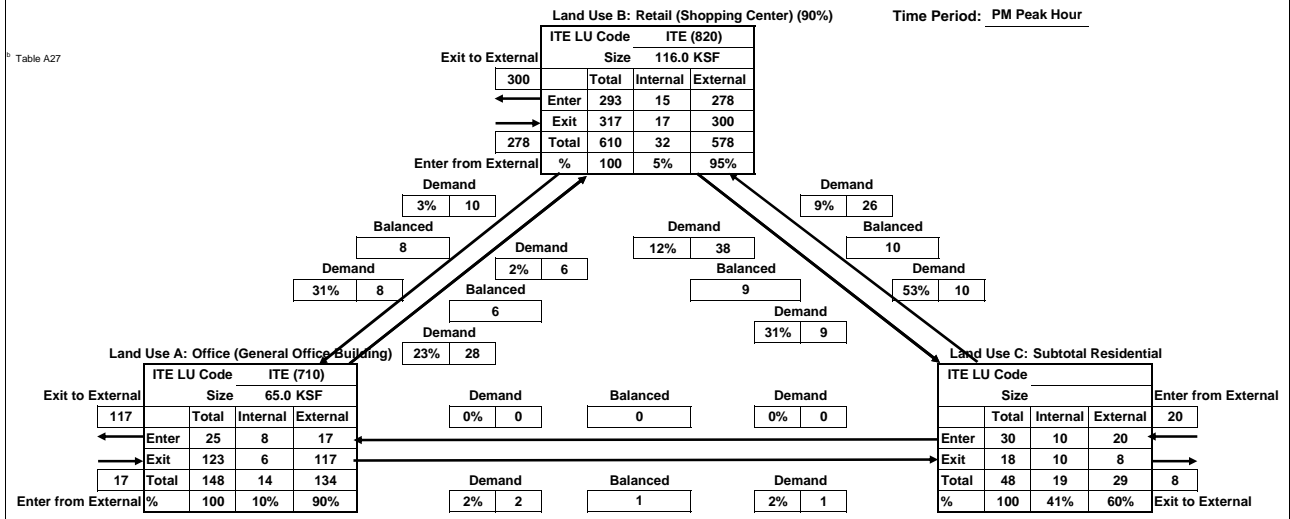
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	111	82	7	200	
Exit	14	54	37	105	
Total	125	136	43	305	INTERNAL CAPTURE
Single-Use Trip	129	151	55	335	9%



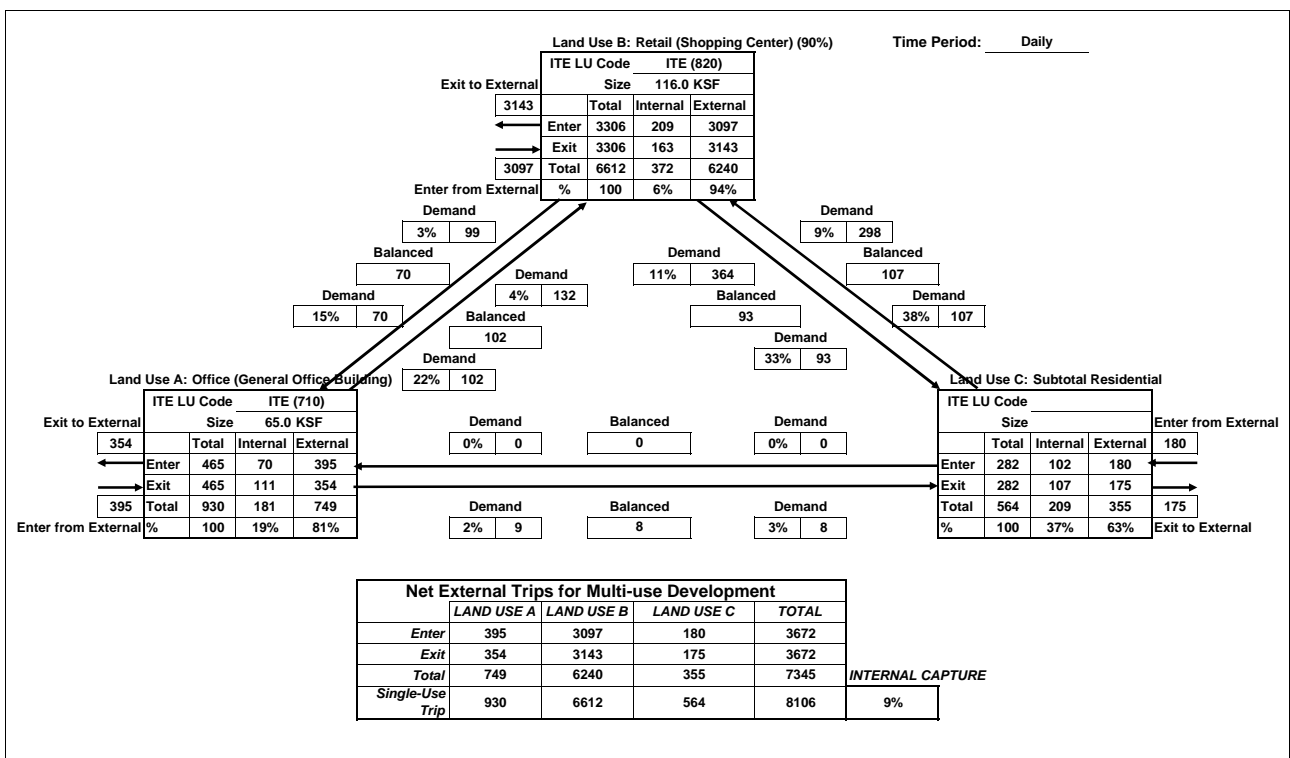
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	278	20	315	
Exit	117	300	8	425	
Total	134	578	29	740	INTERNAL CAPTURE
Single-Use Trip	148	610	48	806	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

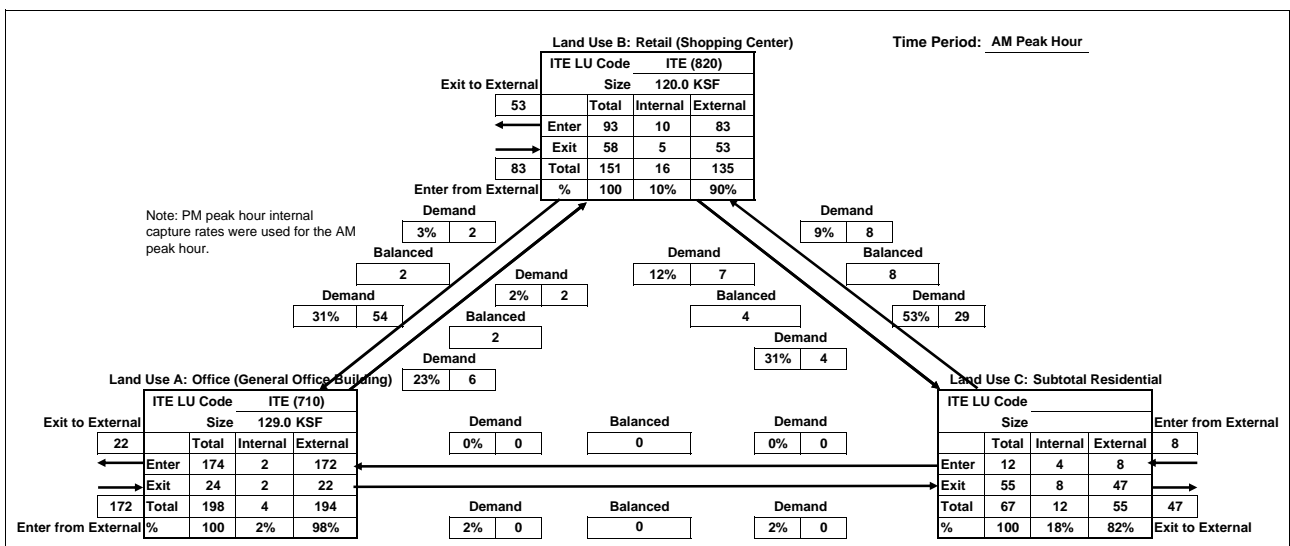
Time Period: Daily



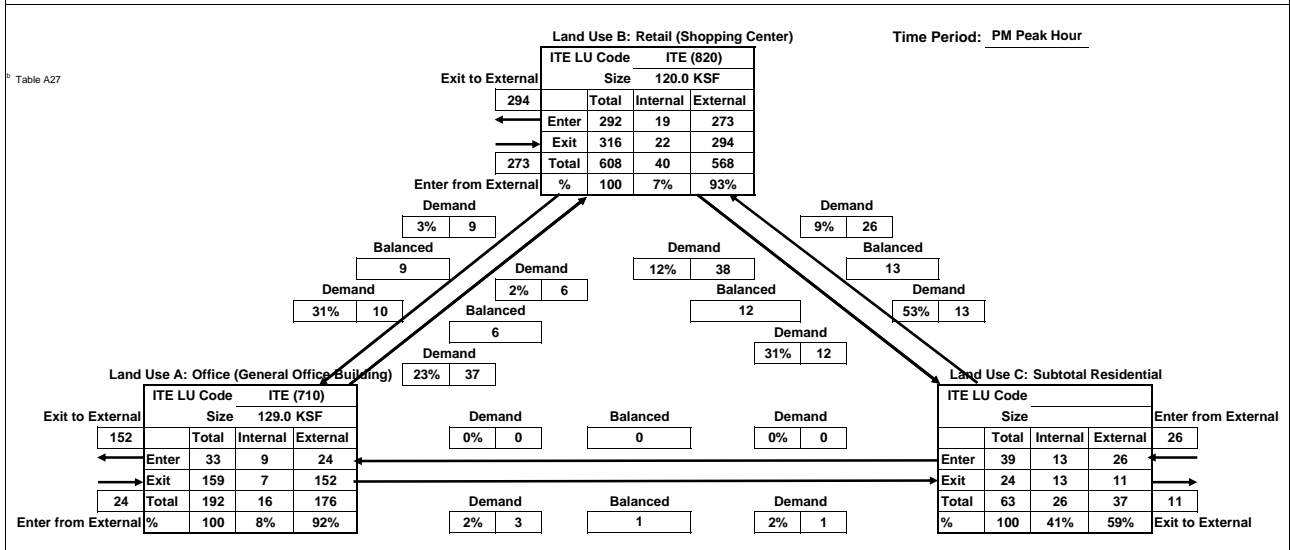
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	172	83	8	263	
Exit	22	53	47	121	
Total	194	135	55	384	INTERNAL CAPTURE
Single-Use Trip	198	151	67	416	8%



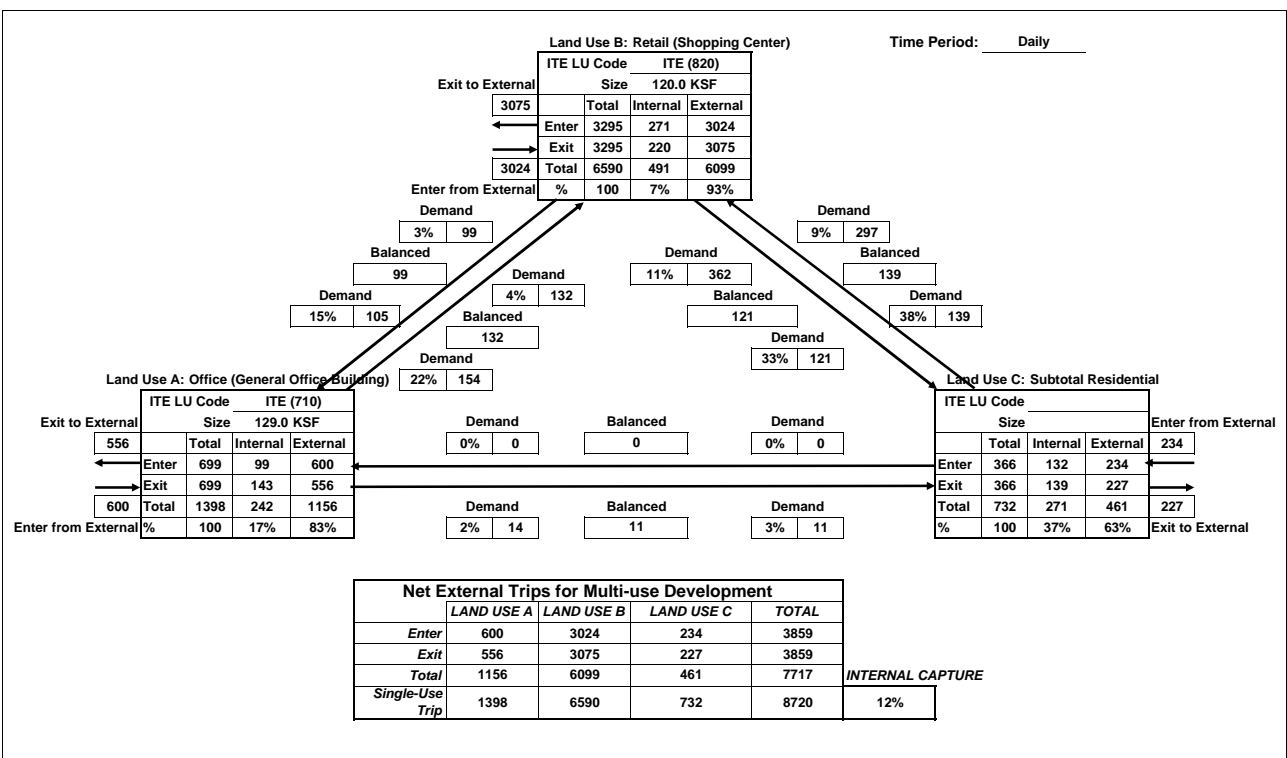
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	24	273	26	323	
Exit	152	294	11	458	
Total	176	568	37	781	INTERNAL CAPTURE
Single-Use Trip	192	608	63	863	9%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

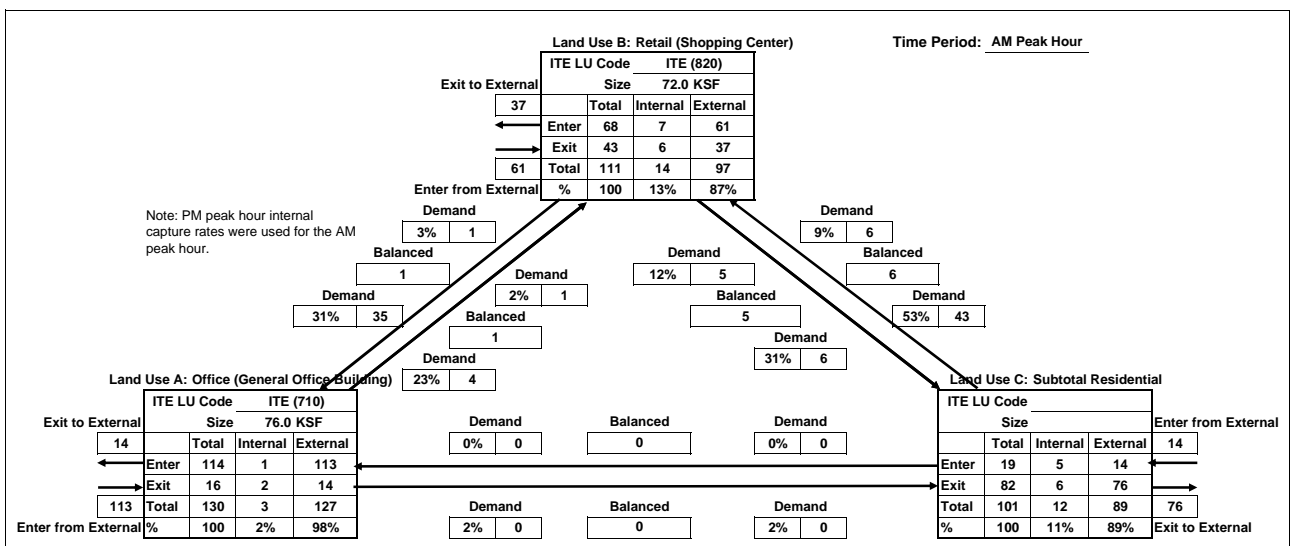
Time Period: Daily



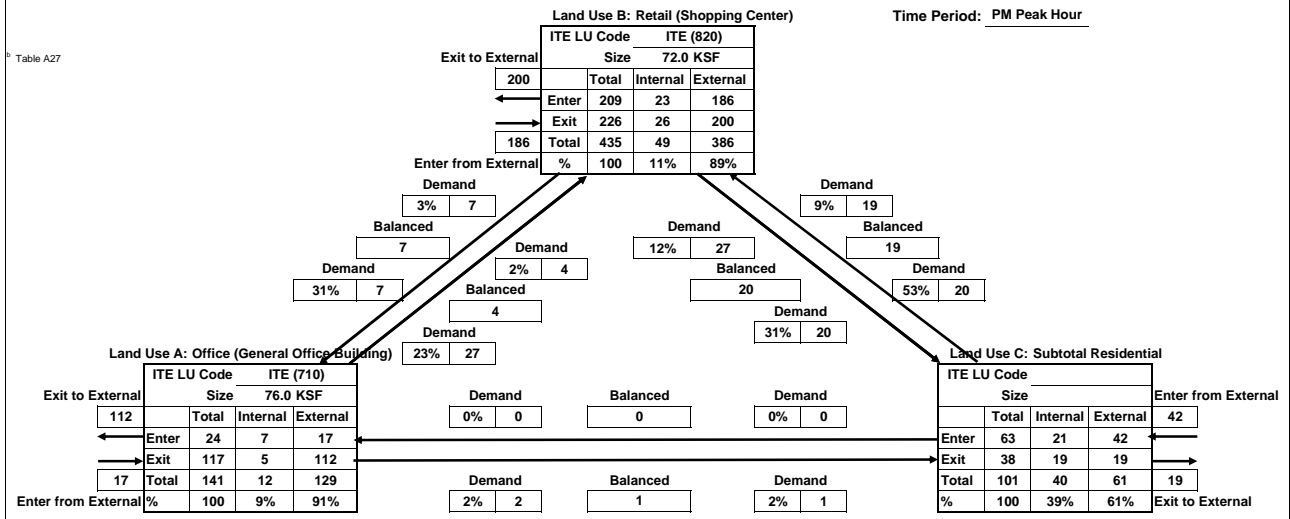
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	113	61	14	187	
Exit	14	37	76	127	
Total	127	97	89	314	INTERNAL CAPTURE
Single-Use Trip	130	111	101	342	8%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	186	42	245	
Exit	112	200	19	330	
Total	129	386	61	576	INTERNAL CAPTURE
Single-Use Trip	141	435	101	677	15%

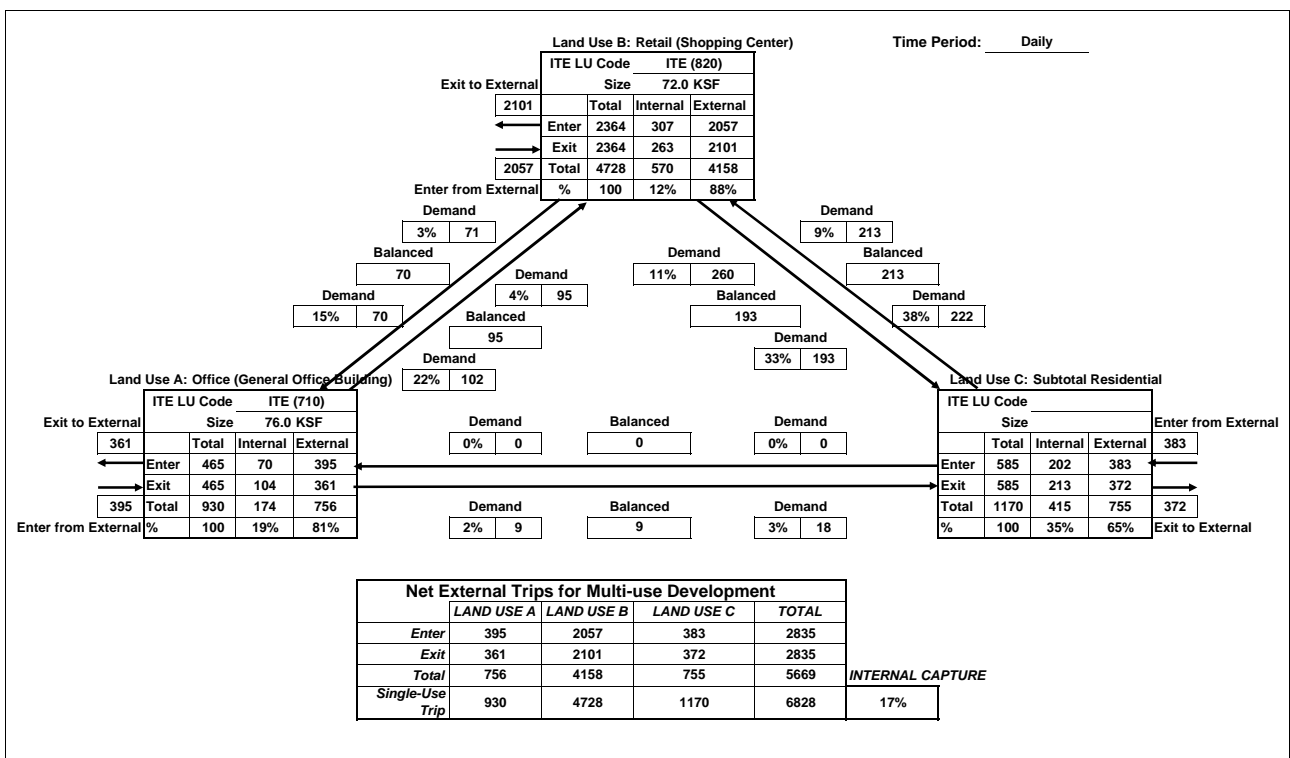
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

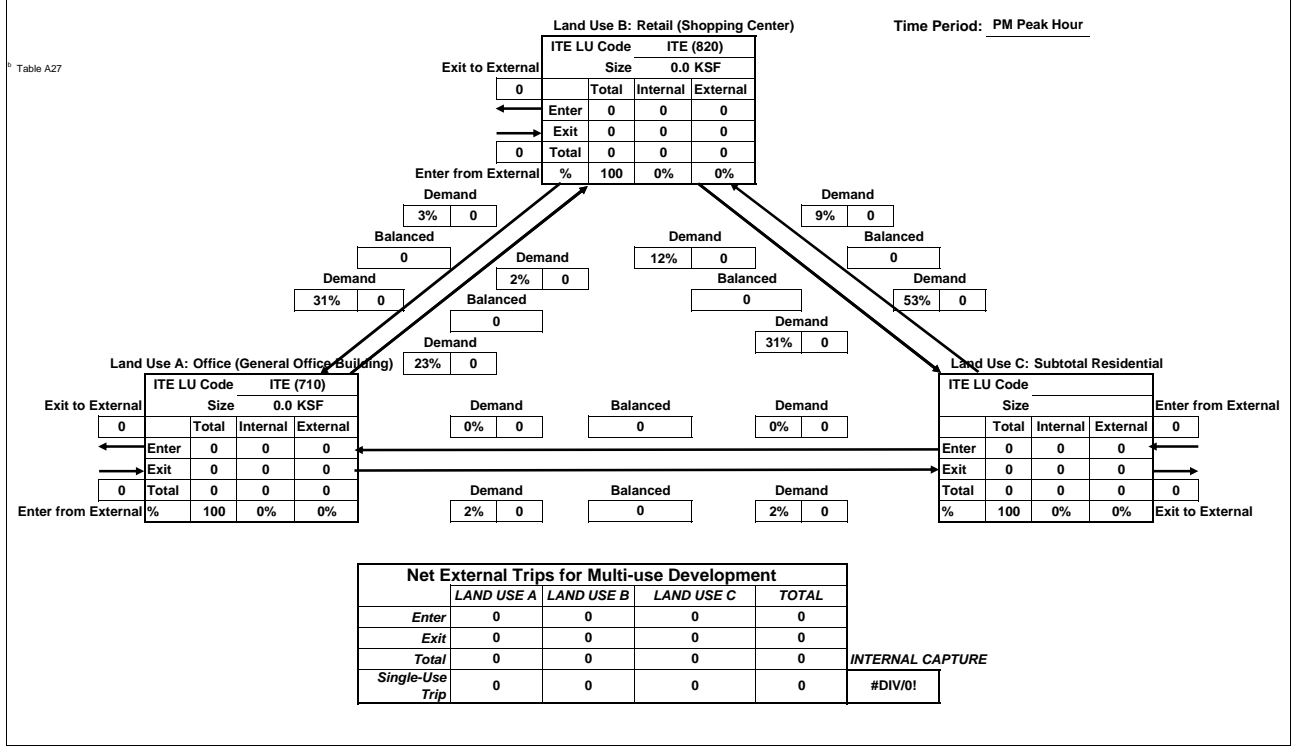
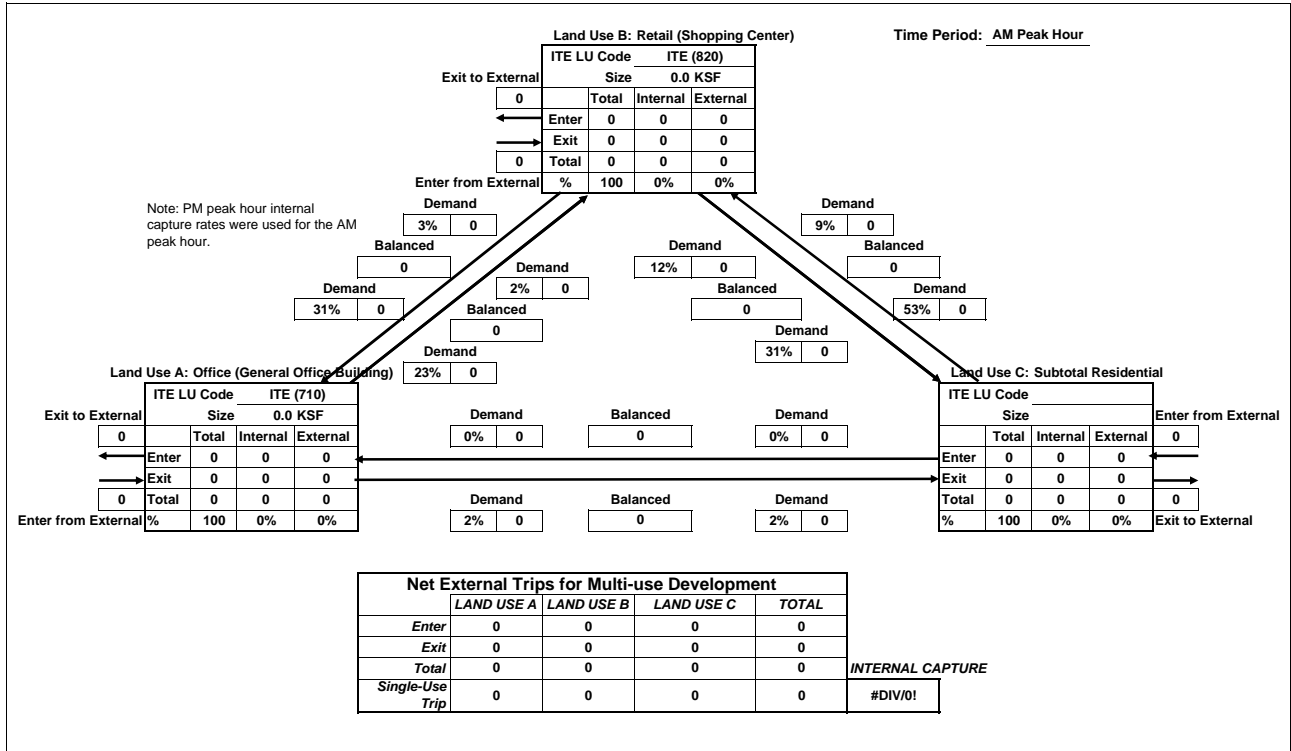
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



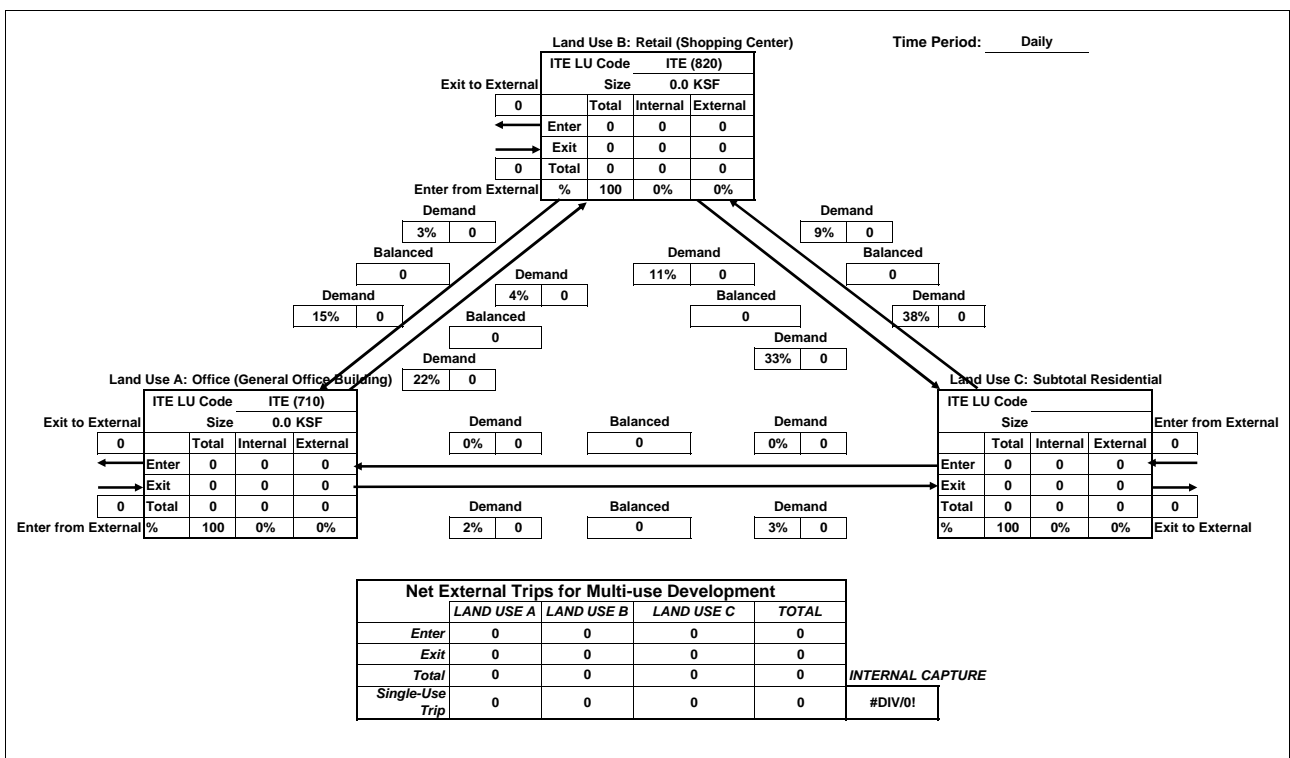
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

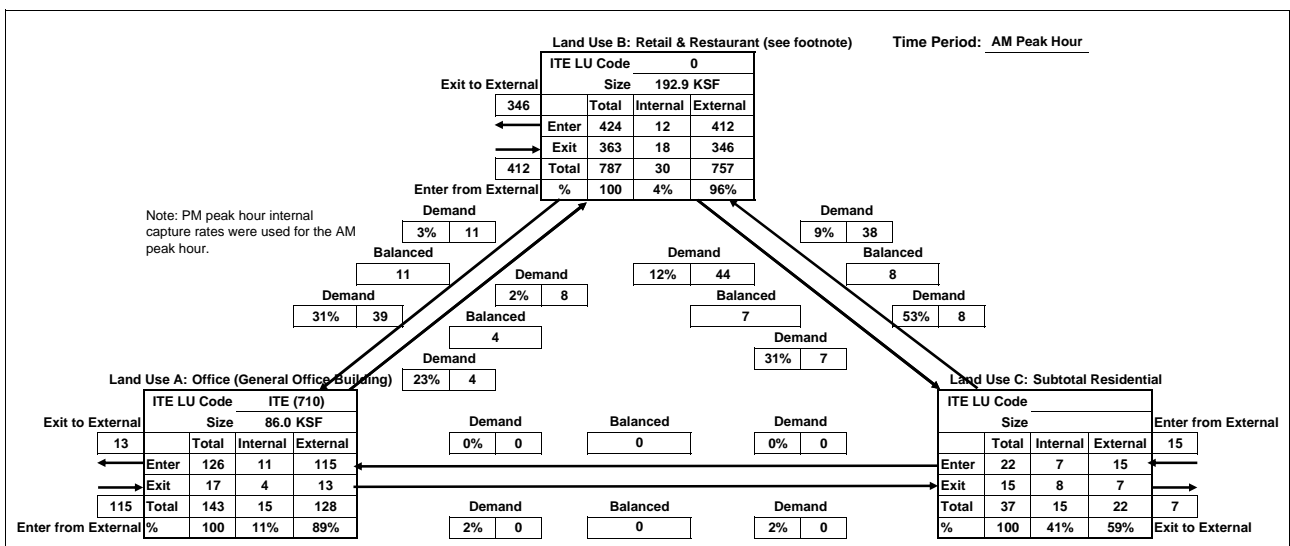
Time Period: Daily



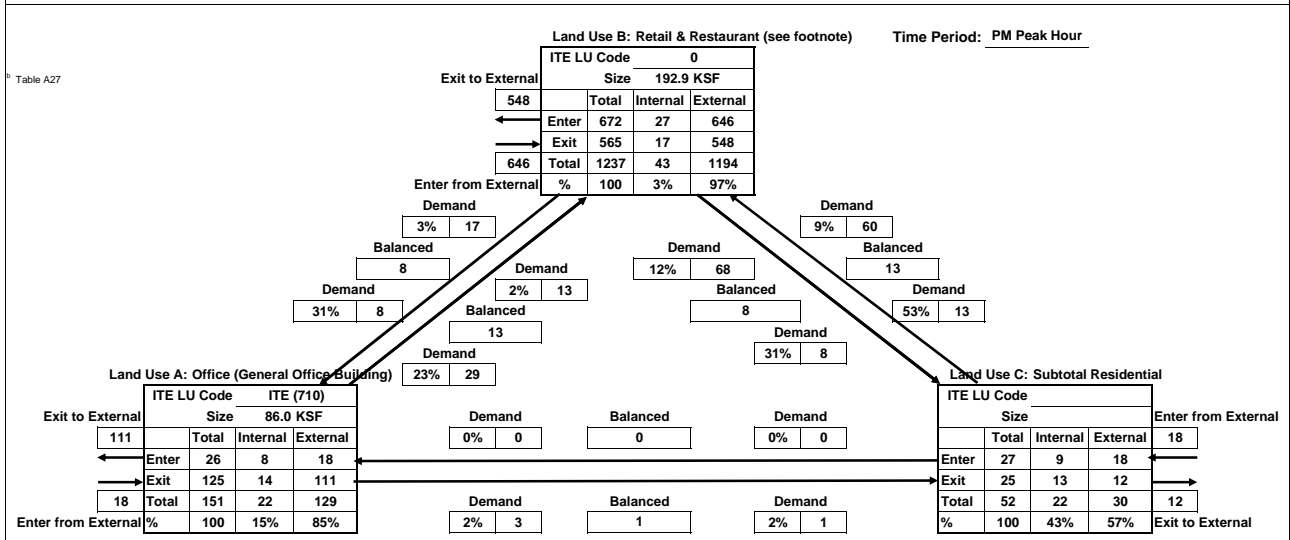
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	115	412	15	542	
Exit	13	346	7	365	
Total	128	757	22	907	INTERNAL CAPTURE
Single-Use Trip	143	787	37	967	6%



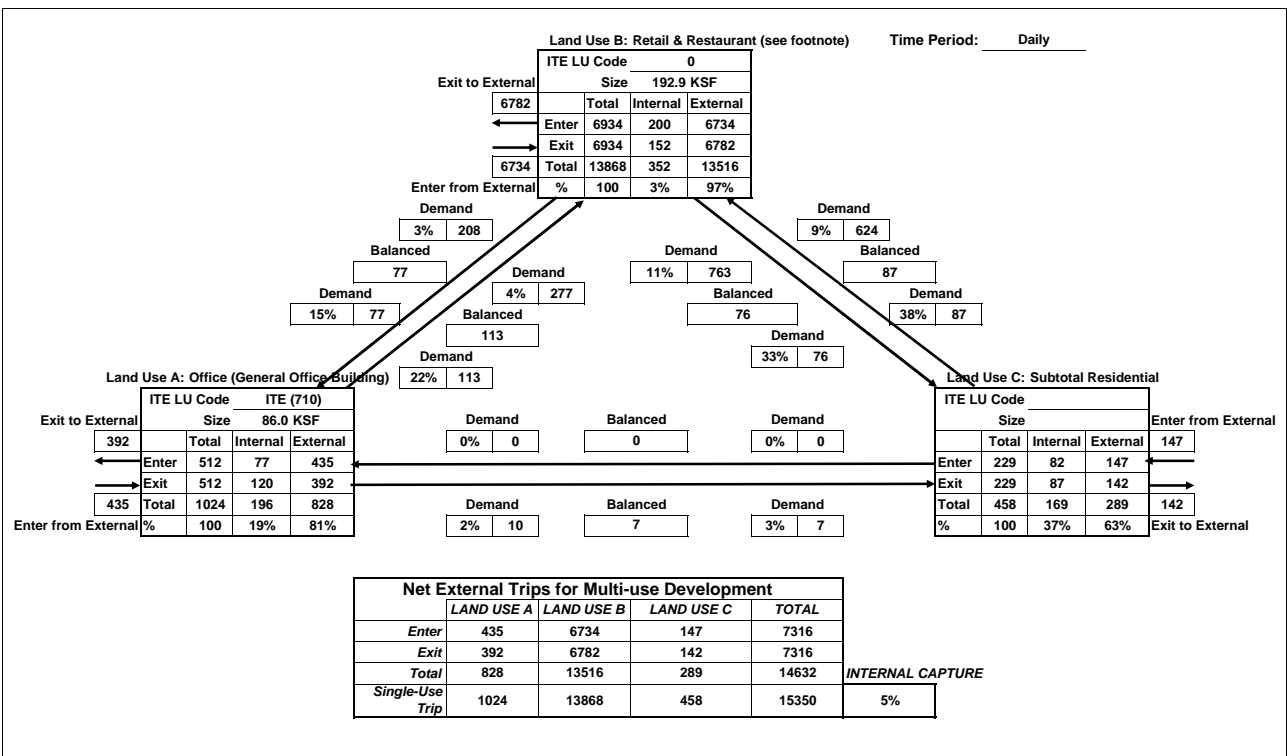
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	18	646	18	682	
Exit	111	548	12	671	
Total	129	1194	30	1353	INTERNAL CAPTURE
Single-Use Trip	151	1237	52	1440	6%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

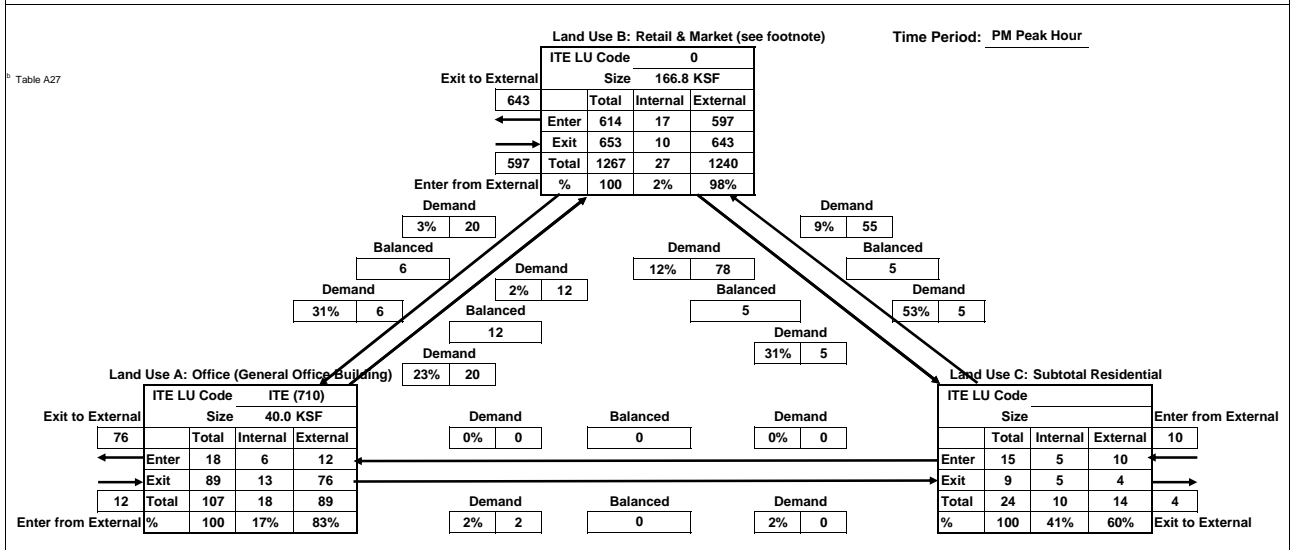
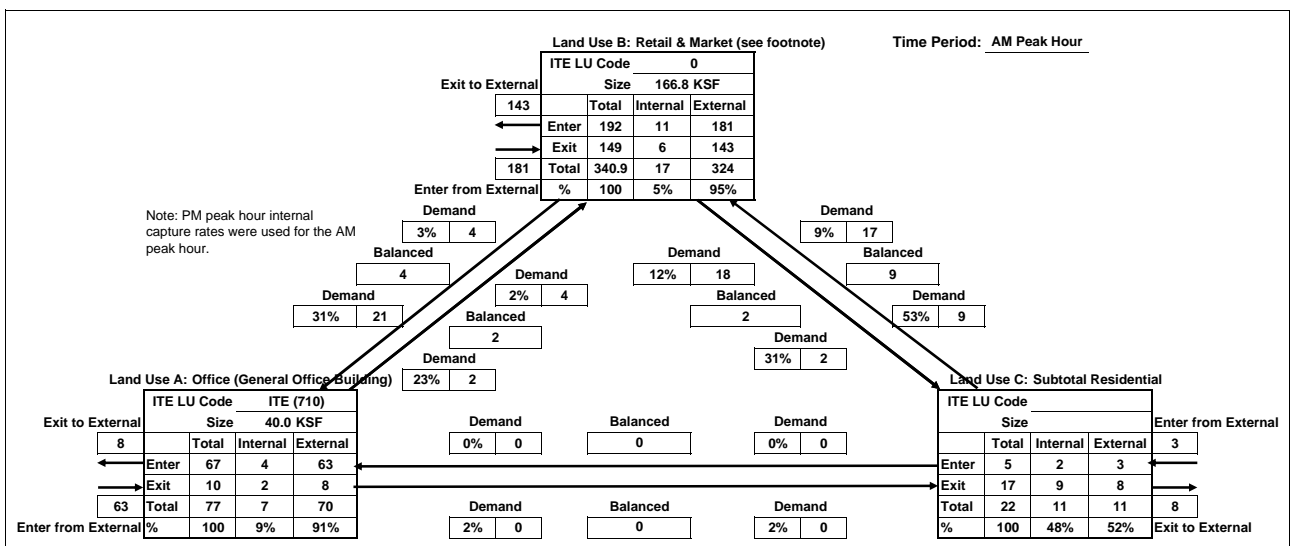
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

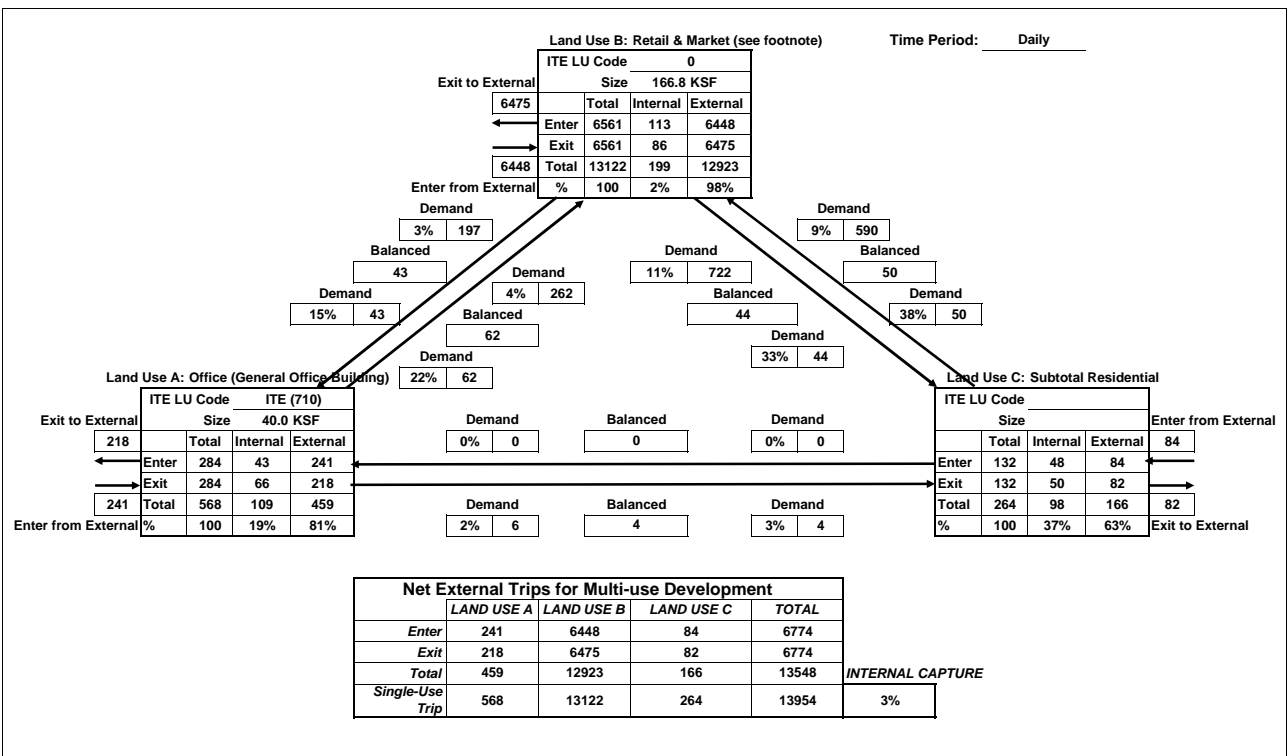


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

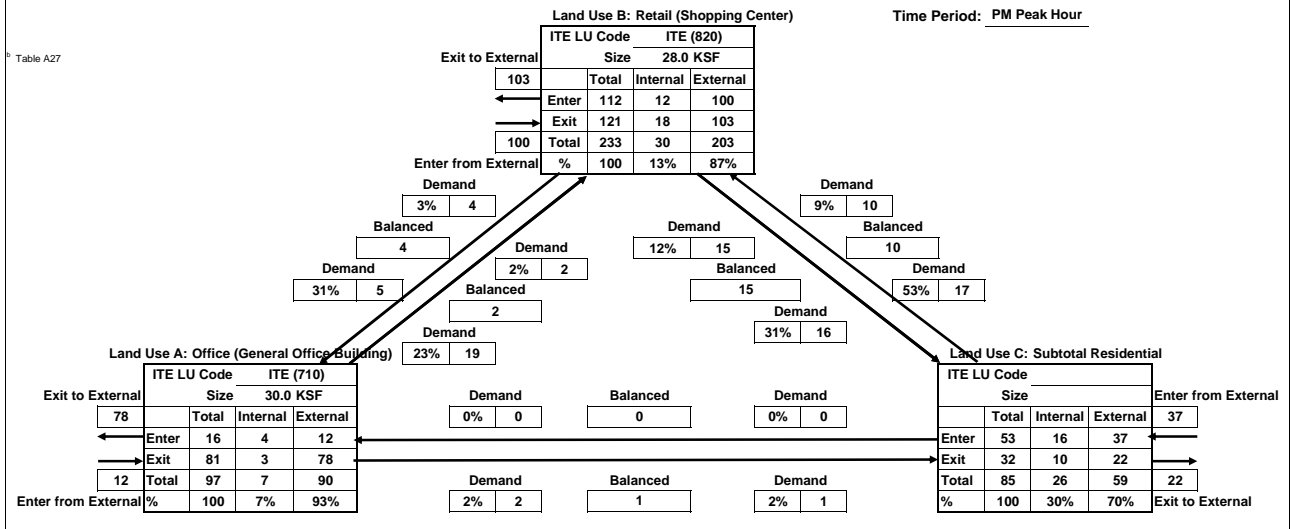
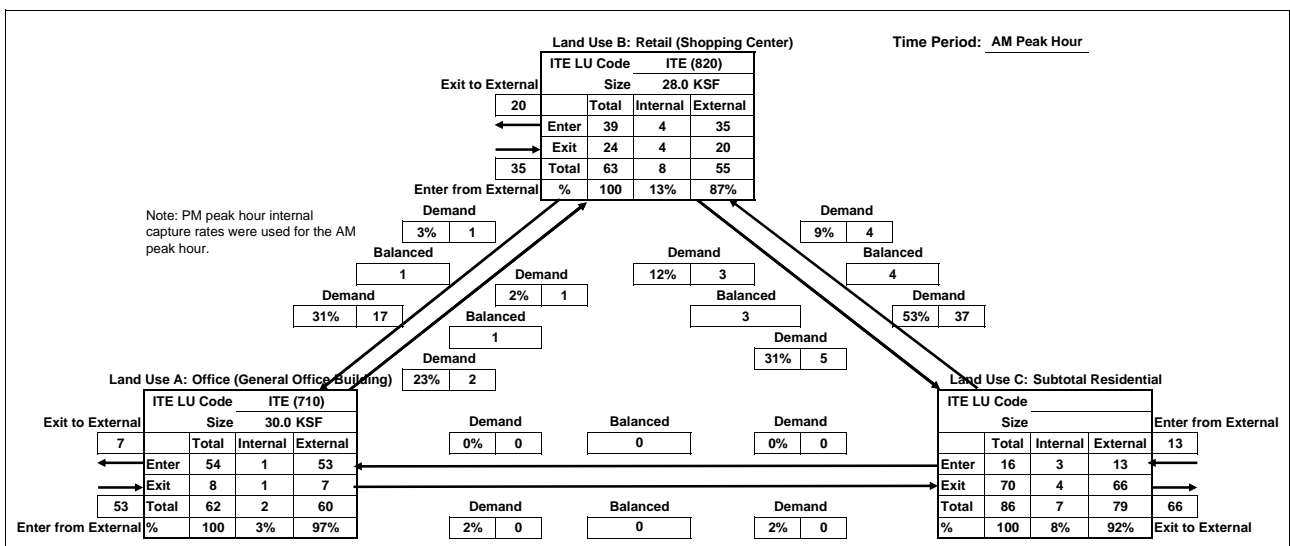
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



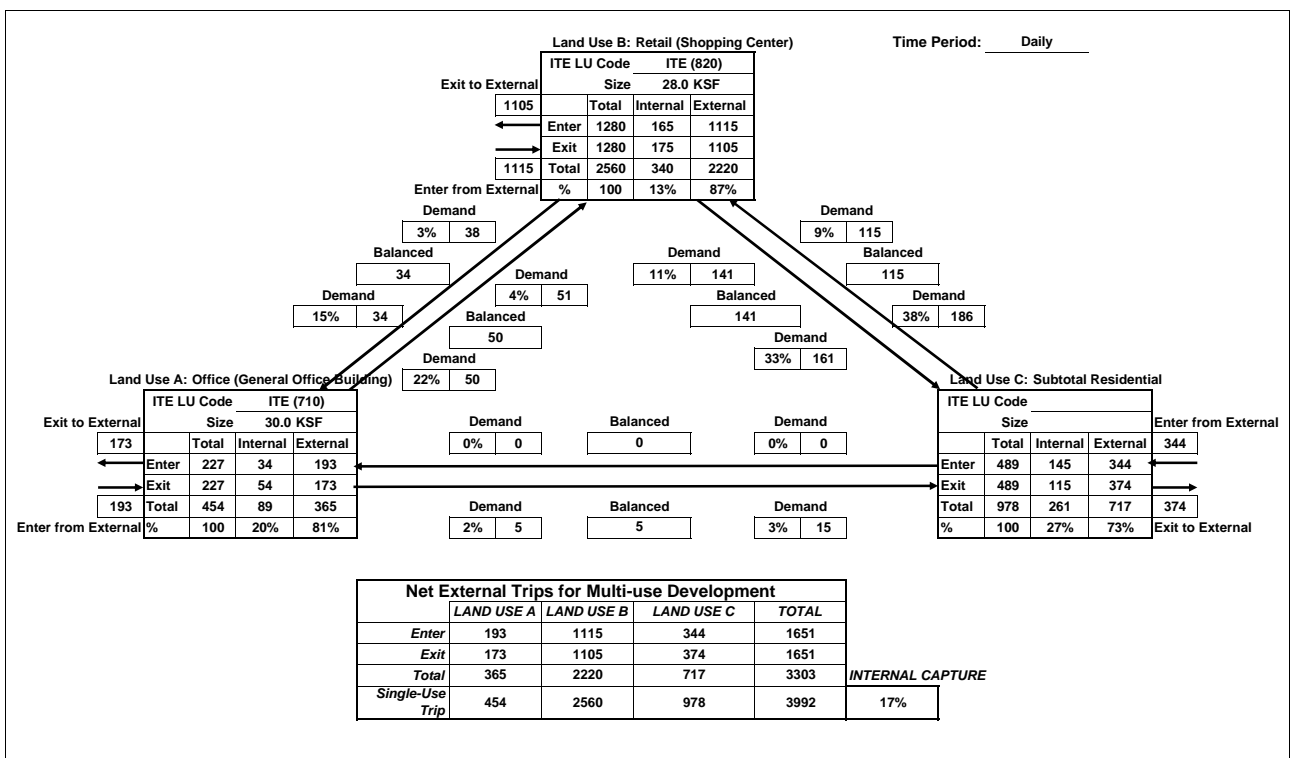
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

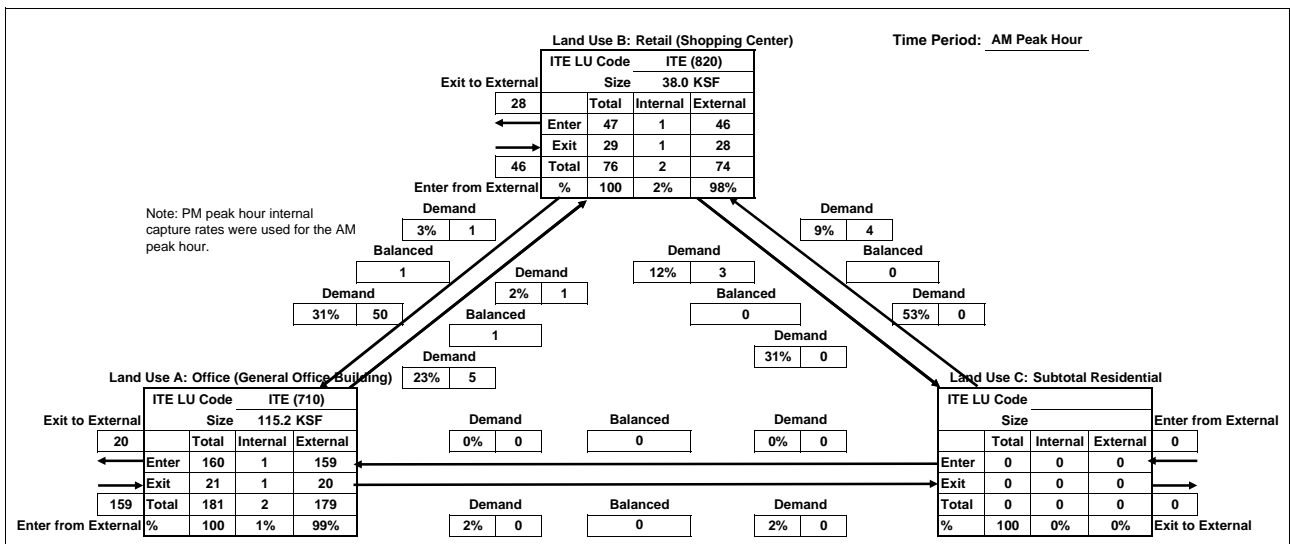
Time Period: Daily



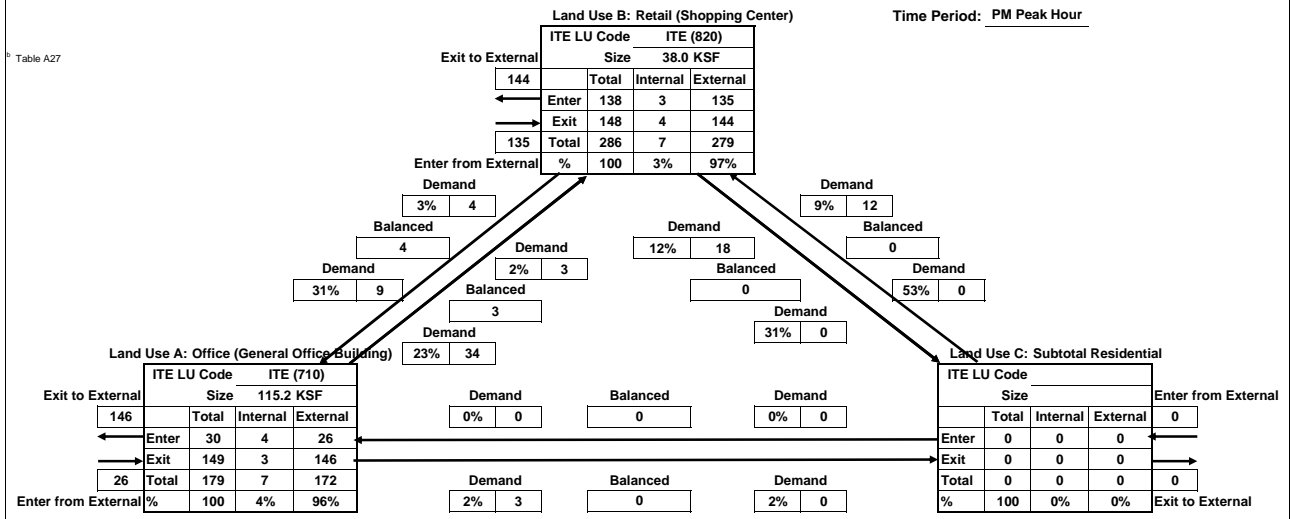
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	159	46	0	205	
Exit	20	28	0	48	
Total	179	74	0	253	INTERNAL CAPTURE
Single-Use Trip	181	76	0	257	1%



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	26	135	0	161	
Exit	146	144	0	290	
Total	172	279	0	451	INTERNAL CAPTURE
Single-Use Trip	179	286	0	465	3%

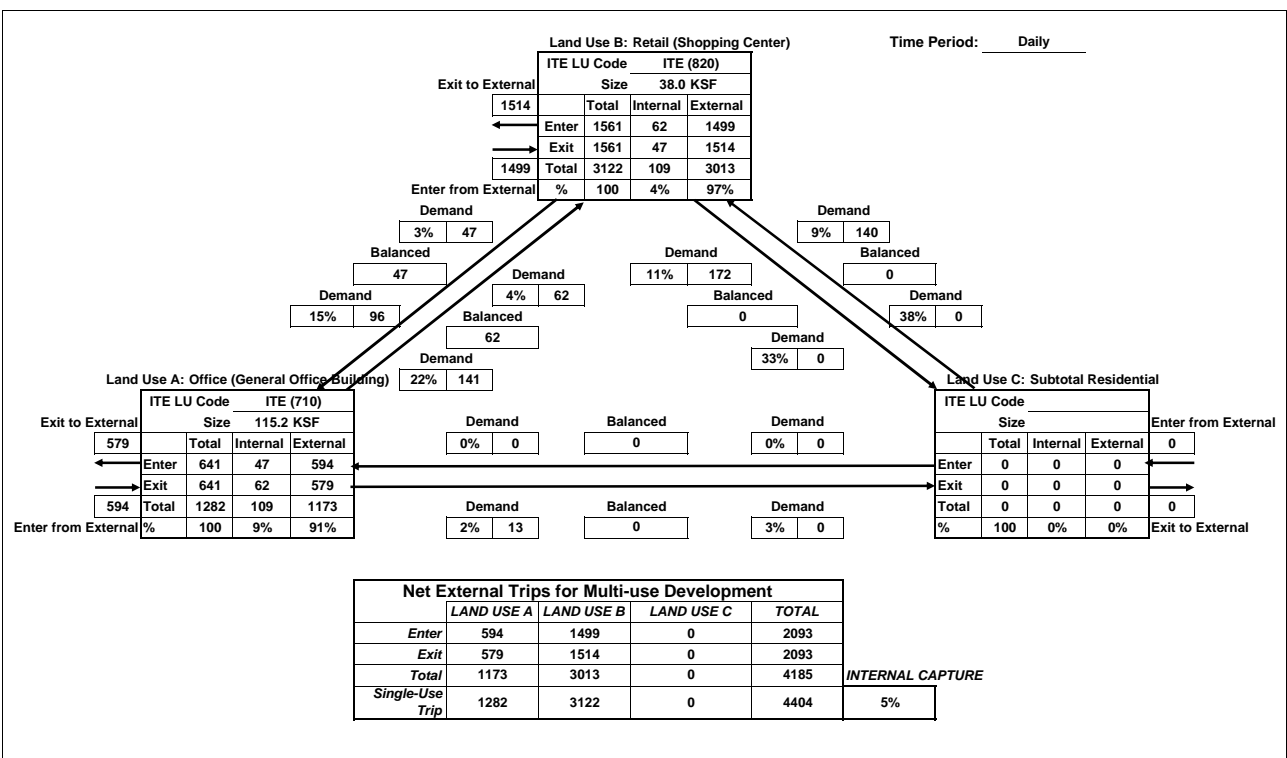
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

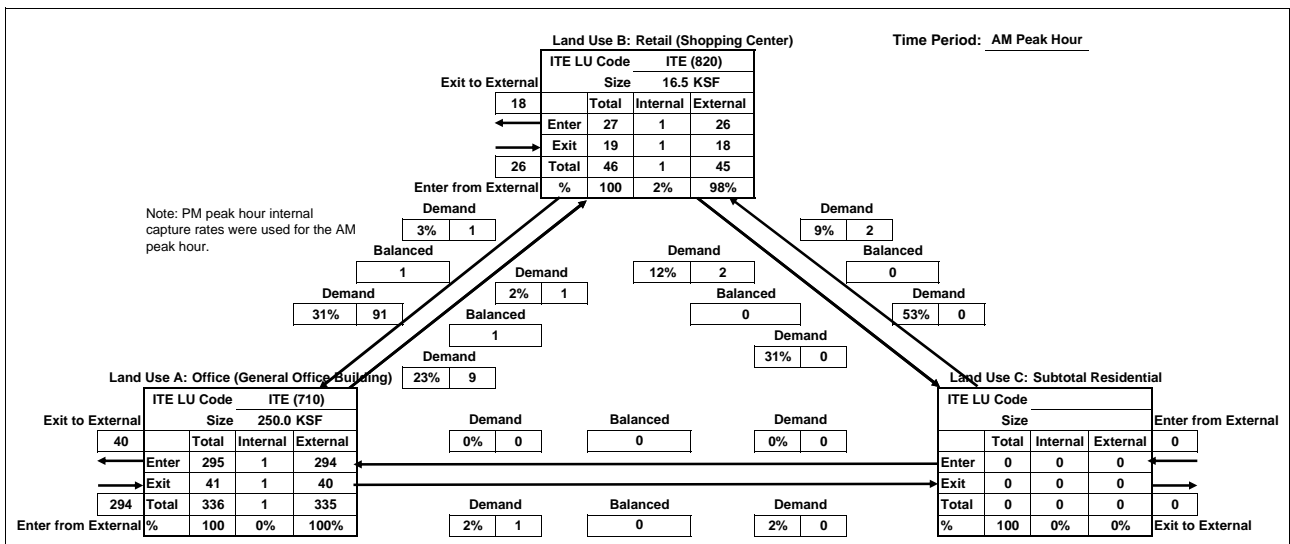
Time Period: Daily



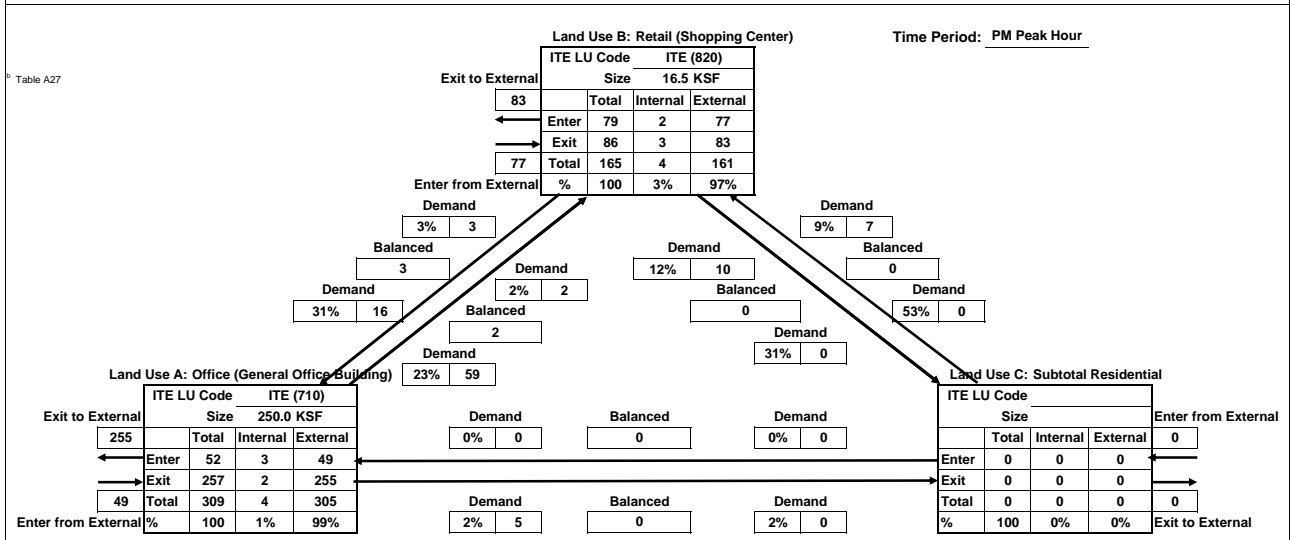
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	294	26	0	321	
Exit	40	18	0	59	
Total	335	45	0	380	INTERNAL CAPTURE
Single-Use Trip	336	46	0	382	1%



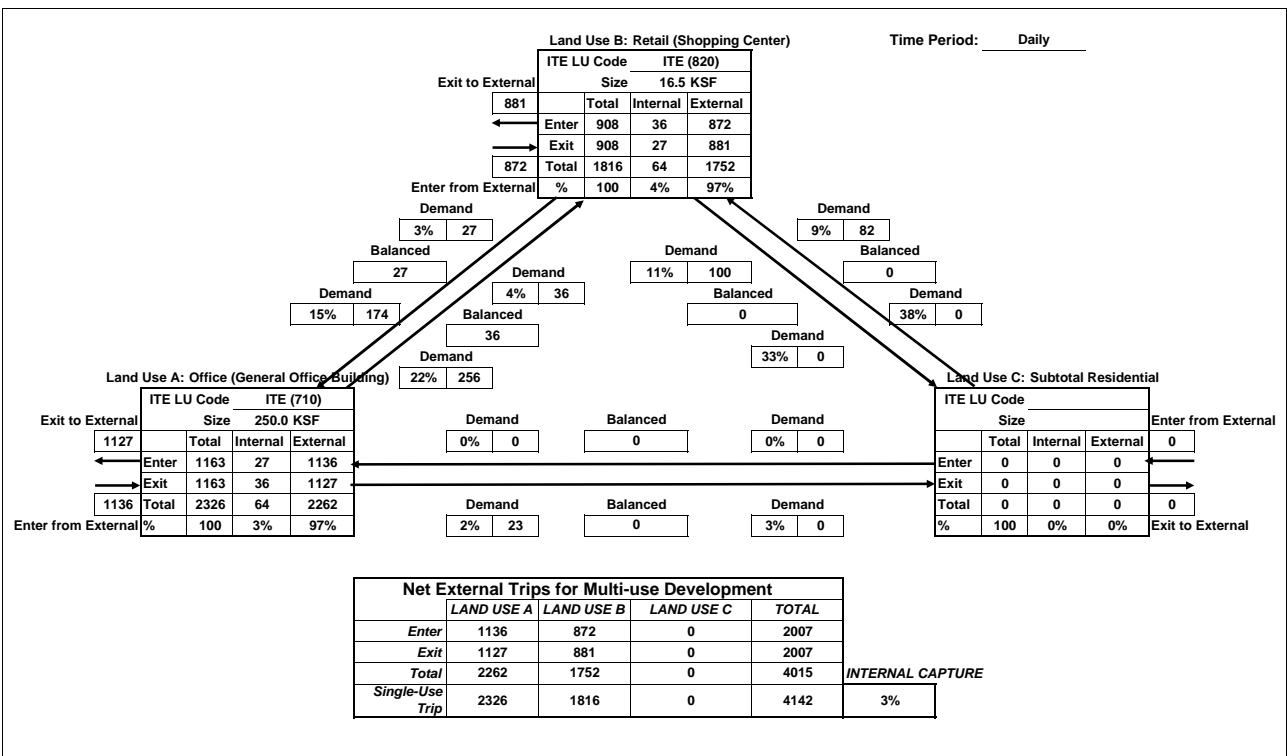
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	49	77	0	127	
Exit	255	83	0	339	
Total	305	161	0	466	INTERNAL CAPTURE
Single-Use Trip	309	165	0	474	2%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

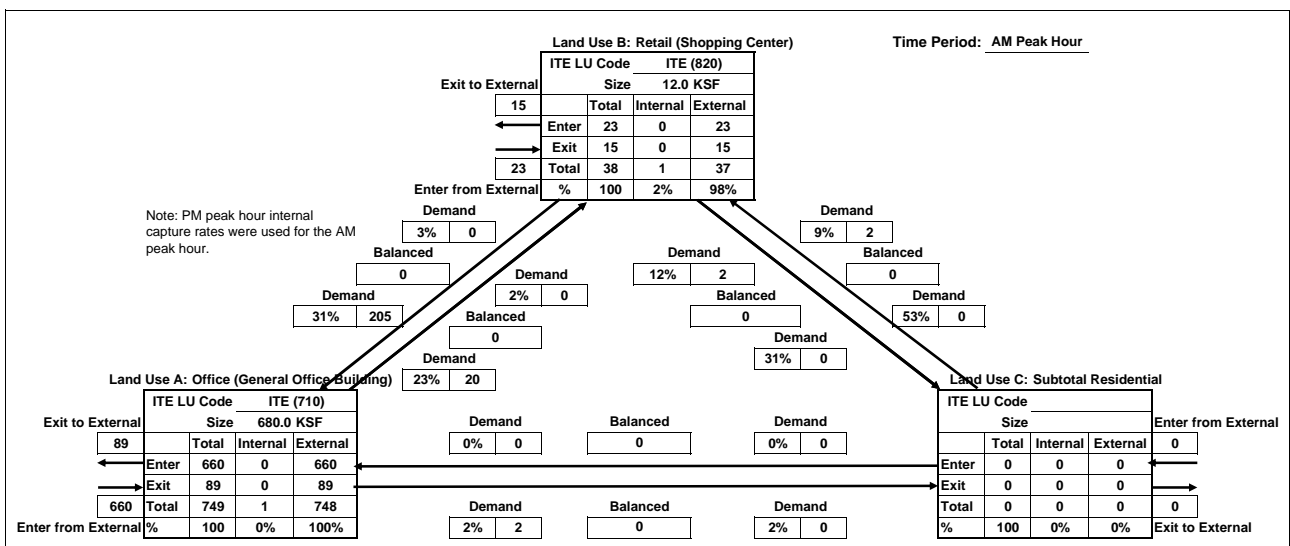
Time Period: Daily



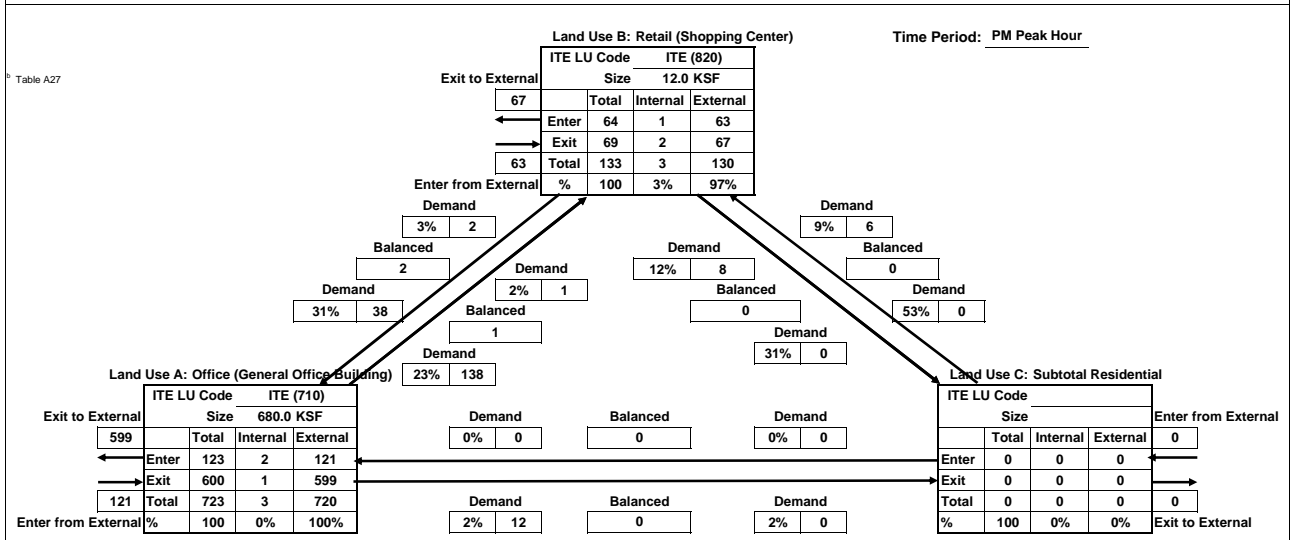
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	660	23	0	682	
Exit	89	15	0	103	
Total	748	37	0	785	INTERNAL CAPTURE
Single-Use Trip	749	38	0	787	0%



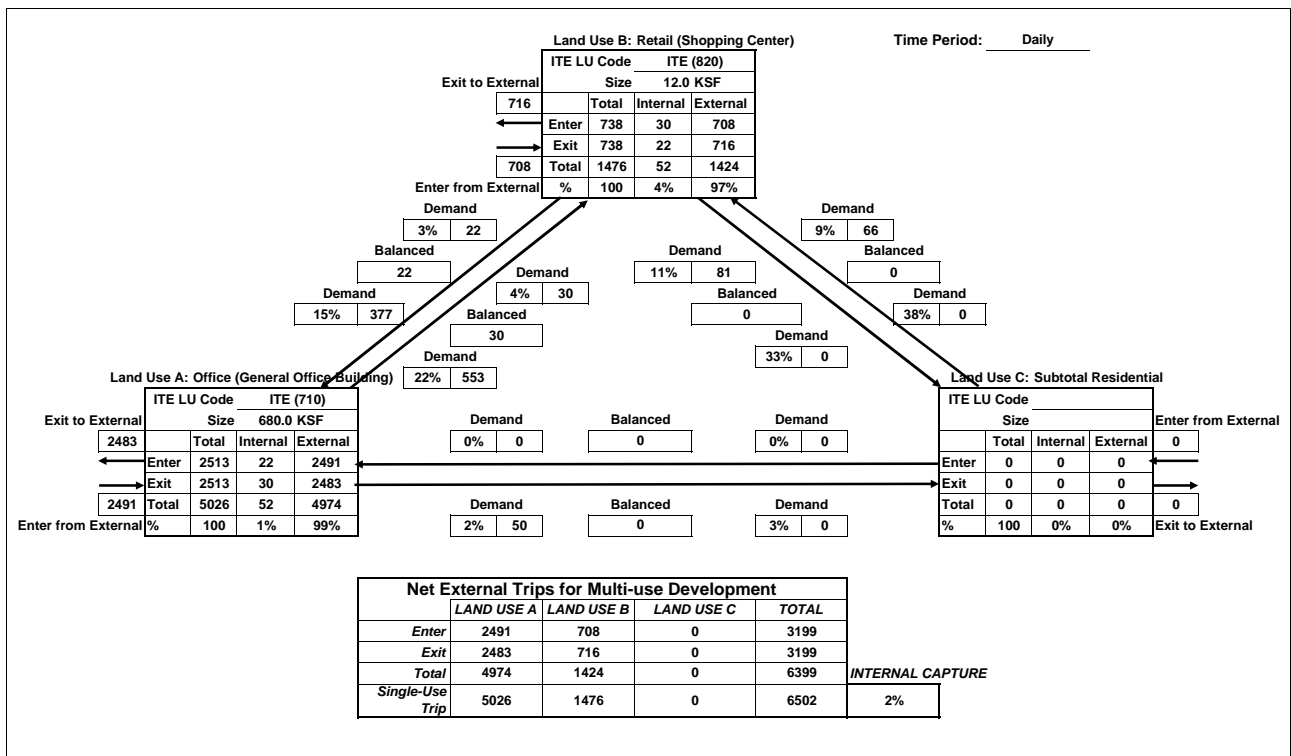
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	121	63	0	184	
Exit	599	67	0	666	
Total	720	130	0	849	INTERNAL CAPTURE
Single-Use Trip	723	133	0	856	1%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

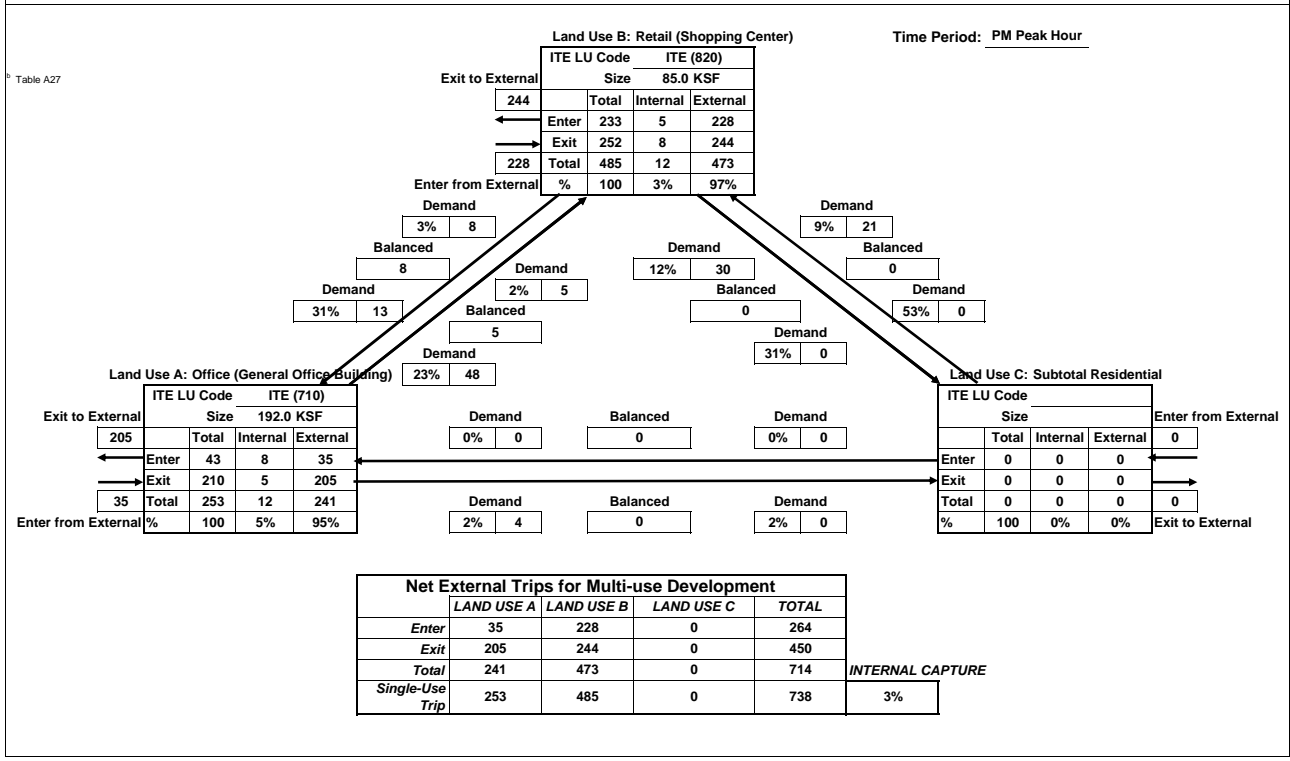
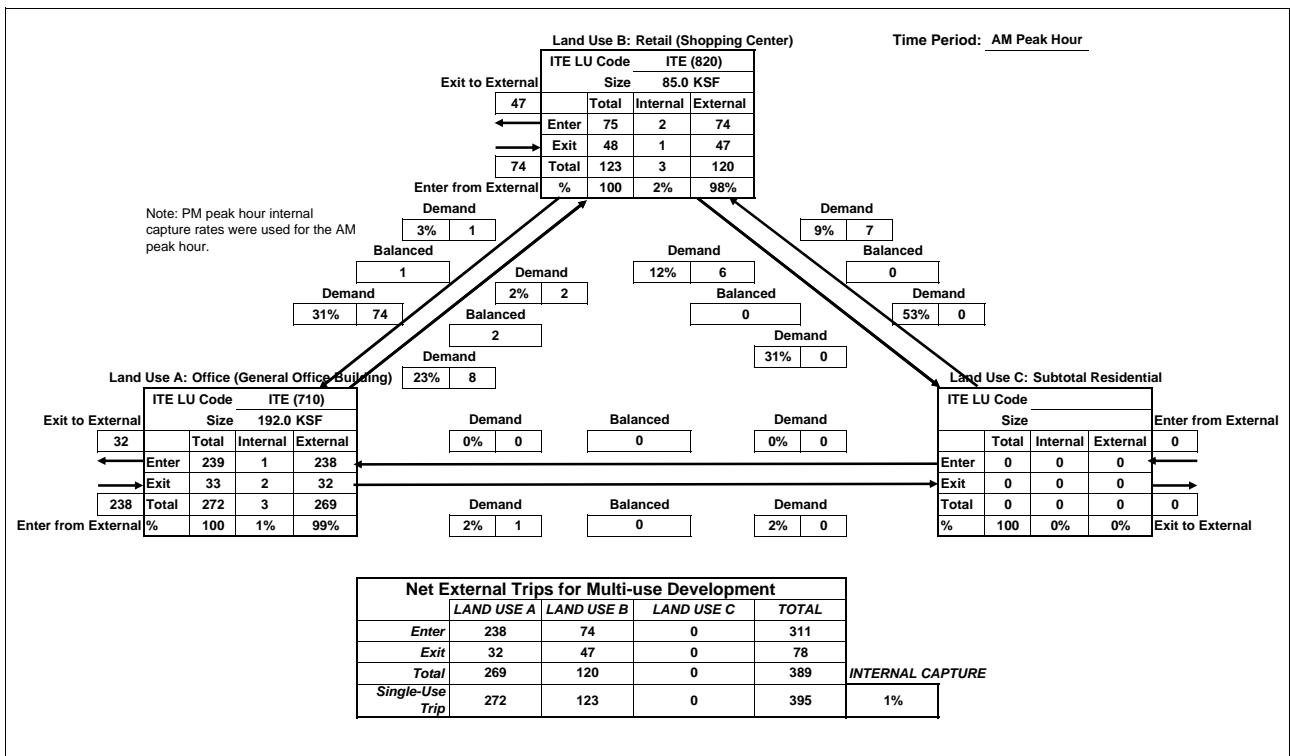
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

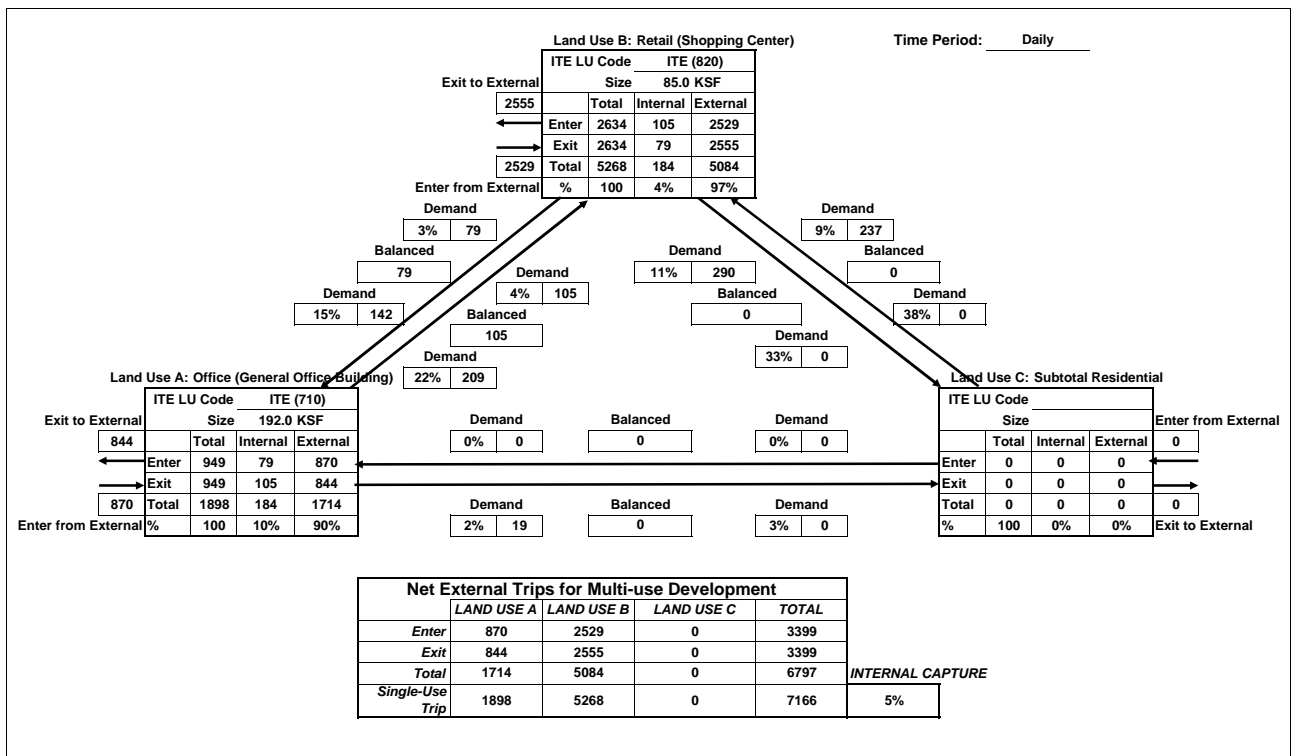


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

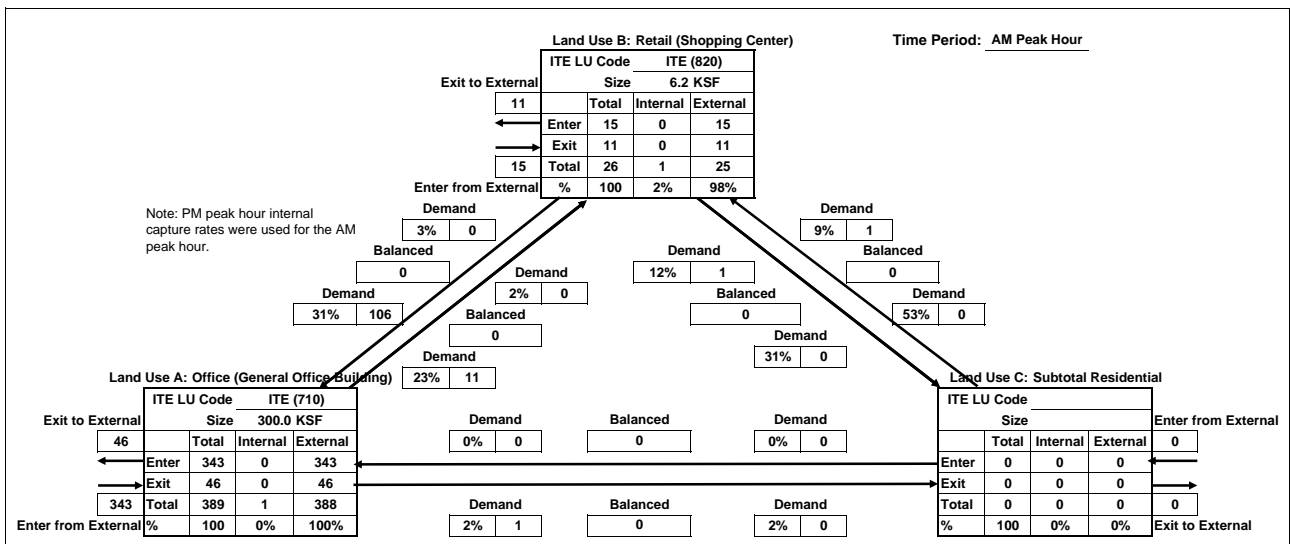
Time Period: Daily



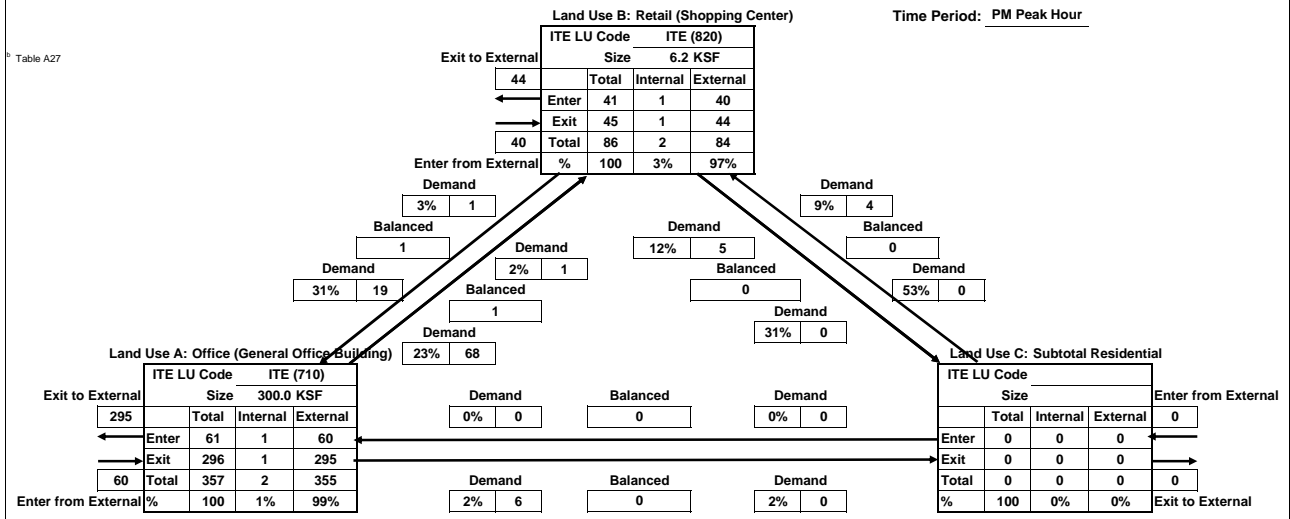
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	343	15	0	357	
Exit	46	11	0	56	
Total	388	25	0	414	INTERNAL CAPTURE
Single-Use Trip	389	26	0	415	0%



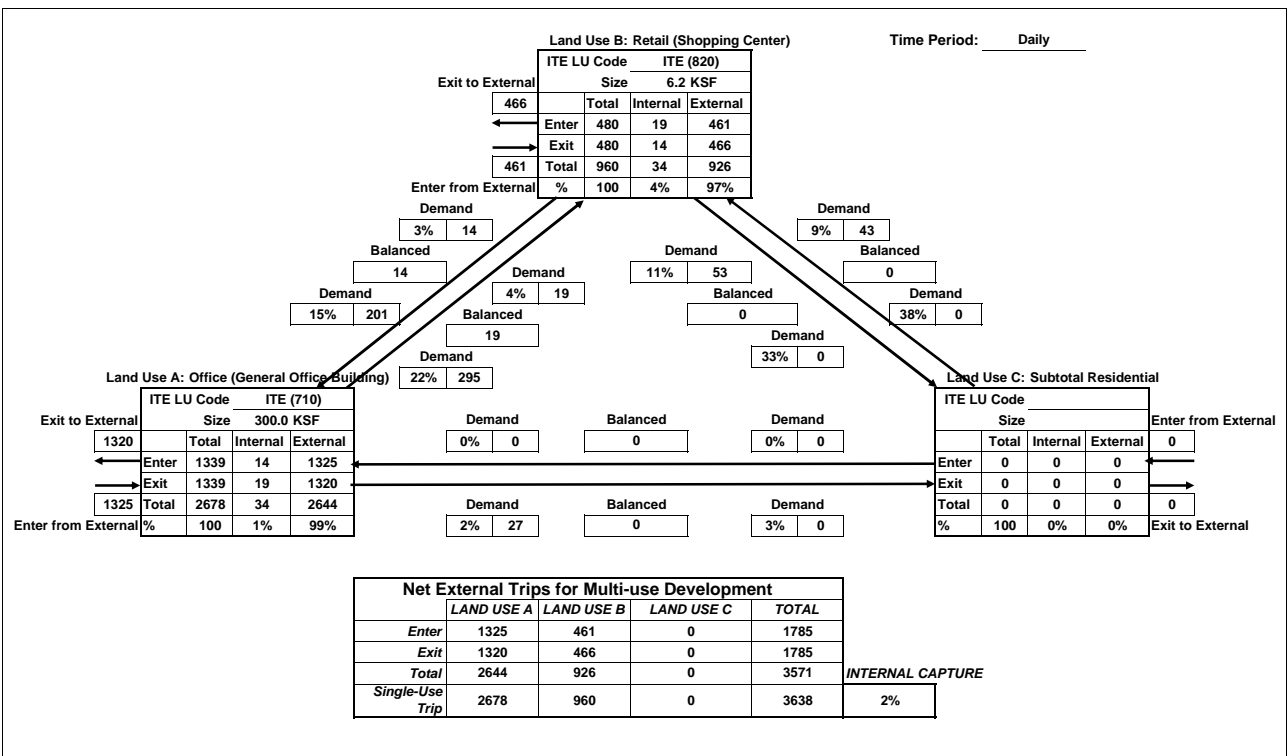
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	60	40	0	100	
Exit	295	44	0	339	
Total	355	84	0	439	INTERNAL CAPTURE
Single-Use Trip	357	86	0	443	1%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

Time Period: Daily

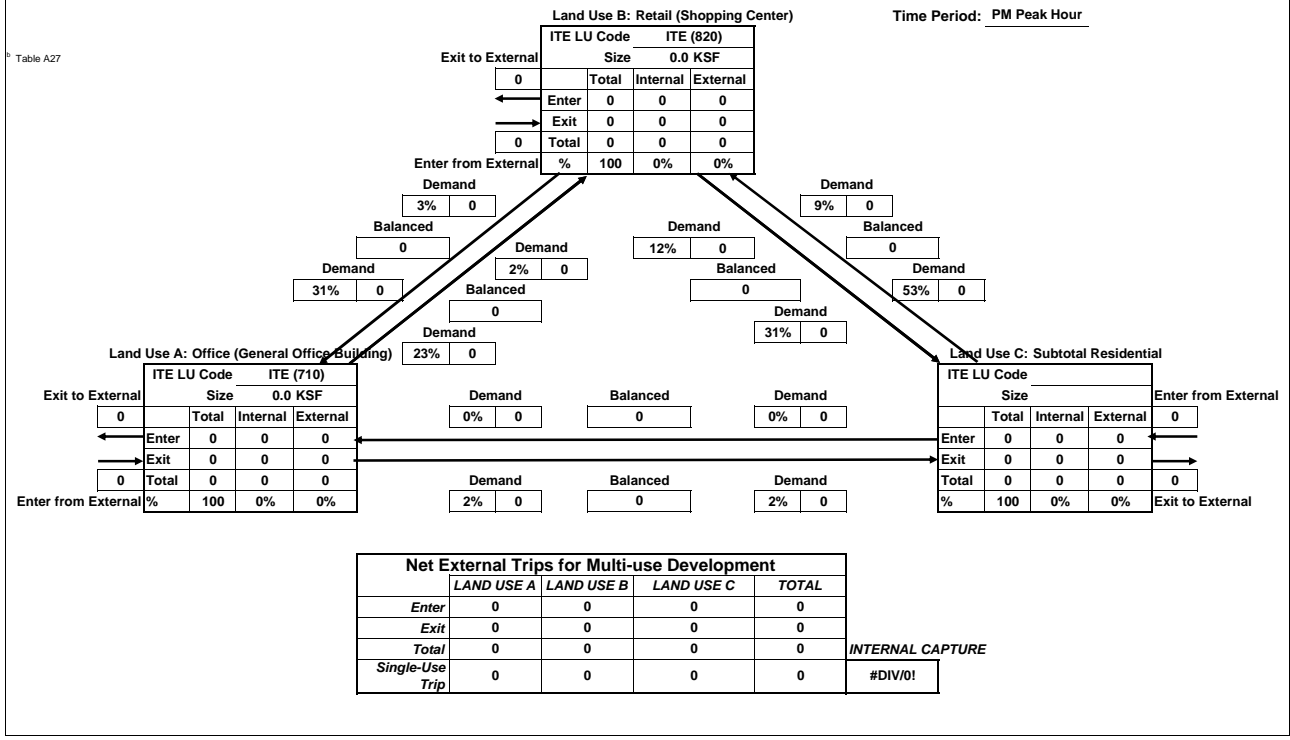
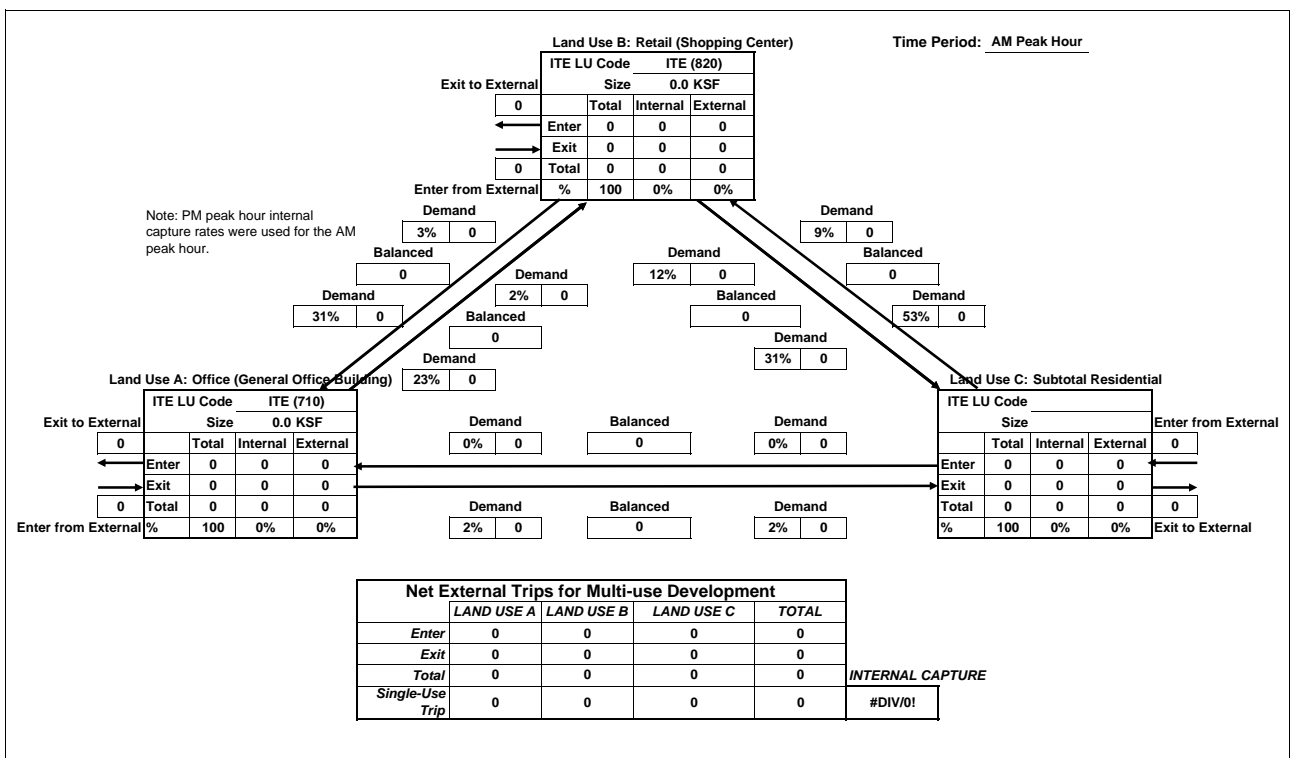


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)



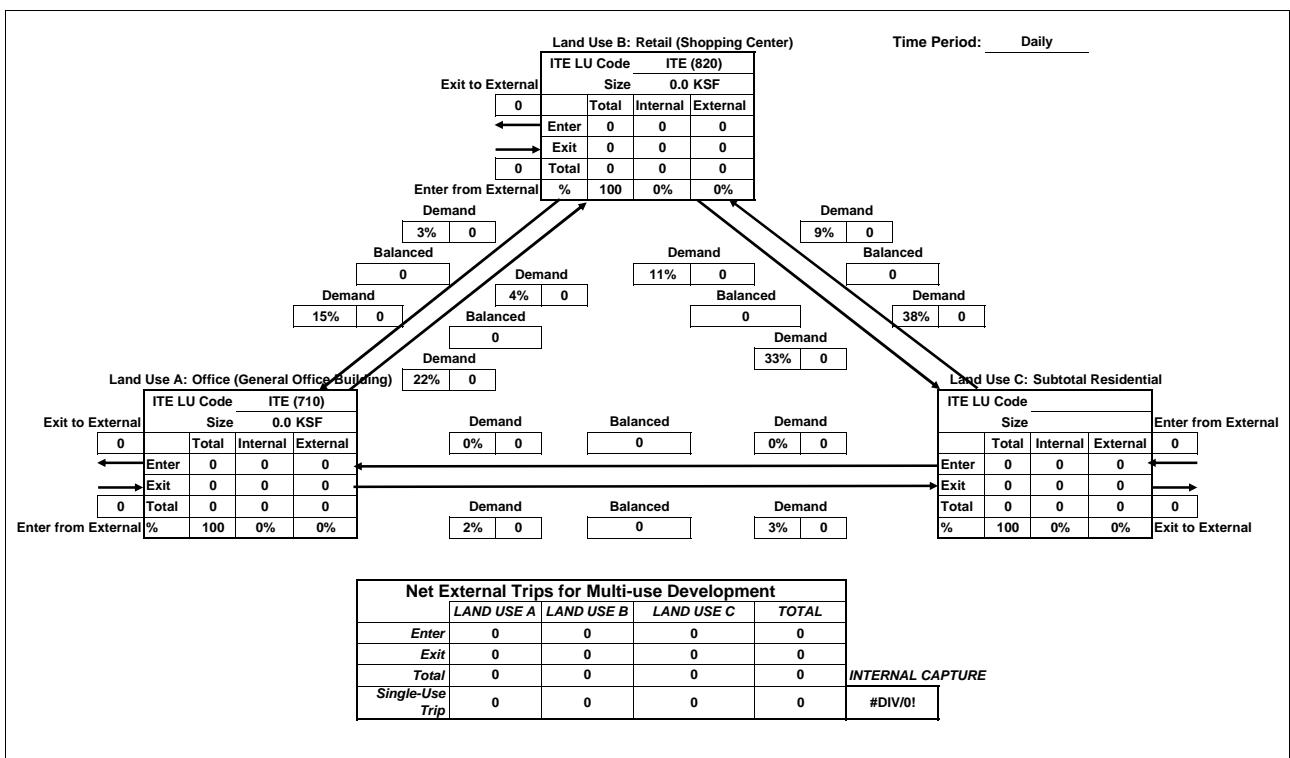
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

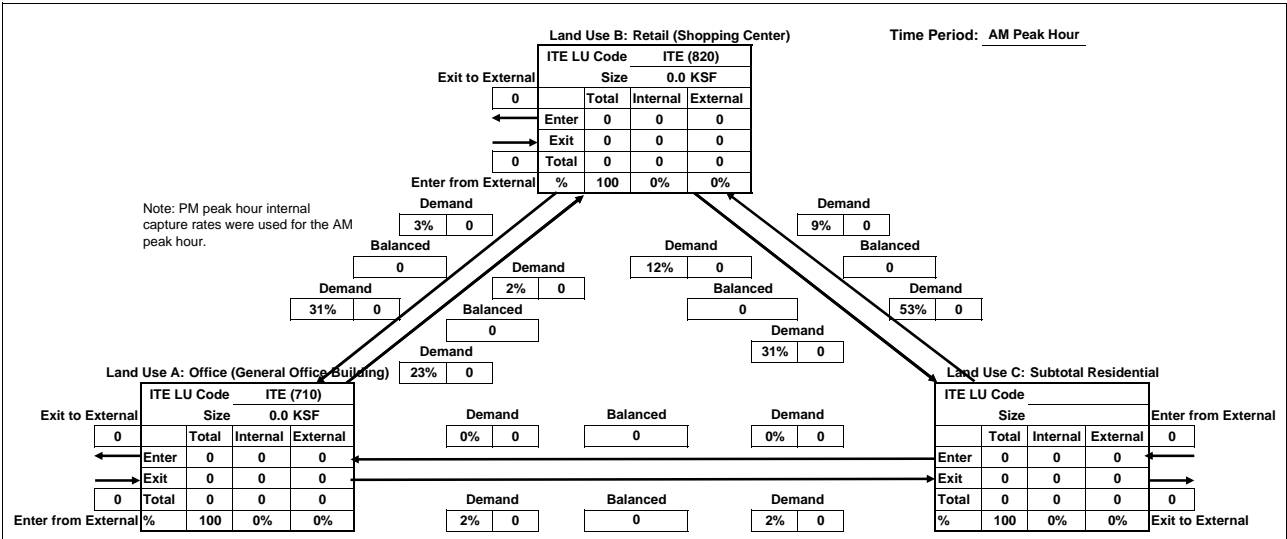
Time Period: Daily



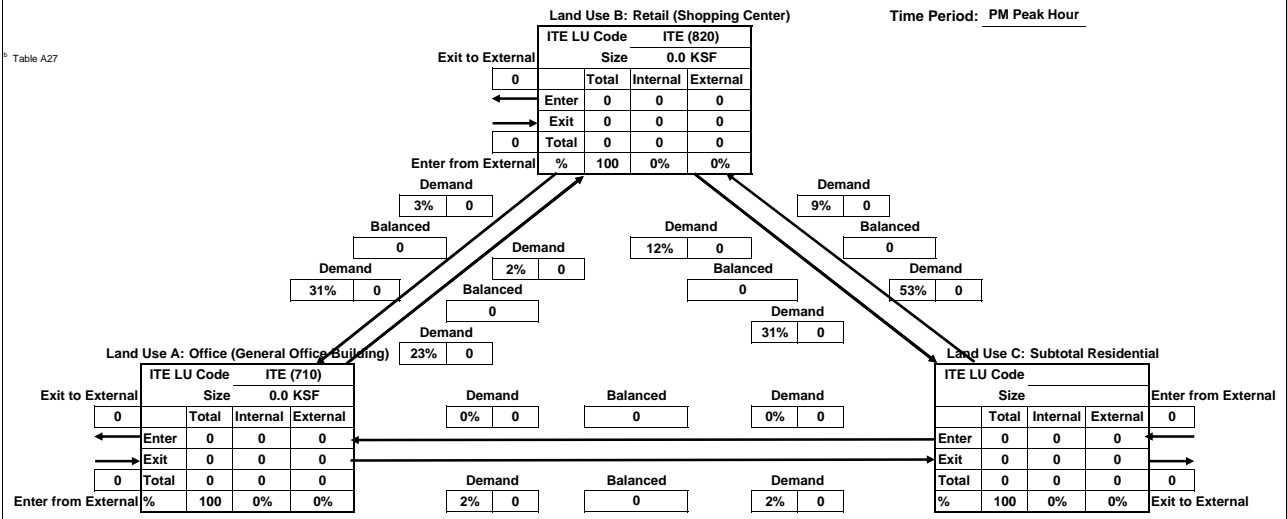
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	0	0	
Exit	0	0	0	0	
Total	0	0	0	0	INTERNAL CAPTURE
Single-Use Trip	0	0	0	0	#DIV/0!



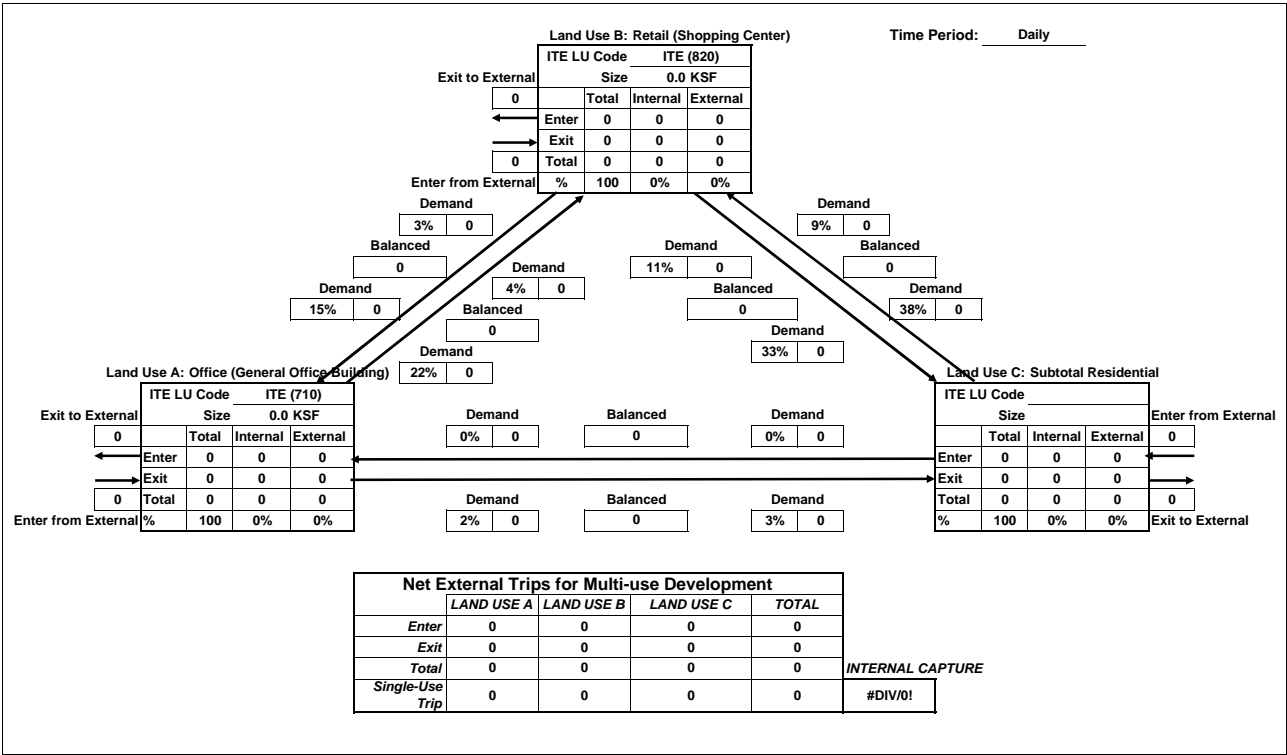
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	0	0	
Exit	0	0	0	0	
Total	0	0	0	0	INTERNAL CAPTURE
Single-Use Trip	0	0	0	0	#DIV/0!

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

Time Period: Daily

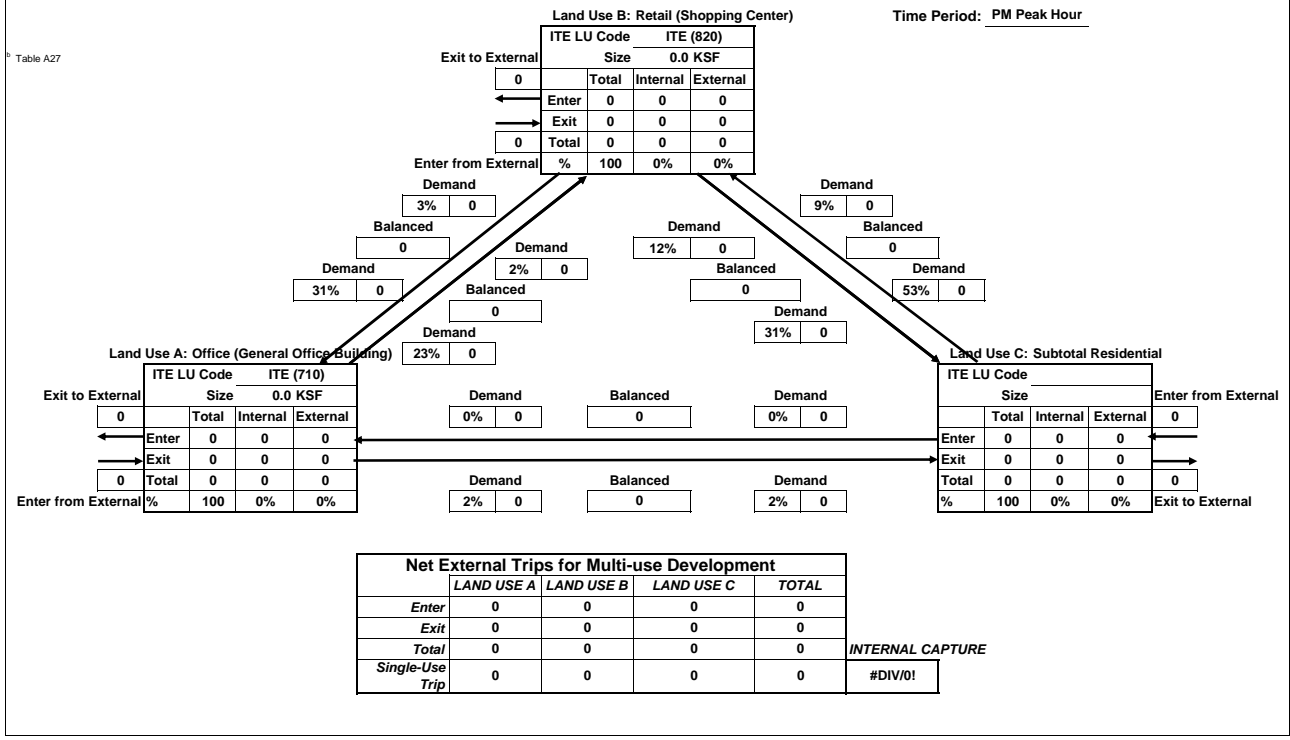
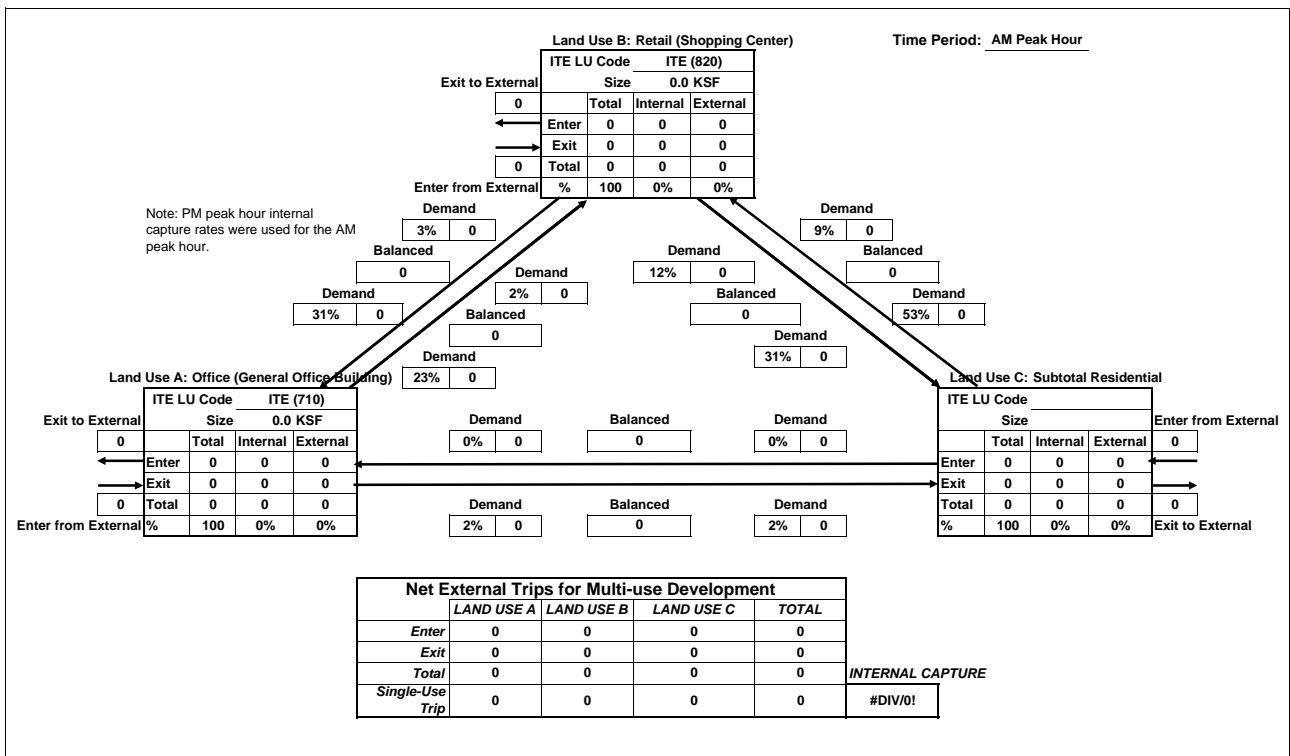


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)



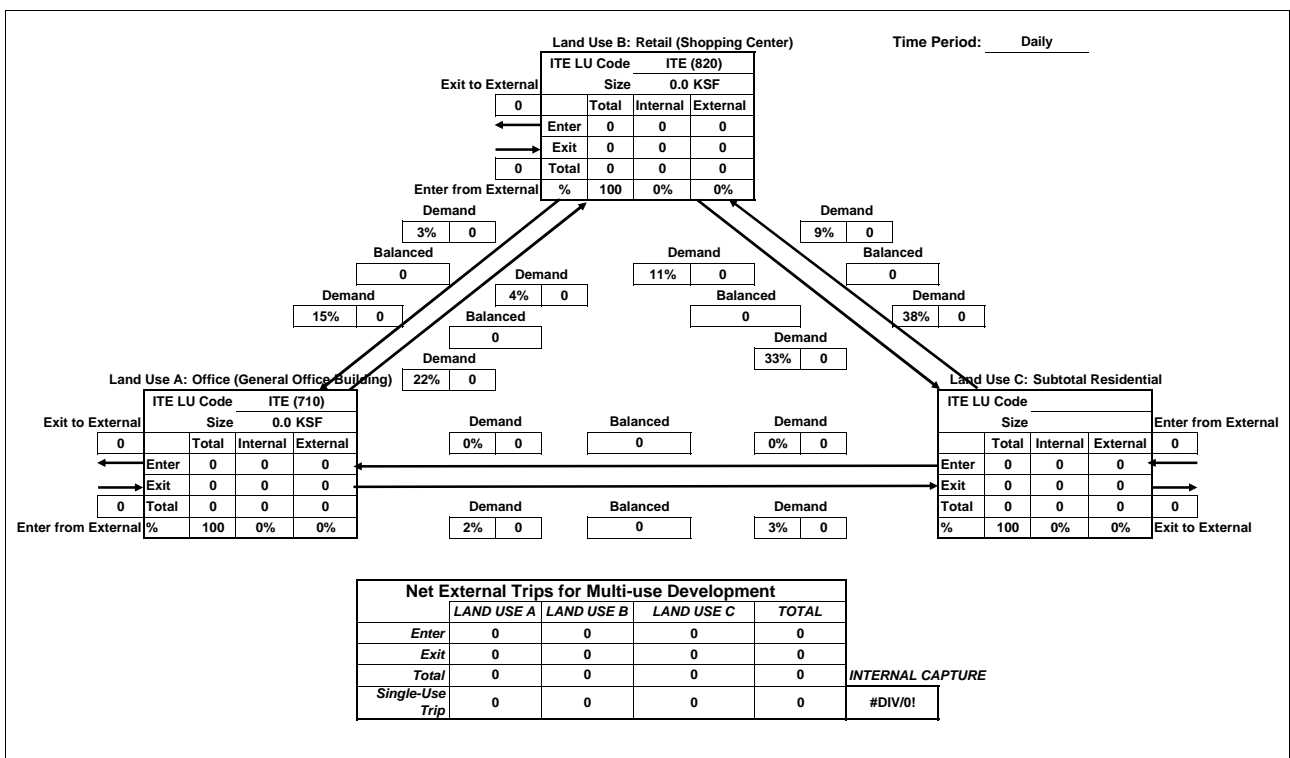
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

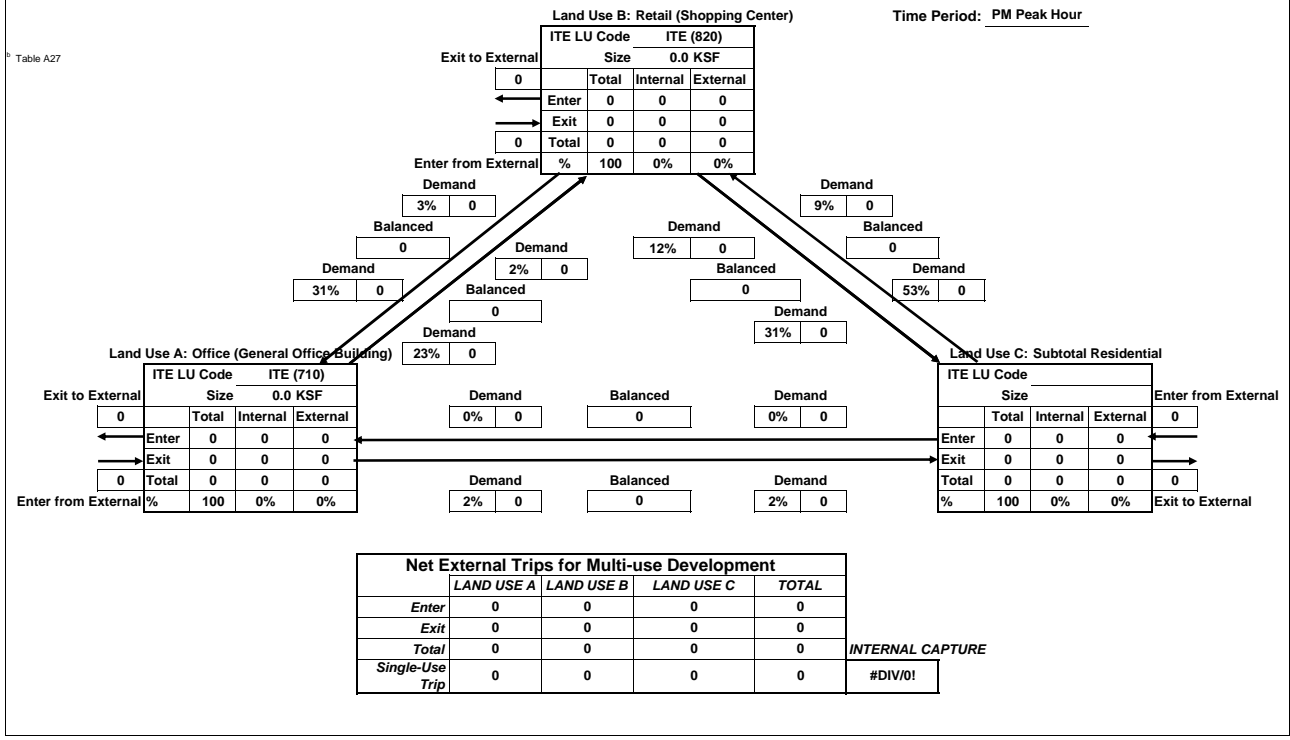
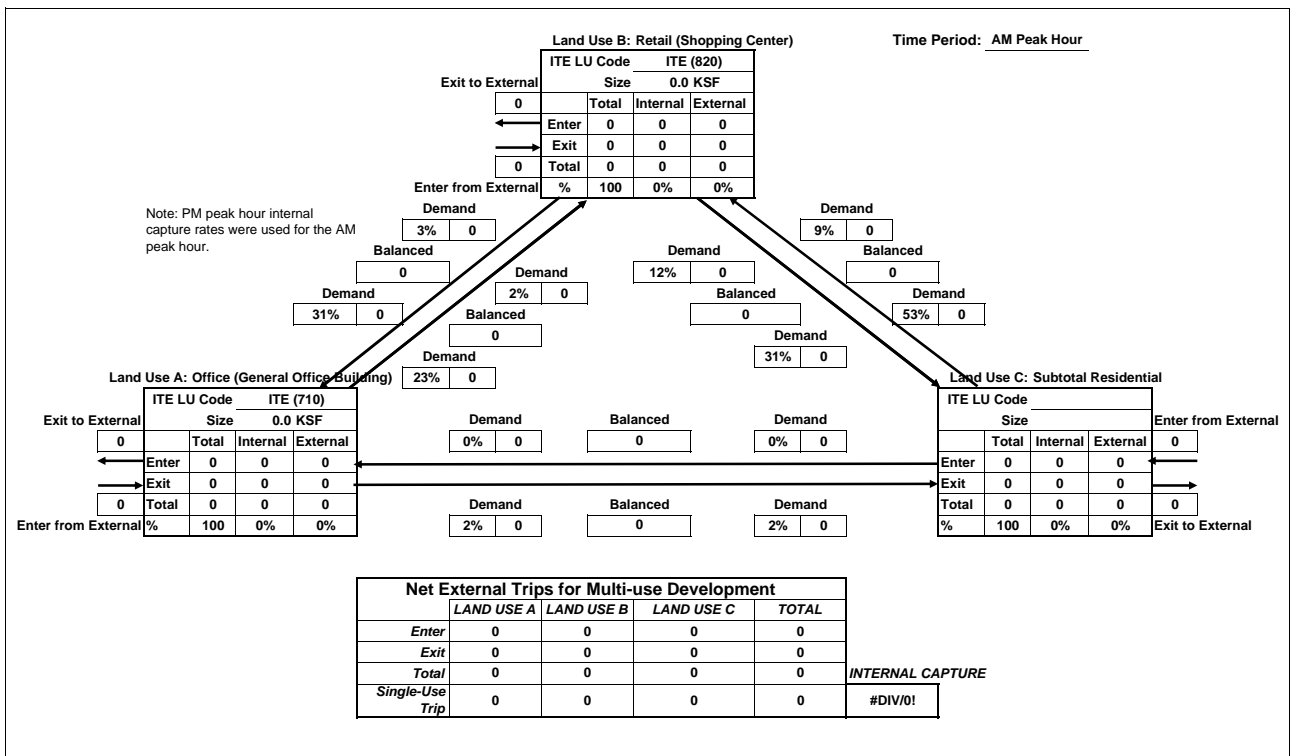
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



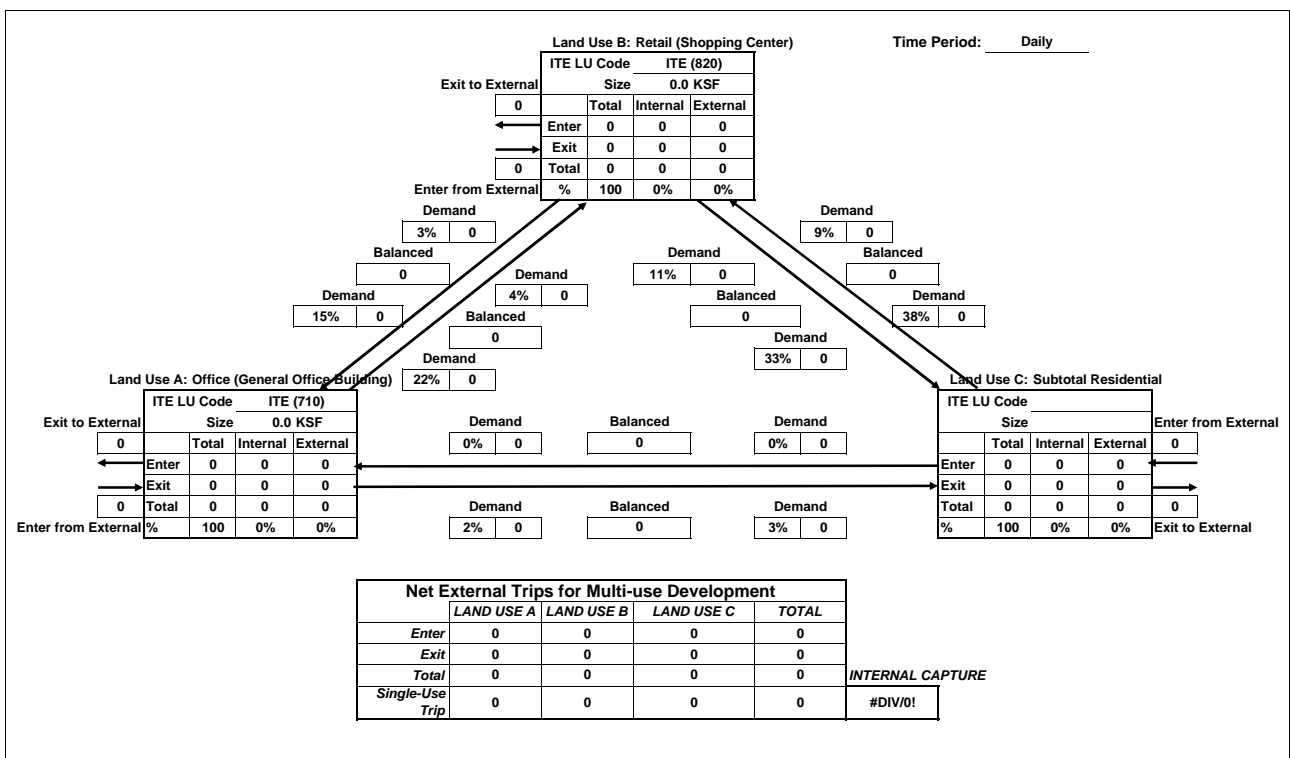
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 20: Bounded by South Park, N. 10th, Railyards, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

Time Period: Daily

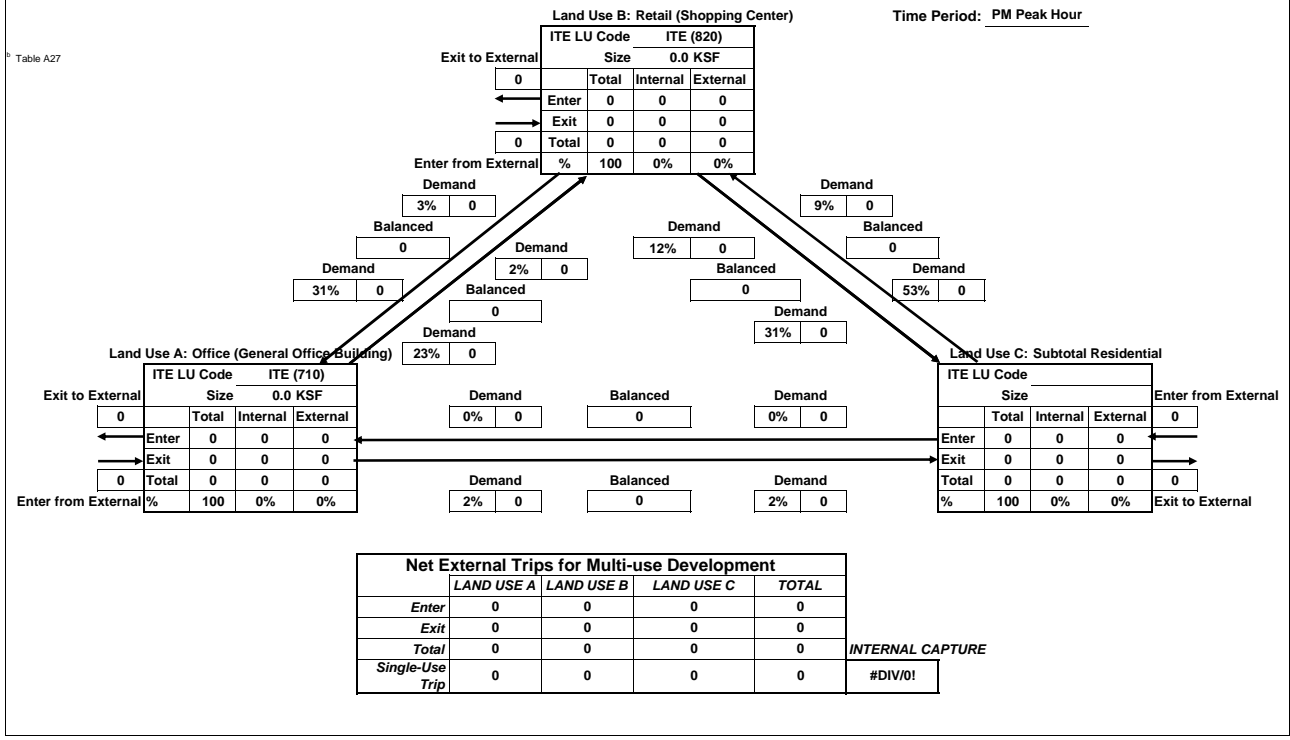
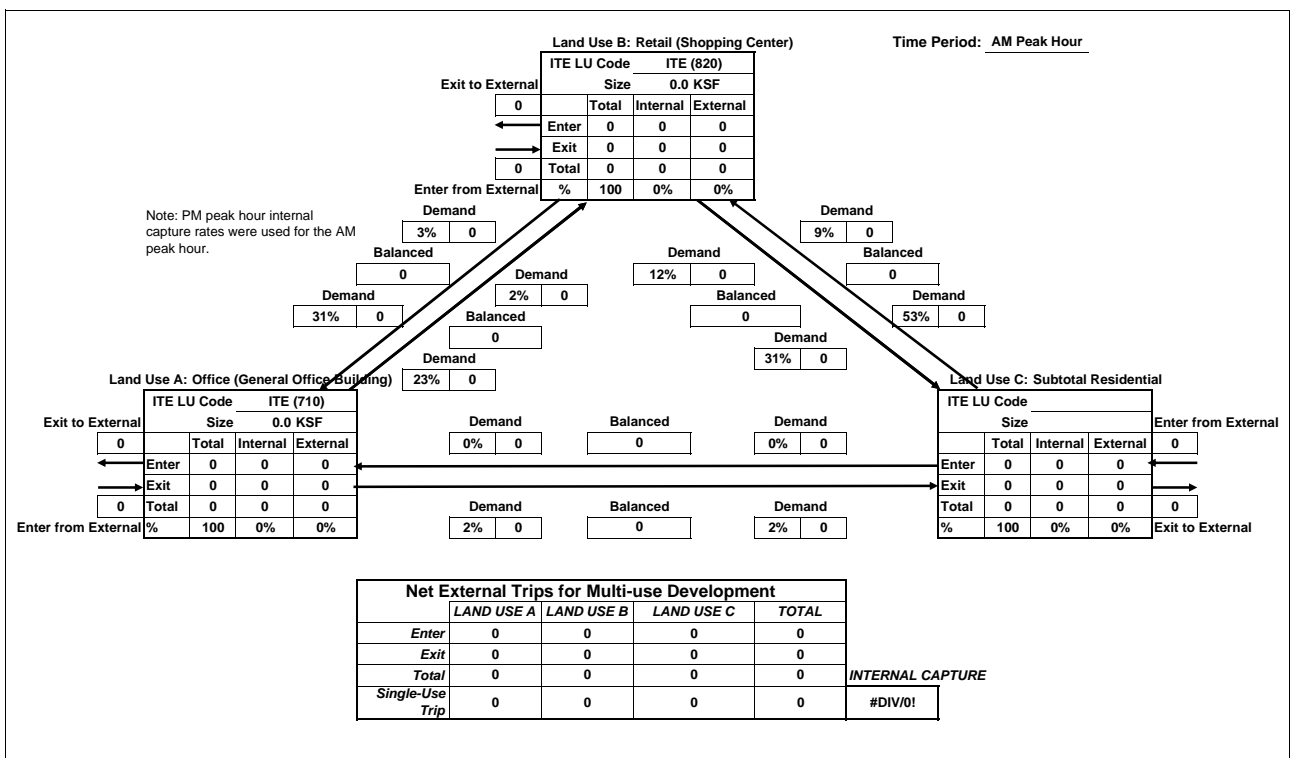


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

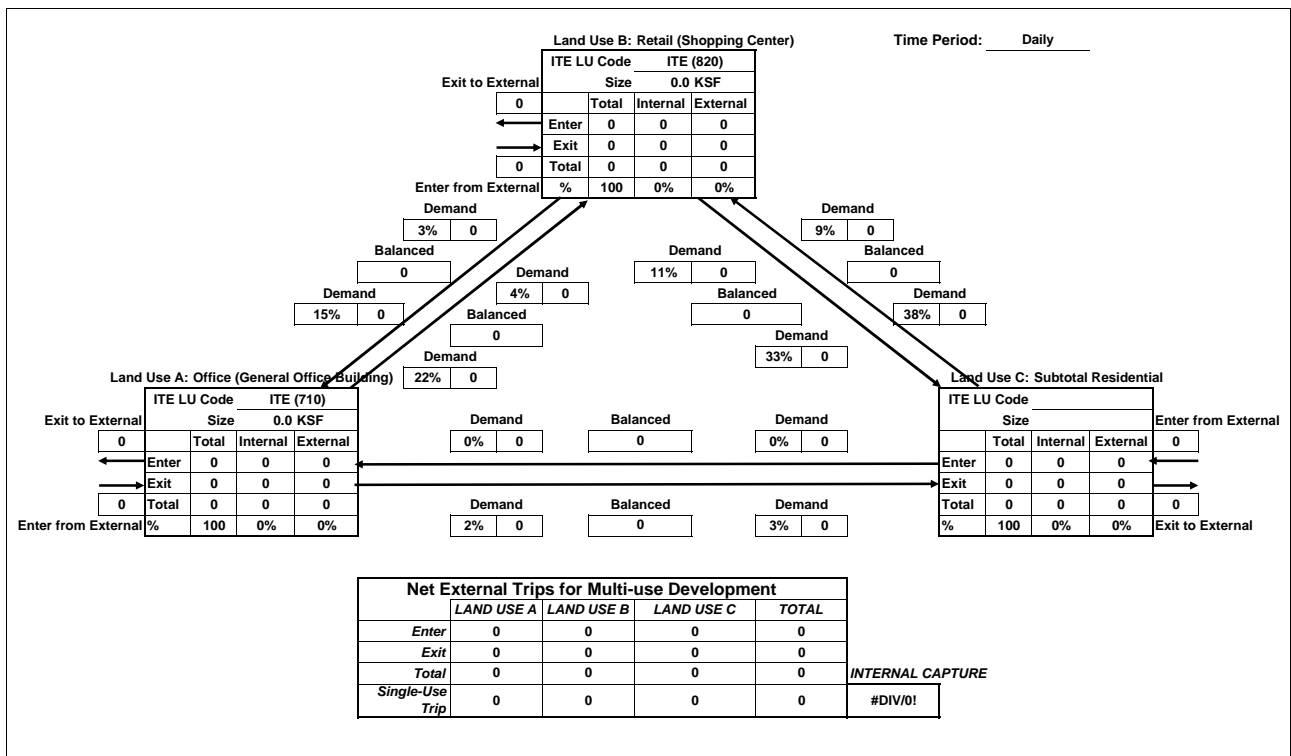


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

Time Period: Daily



Analyst: Dowling

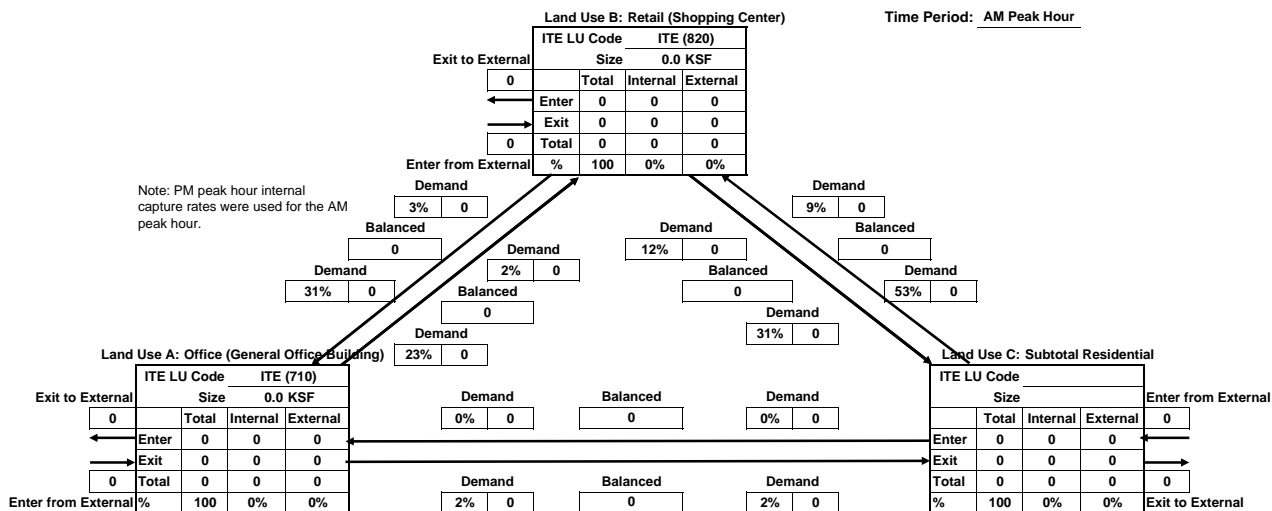
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

Time Period: AM Peak Hour

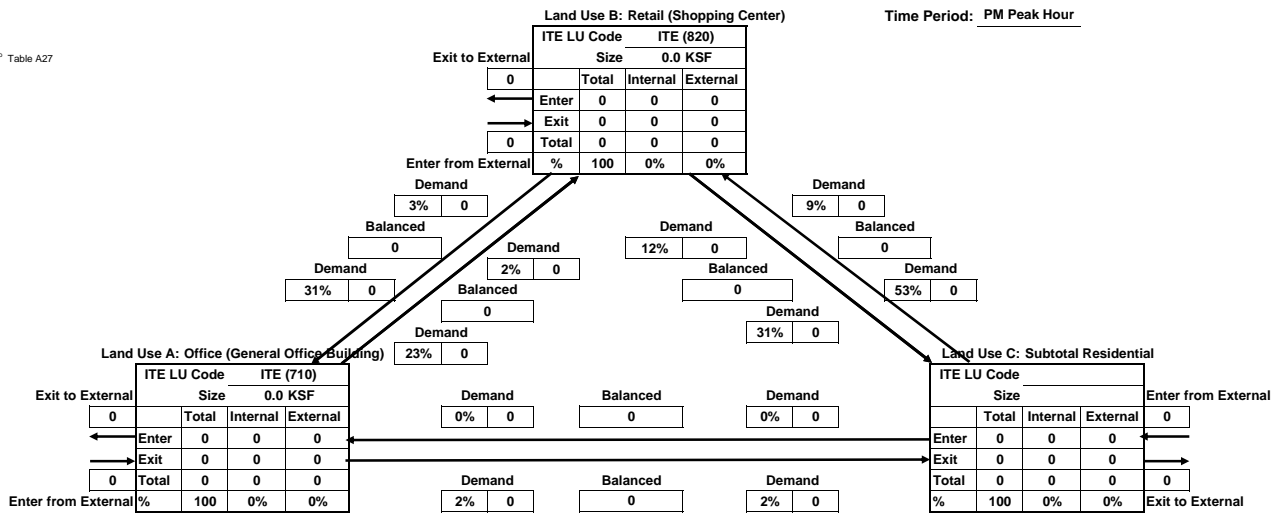
Note: PM peak hour internal capture rates were used for the AM peak hour.



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	0	0	
Exit	0	0	0	0	
Total	0	0	0	0	INTERNAL CAPTURE
Single-Use Trip	0	0	0	0	#DIV/0!

Table A27

Time Period: PM Peak Hour



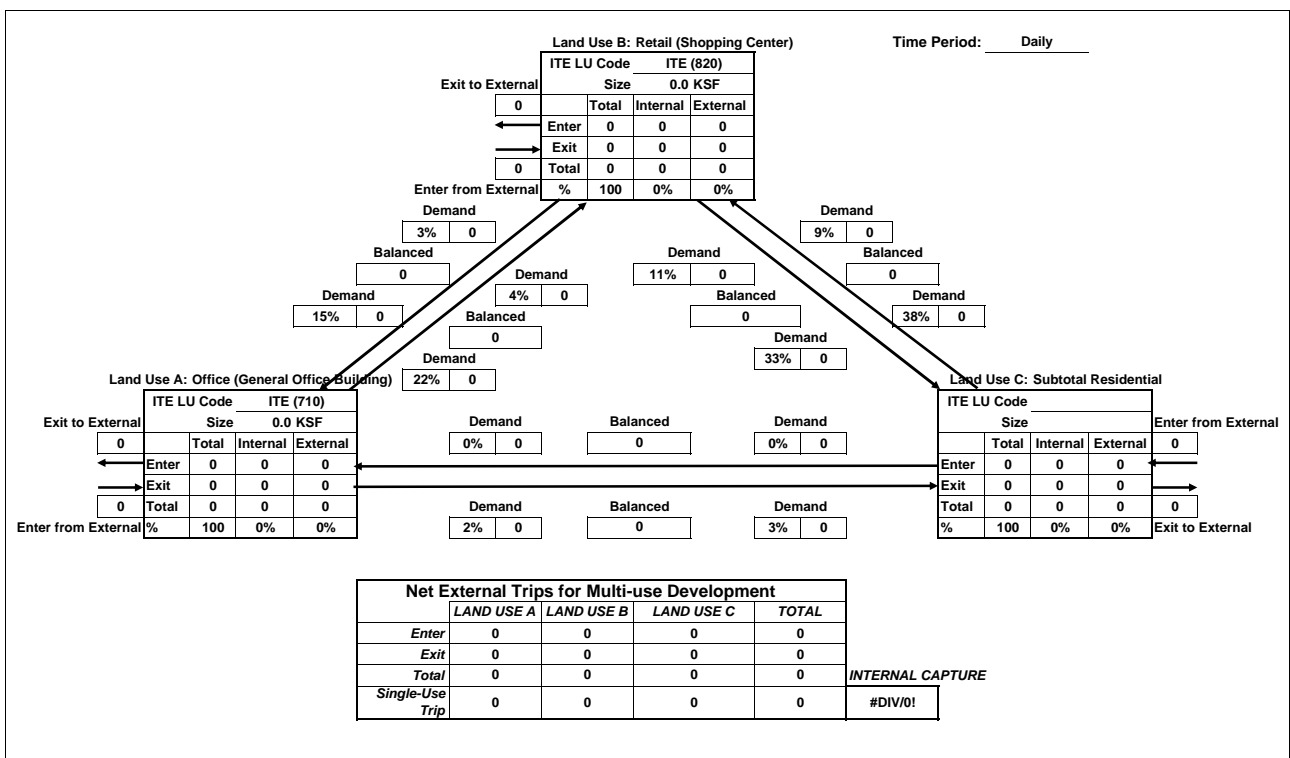
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	0	0	
Exit	0	0	0	0	
Total	0	0	0	0	INTERNAL CAPTURE
Single-Use Trip	0	0	0	0	#DIV/0!

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

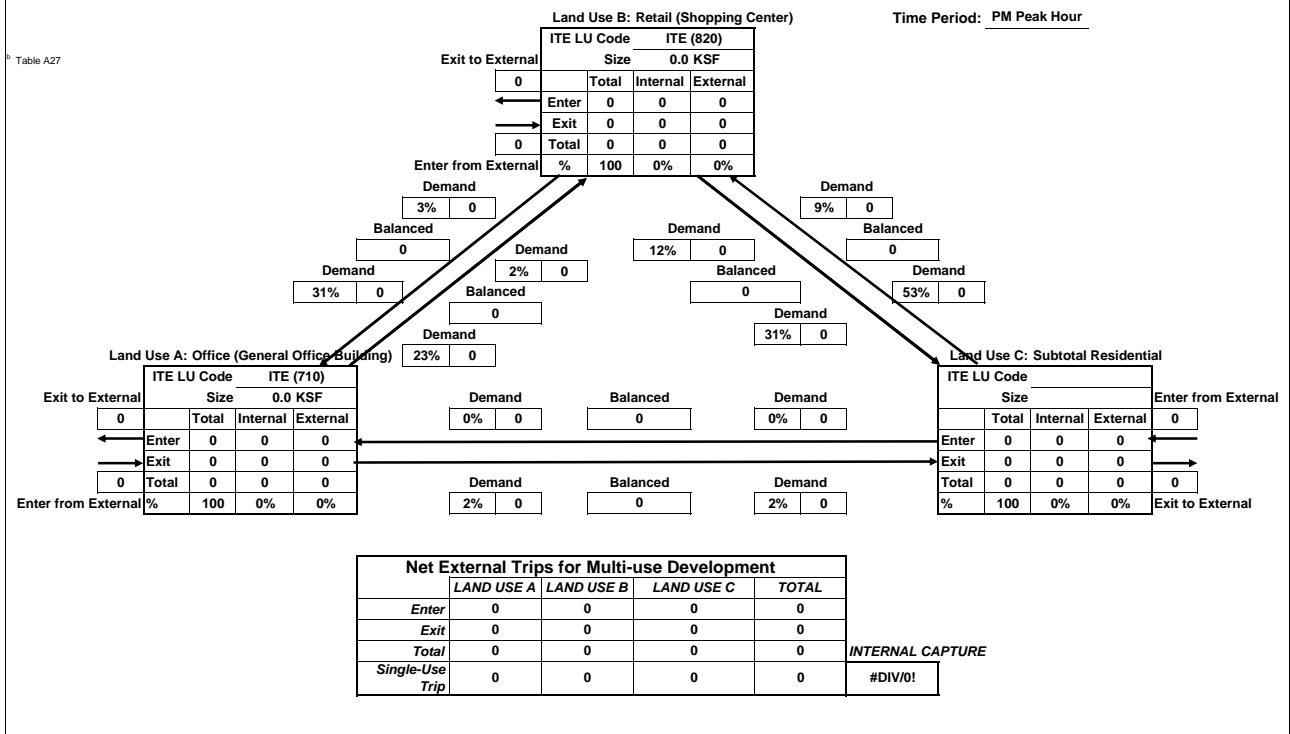
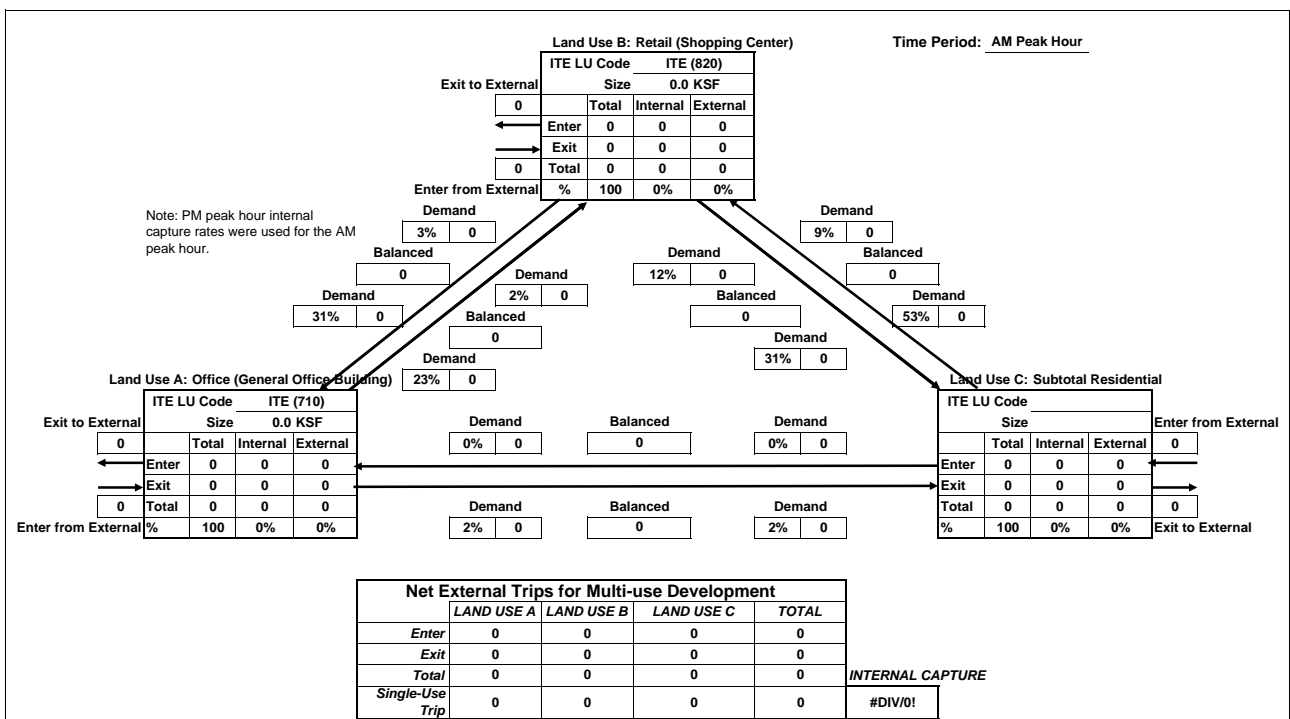
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

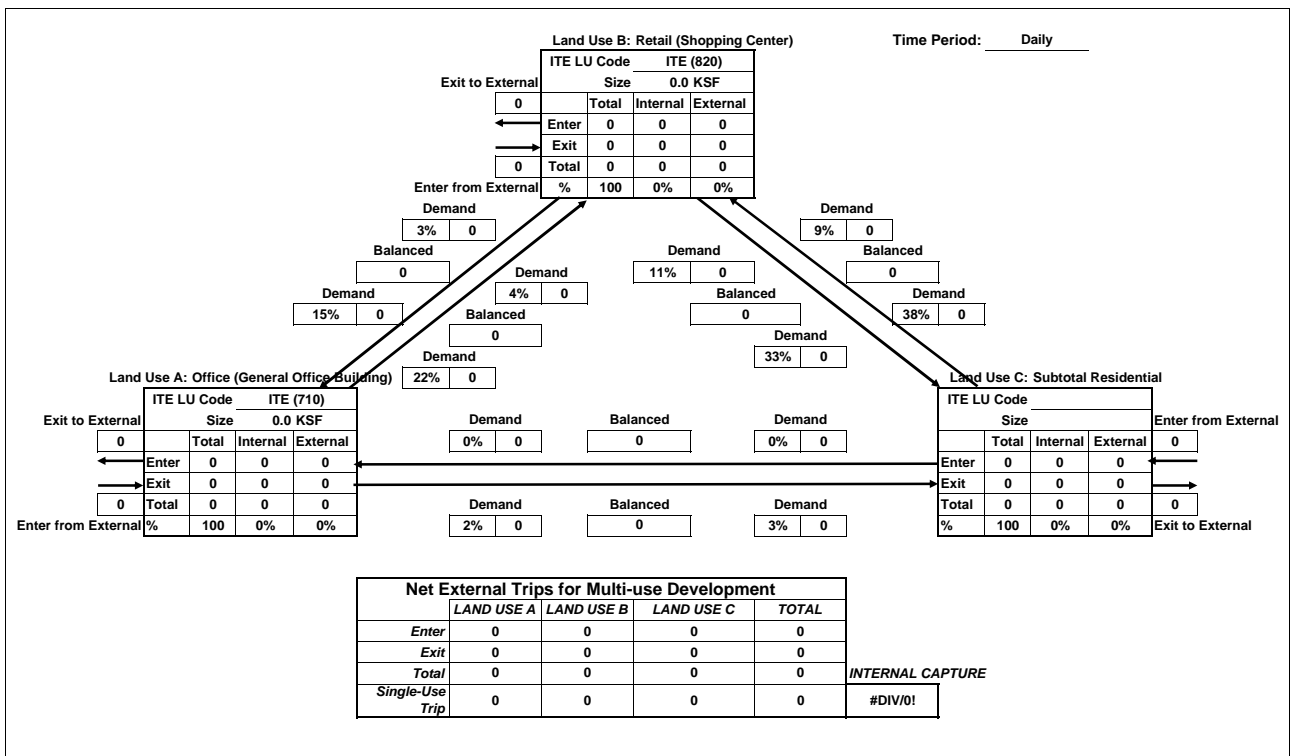


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 23: Bounded by Railyards, 12th, Rail Lines, 7th

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

Time Period: Daily

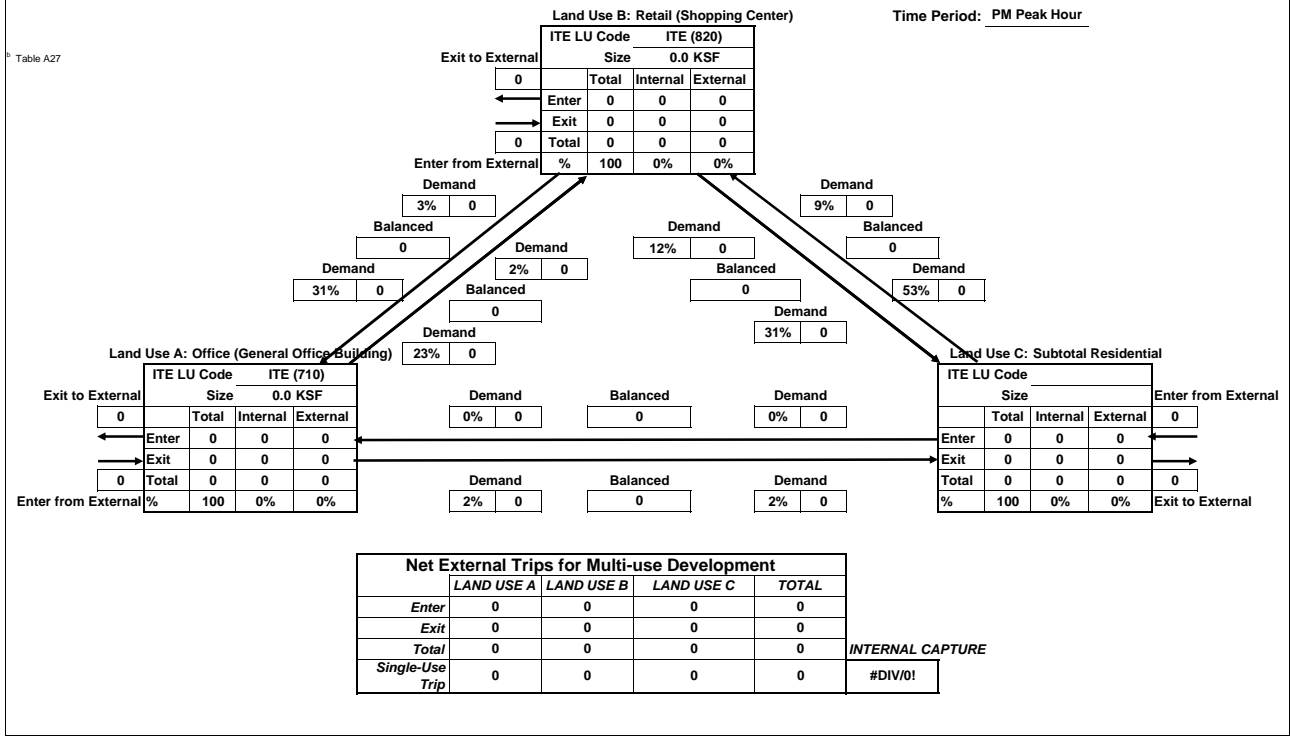
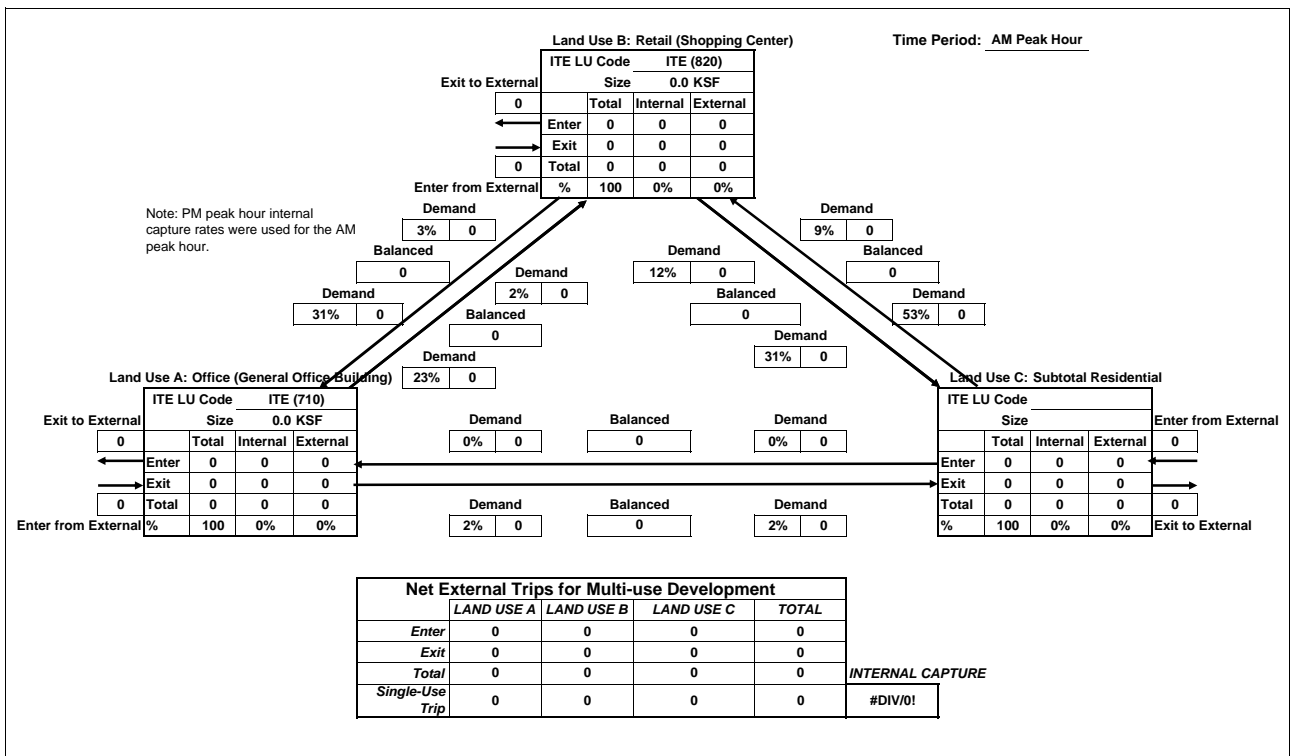


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)



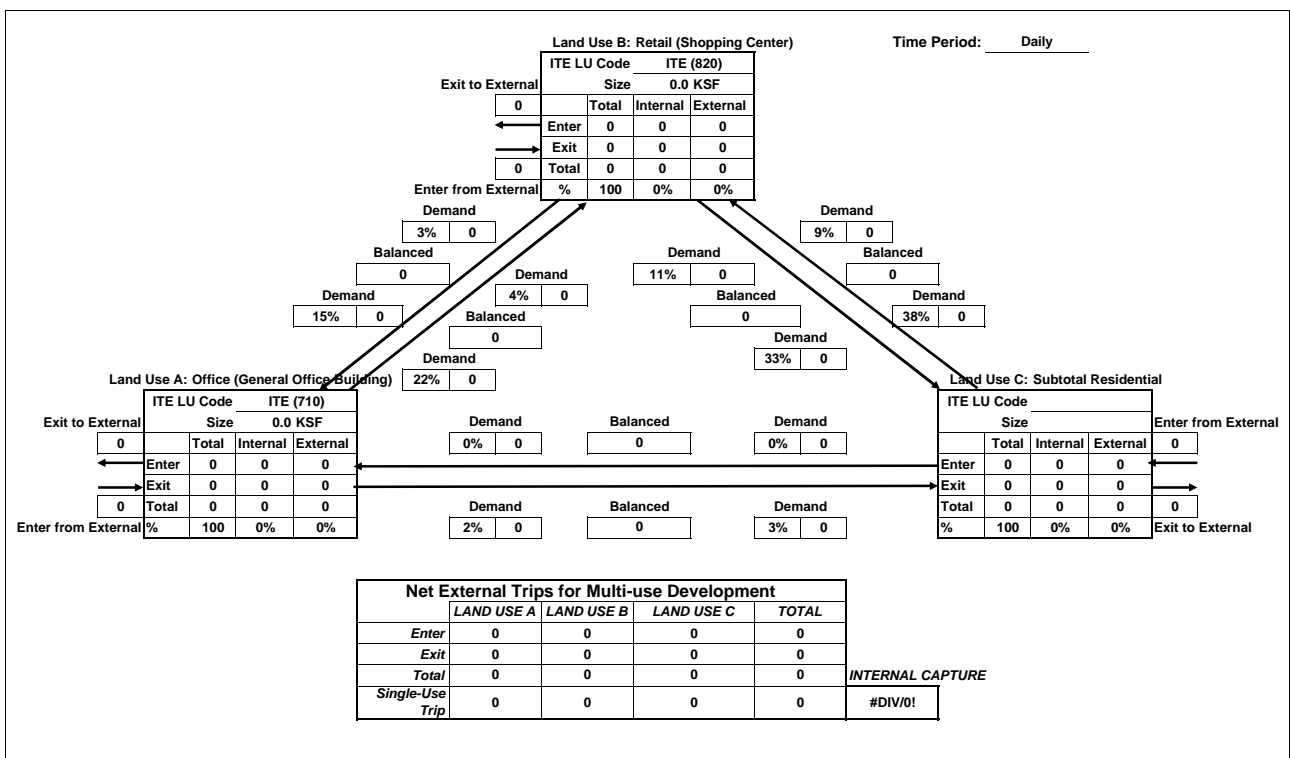
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 24: Bounded by Property Boundary, Railyards, N. 10th

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

Time Period: Daily

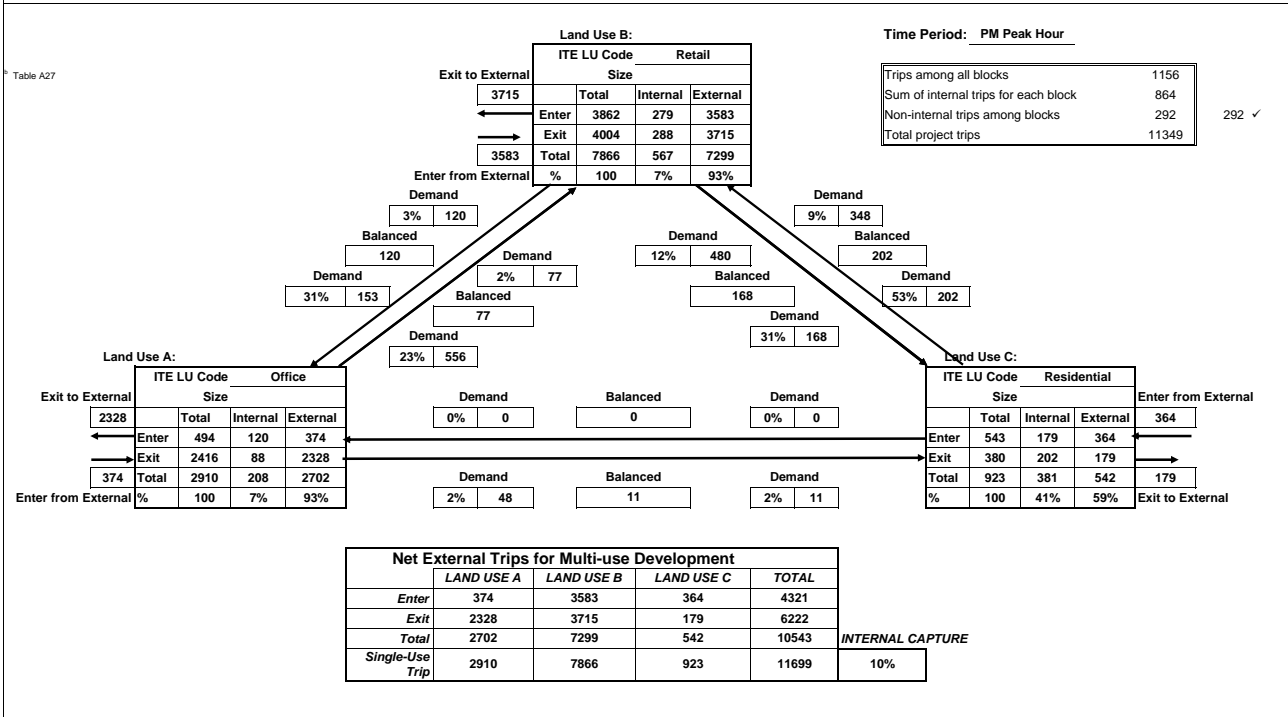
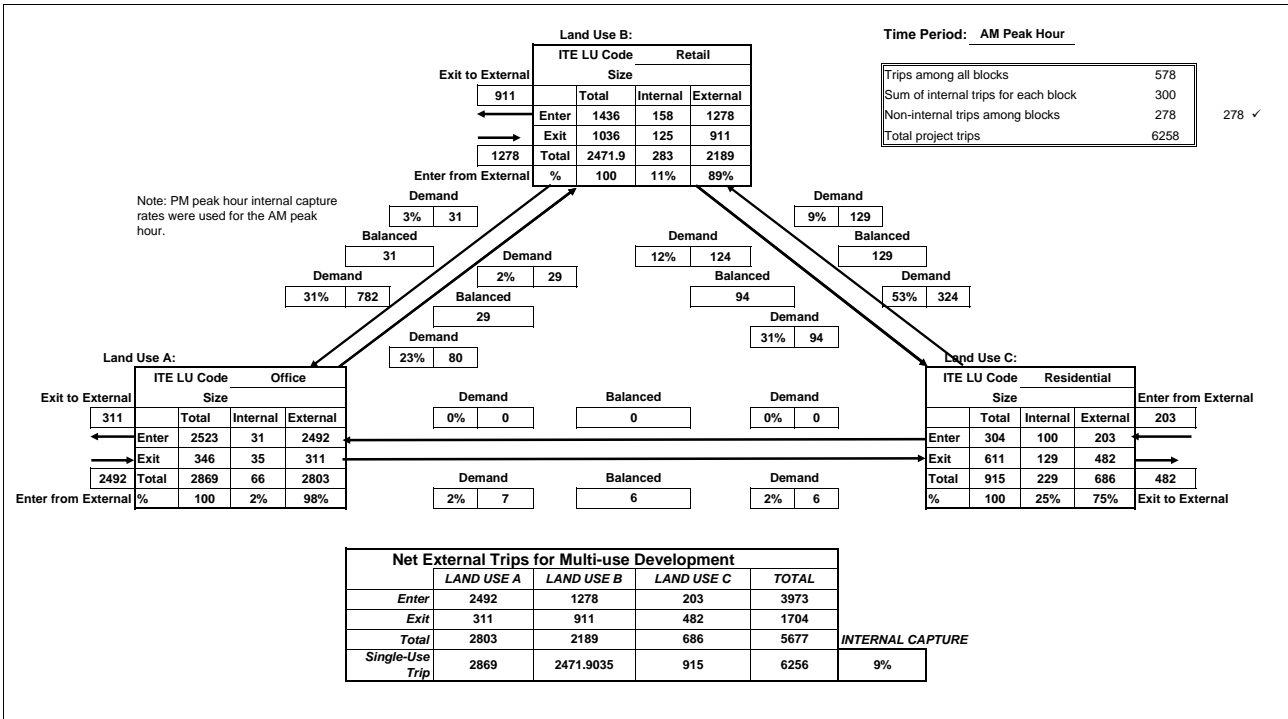


**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling

Name of Development: Downtown Study
Initial Phase with Maximum Office (2030)

Date: 8/17/2007



Analyst: Dowling
 Date: 8/17/2007

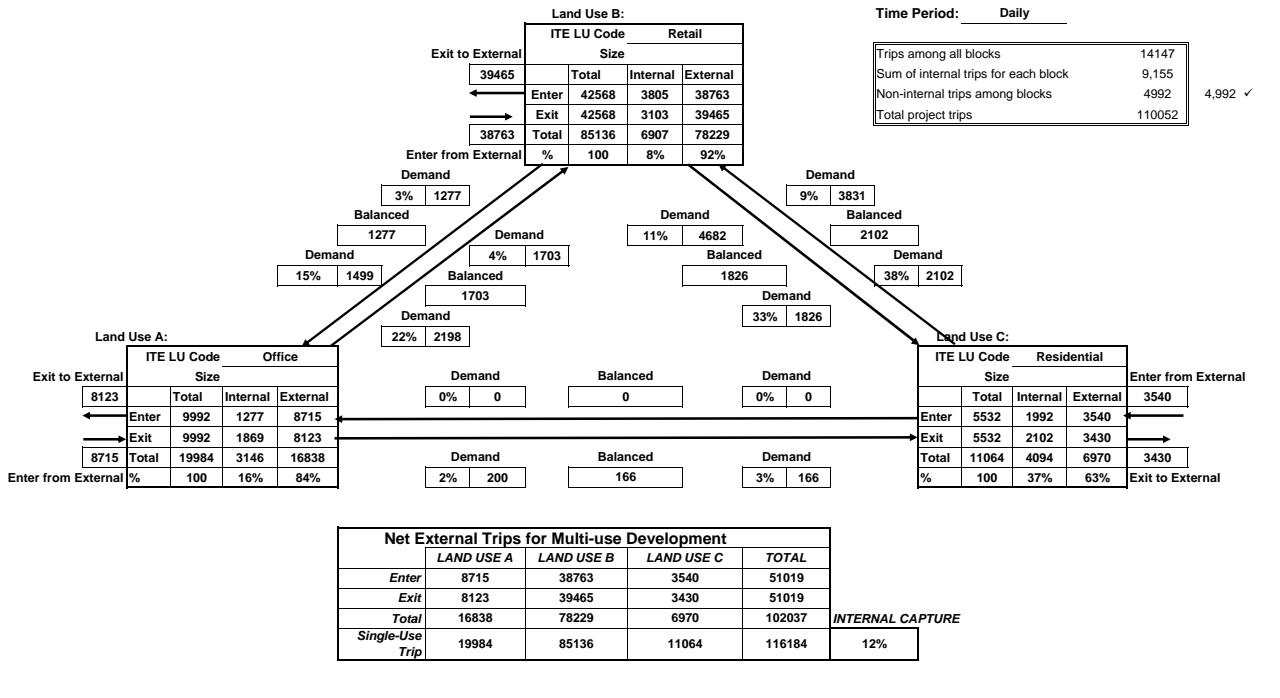
**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 TRIPS AMONG ALL BLOCKS**

Name of Development: Downtown Study
 Initial Phase with Maximum Office (2030)

Time Period: Daily

Trips among all blocks	14147
Sum of internal trips for each block	9,155
Non-internal trips among blocks	4992
Total project trips	110052

4,992 ✓



Initial Phase with Maximum Residential (2030)

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	837 Units	5,596	208	220	428	237	188	425
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,200	365	320	685	755	749	1,504
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-1,883	-34	-30	-64	-81	-81	-162
Internal Trips Within This Block (-11.9%)		-2,052	-23	-23	-46	-101	-101	-201
Trips To-From Other Blocks within the Project (-3.7%)		-633	-17	-17	-34	-28	-28	-55
New External Trips (73%) of Total Trips for Block		12,632	291	251	541	546	539	1,085
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	595 Units	2,467	38	163	201	135	83	218
Other	0	0	0	0	0	0	0	0
Total Trips for Block		7,853	115	212	327	373	340	713
Transit Adjustments (-2.3%)		-182	-3	-7	-10	-9	-9	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-862	-12	-19	-31	-39	-37	-76
Internal Trips Within This Block (-11.8%)		-929	-11	-11	-22	-45	-45	-90
Trips To-From Other Blocks within the Project (-3.6%)		-281	-8	-8	-15	-13	-13	-26
New External Trips (71%) of Total Trips for Block		5,600	81	167	249	267	236	503
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-4.2%)		-482	-7	-7	-13	-23	-23	-45
New External Trips (84%) of Total Trips for Block		9,629	129	81	211	428	466	895
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	165 Units	846	15	62	77	45	27	72
Total Trips for Block		8,325	119	129	248	376	386	762
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-949	-13	-13	-26	-42	-44	-86
Internal Trips Within This Block (-6.5%)		-544	-13	-13	-25	-26	-26	-52
Trips To-From Other Blocks within the Project (-3.9%)		-326	-6	-6	-11	-15	-15	-30
New External Trips (78%) of Total Trips for Block		6,506	88	98	185	293	301	594

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	281 Units	1,283	21	89	110	69	42	111
Total Trips for Block		8,928	128	157	285	408	409	817
Transit Adjustments (-2.3%)		-201	-3	-5	-8	-10	-9	-19
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,010	-14	-15	-29	-45	-47	-92
Internal Trips Within This Block (-9%)		-801	-14	-14	-28	-39	-39	-77
Trips To-From Other Blocks within the Project (-3.7%)		-330	-6	-6	-13	-15	-15	-30
New External Trips (74%) of Total Trips for Block		6,586	91	117	207	299	299	599
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	363 Units	1,592	25	109	134	86	53	139
Total Trips for Block		7,077	104	159	263	328	315	643
Transit Adjustments (-2.3%)		-162	-3	-5	-8	-7	-8	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-11.1%)		-789	-11	-15	-26	-35	-35	-70
Internal Trips Within This Block (-12.5%)		-887	-11	-11	-23	-43	-43	-85
Trips To-From Other Blocks within the Project (-3.5%)		-250	-6	-6	-12	-11	-11	-23
New External Trips (70%) of Total Trips for Block		4,989	73	122	194	232	218	450
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	139 Units	685	28	27	54	40	34	74
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,347	604	459	1,062	860	964	1,824
Transit Adjustments (-3.4%)		-657	-22	-11	-33	-21	-33	-54
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-2,004	-62	-51	-113	-95	-87	-181
Internal Trips Within This Block (-3.4%)		-661	-34	-34	-68	-47	-47	-94
Trips To-From Other Blocks within the Project (-4%)		-765	-25	-25	-49	-36	-36	-72
New External Trips (79%) of Total Trips for Block		15,260	461	339	799	661	760	1,422

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	108 Units	631	11	49	60	32	20	52
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,214	234	222	456	761	796	1,557
Transit Adjustments (-2.4%)		-391	-5	-6	-11	-17	-19	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,837	-27	-24	-51	-85	-91	-175
Internal Trips Within This Block (-2.4%)		-393	-20	-20	-41	-18	-18	-36
Trips To-From Other Blocks within the Project (-4%)		-649	-10	-10	-21	-32	-32	-63
New External Trips (80%) of Total Trips for Block		12,944	172	161	332	609	636	1,248
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	263 Units	1,215	20	85	105	65	40	105
Total Trips for Block		4,184	65	113	178	195	180	375
Transit Adjustments (-2.3%)		-97	-2	-4	-6	-5	-4	-9
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-461	-7	-9	-16	-21	-19	-40
Internal Trips Within This Block (-12.2%)		-512	-6	-6	-13	-25	-25	-49
Trips To-From Other Blocks within the Project (-3.6%)		-149	-4	-4	-8	-7	-7	-13
New External Trips (71%) of Total Trips for Block		2,965	45	89	135	138	126	263
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	96 Units	401	6	26	33	23	14	36
Total Trips for Block		4,022	60	60	121	182	186	367
Transit Adjustments (-2.2%)		-90	-1	-2	-3	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-459	-7	-6	-13	-20	-21	-41
Internal Trips Within This Block (-6.2%)		-250	-6	-6	-12	-13	-13	-26
Trips To-From Other Blocks within the Project (-3.8%)		-154	-3	-3	-5	-7	-7	-14
New External Trips (76%) of Total Trips for Block		3,070	44	44	88	138	141	278
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	227 Units	1,079	18	77	95	58	35	93
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		4,474	308	163	471	215	392	607
Transit Adjustments (-4.9%)		-217	-11	-4	-15	-6	-12	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-8.6%)		-384	-13	-10	-23	-18	-21	-39
Internal Trips Within This Block (-8.1%)		-363	-5	-5	-9	-17	-17	-35
Trips To-From Other Blocks within the Project (-3.7%)		-167	-12	-12	-25	-12	-12	-25
New External Trips (75%) of Total Trips for Block		3,342	267	132	398	161	329	490
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	619 Units	2,557	40	168	208	140	86	226
Total Trips for Block		4,269	67	185	252	214	166	380
Transit Adjustments (-2.4%)		-104	-2	-6	-8	-5	-5	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-444	-6	-15	-21	-21	-16	-37
Internal Trips Within This Block (-6.9%)		-295	-4	-4	-8	-14	-14	-28
Trips To-From Other Blocks within the Project (-3.8%)		-163	-6	-6	-13	-7	-7	-15
New External Trips (76%) of Total Trips for Block		3,262	49	154	203	167	124	290

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	160 Units	827	14	61	75	43	27	70
Total Trips for Block		6,937	101	116	217	313	319	632
Transit Adjustments (-2.2%)		-156	-3	-3	-6	-7	-7	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-788	-11	-11	-22	-35	-36	-71
Internal Trips Within This Block (-7.4%)		-515	-10	-10	-21	-25	-25	-49
Trips To-From Other Blocks within the Project (-3.8%)		-261	-5	-5	-10	-12	-12	-24
New External Trips (75%) of Total Trips for Block		5,216	72	87	158	234	239	474
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	273 Units	1,253	21	87	108	67	41	108
Total Trips for Block		2,367	39	99	138	115	93	208
Transit Adjustments (-2.5%)		-58	-2	-3	-5	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-249	-4	-8	-12	-12	-9	-21
Internal Trips Within This Block (-8.1%)		-192	-3	-3	-5	-9	-9	-18
Trips To-From Other Blocks within the Project (-3.8%)		-89	-3	-3	-7	-4	-4	-8
New External Trips (75%) of Total Trips for Block		1,779	27	82	109	87	69	156
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th									
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0	
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0	
Subtotal Residential	0 Units	0	0	0	0	0	0	0	
-----		-----		-----		-----		-----	
Total Trips for Block		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Total Project Trips								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	4,126 Units	20,432	465	1,223	1,688	1,041	689	1,729
Other		3,528	258	65	323	102	445	546
Total Project Trips		122,636	2,463	2,493	4,955	5,606	5,847	11,452
Transit Adjustments (-1.9%)		-2,315	-57	-56	-113	-94	-112	-205
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-13,446	-239	-237	-476	-608	-608	-1,214
Internal Trips Within This Block (-6.8%)		-8,395	-160	-160	-320	-421	-421	-842
Trips To-From Other Blocks within the Project (-3.8%)		-4,699	-118	-118	-236	-222	-222	-444
New External Trips (76%) of Total Project Trips		93,781	1,888	1,922	3,810	4,261	4,484	8,747

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		76.5%				76.9%			76.4%

Table Xb: Transit Trips for Initial Phase with Maximum Residential (2030) (By City Block)							
City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	481	13	12	25	22	22	44
Block 2: Bounded by South Park, 5th, Railyards, Crocker	219	4	7	11	11	10	21
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	297	4	3	7	13	15	28
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	221	3	4	7	11	10	21
Block 6: Bounded by Railyards, 5th, Camille, Crocker	240	4	6	10	11	11	22
Block 7: Bounded by Railyards, 6th, Camille, 5th	194	3	5	8	9	9	18
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	762	25	13	38	27	52	79
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	461	6	6	12	22	24	45
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	116	2	4	6	5	6	11
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	107	1	2	3	5	5	10
Block 13: Bounded by Rail Lines, 6th, G, 5th	251	34	11	45	12	36	48
Block 14: Bounded by Rail Lines, 7th, G, 6th	127	3	7	10	7	5	12
Block 15: Bounded by G, 6th, H, 6th	185	3	4	7	9	9	18
Block 16: Bounded by G, 7th, Property Boundary, 6th	69	2	3	5	3	4	7
Block 17: Bounded by N. B, 7th, South Park, 5th	0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th	0	0	0	0	0	0	0
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	0	0	0	0	0	0	0
Block 21: SITF Site	0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th	0	0	0	0	0	0	0
Total New Transit Trips	3,730	107	87	194	167	218	384

Source: Dowling Associates, Inc. 2006

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 OS	1	1	0.75							
1 RRMU	2	1	4.31		200,000					
1 RRMU	3a	1	2.84							
2 OS	3b	1	0.13							
2 RRMU	3c	1	0.93			500				
2 RRMU	3d	1	0.73	197	28,000				32,000	29
2 OS	3e	1	0.67							
2 RRMU	3f	1	0.28	140						
Subtotal				337	228,000	500	0	0	32,000	29
2 RRMU	5a	2	1.14	104						
2 RRMU	5b	2	0.68	106	27,000				29,000	26
2 RRMU	6a	2	1.28	242						
2 RRMU	6b	2	1.07	143	43,000				47,000	43
2 OS	6c	2	0.15							
Subtotal				595	70,000	0	0	0	76,000	69
1 RRMU	33	3	2.62							
1 RRMU	11a	4	4.42		223,000					
1 OS	11b	4	0.27							
Subtotal				0	223,000	0	0	0	0	0
1 RRMU	10a	5	3.88	165	116,000				65,000	59
1 OS	10b	5	0.57							
Subtotal				165	116,000	0	0	0	65,000	59
1 RRMU	8a	6	0.61	47	27,000				27,000	25
1 RRMU	8b	6	1.22	83	33,000				38,000	35
1 RRMU	9a	6	0.60	68	26,000				26,000	24
1 RRMU	9b	6	1.27	83	34,000				38,000	35
Subtotal				281	120,000	0	0	0	129,000	119
2 RRMU	7a	7	2.06	202	18,000				18,000	16
2 RRMU	7b	7	1.19	161	54,000				58,000	53
2 OS	7c	7	0.03							
Subtotal				363	72,000	0	0	0	76,000	69
3 ORMU	47a	8	2.21							
1 RRMU	47b	8	0.78							
1 ORMU	48	8	2.56							

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				0	0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 RRMU	12	9	1.17	39	71,000				43,000	39
1 RRMU	13a	9	0.11		3,500					
1 RRMU	13b	9	0.23		8,000					
1 RRMU	13c	9	0.12		5,600					
1 OS	13d	9	0.60							
1 RRMU	14	9	0.62		13,000	100				
1 RRMU	23	9	0.34					22,500 Restaurant		
1 RRMU	24	9	0.73					42,028 19816 Rest; 11165 Retail; 7730 Office		
1 RRMU	25	9	0.53					38,711 21014 Restaurant; 21014 Office		
1 RRMU	26	9	0.33					28,500 14250 Retail; 14250 Office		
1 RRMU	27	9	0.65					28,043 25000 Exhibit; 3043 Retail		
1 RRMU	28	9	2.24					93,134 Exhibit		
1 RRMU	29	9	1.67					69,696 Exhibit		
1 OS	30a	9	5.07							
1 OS	30b	9	1.35							
1 OS	31a	9	2.66							
1 OS	31b	9	0.32							
1 TU	38	9	16.78							
1 OS	45	9	0.33							
Subtotal				39	101,100	100	0	322,612	43,000	39
1 RRMU	15a	10	3.33	108	65,500			100,000 1,8	40,000	36
1 OS	15b	10	0.05							
1 OS	18a	10	1.05							
1 RRMU	18b	10	0.25		38,500					
1 RRMU	20	10	1.30					56,278 Market		
1 OS	21	10	5.30							
1 RRMU	22	10	0.15					6,500 Retail		
Subtotal				108	104,000	0	0	162,778	40,000	36
2 RRMU	16a	11	1.67	263	28,000				30,000	27
2 OS	16b	11	0.07							
1 RRMU	17	11	1.48							
Subtotal				263	28,000	0	0	0	30,000	27
2 ORMU	40	12	1.93	96	38,000					
2 ORMU	44	13	1.96	227	16,500					
2 ORMU	43	14	2.56	455	12,000					
2 ORMU	46	14	2.89	164						

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				619	12,000	0	0	0	0	0
1 ORMU	41	15	2.43	160	85,000					
1 ORMU	42	16	1.19	273	6,200					
3 OS	60	17	1.12							
3 OS	61	17	0.71							
3 OS	62	17	0.92							
3 RMU	69N	17	1.64							
3 RMU	69S	17	1.21							
3 RMU	70N	17	1.10							
3 RMU	70S	17	0.88							
3 RMU	71N	17	0.77							
3 RMU	71S	17	0.84							
Subtotal				0	0	0	0	0	0	0
4 OS	63	18	0.97							
4 OS	64	18	0.89							
4 OS	65	18	0.92							
4 RMU	66N	18	0.33							
4 RMU	66S	18	1.07							
4 RMU	67N	18	1.27							
4 RMU	67S	18	1.12							
4 RMU	68N	18	1.48							
4 RMU	68S	18	1.17							
Subtotal				0	0	0	0	0	0	0
3 OS	57a	19	0.12							
3 RMU	57N	19	1.24							
3 RMU	57S	19	1.38							
3 RMU	58N	19	1.17							
3 RMU	58S	19	1.15							
3 RMU	59N	19	1.27							
3 RMU	59S	19	1.11							
Subtotal				0	0	0	0	0	0	0
4 RMU	52N	20	0.98							
4 RMU	52S	20	1.30							
4 RMU	53N	20	1.38							
4 RMU	53S	20	1.49							
4 RMU	54N	20	1.35							

Dowling Associates, Inc.

Initial_Phase_Max_Res_2007_05_08.xls \ Lots

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THE RAILYARDS

Land Use Distribution and Densities

Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
4 RMU	54S	20	1.68							
4 OS	54a	20	0.12							
Subtotal				0	0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
3 TU	39	21	15.34							
3 OS	34	22	1.26							
3 RMU	35	22	4.00							
Subtotal				0	0	0	0	0	0	0
4 RMU	49a	23	4.87							
1 ORMU	49b	23	0.73							
1 ORMU	49c	23	1.00							
3 OS	50	23	1.26							
Subtotal				0	0	0	0	0	0	0
4 RMU	51	24	4.70							
3 OS	72	25	10.37							
Subtotal				1,375			0			
TOTAL Max		180.39	3,526	1,219,800	600	0	485,390		491,000	447
Min			2,151				0			
Check			4,326	1,401,366		164,994				

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips^a	Non-Work Trips^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office¹	10.9%	0.2%		11.1%
Retail²	0.8%	1.4%		2.2%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^{3,c}				
AM Peak Hour	2.5%	0.7%	0.2%	3.4%
PM Peak Hour	2.1%	0.6%	0.4%	3.1%
Daily	1.5%	0.7%	0.4%	2.6%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office¹	1.5%	1.2%		2.8%
Retail²	0.1%	11.4%		11.6%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office¹	12.2%	0.3%		12.5%
Retail²	1.0%	1.7%		2.6%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	3.1%	0.8%	0.3%	4.1%
PM Peak Hour	2.6%	0.7%	0.5%	3.7%
Daily	1.9%	0.8%	0.5%	3.2%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001.
 Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 1: Bounded by South Park, Crocker, Railyards, Bercut														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%	
Residential														
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%	
High Rise Residential Condominium	337 Units	ITE (232)	1,494	24	103	127	81	49	130	19%	81%	62%	38%	
Subtotal Residential	837 Units		5,596	208	220	428	237	188	425					
Other														
Total Trips for Block			17,200	365	320	685	755	749	1,504					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-537	-16	-18	-34	-21	-16	-37					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,883	-34	-30	-64	-81	-81	-162					
Internal Trips Within This Block			-2,052	-23	-23	-46	-101	-101	-201					
Trips To-From Other Blocks within the Project			-633	-17	-17	-34	-28	-28	-55					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				119	72	192	398	416	814					
Subtotal Residential				171	178	350	148	123	271					
Other				0	0	0	0	0	0					
Total				12,632	291	251	541	546	539	1,085				
New External Trips Percent of Total Project Trips				73%	80%	78%	79%	72%	72%	72%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				302	4	3	7	13	15	28				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				179	9	9	18	9	7	16				
Other				0	0	0	0	0	0	0				
Total Transit Trips				481	13	12	25	22	22	44				

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 2: Bounded by South Park, 5th, Railyards, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	595 Units	ITE (232)	2,467	38	163	201	135	83	218	19%	81%	62%	38%	
Subtotal Residential	595 Units		2,467	38	163	201	135	83	218					
Other														
Total Trips for Block			7,853	115	212	327	373	340	713					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-118	-2	-1	-3	-5	-6	-11					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-64	-1	-6	-7	-4	-3	-7					
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-182	-3	-7	-10	-9	-9	-18					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-237	-3	-13	-16	-12	-7	-19					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-862	-12	-19	-31	-39	-37	-76					
Internal Trips Within This Block			-929	-11	-11	-22	-45	-45	-90					
Trips To-From Other Blocks within the Project			-281	-8	-8	-15	-13	-13	-26					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				55	35	90	179	185	364					
Subtotal Residential				26	132	158	88	51	139					
Other				0	0	0	0	0	0					
Total				5,600	81	167	249	267	236	503				
New External Trips Percent of Total Project Trips				71%	71%	79%	76%	72%	69%	71%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				140	2	1	3	6	7	13				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				79	2	6	8	5	3	8				
Other				0	0	0	0	0	0	0				
Total Transit Trips				219	4	7	11	11	10	21				

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				

Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-482	-7	-7	-13	-23	-23	-45					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				129	81	211	428	466	895					
Subtotal Residential				0	0	0	0	0	0					
Total			9,629	129	81	211	428	466	895					
New External Trips Percent of Total Project Trips			84%	84%	82%	83%	84%	84%	84%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			297	4	3	7	13	15	28					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0					
Total Transit Trips			297	4	3	7	13	15	28					

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 5: Bounded by Railyards, Crocker, Camille, Huntington														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	165 Units	ITE (232)	846	15	62	77	45	27	72	19%	81%	62%	38%	
Subtotal Residential	165 Units		846	15	62	77	45	27	72					
Other														
Total Trips for Block			8,325	119	129	248	376	386	762					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-81	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-949	-13	-13	-26	-42	-44	-86					
Internal Trips Within This Block			-544	-13	-13	-25	-26	-26	-52					
Trips To-From Other Blocks within the Project			-326	-6	-6	-11	-15	-15	-30					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				79	52	130	267	290	557					
Subtotal Residential				9	46	55	26	11	37					
Total			6,506	88	98	185	293	301	594					
New External Trips Percent of Total Project Trips			78%	74%	76%	75%	78%	78%	78%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			194	2	2	4	9	9	18					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			27	1	2	3	2	1	3					
Total Transit Trips			221	3	4	7	11	10	21					

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 6: Bounded by Railyards, 5th, Camille, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	281 Units	ITE (232)	1,283	21	89	110	69	42	111	19%	81%	62%	38%	
Subtotal Residential	281 Units		1,283	21	89	110	69	42	111					
Other														
Total Trips for Block			8,928	128	157	285	408	409	817					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-168	-2	-2	-4	-8	-8	-16					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-33	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-201	-3	-5	-8	-10	-9	-19					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-123	-2	-7	-9	-6	-4	-10					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,010	-14	-15	-29	-45	-47	-92					
Internal Trips Within This Block			-801	-14	-14	-28	-39	-39	-77					
Trips To-From Other Blocks within the Project			-330	-6	-6	-13	-15	-15	-30					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				79	50	129	260	283	543					
Subtotal Residential				11	67	78	39	16	55					
Total				6,586	91	117	207	299	299	599				
New External Trips Percent of Total Project Trips				74%	71%	74%	73%	73%	73%	73%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				199	3	2	5	9	9	18				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				41	1	4	5	2	2	4				
Total Transit Trips				240	4	6	10	11	11	22				

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 7: Bounded by Railyards, 6th, Camille, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	363 Units	ITE (232)	1,592	25	109	134	86	53	139	19%	81%	62%	38%	
Subtotal Residential	363 Units		1,592	25	109	134	86	53	139					
Other														
Total Trips for Block			7,077	104	159	263	328	315	643					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-121	-2	-1	-3	-5	-6	-11					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-41	-1	-4	-5	-2	-2	-4					
Other														
Total Transit Adjustments			-162	-3	-5	-8	-7	-8	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-153	-2	-9	-11	-7	-5	-12					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-789	-11	-15	-26	-35	-35	-70					
Internal Trips Within This Block			-887	-11	-11	-23	-43	-43	-85					
Trips To-From Other Blocks within the Project			-250	-6	-6	-12	-11	-11	-23					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail (Shopping Center)			57	36	93	182	193	374						
Subtotal Residential			15	86	101	50	25	75						
Total			4,989	73	122	194	232	218	450					
New External Trips Percent of Total Project Trips			70%	70%	77%	74%	71%	69%	70%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			143	2	1	3	6	7	13					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			51	1	4	5	3	2	5					
Total Transit Trips			194	3	5	8	9	9	18					

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	43.0 KSF	ITE (710)	696	84	11	95	22	105	127	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	39 Units	ITE (232)	163	3	11	13	9	6	15	19%	81%	62%	38%
Subtotal Residential	139 Units		685	28	27	54	40	34	74				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,347	604	459	1,062	860	964	1,824				
Transit Adjustments													
Office (-11.1%)			-77	-10	-1	-11	-2	-12	-14				
Retail (-2.2%)			-354	-11	-9	-20	-17	-15	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-18	-1	-1	-2	-1	-1	-2				
Other (Museum Exhibit Space) (-11.1%)			-208	0	0	0	-1	-5	-6				
Total Transit Adjustments			-657	-22	-11	-33	-21	-33	-54				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-19	-3	0	-3	-1	-3	-4				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-66	-2	-2	-4	-3	-3	-6				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,004	-62	-51	-113	-95	-87	-181				
Internal Trips Within This Block			-661	-34	-34	-68	-47	-47	-94				
Trips To-From Other Blocks within the Project			-765	-25	-25	-49	-36	-36	-72				
New External Trips													
Office (General Office Building)				57	7	64	12	71	83				
Retail & Restaurant (see footnote)				388	322	711	610	518	1,127				
Subtotal Residential				16	10	26	22	12	35				
Other (Museum Exhibit Space)				0	0	0	17	159	177				
Total			15,260	461	339	799	661	760	1,422				
New External Trips Percent of Total Project Trips			79%	76%	74%	75%	77%	79%	78%				
Transit Trips													
Office (12.5%)			87	11	1	12	3	13	16				
Retail (2.6%)			418	13	11	24	20	17	37				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			22	1	1	2	2	1	3				
Other (Museum Exhibit Space) (12.5%)			235	0	0	0	2	21	23				
Total Transit Trips			762	25	13	38	27	52	79				
Footnote:													
Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469					
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	108 Units	ITE (232)	631	11	49	60	32	20	52	19%	81%	62%	38%	
Subtotal Residential	108 Units		631	11	49	60	32	20	52					
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36				50%	50%
Total Trips for Block			16,214	234	222	456	761	796	1,557					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-335	-5	-4	-9	-15	-17	-32					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-16	0	-2	-2	-1	-1	-2					
Other (Performing Arts) (-11.1%)			-40	0	0	0	-1	-1	-1					
Total Transit Adjustments			-391	-5	-6	-11	-17	-19	-35					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-61	-1	-4	-5	-2	-2	-4					
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,837	-27	-24	-51	-85	-91	-175					
Internal Trips Within This Block			-393	-20	-20	-41	-18	-18	-36					
Trips To-From Other Blocks within the Project			-649	-10	-10	-21	-32	-32	-63					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail & Market (see footnote)			165	138	303	575	613	1,188						
Subtotal Residential			6	23	30	19	7	26						
Other (Performing Arts)			0	0	0	16	16	34						
Total			12,944	172	161	332	609	636	1,248					
New External Trips Percent of Total Project Trips			80%	73%	73%	73%	80%	80%	80%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			396	6	4	10	18	20	38					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			20	0	2	2	1	1	2					
Other (Performing Arts) (12.5%)			45	0	0	0	3	3	5					
Total Transit Trips			461	6	6	12	22	24	45					

Footnote:

Retail & Market														
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%	
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%	
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%	

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 11: Bounded by Camille, 6th, Rail Lines, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	263 Units	ITE (232)	1,215	20	85	105	65	40	105	19%	81%	62%	38%	
Subtotal Residential	263 Units		1,215	20	85	105	65	40	105					
Other														
Total Trips for Block			4,184	65	113	178	195	180	375					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-65	-1	-1	-2	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-32	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-97	-2	-4	-6	-5	-4	-9					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-117	-2	-6	-8	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-461	-7	-9	-16	-21	-19	-40					
Internal Trips Within This Block			-512	-6	-6	-13	-25	-25	-49					
Trips To-From Other Blocks within the Project			-149	-4	-4	-8	-7	-7	-13					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				33	20	53	97	101	199					
Subtotal Residential				13	69	82	40	24	65					
Total			2,965	45	89	135	138	126	263					
New External Trips Percent of Total Project Trips			71%	70%	79%	76%	71%	70%	70%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			77	1	1	2	3	4	7					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			39	1	3	4	2	2	4					
Total Transit Trips			116	2	4	6	5	6	11					

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 12: Bounded by Rail Lines, 5th, I Street, LRT														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	96 Units	ITE (232)	401	6	26	33	23	14	36	19%	81%	62%	38%	
Subtotal Residential	96 Units		401	6	26	33	23	14	36					
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%	
Total Trips for Block			4,022	60	60	121	182	186	367					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-80	-1	-1	-2	-3	-4	-7					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-10	0	-1	-1	-1	0	-1					
Other (-11.1%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-90	-1	-2	-3	-4	-4	-8					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-39	-1	-2	-3	-2	-1	-3					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-459	-7	-6	-13	-20	-21	-41					
Internal Trips Within This Block			-250	-6	-6	-12	-13	-13	-26					
Trips To-From Other Blocks within the Project			-154	-3	-3	-5	-7	-7	-14					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				40	26	66	125	135	260					
Subtotal Residential				3	18	21	13	6	18					
Other				0	0	0	0	0	0					
Total				3,070	44	44	88	138	141	278				
New External Trips Percent of Total Project Trips				76%	73%	73%	73%	76%	76%	76%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				94	1	1	2	4	5	9				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				13	0	1	1	1	0	1				
Other (12.5%)				0	0	0	0	0	0	0				
Total Transit Trips				107	1	2	3	5	5	10				

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 13: Bounded by Rail Lines, 6th, G, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	227 Units	ITE (232)	1,079	18	77	95	58	35	93	19%	81%	62%	38%	
Subtotal Residential	227 Units		1,079	18	77	95	58	35	93					
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%	
Total Trips for Block			4,474	308	163	471	215	392	607					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-46	-1	0	-1	-2	-2	-4					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-28	-1	-2	-3	-2	-1	-3					
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11					
Total Transit Adjustments			-217	-11	-4	-15	-6	-12	-18					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-104	-2	-6	-8	-5	-3	-8					
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-384	-13	-10	-23	-18	-21	-39					
Internal Trips Within This Block			-363	-5	-5	-9	-17	-17	-35					
Trips To-From Other Blocks within the Project			-167	-12	-12	-25	-12	-12	-25					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				17	14	31	64	67	131					
Subtotal Residential				8	57	65	36	21	56					
Other (Transit)				242	61	303	61	242	303					
Total				3,342	267	132	398	161	329	490				
New External Trips Percent of Total Project Trips				75%	87%	81%	85%	75%	84%	81%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				55	1	0	1	2	3	5				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				35	1	3	4	2	1	3				
Other (Transit) (12.5%)				161	32	8	40	8	32	40				
Total Transit Trips				251	34	11	45	12	36	48				

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 14: Bounded by Rail Lines, 7th, G, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	619 Units	ITE (232)	2,557	40	168	208	140	86	226	19%	81%	62%	38%	
Subtotal Residential	619 Units		2,557	40	168	208	140	86	226					
Other														
Total Trips for Block			4,269	67	185	252	214	166	380					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-38	-1	0	-1	-1	-2	-3					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-66	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-104	-2	-6	-8	-5	-5	-10					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-245	-3	-13	-16	-12	-7	-19					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-444	-6	-15	-21	-21	-16	-37					
Internal Trips Within This Block			-295	-4	-4	-8	-14	-14	-28					
Trips To-From Other Blocks within the Project			-163	-6	-6	-13	-7	-7	-15					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				18	13	31	56	57	113					
Subtotal Residential				30	141	172	111	66	177					
Total				3,262	49	154	203	167	124	290				
New External Trips Percent of Total Project Trips				76%	73%	83%	80%	78%	74%	76%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				45	1	0	1	2	2	4				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				82	2	7	9	5	3	8				
Total Transit Trips				127	3	7	10	7	5	12				

Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 15: Bounded by G, 6th, H, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	160 Units	ITE (232)	827	14	61	75	43	27	70	19%	81%	62%	38%	
Subtotal Residential	160 Units		827	14	61	75	43	27	70					
Other														
Total Trips for Block			6,937	101	116	217	313	319	632					

Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-134	-2	-1	-3	-6	-6	-12					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-22	-1	-2	-3	-1	-1	-2					
Other														
Total Transit Adjustments			-156	-3	-3	-6	-7	-7	-14					

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-79	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-788	-11	-11	-22	-35	-36	-71					
Internal Trips Within This Block			-515	-10	-10	-21	-25	-25	-49					
Trips To-From Other Blocks within the Project			-261	-5	-5	-10	-12	-12	-24					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				64	42	106	210	229	439					
Subtotal Residential				8	45	52	25	10	35					
Total				5,216	72	87	158	234	239	474				
New External Trips Percent of Total Project Trips				75%	71%	75%	73%	75%	75%	75%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				159	2	2	4	7	8	15				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				26	1	2	3	2	1	3				
Total Transit Trips				185	3	4	7	9	9	18				

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 16: Bounded by G, 7th, Property Boundary, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	273 Units	ITE (232)	1,253	21	87	108	67	41	108	19%	81%	62%	38%	
Subtotal Residential	273 Units		1,253	21	87	108	67	41	108					
Other														
Total Trips for Block			2,367	39	99	138	115	93	208					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-25	-1	0	-1	-1	-1	-2					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-33	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-58	-2	-3	-5	-3	-2	-5					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-120	-2	-7	-9	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-249	-4	-8	-12	-12	-9	-21					
Internal Trips Within This Block			-192	-3	-3	-5	-9	-9	-18					
Trips To-From Other Blocks within the Project			-89	-3	-3	-7	-4	-4	-8					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				12	9	21	36	37	73					
Subtotal Residential				15	73	88	51	32	83					
Total				1,779	27	82	109	87	69	156				
New External Trips Percent of Total Project Trips				75%	69%	83%	79%	76%	74%	75%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				29	1	0	1	1	2	3				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				40	1	3	4	2	2	4				
Total Transit Trips				69	2	3	5	3	4	7				

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)				#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)				#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential				#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 20: Bounded by South Park, N. 10th, Railyards, 7th													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-11.1%)			0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips													
Office (12.5%)			0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 21: SITF Site
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 21: SITF Site														
Office (General Office Building)	KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	Units		0	0	0	0	0	0	0	0				
Other (Transit)	Prkng	ITE(093)	0	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other (Transit) (-11.1%)			0	0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			0	0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####				
Other (Transit)			0	0	0	0	0	0	0	0				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Other (Transit) (12.5%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-11.1%)			0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips													
Office (12.5%)			0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

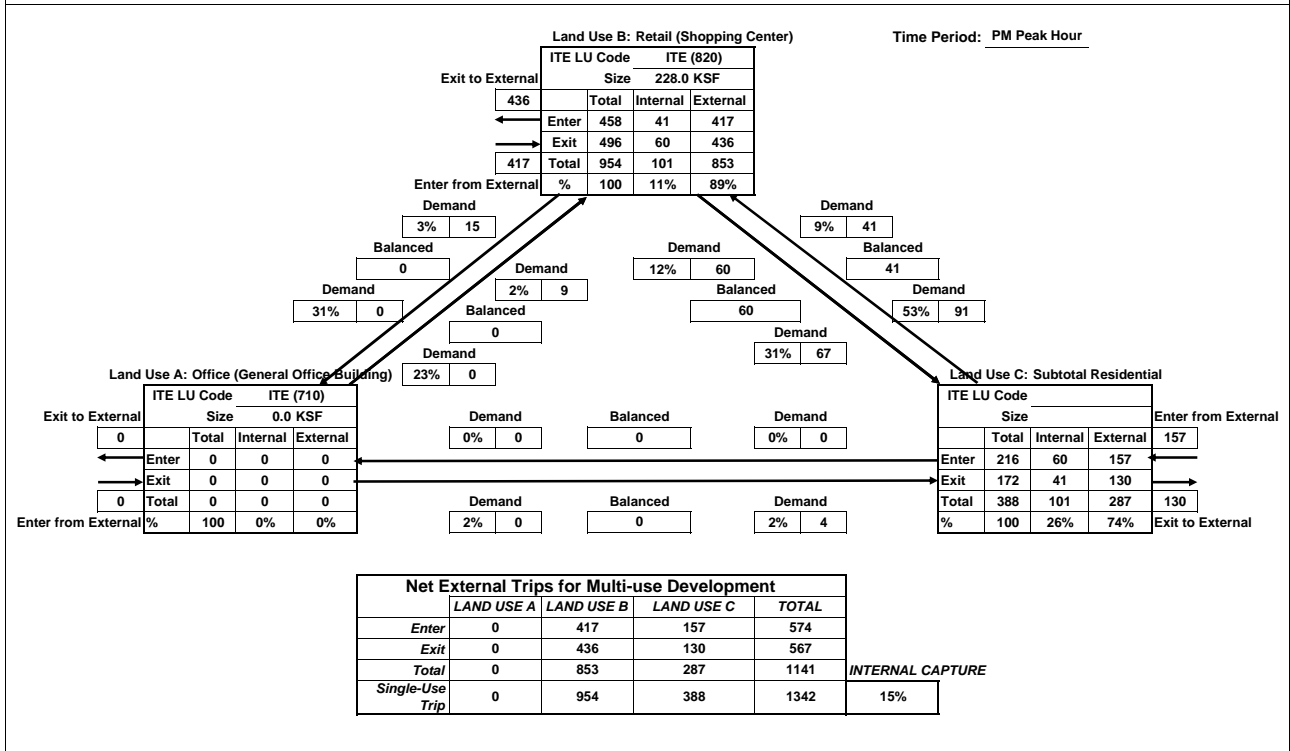
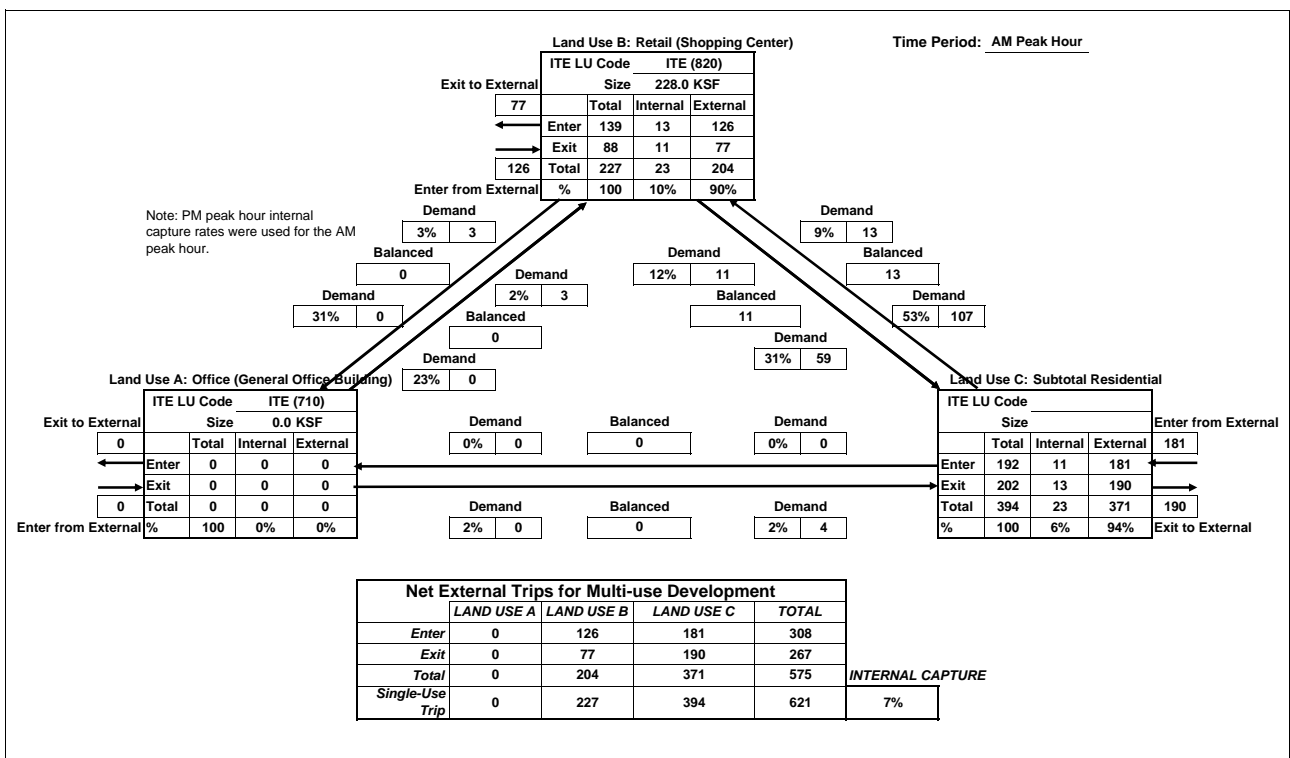
Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 24: Bounded by Property Boundary, Railyards, N. 10th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



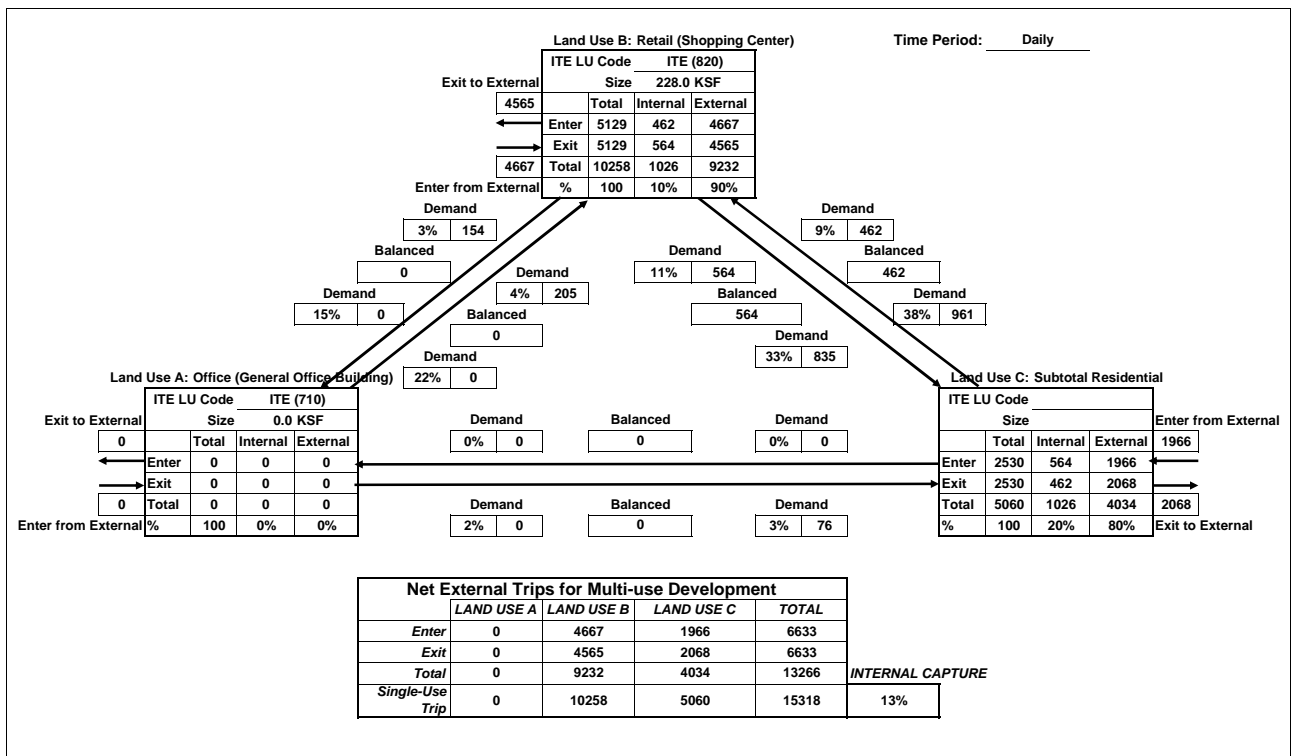
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

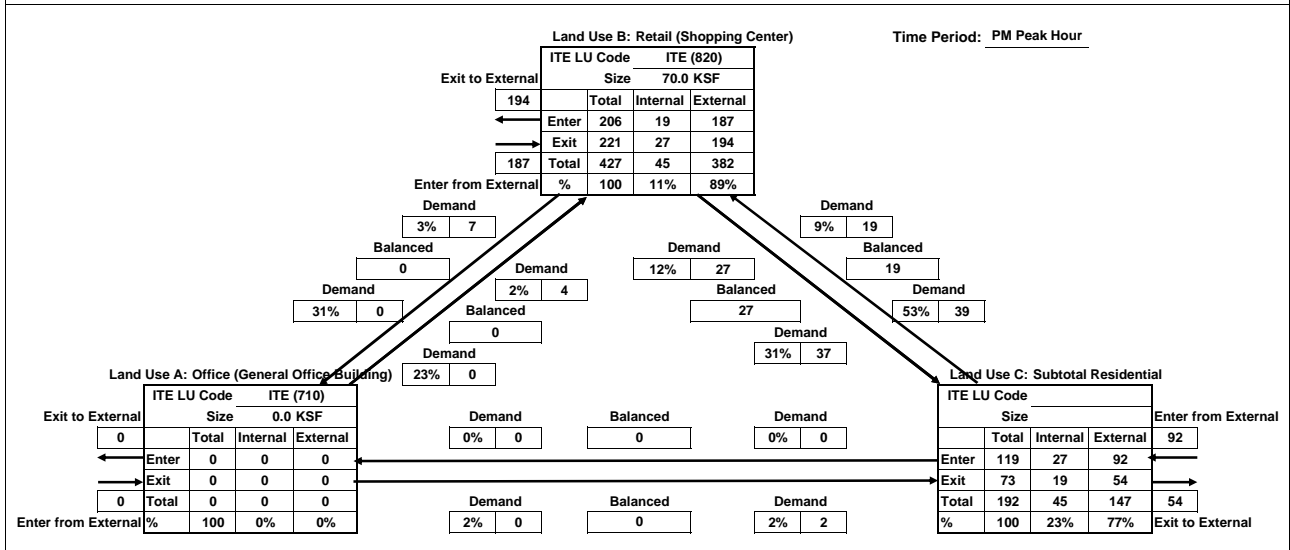
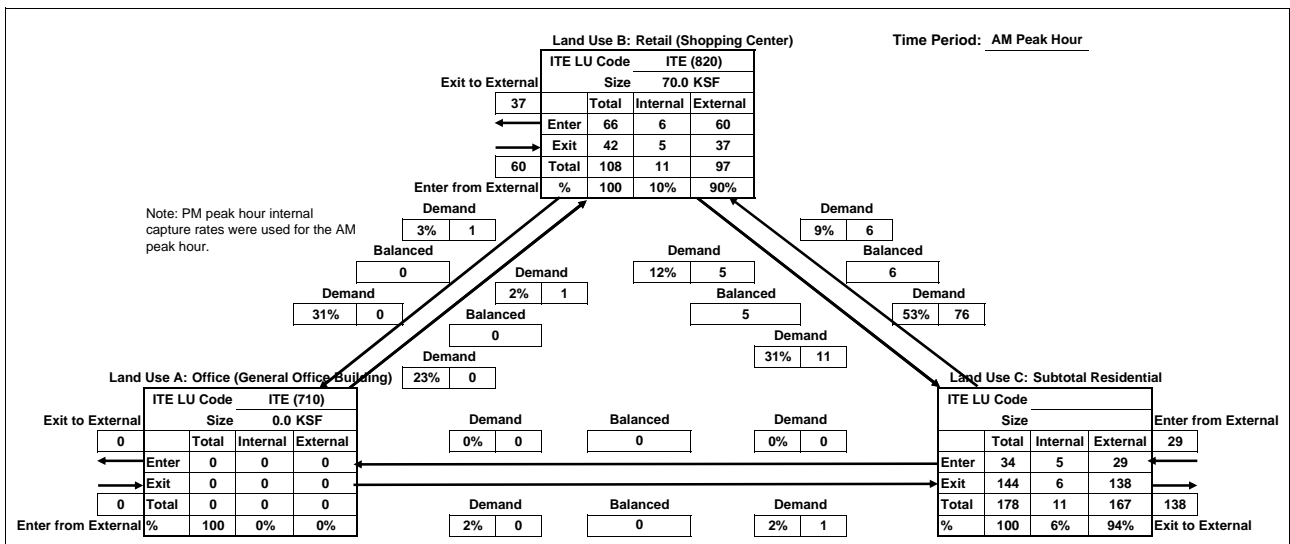
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



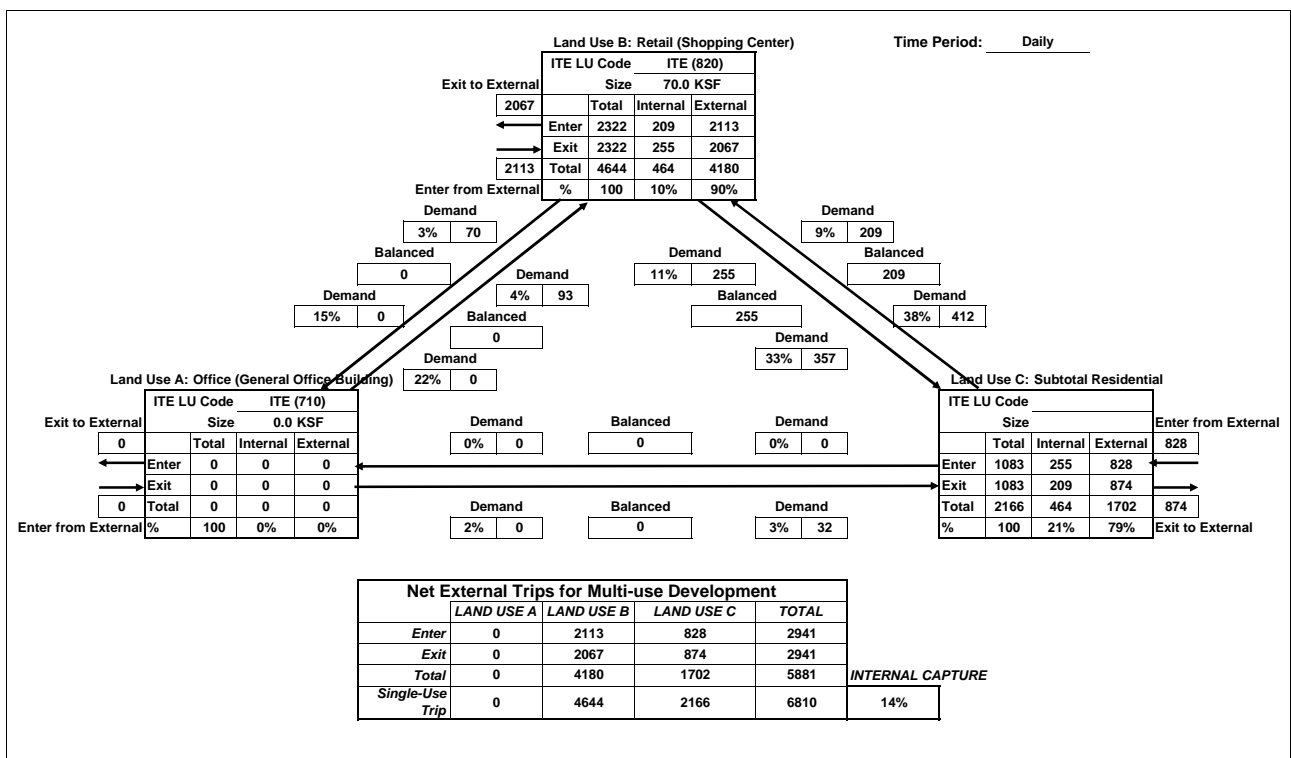
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

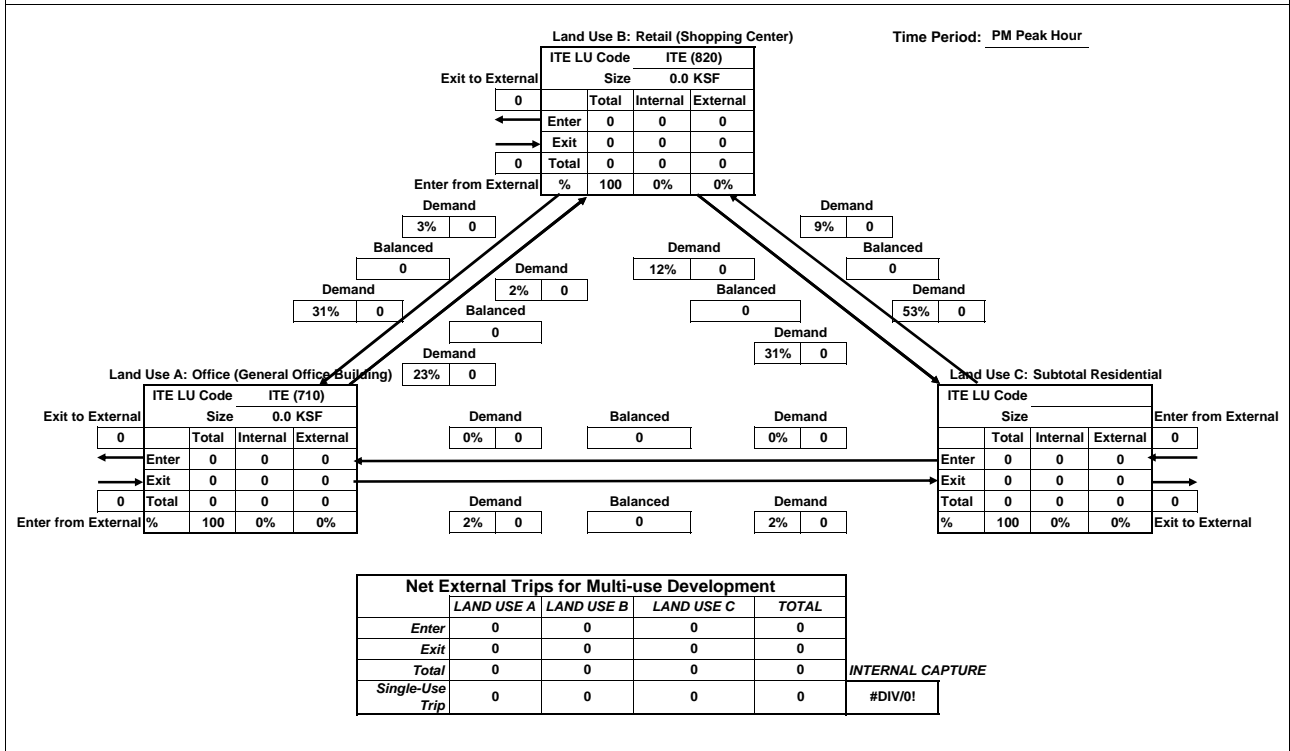
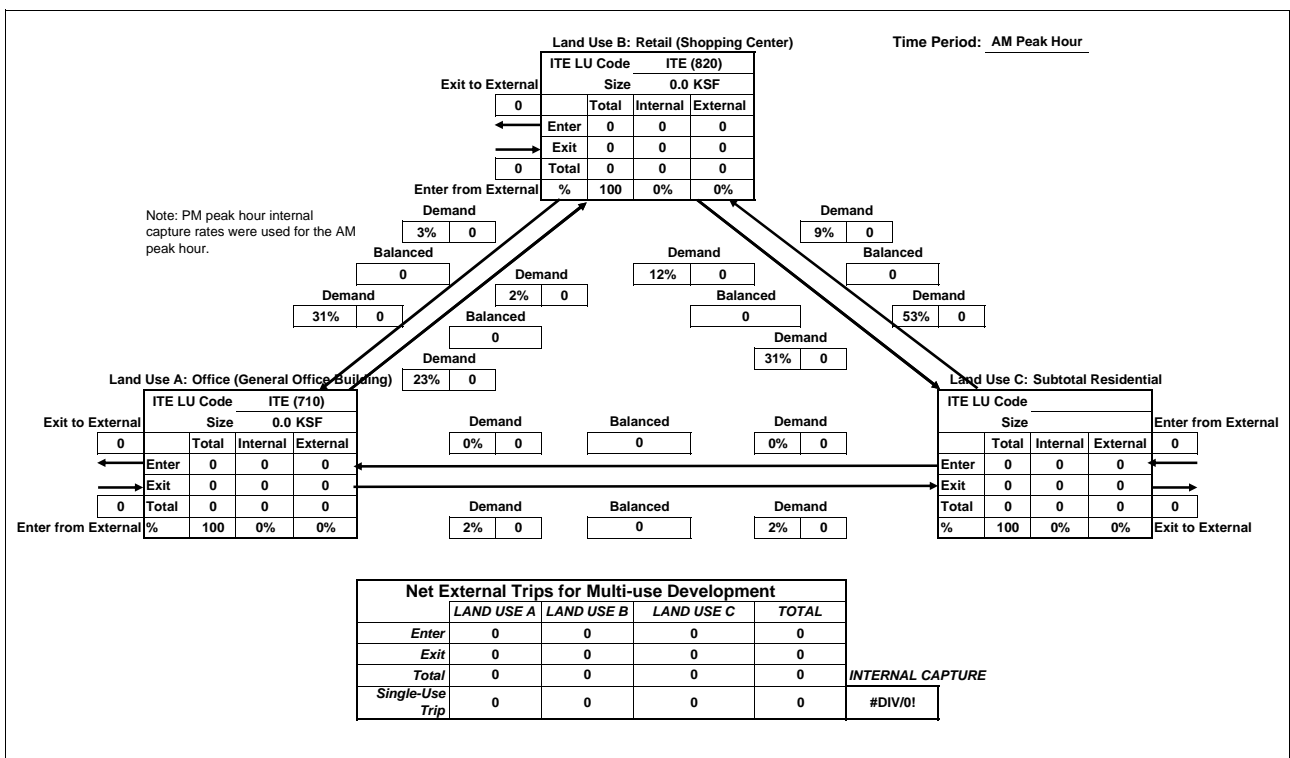


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



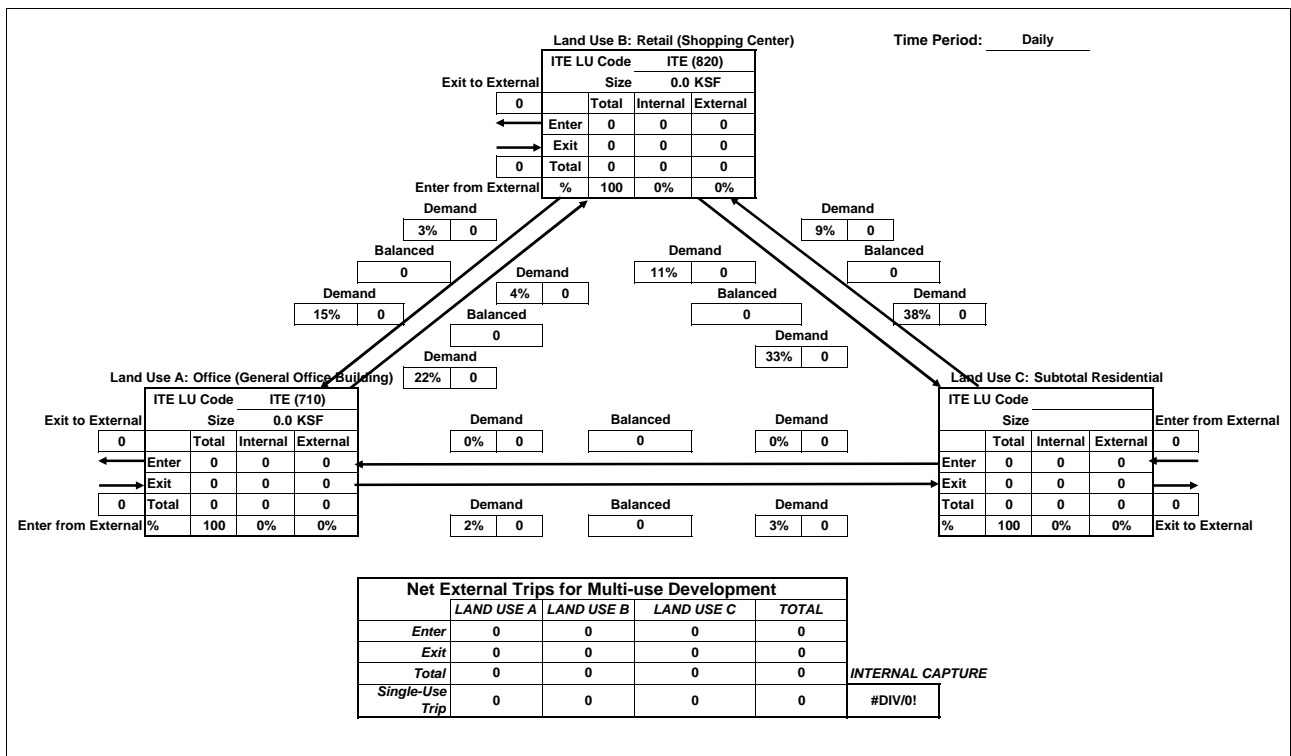
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

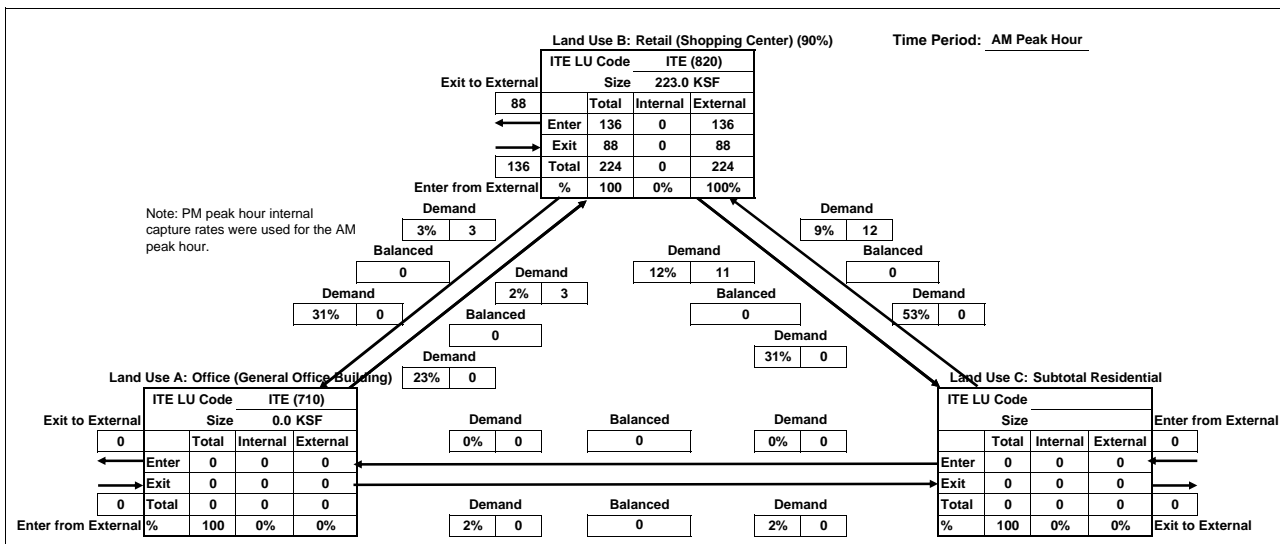
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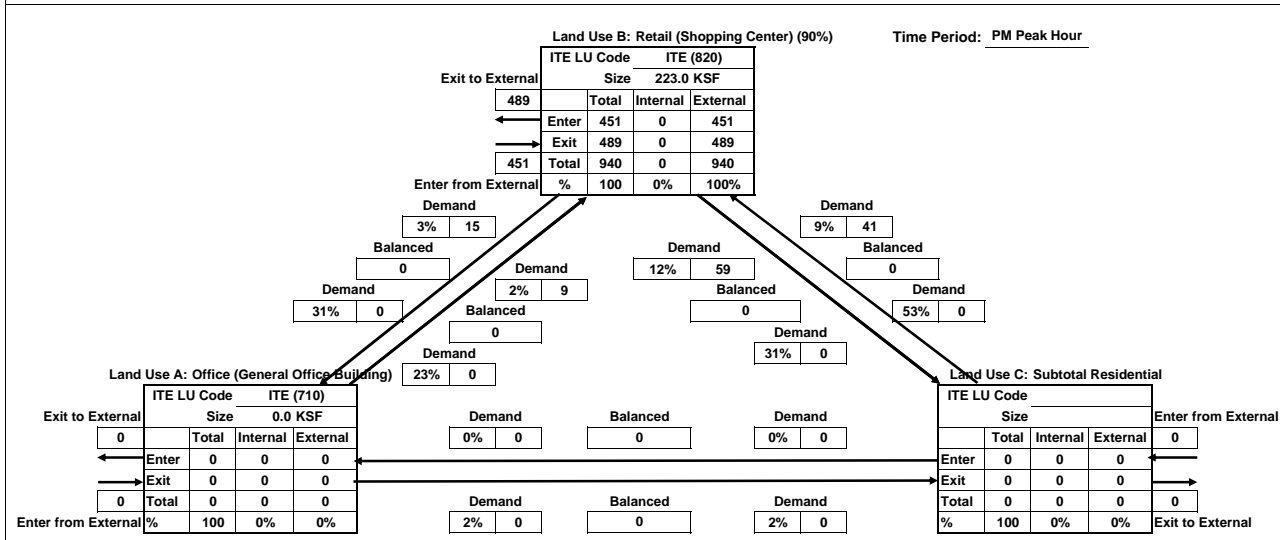
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	136	0	136	
Exit	0	88	0	88	
Total	0	224	0	224	INTERNAL CAPTURE
Single-Use Trip	0	224	0	224	0%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	451	0	451	
Exit	0	489	0	489	
Total	0	940	0	940	INTERNAL CAPTURE
Single-Use Trip	0	940	0	940	0%

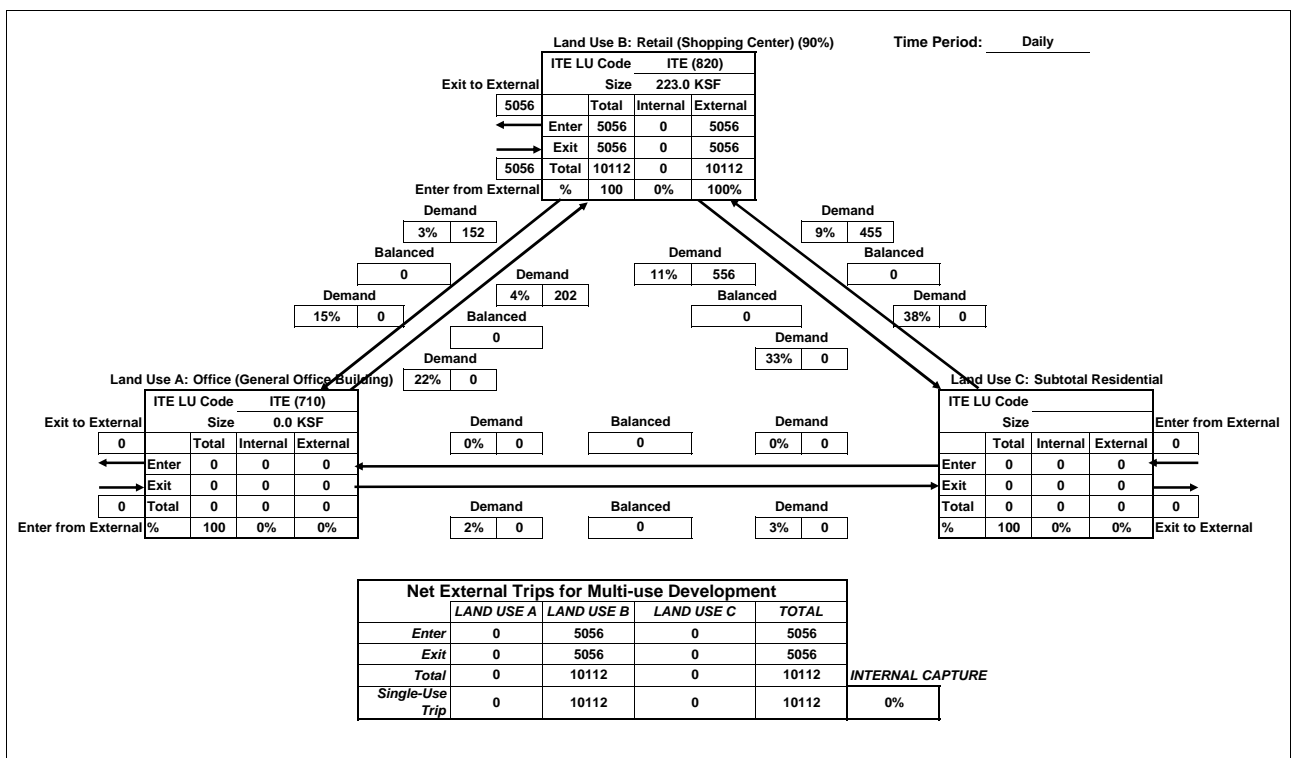
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

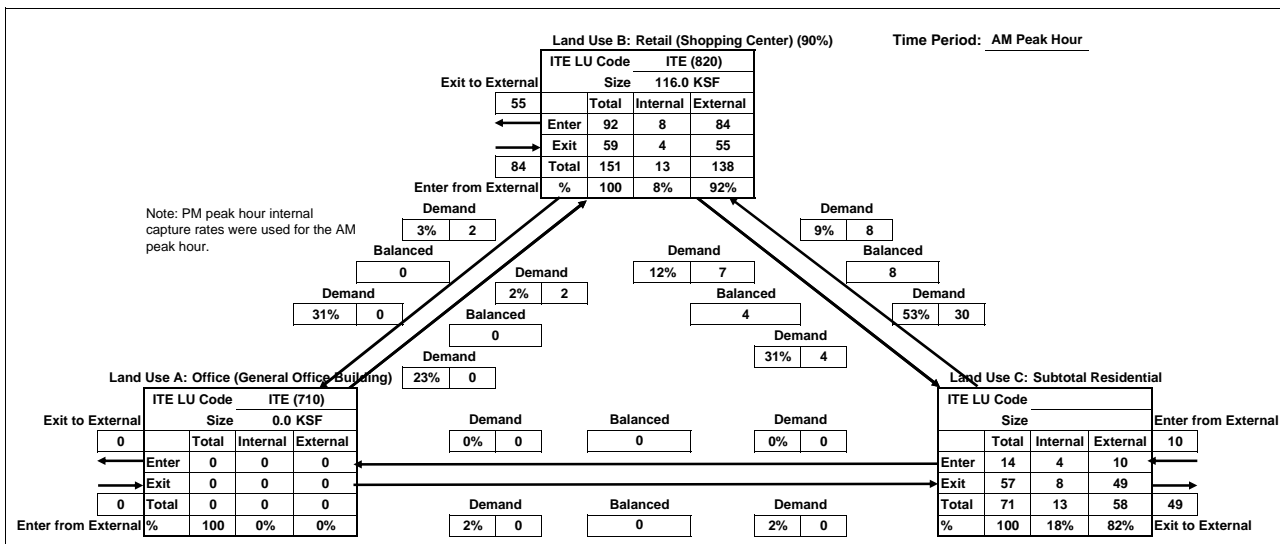
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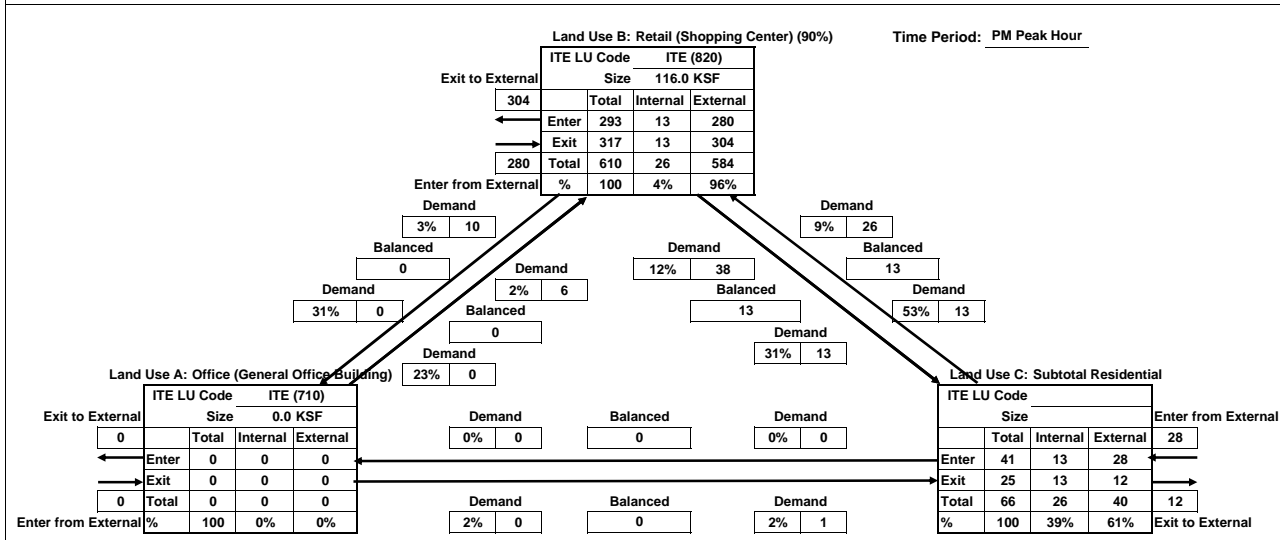
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	84	10	93	
Exit	0	55	49	103	
Total	0	138	58	197	INTERNAL CAPTURE
Single-Use Trip	0	151	71	222	11%



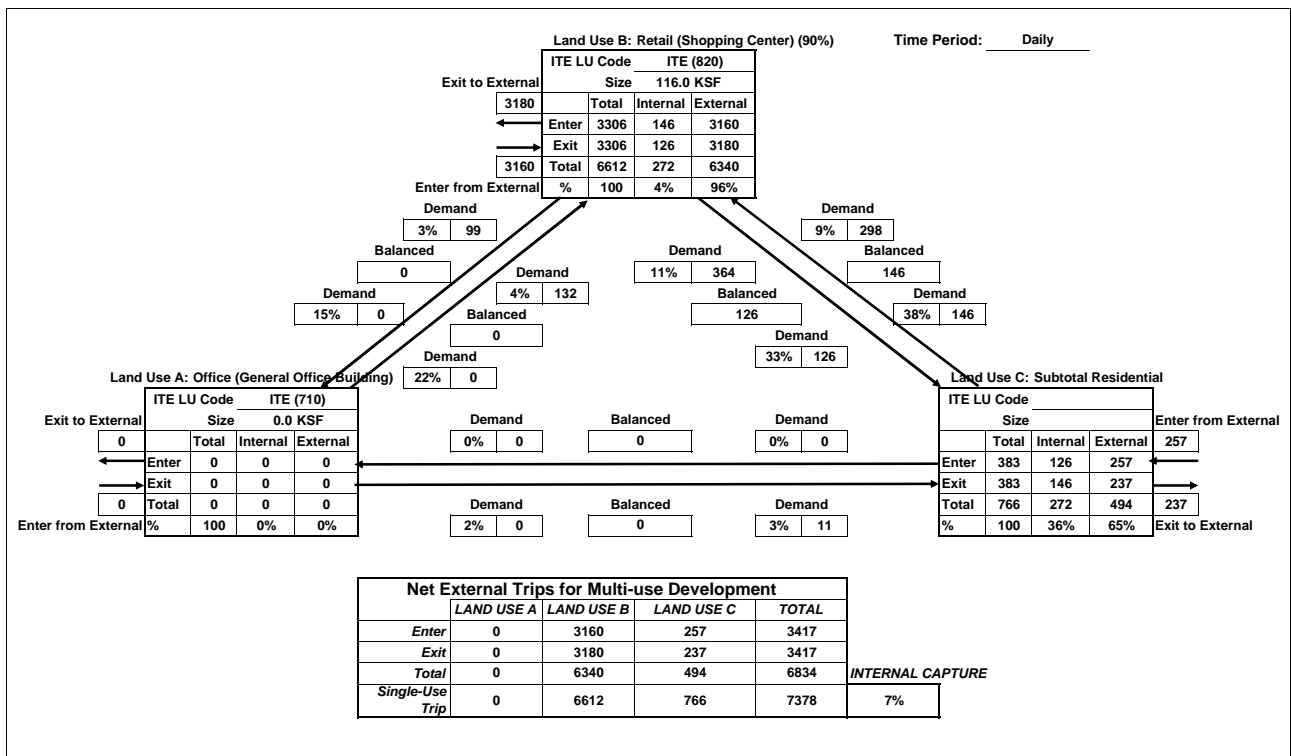
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	280	28	308	
Exit	0	304	12	316	
Total	0	584	40	624	INTERNAL CAPTURE
Single-Use Trip	0	610	66	676	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

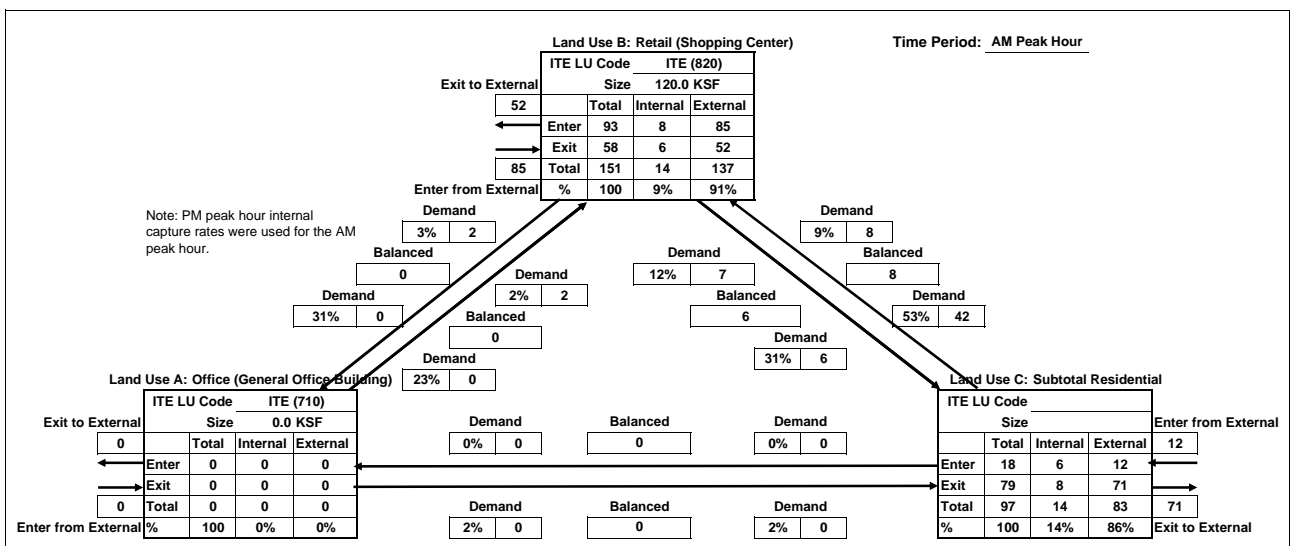


Analyst: Dowling

Date: 8/17/2007

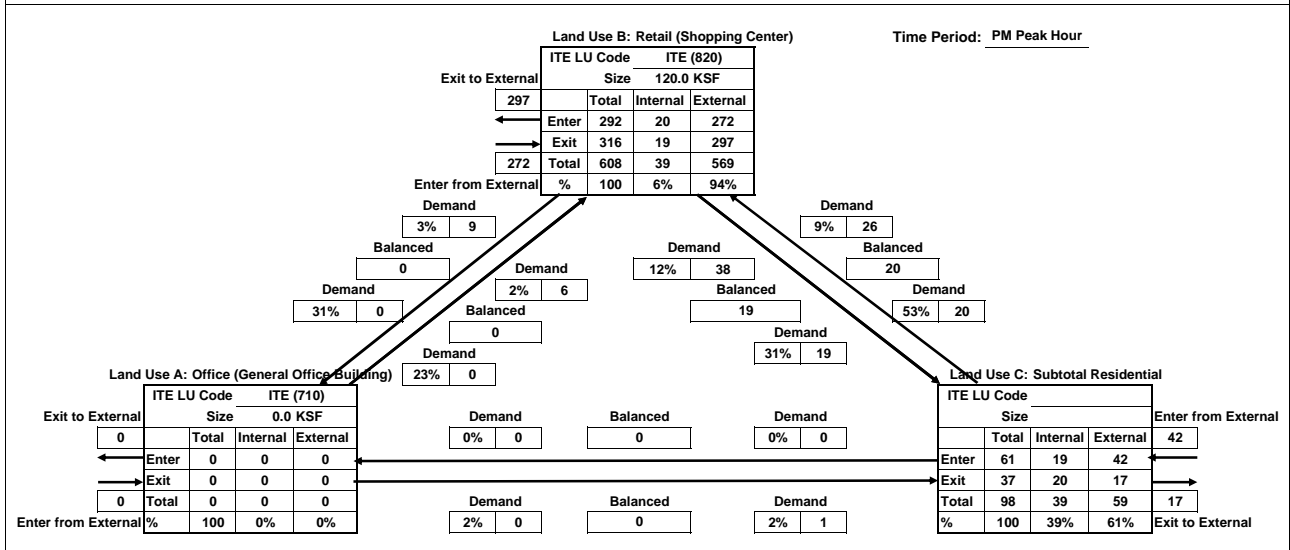
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	85	12	97	
Exit	0	52	71	123	
Total	0	137	83	220	INTERNAL CAPTURE
Single-Use Trip	0	151	97	248	11%



Net External Trips for Multi-use Development

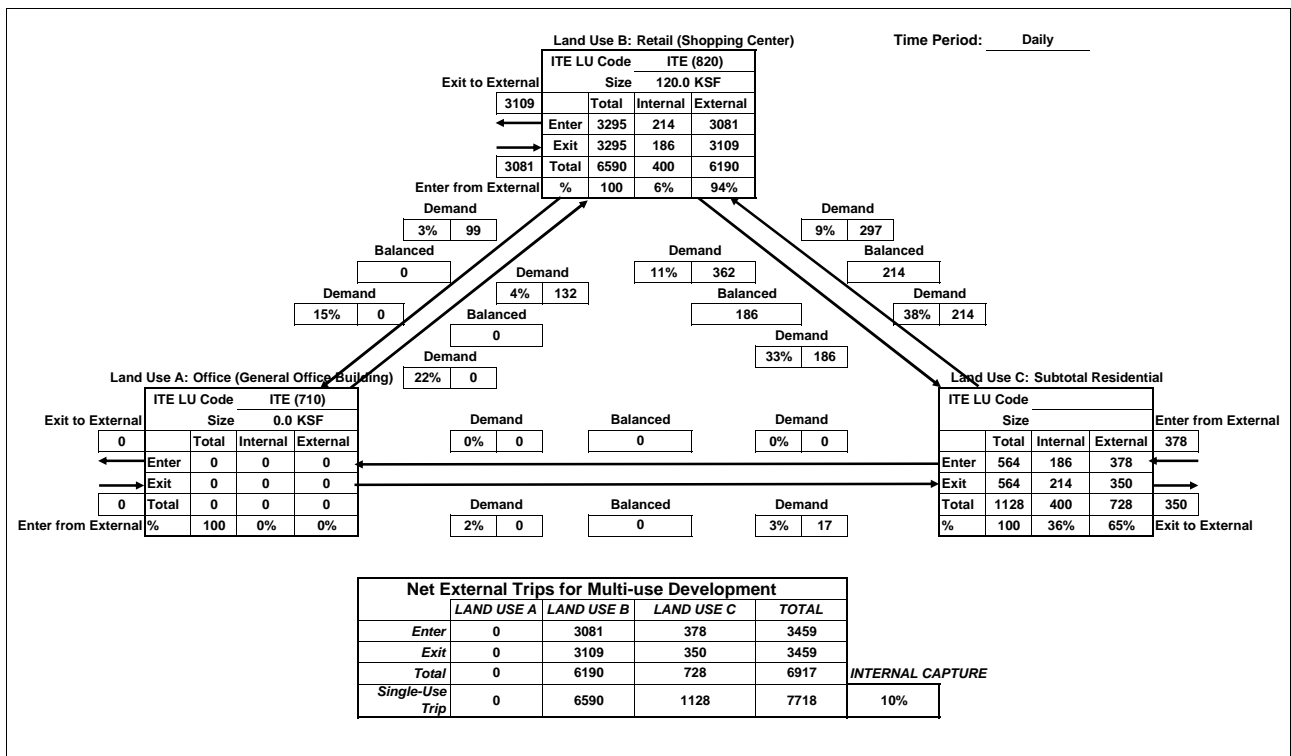
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	272	42	314	
Exit	0	297	17	314	
Total	0	569	59	629	INTERNAL CAPTURE
Single-Use Trip	0	608	98	706	11%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

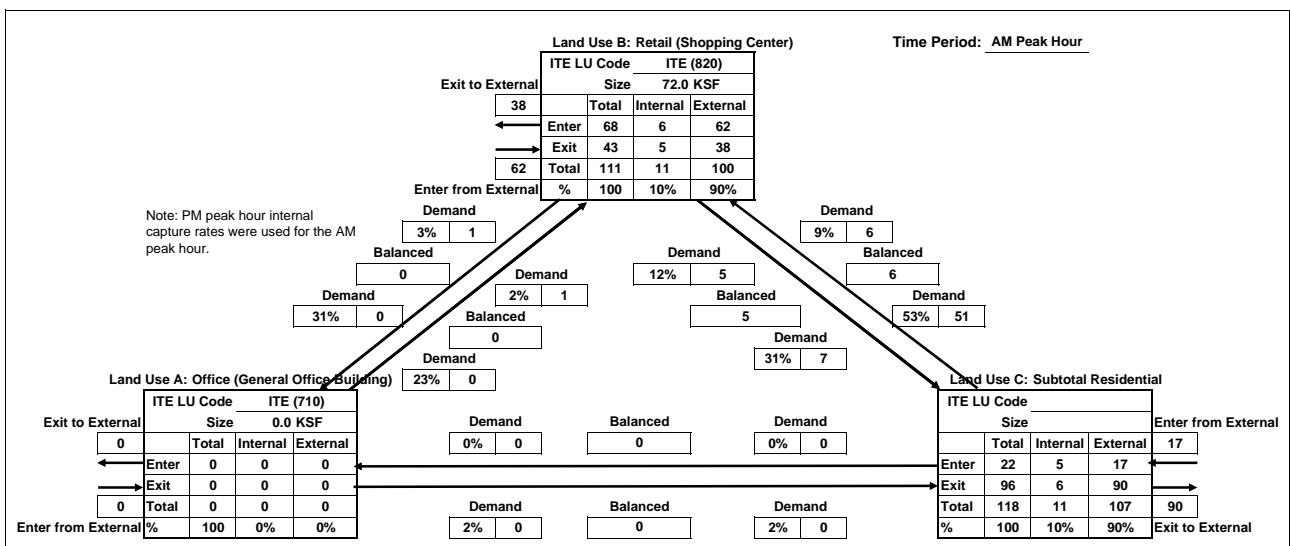


Analyst: Dowling

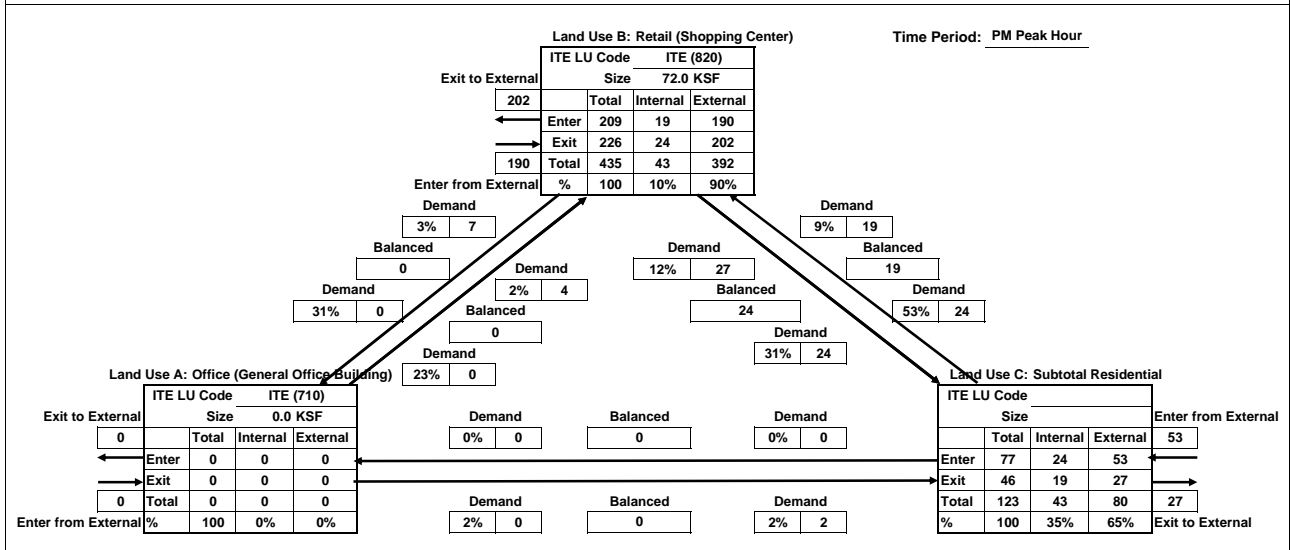
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	62	17	79	
Exit	0	38	90	128	
Total	0	100	107	206	INTERNAL CAPTURE
Single-Use Trip	0	111	118	229	10%



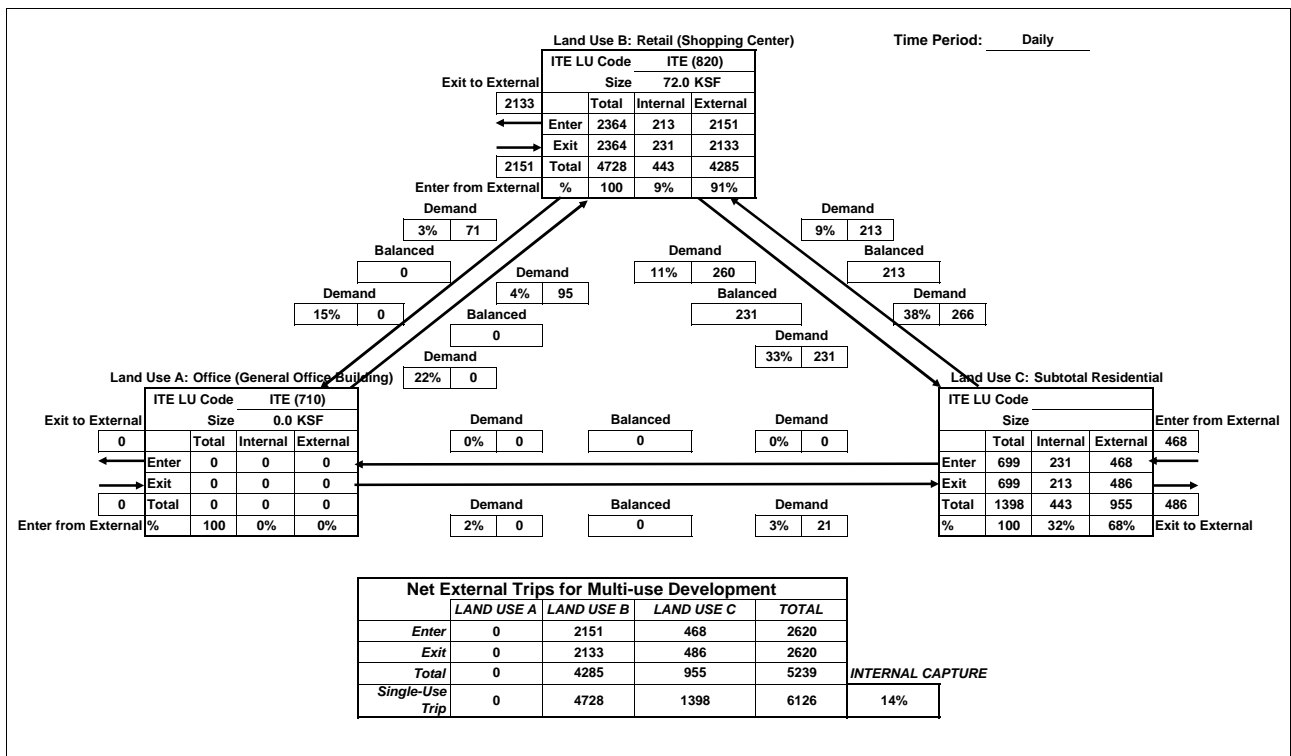
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	190	53	243	
Exit	0	202	27	229	
Total	0	392	80	473	INTERNAL CAPTURE
Single-Use Trip	0	435	123	558	15%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

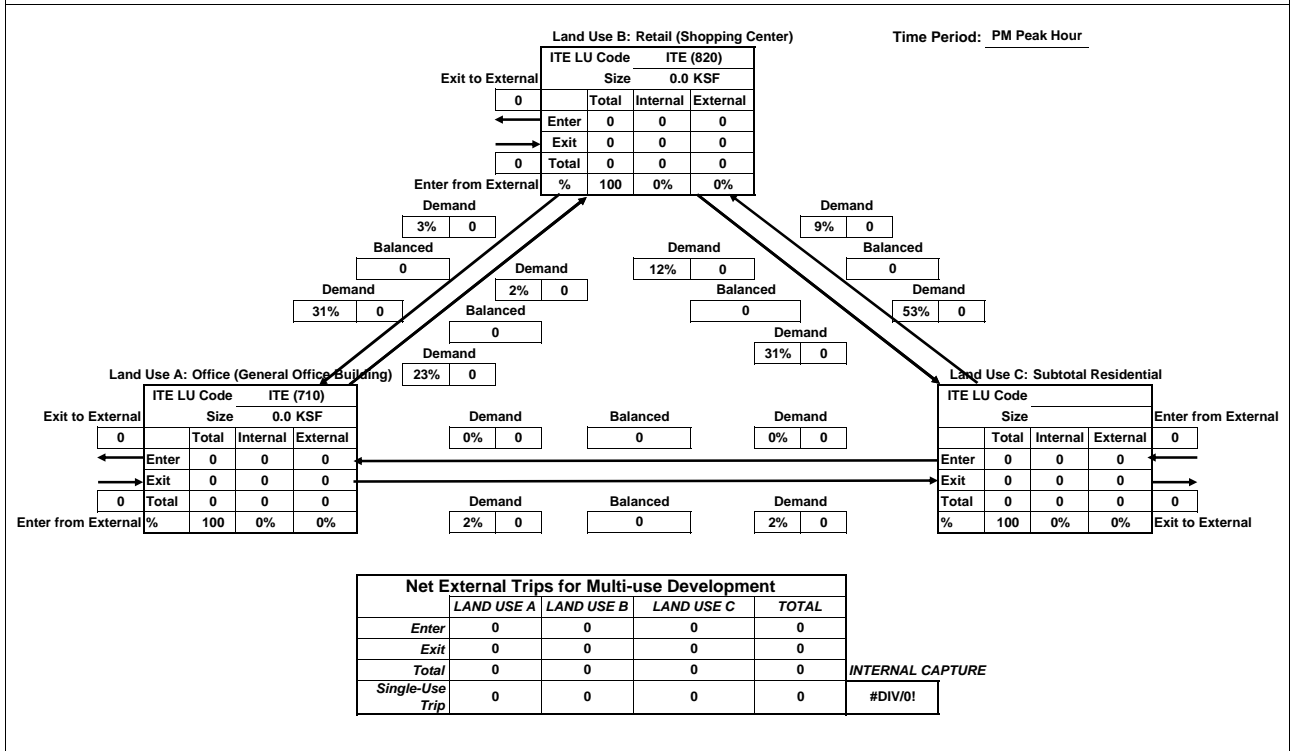
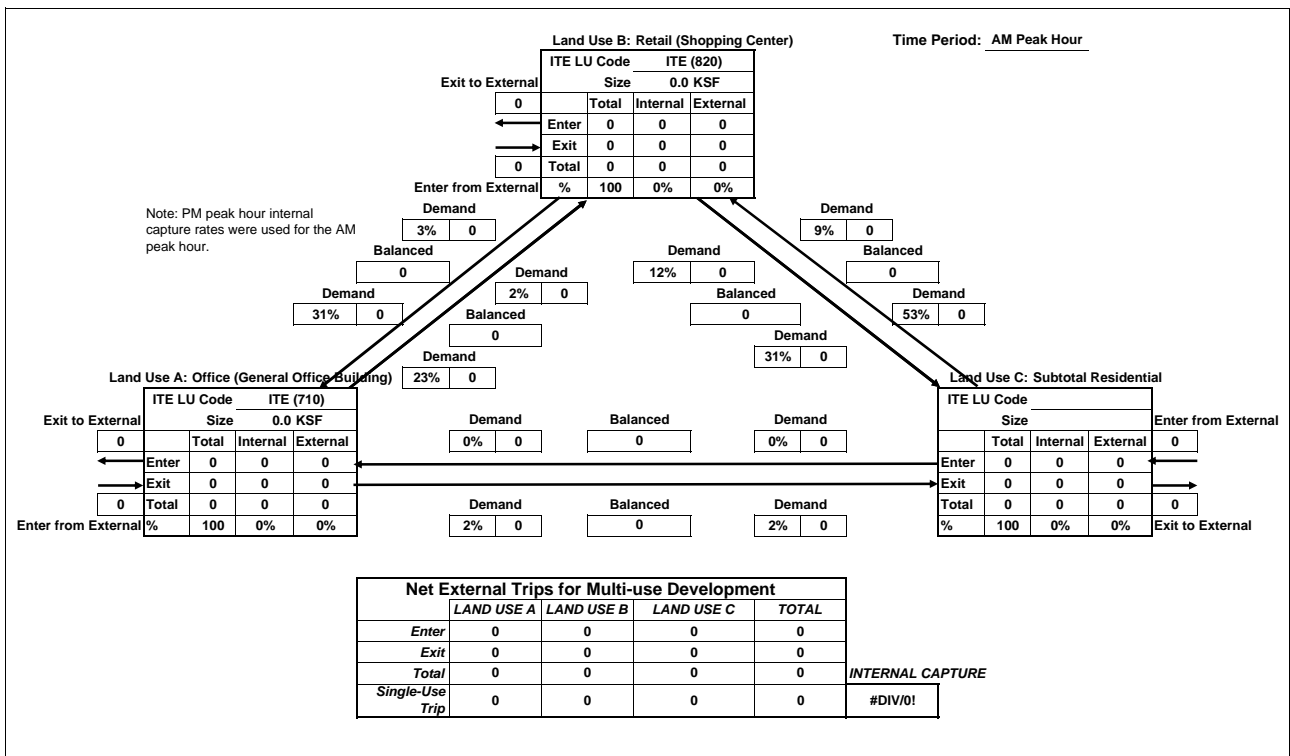


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



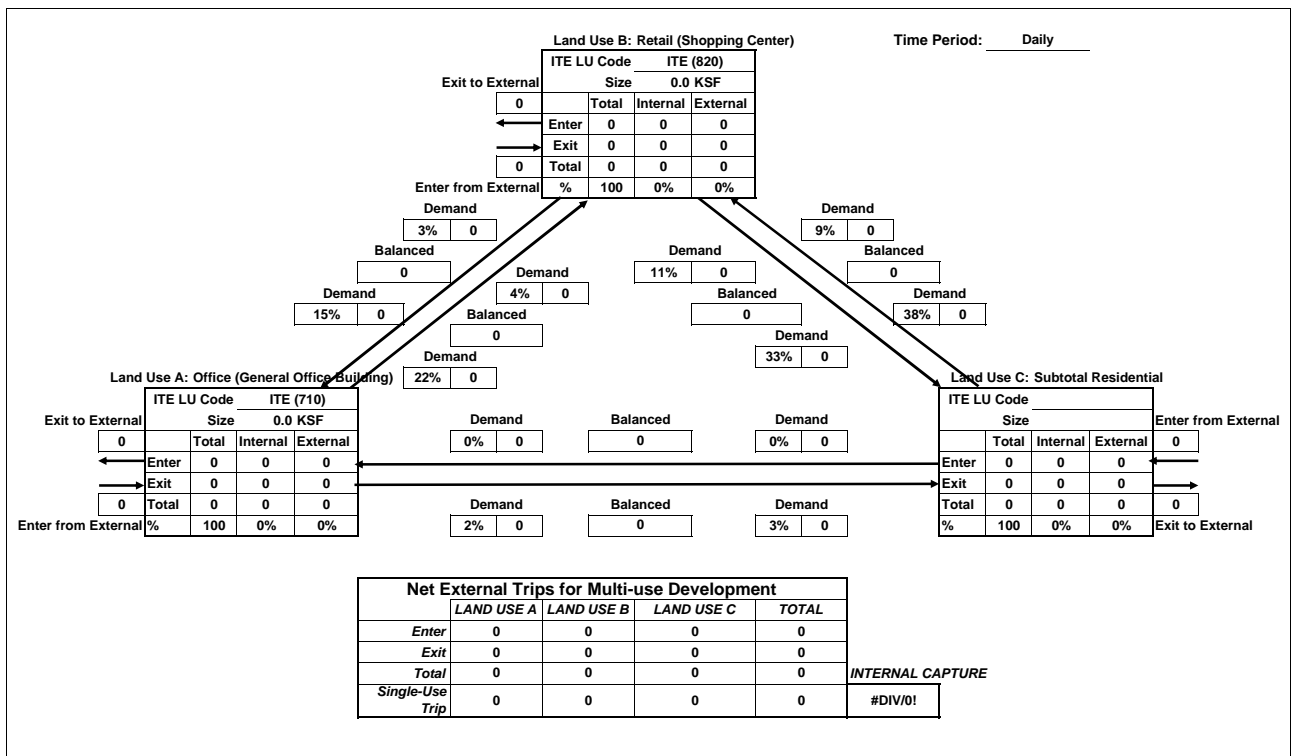
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

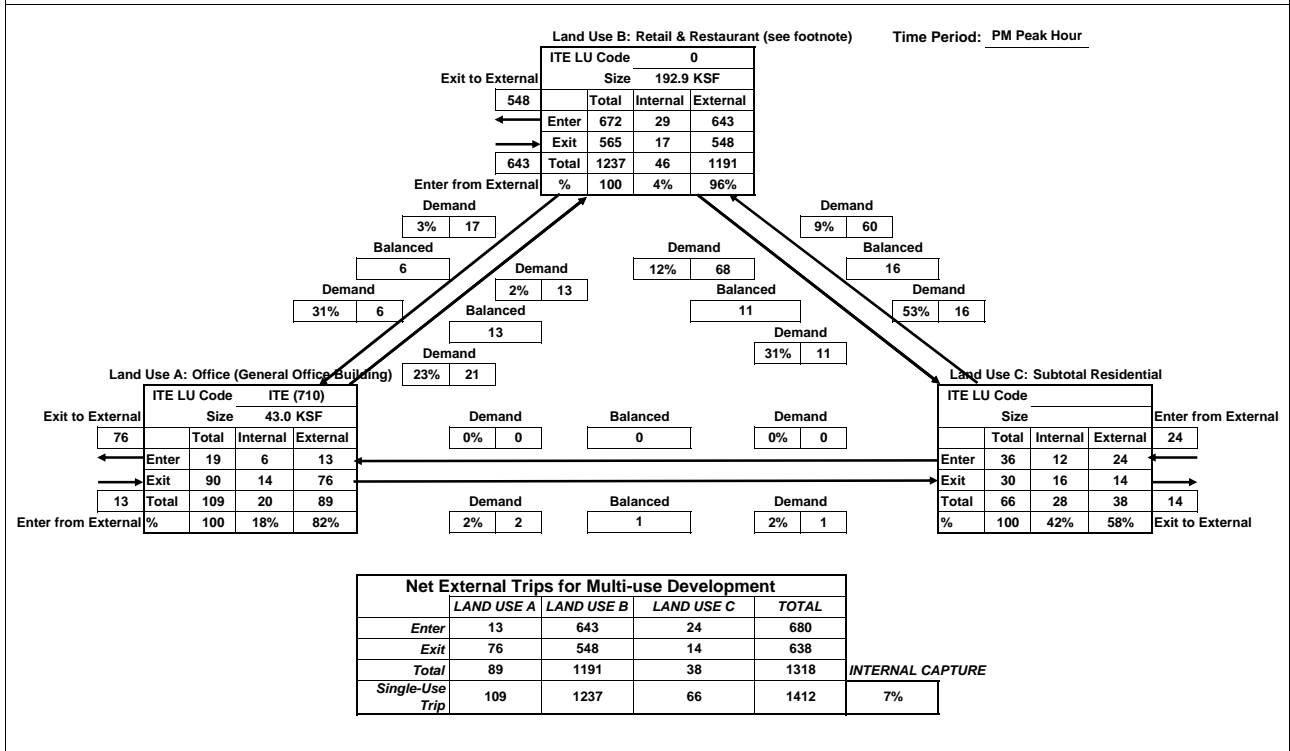
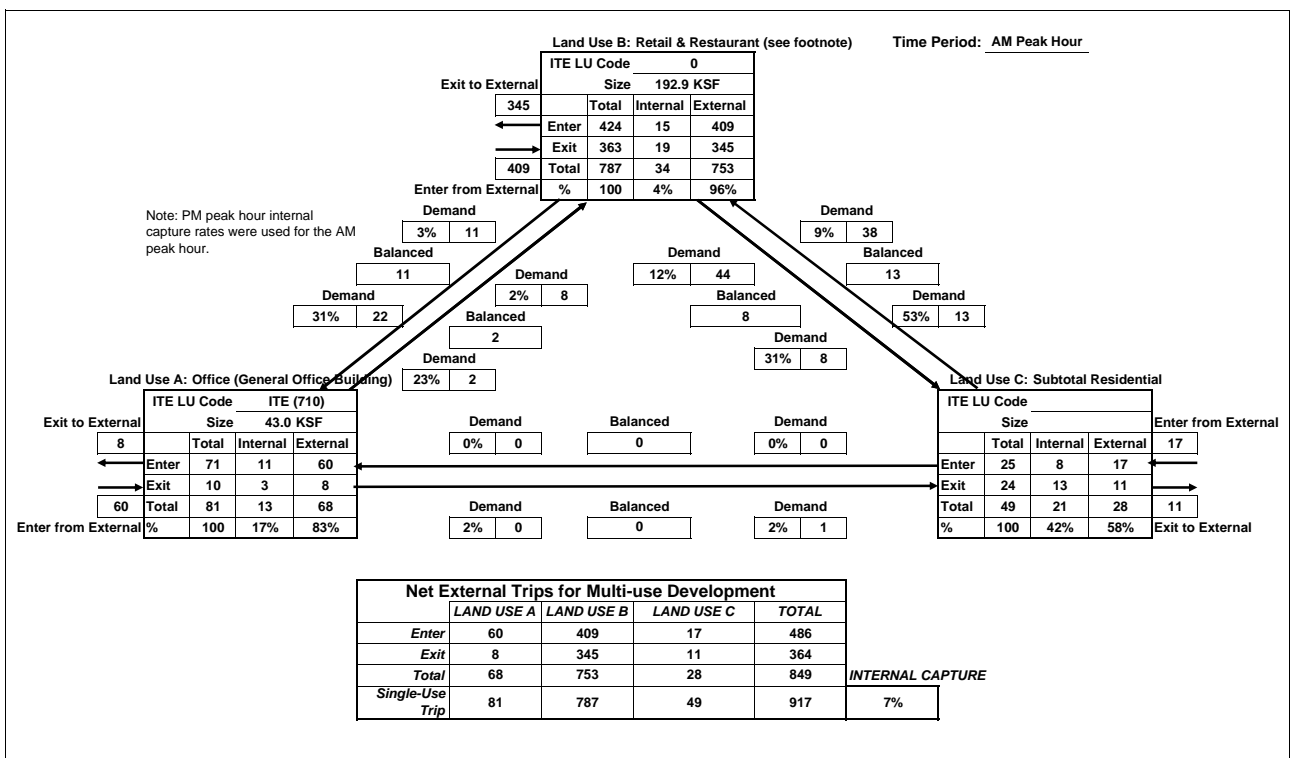
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



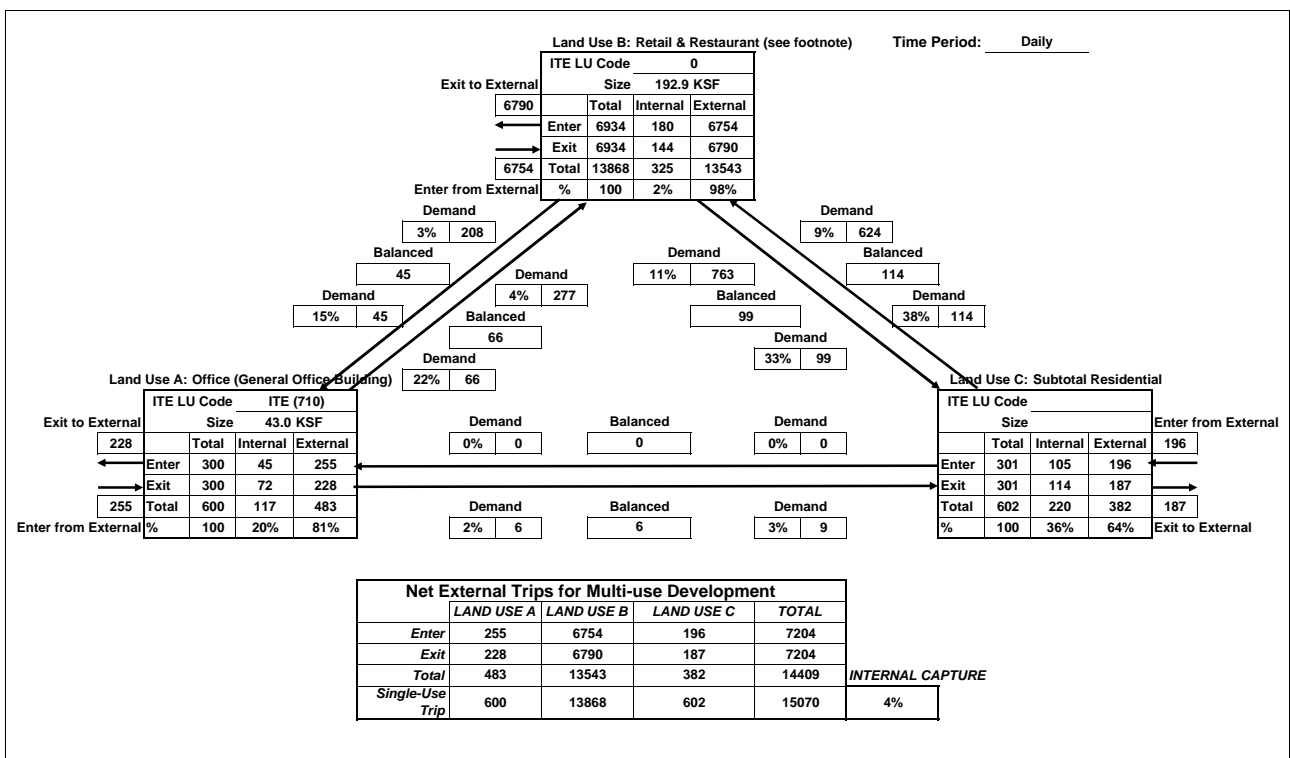
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

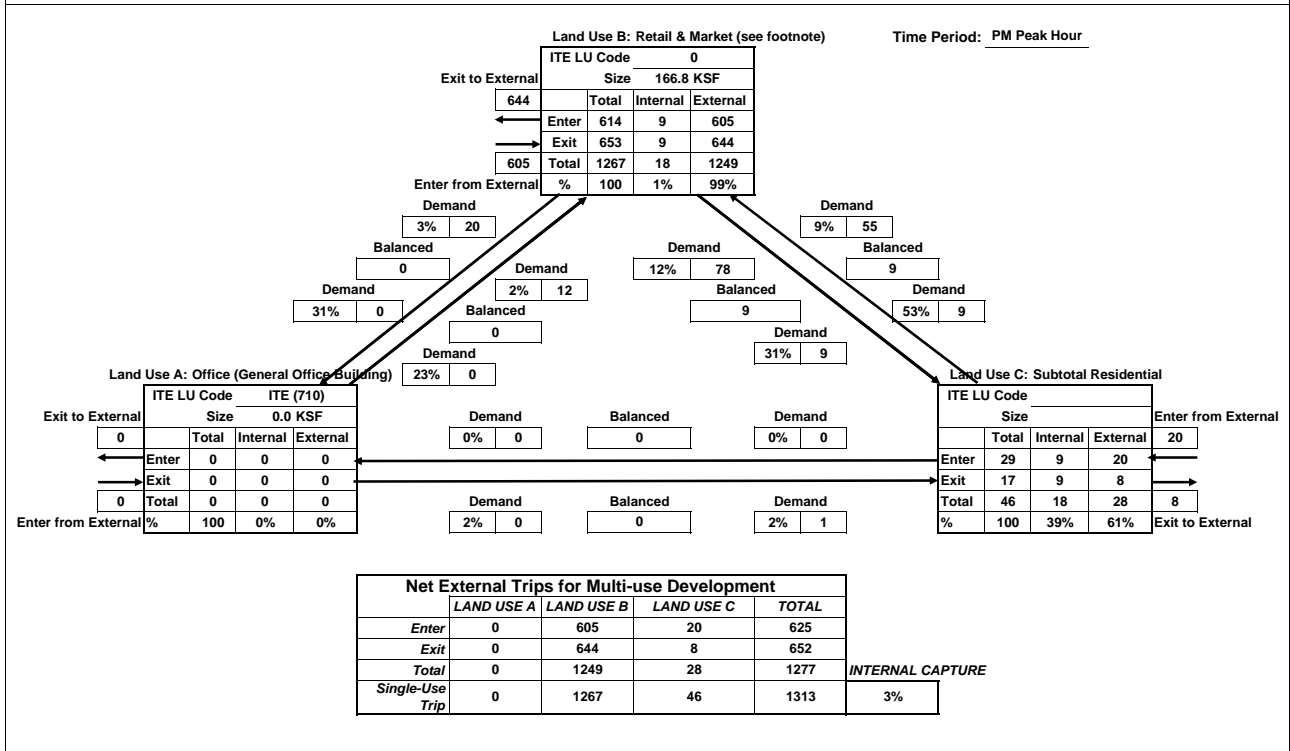
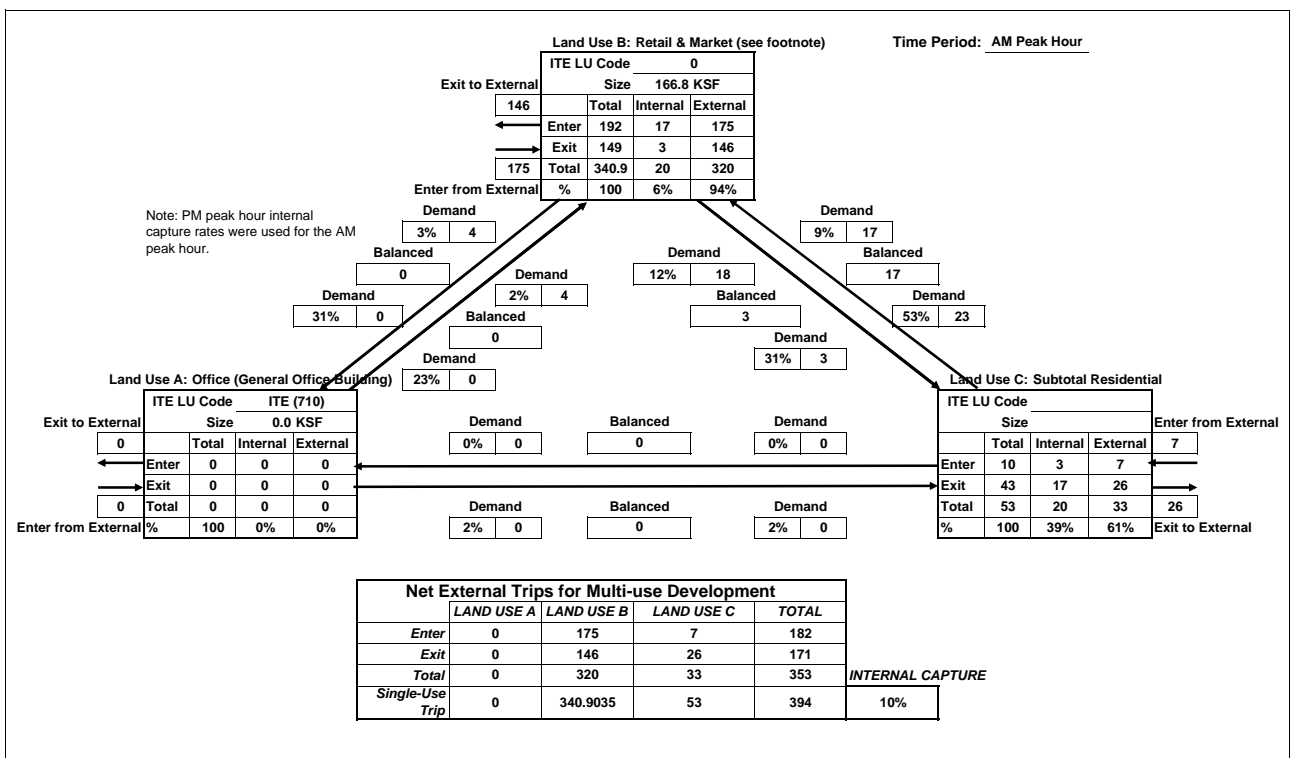
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



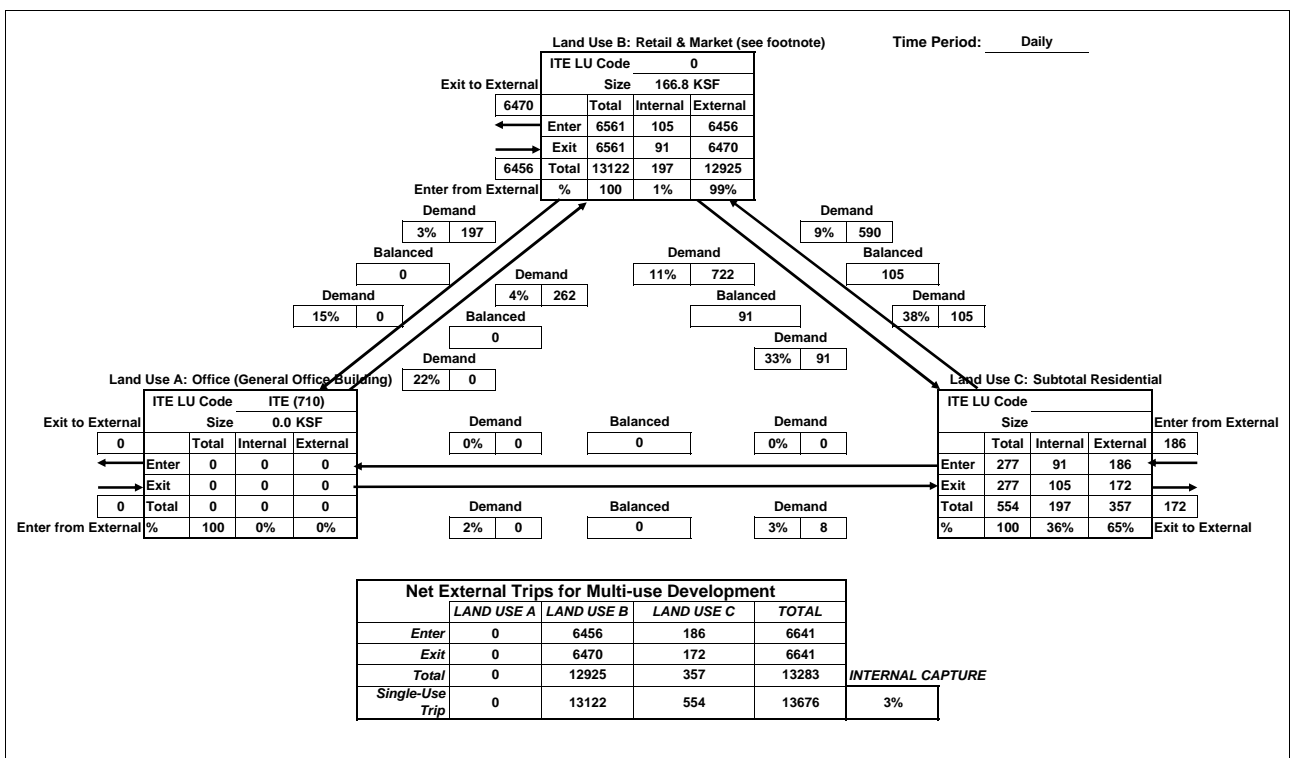
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

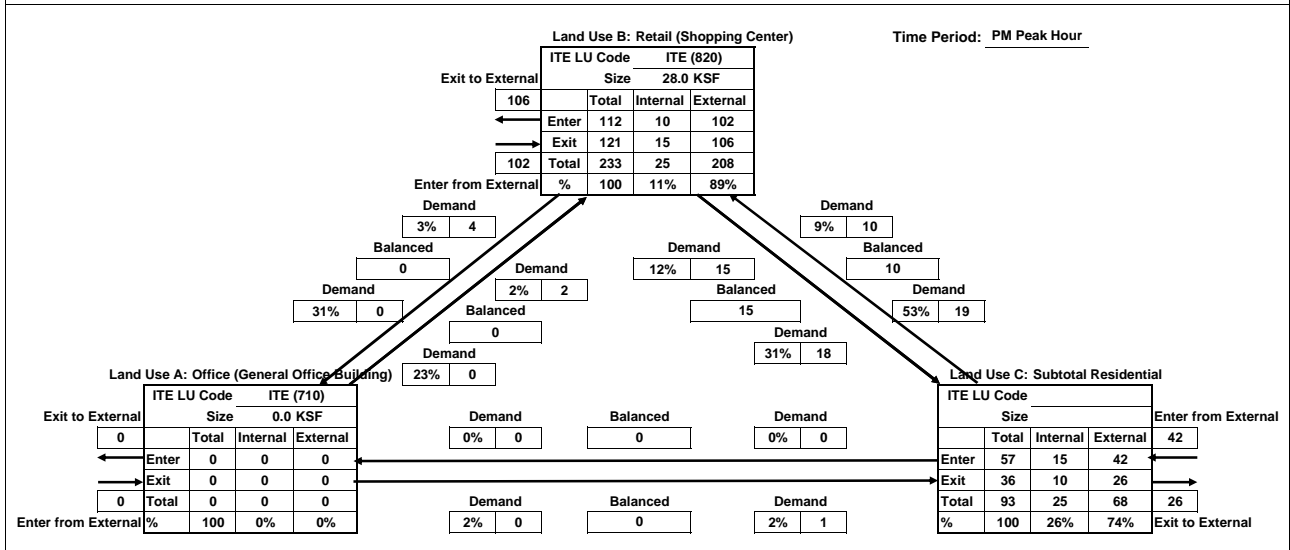
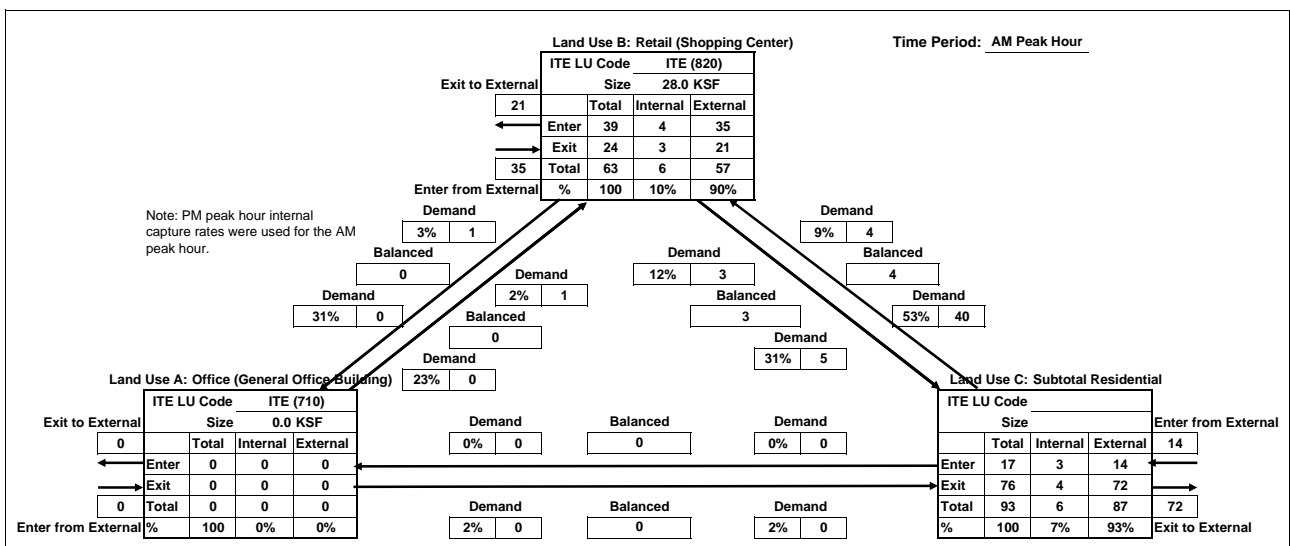


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



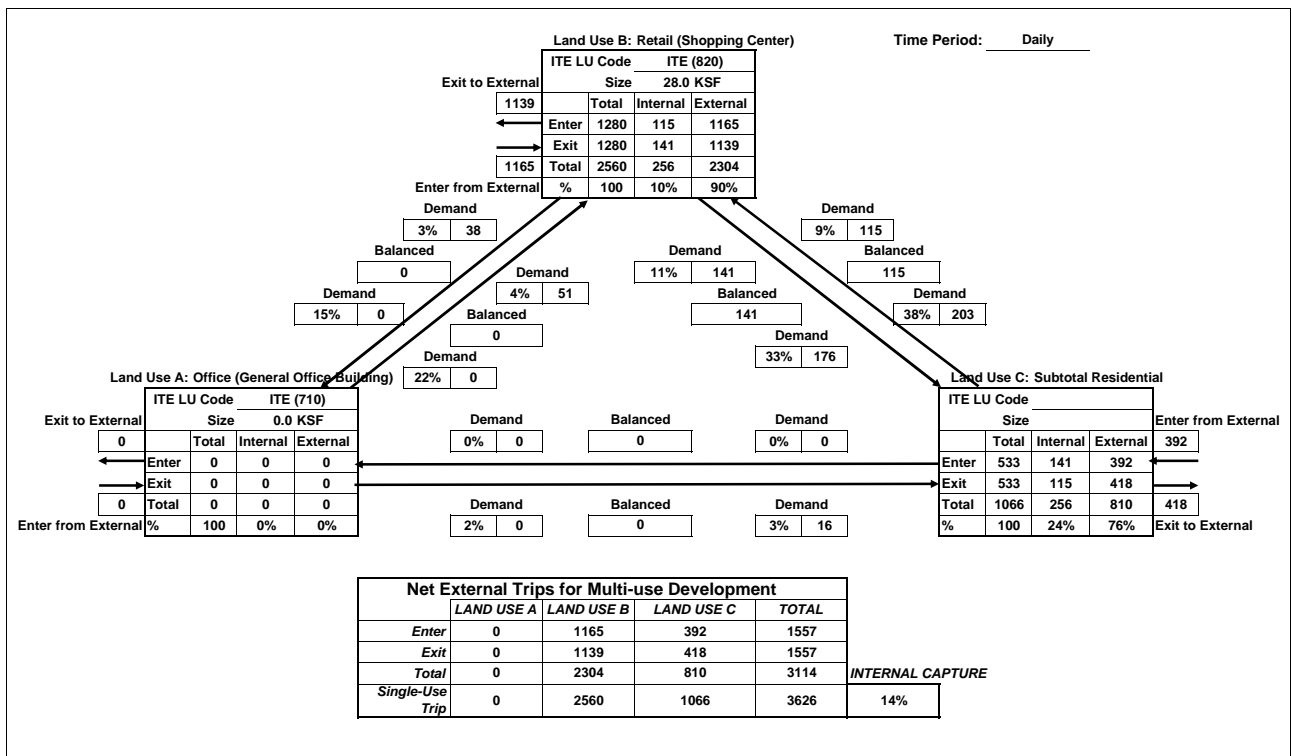
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

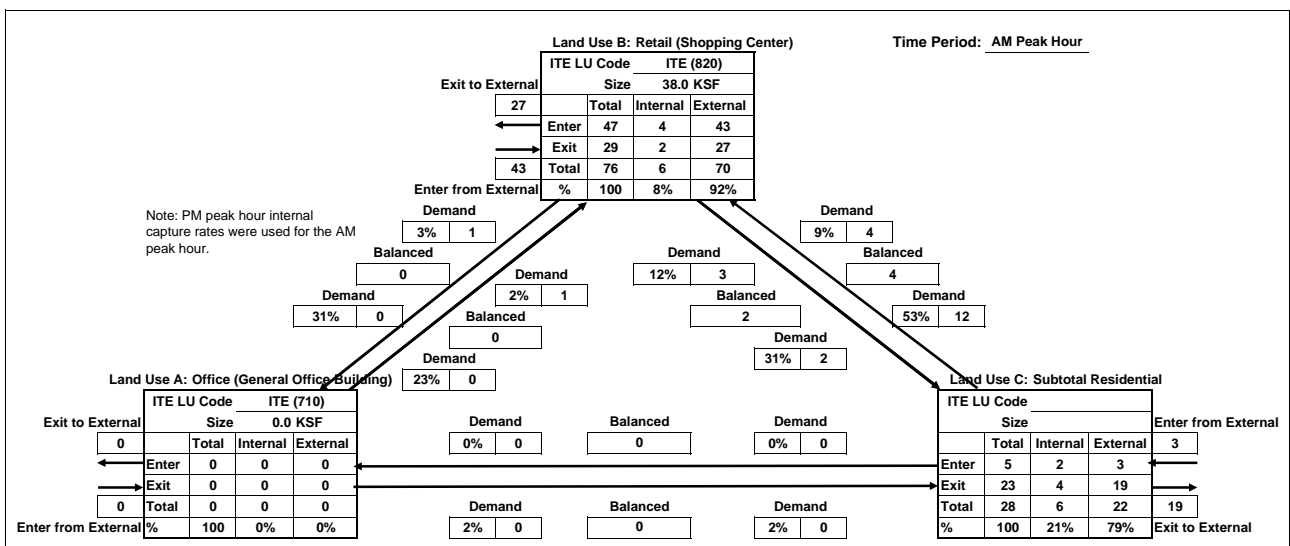


Analyst: Dowling

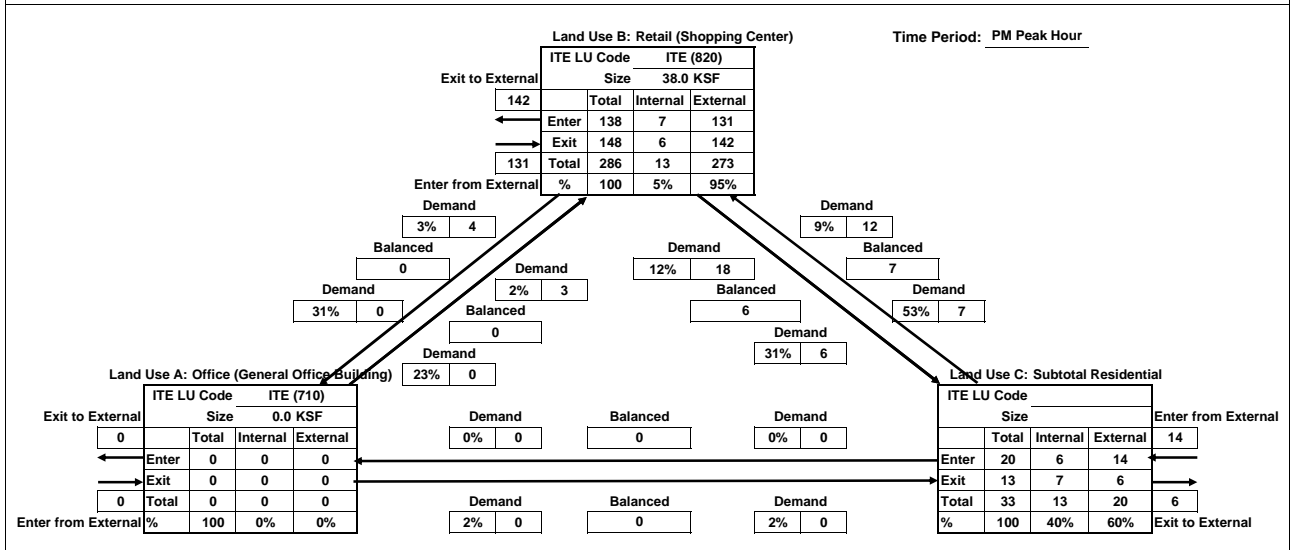
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	43	3	46	
Exit	0	27	19	46	
Total	0	70	22	92	INTERNAL CAPTURE
Single-Use Trip	0	76	28	104	11%



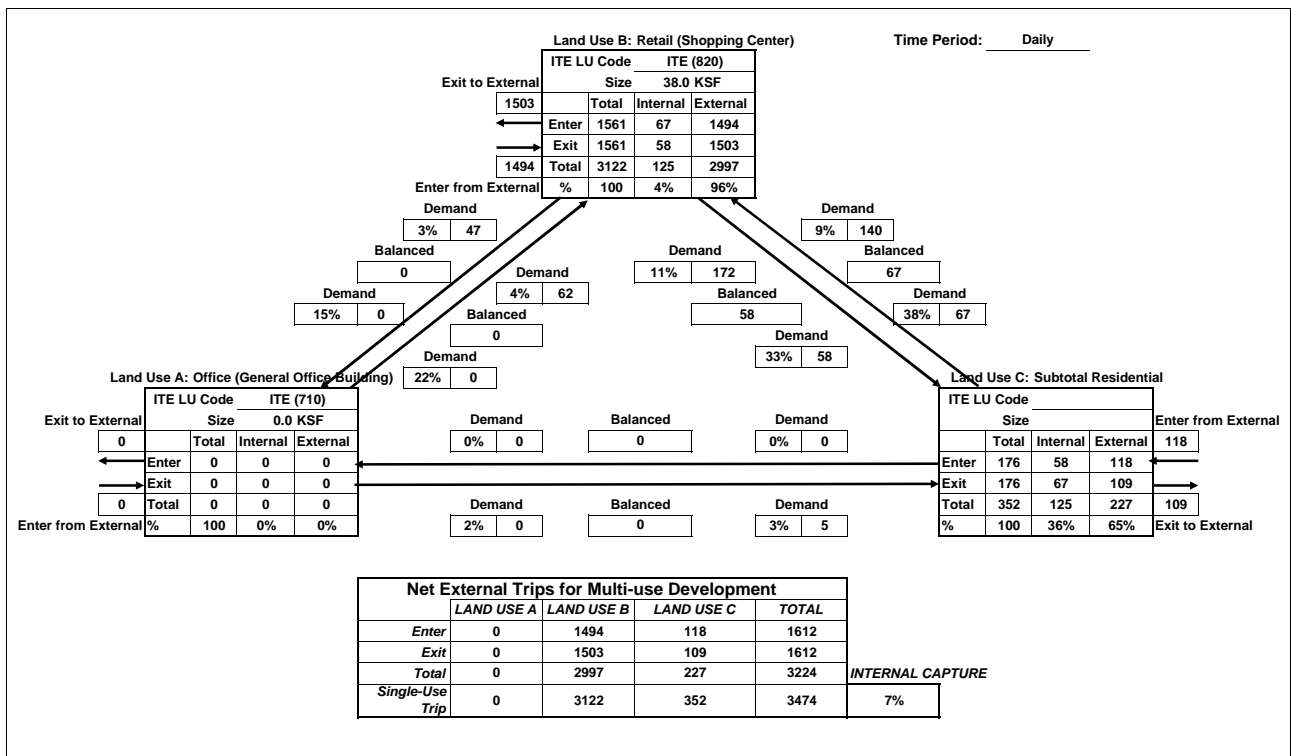
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	131	14	145	
Exit	0	142	6	148	
Total	0	273	20	293	INTERNAL CAPTURE
Single-Use Trip	0	286	33	319	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

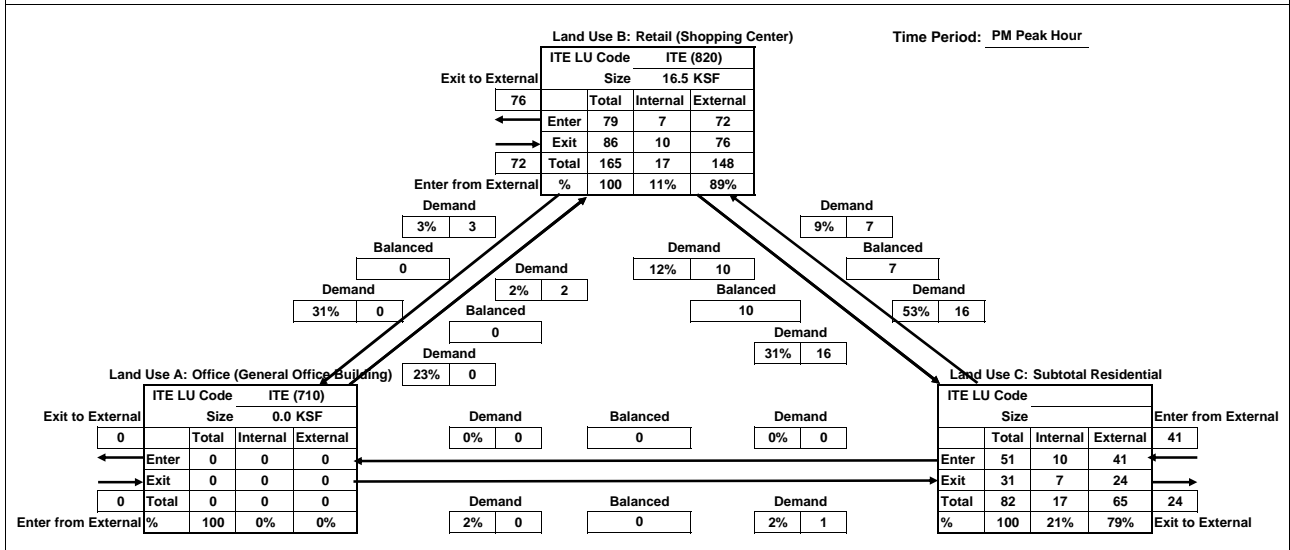
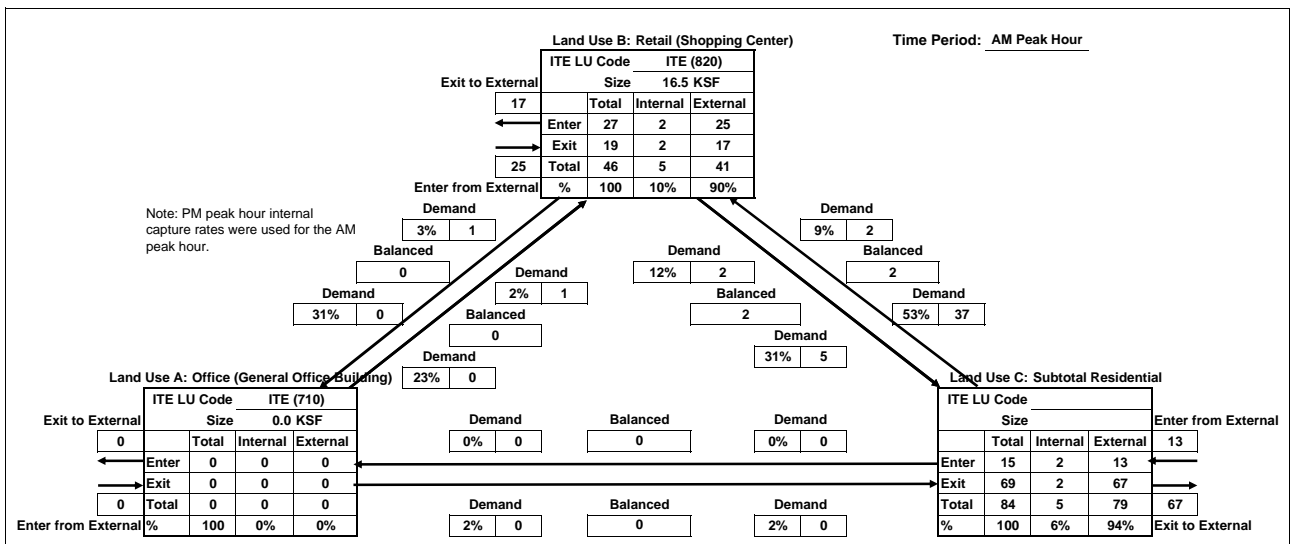
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

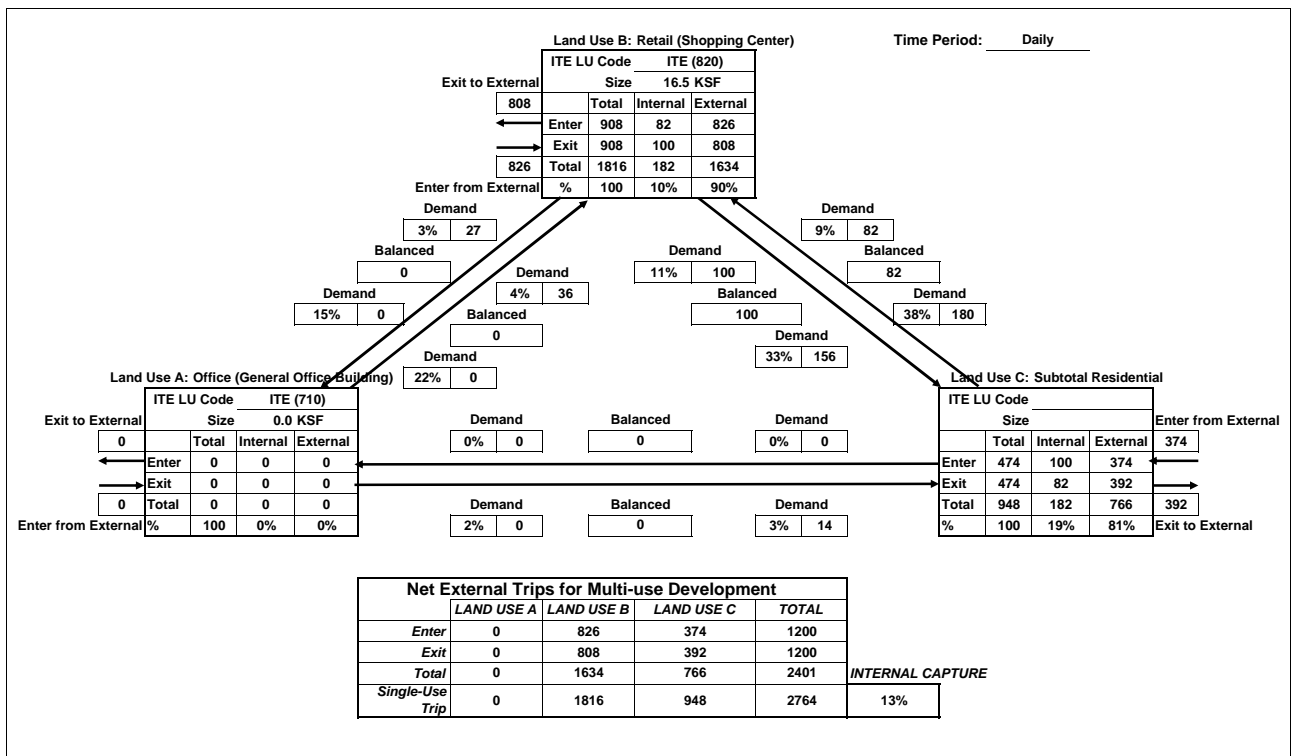


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

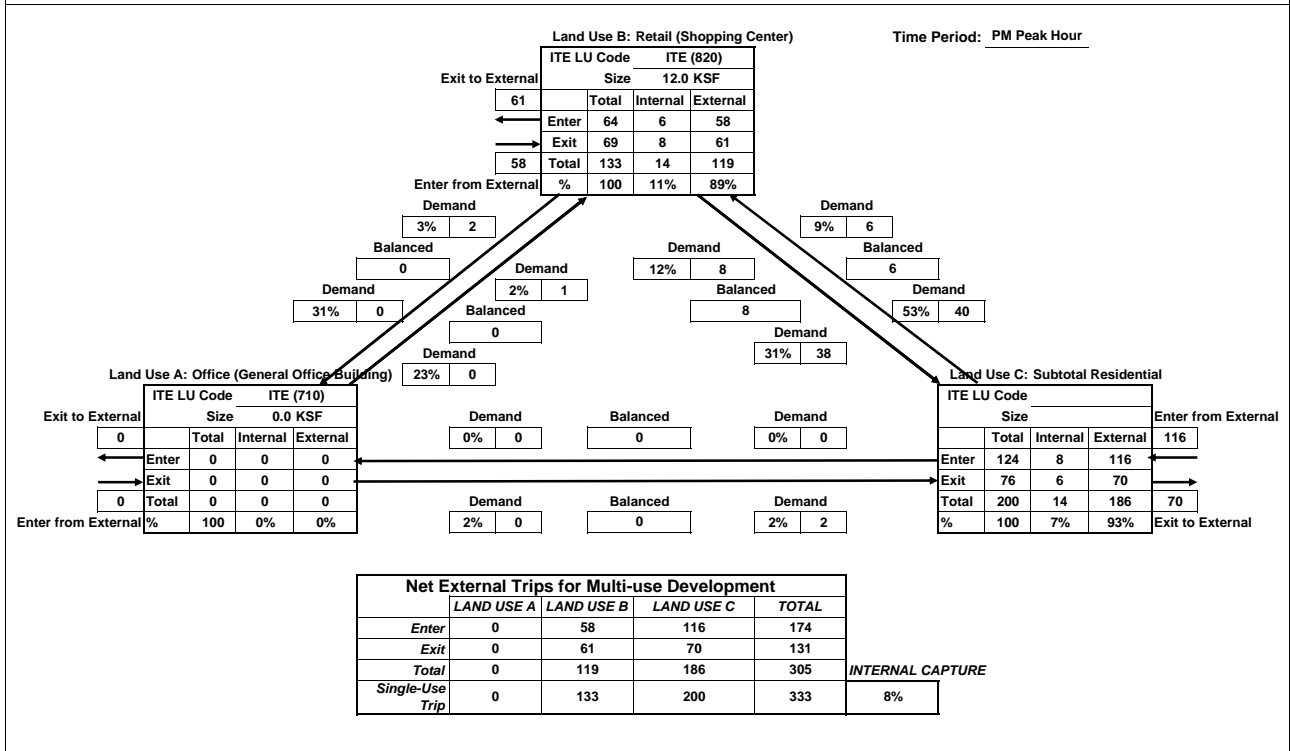
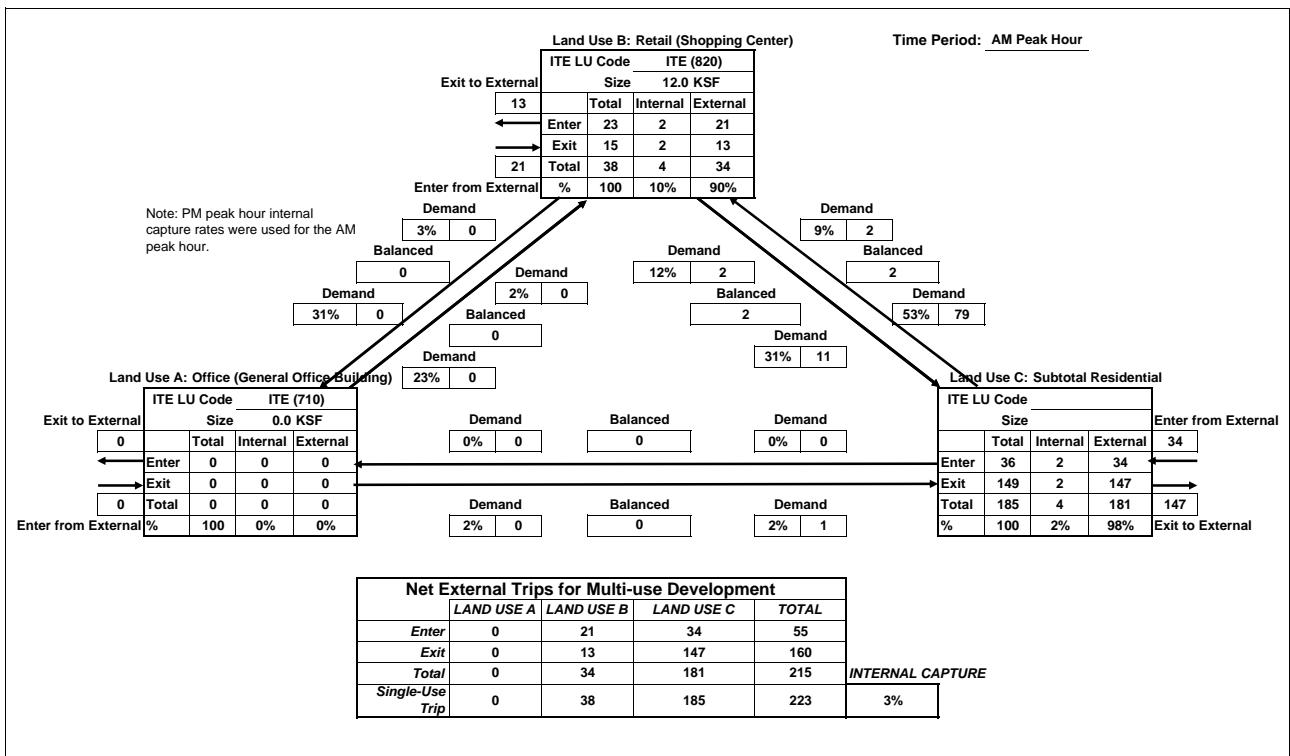


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



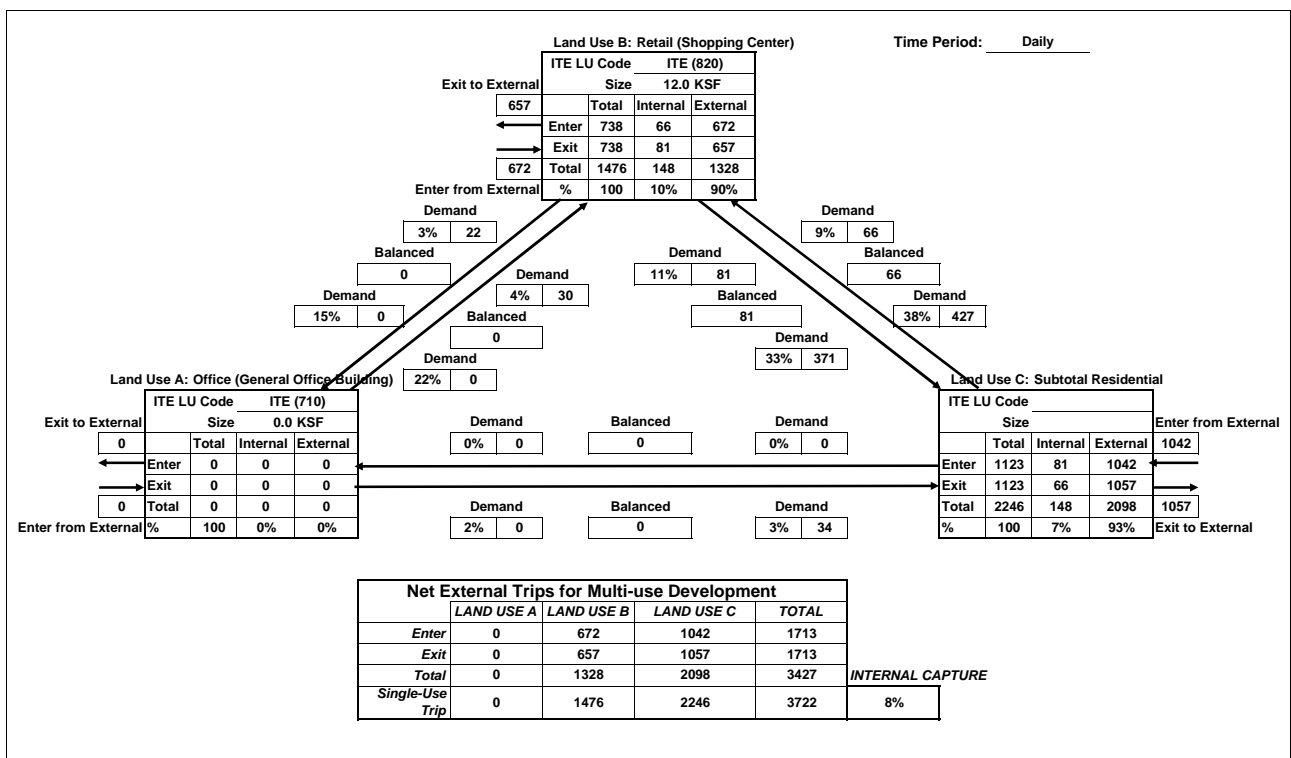
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

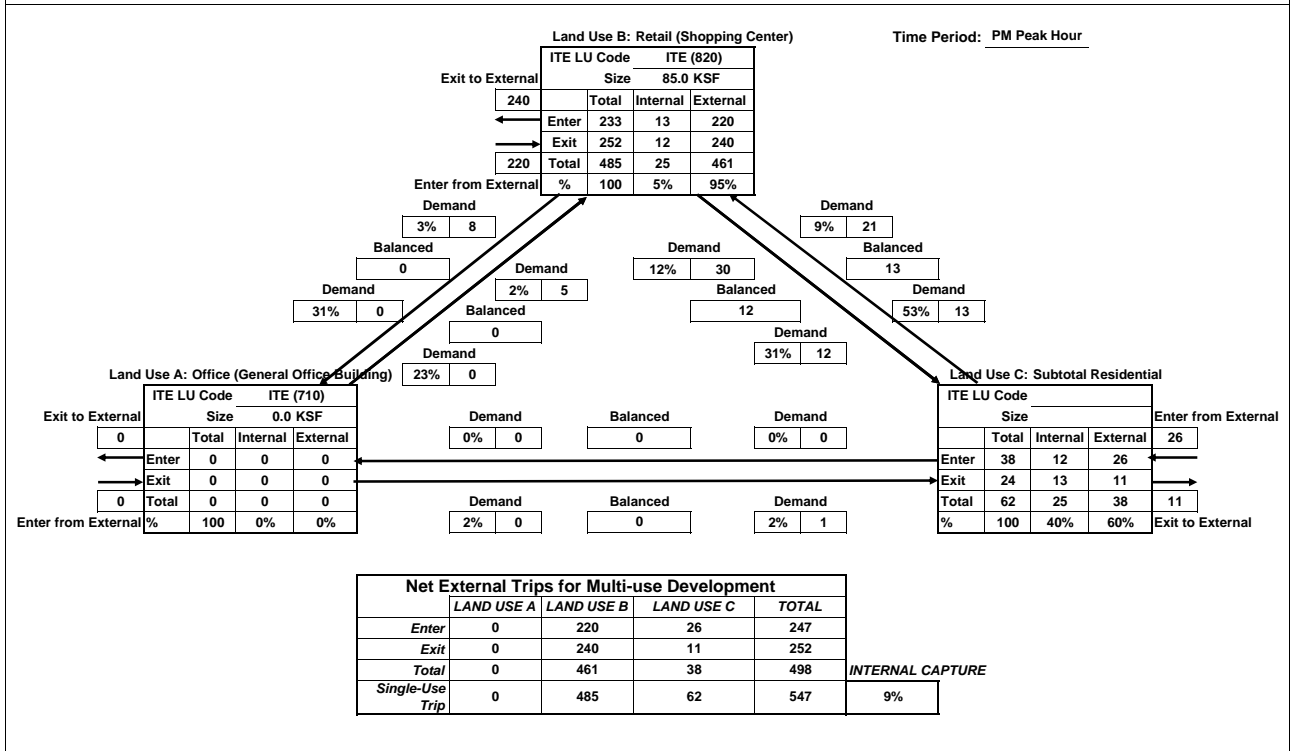
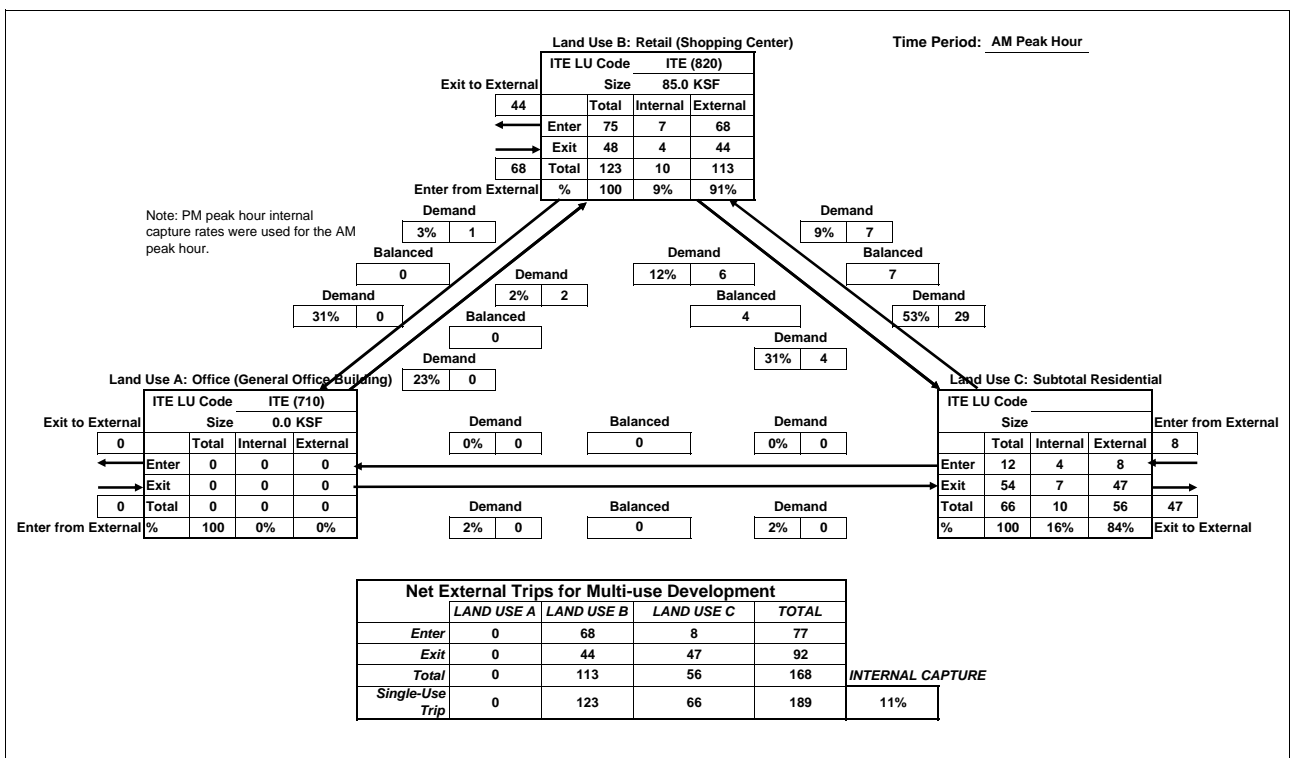


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

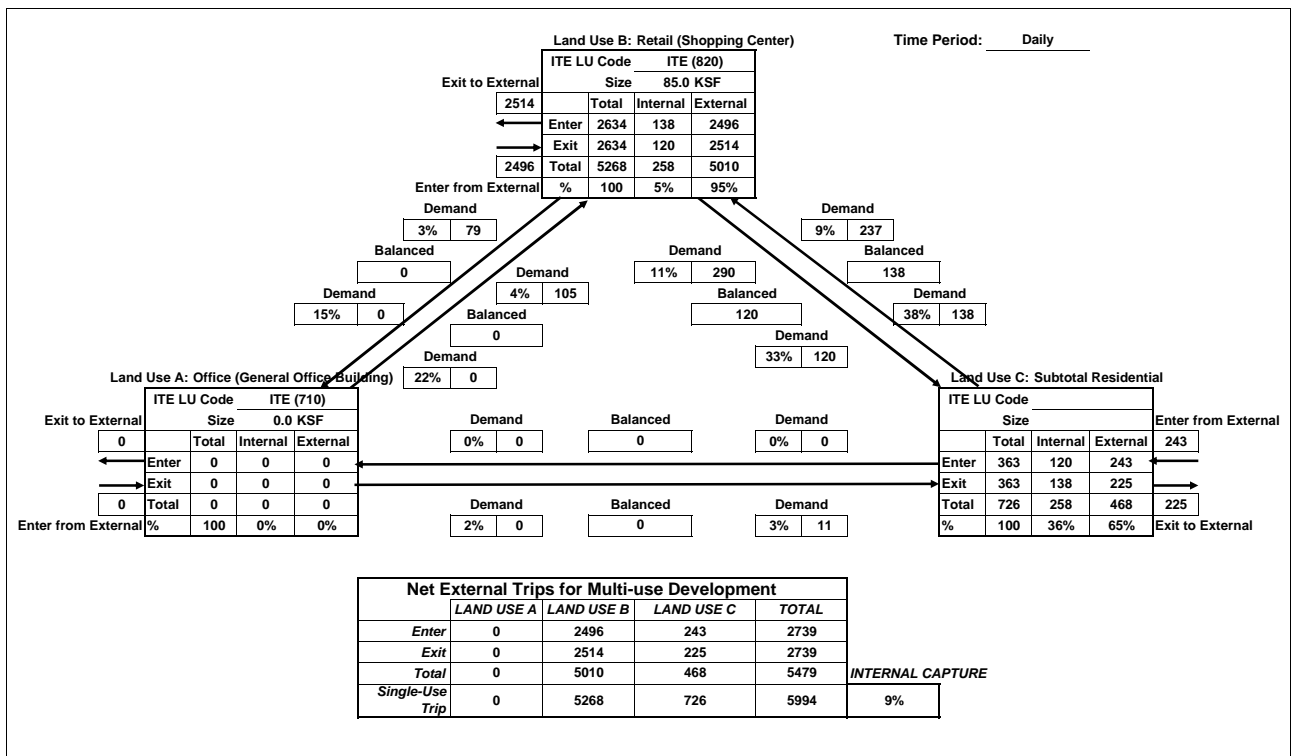


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

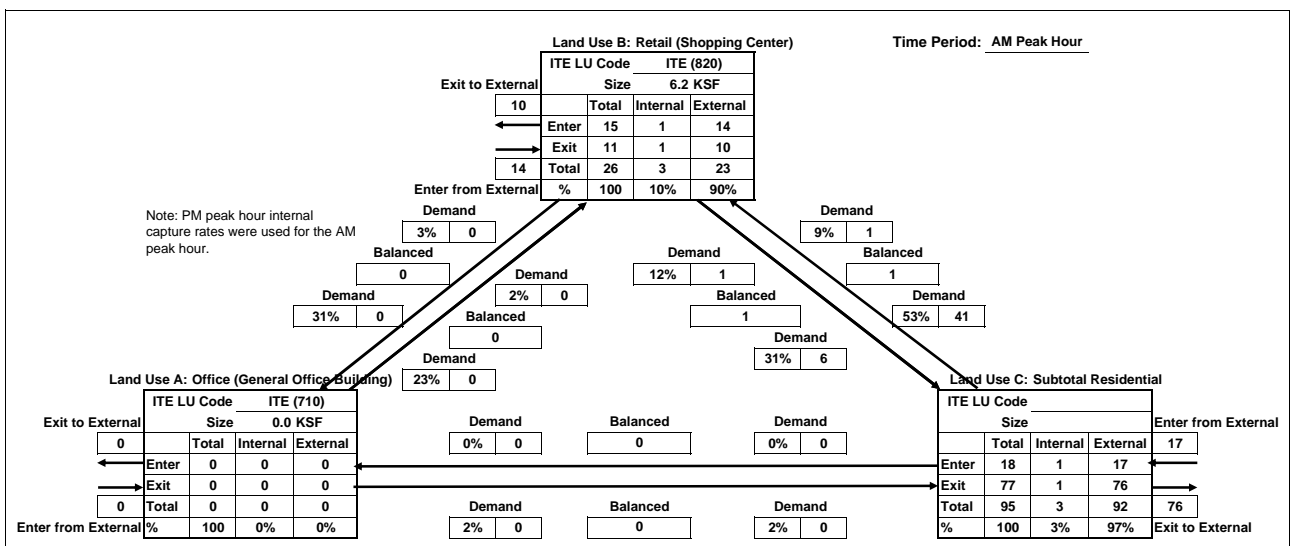


Analyst: Dowling

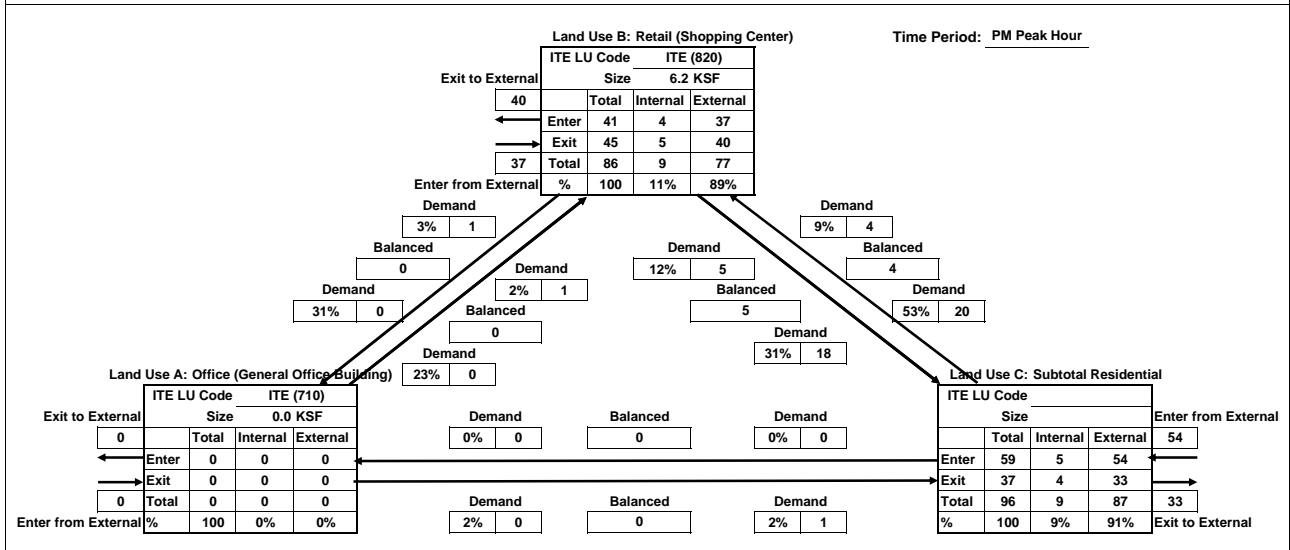
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	14	17	30	
Exit	0	10	76	85	
Total	0	23	92	116	INTERNAL CAPTURE
Single-Use Trip	0	26	95	121	4%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	37	54	91	
Exit	0	40	33	73	
Total	0	77	87	164	INTERNAL CAPTURE
Single-Use Trip	0	86	96	182	10%

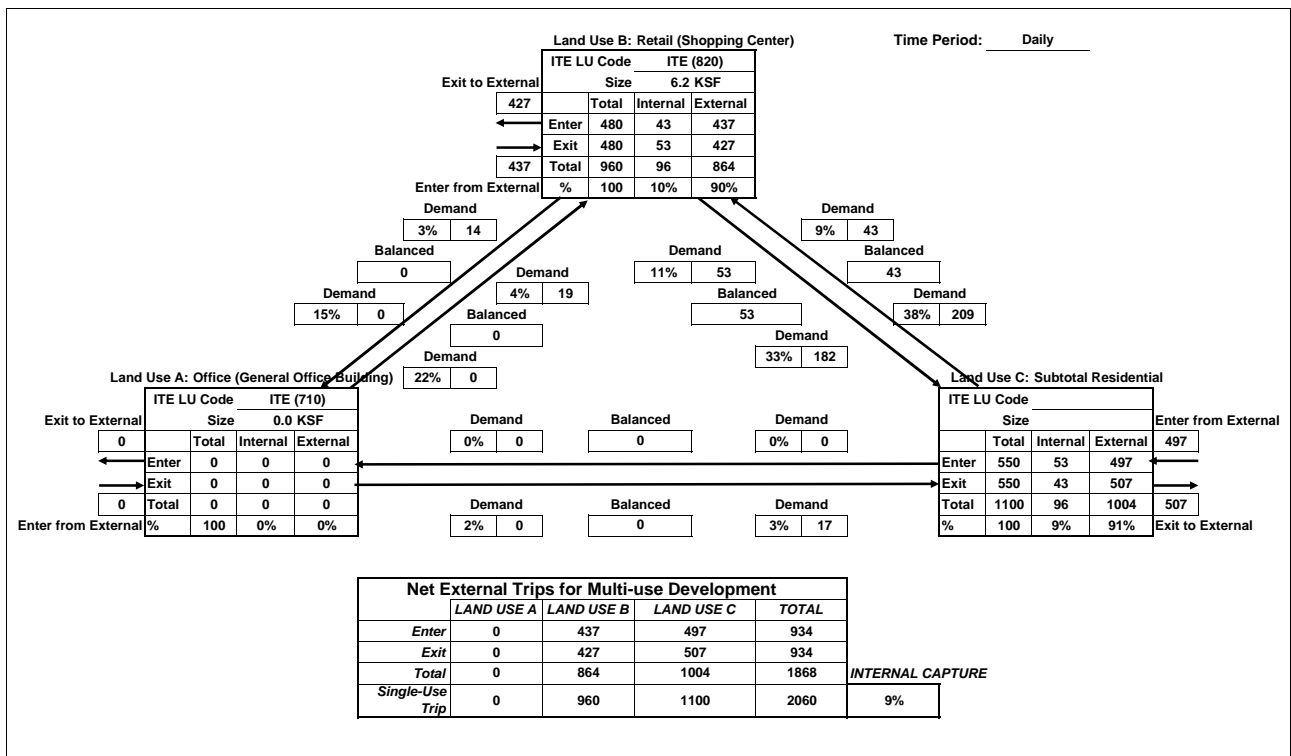
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

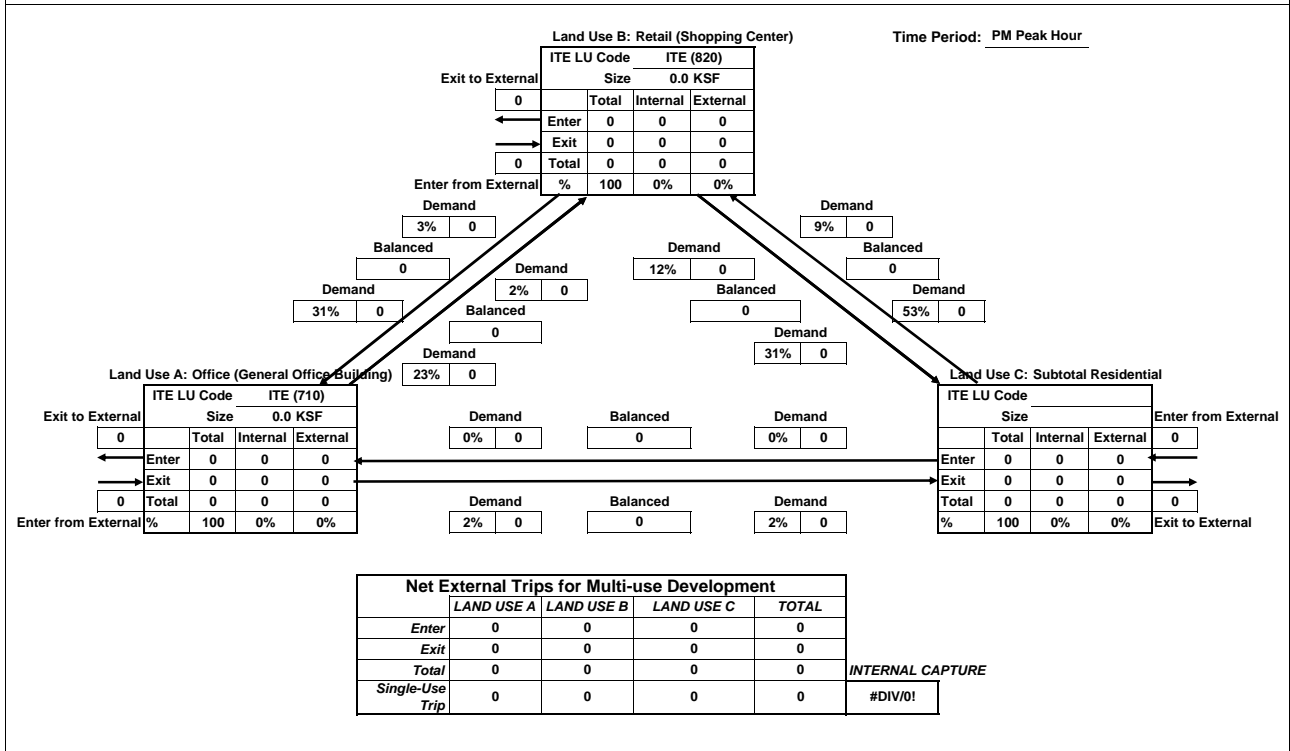
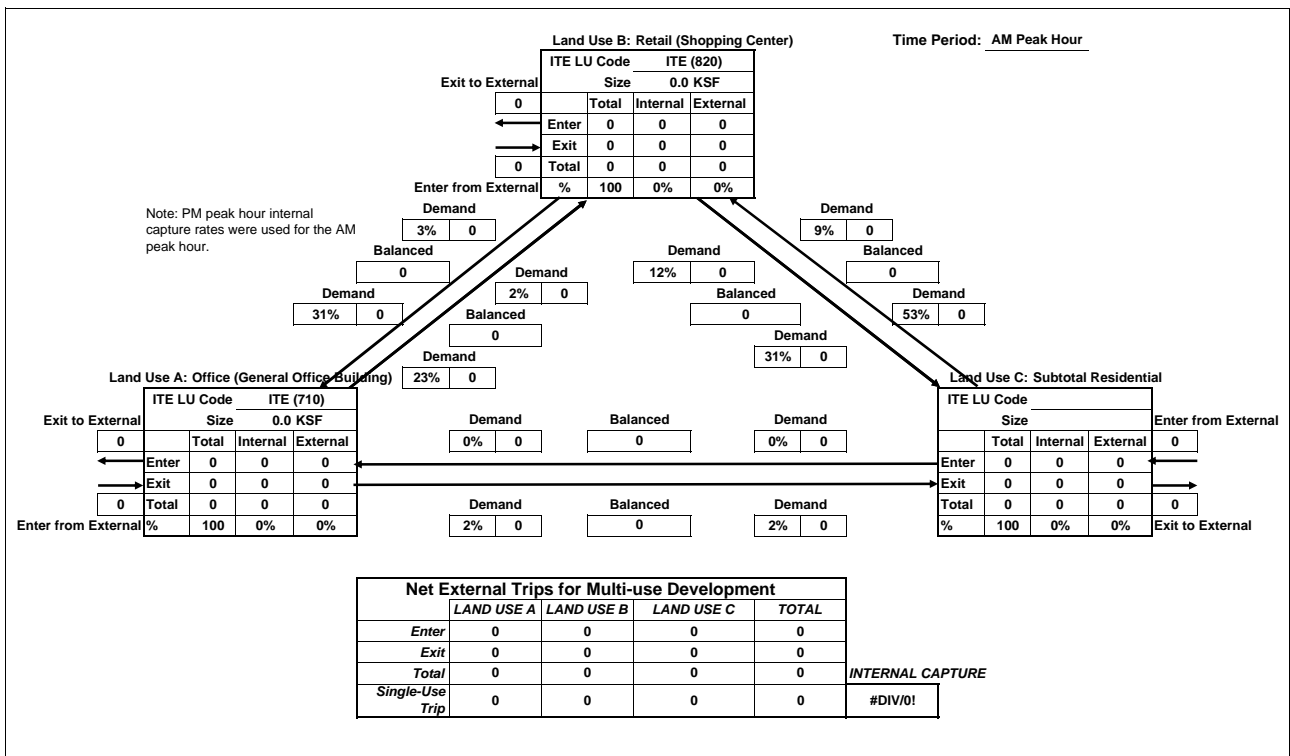


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



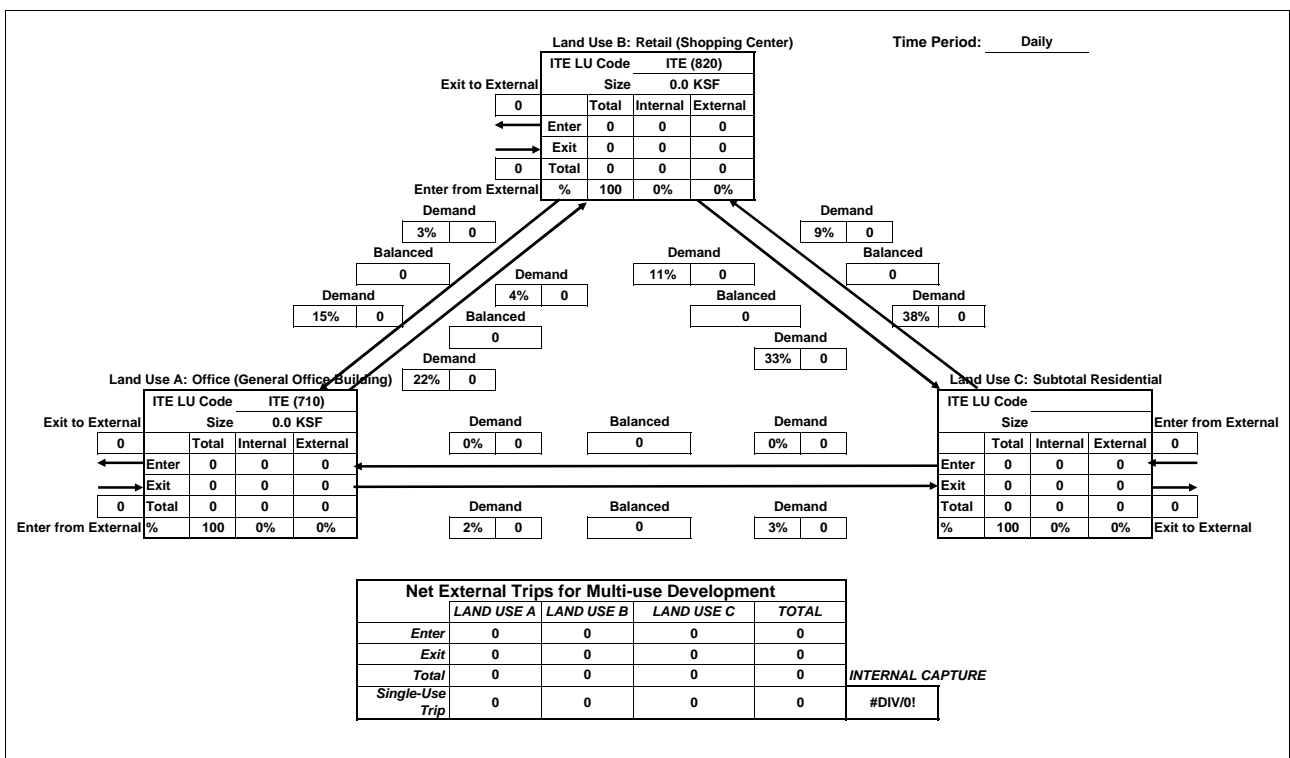
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

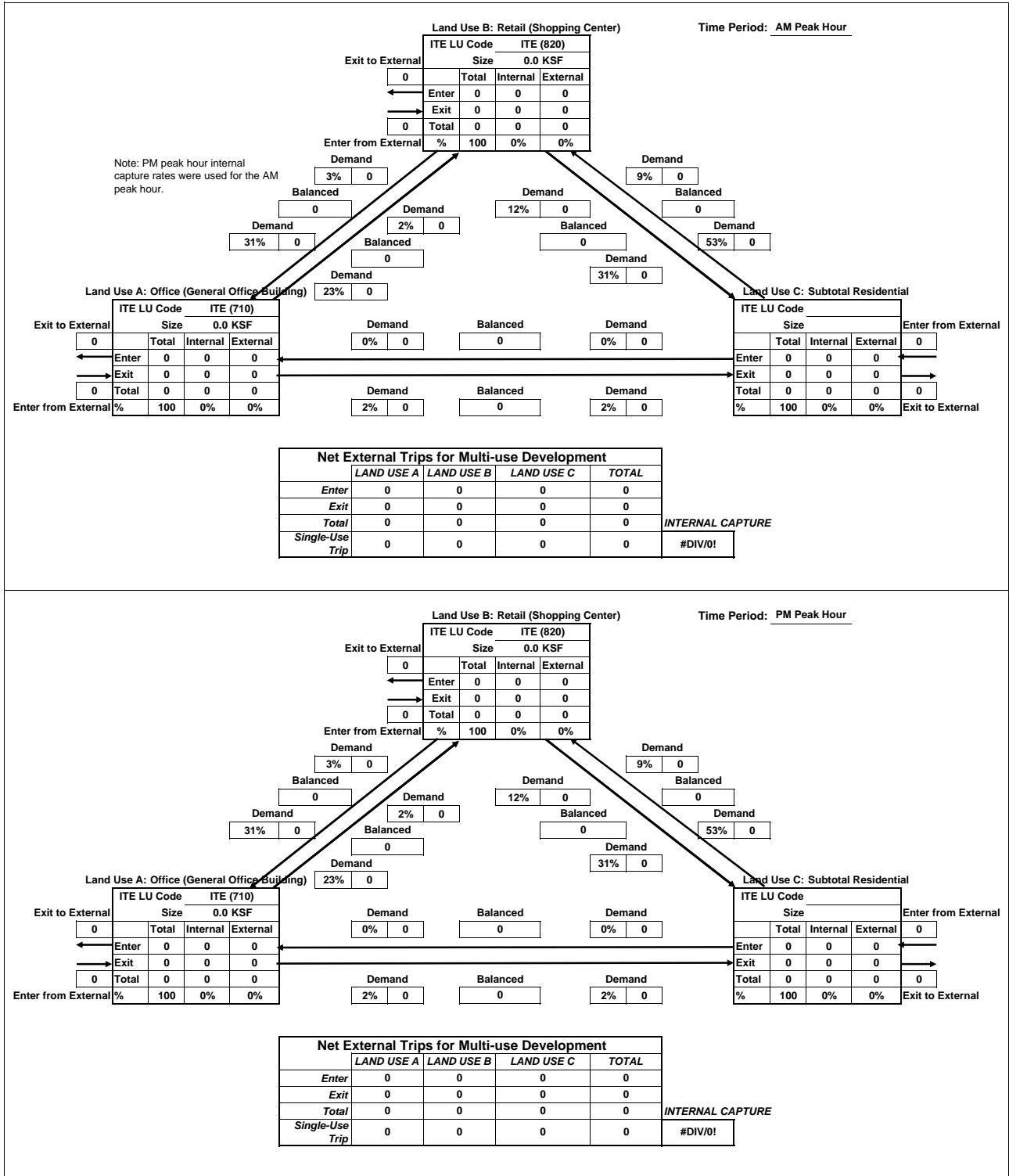
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

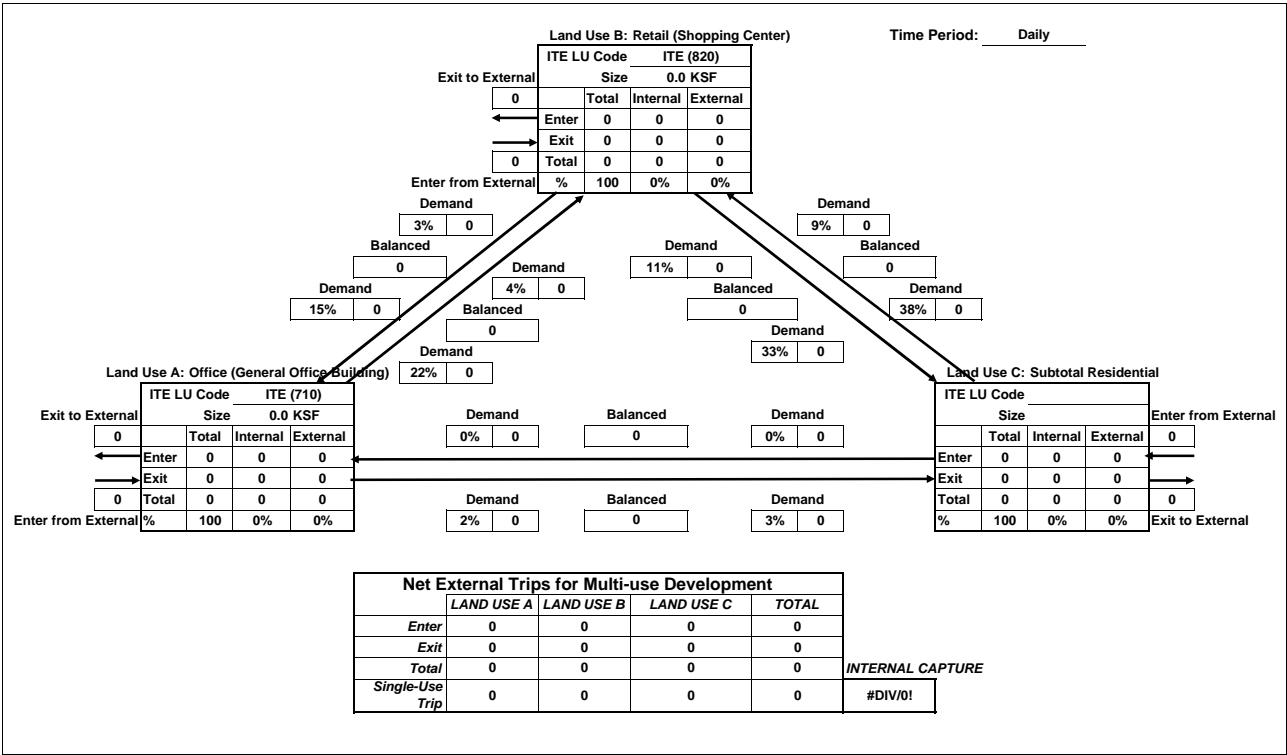


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

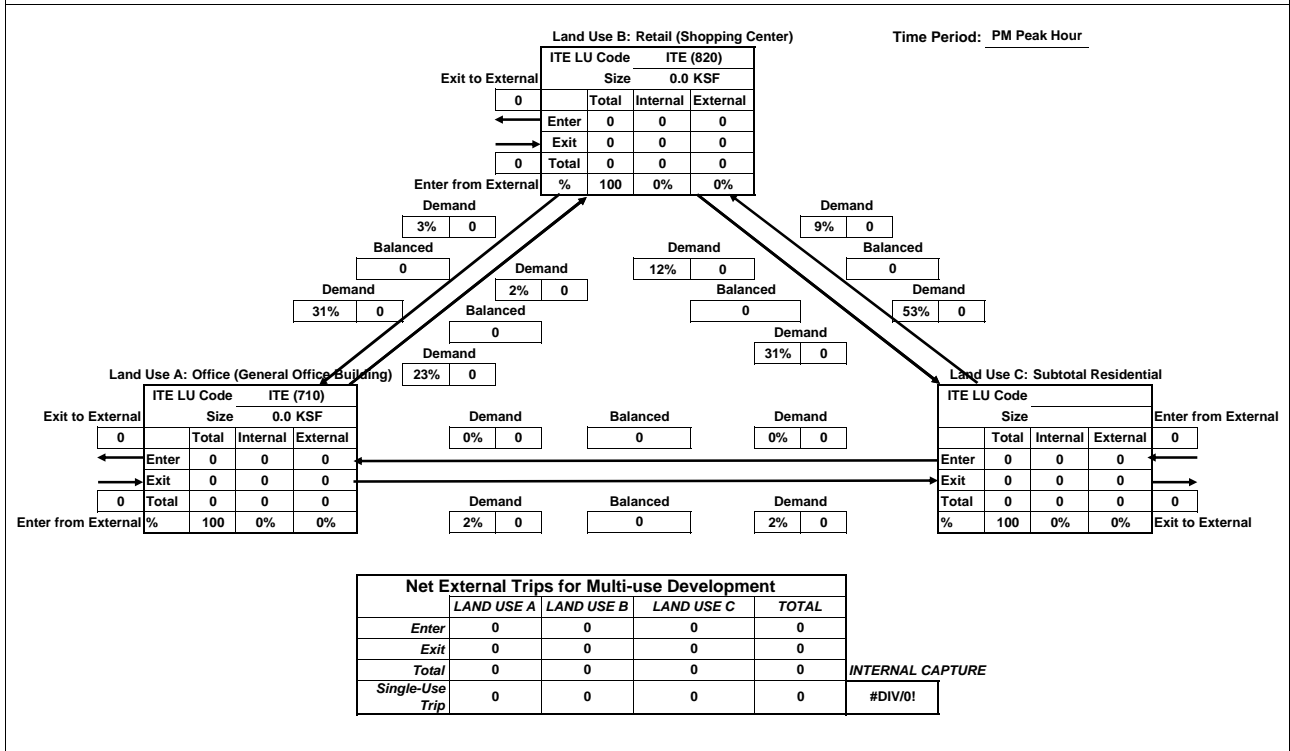
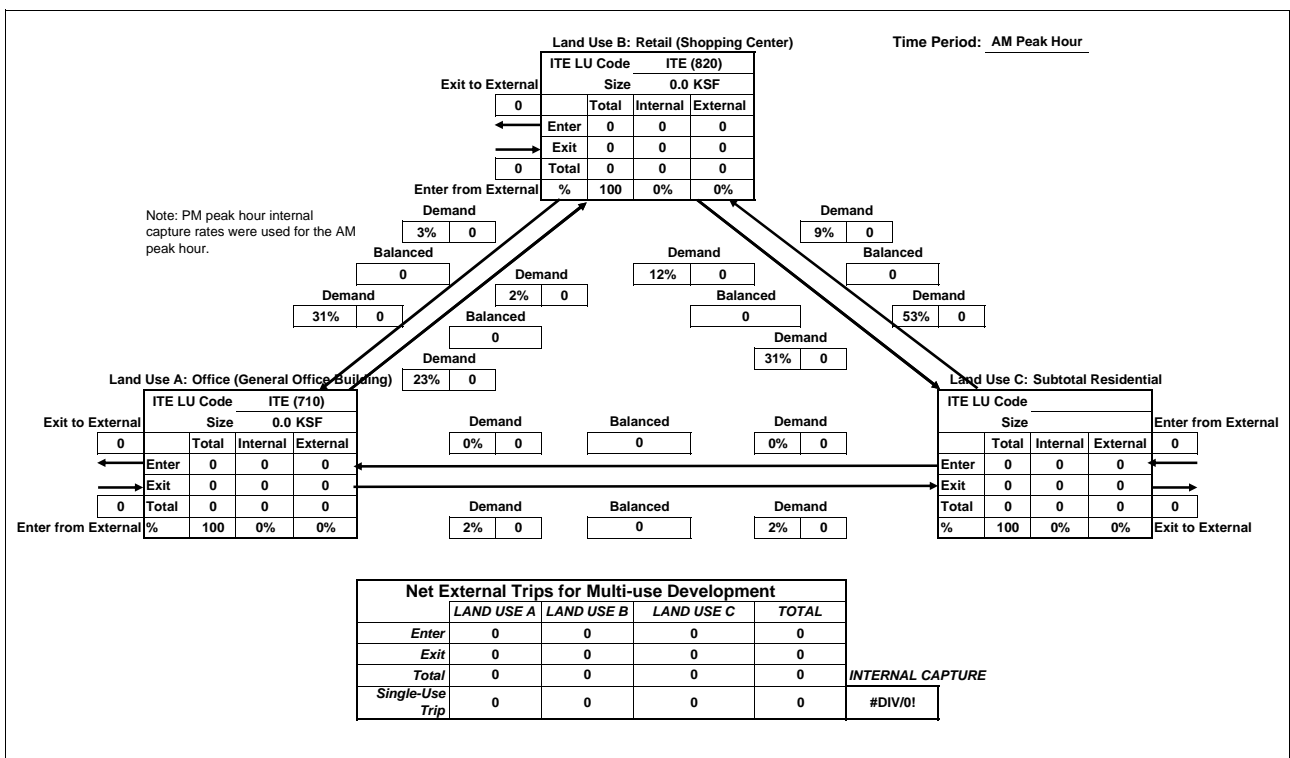


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



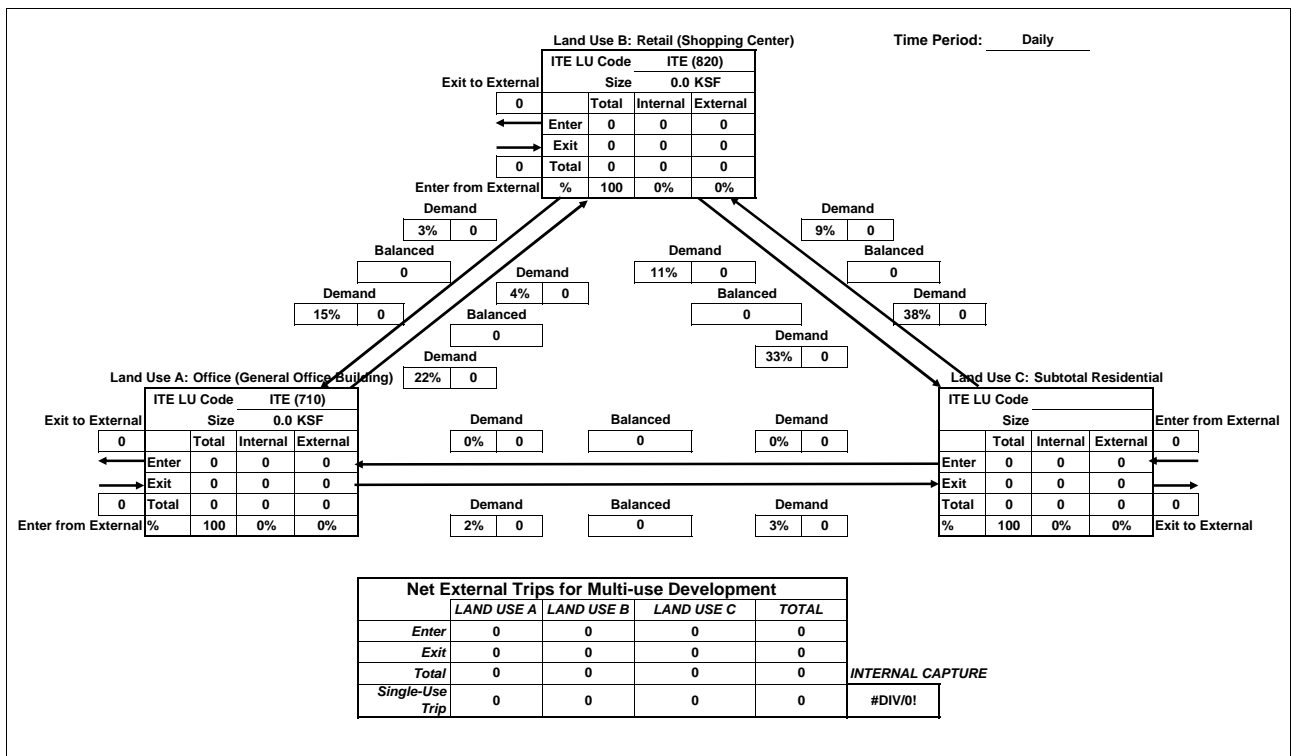
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

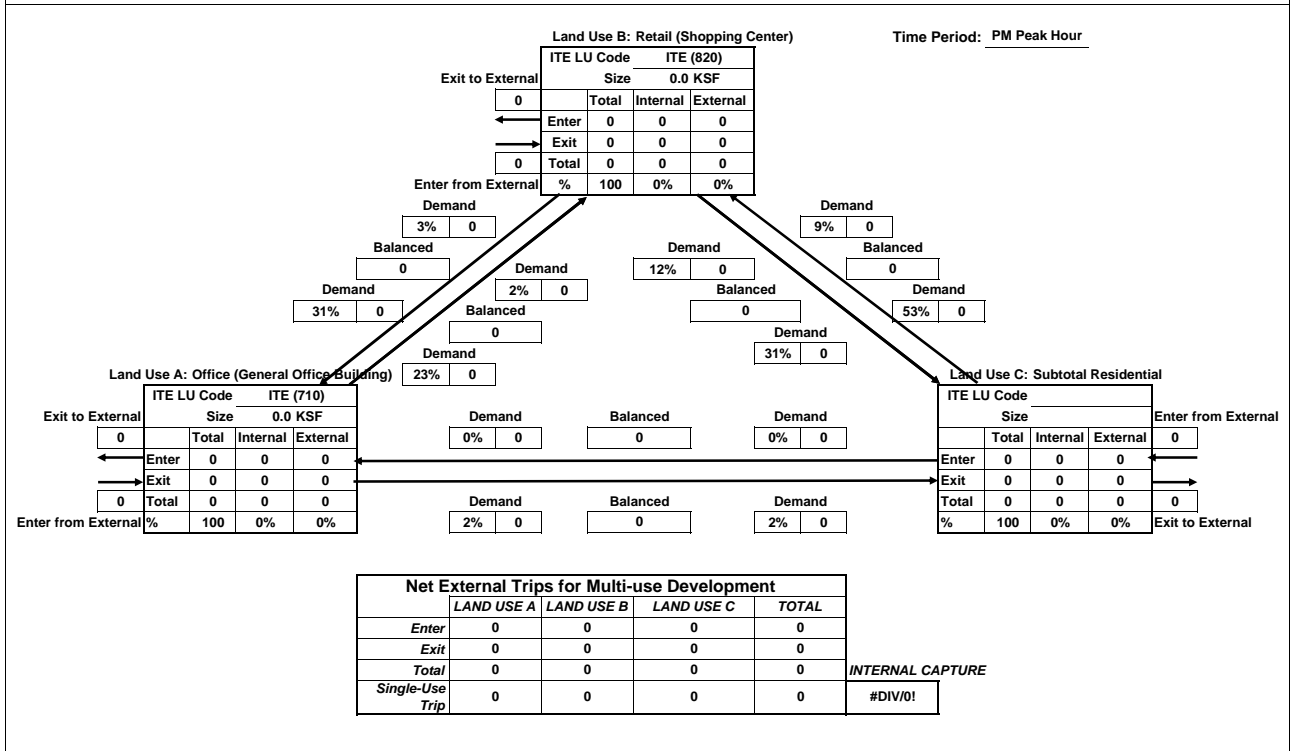
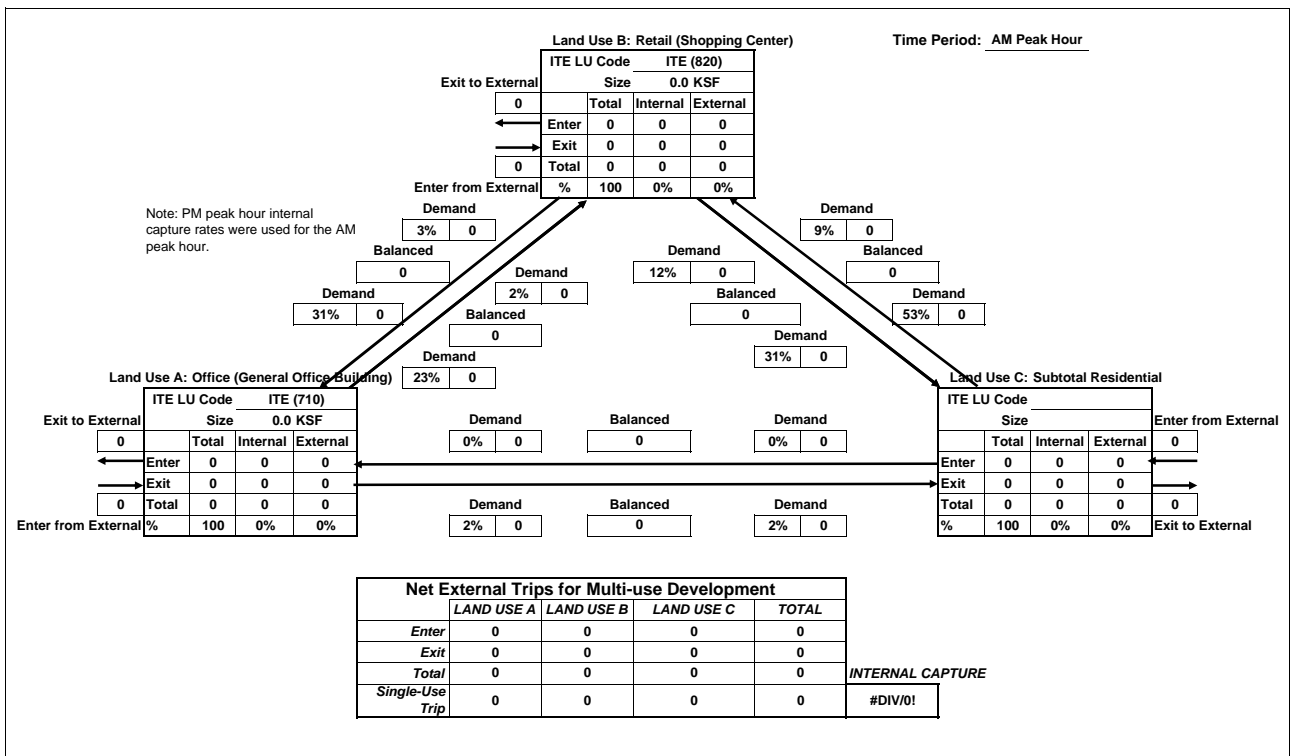
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



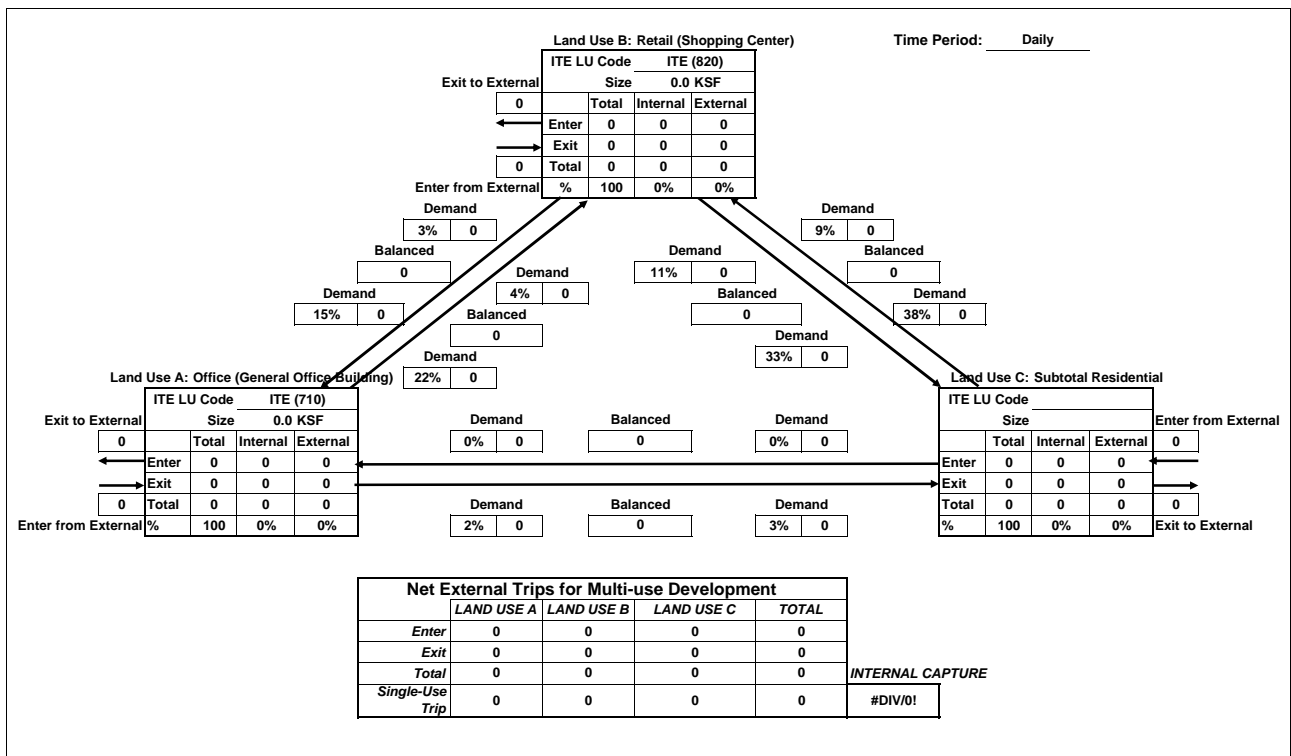
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 20: Bounded by South Park, N. 10th, Railyards, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

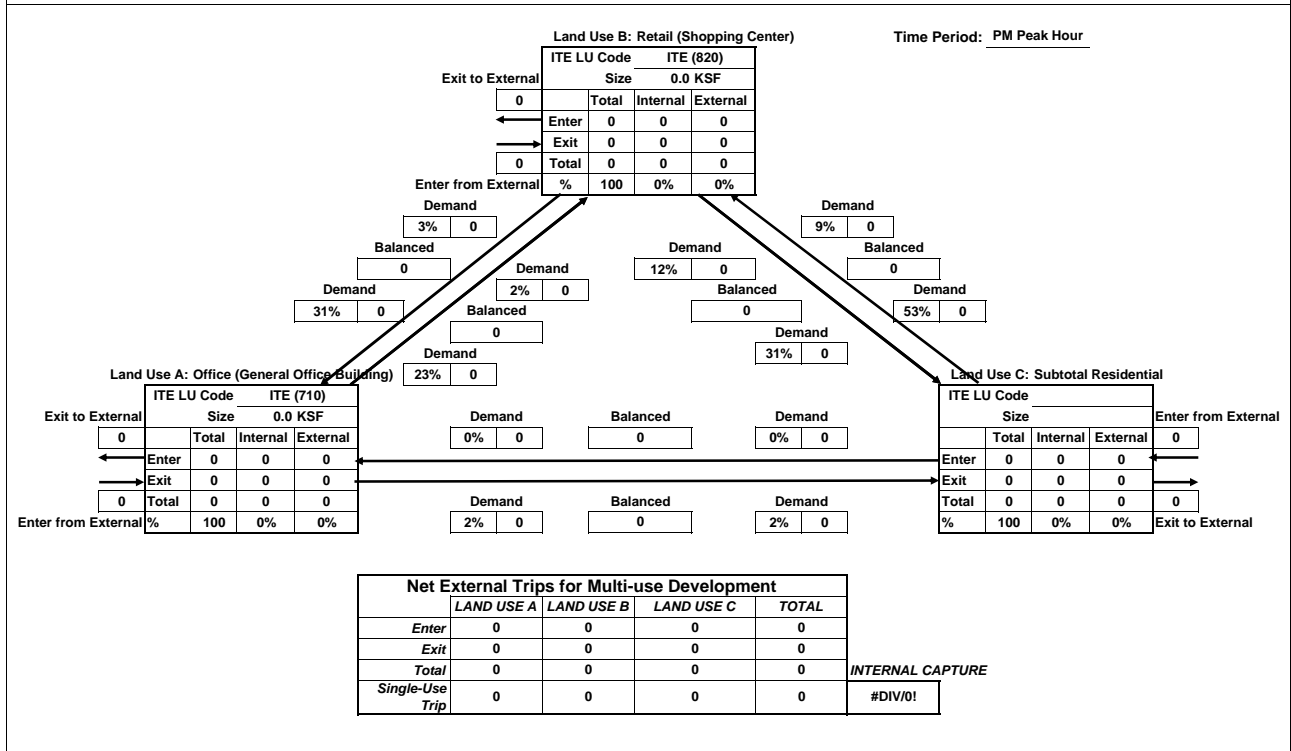
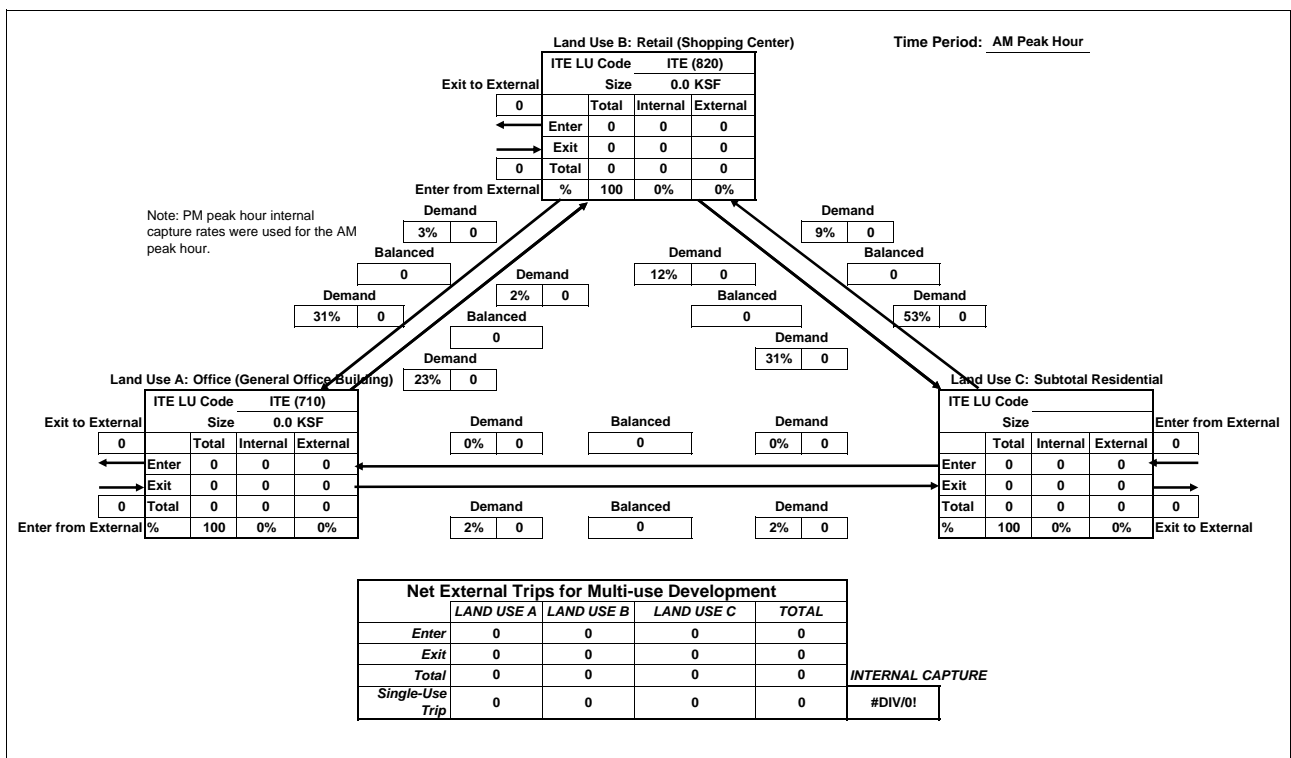
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

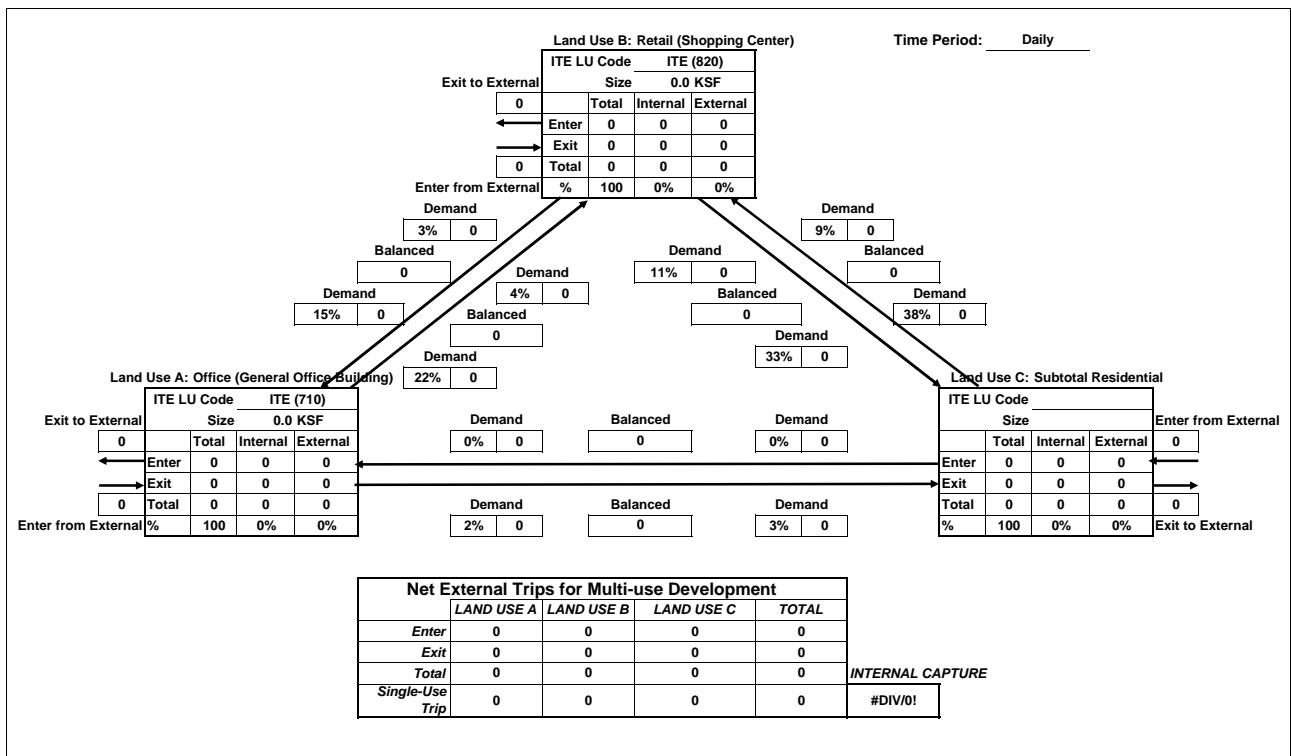


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

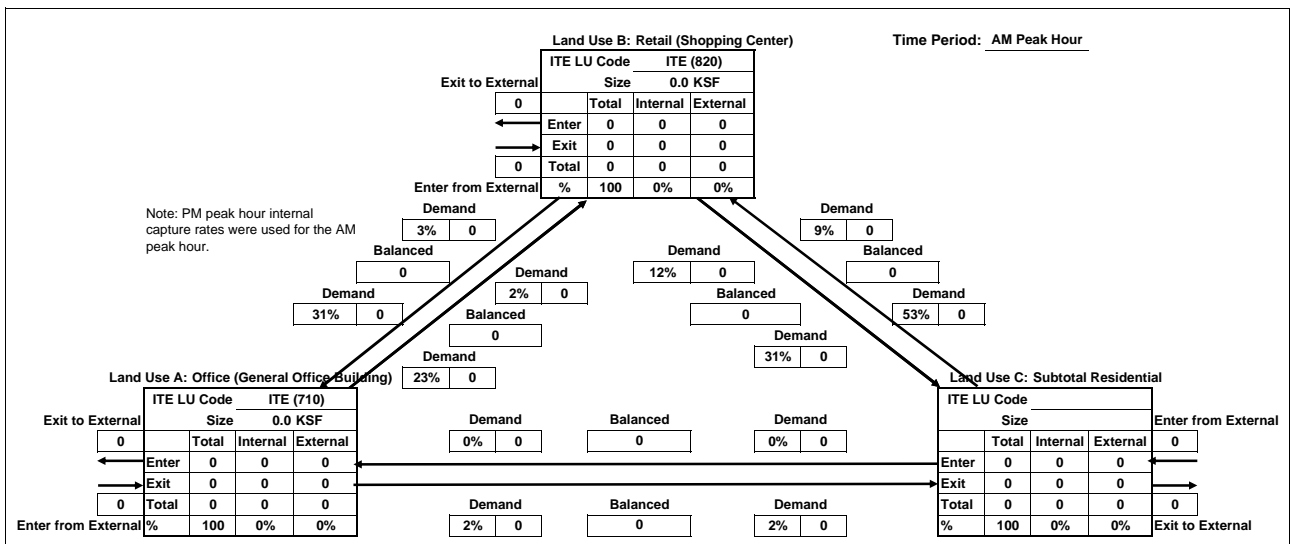


Analyst: Dowling

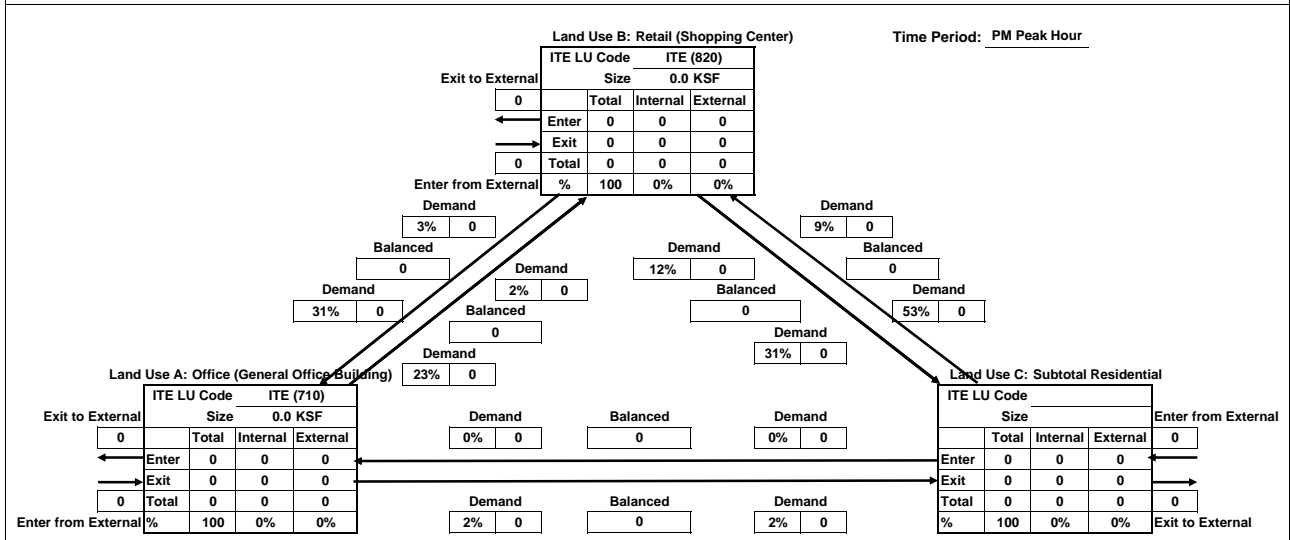
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	0	0	
Exit	0	0	0	0	
Total	0	0	0	0	INTERNAL CAPTURE
Single-Use Trip	0	0	0	0	#DIV/0!



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	0	0	
Exit	0	0	0	0	
Total	0	0	0	0	INTERNAL CAPTURE
Single-Use Trip	0	0	0	0	#DIV/0!

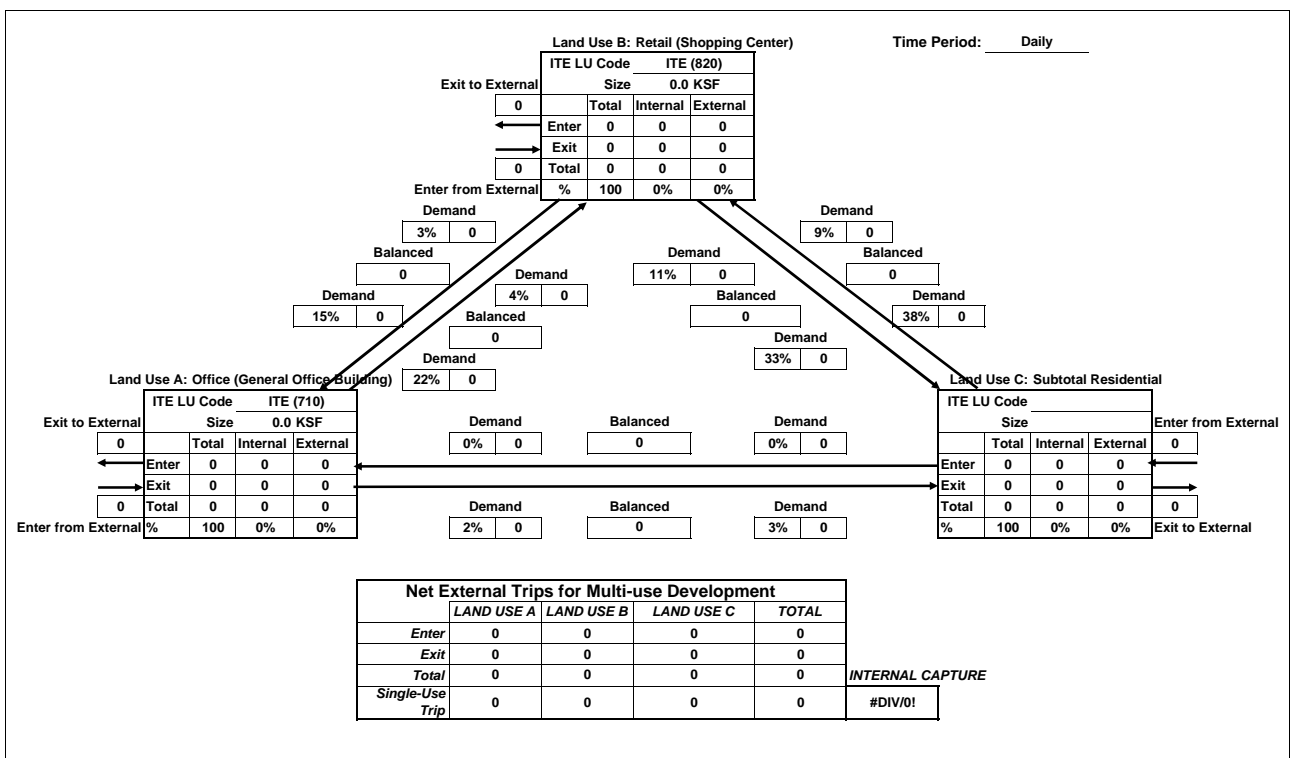
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

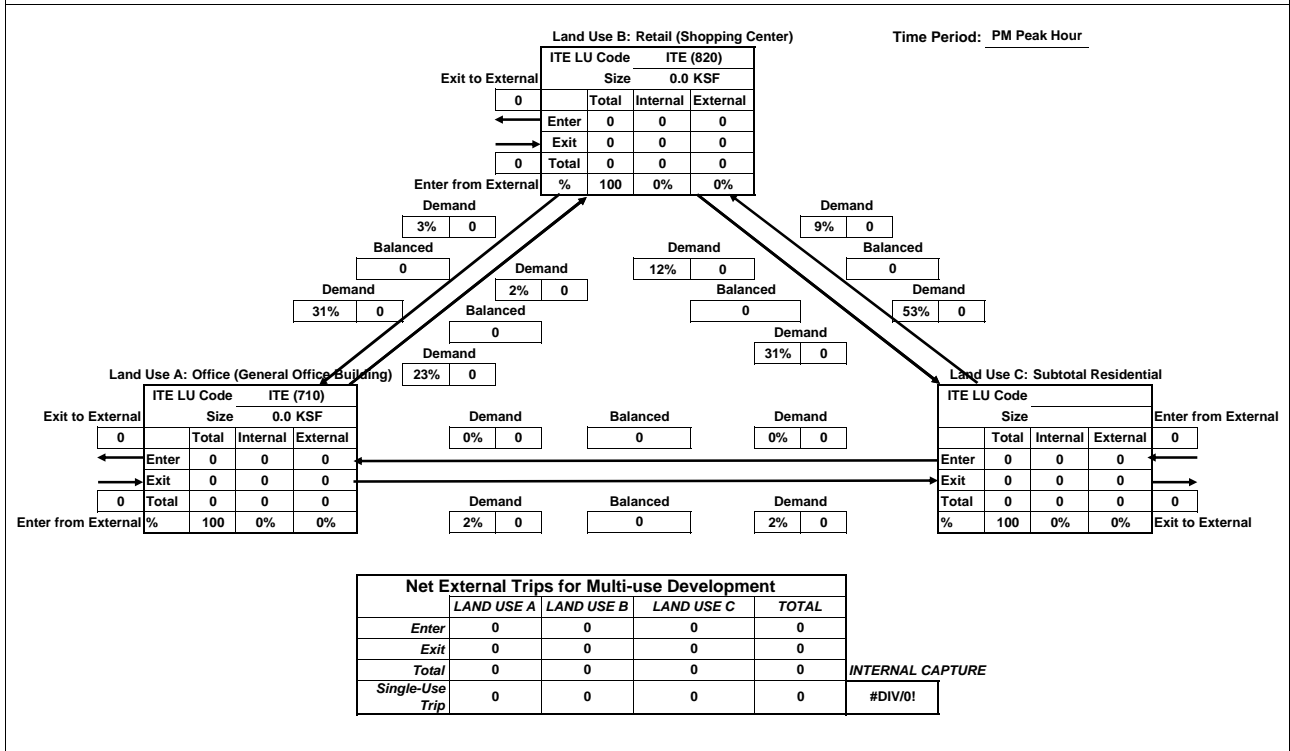
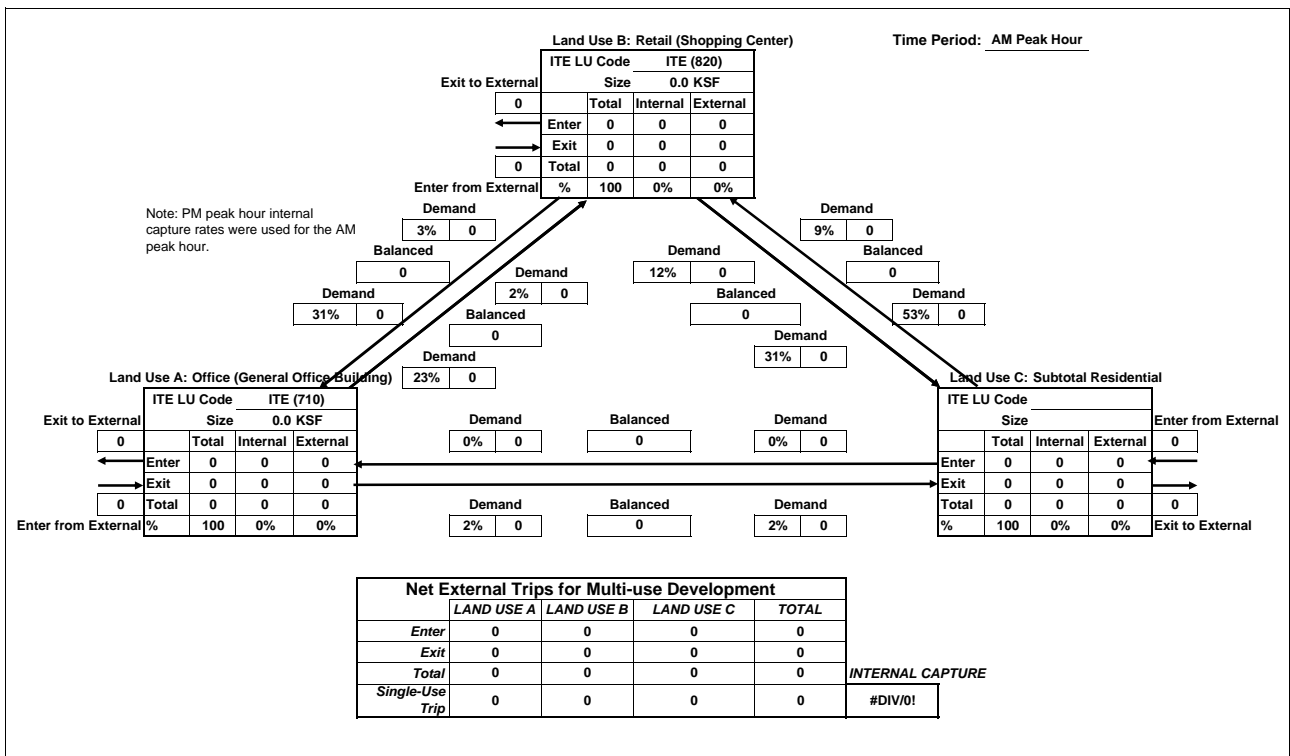


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



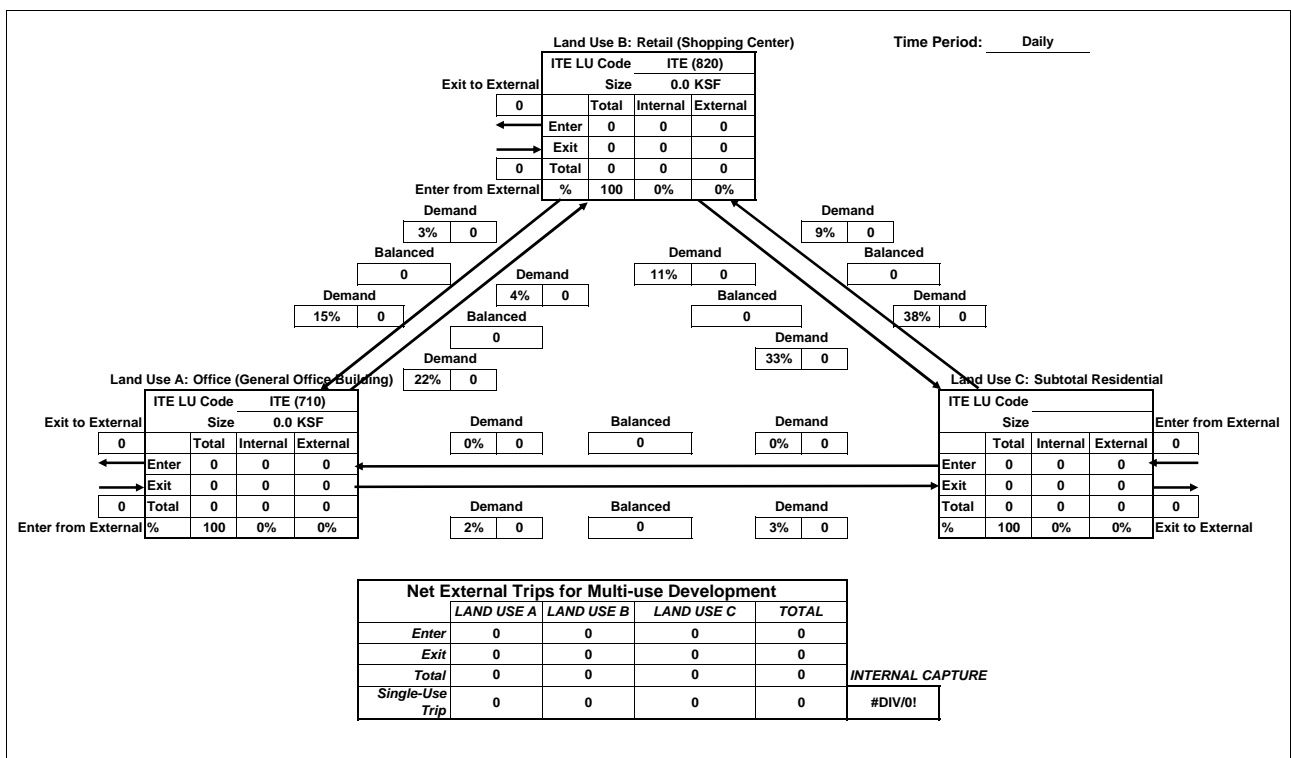
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

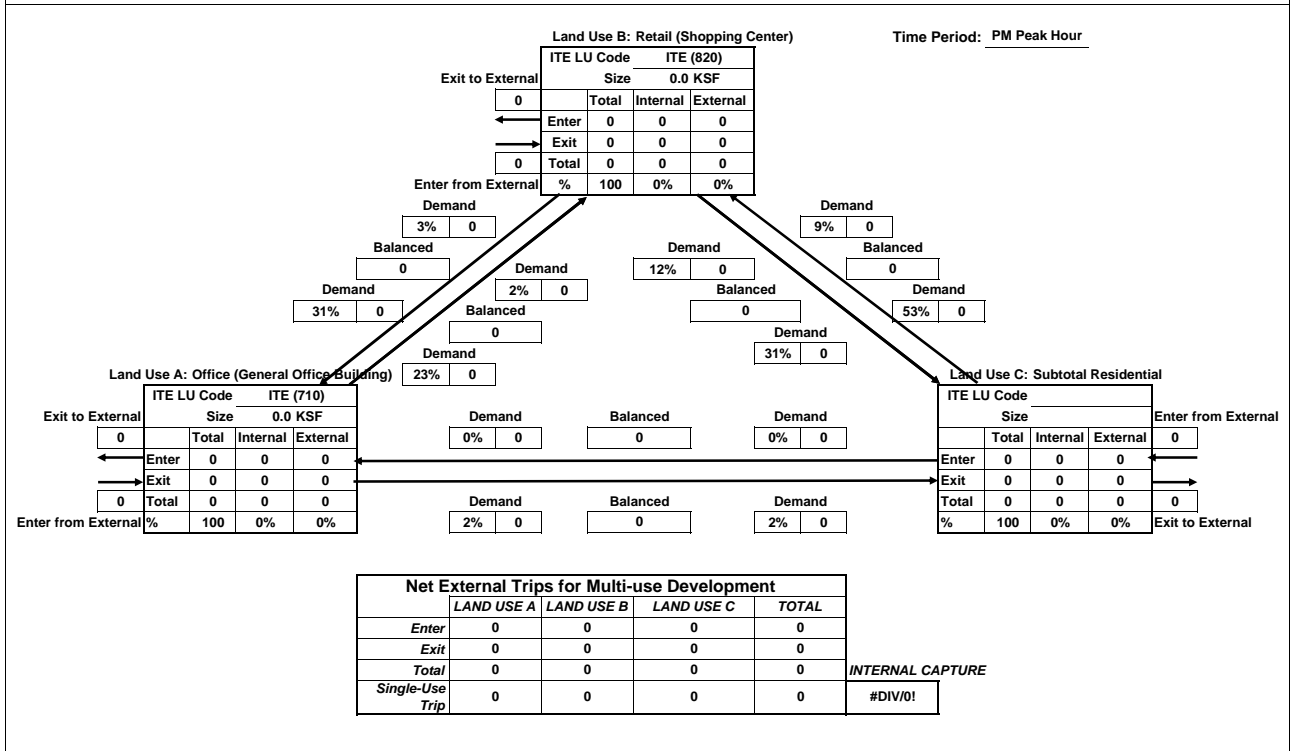
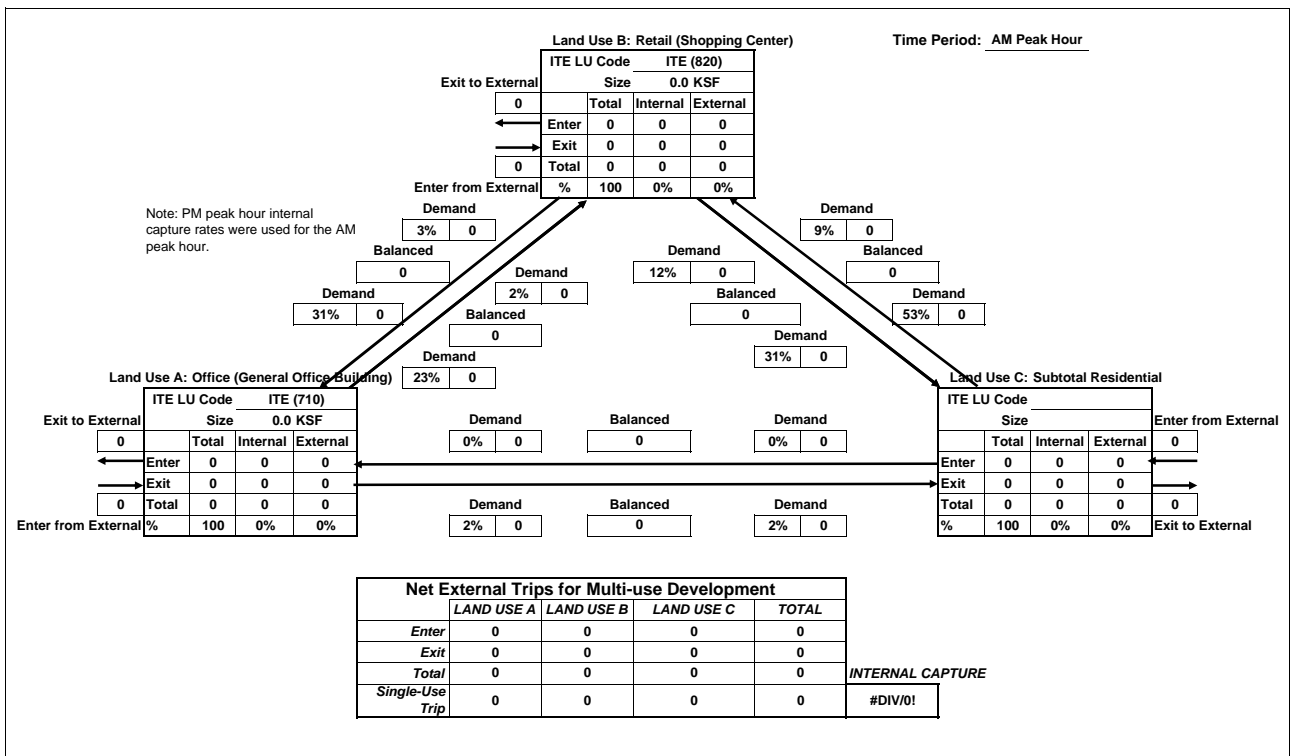
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



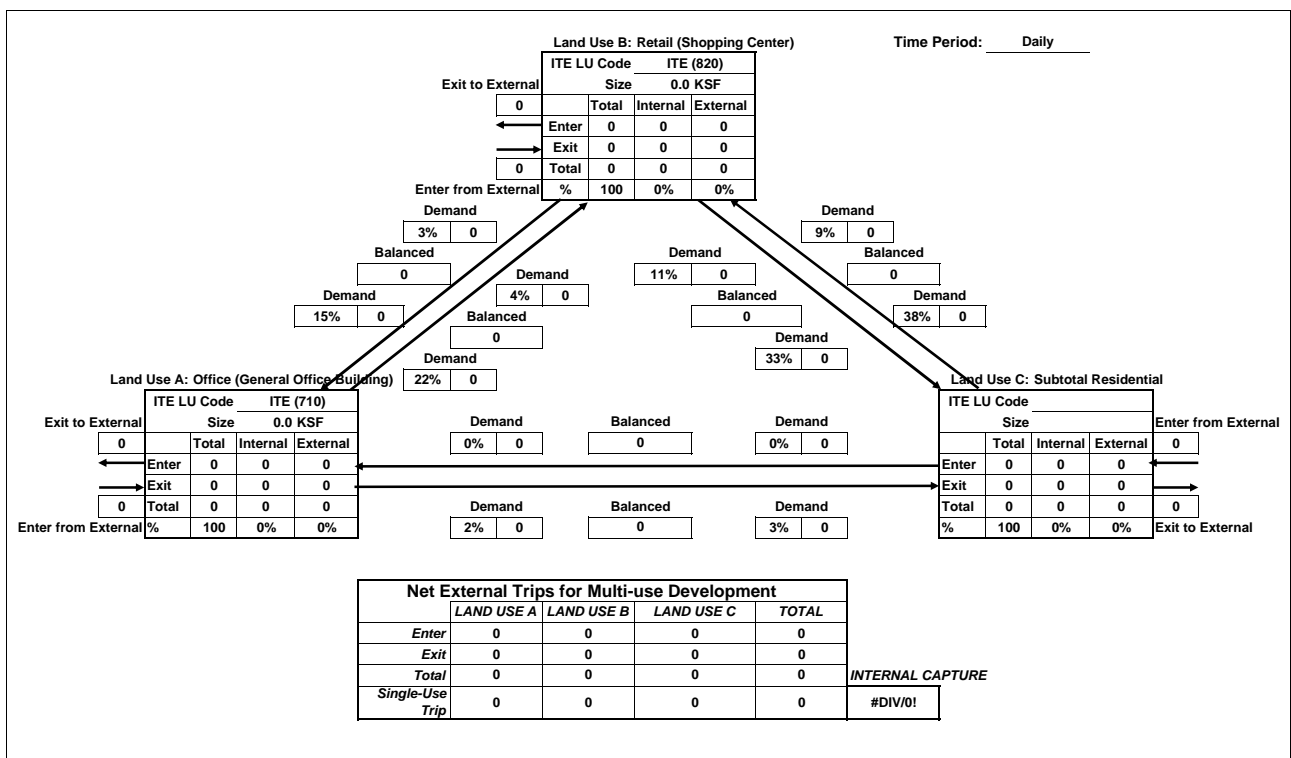
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 24: Bounded by Property Boundary, Railyards, N. 10th

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

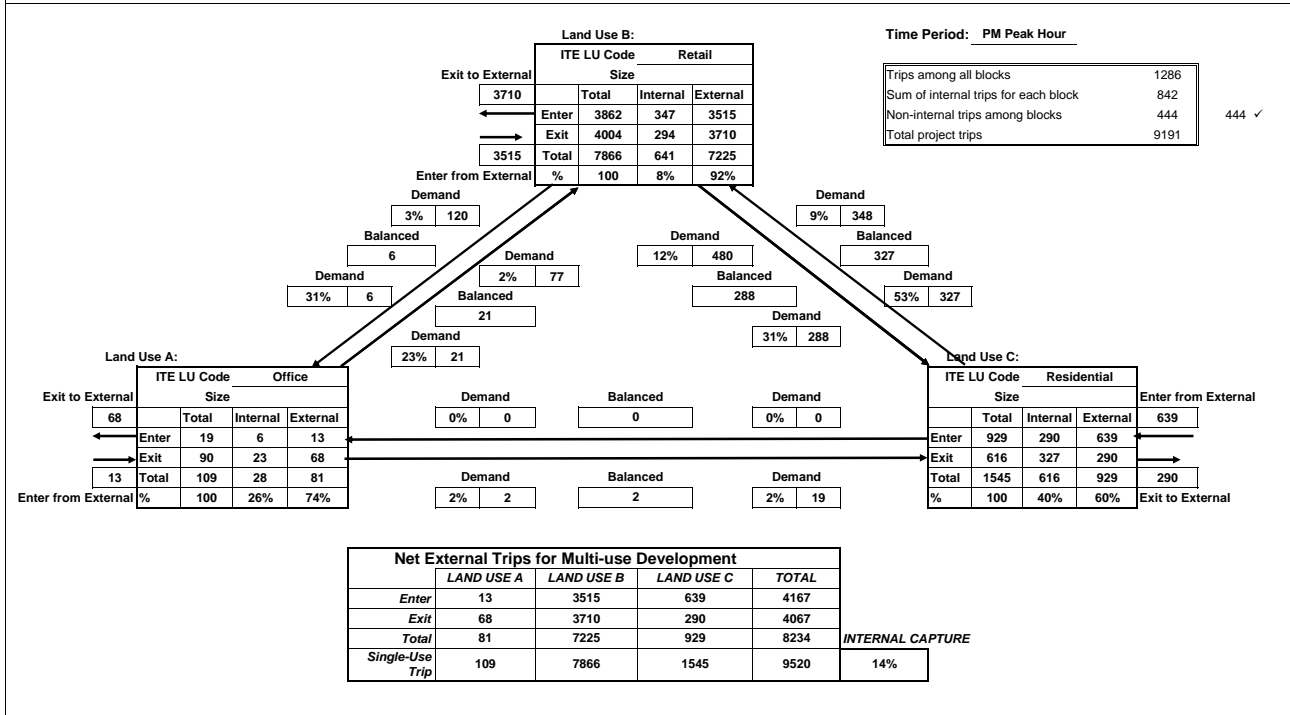
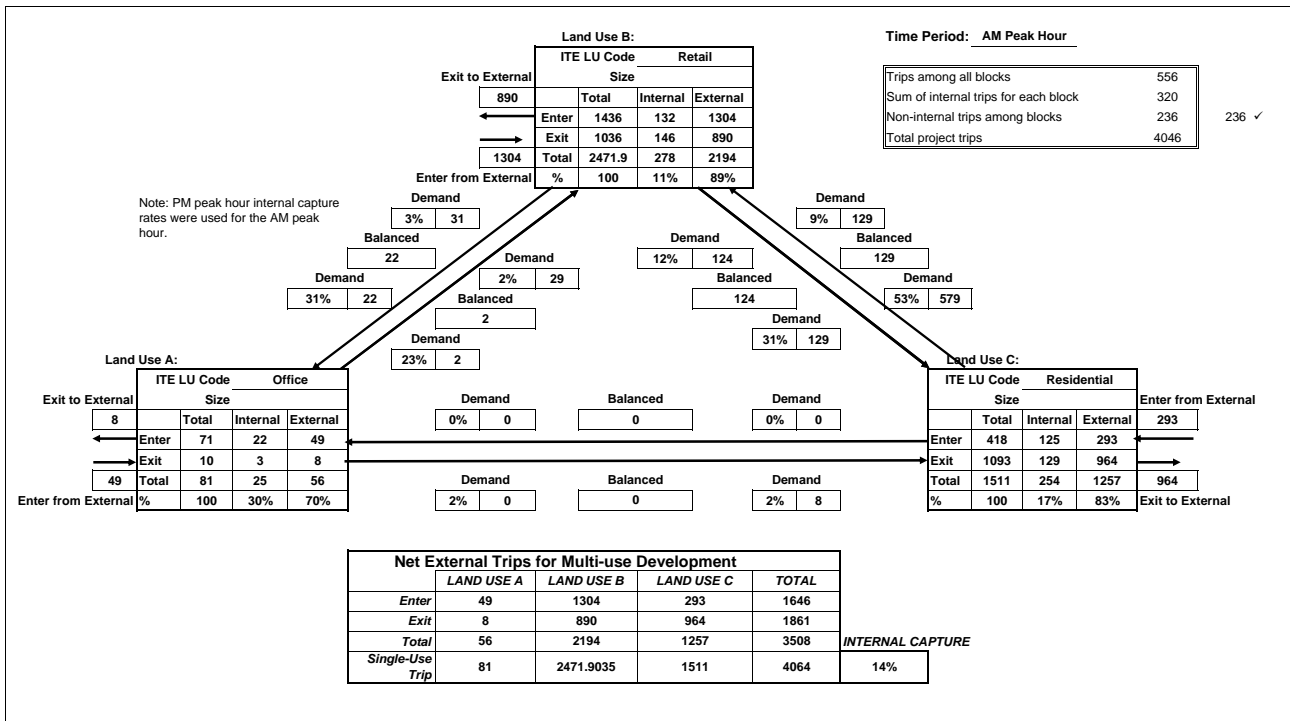


**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling

Name of Development: Downtown Study
Initial Phase with Maximum Residential (2030)

Date: 8/17/2007



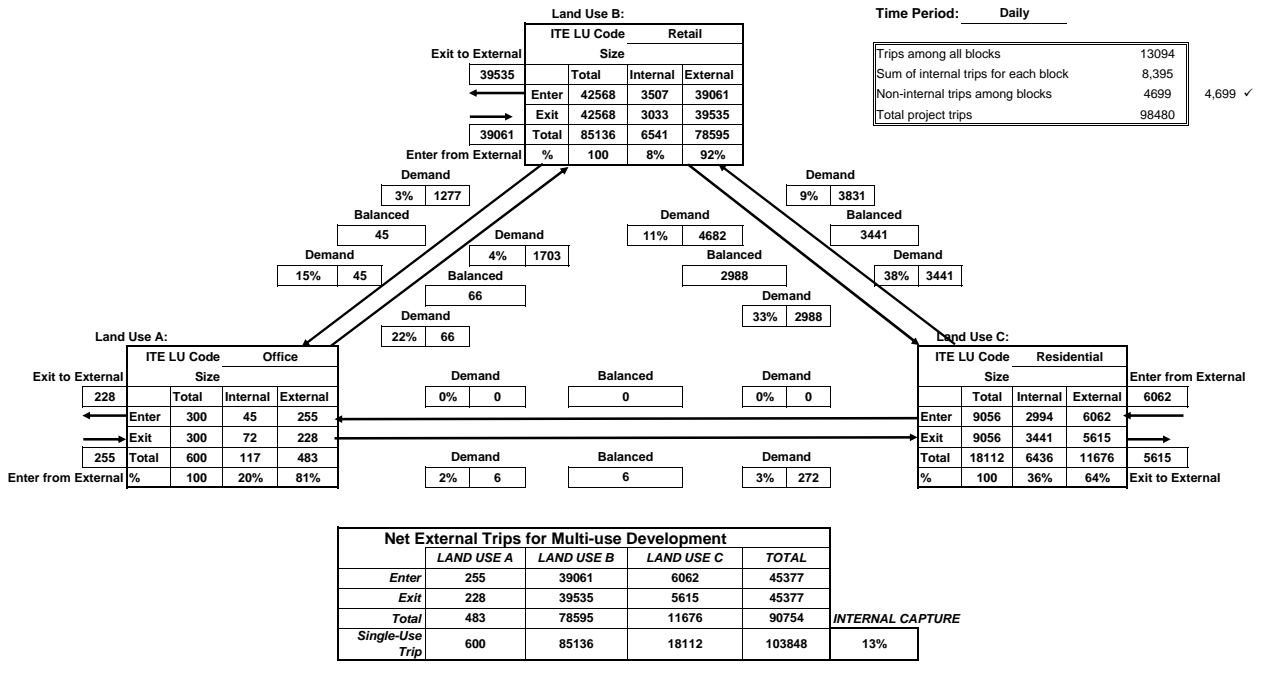
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 TRIPS AMONG ALL BLOCKS**

Name of Development: Downtown Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

Trips among all blocks	13094	
Sum of internal trips for each block	8,395	
Non-internal trips among blocks	4699	4,699 ✓
Total project trips	98480	



Full Project with Maximum Office

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	32 KSF	555	66	9	75	20	95	115
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	808 Units	5,487	206	213	419	230	185	415
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,646	429	322	751	768	841	1,609
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.7%)		-1,889	-36	-29	-65	-81	-83	-164
Internal Trips Within This Block (-12.8%)		-2,262	-28	-28	-56	-118	-118	-235
Trips To-From Other Blocks within the Project (-7.1%)		-1,254	-11	-11	-21	-48	-48	-97
New External Trips (69%) of Total Trips for Block		12,240	354	255	609	521	592	1,113
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	526 Units	2,207	34	147	181	120	74	194
Other	0	0	0	0	0	0	0	0
Total Trips for Block		8,673	244	214	458	386	467	853
Transit Adjustments (-3.4%)		-295	-18	-8	-26	-12	-23	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-867	-16	-17	-33	-39	-40	-79
Internal Trips Within This Block (-14.7%)		-1,272	-14	-14	-28	-58	-58	-116
Trips To-From Other Blocks within the Project (-6.7%)		-580	-6	-6	-13	-25	-25	-50
New External Trips (65%) of Total Trips for Block		5,659	190	169	359	252	321	573
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8.2%)		-940	-4	-4	-8	-38	-38	-75
New External Trips (80%) of Total Trips for Block		9,171	132	84	216	413	451	865
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	65 KSF	957	117	16	133	26	126	152
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	106 Units	623	11	49	60	32	20	52
Total Trips for Block		9,059	232	132	364	389	505	894
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-955	-17	-12	-29	-41	-47	-88
Internal Trips Within This Block (-8.4%)		-761	-15	-15	-30	-33	-33	-66
Trips To-From Other Blocks within the Project (-7.5%)		-683	-5	-5	-10	-30	-30	-59
New External Trips (74%) of Total Trips for Block		6,660	195	100	294	285	395	681

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	129 KSF	1,623	202	28	230	38	185	223
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	162 Units	834	14	62	76	44	27	71
Total Trips for Block		10,102	323	158	481	421	579	1,000
Transit Adjustments (-3.7%)		-370	-26	-7	-33	-13	-30	-43
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-1,012	-18	-14	-32	-44	-50	-94
Internal Trips Within This Block (-9.9%)		-1,003	-16	-16	-32	-41	-41	-82
Trips To-From Other Blocks within the Project (-7.1%)		-717	-7	-7	-13	-31	-31	-62
New External Trips (69%) of Total Trips for Block		7,000	257	115	371	292	427	719
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	294 Units	1,332	22	92	114	71	44	115
Total Trips for Block		7,897	234	160	394	341	442	783
Transit Adjustments (-3.5%)		-276	-18	-6	-24	-10	-23	-33
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-794	-15	-13	-28	-35	-38	-73
Internal Trips Within This Block (-14.7%)		-1,159	-14	-14	-29	-51	-51	-101
Trips To-From Other Blocks within the Project (-6.7%)		-527	-5	-5	-11	-23	-23	-46
New External Trips (65%) of Total Trips for Block		5,141	181	121	303	222	307	530
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	800 KSF	6,615	871	119	990	166	809	975
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		6,615	871	119	990	166	809	975
Transit Adjustments (-11.1%)		-734	-97	-13	-110	-18	-90	-108
Walk, Bike & Other Non-Auto Travel Adjustments (-2.8%)		-185	-25	-3	-28	-5	-22	-27
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8%)		-529	-15	-15	-29	-34	-34	-67
New External Trips (78%) of Total Trips for Block		5,167	734	88	823	109	663	773
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	86 KSF	1,188	146	20	166	30	145	175
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	100 Units	522	25	16	41	31	28	59
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,676	663	457	1,120	859	998	1,857
Transit Adjustments (-3.6%)		-708	-28	-11	-39	-22	-37	-59
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-2,002	-63	-51	-114	-95	-87	-181
Internal Trips Within This Block (-3.6%)		-718	-30	-30	-60	-44	-44	-87
Trips To-From Other Blocks within the Project (-7.7%)		-1,510	-15	-15	-31	-61	-61	-122
New External Trips (75%) of Total Trips for Block		14,738	526	350	876	638	769	1,407

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	40 KSF	659	79	11	90	21	103	124
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	72 Units	301	5	20	24	17	10	27
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,543	307	204	510	767	889	1,656
Transit Adjustments (-2.8%)		-456	-14	-6	-20	-19	-30	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-1,823	-29	-22	-51	-85	-92	-176
Internal Trips Within This Block (-2.5%)		-406	-17	-17	-35	-28	-28	-55
Trips To-From Other Blocks within the Project (-7.8%)		-1,288	-7	-7	-14	-55	-55	-110
New External Trips (76%) of Total Trips for Block		12,570	240	151	391	580	684	1,267
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	30 KSF	528	63	9	72	19	93	112
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	236 Units	1,113	18	79	97	60	36	96
Total Trips for Block		4,610	126	116	242	209	269	478
Transit Adjustments (-3.3%)		-153	-9	-4	-13	-7	-14	-21
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-466	-8	-10	-18	-21	-21	-42
Internal Trips Within This Block (-14.9%)		-689	-8	-8	-16	-32	-32	-63
Trips To-From Other Blocks within the Project (-6.7%)		-307	-3	-3	-7	-14	-14	-28
New External Trips (65%) of Total Trips for Block		2,995	98	91	188	135	188	324
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	115 KSF	1,488	185	25	210	35	173	208
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		5,109	239	59	298	194	345	539
Transit Adjustments (-4.8%)		-245	-21	-4	-25	-7	-23	-30
Walk, Bike & Other Non-Auto Travel Adjustments (-9%)		-462	-11	-5	-16	-19	-25	-44
Internal Trips Within This Block (-4.3%)		-219	-2	-2	-4	-7	-7	-14
Trips To-From Other Blocks within the Project (-7.6%)		-389	-4	-4	-9	-18	-18	-36
New External Trips (74%) of Total Trips for Block		3,795	201	44	245	143	272	415
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	250 KSF	2,701	343	47	390	61	298	359
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		6,096	633	133	766	218	655	873
Transit Adjustments (-8%)		-489	-48	-7	-55	-11	-44	-55
Walk, Bike & Other Non-Auto Travel Adjustments (-5.8%)		-356	-21	-5	-26	-15	-26	-41
Internal Trips Within This Block (-2.1%)		-127	-1	-1	-2	-4	-4	-8
Trips To-From Other Blocks within the Project (-7.8%)		-476	-12	-12	-23	-31	-31	-61
New External Trips (76%) of Total Trips for Block		4,648	551	108	659	157	550	707
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	680 KSF	5,837	765	104	869	143	697	840
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		7,549	792	121	913	217	777	994
Transit Adjustments (-9.1%)		-686	-85	-12	-97	-17	-79	-96
Walk, Bike & Other Non-Auto Travel Adjustments (-4.8%)		-362	-24	-5	-29	-13	-29	-42
Internal Trips Within This Block (-1.4%)		-103	-1	-1	-2	-3	-3	-7
Trips To-From Other Blocks within the Project (-7.9%)		-595	-13	-13	-27	-34	-34	-68
New External Trips (77%) of Total Trips for Block		5,803	669	90	758	150	632	781

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	192 KSF	2,205	278	38	316	50	244	294
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		8,315	365	93	458	320	536	856
Transit Adjustments (-4.6%)		-379	-33	-5	-38	-12	-33	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-9.3%)		-771	-18	-7	-25	-32	-41	-73
Internal Trips Within This Block (-4.4%)		-369	-3	-3	-6	-12	-12	-24
Trips To-From Other Blocks within the Project (-7.6%)		-632	-7	-7	-13	-29	-29	-57
New External Trips (74%) of Total Trips for Block		6,164	304	71	376	235	421	657
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	300 KSF	3,109	398	54	452	71	344	415
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		4,223	416	66	482	119	396	515
Transit Adjustments (-8.8%)		-370	-45	-6	-51	-9	-39	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-5.1%)		-216	-13	-3	-16	-8	-16	-24
Internal Trips Within This Block (-1.6%)		-67	-1	-1	-1	-2	-2	-4
Trips To-From Other Blocks within the Project (-7.9%)		-332	-7	-7	-14	-18	-18	-35
New External Trips (77%) of Total Trips for Block		3,238	350	49	400	82	321	404
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,355 Units	5,332	80	342	422	295	181	476
Total Trips for Block		5,332	80	342	422	295	181	476
Transit Adjustments (-2.6%)		-139	-3	-11	-14	-9	-6	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-512	-6	-27	-33	-25	-16	-41
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8.2%)		-435	-6	-6	-13	-17	-17	-34
New External Trips (80%) of Total Trips for Block		4,246	65	298	362	244	142	386
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,273 Units	5,023	76	322	398	278	170	448
Total Trips for Block		5,023	76	322	398	278	170	448
Transit Adjustments (-2.6%)		-131	-3	-11	-14	-9	-5	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-482	-6	-25	-31	-24	-15	-39
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8.2%)		-410	-6	-6	-12	-16	-16	-32
New External Trips (80%) of Total Trips for Block		4,000	61	280	341	229	134	363
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,603 Units	6,267	94	400	494	347	213	560
Total Trips for Block		9,025	135	427	562	467	344	811
Transit Adjustments (-2.5%)		-224	-4	-14	-18	-14	-9	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-922	-12	-35	-47	-44	-33	-77
Internal Trips Within This Block (-5.3%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-7.6%)		-688	-8	-8	-17	-27	-27	-53
New External Trips (74%) of Total Trips for Block		6,715	105	364	468	360	253	612

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 20: Bounded by South Park, N. 10th, Railyards, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,865 Units	7,255	108	462	570	403	247	650
----- Total Trips for Block		10,013	149	489	638	523	378	901
Transit Adjustments (-2.5%)		-250	-5	-15	-20	-15	-11	-26
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-1,016	-14	-39	-53	-49	-36	-85
Internal Trips Within This Block (-4.7%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-7.7%)		-769	-9	-9	-19	-30	-30	-60
New External Trips (75%) of Total Trips for Block		7,503	115	420	534	406	278	685

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	122 KSF	1,550	193	26	219	37	178	215
Retail (Shopping Center)	27 KSF	2,900	43	28	71	127	137	264
Subtotal Residential	200 Units	1,417	59	38	97	63	55	118
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		7,157	553	157	710	292	628	920
Transit Adjustments (-5.8%)		-416	-33	-7	-40	-11	-34	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-7.7%)		-551	-22	-9	-31	-23	-33	-56
Internal Trips Within This Block (-9.8%)		-702	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-7.1%)		-510	-11	-11	-21	-30	-30	-61
New External Trips (70%) of Total Trips for Block		4,978	479	122	601	196	500	696
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	15 KSF	1,979	31	20	50	86	93	179
Subtotal Residential	1,400 Units	7,719	239	352	591	355	261	616
Total Trips for Block		9,698	270	372	641	441	354	795
Transit Adjustments (-2.5%)		-245	-9	-12	-21	-13	-10	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-971	-23	-30	-53	-41	-33	-74
Internal Trips Within This Block (-3.5%)		-341	-5	-5	-9	-16	-16	-33
Trips To-From Other Blocks within the Project (-7.8%)		-757	-10	-10	-19	-27	-27	-53
New External Trips (76%) of Total Trips for Block		7,384	224	316	539	344	268	612
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	60 KSF	4,872	70	45	115	215	232	447
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		7,546	111	221	332	361	322	683
Transit Adjustments (-2.3%)		-177	-3	-7	-10	-9	-8	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-822	-11	-19	-30	-37	-35	-72
Internal Trips Within This Block (-11.1%)		-840	-10	-10	-20	-41	-41	-81
Trips To-From Other Blocks within the Project (-7%)		-531	-5	-5	-9	-20	-20	-41
New External Trips (69%) of Total Trips for Block		5,176	82	180	263	254	218	472
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	40 KSF	3,743	55	35	90	164	178	342
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		6,417	96	211	307	310	268	578
Transit Adjustments (-2.4%)		-152	-2	-7	-9	-8	-7	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-10.8%)		-691	-9	-18	-27	-31	-29	-60
Internal Trips Within This Block (-10.1%)		-646	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-7.1%)		-458	-4	-4	-9	-18	-18	-35
New External Trips (70%) of Total Trips for Block		4,470	73	174	246	222	183	406
Total Project Trips								
Office (General Office Building)	2,993 KSF	31,175	3,972	542	4,514	773	3,762	4,535
Retail (Shopping Center)	1,566 KSF	116,989	1,937	1,376	3,312	5,273	5,510	10,783
Subtotal Residential	11,300 Units	50,780	1,072	2,947	4,018	2,639	1,730	4,369
Other		4,819	516	130	645	167	703	869
Total Project Trips		203,762	7,497	4,995	12,489	8,852	11,705	20,556
Transit Adjustments (-3.4%)		-6,895	-504	-173	-677	-245	-555	-799
Walk, Bike & Other Non-Auto Travel Adjustments (-9.5%)		-19,454	-435	-409	-844	-866	-911	-1,775
Internal Trips Within This Block (-6.2%)		-12,635	-193	-193	-385	-596	-596	-1,193
Trips To-From Other Blocks within the Project (-7.5%)		-15,317	-180	-180	-361	-671	-671	-1,342
New External Trips (73%) of Total Project Trips		149,461	6,185	4,039	10,222	6,473	8,972	15,447

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
		73.4%			81.8%			75.1%

Table Xb: Transit Trips for Full Project with Maximum Office (By City Block)

City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	547	20	13	33	23	34	57
Block 2: Bounded by South Park, 5th, Railyards, Crocker	346	20	9	29	14	27	41
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	297	4	3	7	13	15	28
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	334	17	6	23	13	26	39
Block 6: Bounded by Railyards, 5th, Camille, Crocker	429	30	7	37	16	33	49
Block 7: Bounded by Railyards, 6th, Camille, 5th	321	20	7	27	12	26	38
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	827	109	15	124	21	101	122
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	819	32	15	47	27	57	84
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	533	16	6	22	25	36	60
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	179	10	5	15	8	18	25
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	280	24	4	28	8	27	35
Block 13: Bounded by Rail Lines, 6th, G, 5th	554	76	14	90	18	72	90
Block 14: Bounded by Rail Lines, 7th, G, 6th	775	97	13	110	20	89	109
Block 15: Bounded by G, 6th, H, 6th	435	37	7	44	13	39	52
Block 16: Bounded by G, 7th, Property Boundary, 6th	418	51	7	58	10	45	55
Block 17: Bounded by N. B, 7th, South Park, 5th	171	3	14	17	11	7	18
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	161	3	13	16	11	6	17
Block 19: Bounded by South Park, 7th, Railyards, 5th	273	5	17	22	16	12	28
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	304	5	20	25	18	13	31
Block 21: SITF Site	475	59	14	73	18	60	78
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	298	11	14	25	15	13	28
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	213	4	8	12	12	9	21
Block 24: Bounded by Property Boundary, Railyards, N. 10th	183	3	8	11	10	8	18
Total New Transit Trips	9,172	656	239	895	352	773	1,123

Source: Dowling Associates, Inc. 2006

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Office

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
1 OS	1	1	0.75						
1 RRMU	2	1	4.31		200,000				
1 RRMU	3a	1	2.84						
2 OS	3b	1	0.13						
2 RRMU	3c	1	0.93			500			
2 RRMU	3d	1	0.73	168	28,000		32,000		32,000
2 OS	3e	1	0.67						
2 RRMU	3f	1	0.28	140					
Subtotal				308	228,000	500	32,000	0	32,000
2 RRMU	5a	2	1.14	104					
2 RRMU	5b	2	0.68	80	27,000		29,000		29,000
2 RRMU	6a	2	1.28	242					
2 RRMU	6b	2	1.07	100	43,000		47,000		47,000
2 OS	6c	2	0.15						
Subtotal				526	70,000	0	76,000	0	76,000
1 RRMU	33	3	2.62						
1 RRMU	11a	4	4.42		223,000				
1 OS	11b	4	0.27						
Subtotal				0	223,000	0	0	0	0
1 RRMU	10a	5	3.88	106	116,000		65,000		65,000
1 OS	10b	5	0.57						
Subtotal				106	116,000	0	65,000	0	65,000
1 RRMU	8a	6	0.61	22	27,000		27,000		27,000
1 RRMU	8b	6	1.22	48	33,000		38,000		38,000
1 RRMU	9a	6	0.60	44	26,000		26,000		26,000
1 RRMU	9b	6	1.27	48	34,000		38,000		38,000
Subtotal				162	120,000	0	129,000	0	129,000
2 RRMU	7a	7	2.06	186	18,000		18,000		18,000
2 RRMU	7b	7	1.19	108	54,000		58,000		58,000
2 OS	7c	7	0.03						
Subtotal				294	72,000	0	76,000	0	76,000
3 ORMU	47a	8	2.21				300,000		
1 RRMU	47b	8	0.78						

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Office

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 ORMU	48	8	2.56				500,000		
Subtotal				0	0	0	800,000	0	0

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Office

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
1 RRMU	12	9	1.17		71,000		43,000		43,000
1 RRMU	13a	9	0.11		3,500				
1 RRMU	13b	9	0.23		8,000				
1 RRMU	13c	9	0.12		5,600				
1 OS	13d	9	0.60						
1 RRMU	14	9	0.62		13,000	100			
1 RRMU	23	9	0.34				22,500	Restaurant	
1 RRMU	24	9	0.73				42,028	19816 Rest; 11165 Retail; 7730 Office	
1 RRMU	25	9	0.53				38,711	21014 Restaurant; 21014 Office	
1 RRMU	26	9	0.33				28,500	14250 Retail; 14250 Office	
1 RRMU	27	9	0.65				28,043	25000 Exhibit; 3043 Retail	
1 RRMU	28	9	2.24				93,134	Exhibit	
1 RRMU	29	9	1.67				69,696	Exhibit	
1 OS	30a	9	5.07						
1 OS	30b	9	1.35						
1 OS	31a	9	2.66						
1 OS	31b	9	0.32						
1 TU	38	9	16.78						
1 OS	45	9	0.33						
Subtotal				0	101,100	100	43,000	322,612	43,000
1 RRMU	15a	10	3.33	72	65,500		40,000	100,000	1,800
1 OS	15b	10	0.05						
1 OS	18a	10	1.05						
1 RRMU	18b	10	0.25		38,500				
1 RRMU	20	10	1.30				56,278	Market	
1 OS	21	10	5.30						
1 RRMU	22	10	0.15				6,500	Retail	
Subtotal				72	104,000	0	40,000	162,778	40,000
2 RRMU	16a	11	1.67	236	28,000		30,000		30,000
2 OS	16b	11	0.07						
1 RRMU	17	11	1.48						
Subtotal				236	28,000	0	30,000	0	30,000
2 ORMU	40	12	1.93		38,000		115,200		
2 ORMU	44	13	1.96		16,500		250,000		
2 ORMU	43	14	2.56		12,000		500,000		

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Office

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
2 ORMU	46	14	2.89				180,000		
Subtotal				0	12,000	0	680,000	0	0
1 ORMU	41	15	2.43		85,000		192,000		
1 ORMU	42	16	1.19		6,200		300,000		
3 OS	60	17	1.12						
3 OS	61	17	0.71						
3 OS	62	17	0.92						
3 RMU	69N	17	1.64	480					
3 RMU	69S	17	1.21	135					
3 RMU	70N	17	1.10	330					
3 RMU	70S	17	0.88	110					
3 RMU	71N	17	0.77	200					
3 RMU	71S	17	0.84	100					
Subtotal				1,355	0	0	0	0	0
4 OS	63	18	0.97						
4 OS	64	18	0.89						
4 OS	65	18	0.92						
4 RMU	66N	18	0.33	35					
4 RMU	66S	18	1.07	115					
4 RMU	67N	18	1.27	385					
4 RMU	67S	18	1.12	178					
4 RMU	68N	18	1.48	430					
4 RMU	68S	18	1.17	130					
Subtotal				1,273	0	0	0	0	0
3 OS	57a	19	0.12						
3 RMU	57N	19	1.24	250	15,000				
3 RMU	57S	19	1.38	415	10,000				
3 RMU	58N	19	1.17	125					
3 RMU	58S	19	1.15	345					
3 RMU	59N	19	1.27	135					
3 RMU	59S	19	1.11	333					
Subtotal				1,603	25,000	0	0	0	0
4 RMU	52N	20	0.98	105					
4 RMU	52S	20	1.30	390					
4 RMU	53N	20	1.38	150					

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Office

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
4 RMU	53S	20	1.49	445					
4 RMU	54N	20	1.35	275	15,000				
4 RMU	54S	20	1.68	500	10,000				
4 OS	54a	20	0.12						
Subtotal				1,865	25,000	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Office

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 TU	39	21	15.34						
3 OS	34	22	1.26						
3 RMU	35	22	4.00	900	15,000	500			
Subtotal				900	15,000	500	0	0	0
4 RMU	49a	23	4.87	650	60,000				
1 ORMU	49b	23	0.73						
1 ORMU	49c	23	1.00						
3 OS	50	23	1.26						
Subtotal				650	60,000	0	0	0	0
4 RMU	51	24	4.70	650	40,000				
3 OS	72	25	10.37						
Subtotal				0		2,337,200			
TOTAL Max			180.39	10,000	1,384,800	1,100	2,828,200	485,390	491,000
Min				10,000			491,000		
Check				11,300	1,566,366		2,993,194		

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips ^a	Non-Work Trips ^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office ¹	10.9%	0.2%	11.1%	
Retail ²	0.8%	1.4%	2.2%	
	Home-Work	Home-Non-Work	Non Home-Based	
Residential ^{3,c}				
AM Peak Hour	2.5%	0.7%	0.2%	3.4%
PM Peak Hour	2.1%	0.6%	0.4%	3.1%
Daily	1.5%	0.7%	0.4%	2.6%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office ¹	1.5%	1.2%	2.8%	
Retail ²	0.1%	11.4%	11.6%	
	Home-Work	Home-Non-Work	Non Home-Based	
Residential ^c				
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office ¹	12.2%	0.3%	12.5%	
Retail ²	1.0%	1.7%	2.6%	
	Home-Work	Home-Non-Work	Non Home-Based	
Residential ^c				
AM Peak Hour	3.1%	0.8%	0.3%	4.1%
PM Peak Hour	2.6%	0.7%	0.5%	3.7%
Daily	1.9%	0.8%	0.5%	3.2%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001.
Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 1: Bounded by South Park, Crocker, Railyards, Bercut													
Office (General Office Building)	32.0 KSF	ITE (710)	555	66	9	75	20	95	115	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%
Residential													
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%
High Rise Residential Condominium	308 Units	ITE (232)	1,385	22	96	118	74	46	120	19%	81%	62%	38%
Subtotal Residential	808 Units		5,487	206	213	419	230	185	415				
Other													
Total Trips for Block			17,646	429	322	751	768	841	1,609				
Transit Adjustments													
Office (-11.1%)													
Retail (-2.2%)													
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)													
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-16	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-527	-16	-17	-33	-20	-16	-36				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,889	-36	-29	-65	-81	-83	-164				
Internal Trips Within This Block			-2,262	-28	-28	-56	-118	-118	-235				
Trips To-From Other Blocks within the Project			-1,254	-11	-11	-21	-48	-48	-97				
New External Trips													
Office (General Office Building)				60	6	66	12	76	88				
Retail (Shopping Center)				121	72	192	375	399	774				
Subtotal Residential				174	177	350	134	117	251				
Other				0	0	0	0	0	0				
Total				12,240	354	255	609	521	592	1,113			
New External Trips Percent of Total Project Trips				69%	83%	79%	81%	68%	70%	69%			
Transit Trips													
Office (12.5%)				69	8	1	9	2	12	14			
Retail (2.6%)				302	4	3	7	13	15	28			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				176	8	9	17	8	7	15			
Other				0	0	0	0	0	0	0			
Total Transit Trips				547	20	13	33	23	34	57			

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 2: Bounded by South Park, 5th, Railyards, Crocker													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	526 Units	ITE (232)	2,207	34	147	181	120	74	194	19%	81%	62%	38%
Subtotal Residential	526 Units		2,207	34	147	181	120	74	194				
Other													
Total Trips for Block			8,673	244	214	458	386	467	853				
Transit Adjustments													
Office (-11.1%)			-120	-15	-2	-17	-3	-15	-18				
Retail (-2.2%)			-118	-2	-1	-3	-5	-6	-11				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-57	-1	-5	-6	-4	-2	-6				
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-295	-18	-8	-26	-12	-23	-35				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-212	-3	-11	-14	-11	-6	-17				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-867	-16	-17	-33	-39	-40	-79				
Internal Trips Within This Block			-1,272	-14	-14	-28	-58	-58	-116				
Trips To-From Other Blocks within the Project			-580	-6	-6	-13	-25	-25	-50				
New External Trips													
Office (General Office Building)				109	14	123	16	104	119				
Retail (Shopping Center)				57	34	91	168	174	342				
Subtotal Residential				24	121	144	69	43	112				
Other				0	0	0	0	0	0				
Total				5,659	190	169	359	252	321	573			
New External Trips Percent of Total Project Trips				65%	78%	79%	78%	65%	69%	67%			
Transit Trips													
Office (12.5%)				135	17	2	19	4	17	21			
Retail (2.6%)				140	2	1	3	6	7	13			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				71	1	6	7	4	3	7			
Other				0	0	0	0	0	0	0			
Total Transit Trips				346	20	9	29	14	27	41			

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				

Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-940	-4	-4	-8	-38	-38	-75					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				132	84	216	413	451	865					
Subtotal Residential				0	0	0	0	0	0					
Total			9,171	132	84	216	413	451	865					
New External Trips Percent of Total Project Trips			80%	86%	85%	86%	81%	82%	81%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			297	4	3	7	13	15	28					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0					
Total Transit Trips			297	4	3	7	13	15	28					

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 5: Bounded by Railyards, Crocker, Camille, Huntington													
Office (General Office Building)	65.0 KSF	ITE (710)	957	117	16	133	26	126	152	88%	12%	17%	83%
Retail (Shopping Center) (90%)	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	106 Units	ITE (232)	623	11	49	60	32	20	52	19%	81%	62%	38%
Subtotal Residential	106 Units		623	11	49	60	32	20	52				
Other													
Total Trips for Block			9,059	232	132	364	389	505	894				
Transit Adjustments													
Office (-11.1%)													
Retail (-2.2%)													
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)													
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-27	-4	0	-4	-1	-3	-4				
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-60	-1	-4	-5	-2	-2	-4				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-955	-17	-12	-29	-41	-47	-88				
Internal Trips Within This Block			-761	-15	-15	-30	-33	-33	-66				
Trips To-From Other Blocks within the Project			-683	-5	-5	-10	-30	-30	-59				
New External Trips													
Office (General Office Building)				108	13	122	15	109	124				
Retail (Shopping Center) (90%)				80	52	131	253	279	532				
Subtotal Residential				6	35	41	18	7	25				
Total			6,660	195	100	294	285	395	681				
New External Trips Percent of Total Project Trips			74%	84%	75%	81%	73%	78%	76%				
Transit Trips													
Office (12.5%)			120	15	2	17	3	16	19				
Retail (2.6%)			194	2	2	4	9	9	18				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			20	0	2	2	1	1	2				
Total Transit Trips			334	17	6	23	13	26	39				

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 6: Bounded by Railyards, 5th, Camille, Crocker													
Office (General Office Building)	129.0 KSF	ITE (710)	1,623	202	28	230	38	185	223	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	162 Units	ITE (232)	834	14	62	76	44	27	71	19%	81%	62%	38%
Subtotal Residential	162 Units		834	14	62	76	44	27	71				
Other													
Total Trips for Block			10,102	323	158	481	421	579	1,000				
Transit Adjustments													
Office (-11.1%)			-180	-23	-3	-26	-4	-21	-25				
Retail (-2.2%)			-168	-2	-2	-4	-8	-8	-16				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-22	-1	-2	-3	-1	-1	-2				
Other													
Total Transit Adjustments			-370	-26	-7	-33	-13	-30	-43				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-45	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-80	-1	-5	-6	-4	-2	-6				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,012	-18	-14	-32	-44	-50	-94				
Internal Trips Within This Block			-1,003	-16	-16	-32	-41	-41	-82				
Trips To-From Other Blocks within the Project			-717	-7	-7	-13	-31	-31	-62				
New External Trips													
Office (General Office Building)				168	21	189	21	142	163				
Retail (Shopping Center)				81	50	130	248	275	523				
Subtotal Residential				8	44	52	23	10	33				
Total				7,000	257	115	371	292	427	719			
New External Trips Percent of Total Project Trips				69%	79%	72%	77%	69%	74%	72%			
Transit Trips													
Office (12.5%)				203	26	3	29	5	23	28			
Retail (2.6%)				199	3	2	5	9	9	18			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				27	1	2	3	2	1	3			
Total Transit Trips				429	30	7	37	16	33	49			

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 7: Bounded by Railyards, 6th, Camille, 5th													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	294 Units	ITE (232)	1,332	22	92	114	71	44	115	19%	81%	62%	38%
Subtotal Residential	294 Units		1,332	22	92	114	71	44	115				
Other													
Total Trips for Block			7,897	234	160	394	341	442	783				
Transit Adjustments													
Office (-11.1%)			-120	-15	-2	-17	-3	-15	-18				
Retail (-2.2%)			-121	-2	-1	-3	-5	-6	-11				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-35	-1	-3	-4	-2	-2	-4				
Other													
Total Transit Adjustments			-276	-18	-6	-24	-10	-23	-33				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-128	-2	-7	-9	-6	-4	-10				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-794	-15	-13	-28	-35	-38	-73				
Internal Trips Within This Block			-1,159	-14	-14	-29	-51	-51	-101				
Trips To-From Other Blocks within the Project			-527	-5	-5	-11	-23	-23	-46				
New External Trips													
Office (General Office Building)				110	14	123	15	104	120				
Retail (Shopping Center)				59	35	94	170	186	356				
Subtotal Residential				13	73	86	37	17	54				
Total				5,141	181	121	303	222	307	530			
New External Trips Percent of Total Project Trips				65%	78%	76%	77%	65%	70%	68%			
Transit Trips													
Office (12.5%)				135	17	2	19	4	17	21			
Retail (2.6%)				143	2	1	3	6	7	13			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				43	1	4	5	2	2	4			
Total Transit Trips				321	20	7	27	12	26	38			

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th													
Office (General Office Building)	800.0 KSF	ITE (710)	6,615	871	119	990	166	809	975	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			6,615	871	119	990	166	809	975				
Transit Adjustments													
Office (-11.1%)			-734	-97	-13	-110	-18	-90	-108				
Retail (-2.2%)			0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-734	-97	-13	-110	-18	-90	-108				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-185	-25	-3	-28	-5	-22	-27				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-185	-25	-3	-28	-5	-22	-27				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			-529	-15	-15	-29	-34	-34	-67				
New External Trips													
Office (General Office Building)				734	88	823	109	663	773				
Retail (Shopping Center)				0	0	0	0	0	0				
Subtotal Residential				0	0	0	0	0	0				
Total			5,167	734	88	823	109	663	773				
New External Trips Percent of Total Project Trips			78%	84%	74%	83%	66%	82%	79%				
Transit Trips													
Office (12.5%)			827	109	15	124	21	101	122				
Retail (2.6%)			0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			827	109	15	124	21	101	122				

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	86.0 KSF	ITE (710)	1,188	146	20	166	30	145	175	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	100 Units		522	25	16	41	31	28	59				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,676	663	457	1,120	859	998	1,857				
Transit Adjustments													
Office (-11.1%)			-132	-16	-2	-18	-3	-16	-19				
Retail (-2.2%)			-354	-11	-9	-20	-17	-15	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-14	-1	0	-1	-1	-1	-2				
Other (Museum Exhibit Space) (-11.1%)			-208	0	0	0	-1	-5	-6				
Total Transit Adjustments			-708	-28	-11	-39	-22	-37	-59				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-33	-4	-1	-5	-1	-4	-5				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-50	-2	-1	-3	-3	-2	-5				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,002	-63	-51	-114	-95	-87	-181				
Internal Trips Within This Block			-718	-30	-30	-60	-44	-44	-87				
Trips To-From Other Blocks within the Project			-1,510	-15	-15	-31	-61	-61	-122				
New External Trips													
Office (General Office Building)				112	12	124	16	100	116				
Retail & Restaurant (see footnote)				400	331	732	589	500	1,089				
Subtotal Residential				14	6	21	16	10	25				
Other (Museum Exhibit Space)				0	0	0	17	159	177				
Total			14,738	526	350	876	638	769	1,407				
New External Trips Percent of Total Project Trips			75%	79%	77%	78%	74%	77%	76%				
Transit Trips													
Office (12.5%)			149	18	3	21	4	18	22				
Retail (2.6%)			418	13	11	24	20	17	37				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			17	1	1	2	1	1	2				
Other (Museum Exhibit Space) (12.5%)			235	0	0	0	2	21	23				
Total Transit Trips			819	32	15	47	27	57	84				

Footnote:

Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26													
Office (General Office Building)	40.0 KSF	ITE (710)	659	79	11	90	21	103	124	88%	12%	17%	83%
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469				
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	72 Units	ITE (232)	301	5	20	24	17	10	27	19%	81%	62%	38%
Subtotal Residential	72 Units		301	5	20	24	17	10	27				
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36			50%	50%
Total Trips for Block			16,543	307	204	510	767	889	1,656				
Transit Adjustments													
Office (-11.1%)			-73	-9	-1	-10	-2	-12	-14				
Retail (-2.2%)			-335	-5	-4	-9	-15	-17	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-8	0	-1	-1	-1	0	-1				
Other (Performing Arts) (-11.1%)			-40	0	0	0	-1	-1	-1				
Total Transit Adjustments			-456	-14	-6	-20	-19	-30	-48				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-18	-3	0	-3	-1	-2	-3				
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-29	0	-2	-2	-1	-1	-2				
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,823	-29	-22	-51	-85	-92	-176				
Internal Trips Within This Block			-406	-17	-17	-35	-28	-28	-55				
Trips To-From Other Blocks within the Project			-1,288	-7	-7	-14	-55	-55	-110				
New External Trips													
Office (General Office Building)				61	7	68	11	70	81				
Retail & Market (see footnote)				176	137	313	545	595	1,140				
Subtotal Residential				3	7	11	9	4	12				
Other (Performing Arts)				0	0	0	16	16	34				
Total			12,570	240	151	391	580	684	1,267				
New External Trips Percent of Total Project Trips			76%	78%	74%	77%	76%	77%	76%				
Transit Trips													
Office (12.5%)			82	10	1	11	3	13	16				
Retail (2.6%)			396	6	4	10	18	20	38				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			10	0	1	1	1	0	1				
Other (Performing Arts) (12.5%)			45	0	0	0	3	3	5				
Total Transit Trips			533	16	6	22	25	36	60				

Footnote:

Retail & Market													
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 11: Bounded by Camille, 6th, Rail Lines, 5th													
Office (General Office Building)	30.0 KSF	ITE (710)	528	63	9	72	19	93	112	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	236 Units	ITE (232)	1,113	18	79	97	60	36	96	19%	81%	62%	38%
Subtotal Residential	236 Units		1,113	18	79	97	60	36	96				
Other													
Total Trips for Block			4,610	126	116	242	209	269	478				
Transit Adjustments													
Office (-11.1%)			-59	-7	-1	-8	-2	-10	-12				
Retail (-2.2%)			-65	-1	-1	-2	-3	-3	-6				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-29	-1	-2	-3	-2	-1	-3				
Other													
Total Transit Adjustments			-153	-9	-4	-13	-7	-14	-21				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-15	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-107	-1	-7	-8	-5	-3	-8				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-466	-8	-10	-18	-21	-21	-42				
Internal Trips Within This Block			-689	-8	-8	-16	-32	-32	-63				
Trips To-From Other Blocks within the Project			-307	-3	-3	-7	-14	-14	-28				
New External Trips													
Office (General Office Building)				52	7	58	11	73	84				
Retail (Shopping Center)				34	20	53	91	96	187				
Subtotal Residential				12	64	77	33	20	53				
Total			2,995	98	91	188	135	188	324				
New External Trips Percent of Total Project Trips			65%	77%	78%	78%	65%	70%	68%				
Transit Trips													
Office (12.5%)			66	8	1	9	2	12	14				
Retail (2.6%)			77	1	1	2	3	4	7				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			36	1	3	4	3	2	4				
Total Transit Trips			179	10	5	15	8	18	25				

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 12: Bounded by Rail Lines, 5th, I Street, LRT													
Office (General Office Building)	115.2 KSF	ITE (710)	1,488	185	25	210	35	173	208	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			5,109	239	59	298	194	345	539				
Transit Adjustments													
Office (-11.1%)			-165	-20	-3	-23	-4	-19	-23				
Retail (-2.2%)			-80	-1	-1	-2	-3	-4	-7				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other (-11.1%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-245	-21	-4	-25	-7	-23	-30				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-42	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-462	-11	-5	-16	-19	-25	-44				
Internal Trips Within This Block			-219	-2	-2	-4	-7	-7	-14				
Trips To-From Other Blocks within the Project			-389	-4	-4	-9	-18	-18	-36				
New External Trips													
Office (General Office Building)				156	18	174	22	137	160				
Retail (Shopping Center)				45	26	71	120	135	255				
Subtotal Residential				0	0	0	0	0	0				
Other				0	0	0	0	0	0				
Total				3,795	201	44	245	143	272	415			
New External Trips Percent of Total Project Trips				74%	84%	74%	82%	74%	79%	77%			
Transit Trips													
Office (12.5%)				186	23	3	26	4	22	26			
Retail (2.6%)				94	1	1	2	4	5	9			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				0	0	0	0	0	0	0			
Other (12.5%)				0	0	0	0	0	0	0			
Total Transit Trips				280	24	4	28	8	27	35			

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 13: Bounded by Rail Lines, 6th, G, 5th													
Office (General Office Building)	250.0 KSF	ITE (710)	2,701	343	47	390	61	298	359	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other (Transit)	514	Prkng ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%
Total Trips for Block			6,096	633	133	766	218	655	873				
Transit Adjustments													
Office (-11.1%)			-300	-38	-5	-43	-7	-33	-40				
Retail (-2.2%)			-46	-1	0	-1	-2	-2	-4				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11				
Total Transit Adjustments			-489	-48	-7	-55	-11	-44	-55				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-76	-10	-1	-11	-2	-8	-10				
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-356	-21	-5	-26	-15	-26	-41				
Internal Trips Within This Block			-127	-1	-1	-2	-4	-4	-8				
Trips To-From Other Blocks within the Project			-476	-12	-12	-23	-31	-31	-61				
New External Trips													
Office (General Office Building)				284	33	316	37	232	270				
Retail (Shopping Center)				25	15	40	59	76	135				
Subtotal Residential				0	0	0	0	0	0				
Other (Transit)				242	61	303	61	242	303				
Total			4,648	551	108	659	157	550	707				
New External Trips Percent of Total Project Trips			76%	87%	81%	86%	72%	84%	81%				
Transit Trips													
Office (12.5%)			338	43	6	49	8	37	45				
Retail (2.6%)			55	1	0	1	2	3	5				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Other (Transit) (12.5%)			161	32	8	40	8	32	40				
Total Transit Trips			554	76	14	90	18	72	90				

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 14: Bounded by Rail Lines, 7th, G, 6th													
Office (General Office Building)	680.0 KSF	ITE (710)	5,837	765	104	869	143	697	840	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			7,549	792	121	913	217	777	994				
Transit Adjustments													
Office (-11.1%)			-648	-84	-12	-96	-16	-77	-93				
Retail (-2.2%)			-38	-1	0	-1	-1	-2	-3				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-686	-85	-12	-97	-17	-79	-96				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-163	-21	-3	-24	-4	-20	-24				
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-362	-24	-5	-29	-13	-29	-42				
Internal Trips Within This Block			-103	-1	-1	-2	-3	-3	-7				
Trips To-From Other Blocks within the Project			-595	-13	-13	-27	-34	-34	-68				
New External Trips													
Office (General Office Building)				647	77	724	99	568	667				
Retail (Shopping Center)				22	13	35	51	63	115				
Subtotal Residential				0	0	0	0	0	0				
Total			5,803	669	90	758	150	632	781				
New External Trips Percent of Total Project Trips			77%	84%	74%	83%	69%	81%	79%				
Transit Trips													
Office (12.5%)			730	96	13	109	18	87	105				
Retail (2.6%)			45	1	0	1	2	2	4				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			775	97	13	110	20	89	109				

Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 15: Bounded by G, 6th, H, 6th													
Office (General Office Building)	192.0 KSF	ITE (710)	2,205	278	38	316	50	244	294	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			8,315	365	93	458	320	536	856				
Transit Adjustments													
Office (-11.1%)			-245	-31	-4	-35	-6	-27	-33				
Retail (-2.2%)			-134	-2	-1	-3	-6	-6	-12				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-379	-33	-5	-38	-12	-33	-45				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-62	-8	-1	-9	-1	-7	-8				
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-771	-18	-7	-25	-32	-41	-73				
Internal Trips Within This Block			-369	-3	-3	-6	-12	-12	-24				
Trips To-From Other Blocks within the Project			-632	-7	-7	-13	-29	-29	-57				
New External Trips													
Office (General Office Building)				233	29	261	31	192	223				
Retail (Shopping Center)				72	43	115	204	229	433				
Subtotal Residential				0	0	0	0	0	0				
Total			6,164	304	71	376	235	421	657				
New External Trips Percent of Total Project Trips			74%	83%	77%	82%	74%	79%	77%				
Transit Trips													
Office (12.5%)			276	35	5	40	6	31	37				
Retail (2.6%)			159	2	2	4	7	8	15				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			435	37	7	44	13	39	52				

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 16: Bounded by G, 7th, Property Boundary, 6th													
Office (General Office Building)	300.0 KSF	ITE (710)	3,109	398	54	452	71	344	415	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			4,223	416	66	482	119	396	515				
Transit Adjustments													
Office (-11.1%)			-345	-44	-6	-50	-8	-38	-46				
Retail (-2.2%)			-25	-1	0	-1	-1	-1	-2				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-370	-45	-6	-51	-9	-39	-48				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-87	-11	-2	-13	-2	-10	-12				
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-216	-13	-3	-16	-8	-16	-24				
Internal Trips Within This Block			-67	-1	-1	-1	-2	-2	-4				
Trips To-From Other Blocks within the Project			-332	-7	-7	-14	-18	-18	-35				
New External Trips													
Office (General Office Building)				336	40	376	49	280	329				
Retail (Shopping Center)				14	9	24	33	41	74				
Subtotal Residential				0	0	0	0	0	0				
Total			3,238	350	49	400	82	321	404				
New External Trips Percent of Total Project Trips			77%	84%	75%	83%	69%	81%	78%				
Transit Trips													
Office (12.5%)			389	50	7	57	9	43	52				
Retail (2.6%)			29	1	0	1	1	2	3				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			418	51	7	58	10	45	55				

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	1,355 Units	ITE (232)	5,332	80	342	422	295	181	476	19%	81%	62%	38%	
Subtotal Residential	1,355 Units		5,332	80	342	422	295	181	476					
Other														
Total Trips for Block			5,332	80	342	422	295	181	476					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			0	0	0	0	0	0	0					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-139	-3	-11	-14	-9	-6	-15					
Other														
Total Transit Adjustments			-139	-3	-11	-14	-9	-6	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			0	0	0	0	0	0	0					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-512	-6	-27	-33	-25	-16	-41					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-512	-6	-27	-33	-25	-16	-41					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-435	-6	-6	-13	-17	-17	-34					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail (Shopping Center)			0	0	0	0	0	0	0					
Subtotal Residential			65	298	362	244	142	386						
Total			4,246	65	298	362	244	142	386					
New External Trips Percent of Total Project Trips			80%	81%	87%	86%	83%	79%	81%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			0	0	0	0	0	0	0					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			171	3	14	17	11	7	18					
Total Transit Trips			171	3	14	17	11	7	18					

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	1,273 Units	ITE (232)	5,023	76	322	398	278	170	448	19%	81%	62%	38%	
Subtotal Residential	1,273 Units		5,023	76	322	398	278	170	448					
Other														
Total Trips for Block			5,023	76	322	398	278	170	448					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			0	0	0	0	0	0	0					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-131	-3	-11	-14	-9	-5	-14					
Other														
Total Transit Adjustments			-131	-3	-11	-14	-9	-5	-14					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			0	0	0	0	0	0	0					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-482	-6	-25	-31	-24	-15	-39					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-482	-6	-25	-31	-24	-15	-39					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-410	-6	-6	-12	-16	-16	-32					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail (Shopping Center)			0	0	0	0	0	0	0					
Subtotal Residential			61	280	341	229	134	363						
Total			4,000	61	280	341	229	134	363					
New External Trips Percent of Total Project Trips			80%	80%	87%	86%	82%	79%	81%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			0	0	0	0	0	0	0					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			161	3	13	16	11	6	17					
Total Transit Trips			161	3	13	16	11	6	17					

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	25.0 KSF	ITE (820)	2,758	41	27	68	120	131	251	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	1,603 Units	ITE (232)	6,267	94	400	494	347	213	560	19%	81%	62%	38%	
Subtotal Residential	1,603 Units		6,267	94	400	494	347	213	560					
Other														
Total Trips for Block			9,025	135	427	562	467	344	811					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-61	-1	0	-1	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-163	-3	-14	-17	-11	-6	-17					
Other														
Total Transit Adjustments			-224	-4	-14	-18	-14	-9	-23					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-320	-5	-3	-8	-14	-15	-29					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-602	-7	-32	-39	-30	-18	-48					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-922	-12	-35	-47	-44	-33	-77					
Internal Trips Within This Block			-476	-6	-6	-12	-23	-23	-46					
Trips To-From Other Blocks within the Project			-688	-8	-8	-17	-27	-27	-53					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				29	21	50	87	89	177					
Subtotal Residential				75	343	418	273	163	436					
Total				6,715	105	364	468	360	253	612				
New External Trips Percent of Total Project Trips				74%	78%	85%	83%	77%	73%	75%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				72	1	1	2	3	4	7				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				201	4	16	20	13	8	21				
Total Transit Trips				273	5	17	22	16	12	28				

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	25.0 KSF	ITE (820)	2,758	41	27	68	120	131	251	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	1,865 Units	ITE (232)	7,255	108	462	570	403	247	650	19%	81%	62%	38%	
Subtotal Residential	1,865 Units		7,255	108	462	570	403	247	650					
Other														
Total Trips for Block			10,013	149	489	638	523	378	901					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-61	-1	0	-1	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-189	-4	-15	-19	-12	-8	-20					
Other														
Total Transit Adjustments			-250	-5	-15	-20	-15	-11	-26					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-320	-5	-3	-8	-14	-15	-29					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-696	-9	-36	-45	-35	-21	-56					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,016	-14	-39	-53	-49	-36	-85					
Internal Trips Within This Block			-476	-6	-6	-12	-23	-23	-46					
Trips To-From Other Blocks within the Project			-769	-9	-9	-19	-30	-30	-60					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				29	21	50	87	89	176					
Subtotal Residential				85	399	484	319	189	509					
Total				7,503	115	420	534	406	278	685				
New External Trips Percent of Total Project Trips				75%	77%	86%	84%	78%	74%	76%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				72	1	1	2	3	4	7				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				232	4	19	23	15	9	24				
Total Transit Trips				304	5	20	25	18	13	31				

Sacramento Railyards Traffic Study
Block 21: SITF Site
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 21: SITF Site													
Office (General Office Building)	121.5 KSF	ITE (710)	1,550	193	26	219	37	178	215	88%	12%	17%	83%
Retail (Shopping Center)	27.0 KSF	ITE (820)	2,900	43	28	71	127	137	264	61%	39%	48%	52%
Residential													
Hotel	200 rooms	ITE (310)	1,417	59	38	97	63	55	118	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	200 Units		1,417	59	38	97	63	55	118				
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%
Total Trips for Block			7,157	553	157	710	292	628	920				
Transit Adjustments													
Office (-11.1%)			-172	-21	-3	-24	-4	-20	-24				
Retail (-2.2%)			-64	-1	-1	-2	-3	-3	-6				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-37	-2	-1	-3	-2	-2	-4				
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11				
Total Transit Adjustments			-416	-33	-7	-40	-11	-34	-45				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-43	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-336	-5	-3	-8	-15	-16	-31				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-136	-5	-3	-8	-5	-5	-10				
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-551	-22	-9	-31	-23	-33	-56				
Internal Trips Within This Block			-702	-8	-8	-16	-31	-31	-62				
Trips To-From Other Blocks within the Project			-510	-11	-11	-21	-30	-30	-61				
New External Trips													
Office (General Office Building)				159	18	177	24	135	159				
Retail (Shopping Center)				31	17	49	80	89	169				
Subtotal Residential				47	26	73	32	34	66				
Other (Transit)				242	61	303	61	242	303				
Total				4,978	479	122	601	196	500	696			
New External Trips Percent of Total Project Trips				70%	87%	78%	85%	67%	80%	76%			
Transit Trips													
Office (12.5%)				194	24	3	27	5	22	27			
Retail (2.6%)				75	1	1	2	3	4	7			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				45	2	2	4	2	2	4			
Other (Transit) (12.5%)				161	32	8	40	8	32	40			
Total Transit Trips				475	59	14	73	18	60	78			

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	15.0 KSF	ITE (820)	1,979	31	20	50	86	93	179	61%	39%	48%	52%	
Residential														
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%	
High Rise Residential Condominium	900 Units	ITE (232)	3,617	55	235	290	199	122	321	19%	81%	62%	38%	
Subtotal Residential	1,400 Units		7,719	239	352	591	355	261	616					
Other														
Total Trips for Block			9,698	270	372	641	441	354	795					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-44	-1	0	-1	-2	-2	-4					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-201	-8	-12	-20	-11	-8	-19					
Other														
Total Transit Adjustments			-245	-9	-12	-21	-13	-10	-23					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-230	-4	-2	-6	-10	-11	-21					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-741	-19	-28	-47	-31	-22	-53					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-971	-23	-30	-53	-41	-33	-74					
Internal Trips Within This Block			-341	-5	-5	-9	-16	-16	-33					
Trips To-From Other Blocks within the Project			-757	-10	-10	-19	-27	-27	-53					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				23	15	38	62	64	126					
Subtotal Residential				201	301	502	282	204	486					
Total			7,384	224	316	539	344	268	612					
New External Trips Percent of Total Project Trips			76%	83%	85%	84%	78%	76%	77%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			51	1	0	1	2	3	5					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			247	10	14	24	13	10	23					
Total Transit Trips			298	11	14	25	15	13	28					

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	60.0 KSF	ITE (820)	4,872	70	45	115	215	232	447	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	650 Units	ITE (232)	2,674	41	176	217	146	90	236	19%	81%	62%	38%	
Subtotal Residential	650 Units		2,674	41	176	217	146	90	236					
Other														
Total Trips for Block			7,546	111	221	332	361	322	683					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-107	-2	-1	-3	-5	-5	-10					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-70	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-177	-3	-7	-10	-9	-8	-17					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-565	-8	-5	-13	-25	-27	-52					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-257	-3	-14	-17	-12	-8	-20					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-822	-11	-19	-30	-37	-35	-72					
Internal Trips Within This Block			-840	-10	-10	-20	-41	-41	-81					
Trips To-From Other Blocks within the Project			-531	-5	-5	-9	-20	-20	-41					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				52	33	85	156	161	318					
Subtotal Residential				31	147	177	98	57	154					
Total				5,176	82	180	263	254	218	472				
New External Trips Percent of Total Project Trips				69%	74%	82%	79%	70%	68%	69%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				127	2	1	3	6	6	12				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				86	2	7	9	6	3	9				
Total Transit Trips				213	4	8	12	12	9	21				

Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 24: Bounded by Property Boundary, Railyards, N. 10th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	40.0 KSF	ITE (820)	3,743	55	35	90	164	178	342	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	650 Units	ITE (232)	2,674	41	176	217	146	90	236	19%	81%	62%	38%	
Subtotal Residential	650 Units		2,674	41	176	217	146	90	236					
Other														
Total Trips for Block			6,417	96	211	307	310	268	578					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-82	-1	-1	-2	-4	-4	-8					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-70	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-152	-2	-7	-9	-8	-7	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-434	-6	-4	-10	-19	-21	-40					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-257	-3	-14	-17	-12	-8	-20					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-691	-9	-18	-27	-31	-29	-60					
Internal Trips Within This Block			-646	-8	-8	-16	-31	-31	-62					
Trips To-From Other Blocks within the Project			-458	-4	-4	-9	-18	-18	-35					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				41	26	67	119	123	242					
Subtotal Residential				32	148	180	103	60	163					
Total				4,470	73	174	246	222	183	406				
New External Trips Percent of Total Project Trips				70%	76%	82%	80%	72%	68%	70%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				97	1	1	2	4	5	9				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				86	2	7	9	6	3	9				
Total Transit Trips				183	3	8	11	10	8	18				

Analyst: Dowling

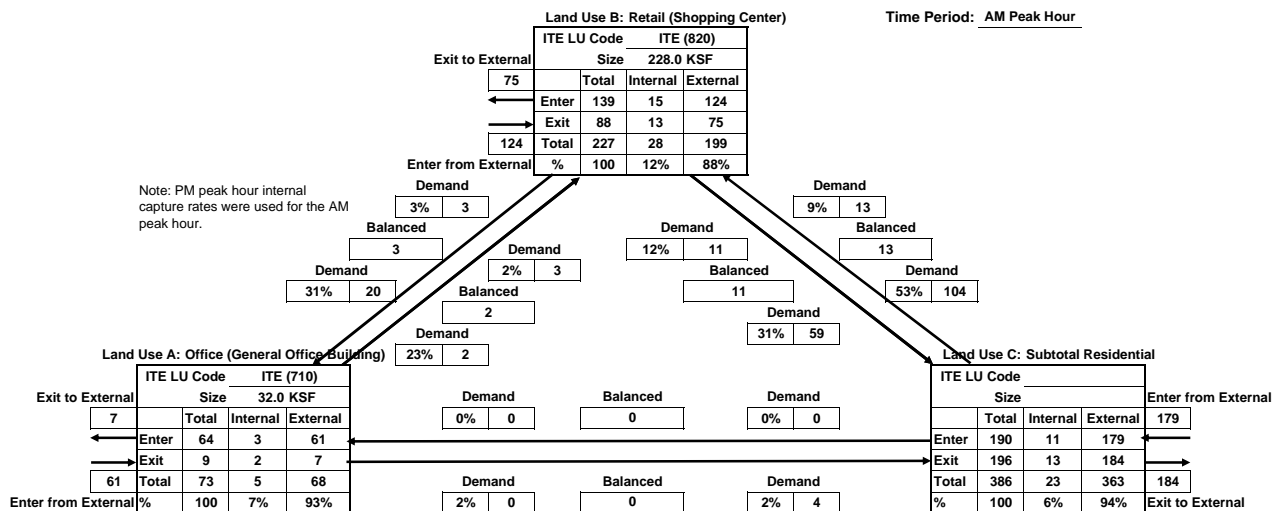
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study

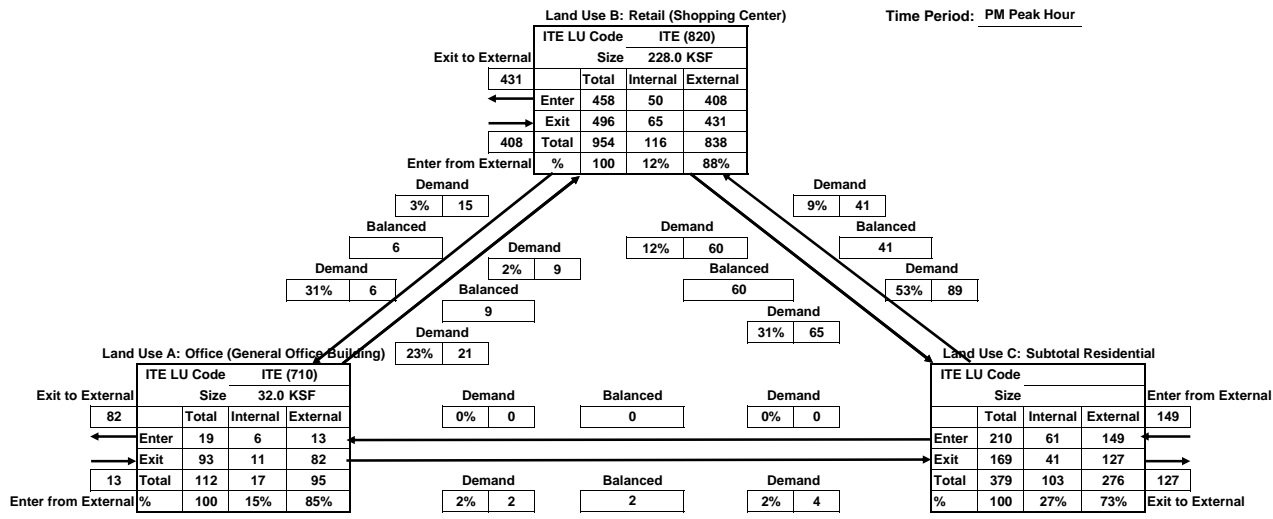
Full Project with Maximum Office

Time Period: AM Peak Hour



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	61	124	179	365	
Exit	7	75	184	265	
Total	68	199	363	630	INTERNAL CAPTURE
Single-Use Trip	73	227	386	686	8%

Time Period: PM Peak Hour



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	13	408	149	570	
Exit	82	431	127	640	
Total	95	838	276	1210	INTERNAL CAPTURE
Single-Use Trip	112	954	379	1445	16%

Analyst: Dowling

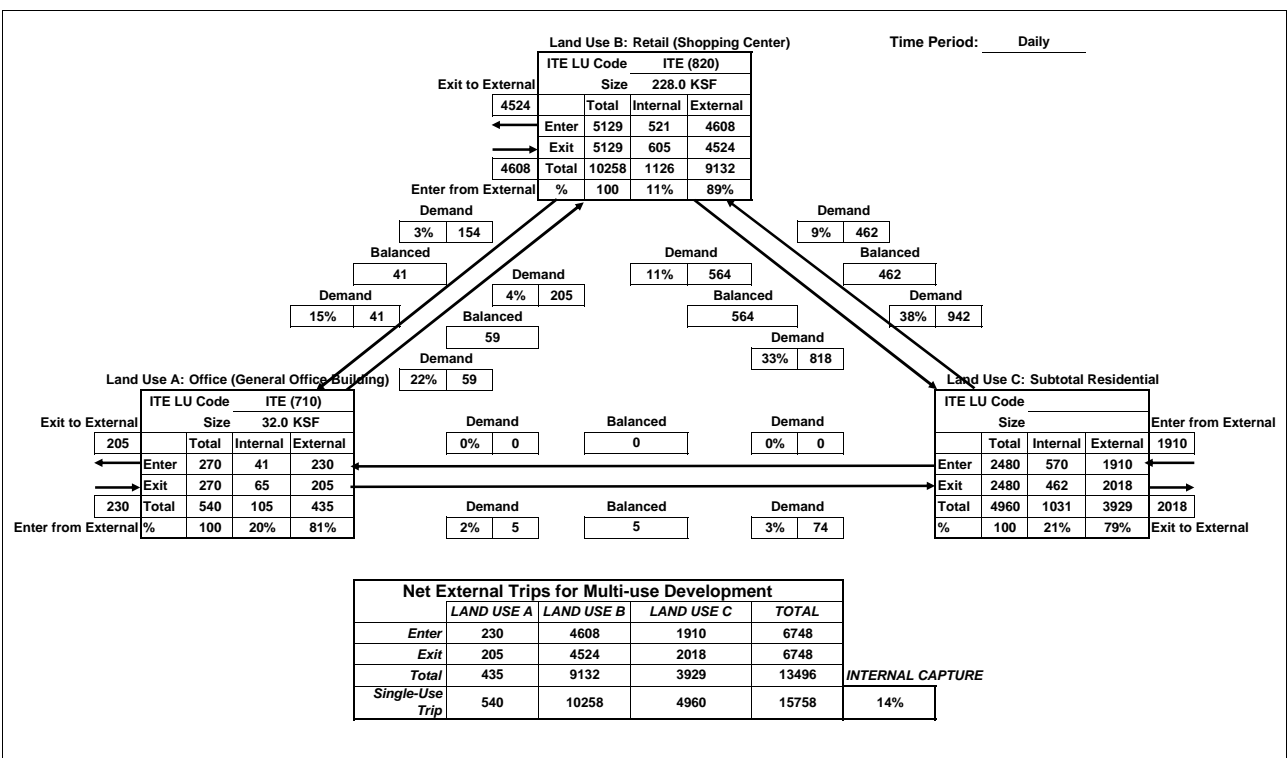
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study

Full Project with Maximum Office

Time Period: Daily



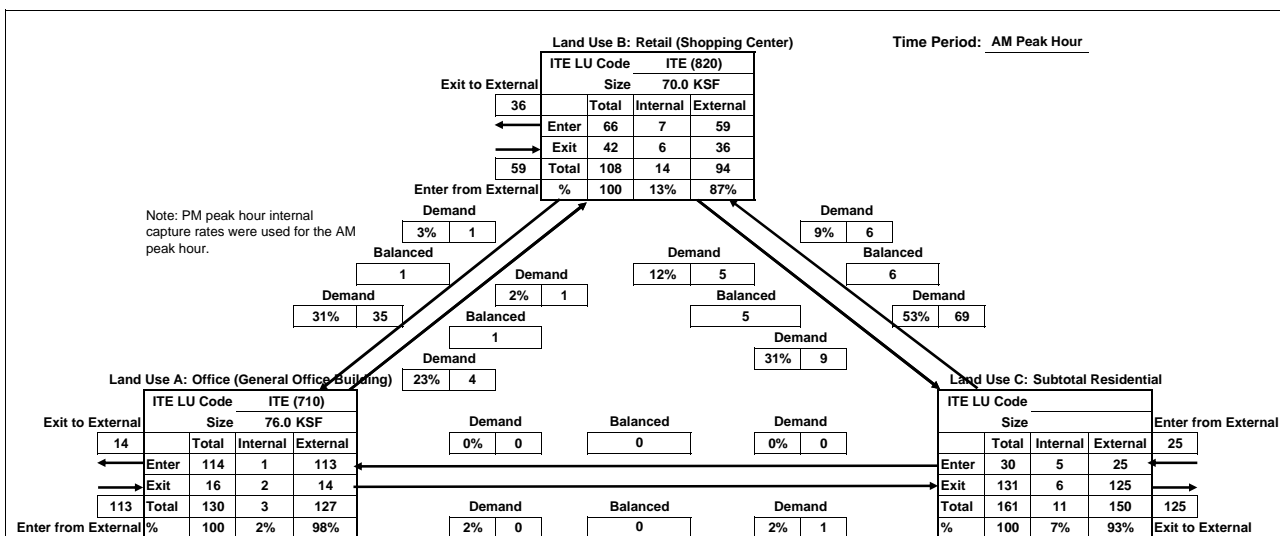
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Date: 8/17/2007

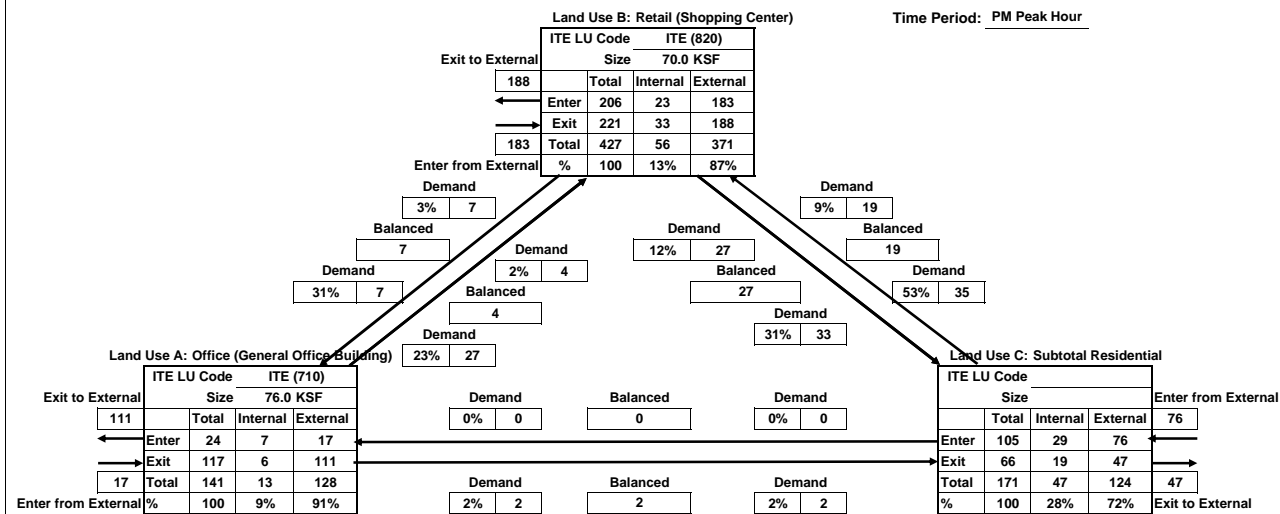
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study

Full Project with Maximum Office



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	113	59	25	196	
Exit	14	36	125	175	
Total	127	94	150	371	
Single-Use Trip	130	108	161	399	INTERNAL CAPTURE 7%



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	183	76	277	
Exit	111	188	47	346	
Total	128	371	124	623	
Single-Use Trip	141	427	171	739	INTERNAL CAPTURE 16%

Analyst: Dowling

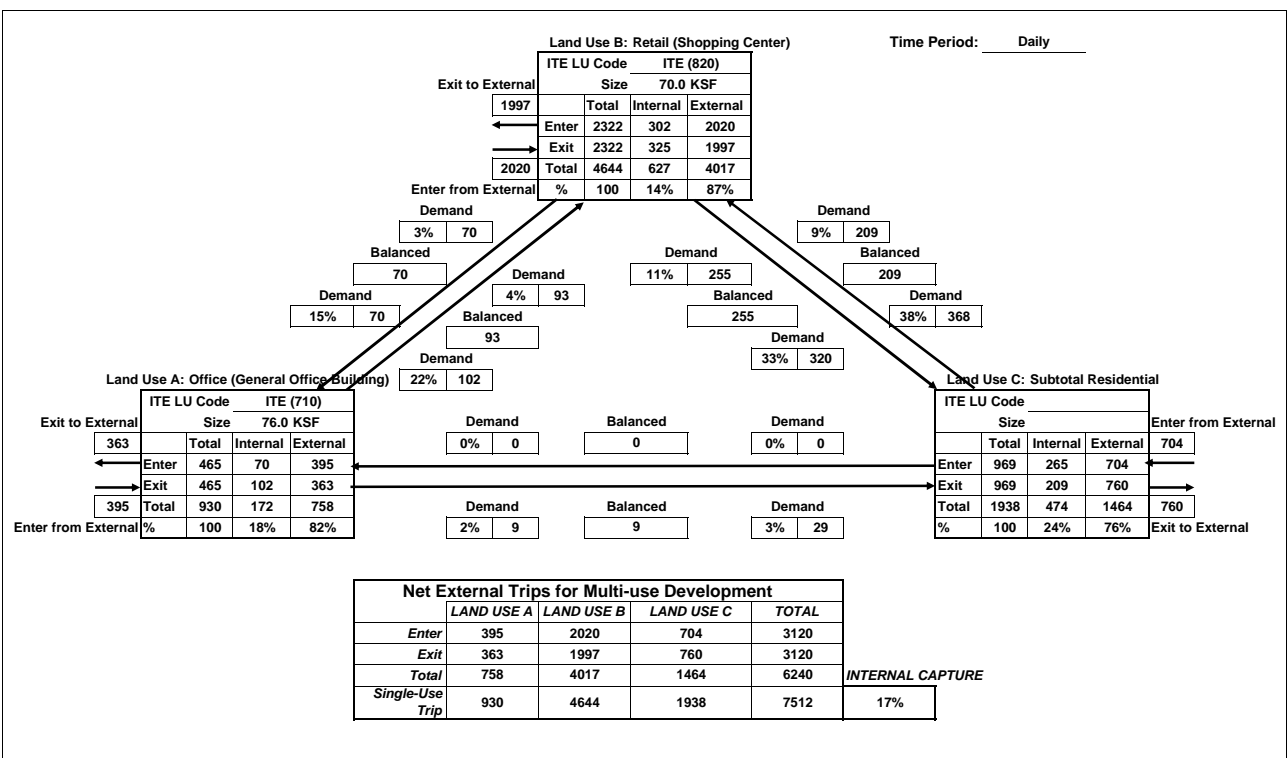
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study

Full Project with Maximum Office

Time Period: Daily



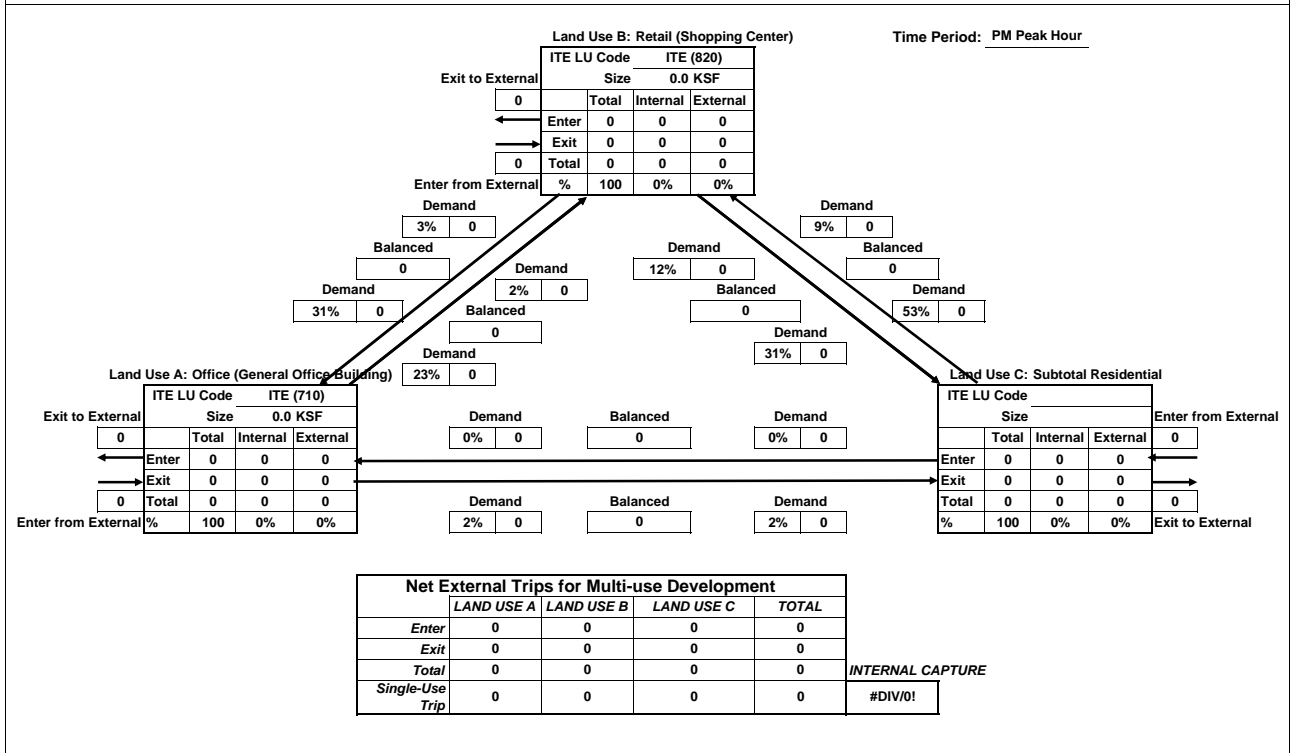
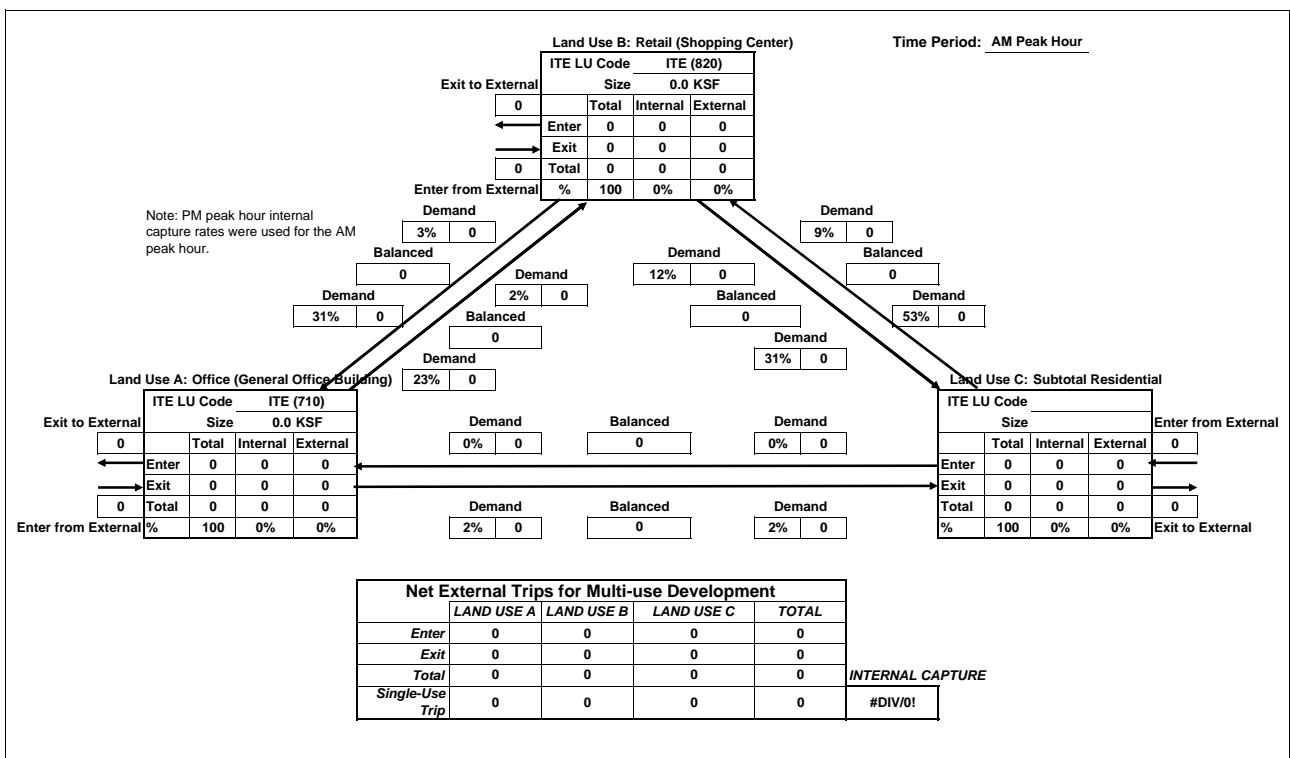
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study

Full Project with Maximum Office



Analyst: Dowling

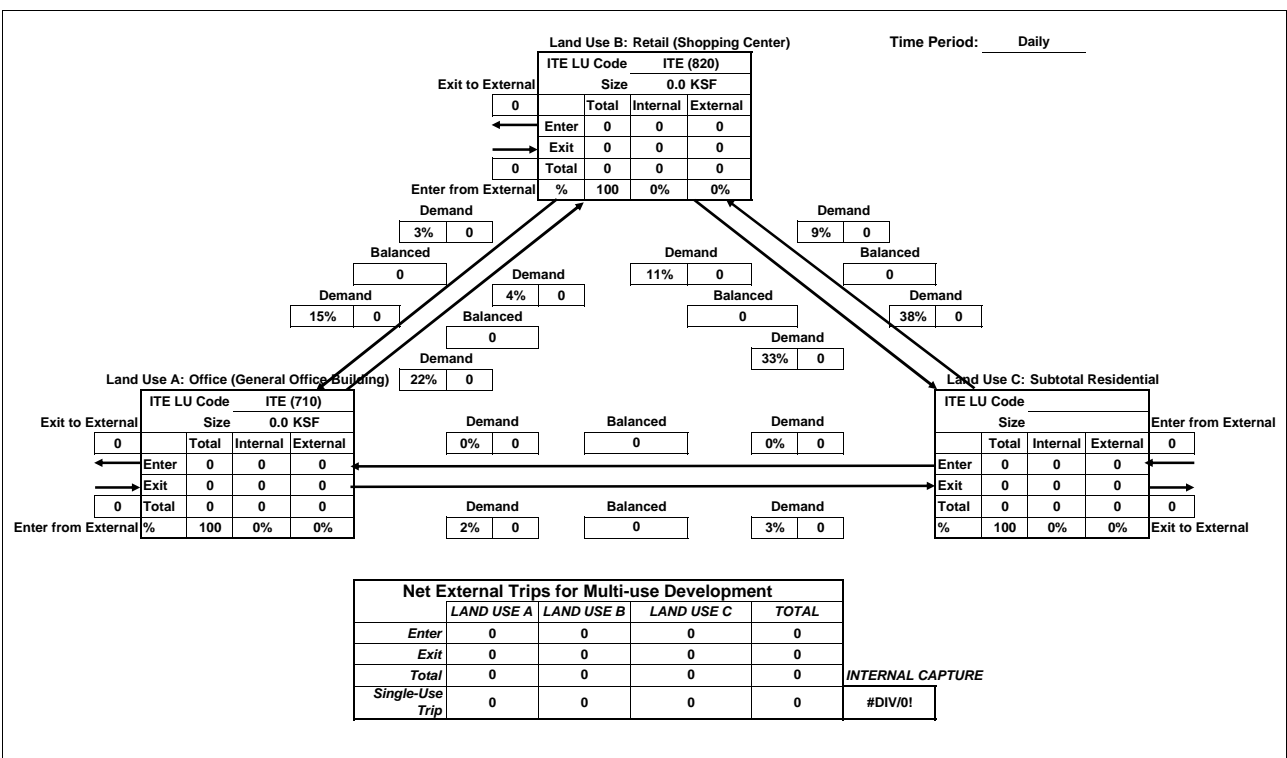
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**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study

Full Project with Maximum Office

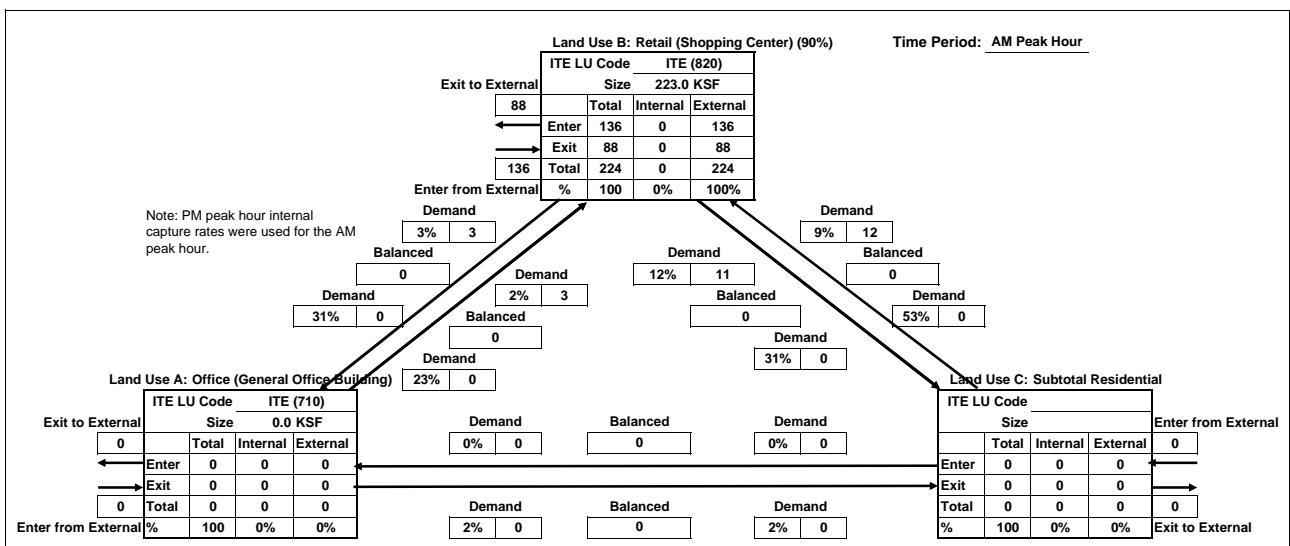
Time Period: Daily



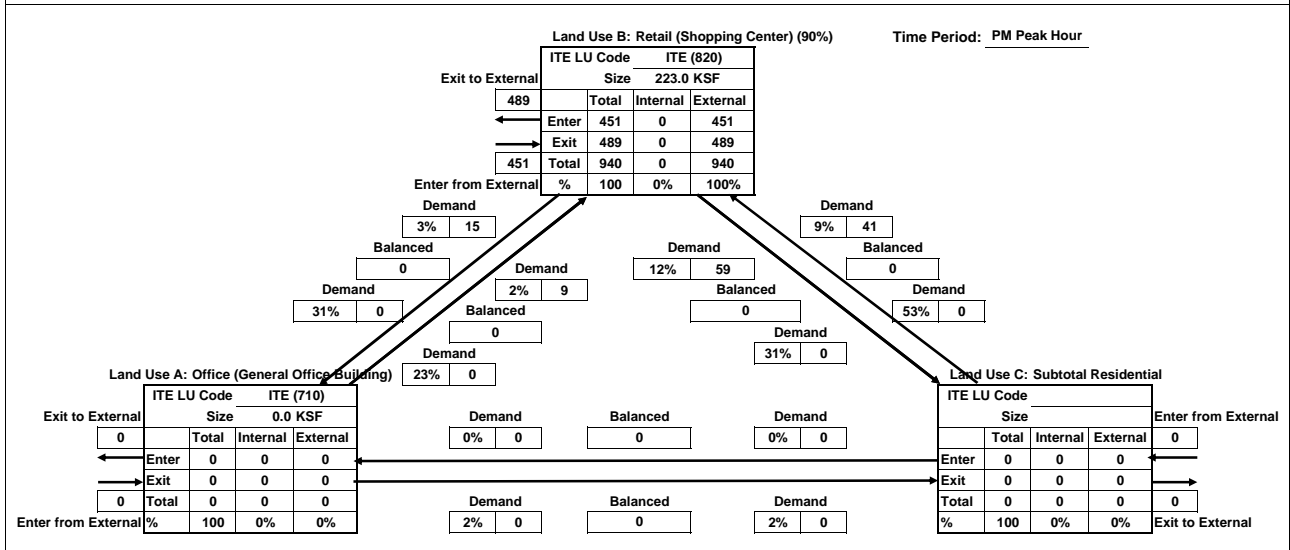
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
 Full Project with Maximum Office



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	136	0	136	
Exit	0	88	0	88	
Total	0	224	0	224	INTERNAL CAPTURE
Single-Use Trip	0	224	0	224	0%



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	451	0	451	
Exit	0	489	0	489	
Total	0	940	0	940	INTERNAL CAPTURE
Single-Use Trip	0	940	0	940	0%

Analyst: Dowling

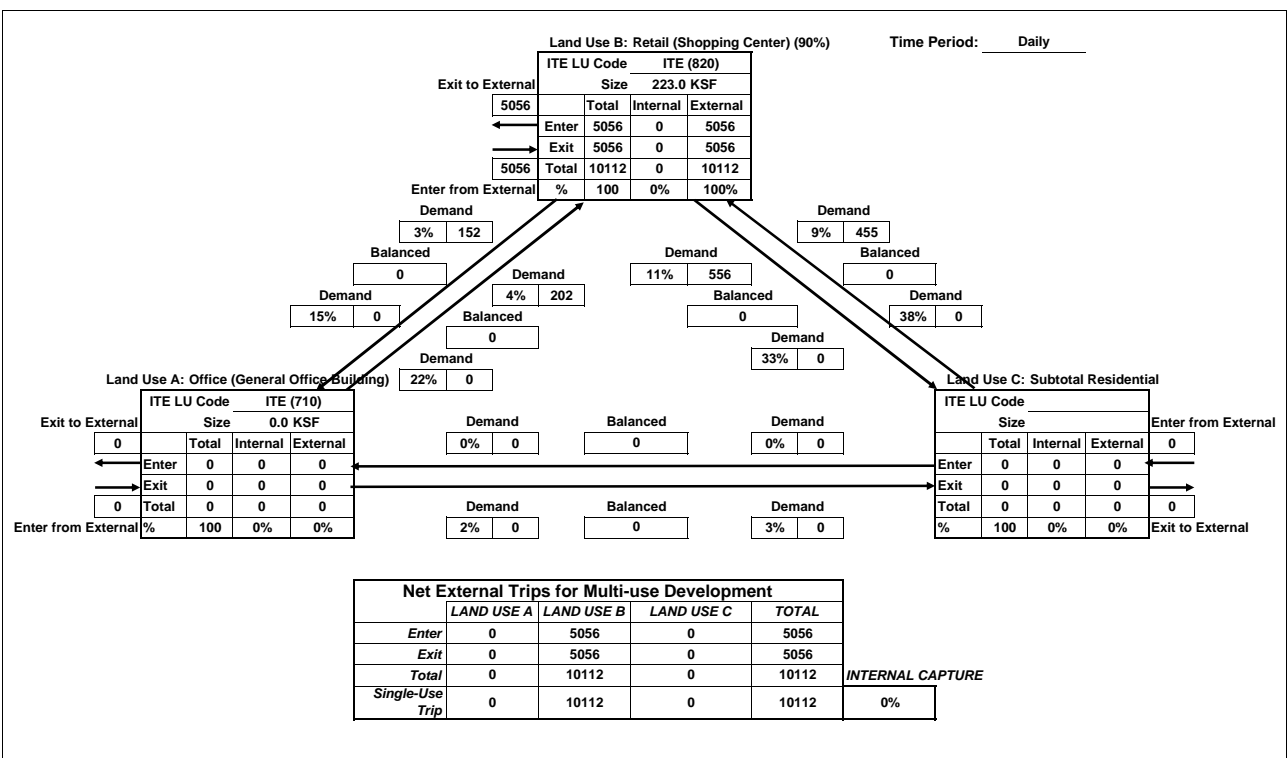
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**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study

Full Project with Maximum Office

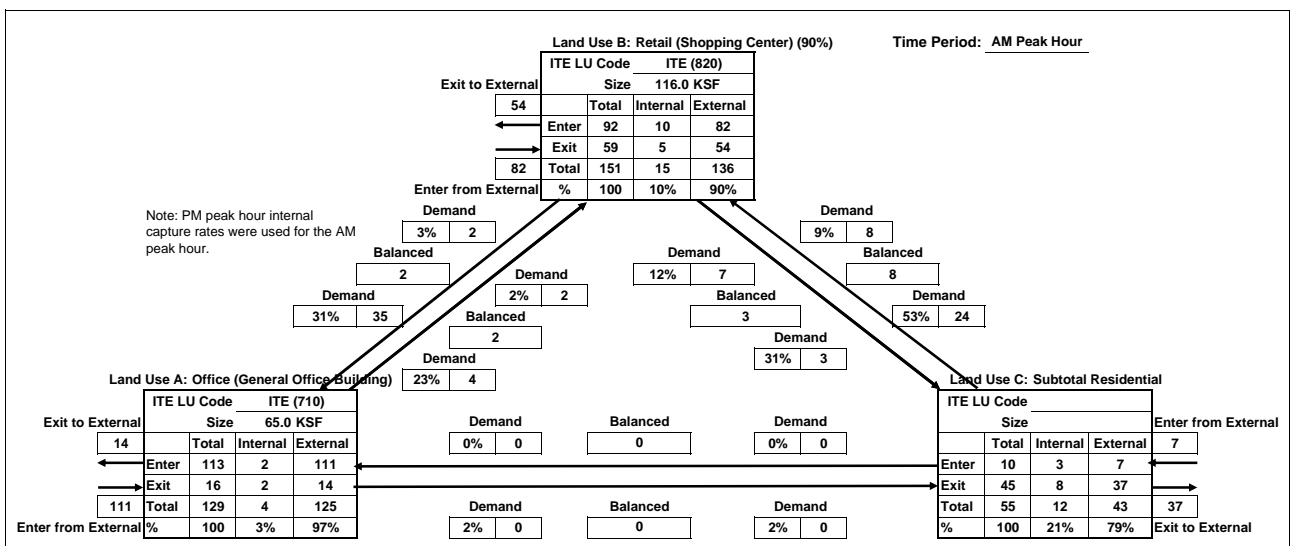
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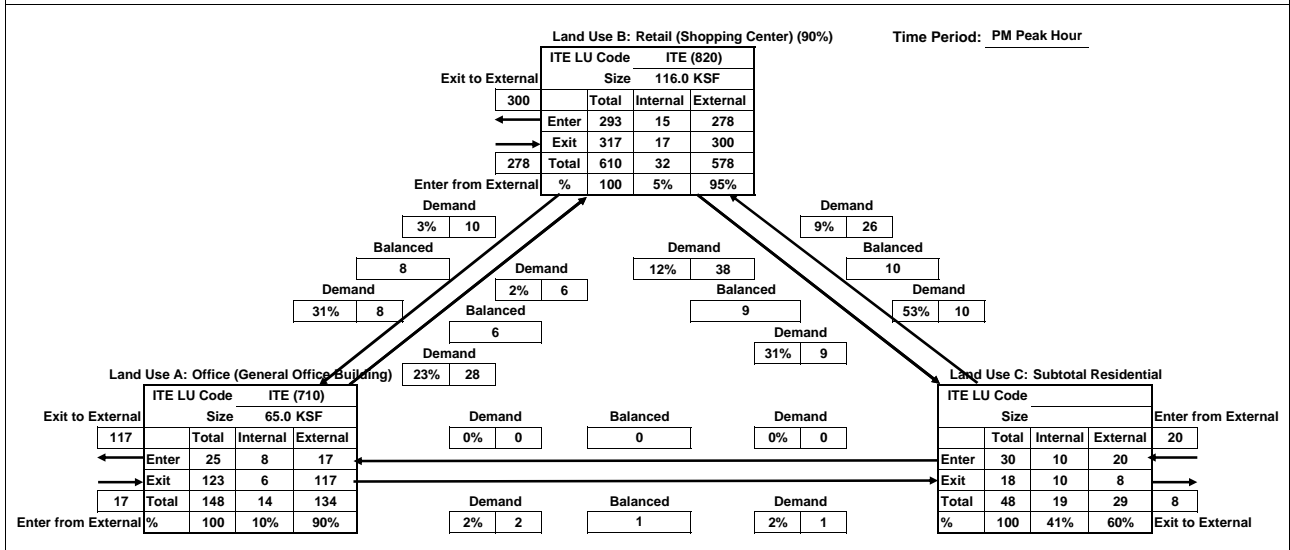
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	111	82	7	200	
Exit	14	54	37	105	
Total	125	136	43	305	INTERNAL CAPTURE
Single-Use Trip	129	151	55	335	9%



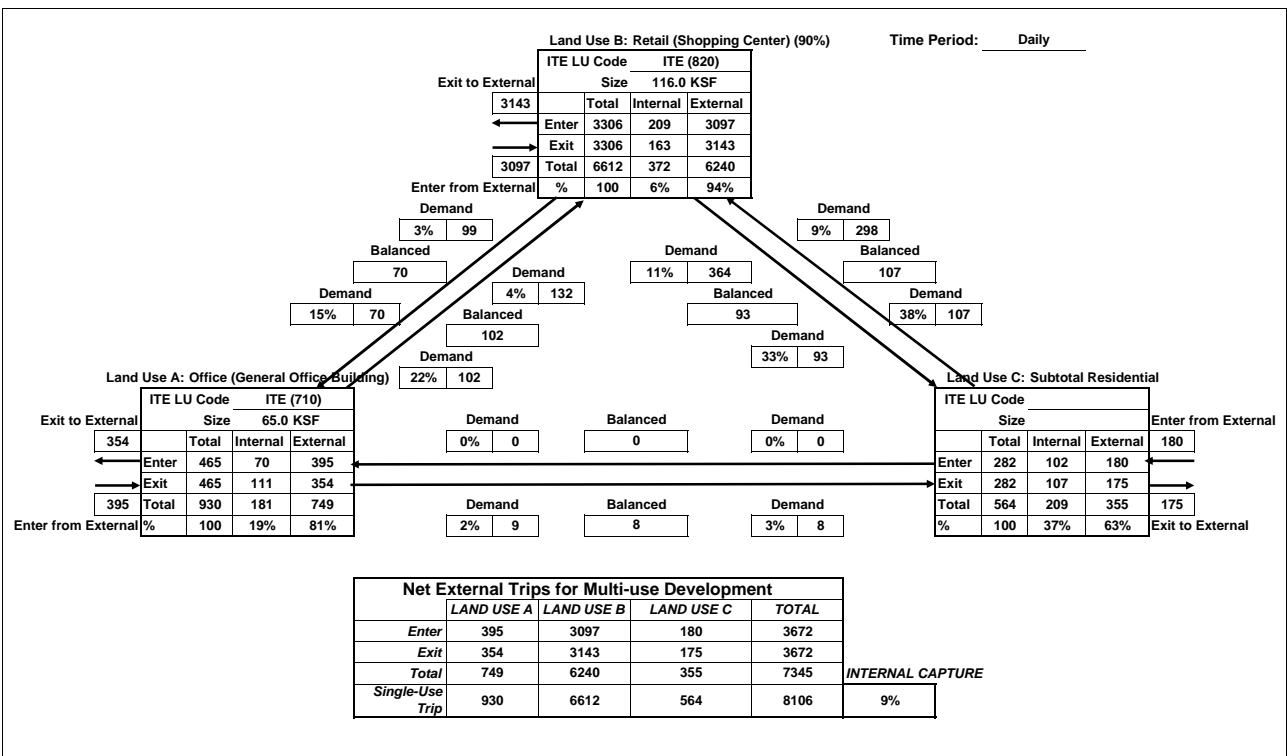
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	278	20	315	
Exit	117	300	8	425	
Total	134	578	29	740	INTERNAL CAPTURE
Single-Use Trip	148	610	48	806	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily



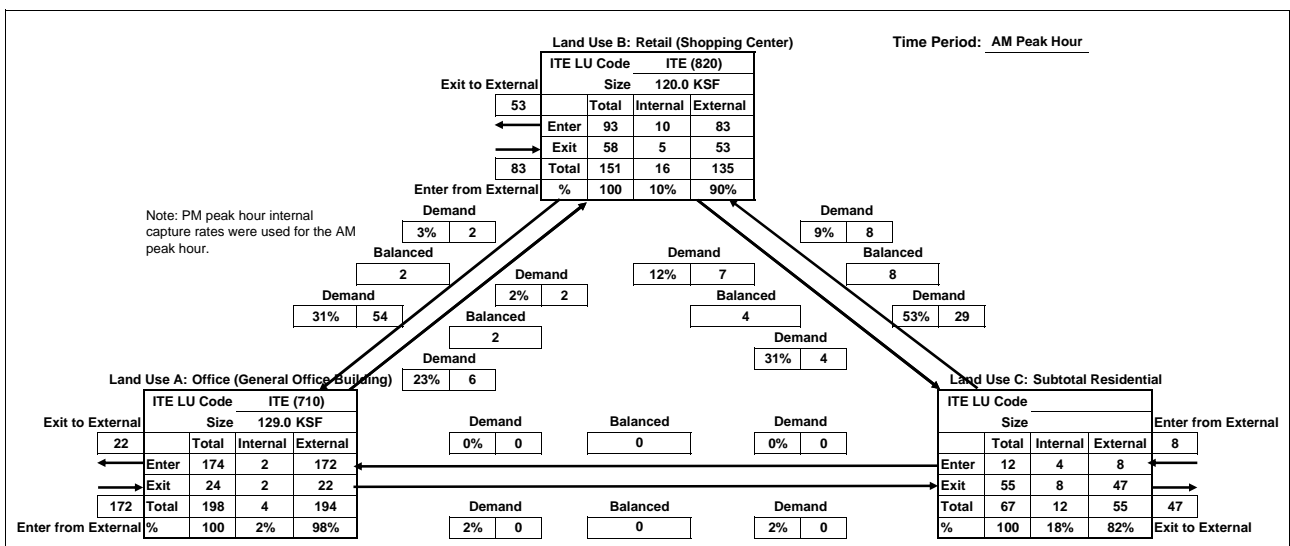
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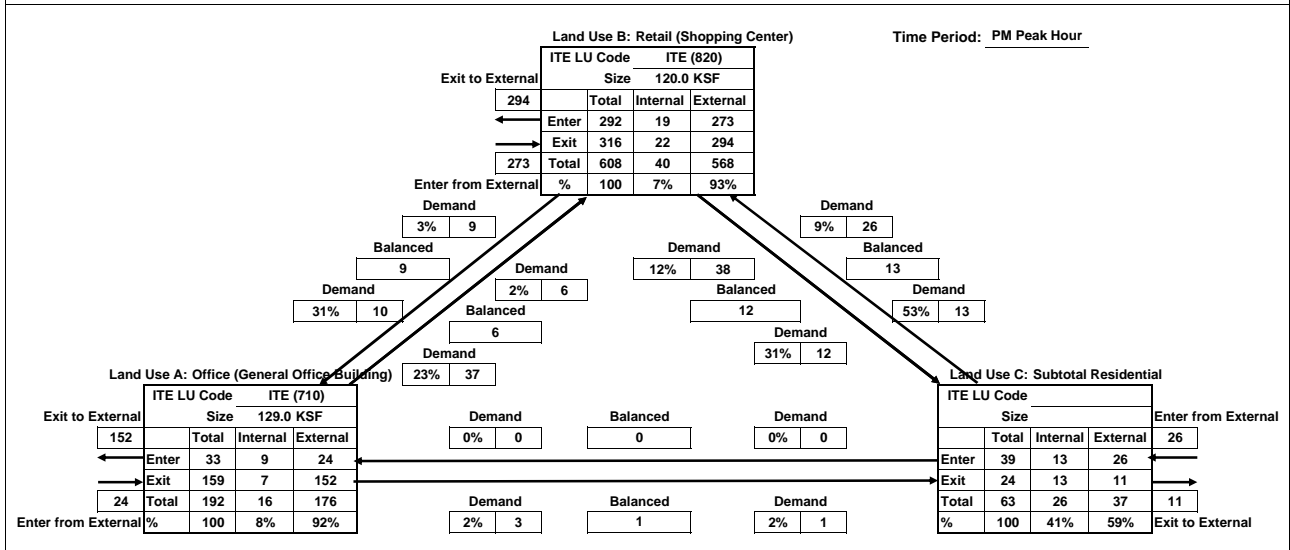
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study

Full Project with Maximum Office



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	172	83	8	263	
Exit	22	53	47	121	
Total	194	135	55	384	
Single-Use Trip	198	151	67	416	INTERNAL CAPTURE
					8%



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	24	273	26	323	
Exit	152	294	11	458	
Total	176	568	37	781	
Single-Use Trip	192	608	63	863	INTERNAL CAPTURE
					9%

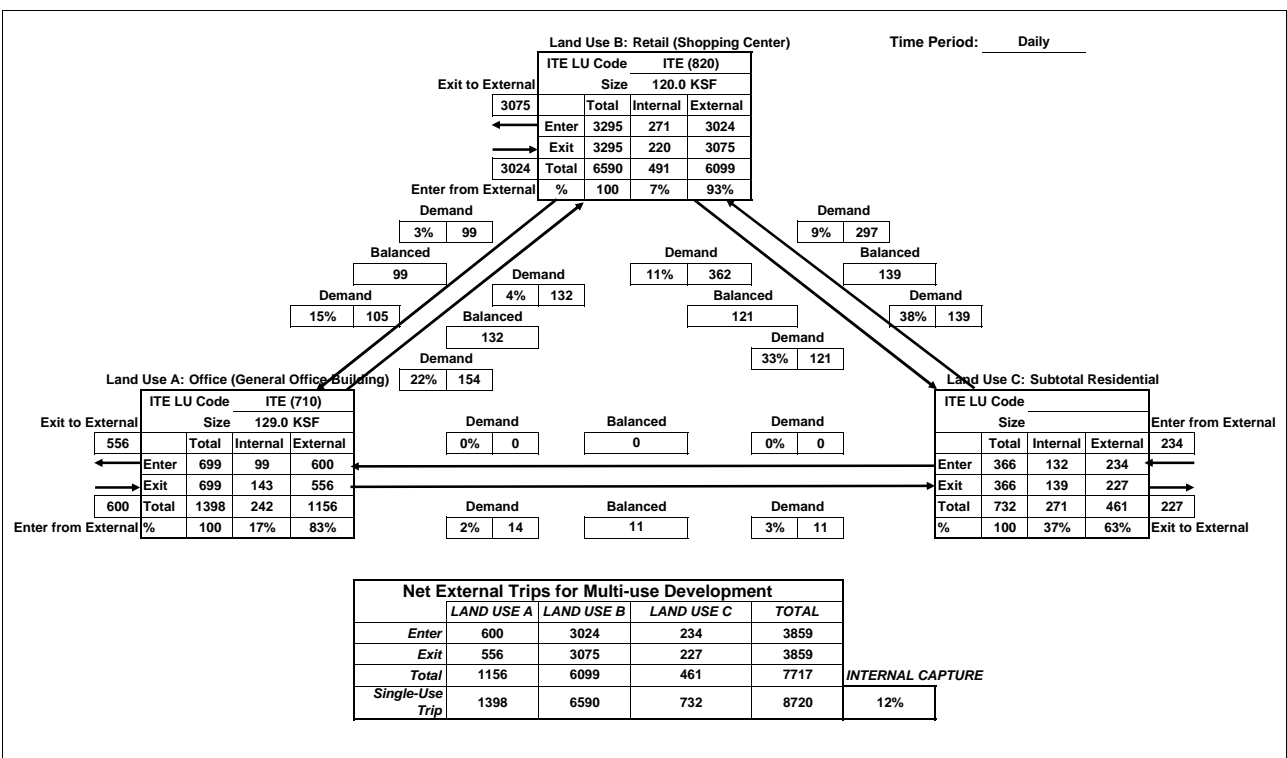
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Full Project with Maximum Office

Time Period: Daily

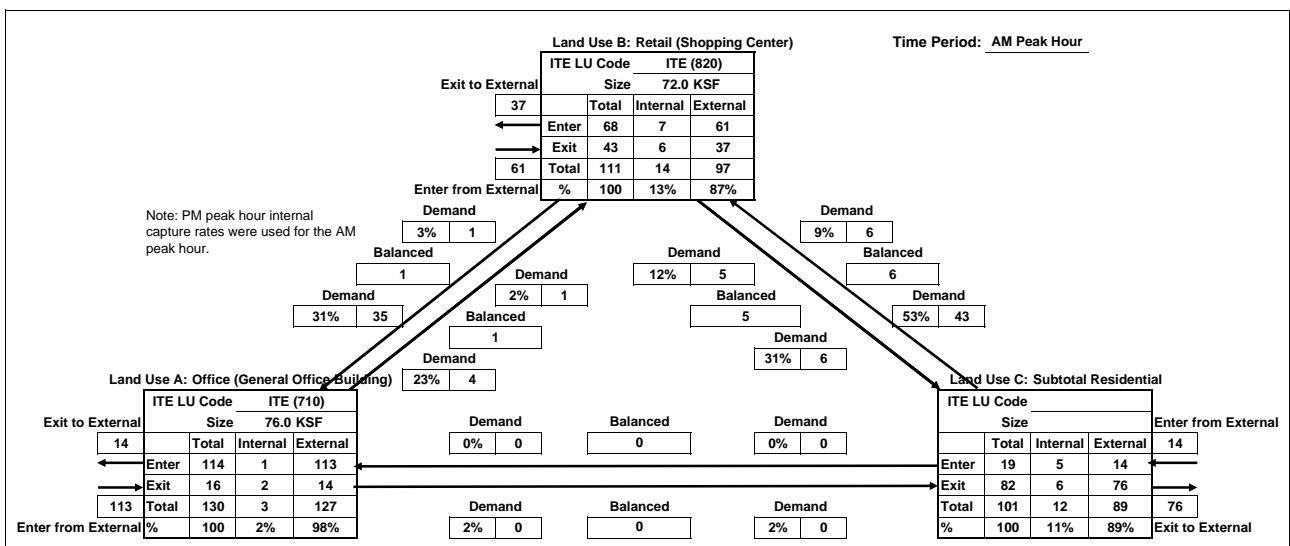


Analyst: Dowling

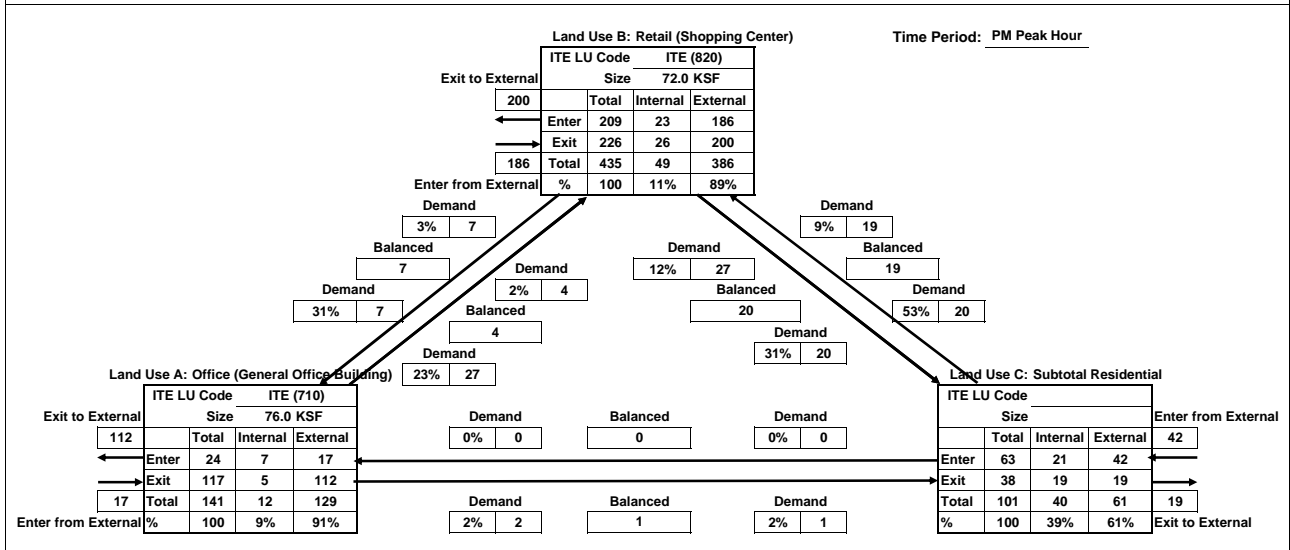
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	113	61	14	187	
Exit	14	37	76	127	
Total	127	97	89	314	INTERNAL CAPTURE
Single-Use Trip	130	111	101	342	8%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	186	42	245	
Exit	112	200	19	330	
Total	129	386	61	576	INTERNAL CAPTURE
Single-Use Trip	141	435	101	677	15%

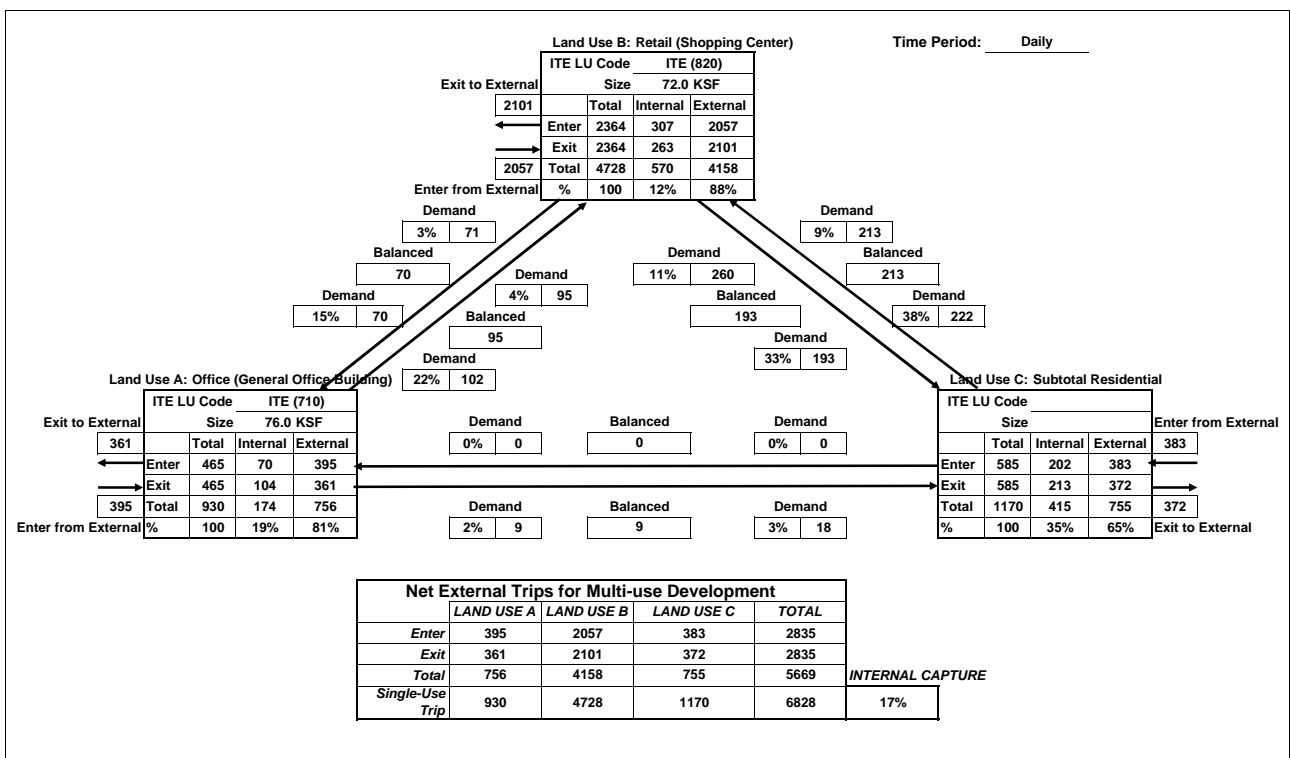
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Full Project with Maximum Office

Time Period: Daily

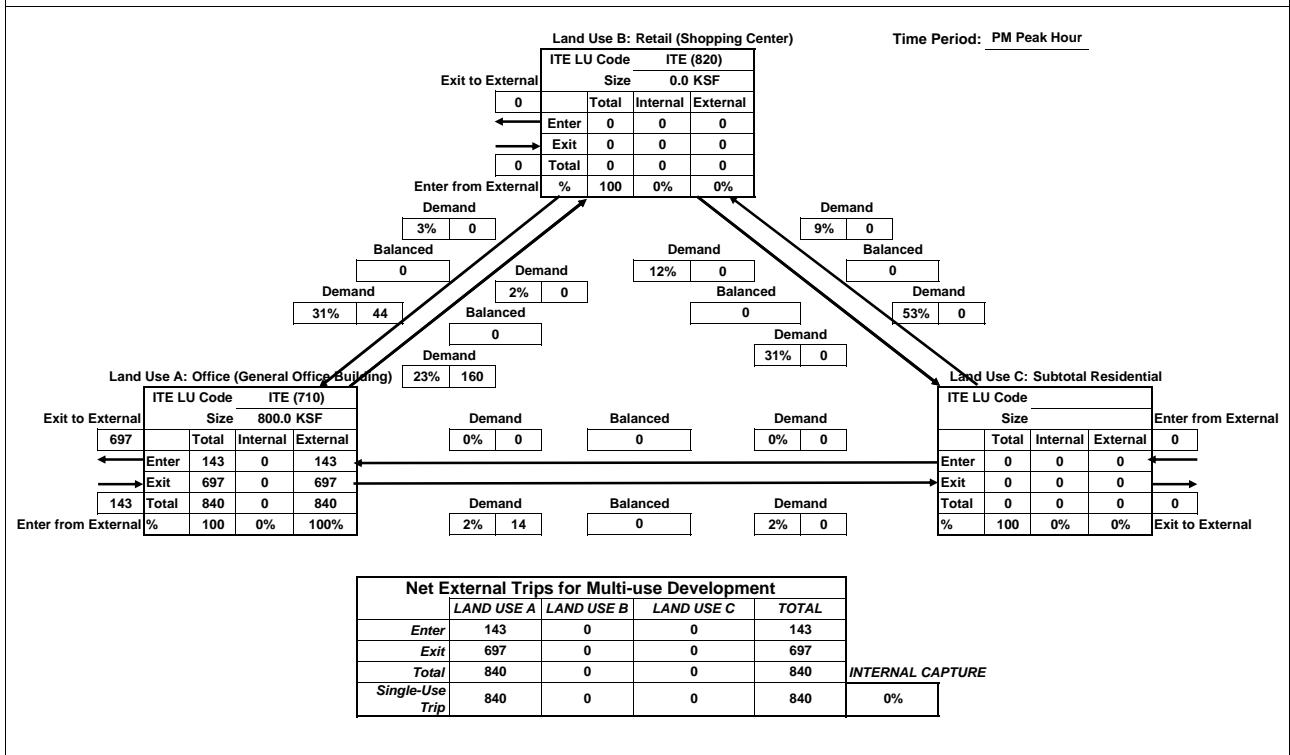
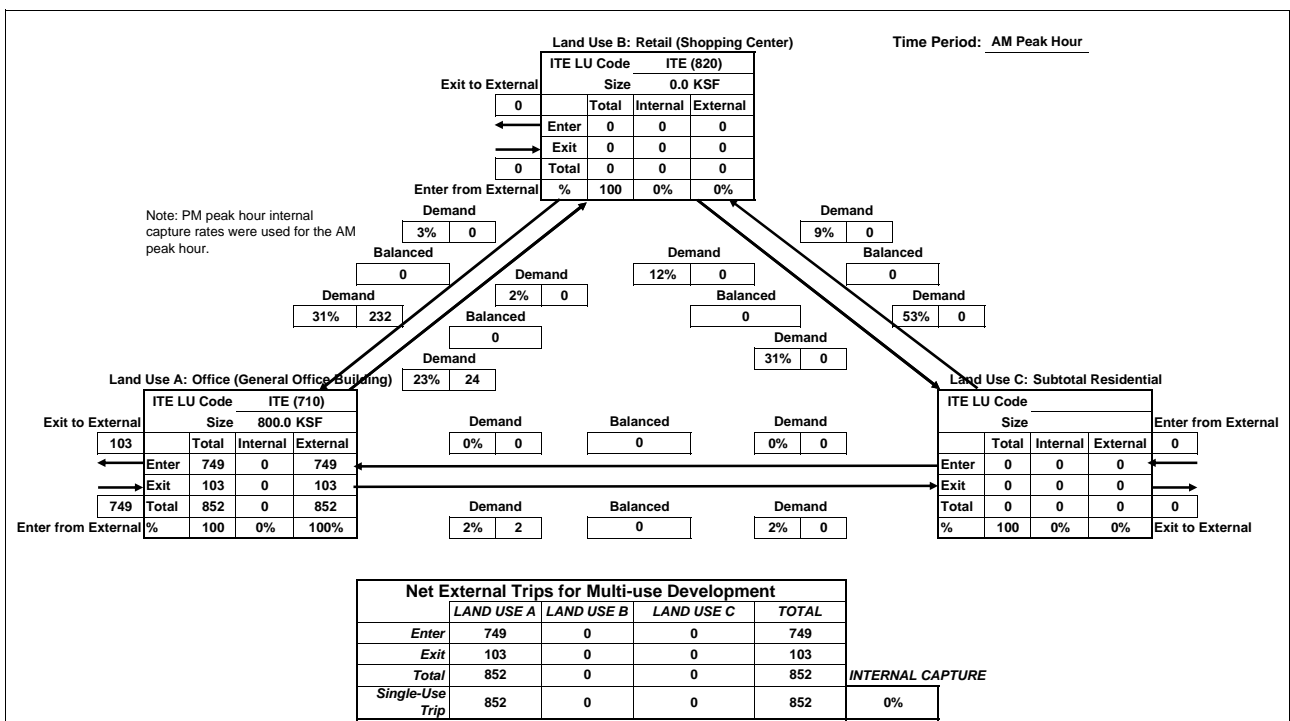


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Full Project with Maximum Office



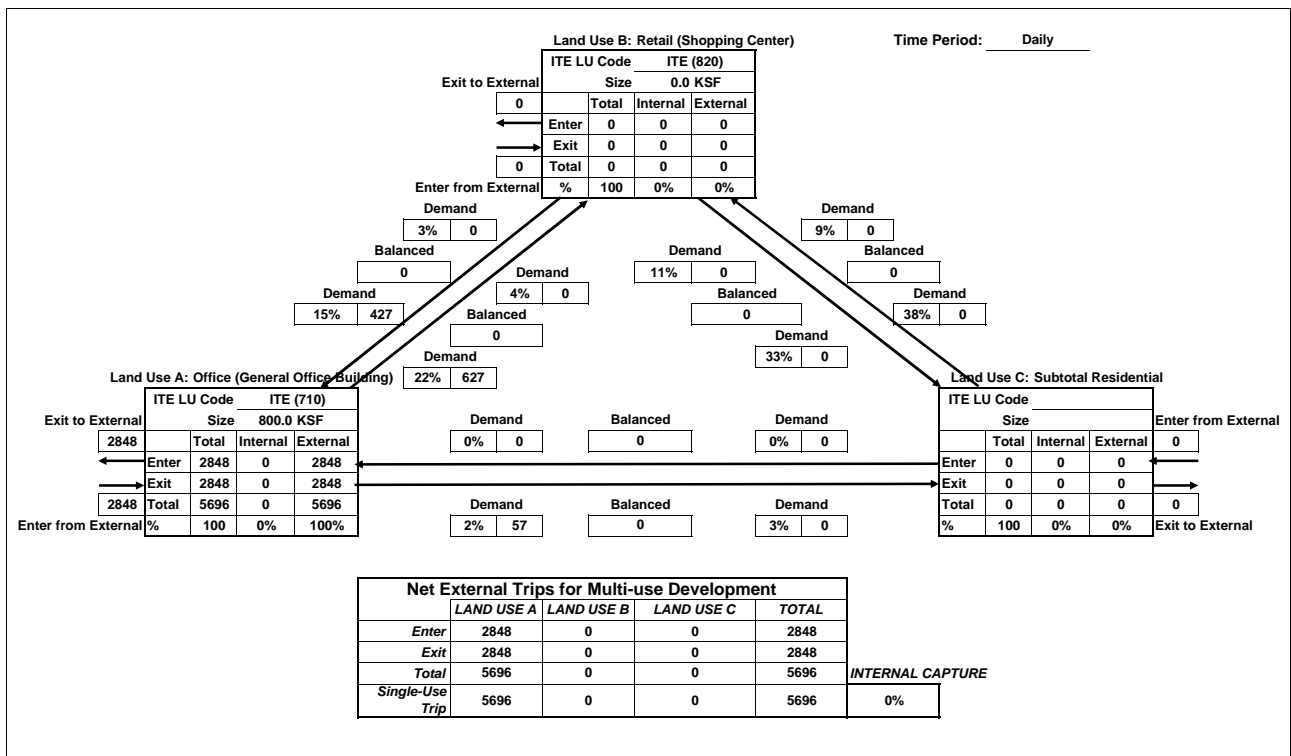
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Full Project with Maximum Office

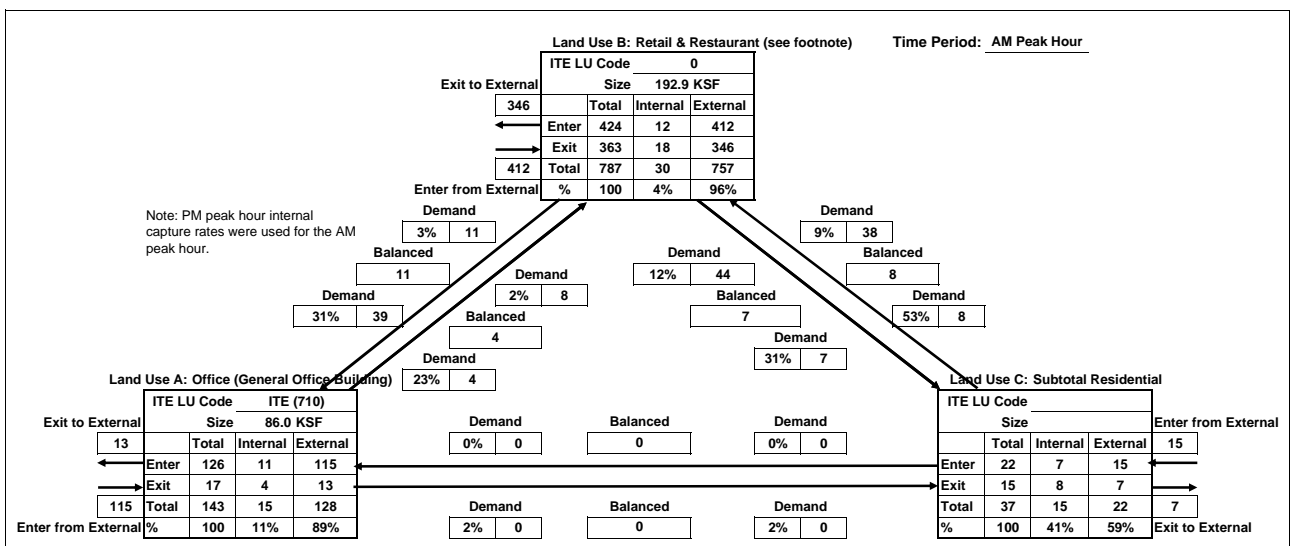
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

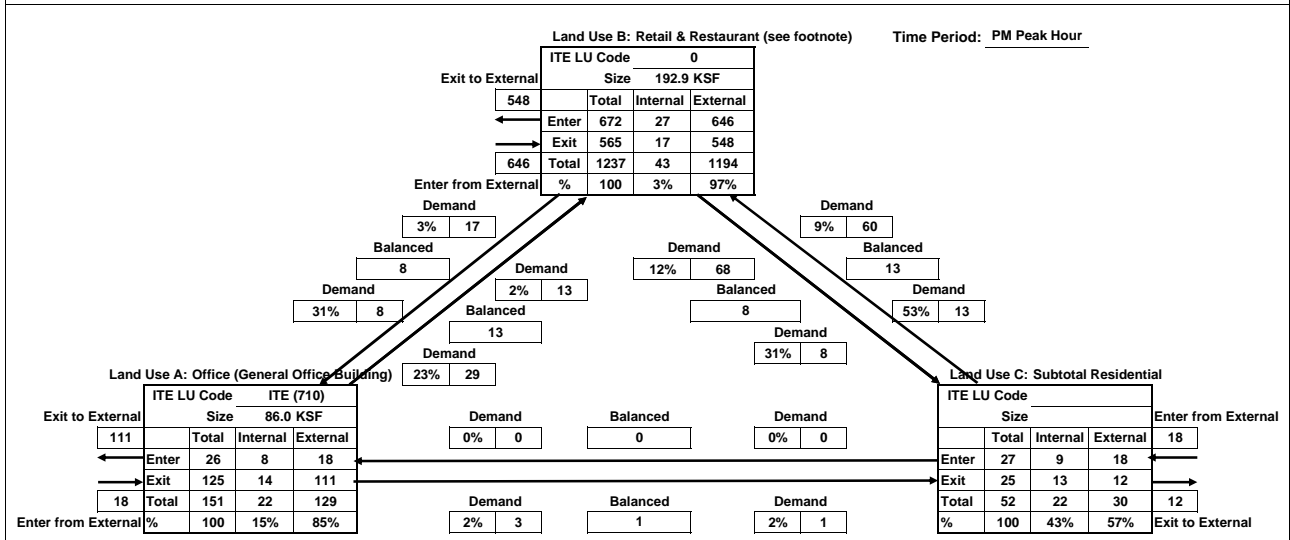
**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5

Name of Development: Railyards Study
 Full Project with Maximum Office



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	115	412	15	542	
Exit	13	346	7	365	
Total	128	757	22	907	INTERNAL CAPTURE
Single-Use Trip	143	787	37	967	6%



Net External Trips for Multi-use Development

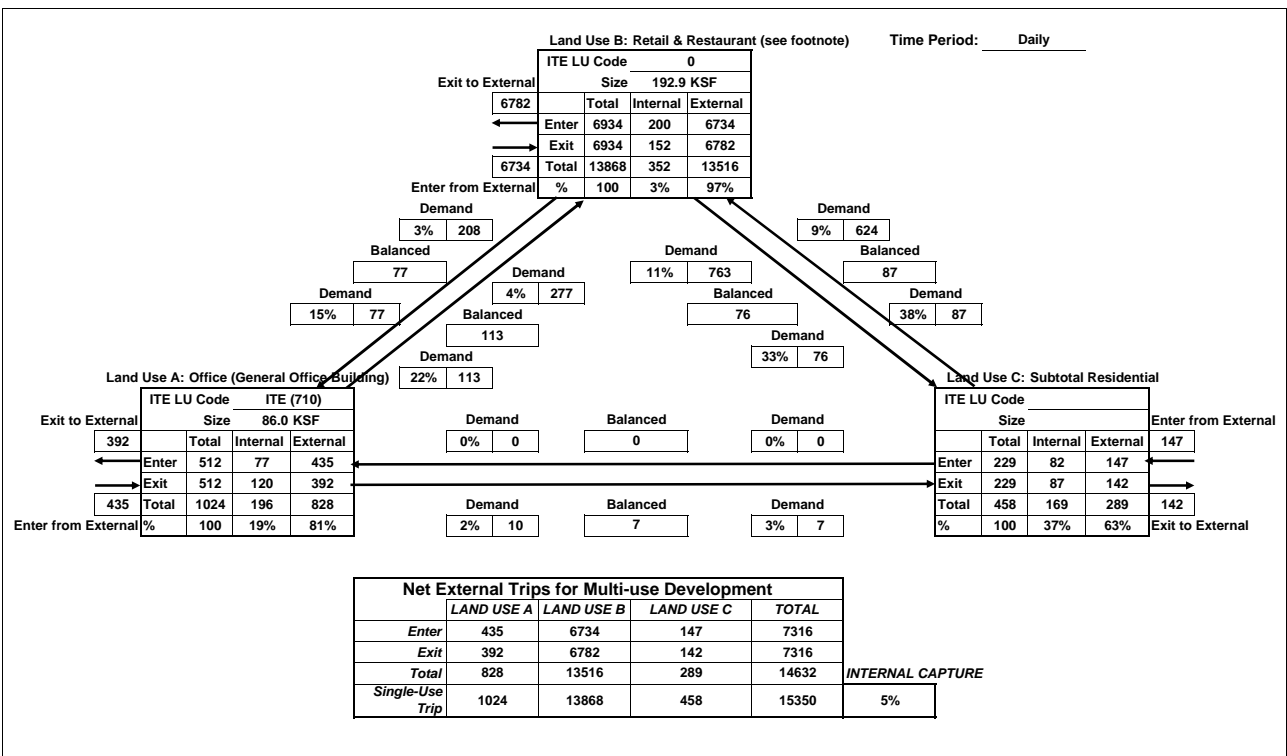
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	18	646	18	682	
Exit	111	548	12	671	
Total	129	1194	30	1353	INTERNAL CAPTURE
Single-Use Trip	151	1237	52	1440	6%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5

Name of Development: Railyards Study
 Full Project with Maximum Office

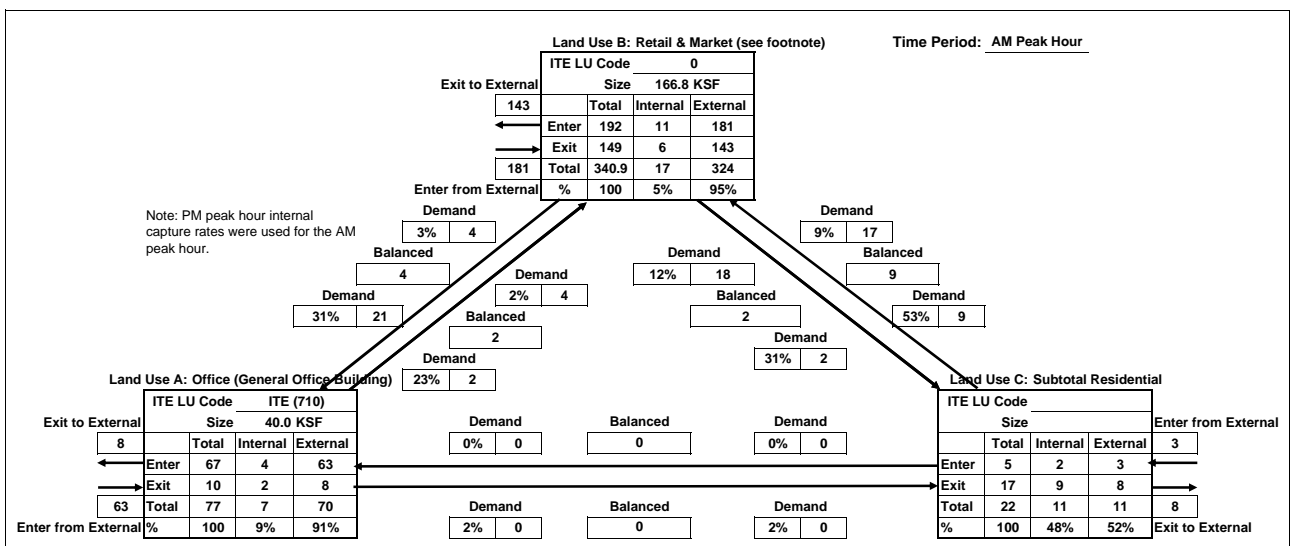
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

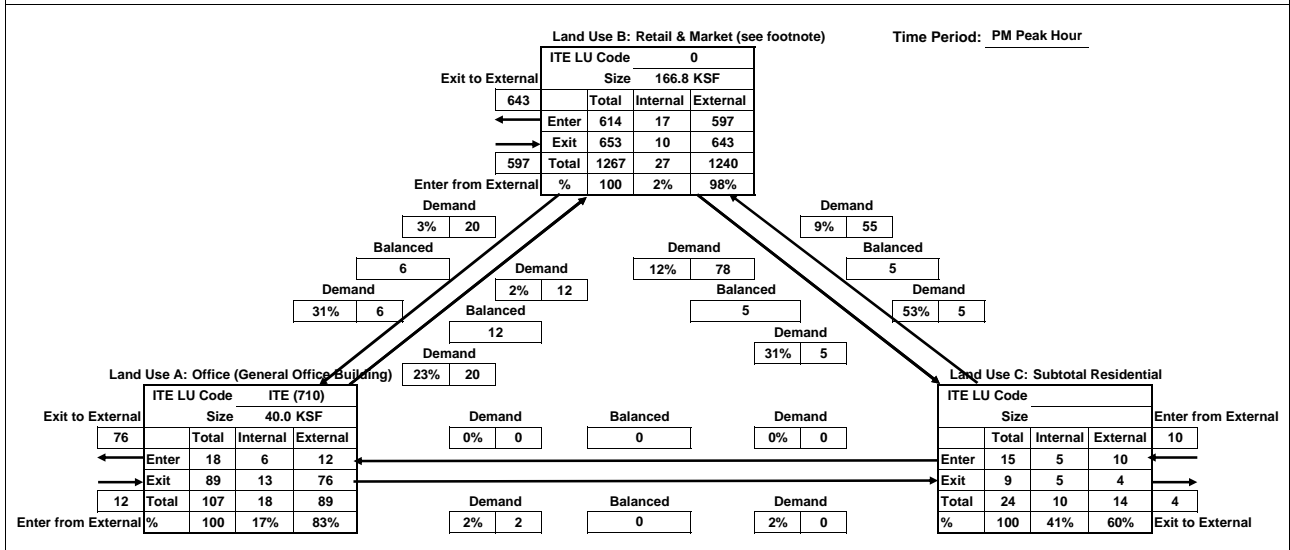
**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Full Project with Maximum Office



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	63	181	3	247	
Exit	8	143	8	158	
Total	70	324	11	405	INTERNAL CAPTURE
Single-Use Trip	77	340.9035	22	440	8%



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	12	597	10	619	
Exit	76	643	4	723	
Total	89	1240	14	1343	INTERNAL CAPTURE
Single-Use Trip	107	1267	24	1398	4%

Analyst: Dowling

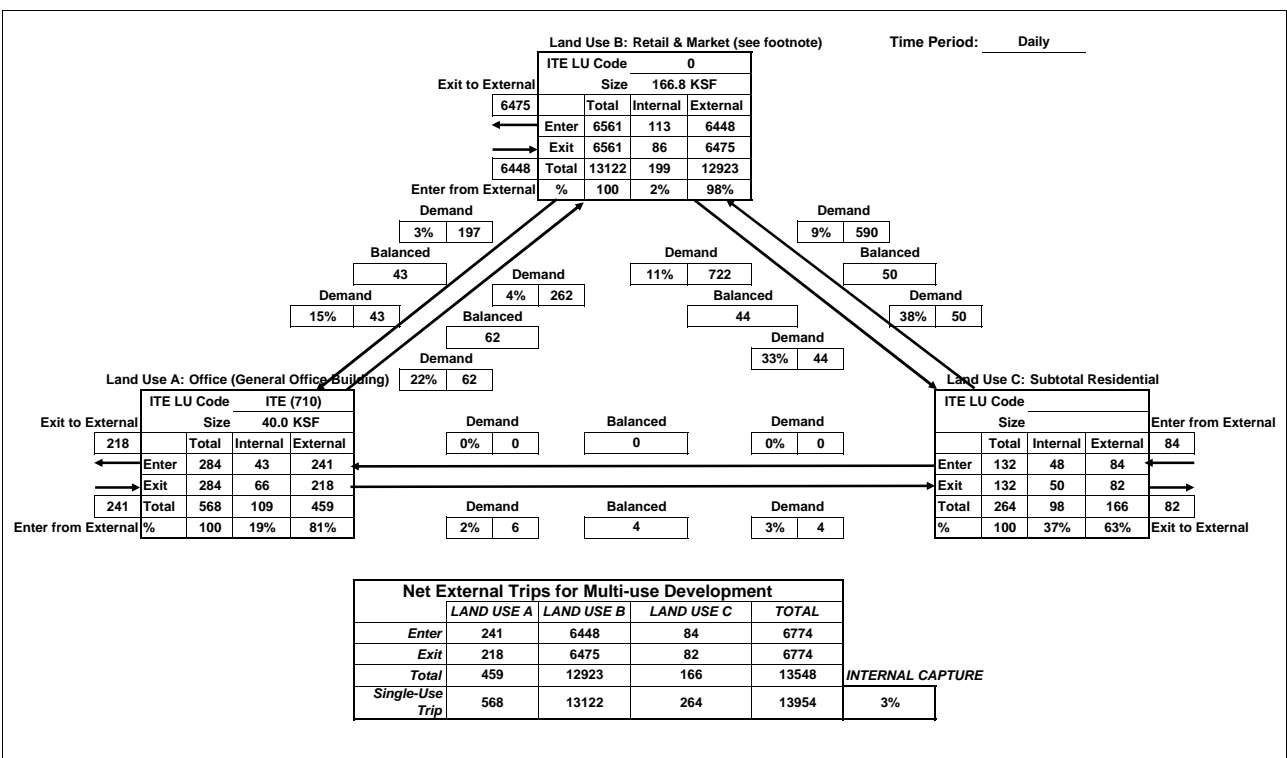
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study

Full Project with Maximum Office

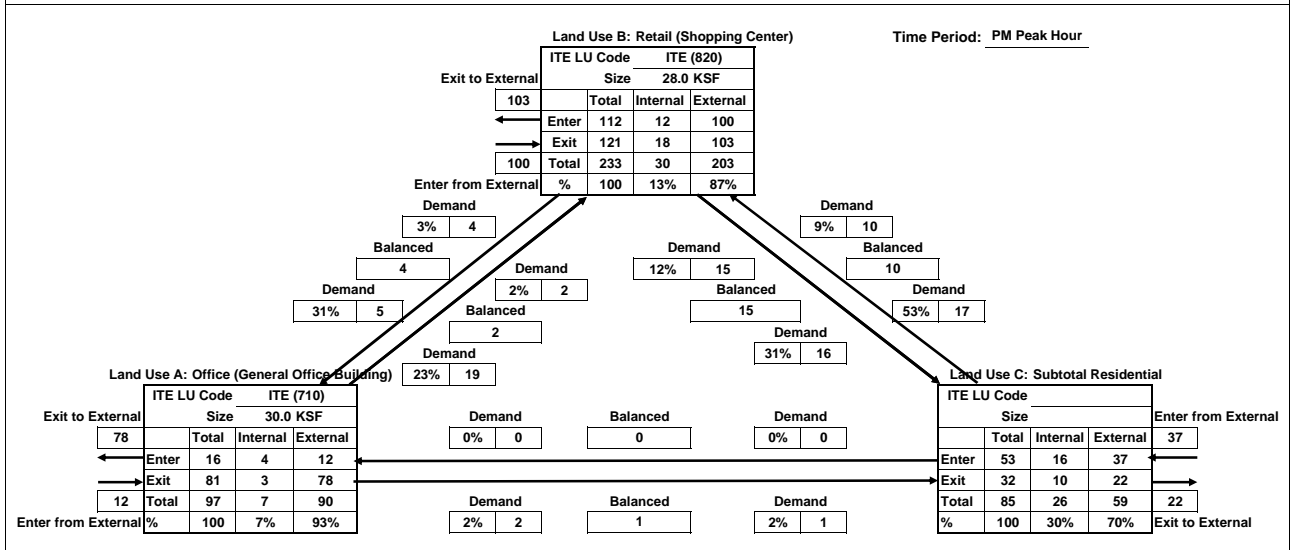
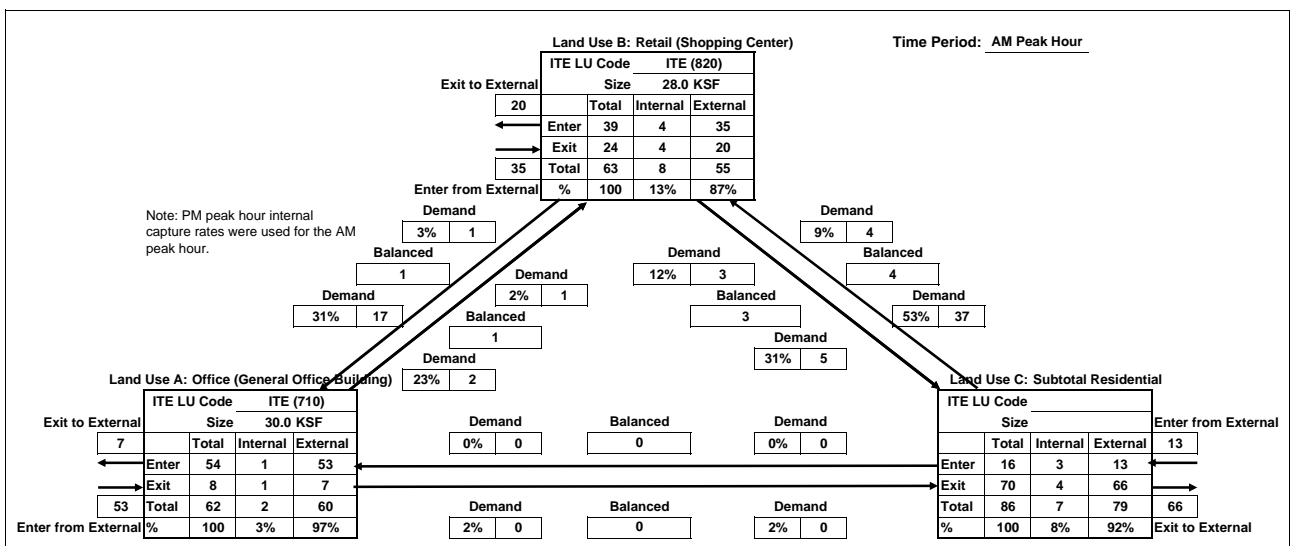
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Full Project with Maximum Office

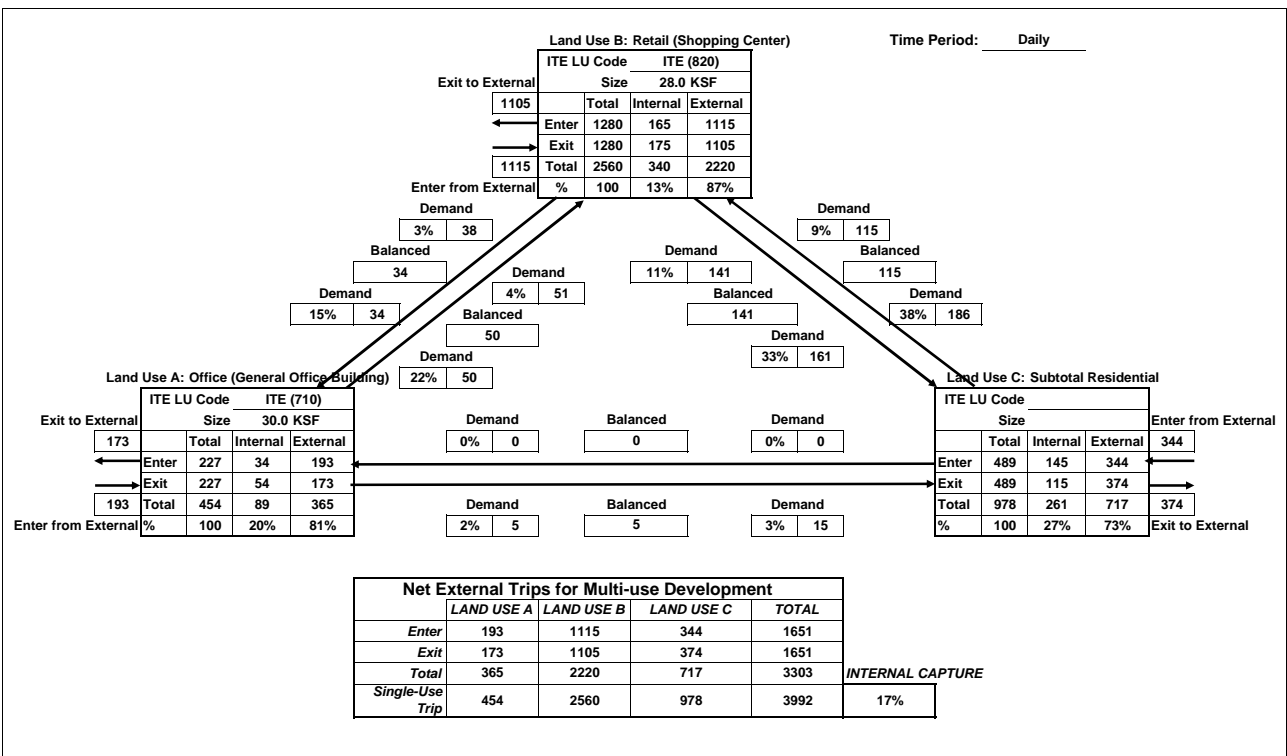


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Office

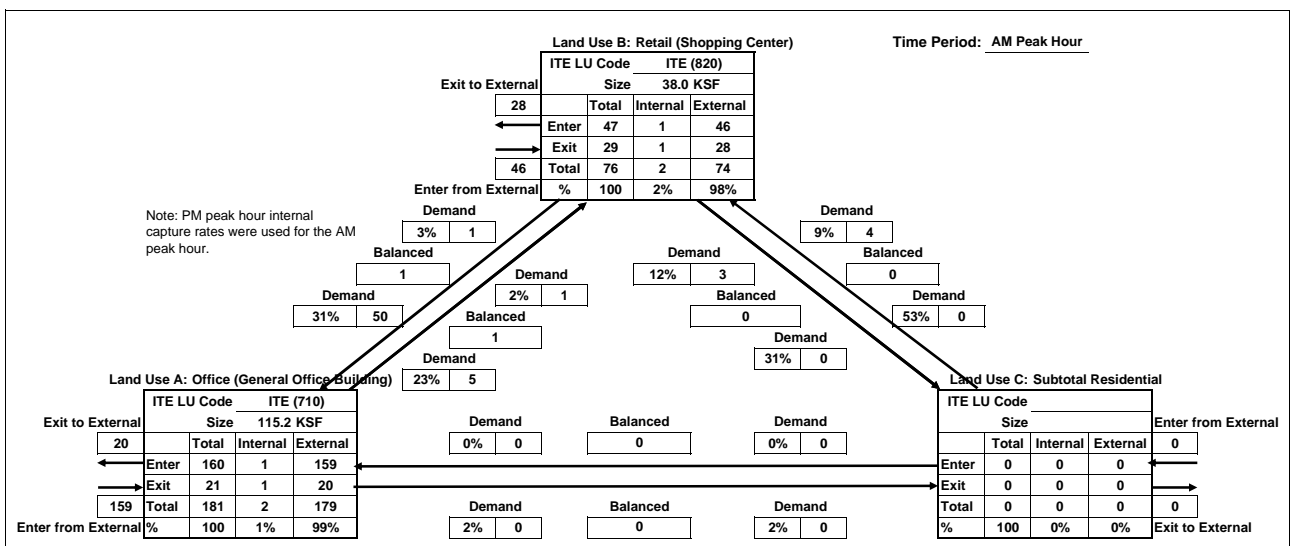
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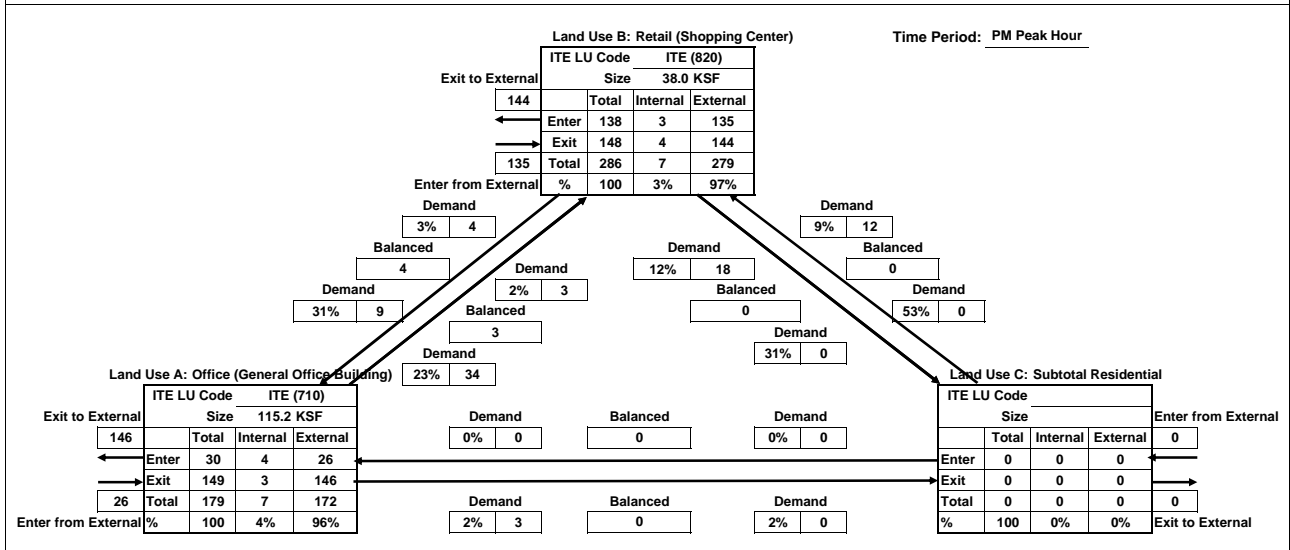
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
Full Project with Maximum Office



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	159	46	0	205	
Exit	20	28	0	48	
Total	179	74	0	253	INTERNAL CAPTURE
Single-Use Trip	181	76	0	257	1%



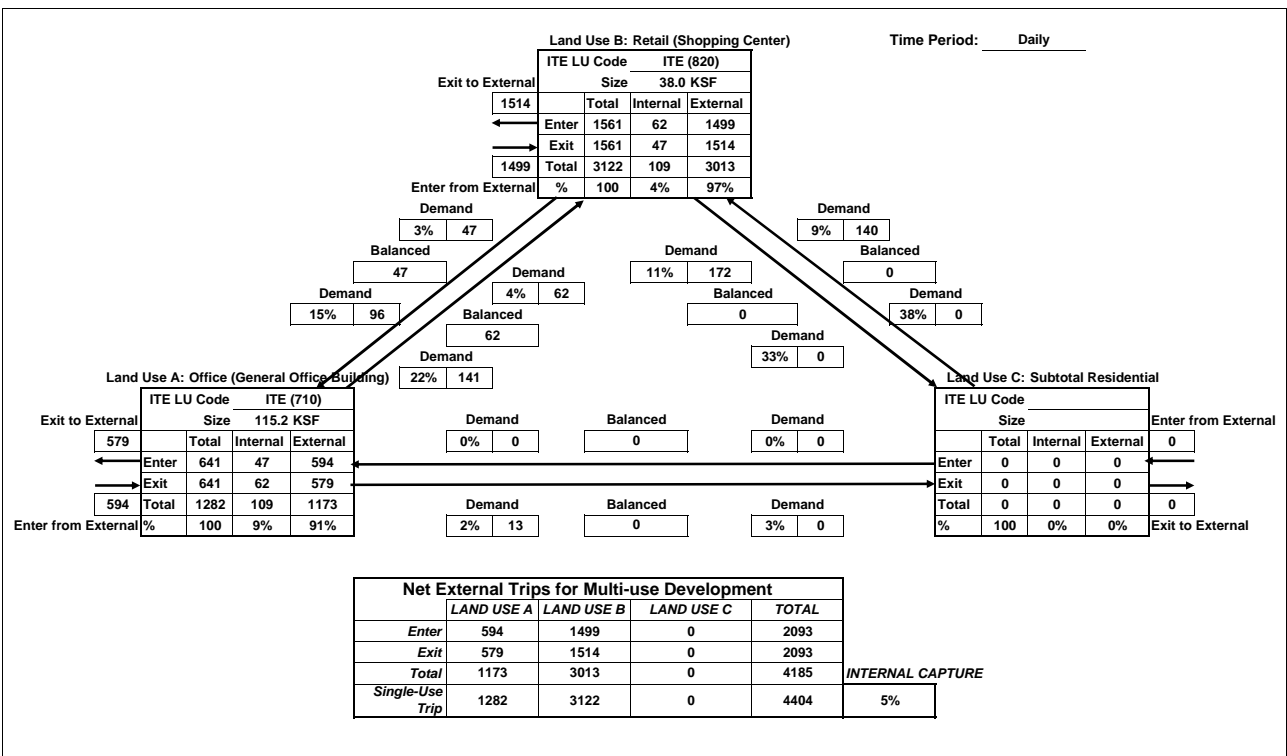
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	26	135	0	161	
Exit	146	144	0	290	
Total	172	279	0	451	INTERNAL CAPTURE
Single-Use Trip	179	286	0	465	3%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily



Analyst: Dowling

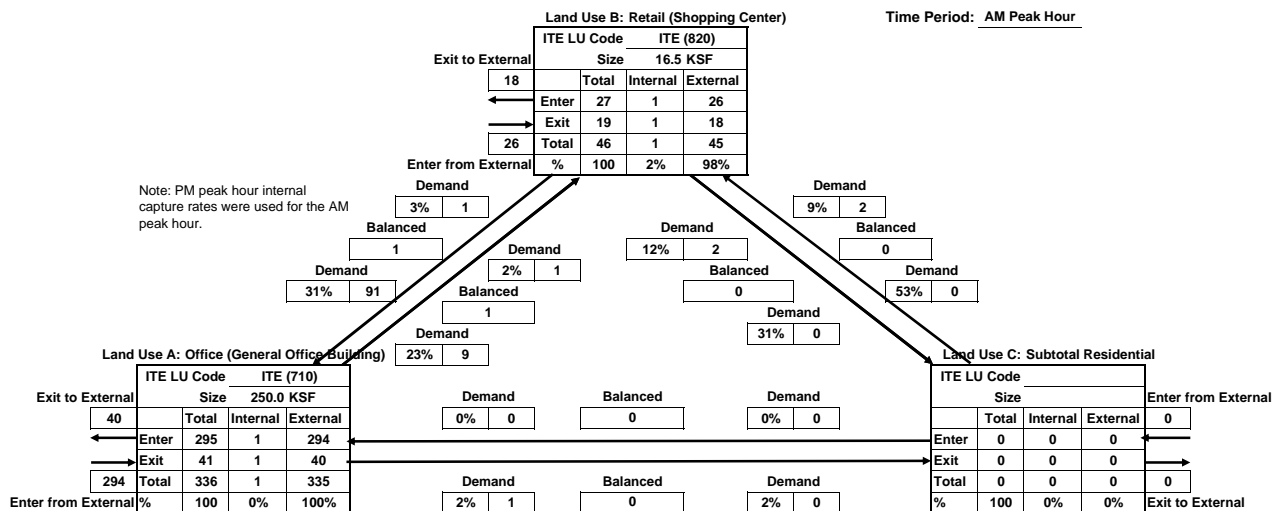
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study

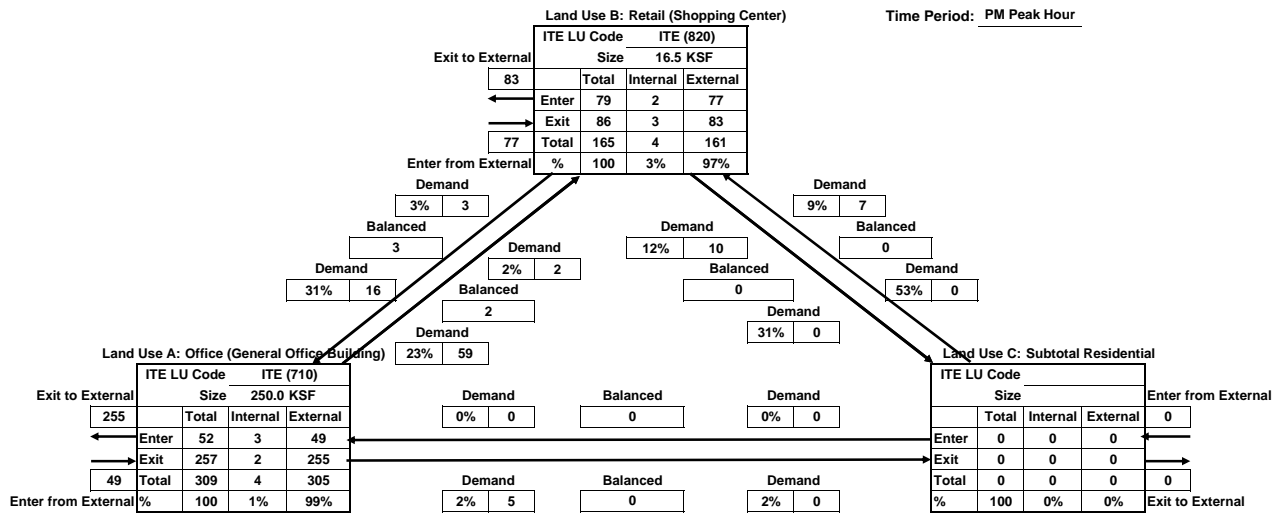
Full Project with Maximum Office

Time Period: AM Peak Hour



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	294	26	0	321	
Exit	40	18	0	59	
Total	335	45	0	380	INTERNAL CAPTURE
Single-Use Trip	336	46	0	382	1%

Time Period: PM Peak Hour



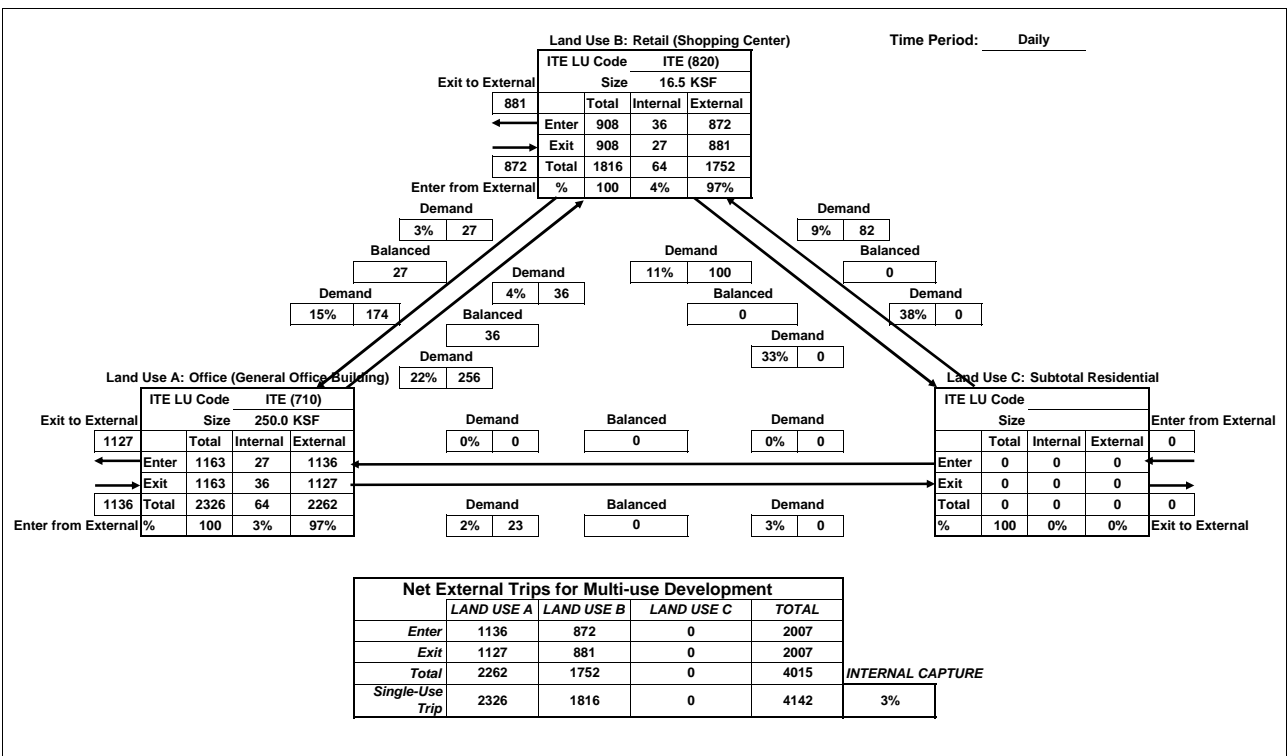
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	49	77	0	127	
Exit	255	83	0	339	
Total	305	161	0	466	INTERNAL CAPTURE
Single-Use Trip	309	165	0	474	2%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily



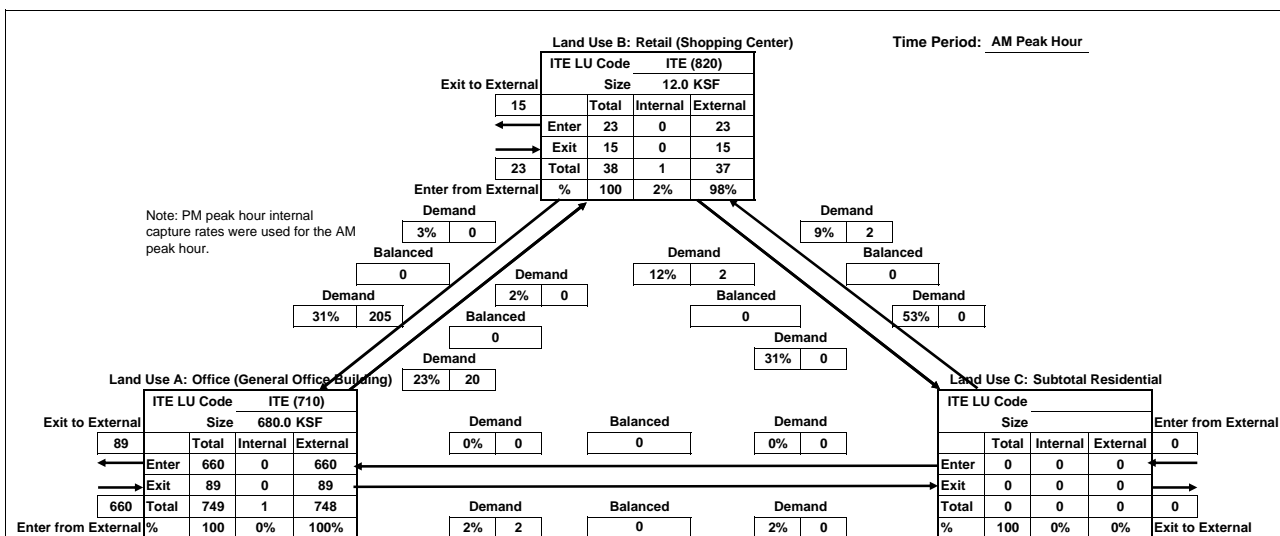
Analyst: Dowling

Date: 8/17/2007

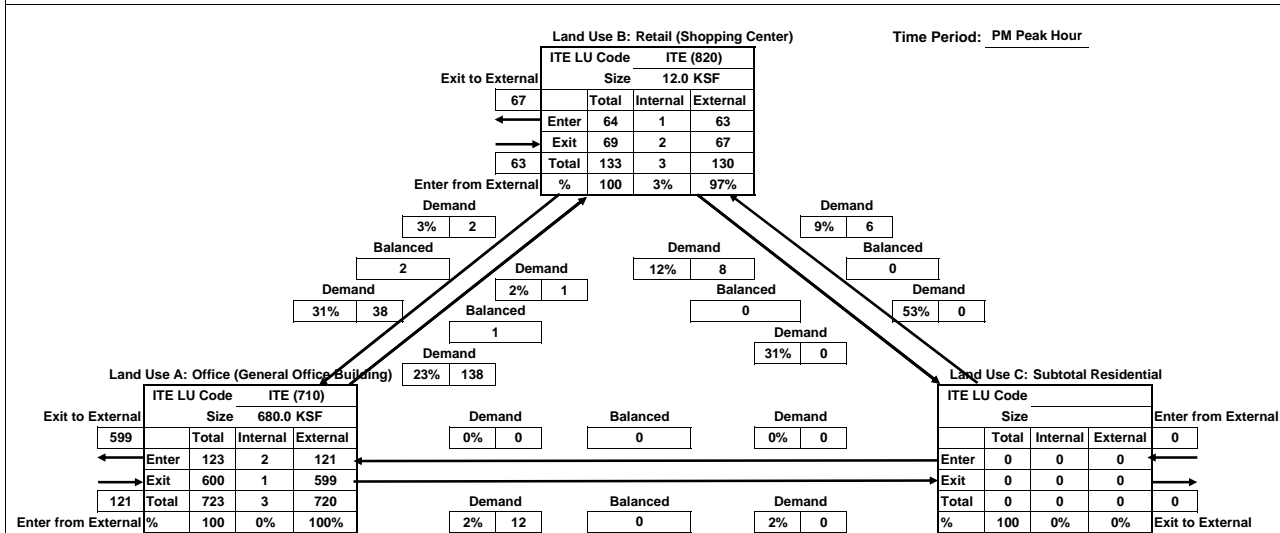
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study

Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	660	23	0	682	
Exit	89	15	0	103	
Total	748	37	0	785	INTERNAL CAPTURE
Single-Use Trip	749	38	0	787	0%



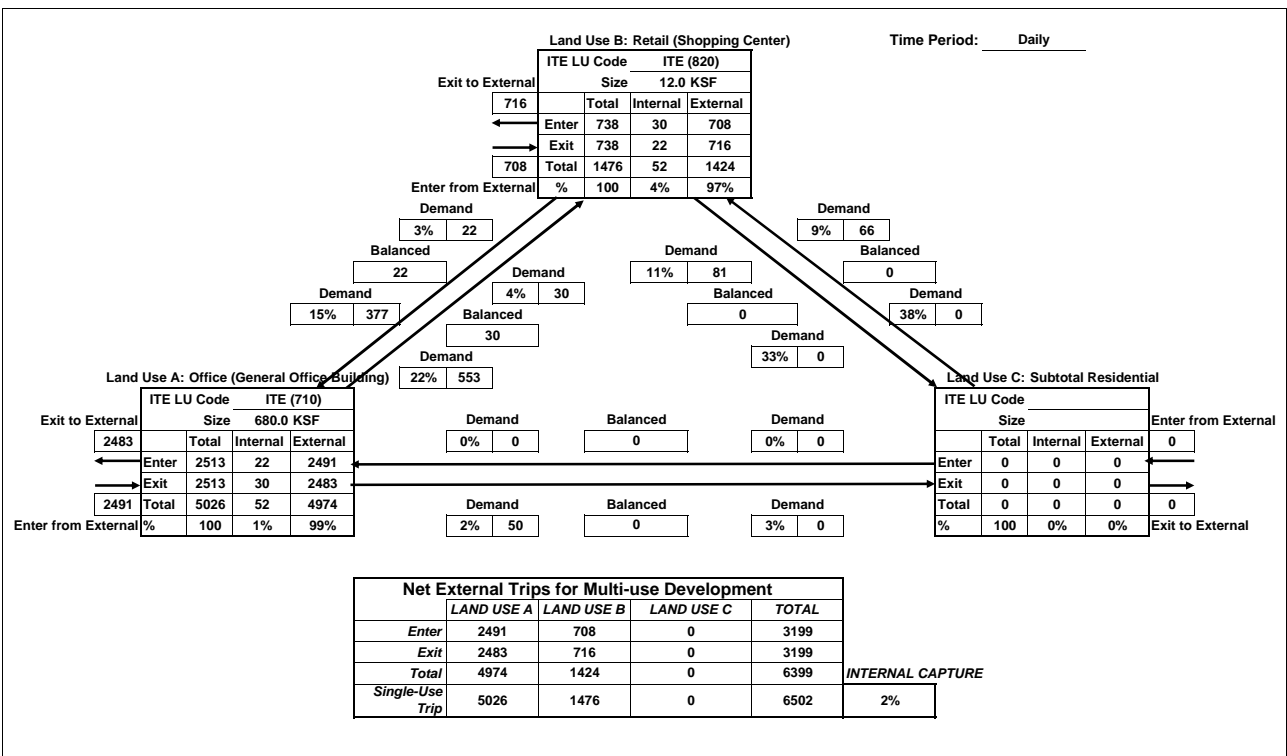
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	121	63	0	184	
Exit	599	67	0	666	
Total	720	130	0	849	INTERNAL CAPTURE
Single-Use Trip	723	133	0	856	1%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily

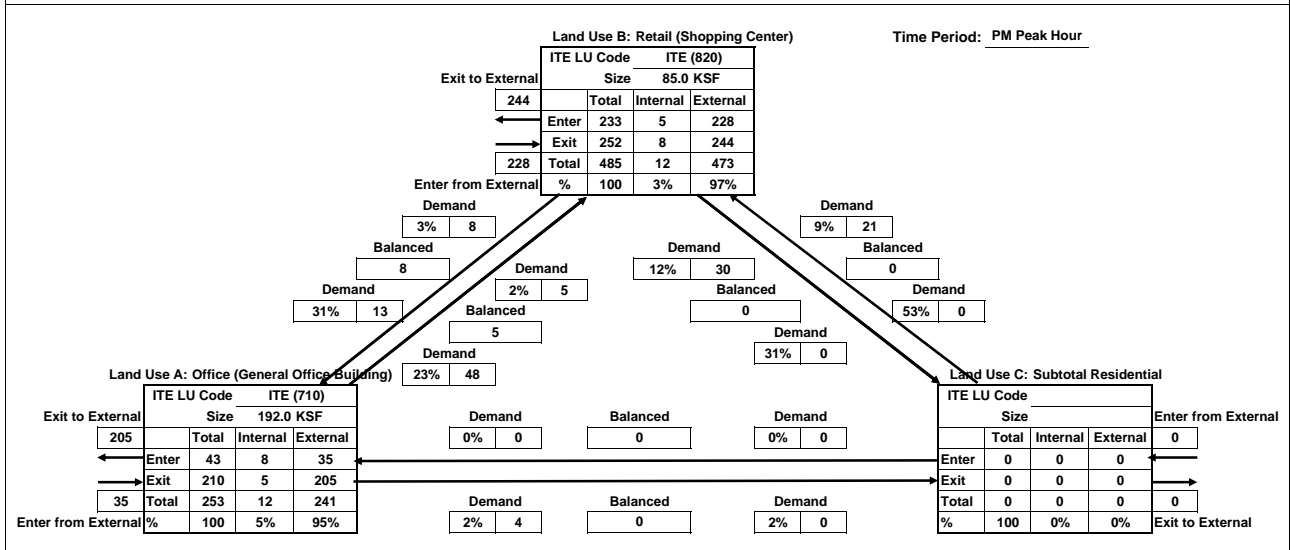
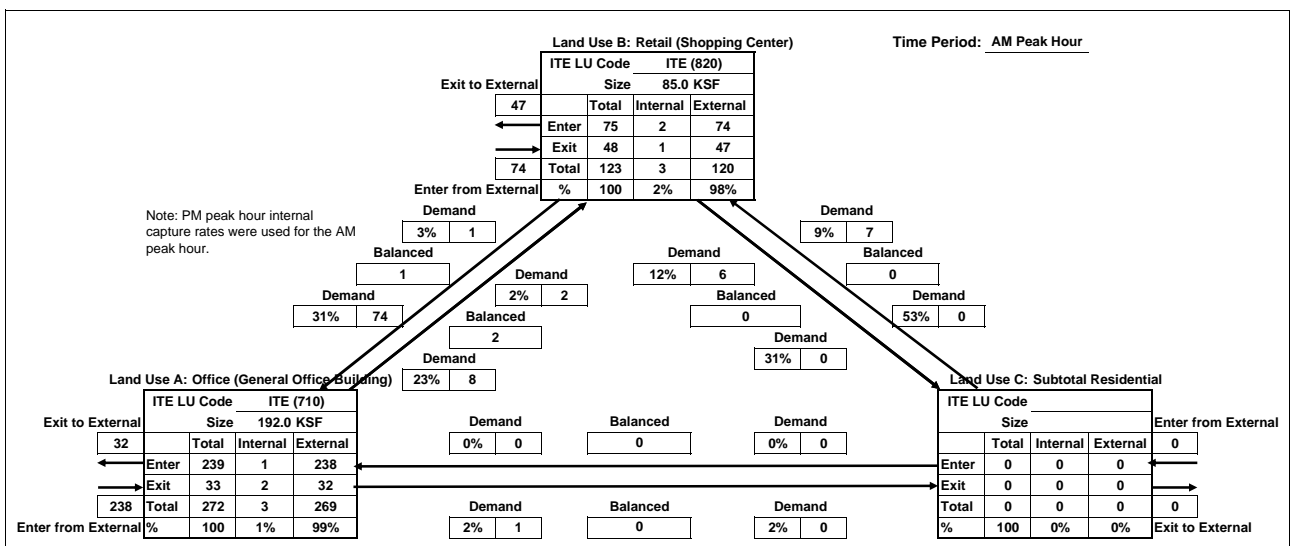


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Full Project with Maximum Office

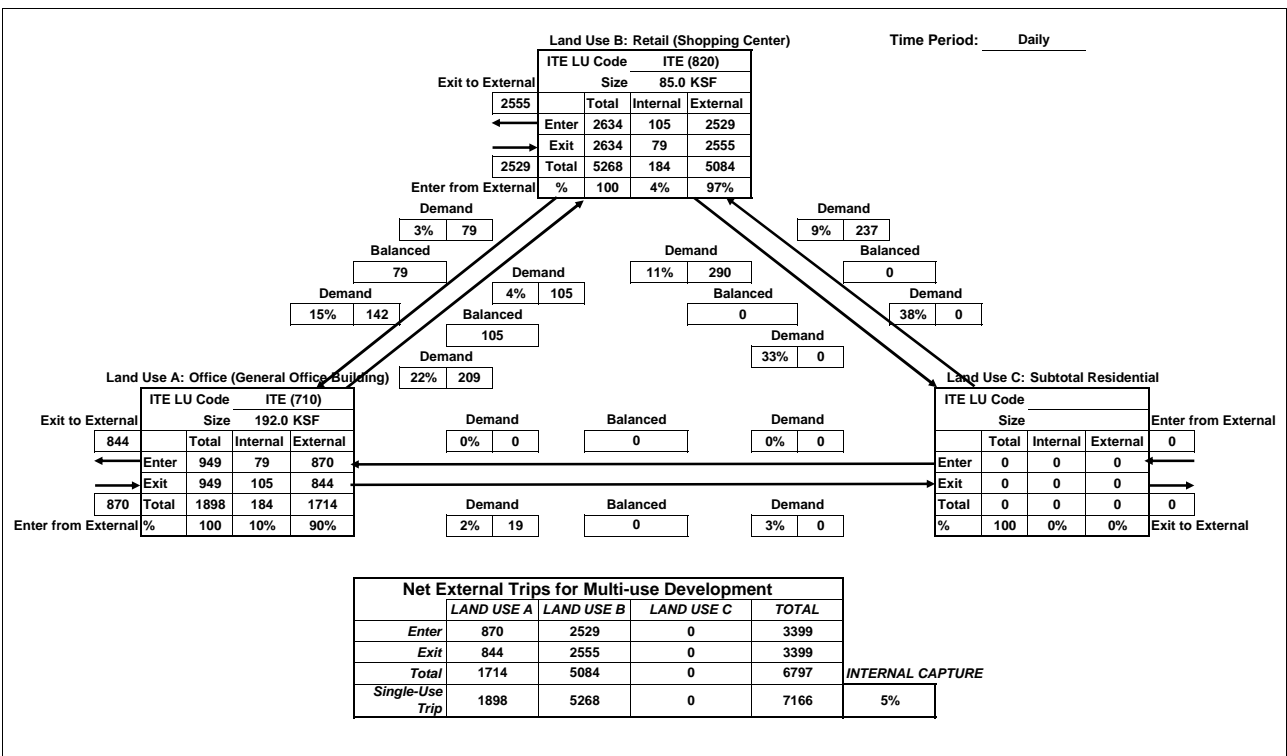


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily



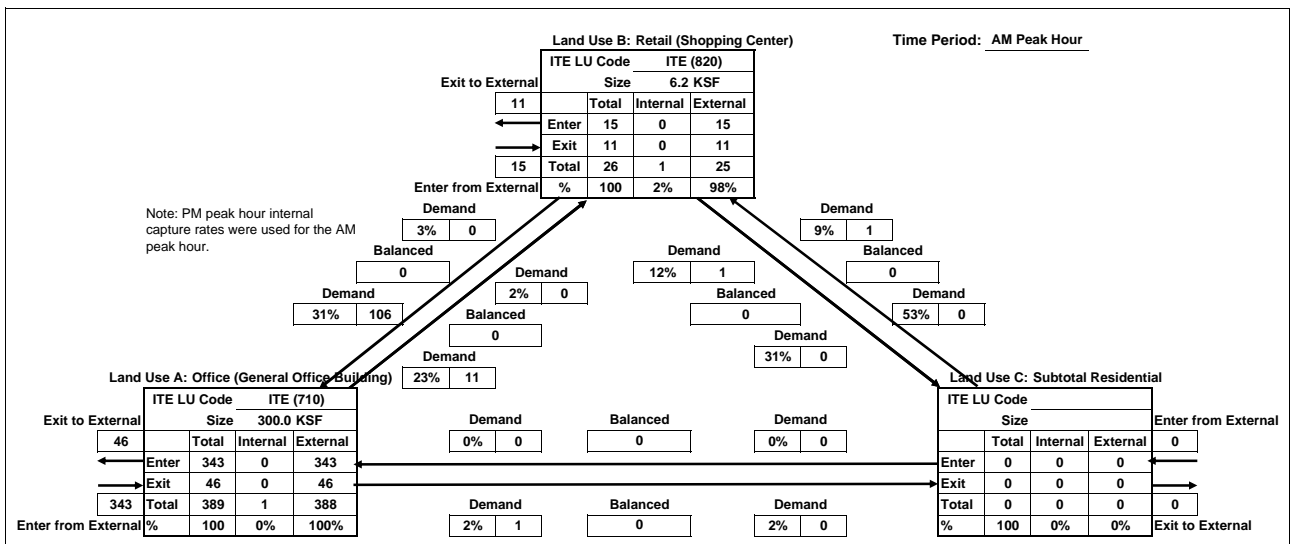
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

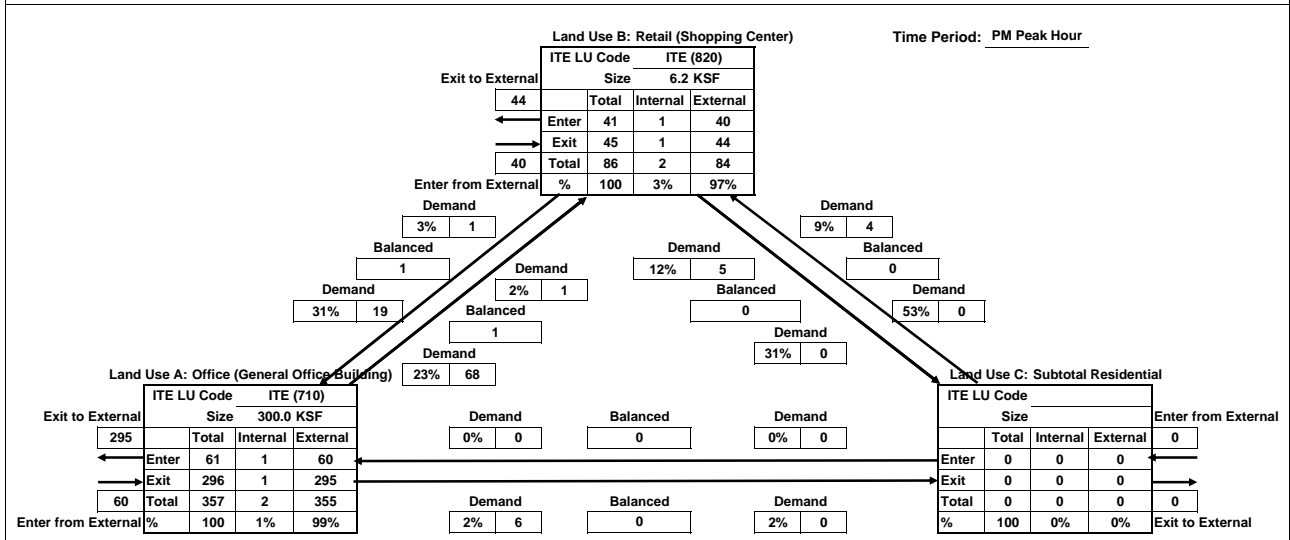
Name of Development: Railyards Study

Full Project with Maximum Office



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	343	15	0	357	
Exit	46	11	0	56	
Total	388	25	0	414	INTERNAL CAPTURE
Single-Use Trip	389	26	0	415	0%



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	60	40	0	100	
Exit	295	44	0	339	
Total	355	84	0	439	INTERNAL CAPTURE
Single-Use Trip	357	86	0	443	1%

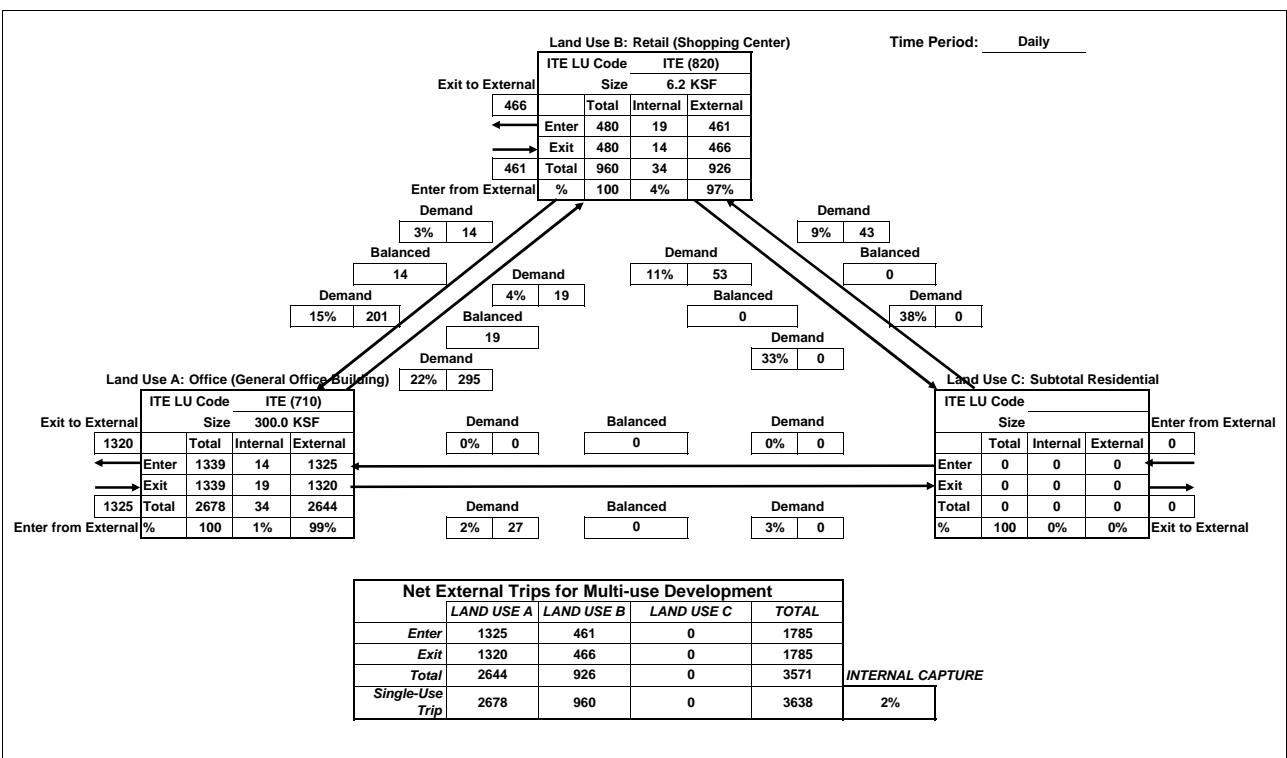
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
Full Project with Maximum Office

Time Period: Daily



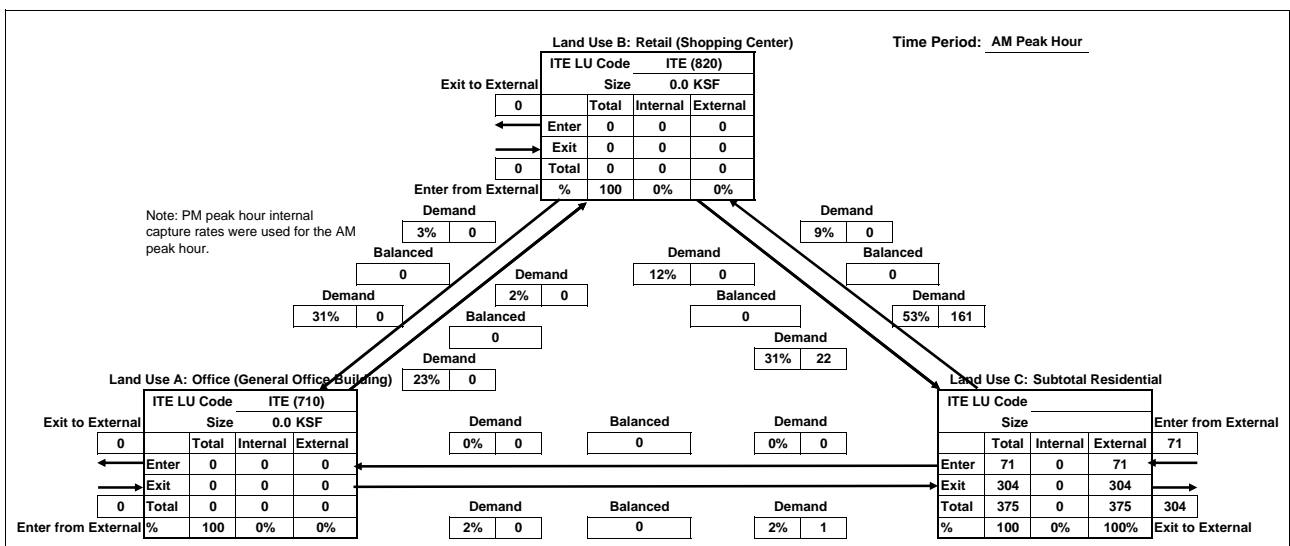
Analyst: Dowling

Date: 8/17/2007

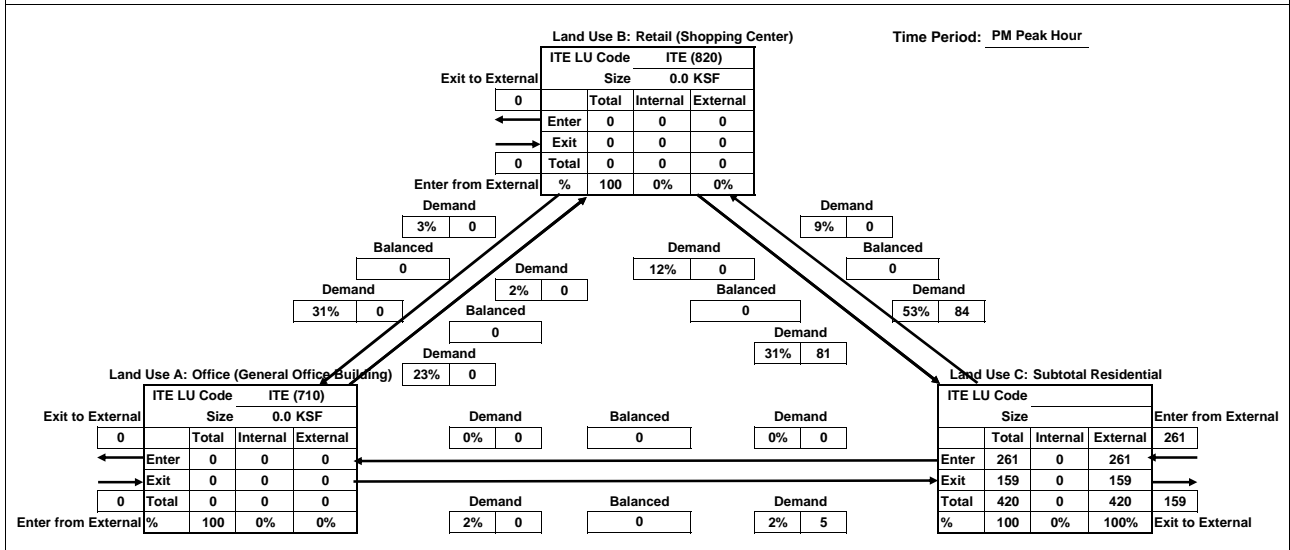
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study

Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	71	71	
Exit	0	0	304	304	
Total	0	0	375	375	INTERNAL CAPTURE
Single-Use Trip	0	0	375	375	0%



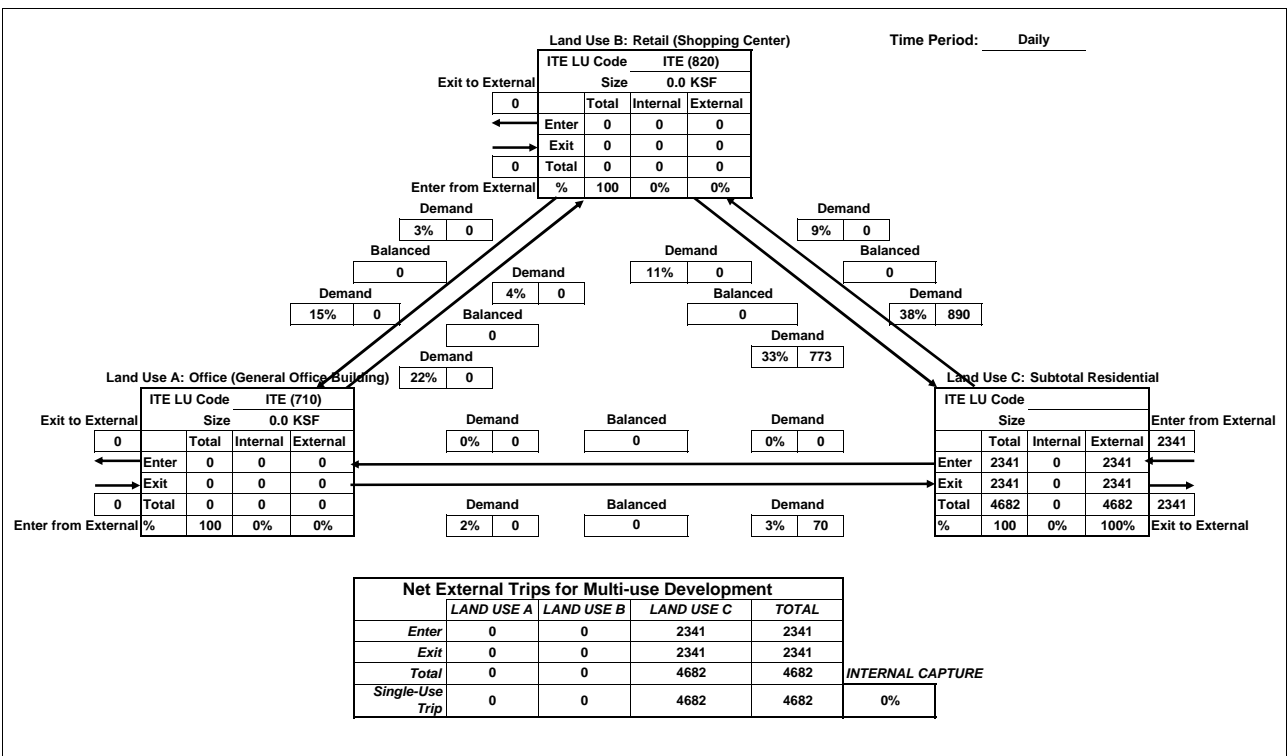
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	261	261	
Exit	0	0	159	159	
Total	0	0	420	420	INTERNAL CAPTURE
Single-Use Trip	0	0	420	420	0%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Office

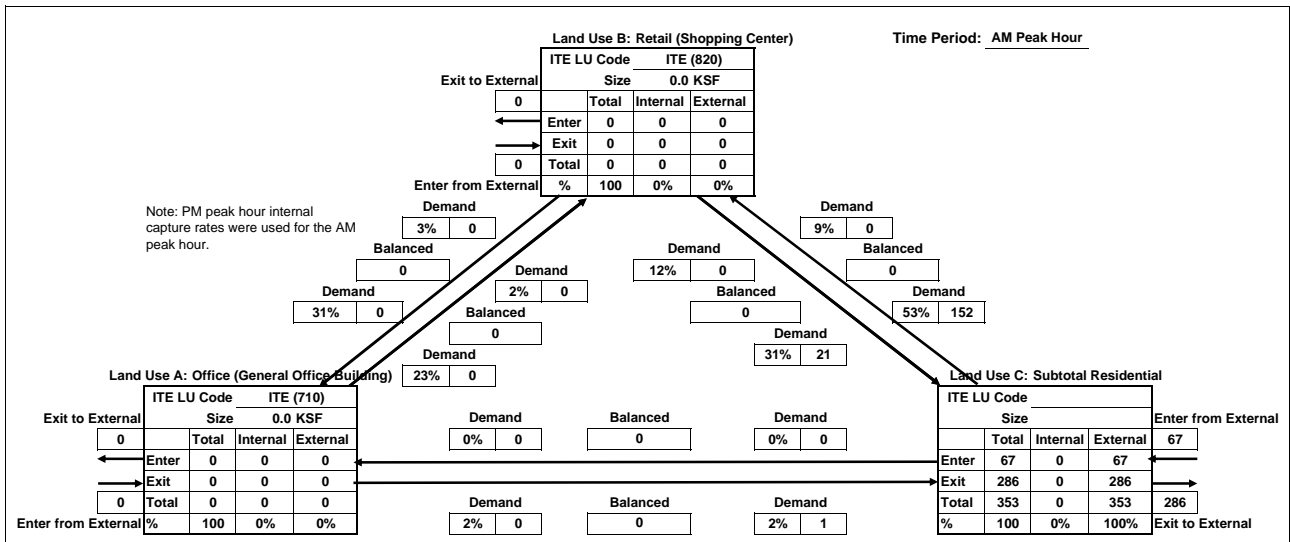
Time Period: Daily



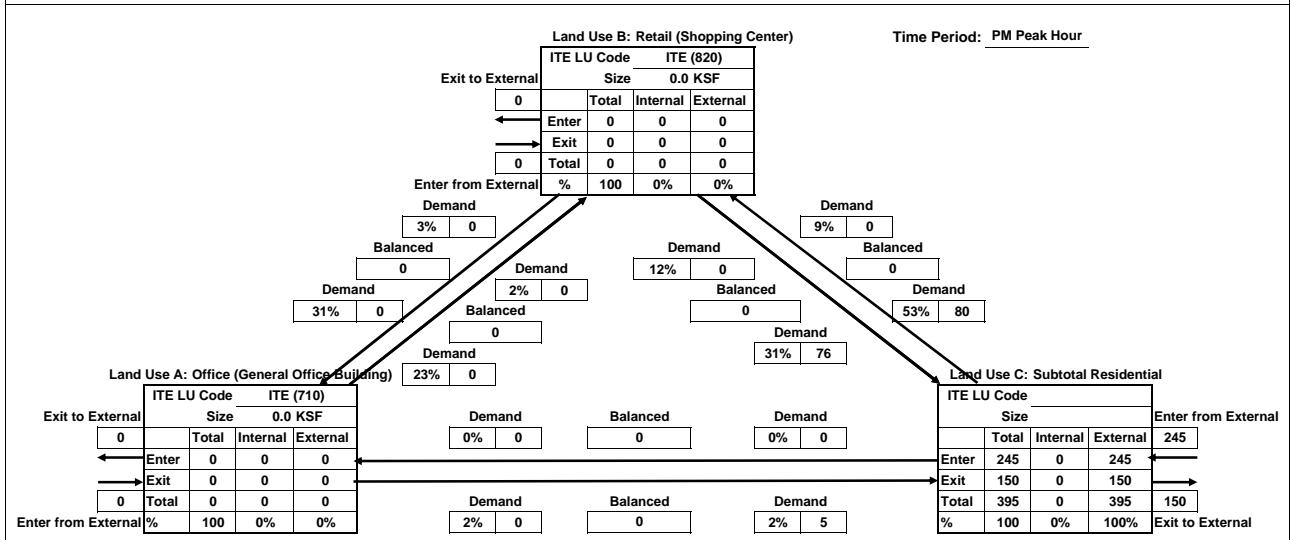
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th**

Name of Development: Railyards Study
 Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	67	67	
Exit	0	0	286	286	
Total	0	0	353	353	INTERNAL CAPTURE
Single-Use Trip	0	0	353	353	0%



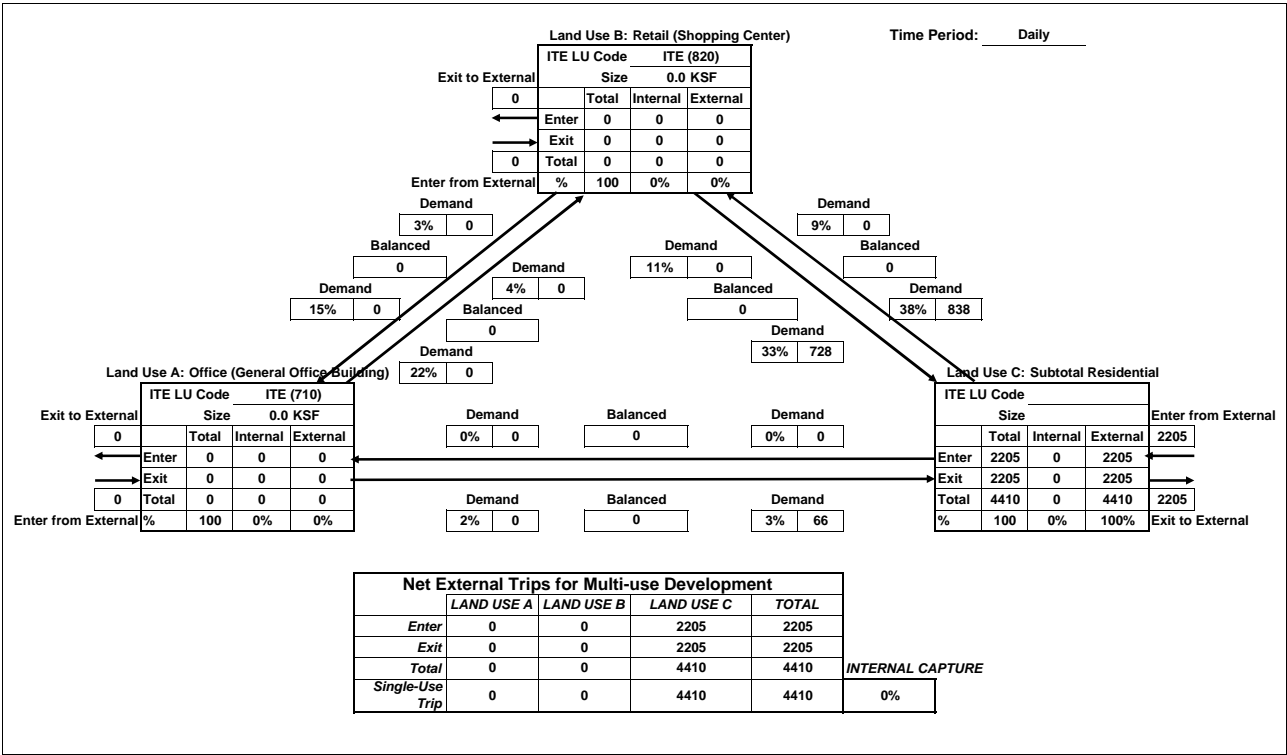
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	245	245	
Exit	0	0	150	150	
Total	0	0	395	395	INTERNAL CAPTURE
Single-Use Trip	0	0	395	395	0%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
 Full Project with Maximum Office

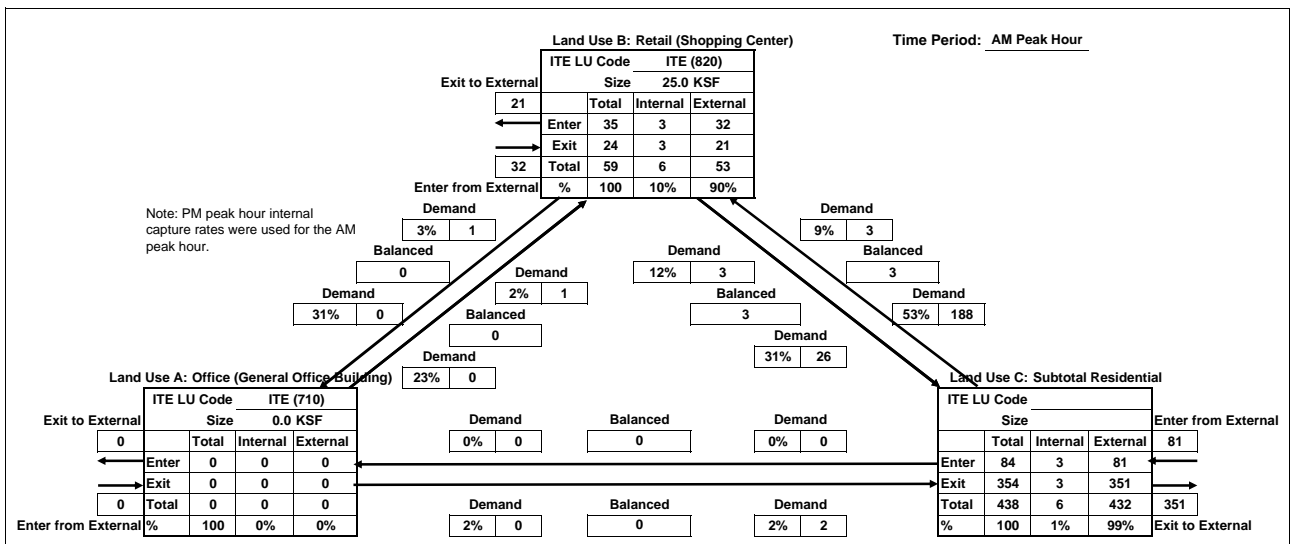
Time Period: Daily



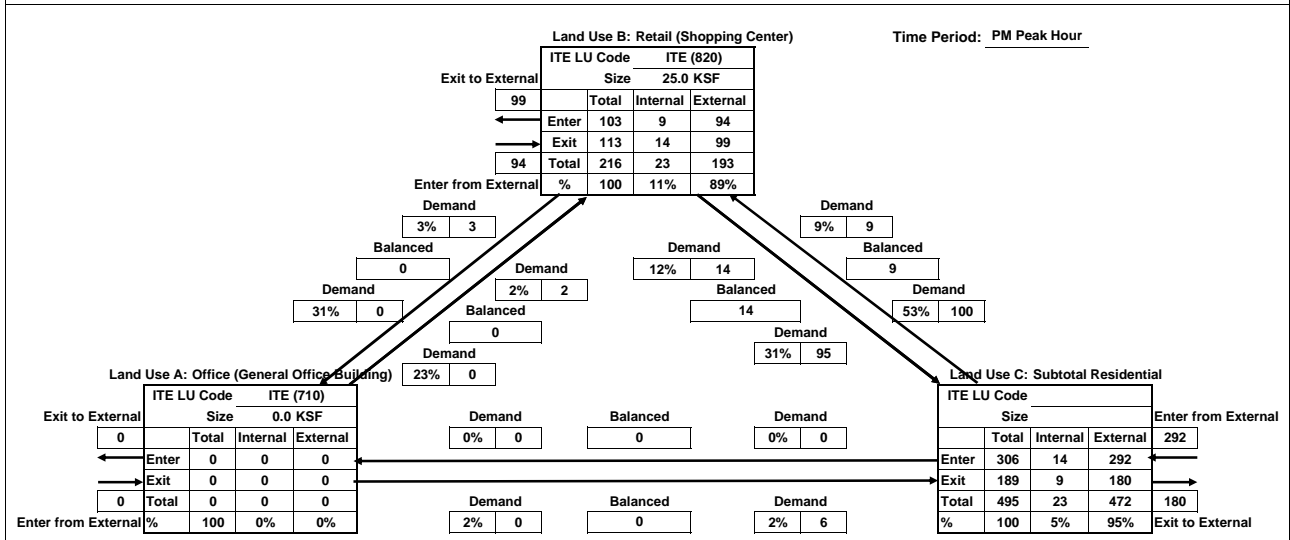
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 19: Bounded by South Park, 7th, Railyards, 5th

Name of Development: Railyards Study
 Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	32	81	113	
Exit	0	21	351	372	
Total	0	53	432	485	INTERNAL CAPTURE
Single-Use Trip	0	59	438	497	2%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	94	292	386	
Exit	0	99	180	279	
Total	0	193	472	665	INTERNAL CAPTURE
Single-Use Trip	0	216	495	711	6%

Analyst: Dowling

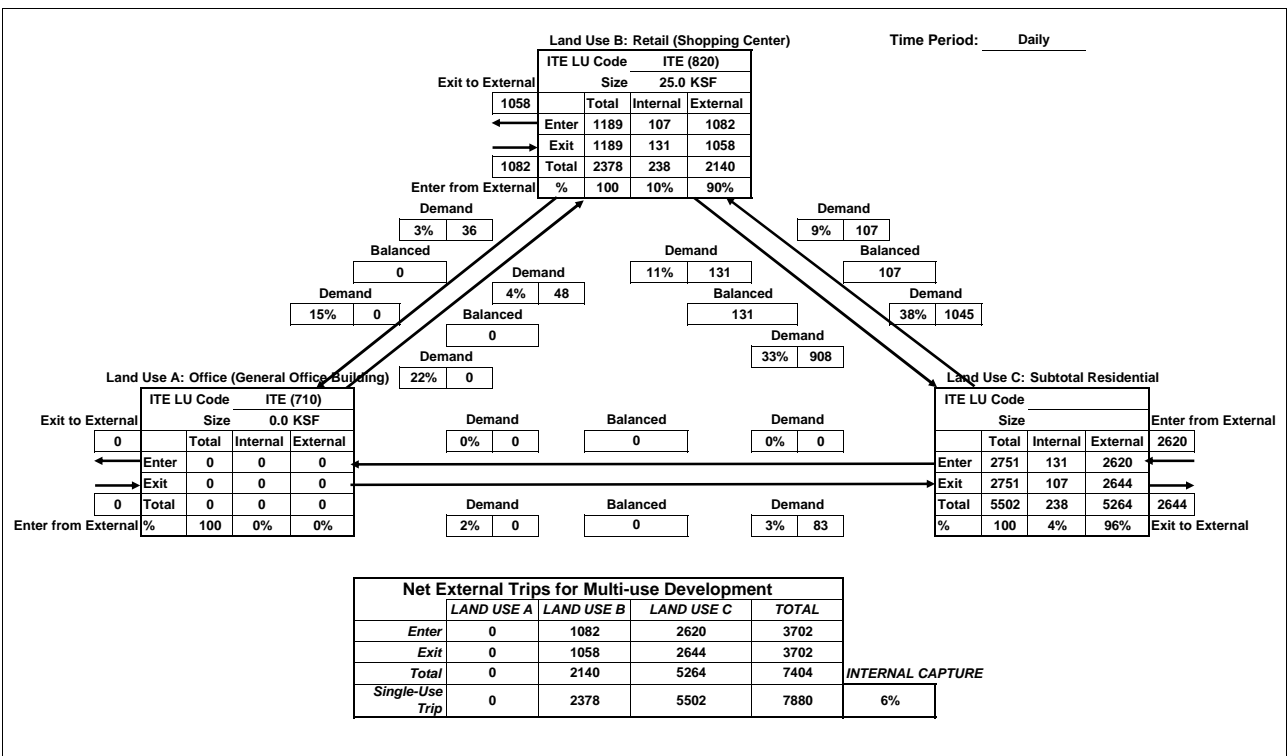
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 19: Bounded by South Park, 7th, Railyards, 5th

Name of Development: Railyards Study

Full Project with Maximum Office

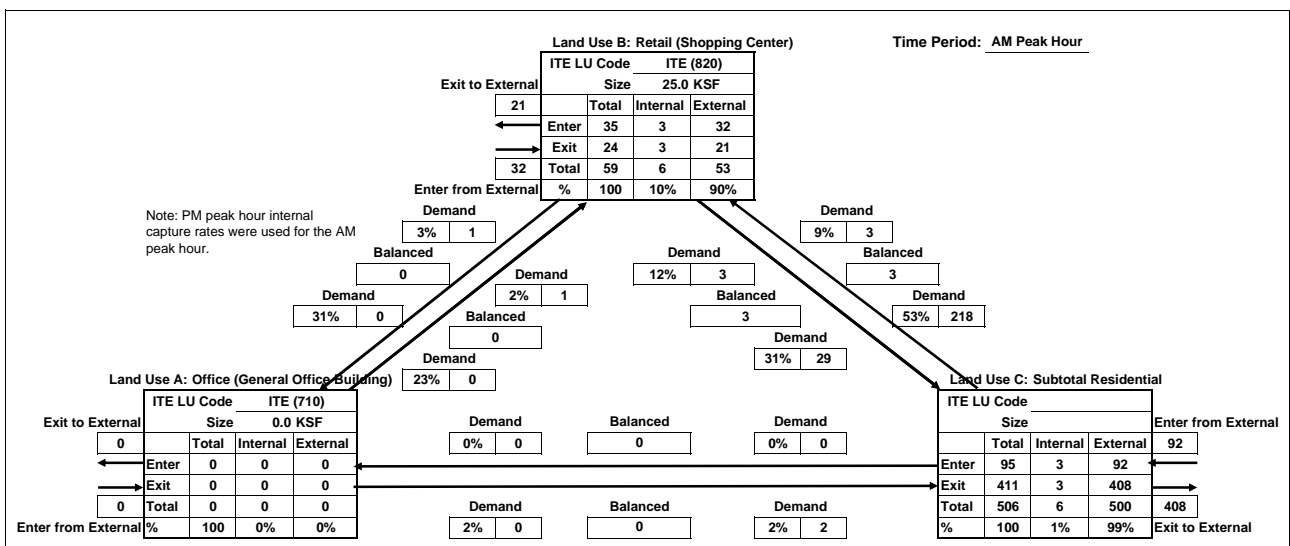
Time Period: Daily



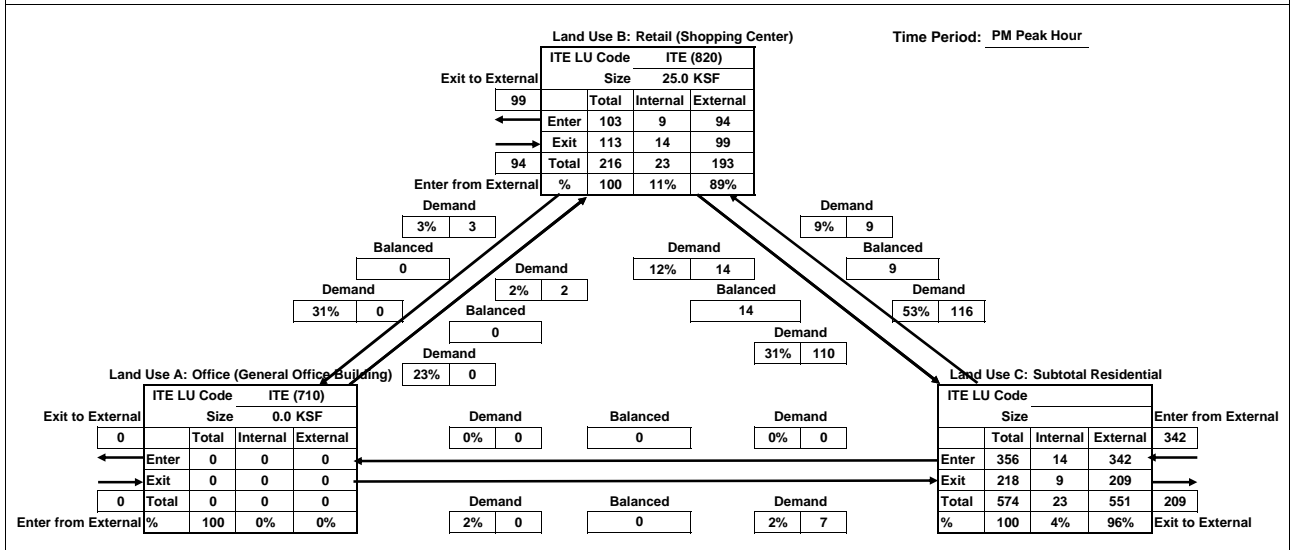
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study
 Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	32	92	124	
Exit	0	21	408	429	
Total	0	53	500	553	INTERNAL CAPTURE
Single-Use Trip	0	59	506	565	2%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	94	342	436	
Exit	0	99	209	308	
Total	0	193	551	744	INTERNAL CAPTURE
Single-Use Trip	0	216	574	790	6%

Analyst: Dowling

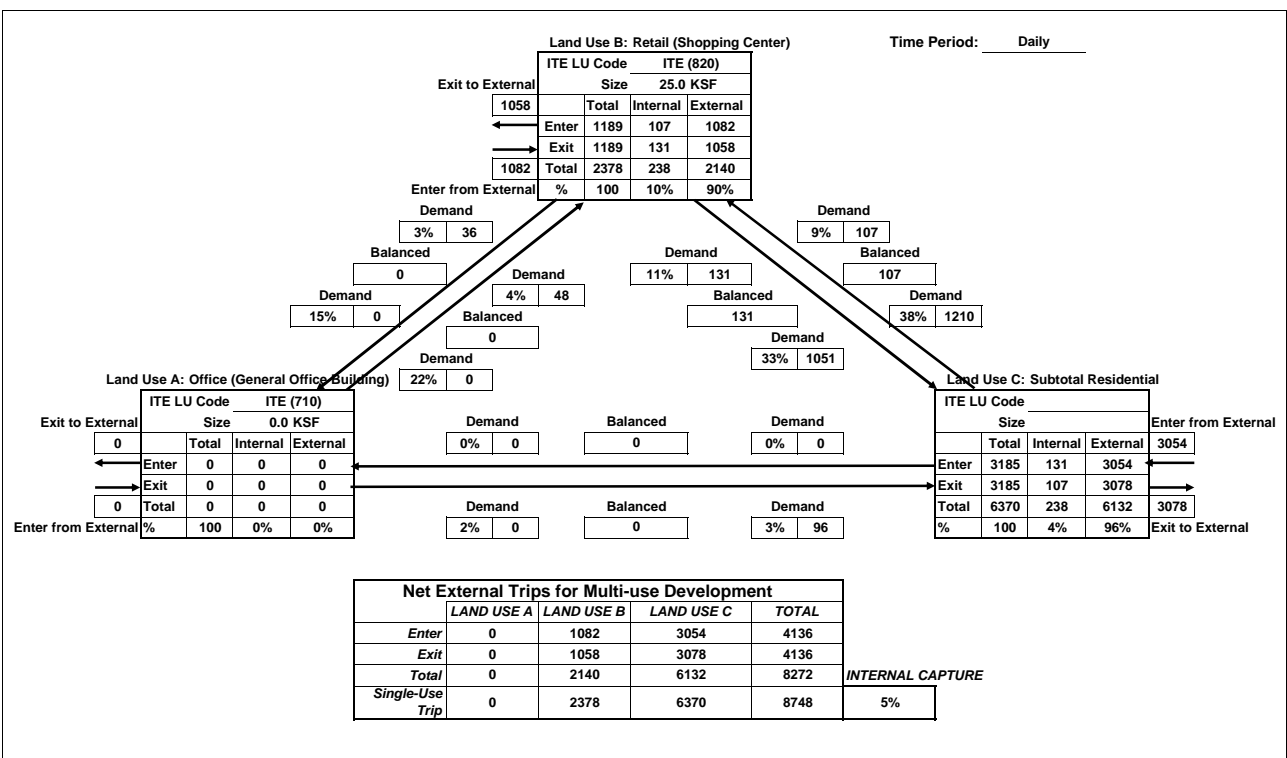
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study

Full Project with Maximum Office

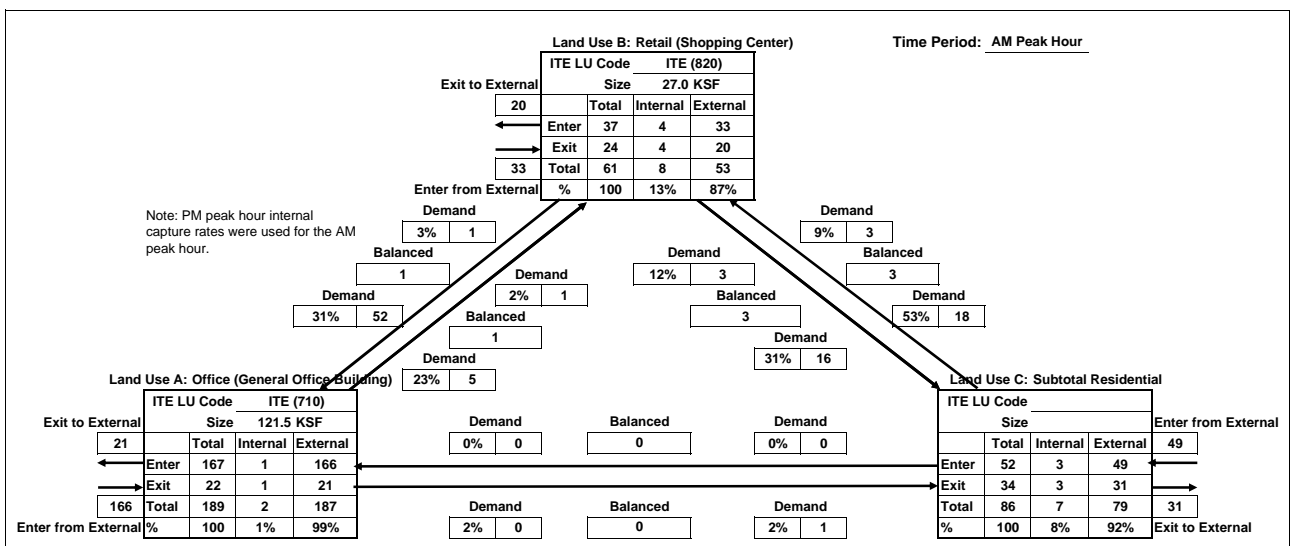
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

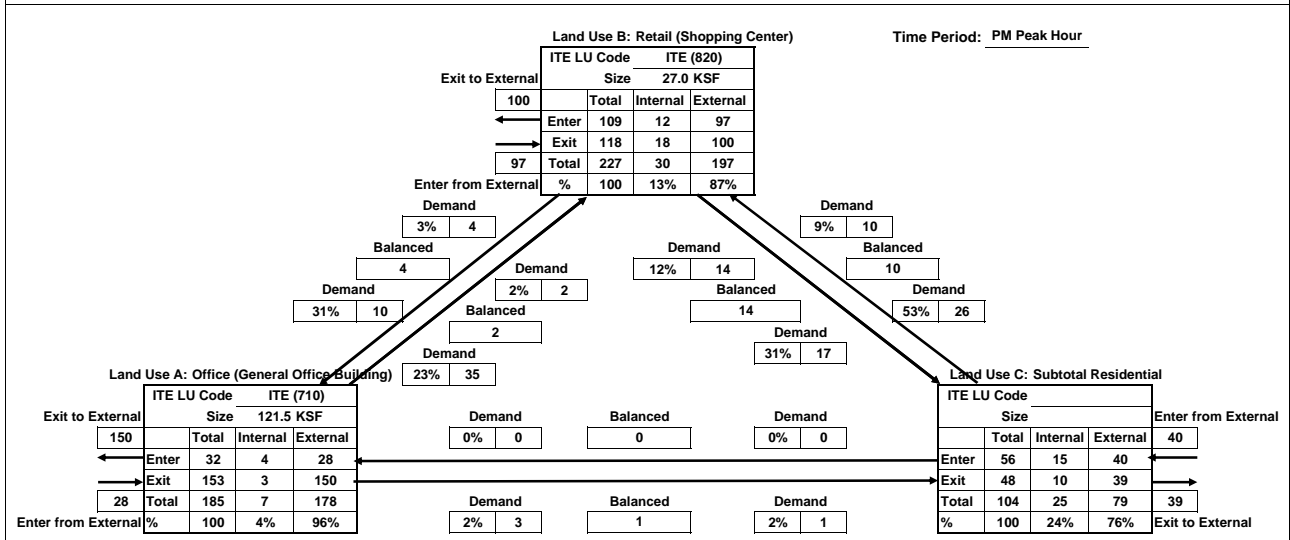
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Full Project with Maximum Office



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	166	33	49	248	
Exit	21	20	31	72	
Total	187	53	79	320	INTERNAL CAPTURE
Single-Use Trip	189	61	86	336	5%



Net External Trips for Multi-use Development

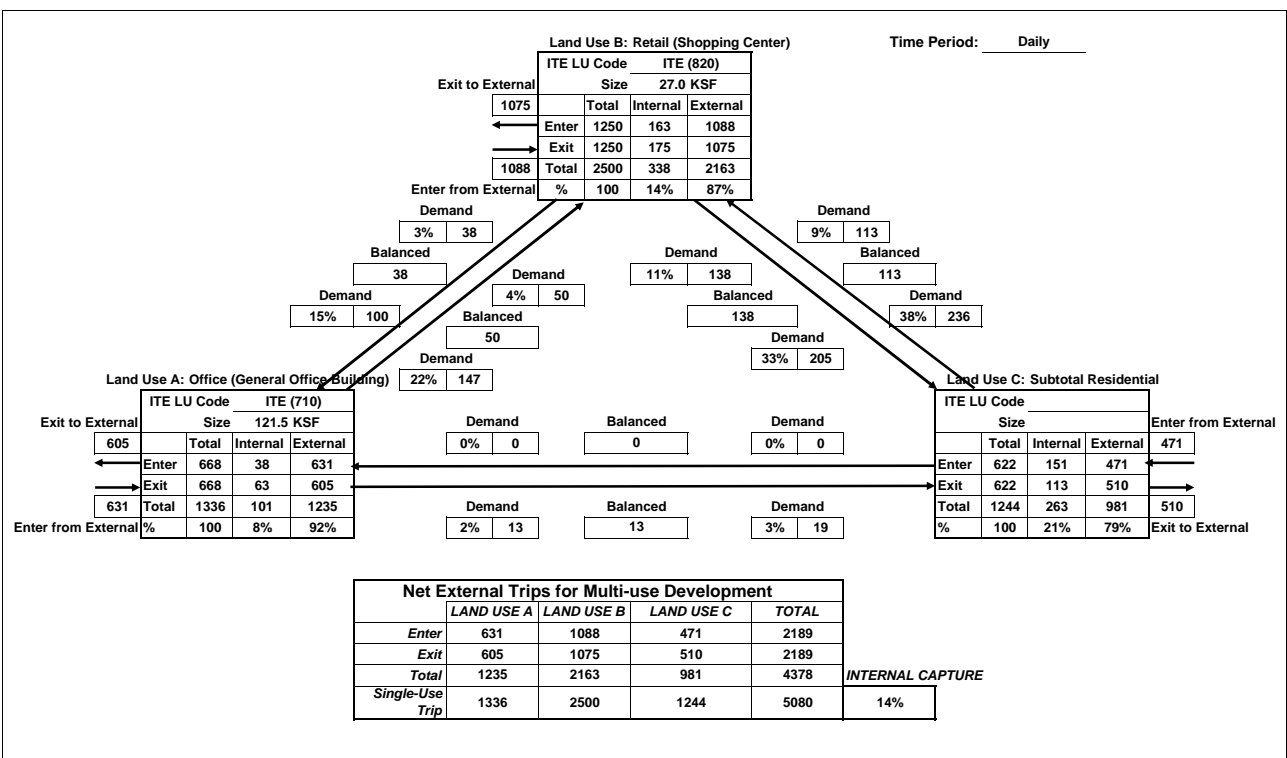
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	28	97	40	166	
Exit	150	100	39	289	
Total	178	197	79	454	INTERNAL CAPTURE
Single-Use Trip	185	227	104	516	12%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Full Project with Maximum Office

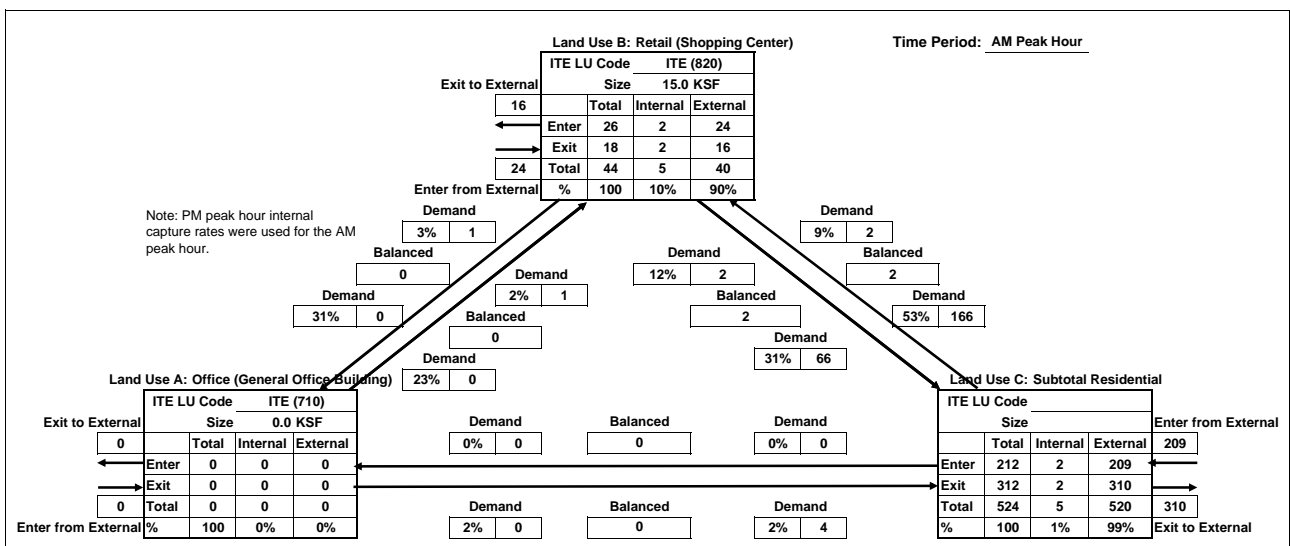
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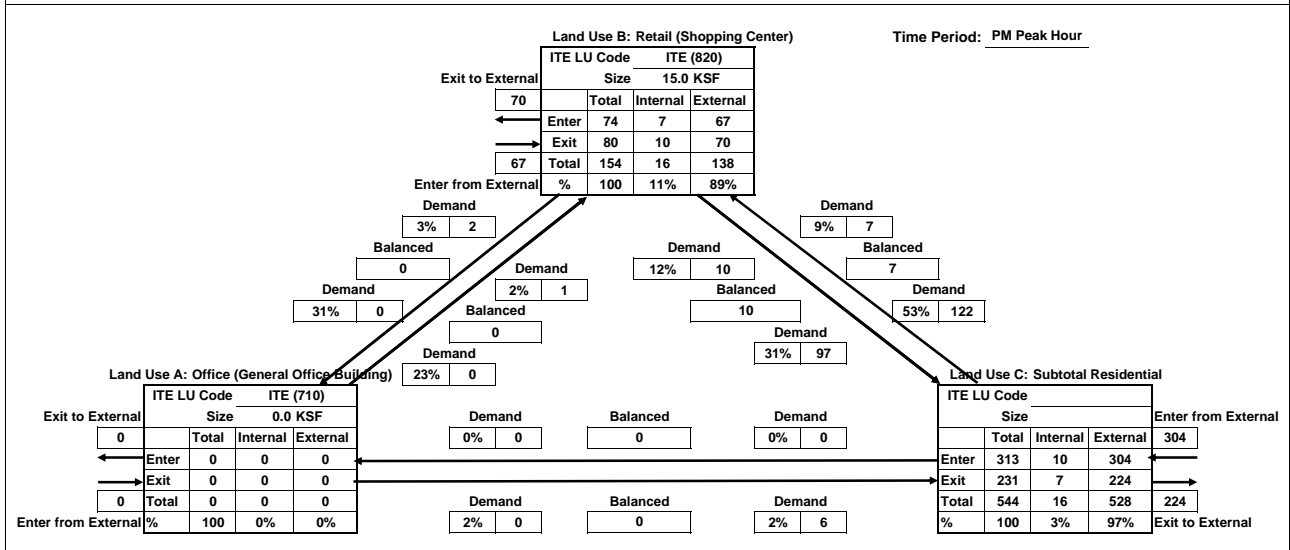
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary**

Name of Development: Railyards Study
Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	24	209	233	
Exit	0	16	310	326	
Total	0	40	520	559	INTERNAL CAPTURE
Single-Use Trip	0	44	524	568	2%



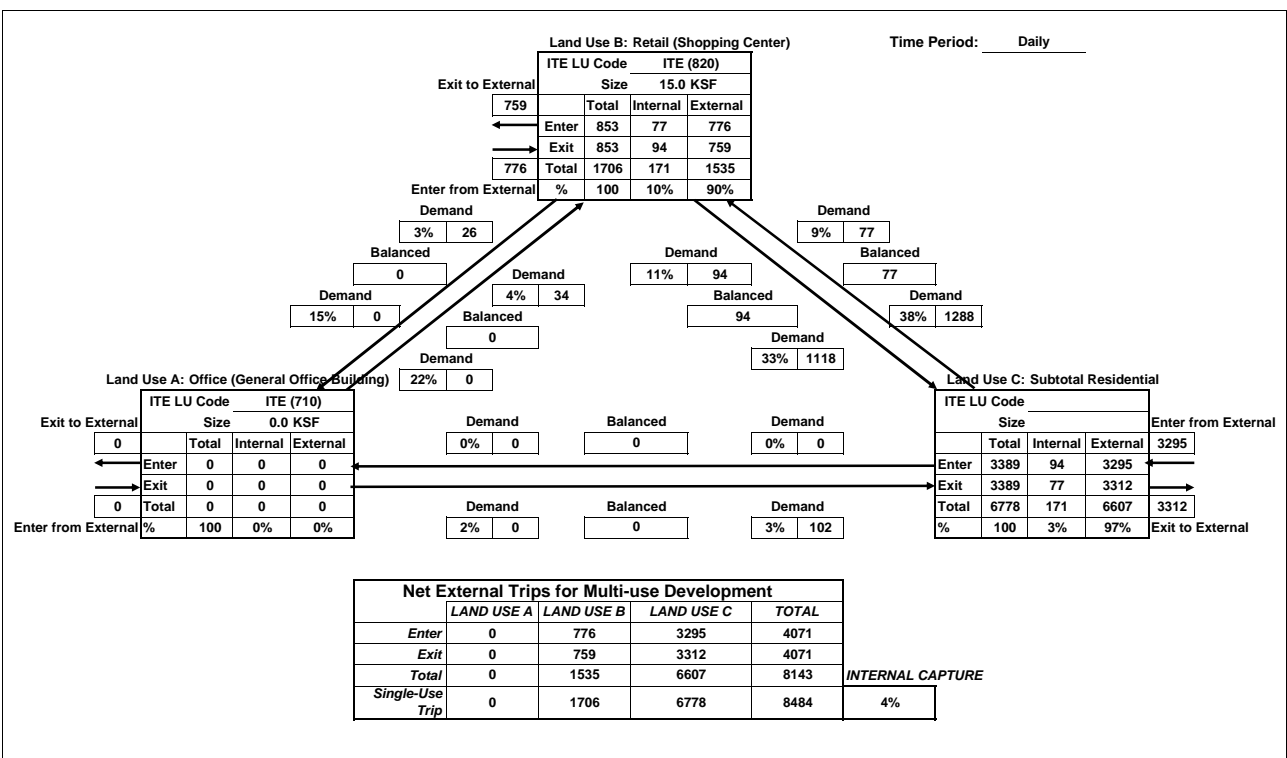
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	67	304	371	
Exit	0	70	224	294	
Total	0	138	528	665	INTERNAL CAPTURE
Single-Use Trip	0	154	544	698	5%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily



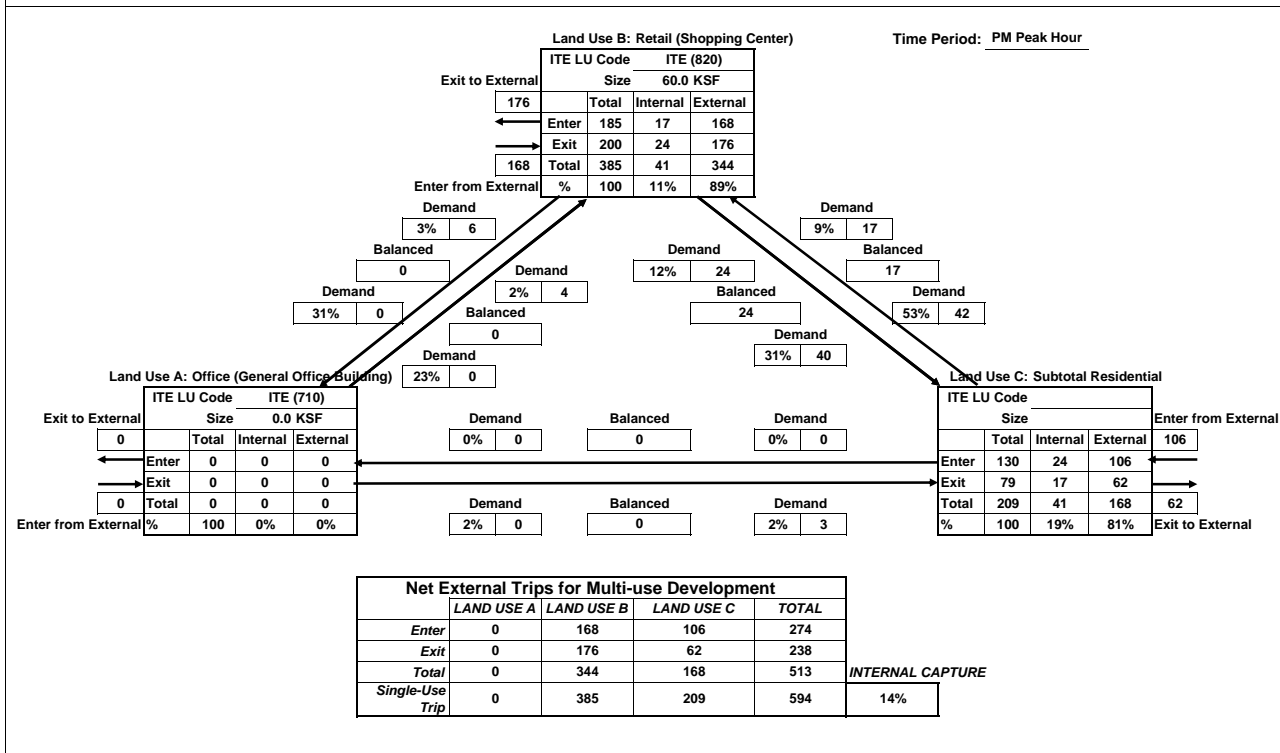
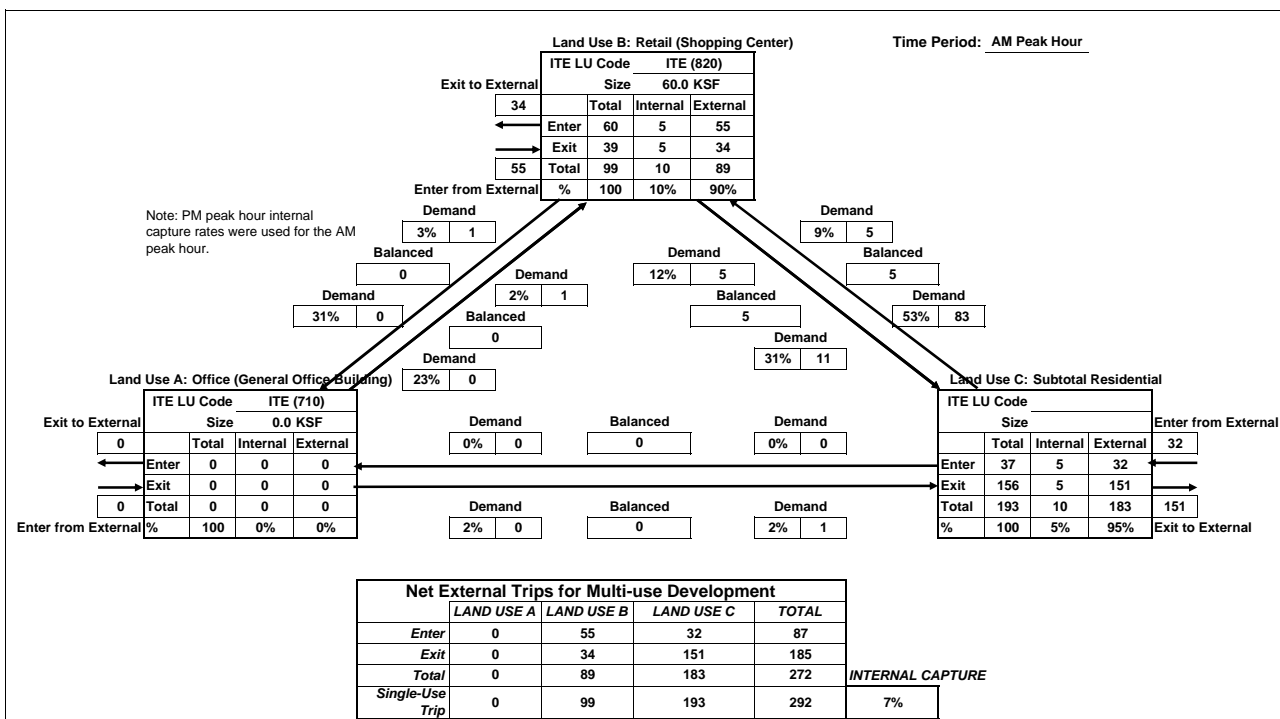
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study

Full Project with Maximum Office



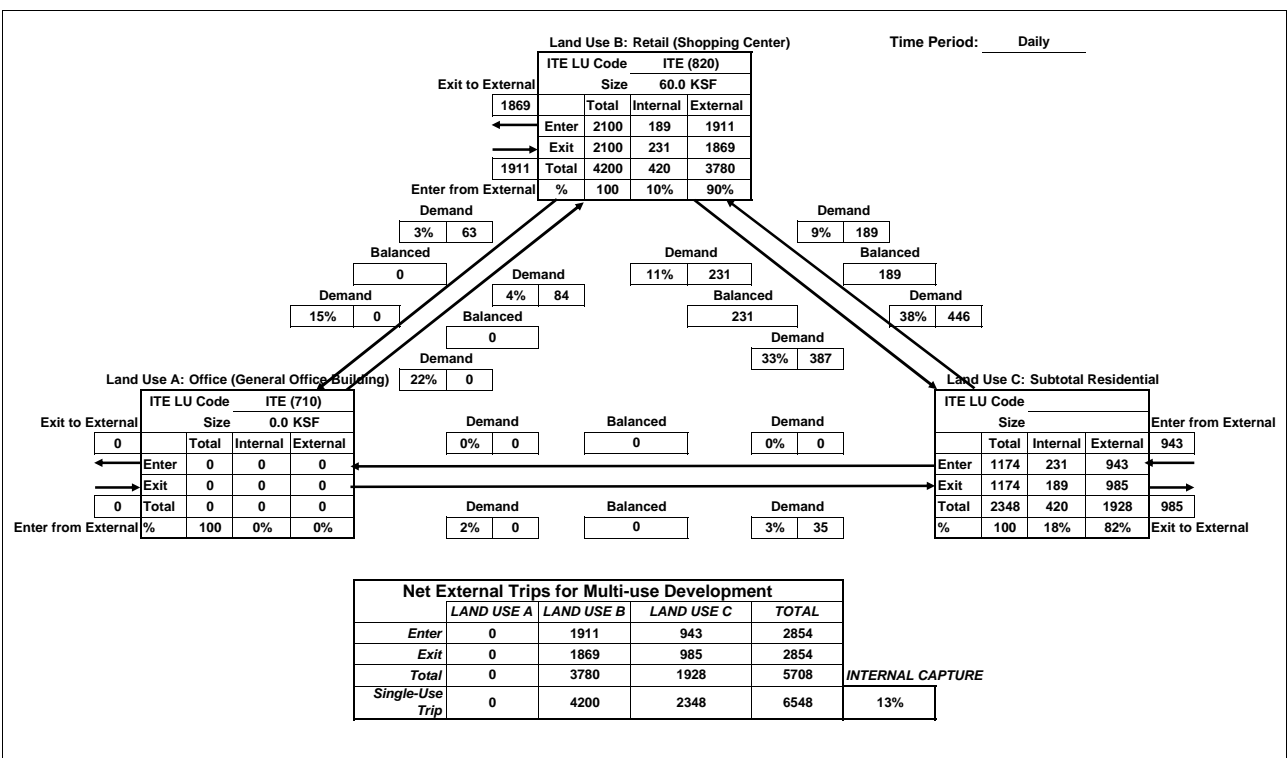
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Full Project with Maximum Office

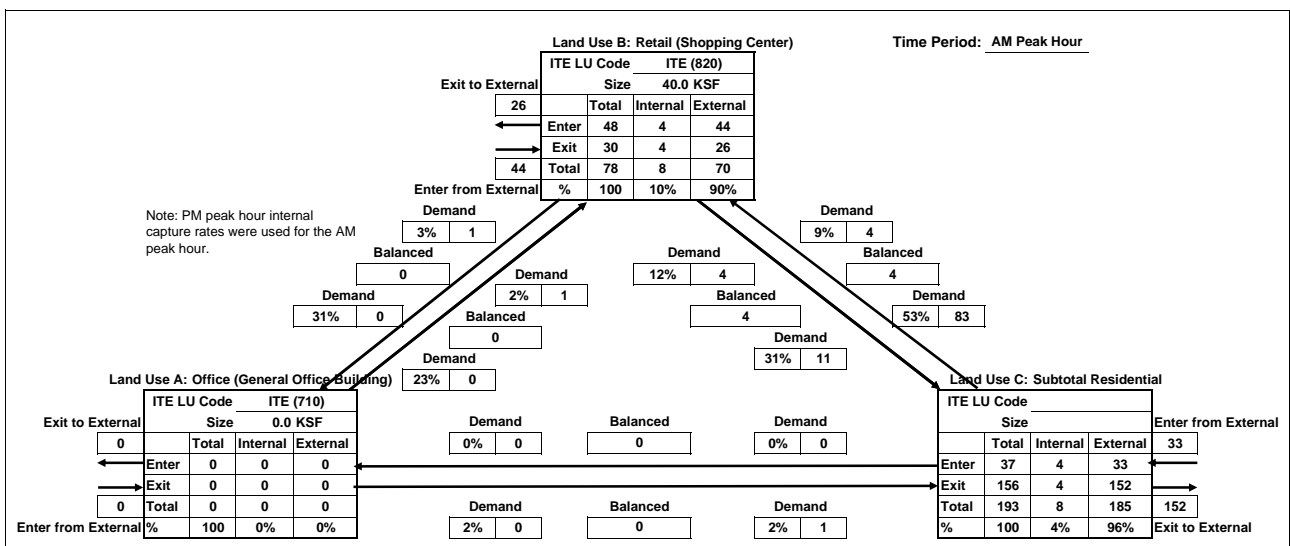
Time Period: Daily



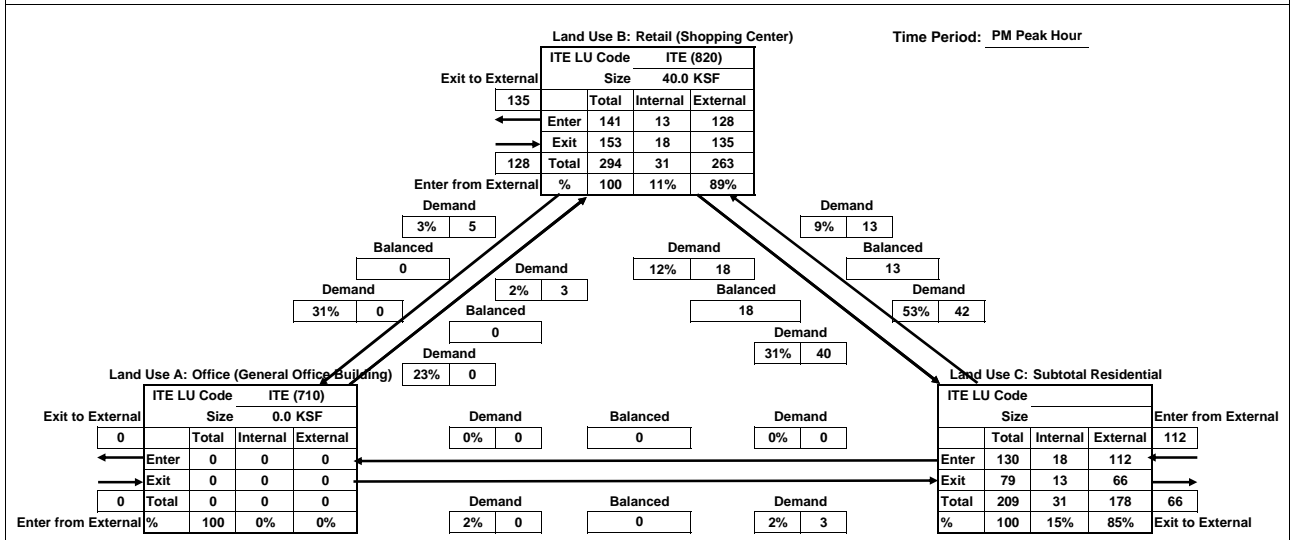
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
 Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	44	33	77	
Exit	0	26	152	178	
Total	0	70	185	255	INTERNAL CAPTURE
Single-Use Trip	0	78	193	271	6%



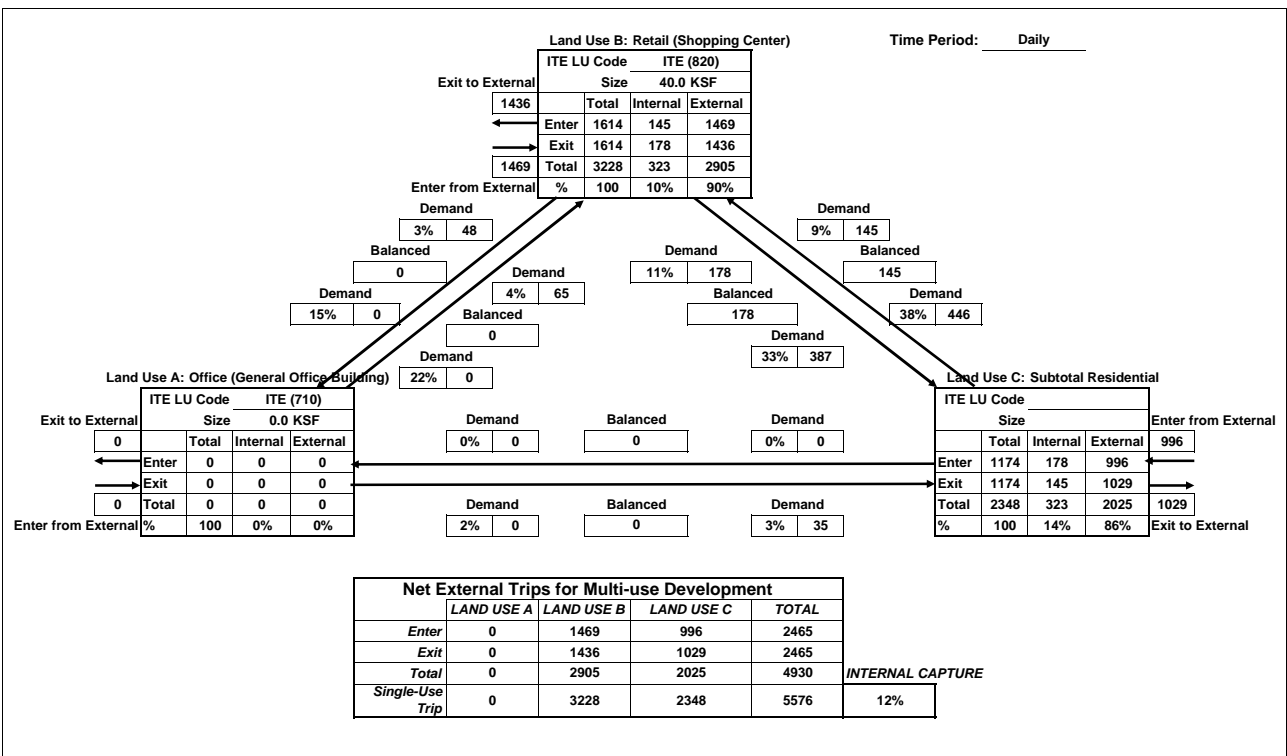
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	128	112	240	
Exit	0	135	66	201	
Total	0	263	178	441	INTERNAL CAPTURE
Single-Use Trip	0	294	209	503	12%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
 Full Project with Maximum Office

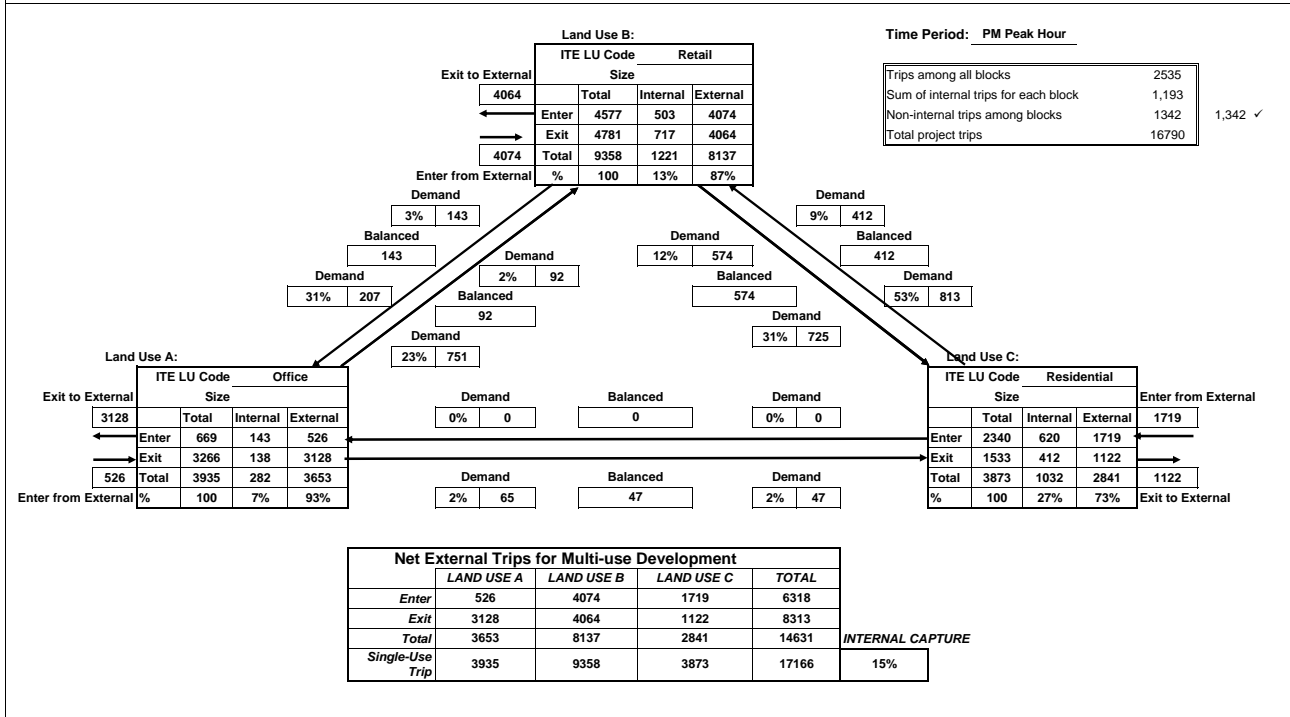
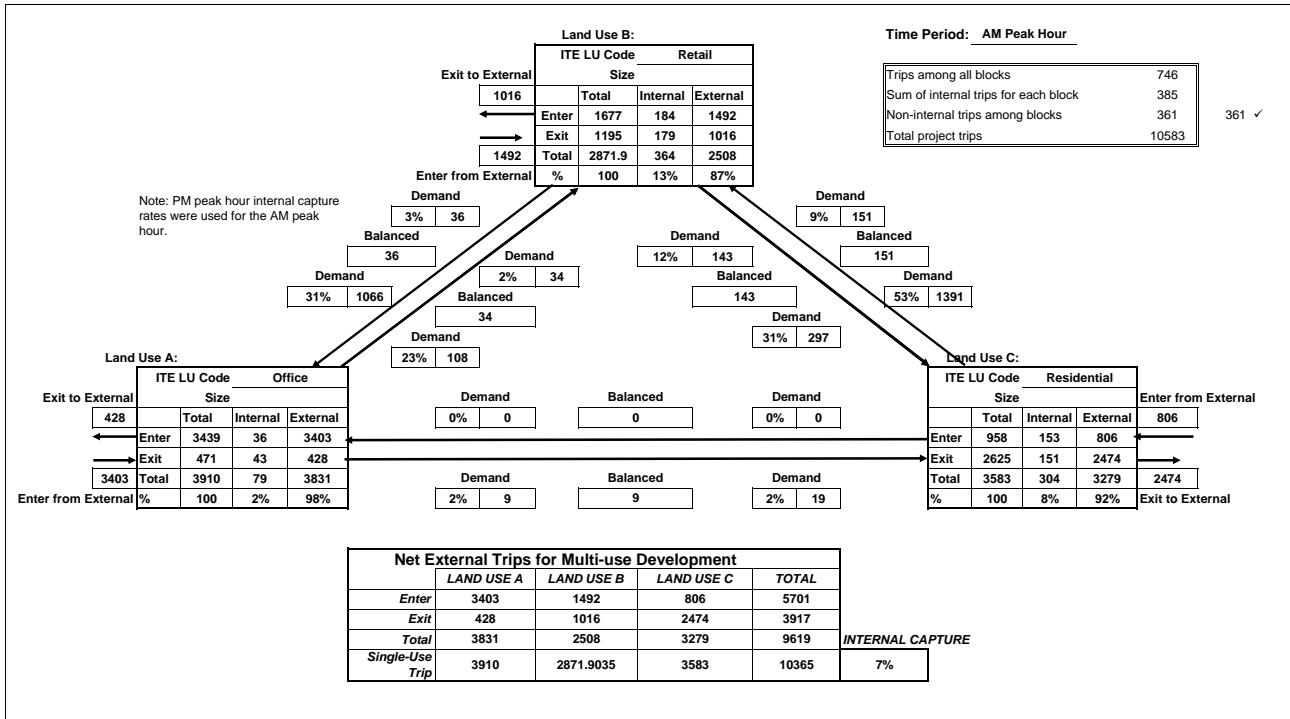
Time Period: Daily



**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling
Date: 8/17/2007

Name of Development: Downtown Study
Full Project with Maximum Office



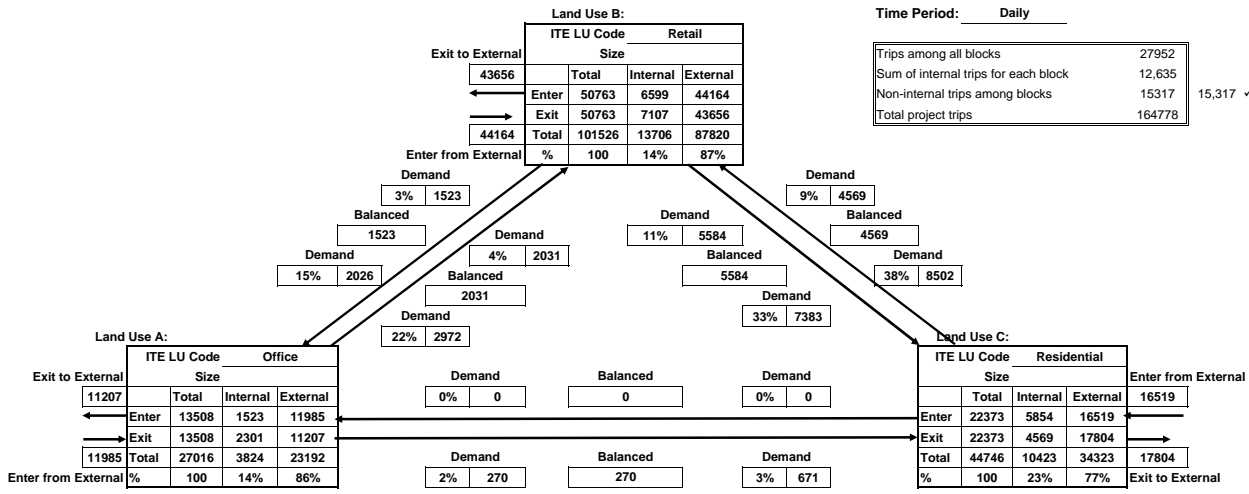
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 TRIPS AMONG ALL BLOCKS**

Name of Development: Downtown Study
 Full Project with Maximum Office

Time Period: Daily

Trips among all blocks	27952	
Sum of internal trips for each block	12,635	
Non-internal trips among blocks	15317	15,317 ✓
Total project trips	164778	



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	11985	44164	16519	72668	
Exit	11207	43656	17804	72668	
Total	23192	87820	34323	145336	INTERNAL CAPTURE
Single-Use Trip	27016	101526	44746	173288	16%

Full Project with Maximum Residential

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	837 Units	5,596	208	220	428	237	188	425
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,200	365	320	685	755	749	1,504
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-1,883	-34	-30	-64	-81	-81	-162
Internal Trips Within This Block (-11.9%)		-2,052	-23	-23	-46	-101	-101	-201
Trips To-From Other Blocks within the Project (-4.7%)		-812	-10	-10	-20	-39	-39	-78
New External Trips (72%) of Total Trips for Block		12,454	297	257	555	535	528	1,063
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	595 Units	2,467	38	163	201	135	83	218
Other	0	0	0	0	0	0	0	0
Total Trips for Block		7,853	115	212	327	373	340	713
Transit Adjustments (-2.3%)		-182	-3	-7	-10	-9	-9	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-862	-12	-19	-31	-39	-37	-76
Internal Trips Within This Block (-11.8%)		-929	-11	-11	-22	-45	-45	-90
Trips To-From Other Blocks within the Project (-4.6%)		-360	-5	-5	-9	-18	-18	-36
New External Trips (70%) of Total Trips for Block		5,520	84	170	255	262	231	493
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-619	-4	-4	-8	-32	-32	-64
New External Trips (83%) of Total Trips for Block		9,492	132	84	216	419	457	876
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	165 Units	846	15	62	77	45	27	72
Total Trips for Block		8,325	119	129	248	376	386	762
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-949	-13	-13	-26	-42	-44	-86
Internal Trips Within This Block (-6.5%)		-544	-13	-13	-25	-26	-26	-52
Trips To-From Other Blocks within the Project (-5%)		-418	-3	-3	-7	-21	-21	-42
New External Trips (77%) of Total Trips for Block		6,414	90	100	190	287	295	582

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	281 Units	1,283	21	89	110	69	42	111
Total Trips for Block		8,928	128	157	285	408	409	817
Transit Adjustments (-2.3%)		-201	-3	-5	-8	-10	-9	-19
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,010	-14	-15	-29	-45	-47	-92
Internal Trips Within This Block (-9%)		-801	-14	-14	-28	-39	-39	-77
Trips To-From Other Blocks within the Project (-4.7%)		-423	-4	-4	-8	-21	-21	-43
New External Trips (73%) of Total Trips for Block		6,493	93	119	212	293	293	586
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	363 Units	1,592	25	109	134	86	53	139
Total Trips for Block		7,077	104	159	263	328	315	643
Transit Adjustments (-2.3%)		-162	-3	-5	-8	-7	-8	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-11.1%)		-789	-11	-15	-26	-35	-35	-70
Internal Trips Within This Block (-12.5%)		-887	-11	-11	-23	-43	-43	-85
Trips To-From Other Blocks within the Project (-4.5%)		-321	-4	-4	-7	-16	-16	-32
New External Trips (70%) of Total Trips for Block		4,919	75	124	199	227	213	440
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	728 Units	2,968	46	194	240	163	100	263
Total Trips for Block		2,968	46	194	240	163	100	263
Transit Adjustments (-2.6%)		-77	-2	-6	-8	-5	-3	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-285	-4	-15	-19	-14	-9	-23
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-159	-4	-4	-7	-8	-8	-16
New External Trips (82%) of Total Trips for Block		2,447	36	169	206	136	80	216
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	139 Units	685	28	27	54	40	34	74
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,347	604	459	1,062	860	964	1,824
Transit Adjustments (-3.4%)		-657	-22	-11	-33	-21	-33	-54
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-2,004	-62	-51	-113	-95	-87	-181
Internal Trips Within This Block (-3.4%)		-661	-34	-34	-68	-47	-47	-94
Trips To-From Other Blocks within the Project (-5.1%)		-981	-15	-15	-30	-51	-51	-102
New External Trips (78%) of Total Trips for Block		15,044	471	349	819	646	746	1,393

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	108 Units	631	11	49	60	32	20	52
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,214	234	222	456	761	796	1,557
Transit Adjustments (-2.4%)		-391	-5	-6	-11	-17	-19	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,837	-27	-24	-51	-85	-91	-175
Internal Trips Within This Block (-2.4%)		-393	-20	-20	-41	-18	-18	-36
Trips To-From Other Blocks within the Project (-5.1%)		-832	-6	-6	-12	-45	-45	-89
New External Trips (79%) of Total Trips for Block		12,761	176	165	341	596	623	1,222
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	263 Units	1,215	20	85	105	65	40	105
Total Trips for Block		4,184	65	113	178	195	180	375
Transit Adjustments (-2.3%)		-97	-2	-4	-6	-5	-4	-9
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-461	-7	-9	-16	-21	-19	-40
Internal Trips Within This Block (-12.2%)		-512	-6	-6	-13	-25	-25	-49
Trips To-From Other Blocks within the Project (-4.6%)		-191	-3	-3	-5	-9	-9	-19
New External Trips (70%) of Total Trips for Block		2,923	47	91	138	135	123	258
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	96 Units	401	6	26	33	23	14	36
Total Trips for Block		4,022	60	60	121	182	186	367
Transit Adjustments (-2.2%)		-90	-1	-2	-3	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-459	-7	-6	-13	-20	-21	-41
Internal Trips Within This Block (-6.2%)		-250	-6	-6	-12	-13	-13	-26
Trips To-From Other Blocks within the Project (-4.9%)		-197	-2	-2	-3	-10	-10	-20
New External Trips (75%) of Total Trips for Block		3,026	45	45	90	135	138	272
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	227 Units	1,079	18	77	95	58	35	93
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		4,474	308	163	471	215	392	607
Transit Adjustments (-4.9%)		-217	-11	-4	-15	-6	-12	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-8.6%)		-384	-13	-10	-23	-18	-21	-39
Internal Trips Within This Block (-8.1%)		-363	-5	-5	-9	-17	-17	-35
Trips To-From Other Blocks within the Project (-4.8%)		-215	-7	-7	-15	-18	-18	-35
New External Trips (74%) of Total Trips for Block		3,295	272	137	408	156	324	480
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	619 Units	2,557	40	168	208	140	86	226
Total Trips for Block		4,269	67	185	252	214	166	380
Transit Adjustments (-2.4%)		-104	-2	-6	-8	-5	-5	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-444	-6	-15	-21	-21	-16	-37
Internal Trips Within This Block (-6.9%)		-295	-4	-4	-8	-14	-14	-28
Trips To-From Other Blocks within the Project (-4.9%)		-210	-4	-4	-8	-10	-10	-21
New External Trips (75%) of Total Trips for Block		3,216	51	156	208	164	121	284

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	160 Units	827	14	61	75	43	27	70
Total Trips for Block		6,937	101	116	217	313	319	632
Transit Adjustments (-2.2%)		-156	-3	-3	-6	-7	-7	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-788	-11	-11	-22	-35	-36	-71
Internal Trips Within This Block (-7.4%)		-515	-10	-10	-21	-25	-25	-49
Trips To-From Other Blocks within the Project (-4.8%)		-335	-3	-3	-6	-17	-17	-34
New External Trips (74%) of Total Trips for Block		5,142	74	89	162	230	235	464
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	273 Units	1,253	21	87	108	67	41	108
Total Trips for Block		2,367	39	99	138	115	93	208
Transit Adjustments (-2.5%)		-58	-2	-3	-5	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-249	-4	-8	-12	-12	-9	-21
Internal Trips Within This Block (-8.1%)		-192	-3	-3	-5	-9	-9	-18
Trips To-From Other Blocks within the Project (-4.8%)		-114	-2	-2	-4	-6	-6	-11
New External Trips (74%) of Total Trips for Block		1,754	28	83	112	85	67	153
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,355 Units	5,332	80	342	422	295	181	476
Total Trips for Block		5,332	80	342	422	295	181	476
Transit Adjustments (-2.6%)		-139	-3	-11	-14	-9	-6	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-512	-6	-27	-33	-25	-16	-41
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-286	-7	-7	-13	-14	-14	-29
New External Trips (82%) of Total Trips for Block		4,395	64	297	362	247	145	391
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,273 Units	5,023	76	322	398	278	170	448
Total Trips for Block		5,023	76	322	398	278	170	448
Transit Adjustments (-2.6%)		-131	-3	-11	-14	-9	-5	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-482	-6	-25	-31	-24	-15	-39
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-270	-6	-6	-12	-13	-13	-27
New External Trips (82%) of Total Trips for Block		4,140	61	280	341	232	137	368
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,603 Units	6,267	94	400	494	347	213	560
Total Trips for Block		9,025	135	427	562	467	344	811
Transit Adjustments (-2.5%)		-224	-4	-14	-18	-14	-9	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-922	-12	-35	-47	-44	-33	-77
Internal Trips Within This Block (-5.3%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-5%)		-453	-8	-8	-17	-23	-23	-45
New External Trips (77%) of Total Trips for Block		6,950	104	363	468	364	257	620

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 20: Bounded by South Park, N. 10th, Railyards, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,865 Units	7,255	108	462	570	403	247	650
----- Total Trips for Block		10,013	149	489	638	523	378	901
Transit Adjustments (-2.5%)		-250	-5	-15	-20	-15	-11	-26
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-1,016	-14	-39	-53	-49	-36	-85
Internal Trips Within This Block (-4.7%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-5.1%)		-506	-10	-10	-19	-25	-25	-51
New External Trips (78%) of Total Trips for Block		7,765	114	419	534	411	283	694

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	122 KSF	1,550	193	26	219	37	178	215
Retail (Shopping Center)	27 KSF	2,900	43	28	71	127	137	264
Subtotal Residential	200 Units	1,417	59	38	97	63	55	118
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		7,157	553	157	710	292	628	920
Transit Adjustments (-5.8%)		-416	-33	-7	-40	-11	-34	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-7.7%)		-551	-22	-9	-31	-23	-33	-56
Internal Trips Within This Block (-9.8%)		-702	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-4.7%)		-336	-11	-11	-22	-26	-26	-51
New External Trips (72%) of Total Trips for Block		5,153	479	122	601	201	505	705
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	15 KSF	1,979	31	20	50	86	93	179
Subtotal Residential	1,400 Units	7,719	239	352	591	355	261	616
Total Trips for Block		9,698	270	372	641	441	354	795
Transit Adjustments (-2.5%)		-245	-9	-12	-21	-13	-10	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-971	-23	-30	-53	-41	-33	-74
Internal Trips Within This Block (-3.5%)		-341	-5	-5	-9	-16	-16	-33
Trips To-From Other Blocks within the Project (-5.1%)		-498	-10	-10	-20	-23	-23	-45
New External Trips (79%) of Total Trips for Block		7,643	223	316	538	348	272	620
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	60 KSF	4,872	70	45	115	215	232	447
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		7,546	111	221	332	361	322	683
Transit Adjustments (-2.3%)		-177	-3	-7	-10	-9	-8	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-822	-11	-19	-30	-37	-35	-72
Internal Trips Within This Block (-11.1%)		-840	-10	-10	-20	-41	-41	-81
Trips To-From Other Blocks within the Project (-4.6%)		-349	-5	-5	-10	-17	-17	-35
New External Trips (71%) of Total Trips for Block		5,358	82	180	262	257	221	478
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	40 KSF	3,743	55	35	90	164	178	342
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		6,417	96	211	307	310	268	578
Transit Adjustments (-2.4%)		-152	-2	-7	-9	-8	-7	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-10.8%)		-691	-9	-18	-27	-31	-29	-60
Internal Trips Within This Block (-10.1%)		-646	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-4.7%)		-302	-4	-4	-9	-15	-15	-30
New External Trips (72%) of Total Trips for Block		4,627	73	174	246	225	186	411
Total Project Trips								
Office (General Office Building)	164 KSF	2,246	277	37	314	59	283	342
Retail (Shopping Center)	1,566 KSF	116,989	1,937	1,376	3,312	5,273	5,510	10,783
Subtotal Residential	13,850 Units	61,761	1,248	3,686	4,934	3,237	2,096	5,332
Other		4,819	516	130	645	167	703	869
Total Project Trips		185,815	3,978	5,229	9,205	8,736	8,592	17,326
Transit Adjustments (-2.2%)		-4,126	-121	-146	-267	-187	-205	-391
Walk, Bike & Other Non-Auto Travel Adjustments (-10.6%)		-19,698	-346	-454	-800	-896	-847	-1,741
Internal Trips Within This Block (-6.4%)		-11,874	-203	-203	-405	-585	-585	-1,170
Trips To-From Other Blocks within the Project (-4.9%)		-9,186	-135	-135	-271	-477	-477	-954
New External Trips (76%) of Total Project Trips		140,931	3,173	4,290	7,462	6,591	6,478	13,070

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
		75.8%			81.1%			75.4%

Table Xb: Transit Trips for Full Project with Maximum Residential (By City Block)							
City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	481	13	12	25	22	22	44
Block 2: Bounded by South Park, 5th, Railyards, Crocker	219	4	7	11	11	10	21
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	297	4	3	7	13	15	28
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	221	3	4	7	11	10	21
Block 6: Bounded by Railyards, 5th, Camille, Crocker	240	4	6	10	11	11	22
Block 7: Bounded by Railyards, 6th, Camille, 5th	194	3	5	8	9	9	18
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	95	2	8	10	6	4	10
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	762	25	13	38	27	52	79
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	461	6	6	12	22	24	45
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	116	2	4	6	5	6	11
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	107	1	2	3	5	5	10
Block 13: Bounded by Rail Lines, 6th, G, 5th	251	34	11	45	12	36	48
Block 14: Bounded by Rail Lines, 7th, G, 6th	127	3	7	10	7	5	12
Block 15: Bounded by G, 6th, H, 6th	185	3	4	7	9	9	18
Block 16: Bounded by G, 7th, Property Boundary, 6th	69	2	3	5	3	4	7
Block 17: Bounded by N. B, 7th, South Park, 5th	171	3	14	17	11	7	18
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	161	3	13	16	11	6	17
Block 19: Bounded by South Park, 7th, Railyards, 5th	273	5	17	22	16	12	28
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	304	5	20	25	18	13	31
Block 21: SITF Site	475	59	14	73	18	60	78
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	298	11	14	25	15	13	28
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	213	4	8	12	12	9	21
Block 24: Bounded by Property Boundary, Railyards, N. 10th	183	3	8	11	10	8	18
Total New Transit Trips	5,903	202	203	405	284	350	633

Source: Dowling Associates, Inc. 2006

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 OS	1	1	0.75							
1 RRMU	2	1	4.31		200,000					
1 RRMU	3a	1	2.84							
2 OS	3b	1	0.13							
2 RRMU	3c	1	0.93			500				
2 RRMU	3d	1	0.73	197	28,000				32,000	29
2 OS	3e	1	0.67							
2 RRMU	3f	1	0.28	140						
Subtotal				337	228,000	500	0	0	32,000	29
2 RRMU	5a	2	1.14	104						
2 RRMU	5b	2	0.68	106	27,000				29,000	26
2 RRMU	6a	2	1.28	242						
2 RRMU	6b	2	1.07	143	43,000				47,000	43
2 OS	6c	2	0.15							
Subtotal				595	70,000	0	0	0	76,000	69
1 RRMU	33	3	2.62							
1 RRMU	11a	4	4.42		223,000					
1 OS	11b	4	0.27							
Subtotal				0	223,000	0	0	0	0	0
1 RRMU	10a	5	3.88	165	116,000				65,000	59
1 OS	10b	5	0.57							
Subtotal				165	116,000	0	0	0	65,000	59
1 RRMU	8a	6	0.61	47	27,000				27,000	25
1 RRMU	8b	6	1.22	83	33,000				38,000	35
1 RRMU	9a	6	0.60	68	26,000				26,000	24
1 RRMU	9b	6	1.27	83	34,000				38,000	35
Subtotal				281	120,000	0	0	0	129,000	119
2 RRMU	7a	7	2.06	202	18,000				18,000	16
2 RRMU	7b	7	1.19	161	54,000				58,000	53
2 OS	7c	7	0.03							
Subtotal				363	72,000	0	0	0	76,000	69
3 ORMU	47a	8	2.21	273						
1 RRMU	47b	8	0.78							
1 ORMU	48	8	2.56	455						

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				728	0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 RRMU	12	9	1.17	39	71,000				43,000	39
1 RRMU	13a	9	0.11		3,500					
1 RRMU	13b	9	0.23		8,000					
1 RRMU	13c	9	0.12		5,600					
1 OS	13d	9	0.60							
1 RRMU	14	9	0.62		13,000	100				
1 RRMU	23	9	0.34					22,500 Restaurant		
1 RRMU	24	9	0.73					42,028 19816 Rest; 11165 Retail; 7730 Office		
1 RRMU	25	9	0.53					38,711 21014 Restaurant; 21014 Office		
1 RRMU	26	9	0.33					28,500 14250 Retail; 14250 Office		
1 RRMU	27	9	0.65					28,043 25000 Exhibit; 3043 Retail		
1 RRMU	28	9	2.24					93,134 Exhibit		
1 RRMU	29	9	1.67					69,696 Exhibit		
1 OS	30a	9	5.07							
1 OS	30b	9	1.35							
1 OS	31a	9	2.66							
1 OS	31b	9	0.32							
1 TU	38	9	16.78							
1 OS	45	9	0.33							
Subtotal				39	101,100	100	0	322,612	43,000	39
1 RRMU	15a	10	3.33	108	65,500			100,000 1,8	40,000	36
1 OS	15b	10	0.05							
1 OS	18a	10	1.05							
1 RRMU	18b	10	0.25		38,500					
1 RRMU	20	10	1.30					56,278 Market		
1 OS	21	10	5.30							
1 RRMU	22	10	0.15					6,500 Retail		
Subtotal				108	104,000	0	0	162,778	40,000	36
2 RRMU	16a	11	1.67	263	28,000				30,000	27
2 OS	16b	11	0.07							
1 RRMU	17	11	1.48							
Subtotal				263	28,000	0	0	0	30,000	27
2 ORMU	40	12	1.93	96	38,000					
2 ORMU	44	13	1.96	227	16,500					
2 ORMU	43	14	2.56	455	12,000					
2 ORMU	46	14	2.89	164						

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Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				619	12,000	0	0	0	0	0
1 ORMU	41	15	2.43	160	85,000					
1 ORMU	42	16	1.19	273	6,200					
3 OS	60	17	1.12							
3 OS	61	17	0.71							
3 OS	62	17	0.92							
3 RMU	69N	17	1.64	480						
3 RMU	69S	17	1.21	135						
3 RMU	70N	17	1.10	330						
3 RMU	70S	17	0.88	110						
3 RMU	71N	17	0.77	200						
3 RMU	71S	17	0.84	100						
Subtotal				1,355	0	0	0	0	0	0
4 OS	63	18	0.97							
4 OS	64	18	0.89							
4 OS	65	18	0.92							
4 RMU	66N	18	0.33	35						
4 RMU	66S	18	1.07	115						
4 RMU	67N	18	1.27	385						
4 RMU	67S	18	1.12	178						
4 RMU	68N	18	1.48	430						
4 RMU	68S	18	1.17	130						
Subtotal				1,273	0	0	0	0	0	0
3 OS	57a	19	0.12							
3 RMU	57N	19	1.24	250	15,000					
3 RMU	57S	19	1.38	415	10,000					
3 RMU	58N	19	1.17	125						
3 RMU	58S	19	1.15	345						
3 RMU	59N	19	1.27	135						
3 RMU	59S	19	1.11	333						
Subtotal				1,603	25,000	0	0	0	0	0
4 RMU	52N	20	0.98	105						
4 RMU	52S	20	1.30	390						
4 RMU	53N	20	1.38	150						
4 RMU	53S	20	1.49	445						
4 RMU	54N	20	1.35	275	15,000					

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THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
4 RMU	54S	20	1.68	500	10,000					
4 OS	54a	20	0.12							
Subtotal				1,865	25,000	0	0	0	0	0

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Land Use Distribution and Densities
Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
3 TU	39	21	15.34							
3 OS	34	22	1.26							
3 RMU	35	22	4.00	900	15,000	500				
Subtotal				900	15,000	500	0	0	0	0
4 RMU	49a	23	4.87	650	60,000					
1 ORMU	49b	23	0.73							
1 ORMU	49c	23	1.00							
3 OS	50	23	1.26							
Subtotal				650	60,000	0	0	0	0	0
4 RMU	51	24	4.70	650	40,000					
3 OS	72	25	10.37							
Subtotal				2,103			0			
TOTAL Max			180.39	12,550	1,384,800	1,100	0	485,390	491,000	447
Min				10,447			0			
Check				13,850	1,566,366		164,994			

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips ^a	Non-Work Trips ^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office¹	10.9%	0.2%	11.1%	
Retail²	0.8%	1.4%	2.2%	
	Home- Work	Home-Non- Work	Non Home- Based	
Residential^{3,c}				
AM Peak Hour	2.5%	0.7%	0.2%	3.4%
PM Peak Hour	2.1%	0.6%	0.4%	3.1%
Daily	1.5%	0.7%	0.4%	2.6%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office¹	1.5%	1.2%	2.8%	
Retail²	0.1%	11.4%	11.6%	
	Home- Work	Home-Non- Work	Non Home- Based	
Residential^c				
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office¹	12.2%	0.3%	12.5%	
Retail²	1.0%	1.7%	2.6%	
	Home- Work	Home-Non- Work	Non Home- Based	
Residential^c				
AM Peak Hour	3.1%	0.8%	0.3%	4.1%
PM Peak Hour	2.6%	0.7%	0.5%	3.7%
Daily	1.9%	0.8%	0.5%	3.2%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001.
 Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 1: Bounded by South Park, Crocker, Railyards, Bercut														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%	
Residential														
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%	
High Rise Residential Condominium	337 Units	ITE (232)	1,494	24	103	127	81	49	130	19%	81%	62%	38%	
Subtotal Residential	837 Units		5,596	208	220	428	237	188	425					
Other														
Total Trips for Block			17,200	365	320	685	755	749	1,504					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-537	-16	-18	-34	-21	-16	-37					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,883	-34	-30	-64	-81	-81	-162					
Internal Trips Within This Block			-2,052	-23	-23	-46	-101	-101	-201					
Trips To-From Other Blocks within the Project			-812	-10	-10	-20	-39	-39	-78					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				122	74	197	390	408	798					
Subtotal Residential				175	183	358	144	120	265					
Other				0	0	0	0	0	0					
Total				12,454	297	257	555	535	528	1,063				
New External Trips Percent of Total Project Trips				72%	82%	80%	81%	71%	71%	71%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				302	4	3	7	13	15	28				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				179	9	9	18	9	7	16				
Other				0	0	0	0	0	0	0				
Total Transit Trips				481	13	12	25	22	22	44				

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 2: Bounded by South Park, 5th, Railyards, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	595 Units	ITE (232)	2,467	38	163	201	135	83	218	19%	81%	62%	38%	
Subtotal Residential	595 Units		2,467	38	163	201	135	83	218					
Other														
Total Trips for Block			7,853	115	212	327	373	340	713					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-118	-2	-1	-3	-5	-6	-11					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-64	-1	-6	-7	-4	-3	-7					
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-182	-3	-7	-10	-9	-9	-18					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-237	-3	-13	-16	-12	-7	-19					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-862	-12	-19	-31	-39	-37	-76					
Internal Trips Within This Block			-929	-11	-11	-22	-45	-45	-90					
Trips To-From Other Blocks within the Project			-360	-5	-5	-9	-18	-18	-36					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				57	36	93	176	181	357					
Subtotal Residential				27	134	162	86	50	136					
Other				0	0	0	0	0	0					
Total				5,520	84	170	255	262	231	493				
New External Trips Percent of Total Project Trips				70%	73%	80%	78%	70%	68%	69%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				140	2	1	3	6	7	13				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				79	2	6	8	5	3	8				
Other				0	0	0	0	0	0	0				
Total Transit Trips				219	4	7	11	11	10	21				

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				

Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-619	-4	-4	-8	-32	-32	-64					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				132	84	216	419	457	876					
Subtotal Residential				0	0	0	0	0	0					
Total			9,492	132	84	216	419	457	876					
New External Trips Percent of Total Project Trips			83%	86%	85%	85%	82%	83%	82%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			297	4	3	7	13	15	28					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0					
Total Transit Trips			297	4	3	7	13	15	28					

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 5: Bounded by Railyards, Crocker, Camille, Huntington														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%) Residential	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%	
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	165 Units	ITE (232)	846	15	62	77	45	27	72	19%	81%	62%	38%	
Subtotal Residential	165 Units		846	15	62	77	45	27	72					
Other														
Total Trips for Block			8,325	119	129	248	376	386	762					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-81	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-949	-13	-13	-26	-42	-44	-86					
Internal Trips Within This Block			-544	-13	-13	-25	-26	-26	-52					
Trips To-From Other Blocks within the Project			-418	-3	-3	-7	-21	-21	-42					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%) Subtotal Residential				81	53	134	261	285	546					
				9	47	56	26	10	36					
Total			6,414	90	100	190	287	295	582					
New External Trips Percent of Total Project Trips			77%	76%	77%	77%	76%	76%	76%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			194	2	2	4	9	9	18					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			27	1	2	3	2	1	3					
Total Transit Trips			221	3	4	7	11	10	21					

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 6: Bounded by Railyards, 5th, Camille, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	281 Units	ITE (232)	1,283	21	89	110	69	42	111	19%	81%	62%	38%	
Subtotal Residential	281 Units		1,283	21	89	110	69	42	111					
Other														
Total Trips for Block			8,928	128	157	285	408	409	817					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-168	-2	-2	-4	-8	-8	-16					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-33	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-201	-3	-5	-8	-10	-9	-19					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-123	-2	-7	-9	-6	-4	-10					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,010	-14	-15	-29	-45	-47	-92					
Internal Trips Within This Block			-801	-14	-14	-28	-39	-39	-77					
Trips To-From Other Blocks within the Project			-423	-4	-4	-8	-21	-21	-43					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				81	51	132	255	278	533					
Subtotal Residential				12	68	80	38	15	54					
Total				6,493	93	119	212	293	293					
New External Trips Percent of Total Project Trips				73%	73%	76%	75%	72%	72%					
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				199	3	2	5	9	9					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				41	1	4	5	2	2					
Total Transit Trips				240	4	6	10	11	11					

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 7: Bounded by Railyards, 6th, Camille, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	363 Units	ITE (232)	1,592	25	109	134	86	53	139	19%	81%	62%	38%	
Subtotal Residential	363 Units		1,592	25	109	134	86	53	139					
Other														
Total Trips for Block			7,077	104	159	263	328	315	643					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-121	-2	-1	-3	-5	-6	-11					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-41	-1	-4	-5	-2	-2	-4					
Other														
Total Transit Adjustments			-162	-3	-5	-8	-7	-8	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-153	-2	-9	-11	-7	-5	-12					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-789	-11	-15	-26	-35	-35	-70					
Internal Trips Within This Block			-887	-11	-11	-23	-43	-43	-85					
Trips To-From Other Blocks within the Project			-321	-4	-4	-7	-16	-16	-32					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				59	37	96	178	189	367					
Subtotal Residential				16	87	103	49	24	73					
Total			4,919	75	124	199	227	213	440					
New External Trips Percent of Total Project Trips			70%	72%	78%	76%	69%	68%	69%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			143	2	1	3	6	7	13					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			51	1	4	5	3	2	5					
Total Transit Trips			194	3	5	8	9	9	18					

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	728 Units	ITE (232)	2,968	46	194	240	163	100	263	19%	81%	62%	38%	
Subtotal Residential	728 Units		2,968	46	194	240	163	100	263					
Other														
Total Trips for Block			2,968	46	194	240	163	100	263					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			0	0	0	0	0	0	0					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-77	-2	-6	-8	-5	-3	-8					
Other														
Total Transit Adjustments			-77	-2	-6	-8	-5	-3	-8					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			0	0	0	0	0	0	0					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-285	-4	-15	-19	-14	-9	-23					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-285	-4	-15	-19	-14	-9	-23					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-159	-4	-4	-7	-8	-8	-16					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail (Shopping Center)			0	0	0	0	0	0	0					
Subtotal Residential			36	169	206	136	80	216						
Total			2,447	36	169	206	136	80	216					
New External Trips Percent of Total Project Trips			82%	79%	87%	86%	84%	80%	82%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			0	0	0	0	0	0	0					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			95	2	8	10	6	4	10					
Total Transit Trips			95	2	8	10	6	4	10					

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	43.0 KSF	ITE (710)	696	84	11	95	22	105	127	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	39 Units	ITE (232)	163	3	11	13	9	6	15	19%	81%	62%	38%
Subtotal Residential	139 Units		685	28	27	54	40	34	74				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,347	604	459	1,062	860	964	1,824				
Transit Adjustments													
Office (-11.1%)			-77	-10	-1	-11	-2	-12	-14				
Retail (-2.2%)			-354	-11	-9	-20	-17	-15	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-18	-1	-1	-2	-1	-1	-2				
Other (Museum Exhibit Space) (-11.1%)			-208	0	0	0	-1	-5	-6				
Total Transit Adjustments			-657	-22	-11	-33	-21	-33	-54				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-19	-3	0	-3	-1	-3	-4				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-66	-2	-2	-4	-3	-3	-6				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,004	-62	-51	-113	-95	-87	-181				
Internal Trips Within This Block			-661	-34	-34	-68	-47	-47	-94				
Trips To-From Other Blocks within the Project			-981	-15	-15	-30	-51	-51	-102				
New External Trips													
Office (General Office Building)				58	7	65	12	69	81				
Retail & Restaurant (see footnote)				396	331	728	596	506	1,102				
Subtotal Residential				16	10	27	22	12	34				
Other (Museum Exhibit Space)				0	0	0	17	159	177				
Total			15,044	471	349	819	646	746	1,393				
New External Trips Percent of Total Project Trips			78%	78%	76%	77%	75%	77%	76%				
Transit Trips													
Office (12.5%)			87	11	1	12	3	13	16				
Retail (2.6%)			418	13	11	24	20	17	37				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			22	1	1	2	2	1	3				
Other (Museum Exhibit Space) (12.5%)			235	0	0	0	2	21	23				
Total Transit Trips			762	25	13	38	27	52	79				
Footnote:													
Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469					
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	108 Units	ITE (232)	631	11	49	60	32	20	52	19%	81%	62%	38%	
Subtotal Residential	108 Units		631	11	49	60	32	20	52					
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36			50%	50%	
Total Trips for Block			16,214	234	222	456	761	796	1,557					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-335	-5	-4	-9	-15	-17	-32					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-16	0	-2	-2	-1	-1	-2					
Other (Performing Arts) (-11.1%)			-40	0	0	0	-1	-1	-1					
Total Transit Adjustments			-391	-5	-6	-11	-17	-19	-35					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-61	-1	-4	-5	-2	-2	-4					
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,837	-27	-24	-51	-85	-91	-175					
Internal Trips Within This Block			-393	-20	-20	-41	-18	-18	-36					
Trips To-From Other Blocks within the Project			-832	-6	-6	-12	-45	-45	-89					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail & Market (see footnote)				169	141	310	562	600	1,163					
Subtotal Residential				7	24	31	18	7	25					
Other (Performing Arts)				0	0	0	16	16	34					
Total			12,761	176	165	341	596	623	1,222					
New External Trips Percent of Total Project Trips			79%	75%	74%	75%	78%	78%	78%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			396	6	4	10	18	20	38					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			20	0	2	2	1	1	2					
Other (Performing Arts) (12.5%)			45	0	0	0	3	3	5					
Total Transit Trips			461	6	6	12	22	24	45					

Footnote:

Retail & Market														
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%	
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%	
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%	

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 11: Bounded by Camille, 6th, Rail Lines, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	263 Units	ITE (232)	1,215	20	85	105	65	40	105	19%	81%	62%	38%	
Subtotal Residential	263 Units		1,215	20	85	105	65	40	105					
Other														
Total Trips for Block			4,184	65	113	178	195	180	375					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-65	-1	-1	-2	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-32	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-97	-2	-4	-6	-5	-4	-9					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-117	-2	-6	-8	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-461	-7	-9	-16	-21	-19	-40					
Internal Trips Within This Block			-512	-6	-6	-13	-25	-25	-49					
Trips To-From Other Blocks within the Project			-191	-3	-3	-5	-9	-9	-19					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				34	21	54	96	99	195					
Subtotal Residential				13	71	84	39	24	63					
Total				2,923	47	91	138	135	123	258				
New External Trips Percent of Total Project Trips				70%	72%	81%	78%	69%	68%	69%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				77	1	1	2	3	4	7				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				39	1	3	4	2	2	4				
Total Transit Trips				116	2	4	6	5	6	11				

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 12: Bounded by Rail Lines, 5th, I Street, LRT														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	96 Units	ITE (232)	401	6	26	33	23	14	36	19%	81%	62%	38%	
Subtotal Residential	96 Units		401	6	26	33	23	14	36					
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%	
Total Trips for Block			4,022	60	60	121	182	186	367					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-80	-1	-1	-2	-3	-4	-7					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-10	0	-1	-1	-1	0	-1					
Other (-11.1%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-90	-1	-2	-3	-4	-4	-8					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-39	-1	-2	-3	-2	-1	-3					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-459	-7	-6	-13	-20	-21	-41					
Internal Trips Within This Block			-250	-6	-6	-12	-13	-13	-26					
Trips To-From Other Blocks within the Project			-197	-2	-2	-3	-10	-10	-20					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				41	27	68	122	133	255					
Subtotal Residential				3	18	21	13	5	18					
Other				0	0	0	0	0	0					
Total				3,026	45	45	90	135	138	272				
New External Trips Percent of Total Project Trips				75%	74%	74%	74%	74%	74%	74%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				94	1	1	2	4	5	9				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				13	0	1	1	1	0	1				
Other (12.5%)				0	0	0	0	0	0	0				
Total Transit Trips				107	1	2	3	5	5	10				

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 13: Bounded by Rail Lines, 6th, G, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	227 Units	ITE (232)	1,079	18	77	95	58	35	93	19%	81%	62%	38%	
Subtotal Residential	227 Units		1,079	18	77	95	58	35	93					
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%	
Total Trips for Block			4,474	308	163	471	215	392	607					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-46	-1	0	-1	-2	-2	-4					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-28	-1	-2	-3	-2	-1	-3					
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11					
Total Transit Adjustments			-217	-11	-4	-15	-6	-12	-18					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-104	-2	-6	-8	-5	-3	-8					
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-384	-13	-10	-23	-18	-21	-39					
Internal Trips Within This Block			-363	-5	-5	-9	-17	-17	-35					
Trips To-From Other Blocks within the Project			-215	-7	-7	-15	-18	-18	-35					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				20	15	35	61	63	124					
Subtotal Residential				10	61	71	34	19	53					
Other (Transit)				242	61	303	61	242	303					
Total				3,295	272	137	408	156	324	480				
New External Trips Percent of Total Project Trips				74%	88%	84%	87%	73%	83%	79%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				55	1	0	1	2	3	5				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				35	1	3	4	2	1	3				
Other (Transit) (12.5%)				161	32	8	40	8	32	40				
Total Transit Trips				251	34	11	45	12	36	48				

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 14: Bounded by Rail Lines, 7th, G, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	619 Units	ITE (232)	2,557	40	168	208	140	86	226	19%	81%	62%	38%	
Subtotal Residential	619 Units		2,557	40	168	208	140	86	226					
Other														
Total Trips for Block			4,269	67	185	252	214	166	380					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-38	-1	0	-1	-1	-2	-3					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-66	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-104	-2	-6	-8	-5	-5	-10					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-245	-3	-13	-16	-12	-7	-19					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-444	-6	-15	-21	-21	-16	-37					
Internal Trips Within This Block			-295	-4	-4	-8	-14	-14	-28					
Trips To-From Other Blocks within the Project			-210	-4	-4	-8	-10	-10	-21					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				19	13	32	55	56	110					
Subtotal Residential				32	144	175	109	65	174					
Total				3,216	51	156	208	164	121	284				
New External Trips Percent of Total Project Trips				75%	77%	85%	82%	76%	73%	75%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				45	1	0	1	2	2	4				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				82	2	7	9	5	3	8				
Total Transit Trips				127	3	7	10	7	5	12				

**Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Full Project with Maximum Residential**

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 15: Bounded by G, 6th, H, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	160 Units	ITE (232)	827	14	61	75	43	27	70	19%	81%	62%	38%	
Subtotal Residential	160 Units		827	14	61	75	43	27	70					
Other														
Total Trips for Block			6,937	101	116	217	313	319	632					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-134	-2	-1	-3	-6	-6	-12					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-22	-1	-2	-3	-1	-1	-2					
Other														
Total Transit Adjustments			-156	-3	-3	-6	-7	-7	-14					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-79	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-788	-11	-11	-22	-35	-36	-71					
Internal Trips Within This Block			-515	-10	-10	-21	-25	-25	-49					
Trips To-From Other Blocks within the Project			-335	-3	-3	-6	-17	-17	-34					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				66	43	109	206	225	430					
Subtotal Residential				8	46	54	24	10	34					
Total				5,142	74	89	162	230	235	464				
New External Trips Percent of Total Project Trips				74%	73%	76%	75%	73%	74%	73%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				159	2	2	4	7	8	15				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				26	1	2	3	2	1	3				
Total Transit Trips				185	3	4	7	9	9	18				

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 16: Bounded by G, 7th, Property Boundary, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	273 Units	ITE (232)	1,253	21	87	108	67	41	108	19%	81%	62%	38%	
Subtotal Residential	273 Units		1,253	21	87	108	67	41	108					
Other														
Total Trips for Block			2,367	39	99	138	115	93	208					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-25	-1	0	-1	-1	-1	-2					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-33	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-58	-2	-3	-5	-3	-2	-5					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-120	-2	-7	-9	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-249	-4	-8	-12	-12	-9	-21					
Internal Trips Within This Block			-192	-3	-3	-5	-9	-9	-18					
Trips To-From Other Blocks within the Project			-114	-2	-2	-4	-6	-6	-11					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				13	9	22	35	37	72					
Subtotal Residential				16	74	89	50	31	81					
Total				1,754	28	83	112	85	67	153				
New External Trips Percent of Total Project Trips				74%	73%	84%	81%	74%	72%	73%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				29	1	0	1	1	2	3				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				40	1	3	4	2	2	4				
Total Transit Trips				69	2	3	5	3	4	7				

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	1,355 Units	ITE (232)	5,332	80	342	422	295	181	476	19%	81%	62%	38%	
Subtotal Residential	1,355 Units		5,332	80	342	422	295	181	476					
Other														
Total Trips for Block			5,332	80	342	422	295	181	476					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			0	0	0	0	0	0	0					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-139	-3	-11	-14	-9	-6	-15					
Other														
Total Transit Adjustments			-139	-3	-11	-14	-9	-6	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			0	0	0	0	0	0	0					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-512	-6	-27	-33	-25	-16	-41					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-512	-6	-27	-33	-25	-16	-41					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-286	-7	-7	-13	-14	-14	-29					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail (Shopping Center)			0	0	0	0	0	0	0					
Subtotal Residential			64	297	362	247	145	391						
Total			4,395	64	297	362	247	145	391					
New External Trips Percent of Total Project Trips			82%	81%	87%	86%	84%	80%	82%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			0	0	0	0	0	0	0					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			171	3	14	17	11	7	18					
Total Transit Trips			171	3	14	17	11	7	18					

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	1,273 Units	ITE (232)	5,023	76	322	398	278	170	448	19%	81%	62%	38%	
Subtotal Residential	1,273 Units		5,023	76	322	398	278	170	448					
Other														
Total Trips for Block			5,023	76	322	398	278	170	448					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			0	0	0	0	0	0	0					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-131	-3	-11	-14	-9	-5	-14					
Other														
Total Transit Adjustments			-131	-3	-11	-14	-9	-5	-14					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			0	0	0	0	0	0	0					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-482	-6	-25	-31	-24	-15	-39					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-482	-6	-25	-31	-24	-15	-39					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-270	-6	-6	-12	-13	-13	-27					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail (Shopping Center)			0	0	0	0	0	0	0					
Subtotal Residential			61	280	341	232	137	368						
Total			4,140	61	280	341	232	137	368					
New External Trips Percent of Total Project Trips			82%	80%	87%	86%	83%	80%	82%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			0	0	0	0	0	0	0					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			161	3	13	16	11	6	17					
Total Transit Trips			161	3	13	16	11	6	17					

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	25.0 KSF	ITE (820)	2,758	41	27	68	120	131	251	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	1,603 Units	ITE (232)	6,267	94	400	494	347	213	560	19%	81%	62%	38%	
Subtotal Residential	1,603 Units		6,267	94	400	494	347	213	560					
Other														
Total Trips for Block			9,025	135	427	562	467	344	811					

Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-61	-1	0	-1	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-163	-3	-14	-17	-11	-6	-17					
Other														
Total Transit Adjustments			-224	-4	-14	-18	-14	-9	-23					

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-320	-5	-3	-8	-14	-15	-29					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-602	-7	-32	-39	-30	-18	-48					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-922	-12	-35	-47	-44	-33	-77					
Internal Trips Within This Block			-476	-6	-6	-12	-23	-23	-46					
Trips To-From Other Blocks within the Project			-453	-8	-8	-17	-23	-23	-45					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				29	21	50	88	91	179					
Subtotal Residential				75	343	418	276	166	441					
Total			6,950	104	363	468	364	257	620					
New External Trips Percent of Total Project Trips			77%	77%	85%	83%	78%	75%	76%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			72	1	1	2	3	4	7					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			201	4	16	20	13	8	21					
Total Transit Trips			273	5	17	22	16	12	28					

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	25.0 KSF	ITE (820)	2,758	41	27	68	120	131	251	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	1,865 Units	ITE (232)	7,255	108	462	570	403	247	650	19%	81%	62%	38%	
Subtotal Residential	1,865 Units		7,255	108	462	570	403	247	650					
Other														
Total Trips for Block			10,013	149	489	638	523	378	901					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-61	-1	0	-1	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-189	-4	-15	-19	-12	-8	-20					
Other														
Total Transit Adjustments			-250	-5	-15	-20	-15	-11	-26					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-320	-5	-3	-8	-14	-15	-29					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-696	-9	-36	-45	-35	-21	-56					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,016	-14	-39	-53	-49	-36	-85					
Internal Trips Within This Block			-476	-6	-6	-12	-23	-23	-46					
Trips To-From Other Blocks within the Project			-506	-10	-10	-19	-25	-25	-51					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				29	21	50	88	91	179					
Subtotal Residential				85	399	484	323	192	515					
Total			7,765	114	419	534	411	283	694					
New External Trips Percent of Total Project Trips			78%	77%	86%	84%	79%	75%	77%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			72	1	1	2	3	4	7					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			232	4	19	23	15	9	24					
Total Transit Trips			304	5	20	25	18	13	31					

Sacramento Railyards Traffic Study
Block 21: SITF Site
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 21: SITF Site													
Office (General Office Building)	121.5 KSF	ITE (710)	1,550	193	26	219	37	178	215	88%	12%	17%	83%
Retail (Shopping Center)	27.0 KSF	ITE (820)	2,900	43	28	71	127	137	264	61%	39%	48%	52%
Residential													
Hotel	200 rooms	ITE (310)	1,417	59	38	97	63	55	118	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	200 Units		1,417	59	38	97	63	55	118				
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%
Total Trips for Block			7,157	553	157	710	292	628	920				
Transit Adjustments													
Office (-11.1%)			-172	-21	-3	-24	-4	-20	-24				
Retail (-2.2%)			-64	-1	-1	-2	-3	-3	-6				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-37	-2	-1	-3	-2	-2	-4				
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11				
Total Transit Adjustments			-416	-33	-7	-40	-11	-34	-45				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-43	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-336	-5	-3	-8	-15	-16	-31				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-136	-5	-3	-8	-5	-5	-10				
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-551	-22	-9	-31	-23	-33	-56				
Internal Trips Within This Block			-702	-8	-8	-16	-31	-31	-62				
Trips To-From Other Blocks within the Project			-336	-11	-11	-22	-26	-26	-51				
New External Trips													
Office (General Office Building)				159	18	177	24	137	162				
Retail (Shopping Center)				31	17	48	83	91	174				
Subtotal Residential				47	26	73	33	35	68				
Other (Transit)				242	61	303	61	242	303				
Total				5,153	479	122	601	201	505	705			
New External Trips Percent of Total Project Trips				72%	87%	78%	85%	69%	80%	77%			
Transit Trips													
Office (12.5%)				194	24	3	27	5	22	27			
Retail (2.6%)				75	1	1	2	3	4	7			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				45	2	2	4	2	2	4			
Other (Transit) (12.5%)				161	32	8	40	8	32	40			
Total Transit Trips				475	59	14	73	18	60	78			

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	15.0 KSF	ITE (820)	1,979	31	20	50	86	93	179	61%	39%	48%	52%	
Residential														
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%	
High Rise Residential Condominium	900 Units	ITE (232)	3,617	55	235	290	199	122	321	19%	81%	62%	38%	
Subtotal Residential	1,400 Units		7,719	239	352	591	355	261	616					
Other														
Total Trips for Block			9,698	270	372	641	441	354	795					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-44	-1	0	-1	-2	-2	-4					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-201	-8	-12	-20	-11	-8	-19					
Other														
Total Transit Adjustments			-245	-9	-12	-21	-13	-10	-23					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-230	-4	-2	-6	-10	-11	-21					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-741	-19	-28	-47	-31	-22	-53					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-971	-23	-30	-53	-41	-33	-74					
Internal Trips Within This Block			-341	-5	-5	-9	-16	-16	-33					
Trips To-From Other Blocks within the Project			-498	-10	-10	-20	-23	-23	-45					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				23	15	38	63	65	128					
Subtotal Residential				201	301	502	285	207	493					
Total			7,643	223	316	538	348	272	620					
New External Trips Percent of Total Project Trips			79%	83%	85%	84%	79%	77%	78%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			51	1	0	1	2	3	5					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			247	10	14	24	13	10	23					
Total Transit Trips			298	11	14	25	15	13	28					

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	60.0 KSF	ITE (820)	4,872	70	45	115	215	232	447	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	650 Units	ITE (232)	2,674	41	176	217	146	90	236	19%	81%	62%	38%	
Subtotal Residential	650 Units		2,674	41	176	217	146	90	236					
Other														
Total Trips for Block			7,546	111	221	332	361	322	683					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-107	-2	-1	-3	-5	-5	-10					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-70	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-177	-3	-7	-10	-9	-8	-17					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-565	-8	-5	-13	-25	-27	-52					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-257	-3	-14	-17	-12	-8	-20					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-822	-11	-19	-30	-37	-35	-72					
Internal Trips Within This Block			-840	-10	-10	-20	-41	-41	-81					
Trips To-From Other Blocks within the Project			-349	-5	-5	-10	-17	-17	-35					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				52	33	85	158	163	322					
Subtotal Residential				31	147	177	99	57	156					
Total				5,358	82	180	262	257	221	478				
New External Trips Percent of Total Project Trips				71%	74%	82%	79%	71%	69%	70%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				127	2	1	3	6	6	12				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				86	2	7	9	6	3	9				
Total Transit Trips				213	4	8	12	12	9	21				

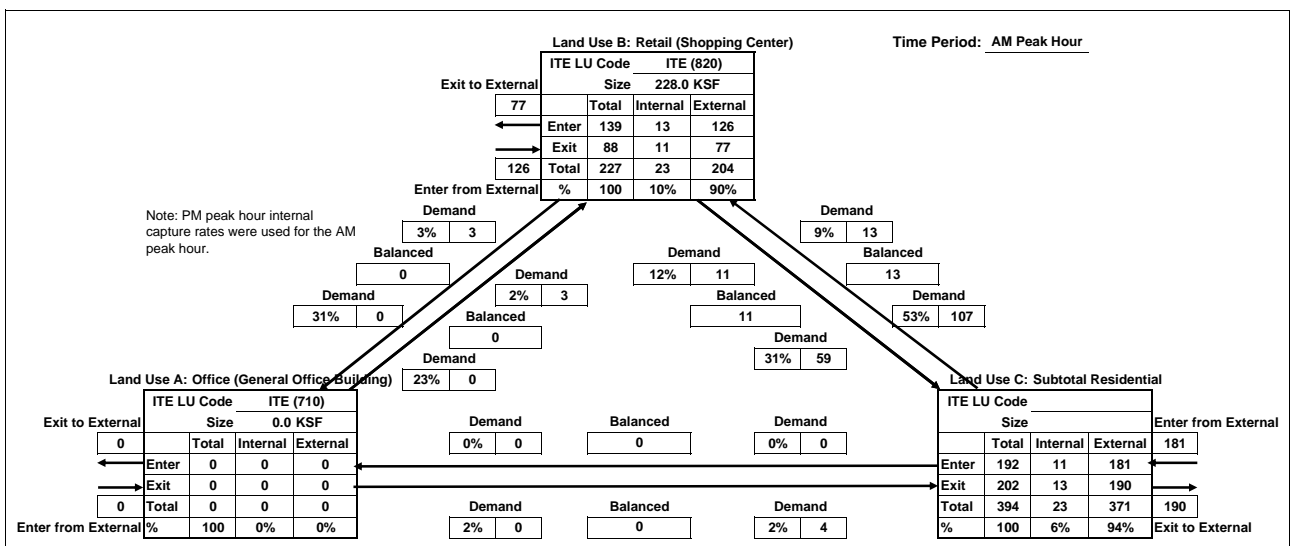
Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 24: Bounded by Property Boundary, Railyards, N. 10th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	40.0 KSF	ITE (820)	3,743	55	35	90	164	178	342	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	650 Units	ITE (232)	2,674	41	176	217	146	90	236	19%	81%	62%	38%	
Subtotal Residential	650 Units		2,674	41	176	217	146	90	236					
Other														
Total Trips for Block			6,417	96	211	307	310	268	578					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-82	-1	-1	-2	-4	-4	-8					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-70	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-152	-2	-7	-9	-8	-7	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-434	-6	-4	-10	-19	-21	-40					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-257	-3	-14	-17	-12	-8	-20					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-691	-9	-18	-27	-31	-29	-60					
Internal Trips Within This Block			-646	-8	-8	-16	-31	-31	-62					
Trips To-From Other Blocks within the Project			-302	-4	-4	-9	-15	-15	-30					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				41	26	67	121	125	245					
Subtotal Residential				31	148	179	104	61	166					
Total				4,627	73	174	246	225	186	411				
New External Trips Percent of Total Project Trips				72%	76%	82%	80%	73%	69%	71%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				97	1	1	2	4	5	9				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				86	2	7	9	6	3	9				
Total Transit Trips				183	3	8	11	10	8	18				

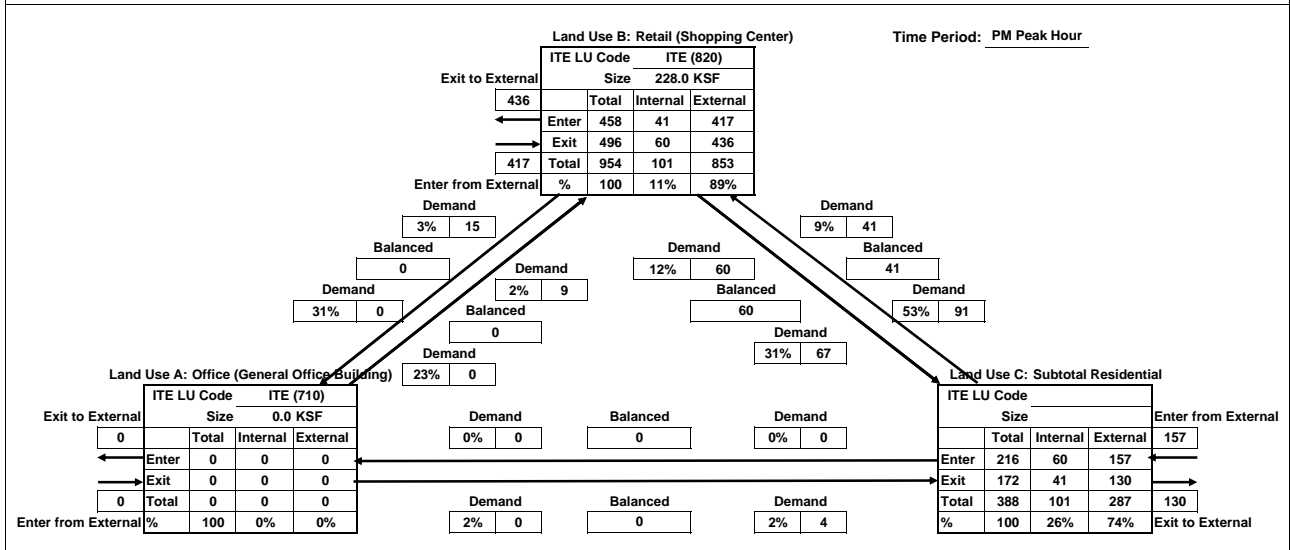
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Full Project with Maximum Residential



Net External Trips for Multi-use Development				
	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	0	126	181	308
Exit	0	77	190	267
Total	0	204	371	575
Single-Use Trip	0	227	394	621
				INTERNAL CAPTURE
				7%



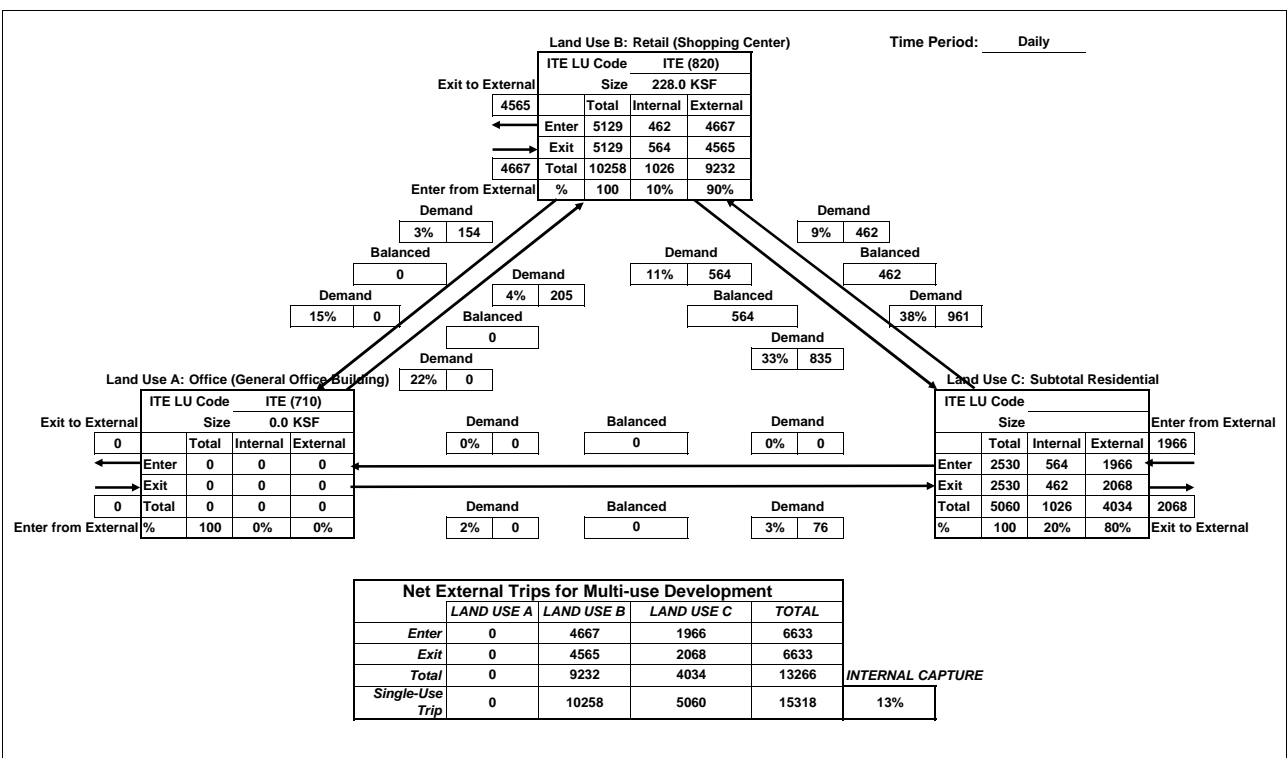
Net External Trips for Multi-use Development				
	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	0	417	157	574
Exit	0	436	130	567
Total	0	853	287	1141
Single-Use Trip	0	954	388	1342
				INTERNAL CAPTURE
				15%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily



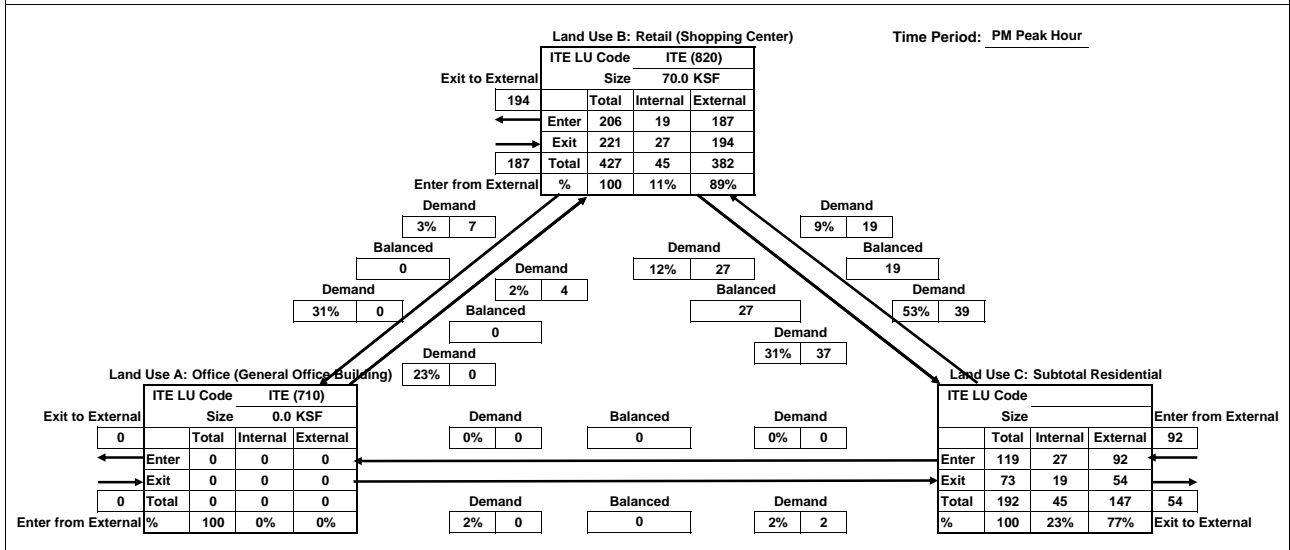
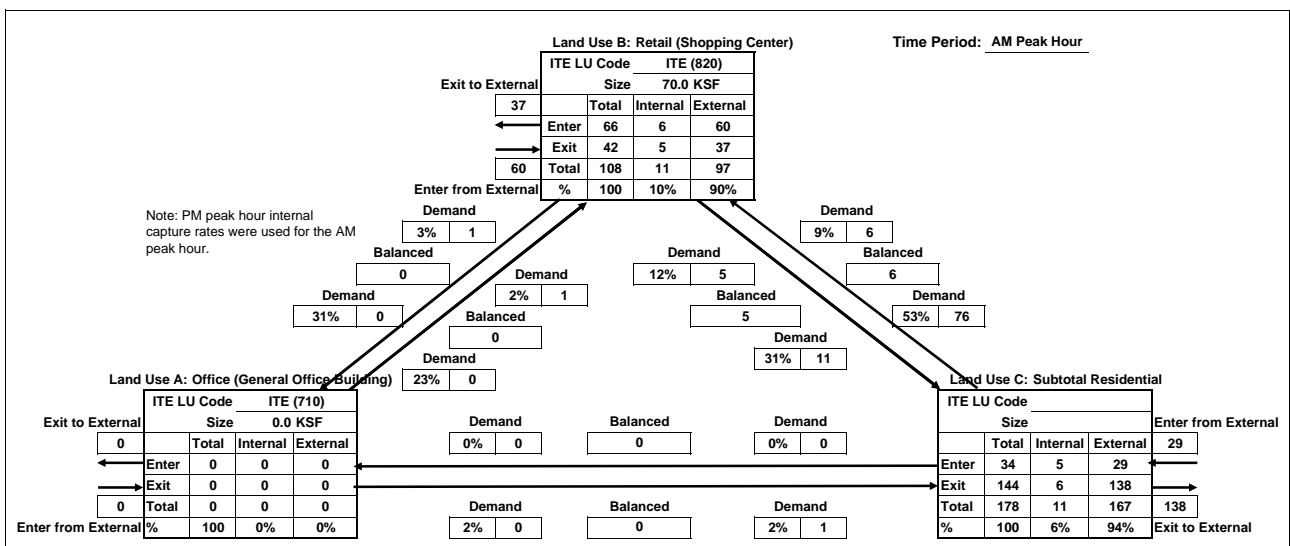
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study

Full Project with Maximum Residential



Analyst: Dowling

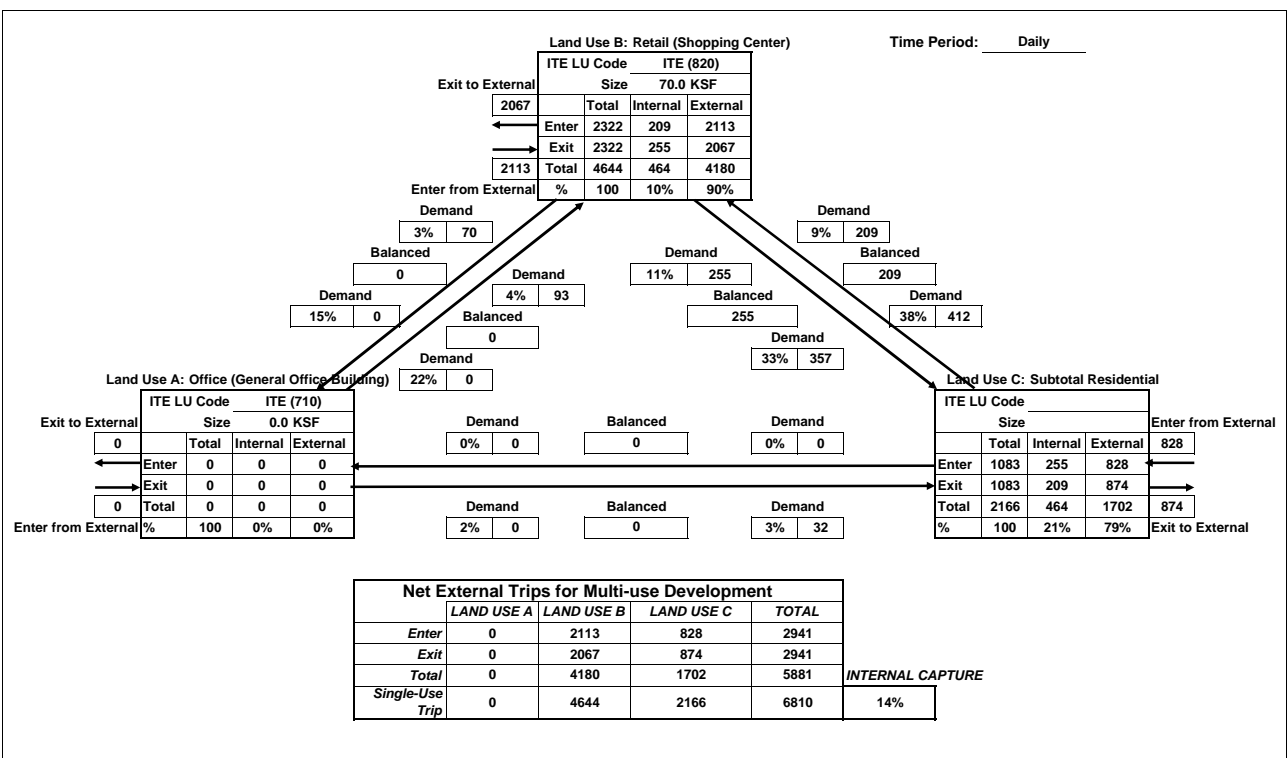
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study

Full Project with Maximum Residential

Time Period: Daily

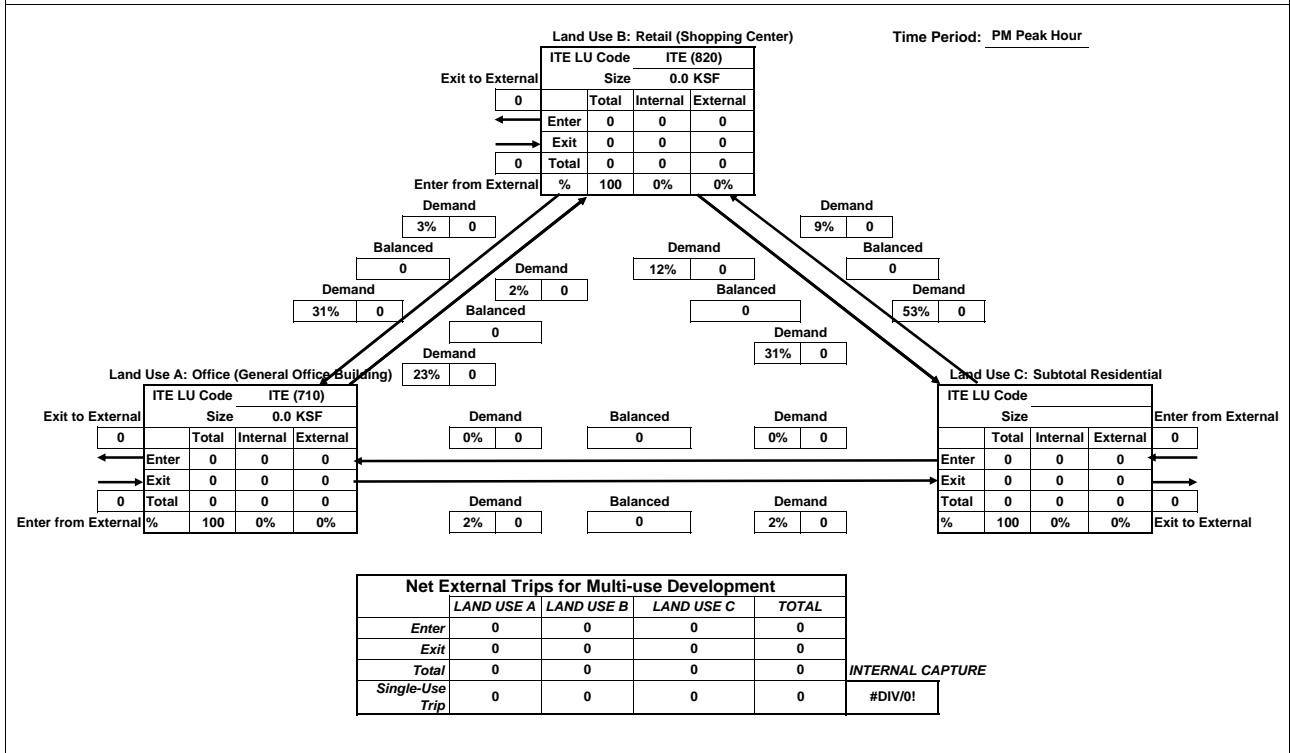
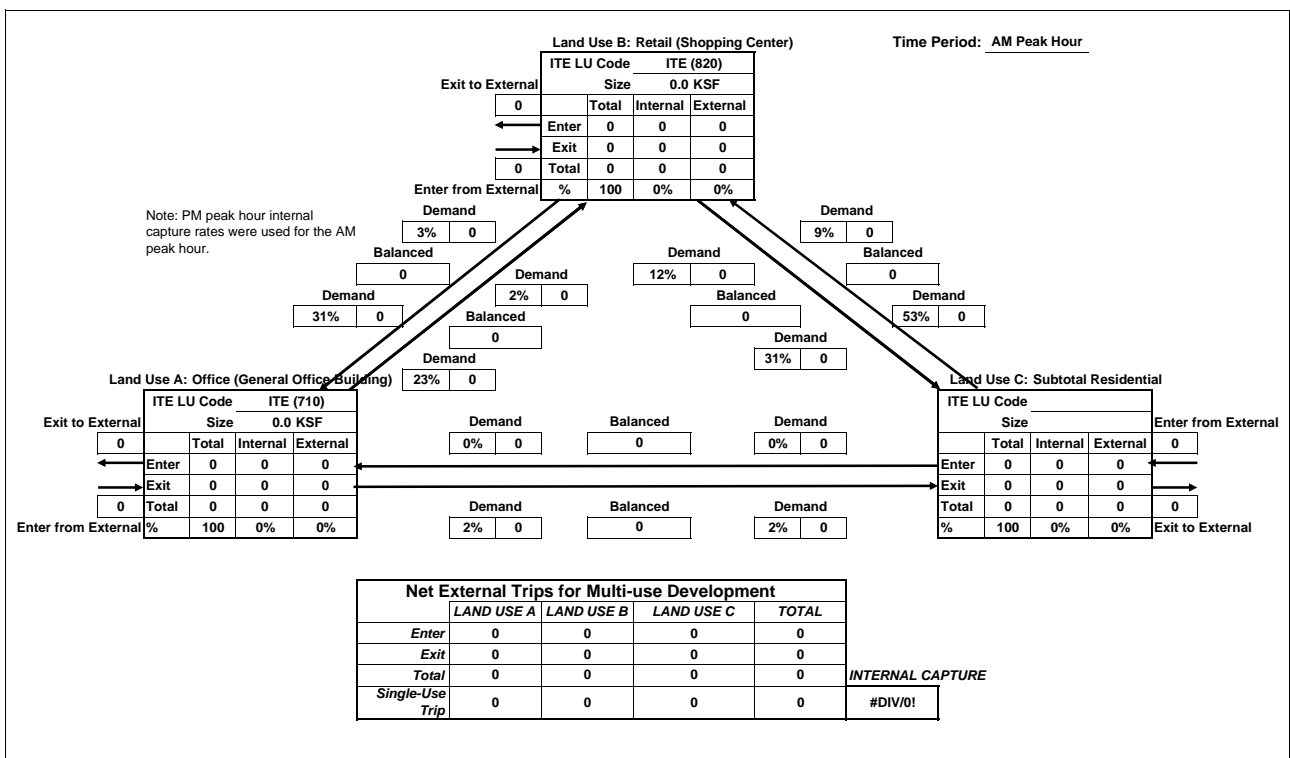


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Full Project with Maximum Residential



Analyst: Dowling

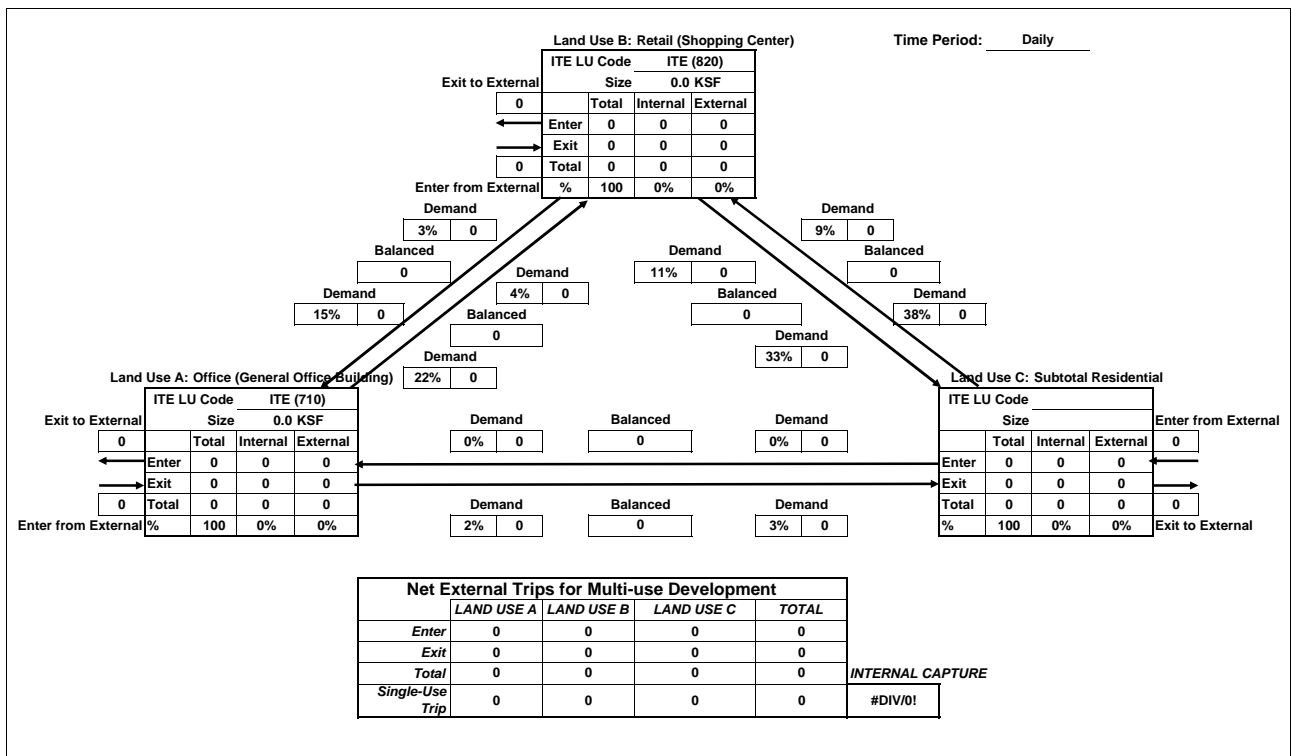
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study

Full Project with Maximum Residential

Time Period: Daily



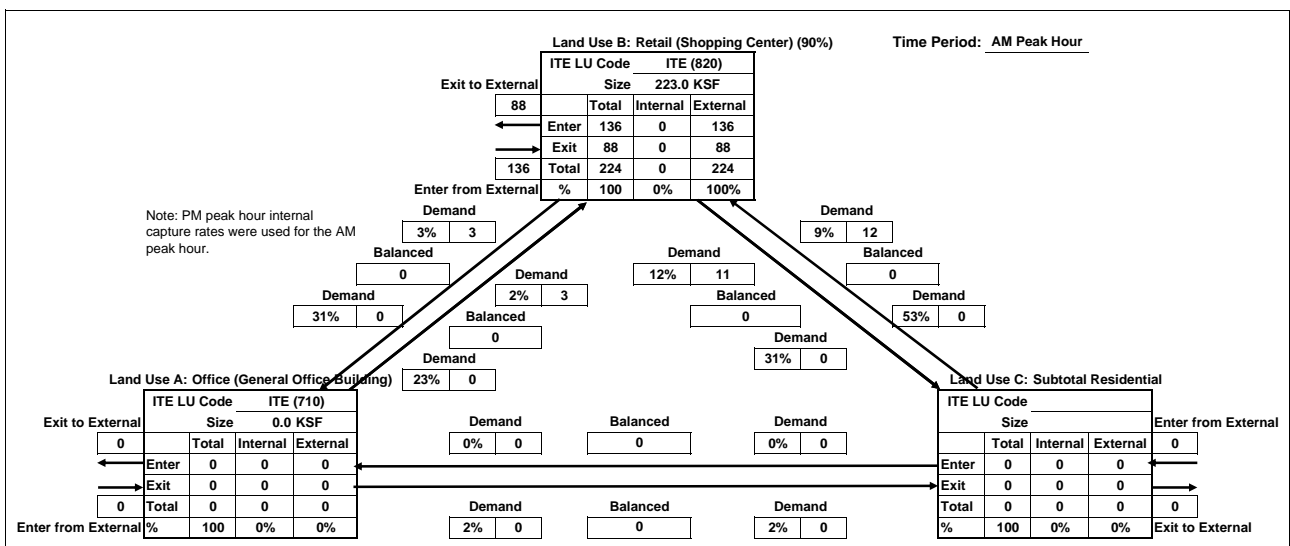
Analyst: Dowling

Date: 8/17/2007

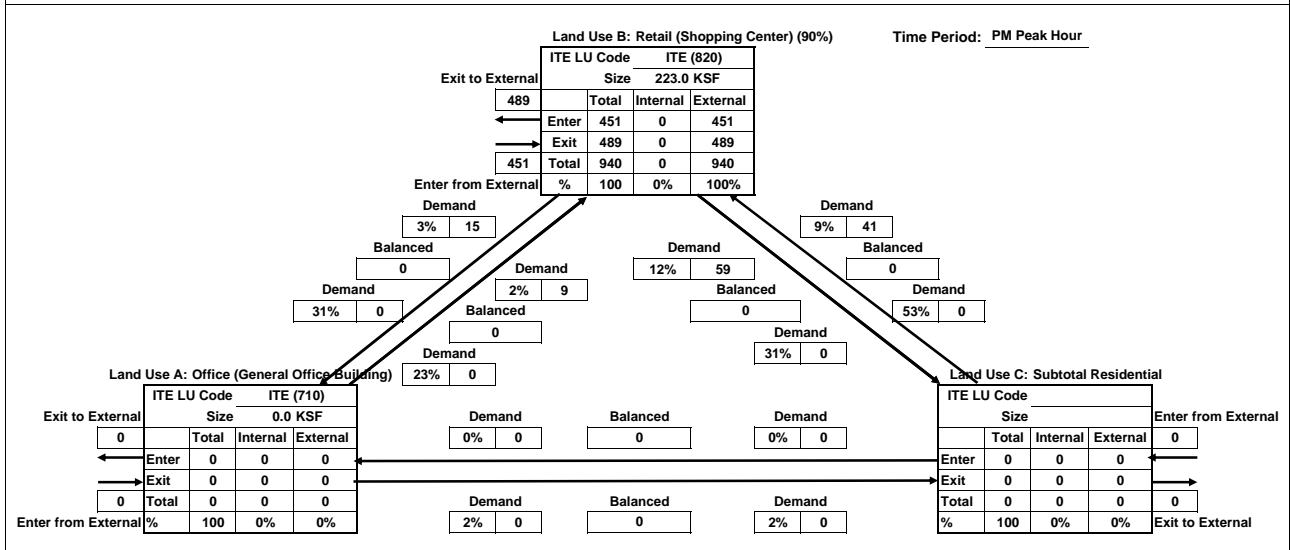
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study

Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	136	0	136	
Exit	0	88	0	88	
Total	0	224	0	224	INTERNAL CAPTURE
Single-Use Trip	0	224	0	224	0%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	451	0	451	
Exit	0	489	0	489	
Total	0	940	0	940	INTERNAL CAPTURE
Single-Use Trip	0	940	0	940	0%

Analyst: Dowling

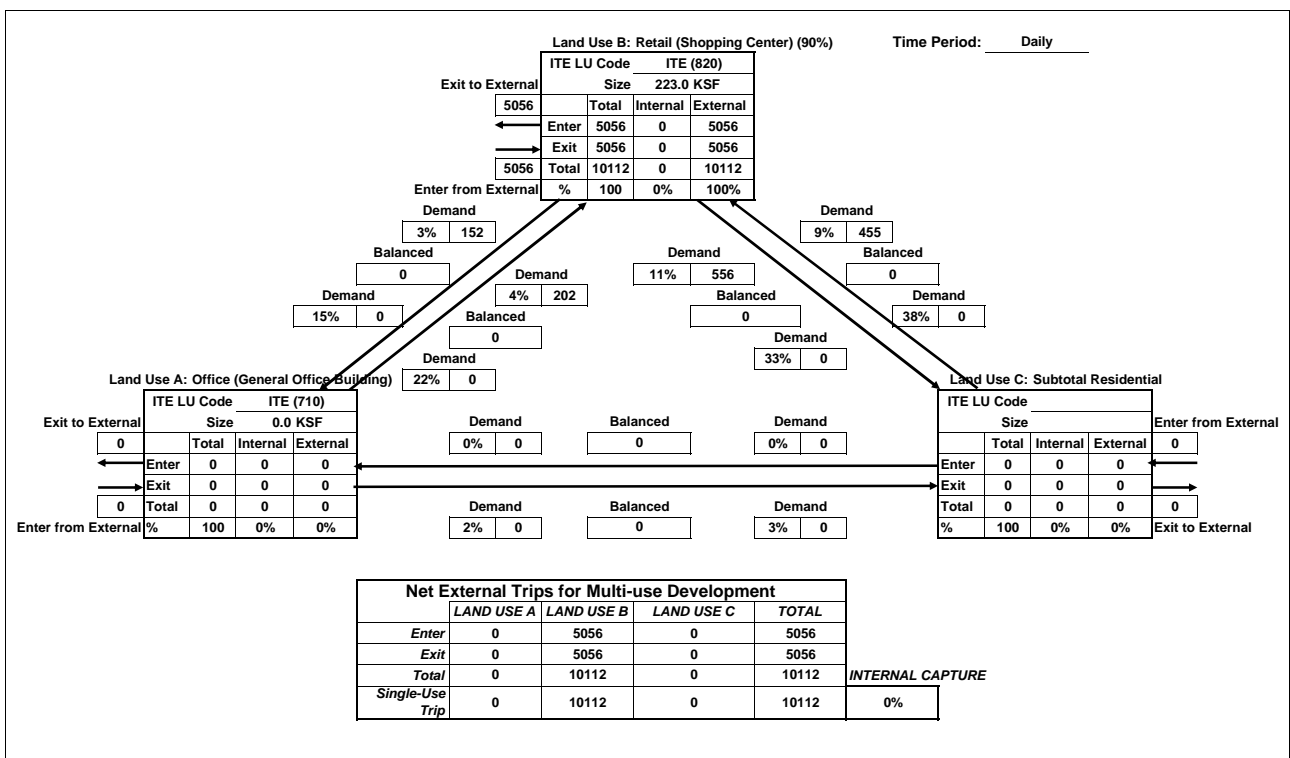
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study

Full Project with Maximum Residential

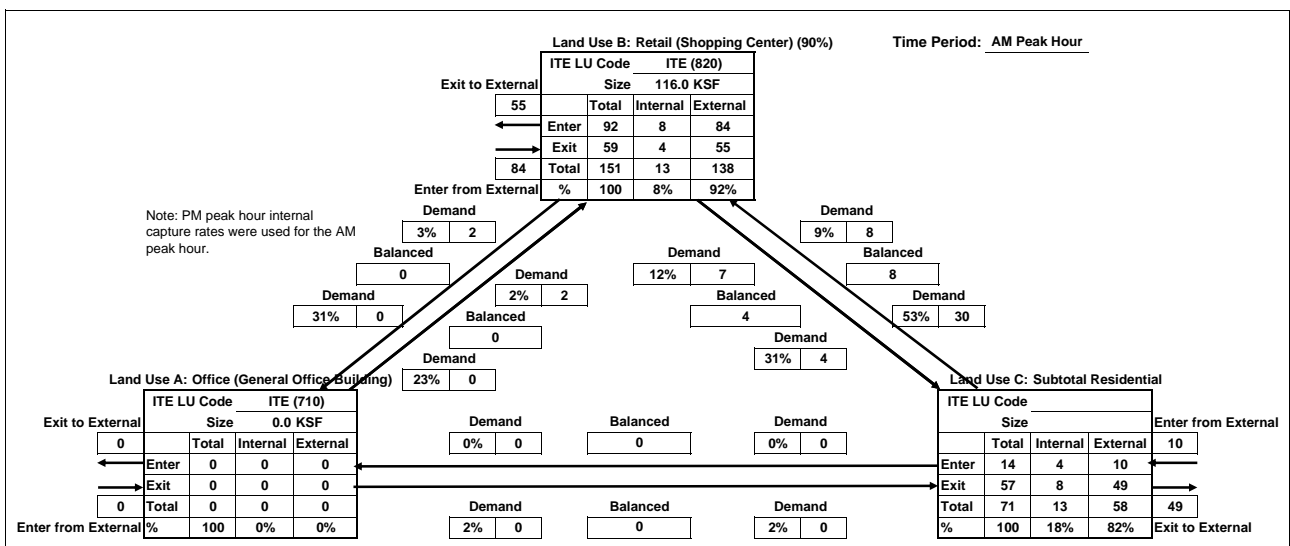
Time Period: Daily



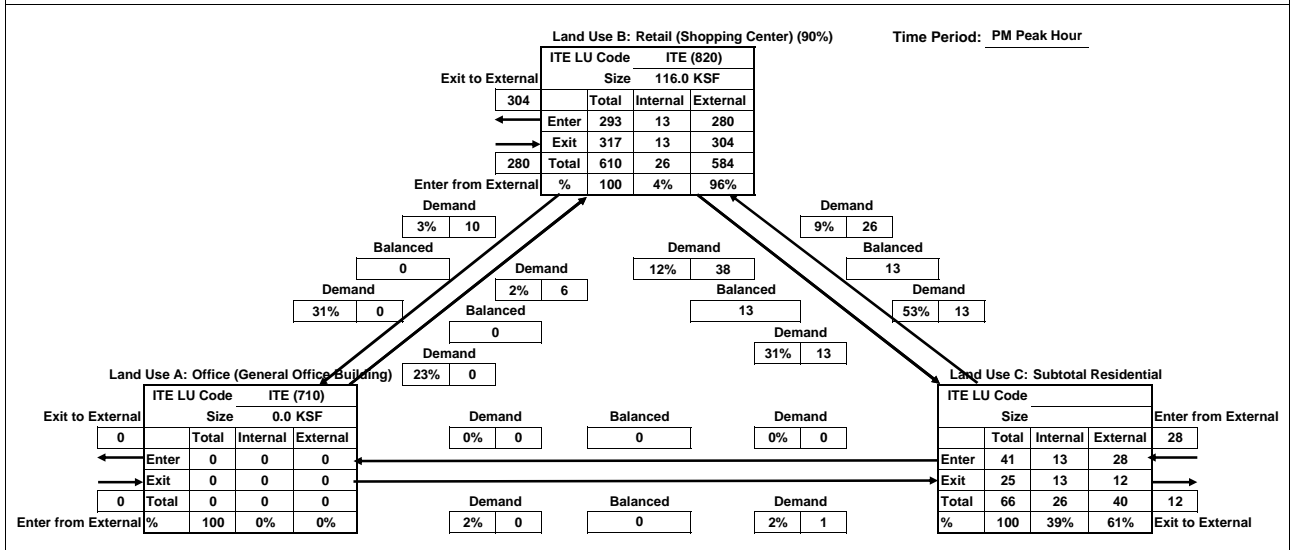
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Full Project with Maximum Residential



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	84	10	93	
Exit	0	55	49	103	
Total	0	138	58	197	INTERNAL CAPTURE
Single-Use Trip	0	151	71	222	11%



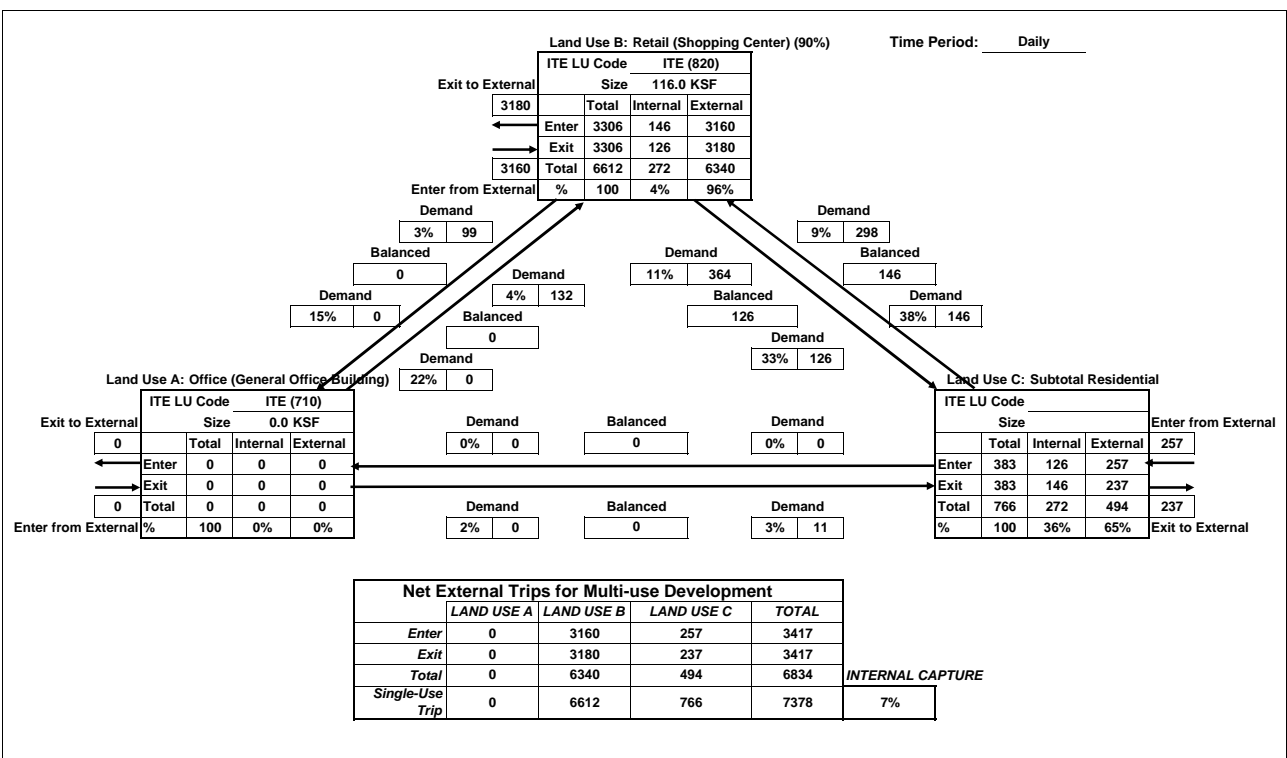
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	280	28	308	
Exit	0	304	12	316	
Total	0	584	40	624	INTERNAL CAPTURE
Single-Use Trip	0	610	66	676	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

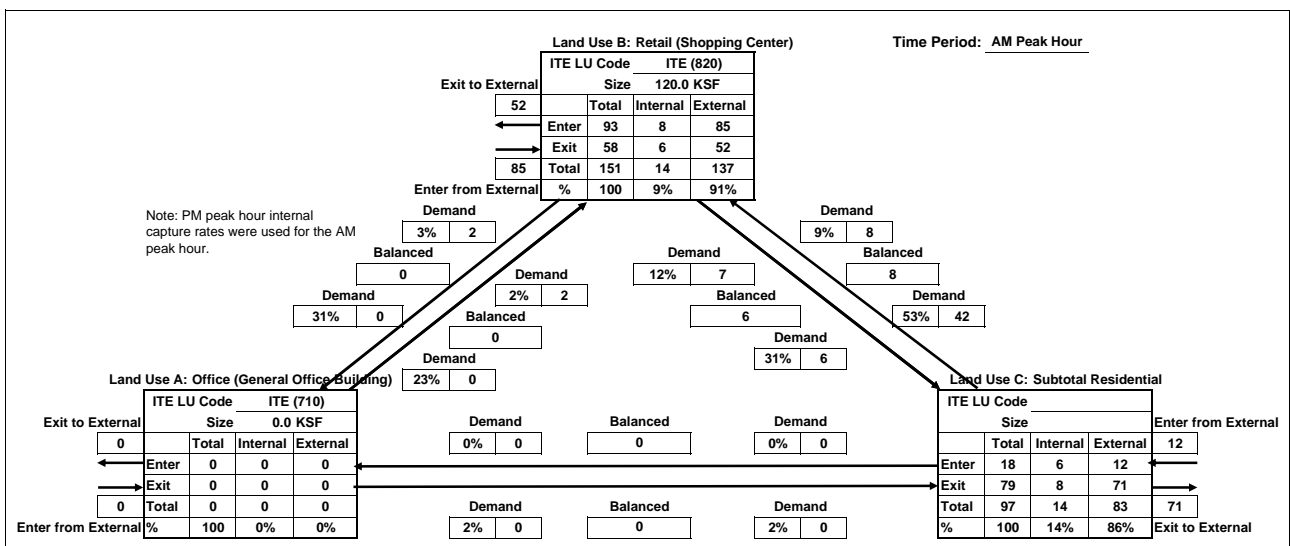


Analyst: Dowling

Date: 8/17/2007

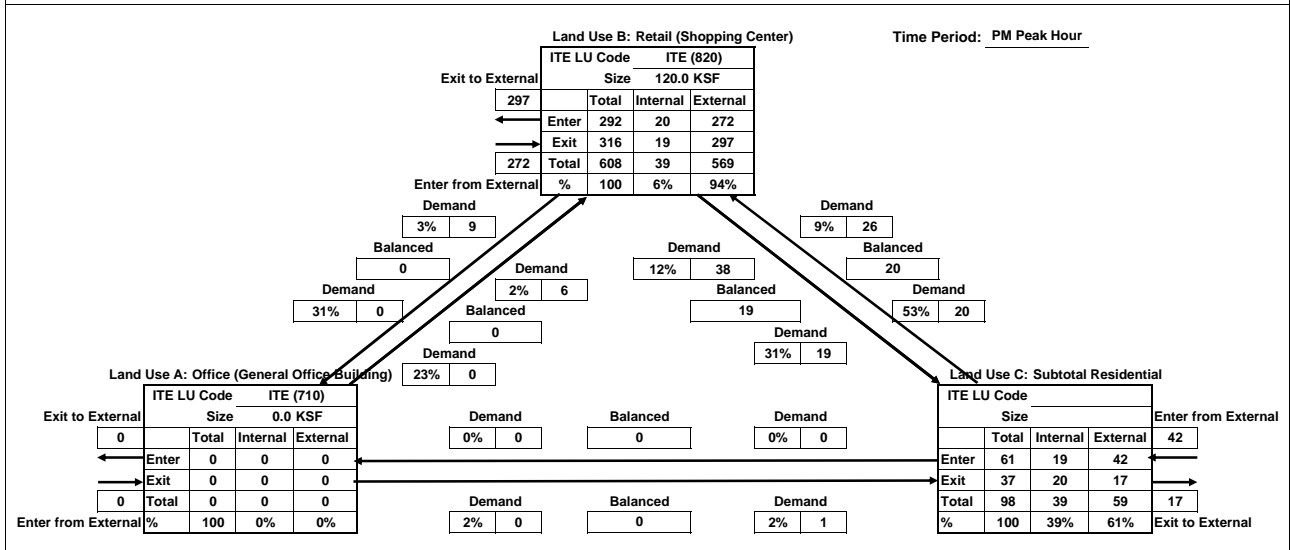
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Full Project with Maximum Residential



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	85	12	97	
Exit	0	52	71	123	
Total	0	137	83	220	INTERNAL CAPTURE
Single-Use Trip	0	151	97	248	11%



Net External Trips for Multi-use Development

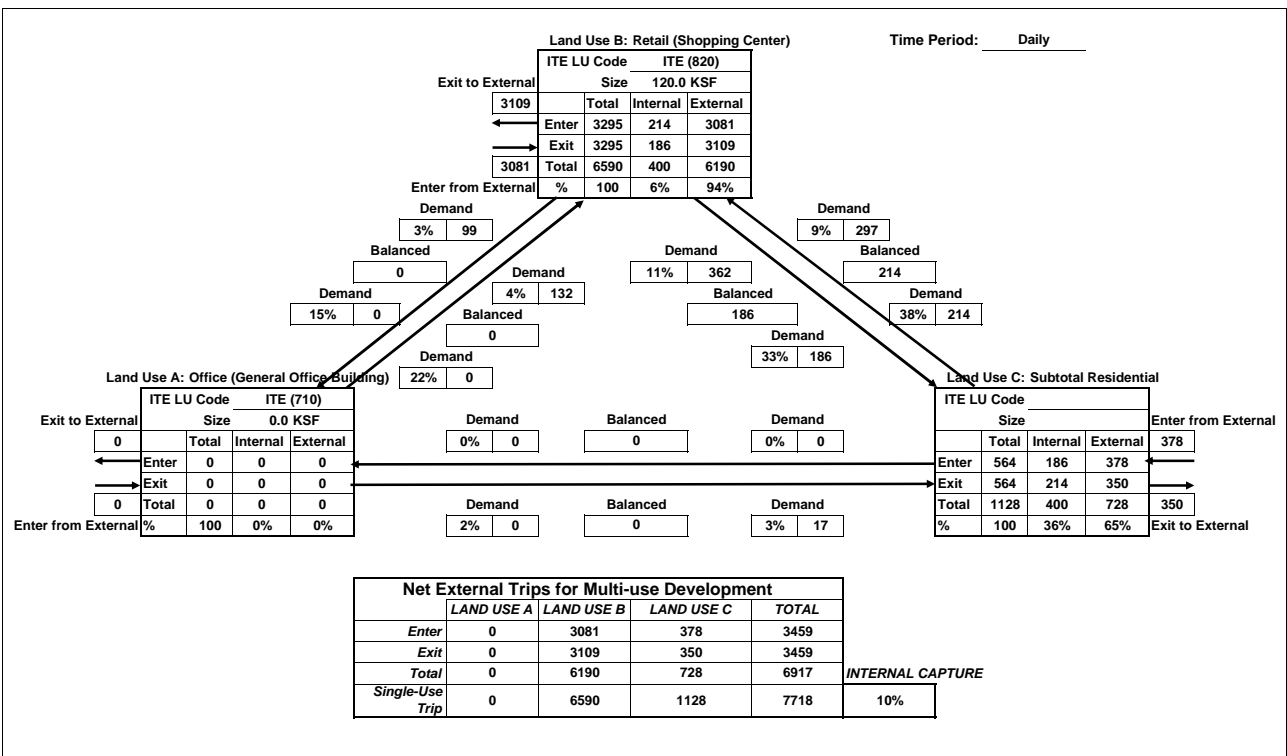
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	272	42	314	
Exit	0	297	17	314	
Total	0	569	59	629	INTERNAL CAPTURE
Single-Use Trip	0	608	98	706	11%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

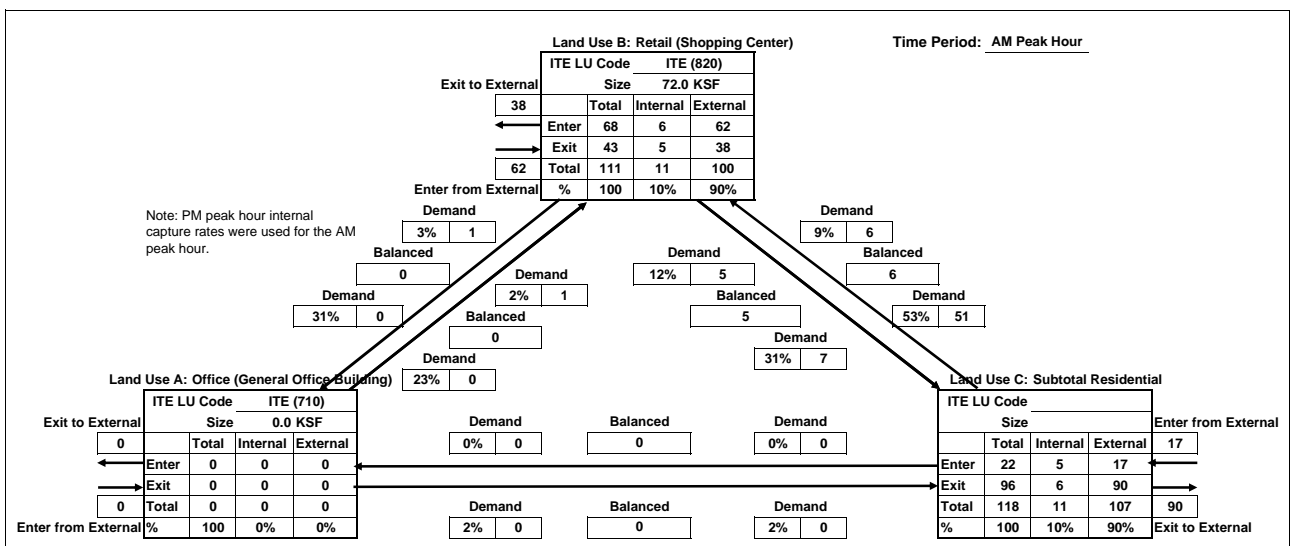


Analyst: Dowling

Date: 8/17/2007

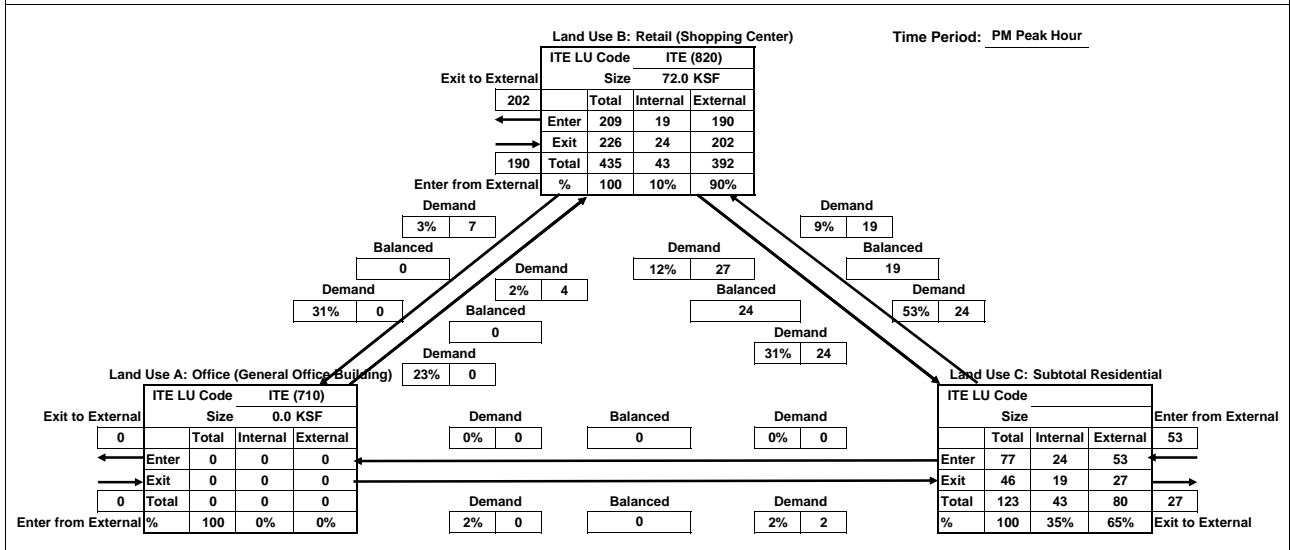
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Full Project with Maximum Residential



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	62	17	79	
Exit	0	38	90	128	
Total	0	100	107	206	INTERNAL CAPTURE
Single-Use Trip	0	111	118	229	10%



Net External Trips for Multi-use Development

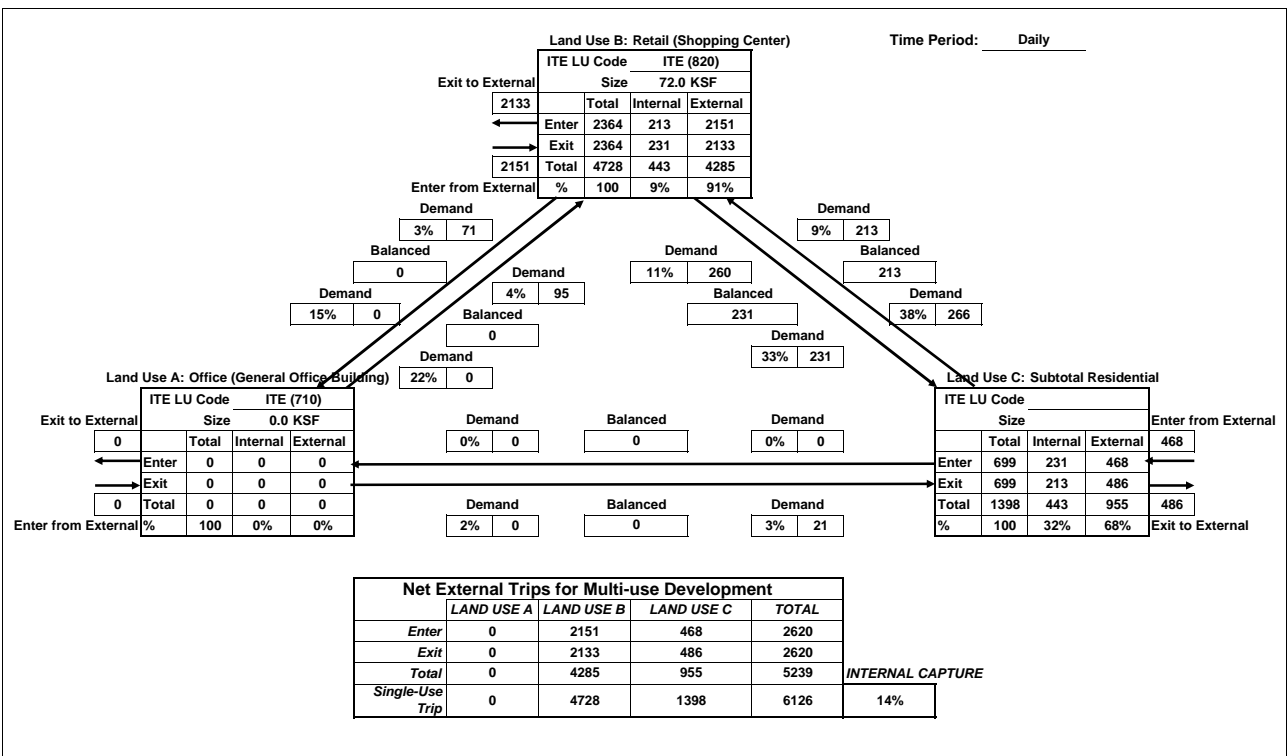
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	190	53	243	
Exit	0	202	27	229	
Total	0	392	80	473	INTERNAL CAPTURE
Single-Use Trip	0	435	123	558	15%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

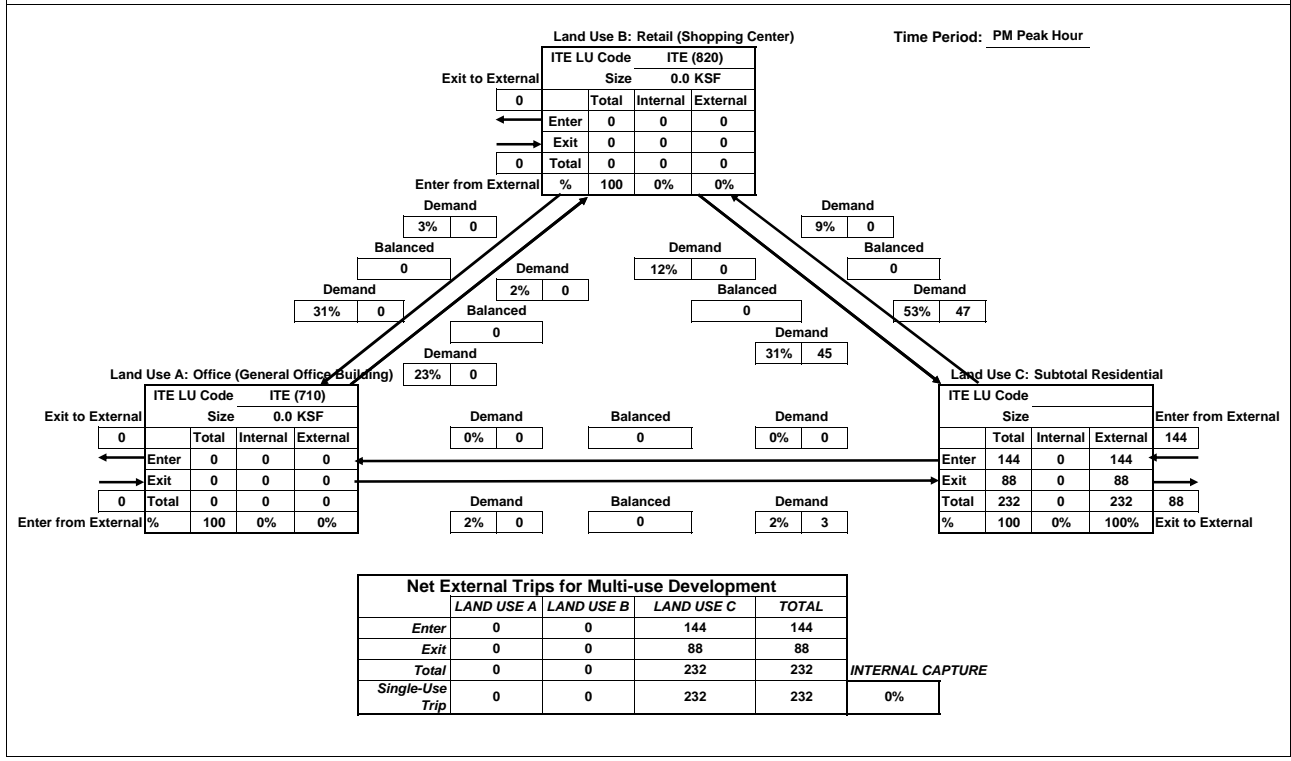
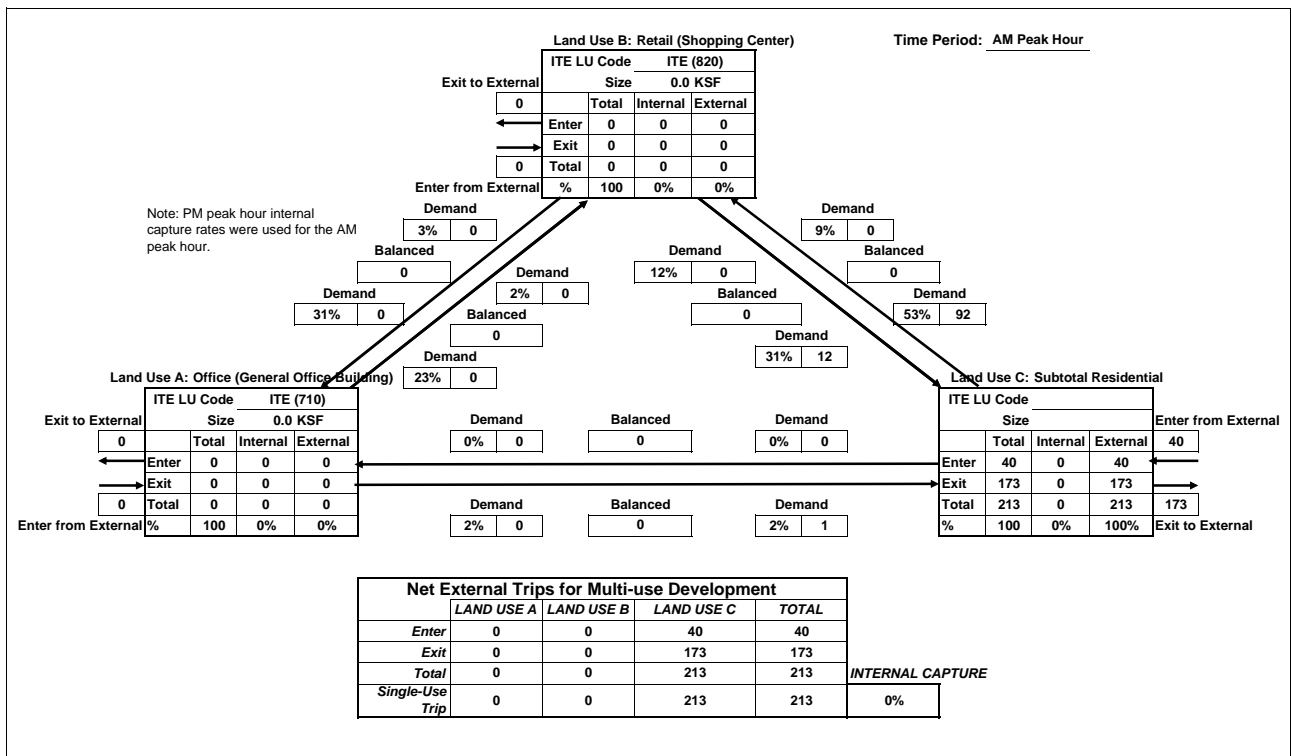
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

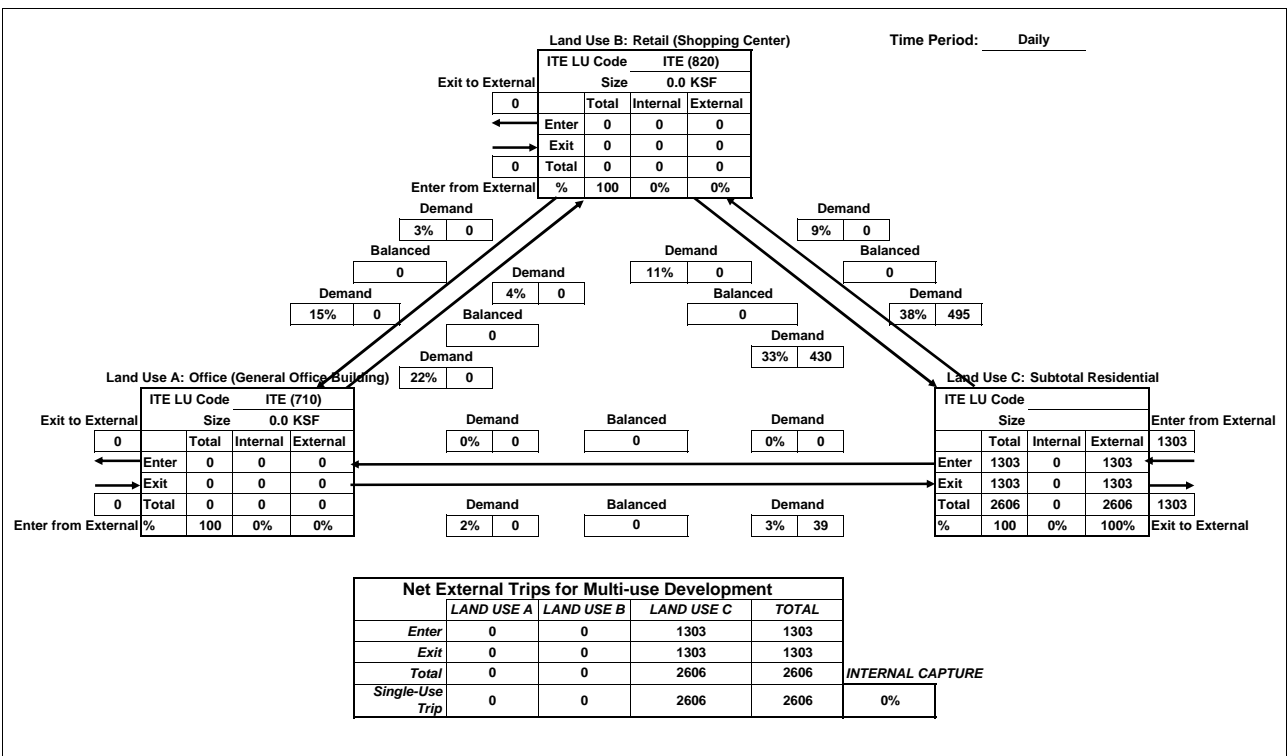


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

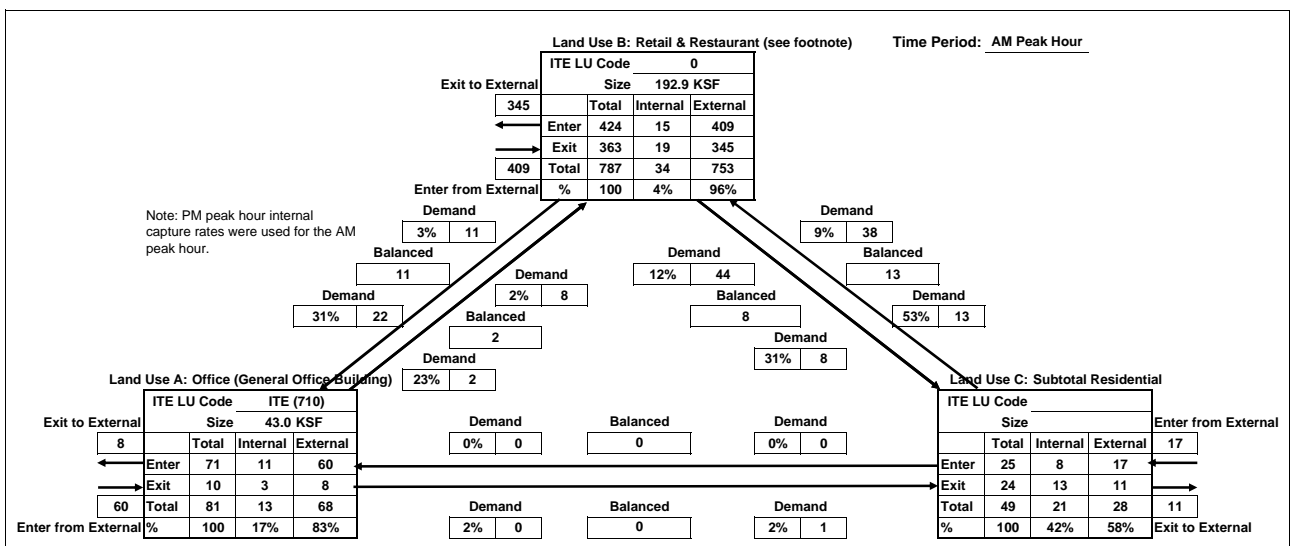
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

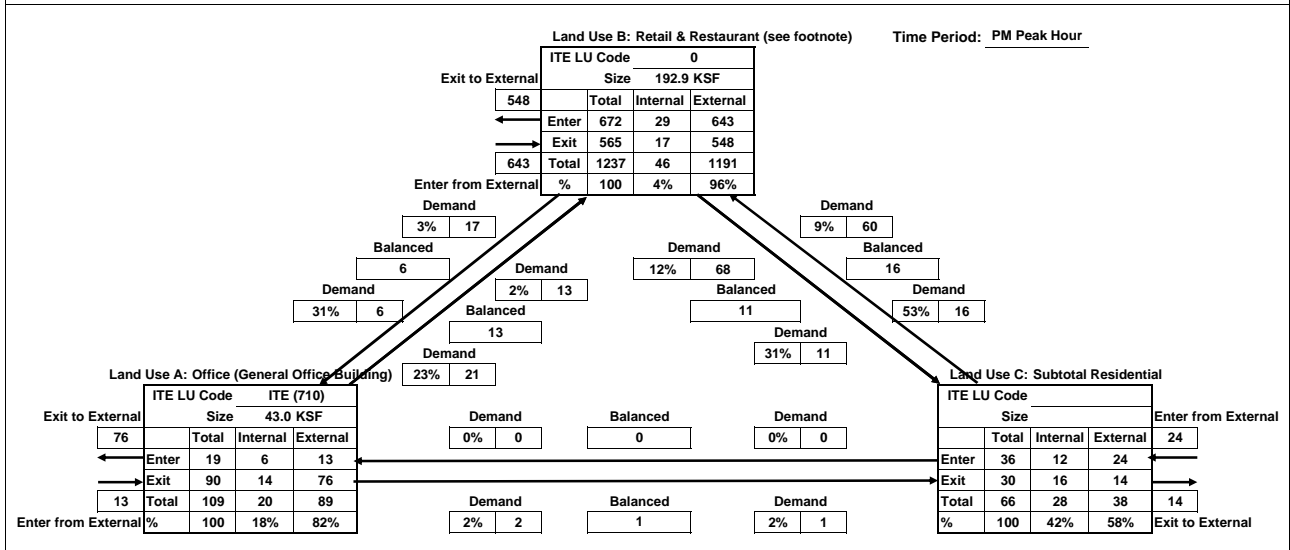
**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
 Full Project with Maximum Residential



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	60	409	17	486	
Exit	8	345	11	364	
Total	68	753	28	849	INTERNAL CAPTURE
Single-Use Trip	81	787	49	917	7%



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	13	643	24	680	
Exit	76	548	14	638	
Total	89	1191	38	1318	INTERNAL CAPTURE
Single-Use Trip	109	1237	66	1412	7%

Analyst: Dowling

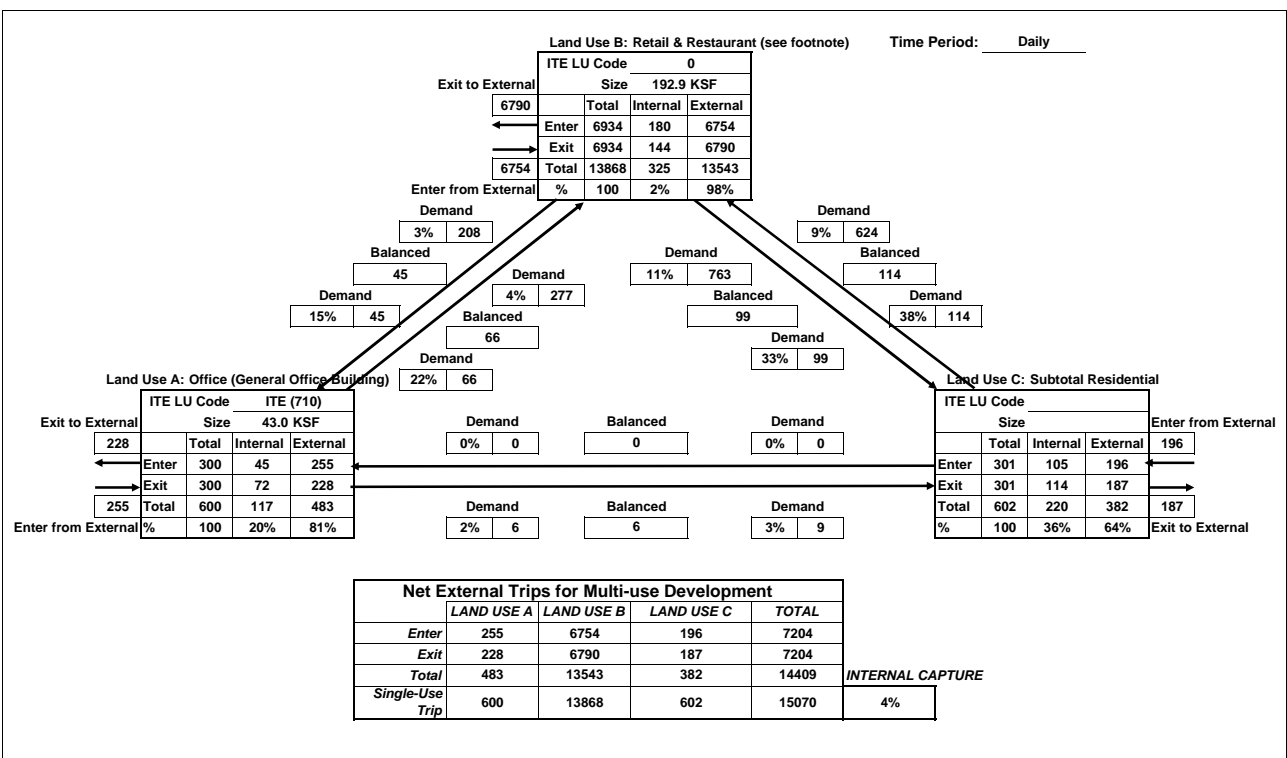
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5

Name of Development: Railyards Study

Full Project with Maximum Residential

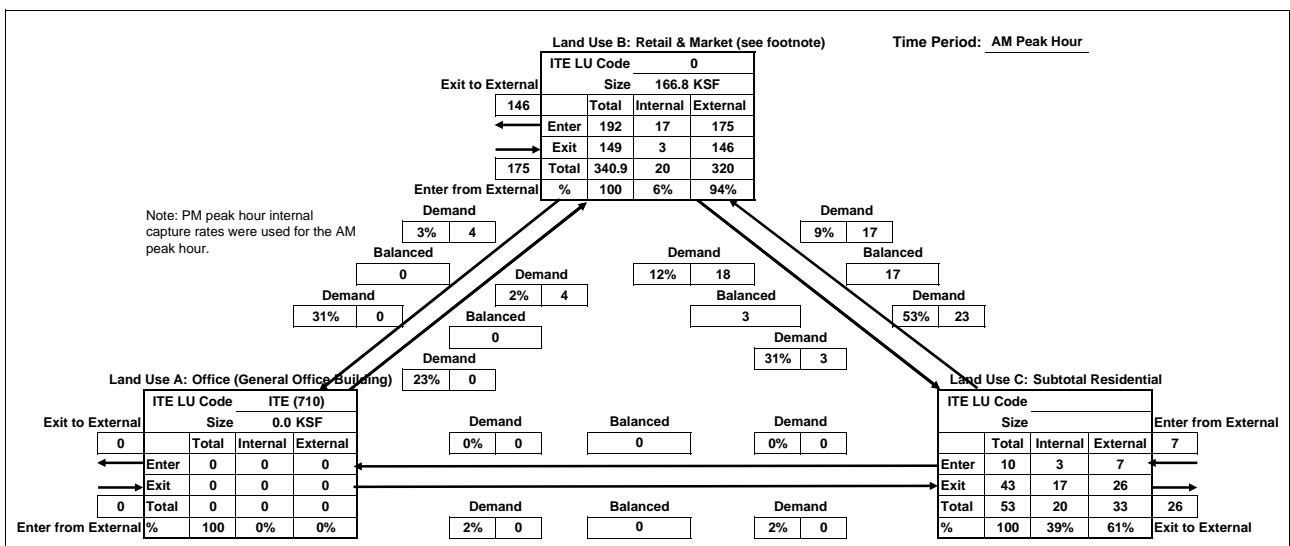
Time Period: Daily



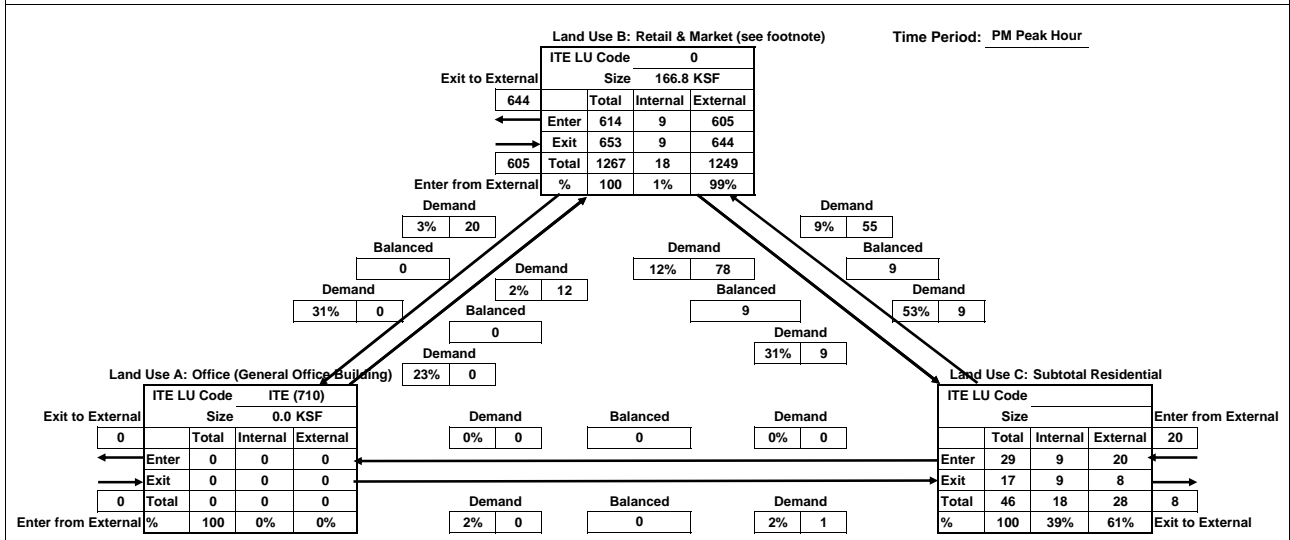
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	175	7	182	
Exit	0	146	26	171	
Total	0	320	33	353	INTERNAL CAPTURE
Single-Use Trip	0	340.9035	53	394	10%



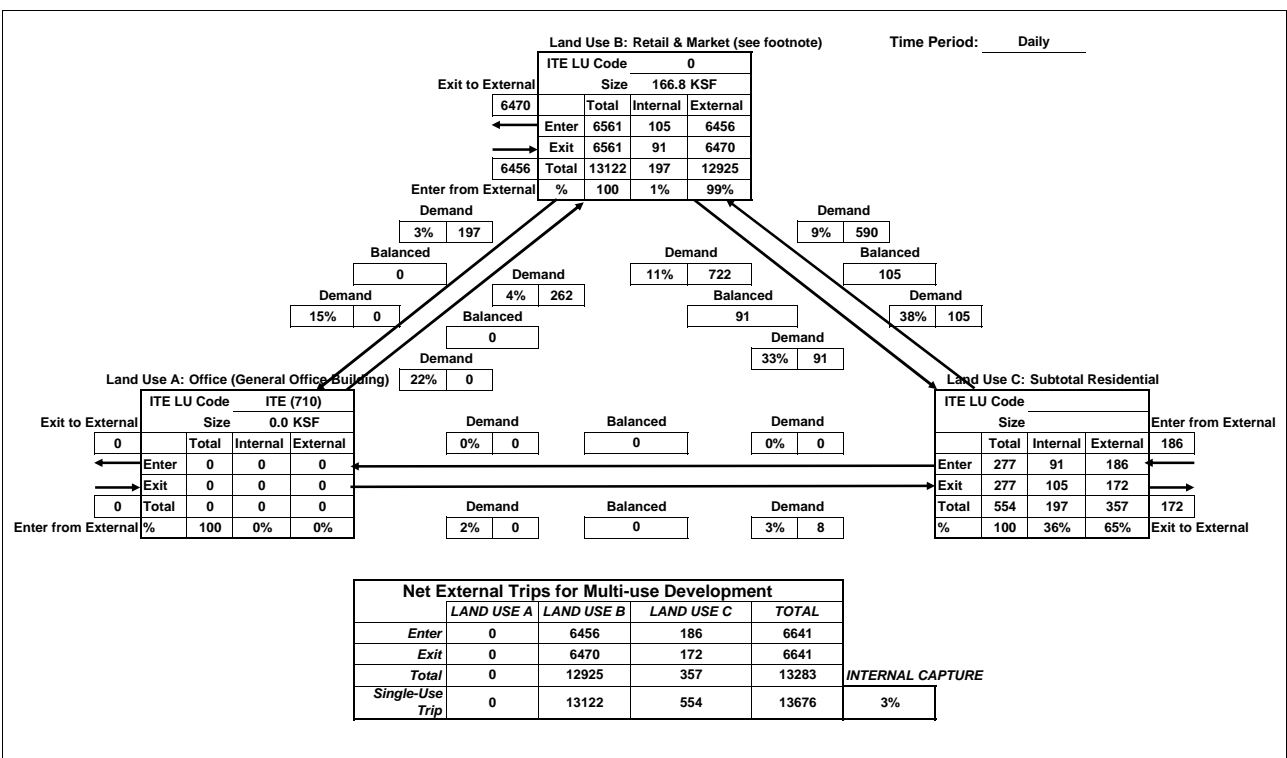
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	605	20	625	
Exit	0	644	8	652	
Total	0	1249	28	1277	INTERNAL CAPTURE
Single-Use Trip	0	1267	46	1313	3%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

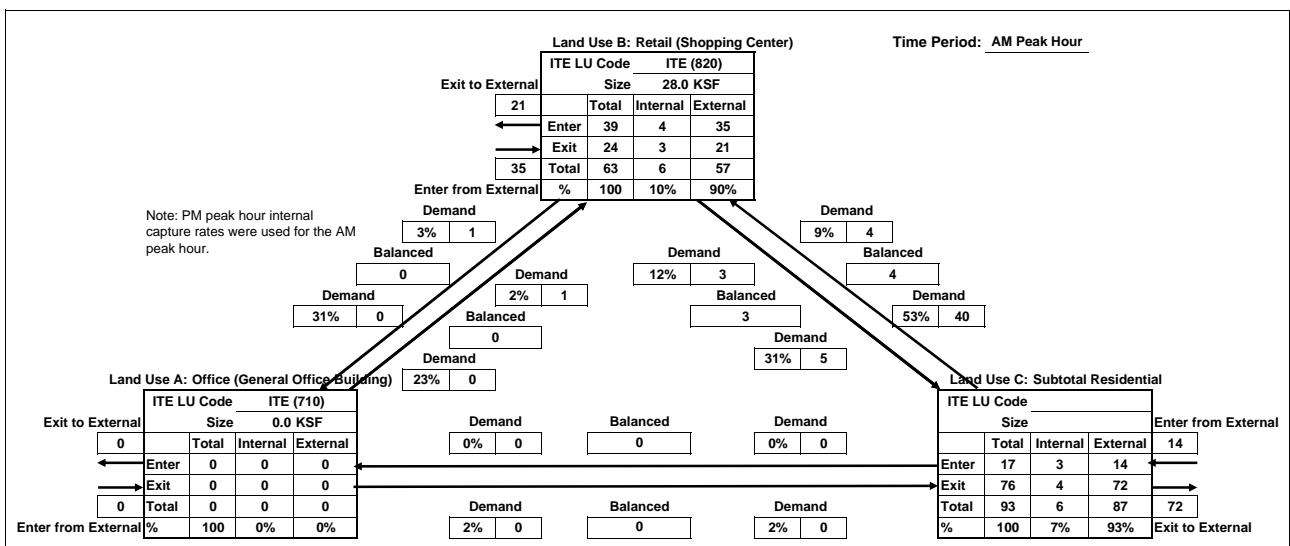


Analyst: Dowling

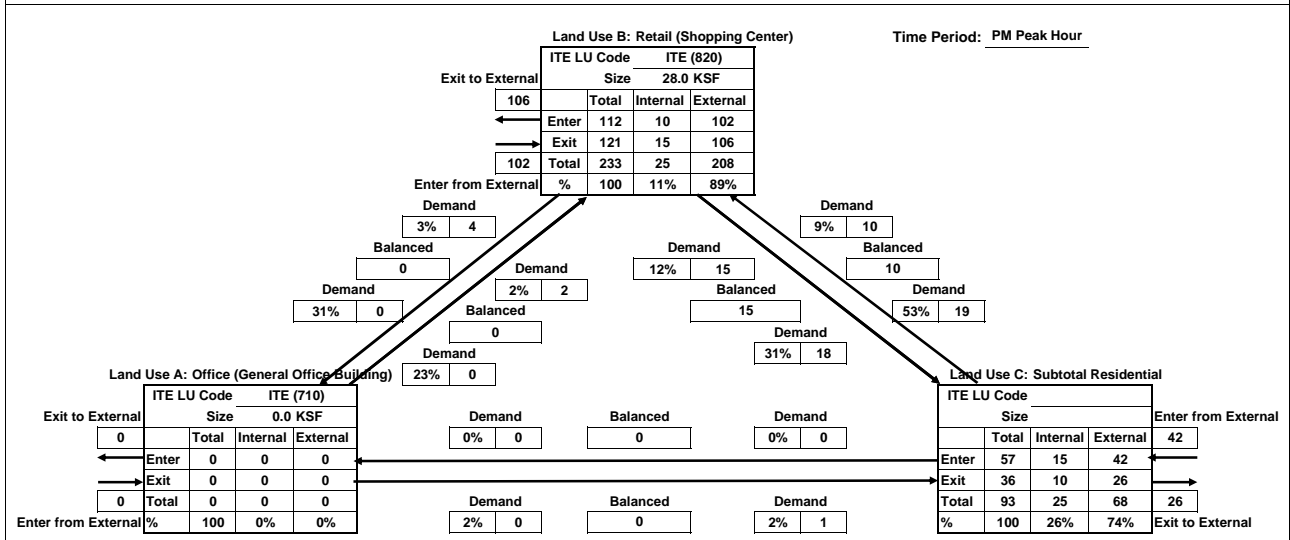
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Full Project with Maximum Residential



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	35	14	50	
Exit	0	21	72	94	
Total	0	57	87	143	INTERNAL CAPTURE
Single-Use Trip	0	63	93	156	8%



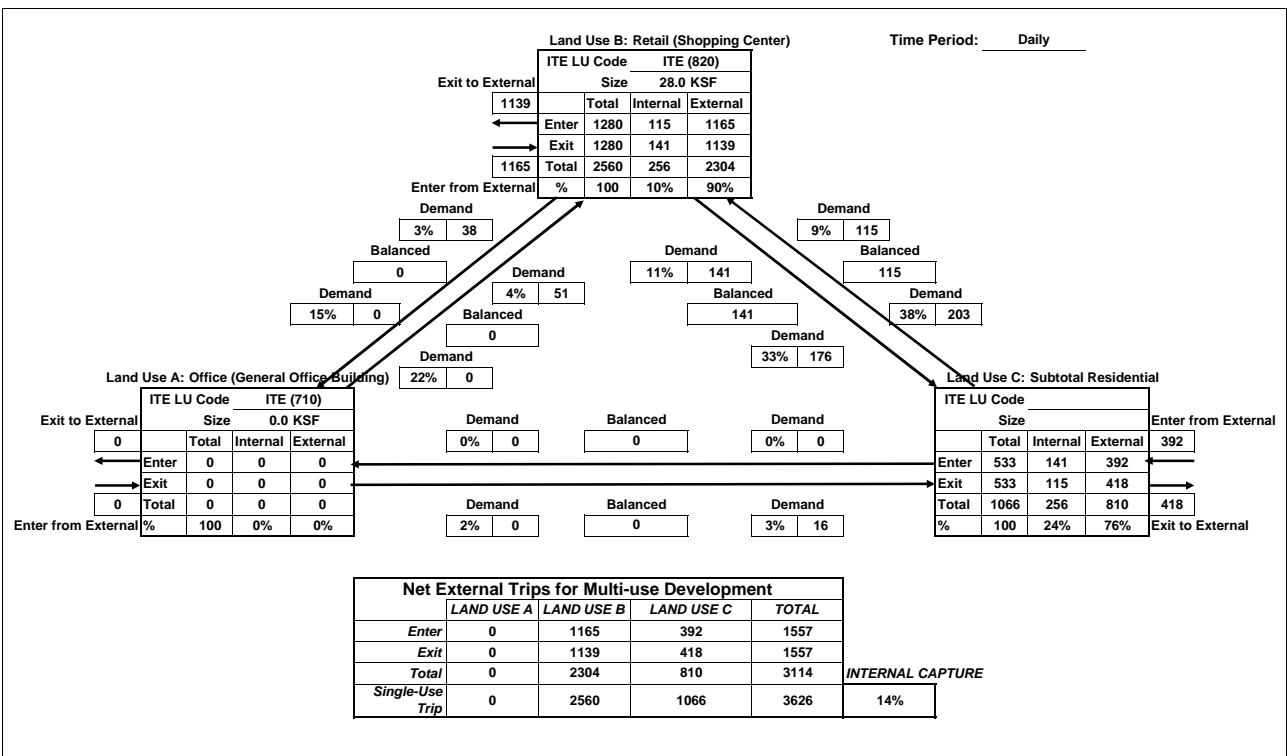
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	102	42	144	
Exit	0	106	26	132	
Total	0	208	68	277	INTERNAL CAPTURE
Single-Use Trip	0	233	93	326	15%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

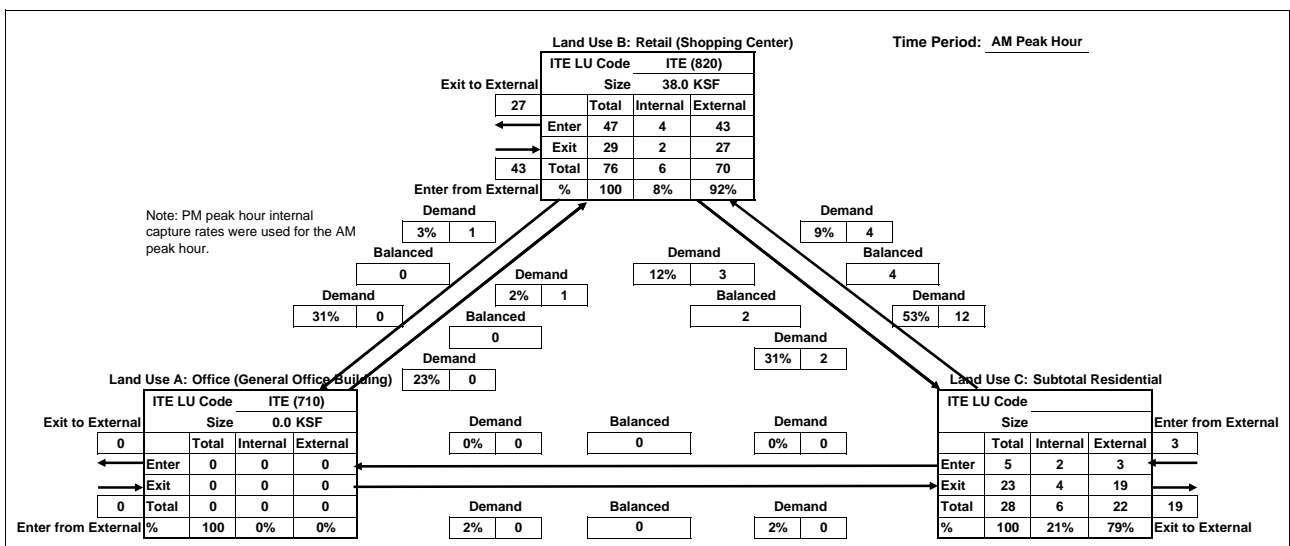
Time Period: Daily



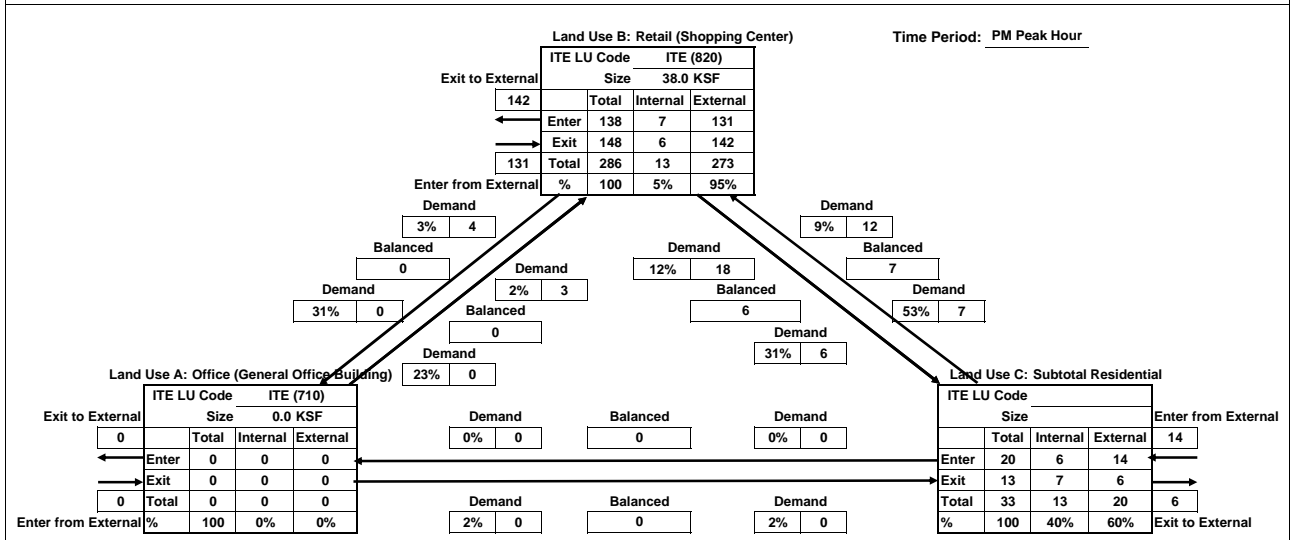
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Full Project with Maximum Residential



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	43	3	46	
Exit	0	27	19	46	
Total	0	70	22	92	INTERNAL CAPTURE
Single-Use Trip	0	76	28	104	11%



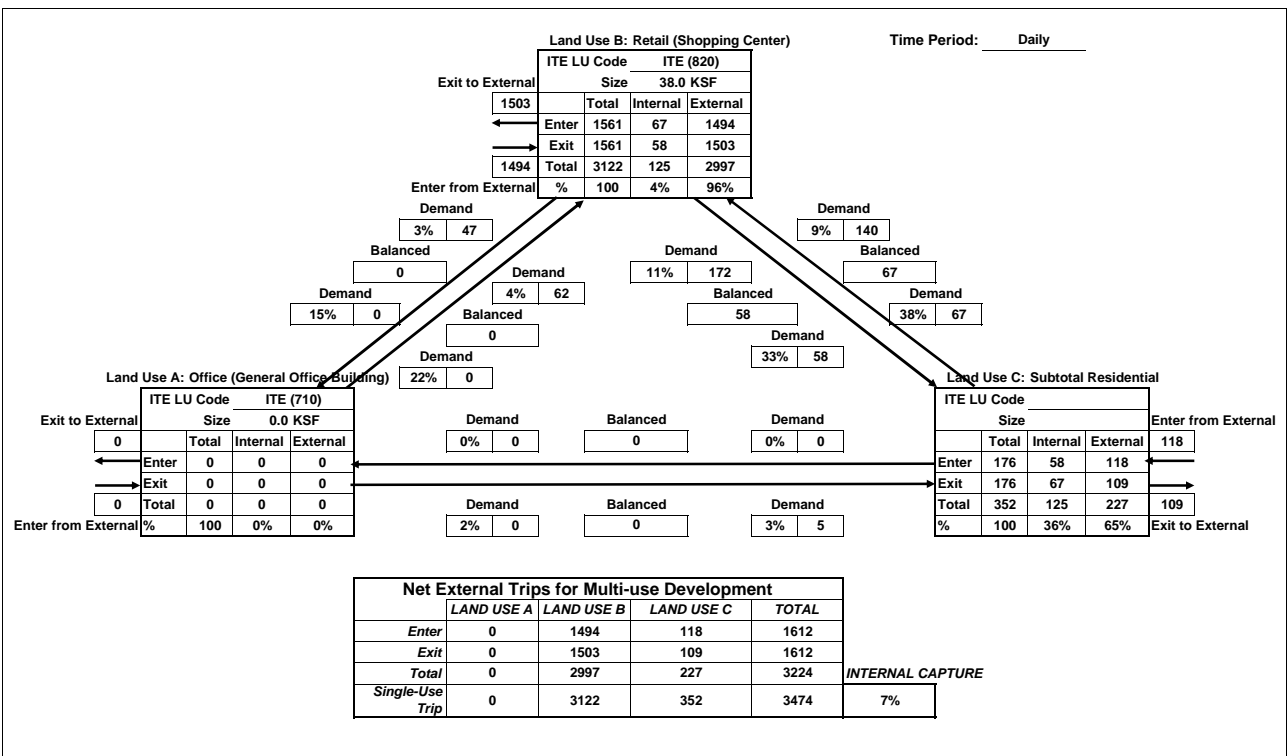
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	131	14	145	
Exit	0	142	6	148	
Total	0	273	20	293	INTERNAL CAPTURE
Single-Use Trip	0	286	33	319	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily



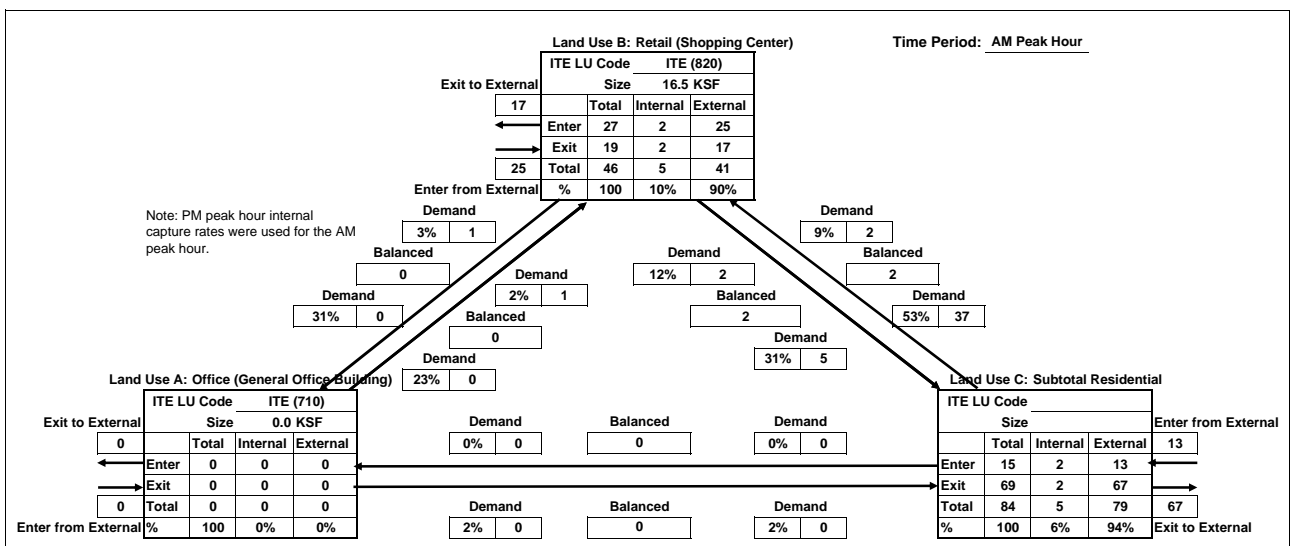
Analyst: Dowling

Date: 8/17/2007

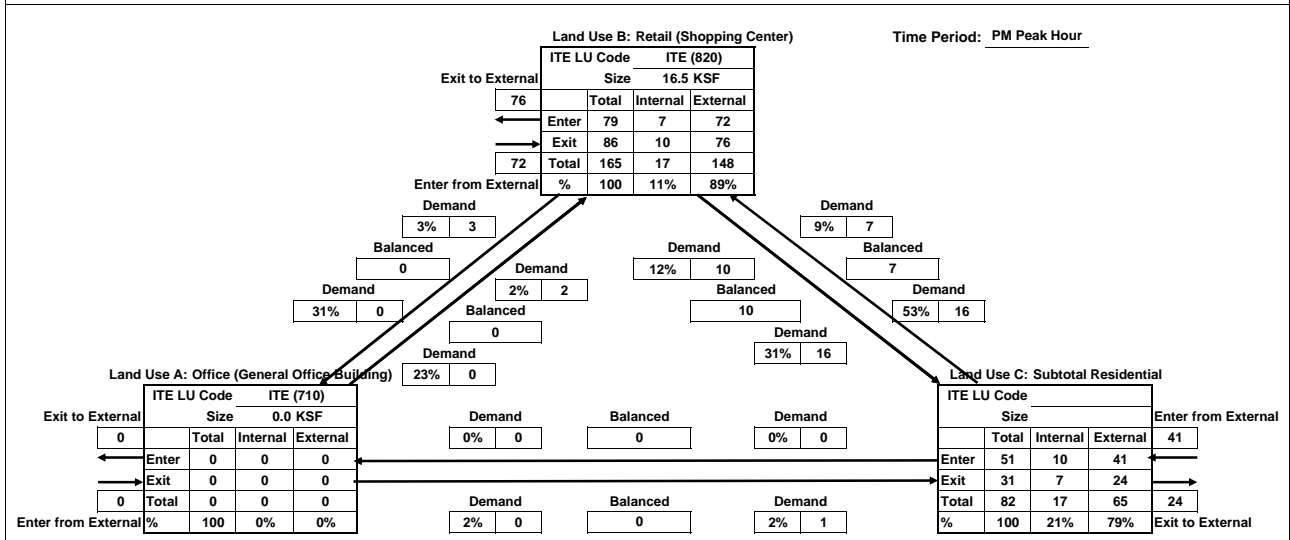
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study

Full Project with Maximum Residential



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	25	13	37	
Exit	0	17	67	83	
Total	0	41	79	121	INTERNAL CAPTURE
Single-Use Trip	0	46	84	130	7%



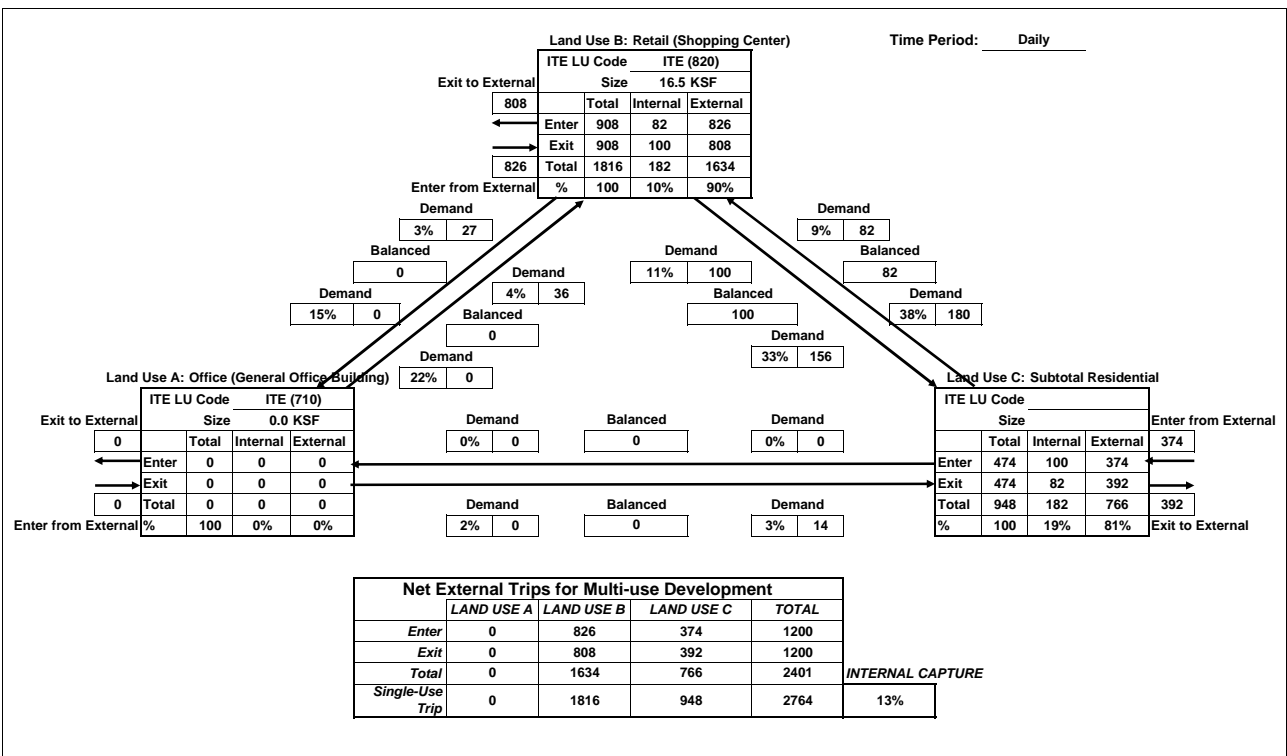
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	72	41	113	
Exit	0	76	24	100	
Total	0	148	65	212	INTERNAL CAPTURE
Single-Use Trip	0	165	82	247	14%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

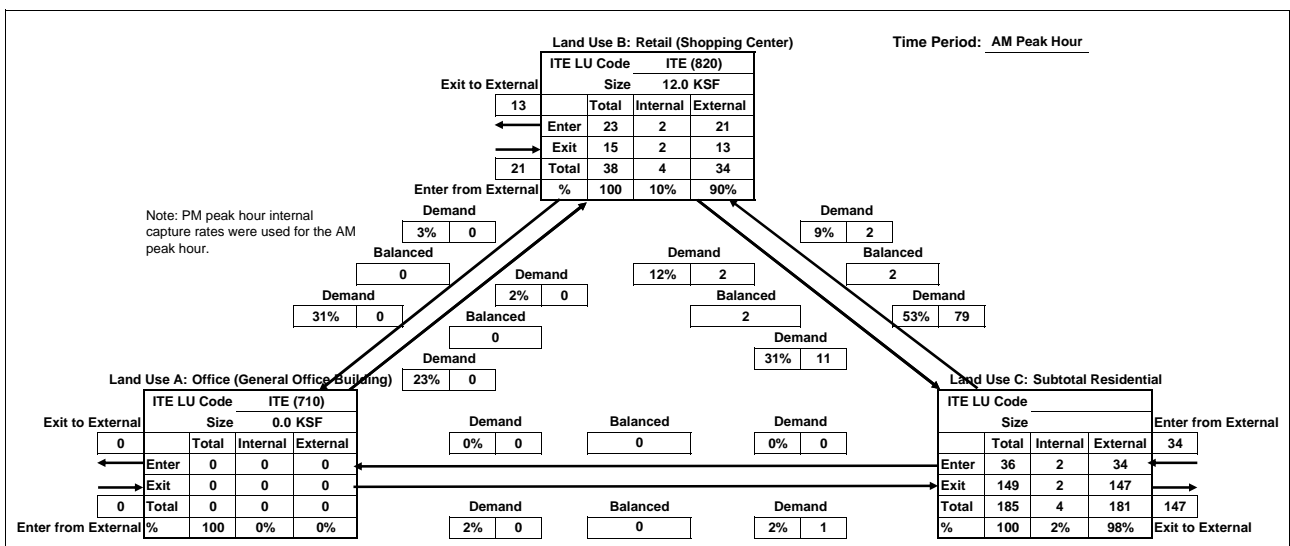


Analyst: Dowling

Date: 8/17/2007

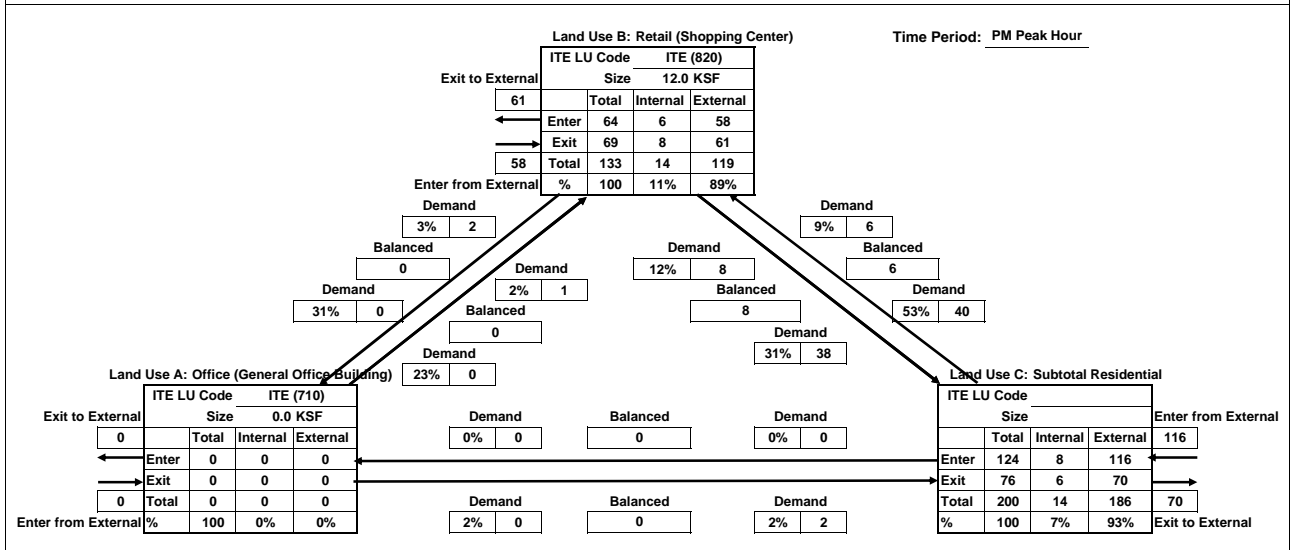
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Full Project with Maximum Residential



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	21	34	55	
Exit	0	13	147	160	
Total	0	34	181	215	INTERNAL CAPTURE
Single-Use Trip	0	38	185	223	3%



Net External Trips for Multi-use Development

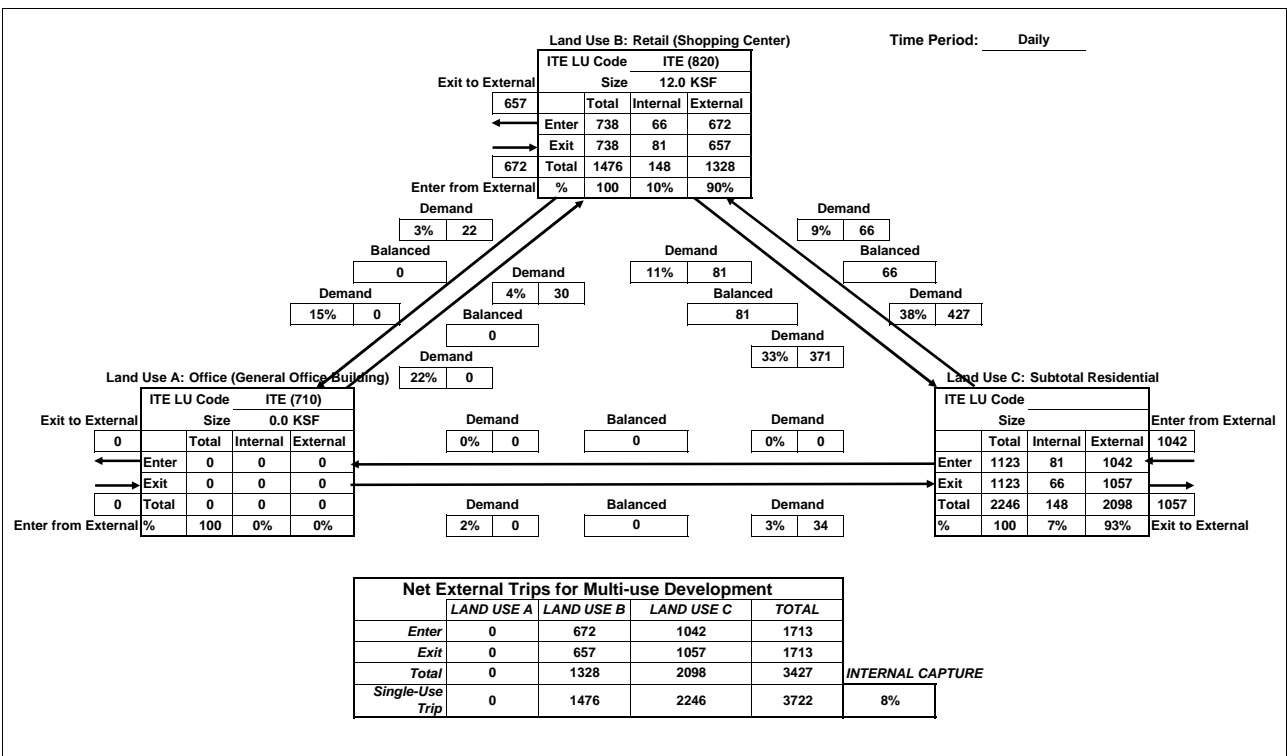
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	58	116	174	
Exit	0	61	70	131	
Total	0	119	186	305	INTERNAL CAPTURE
Single-Use Trip	0	133	200	333	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

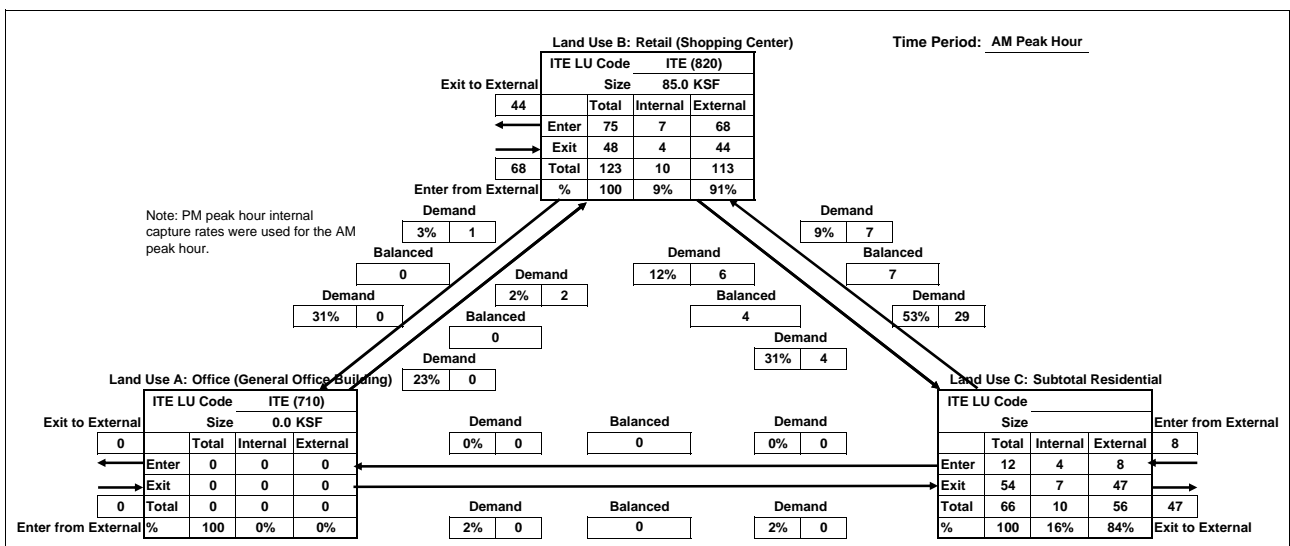


Analyst: Dowling

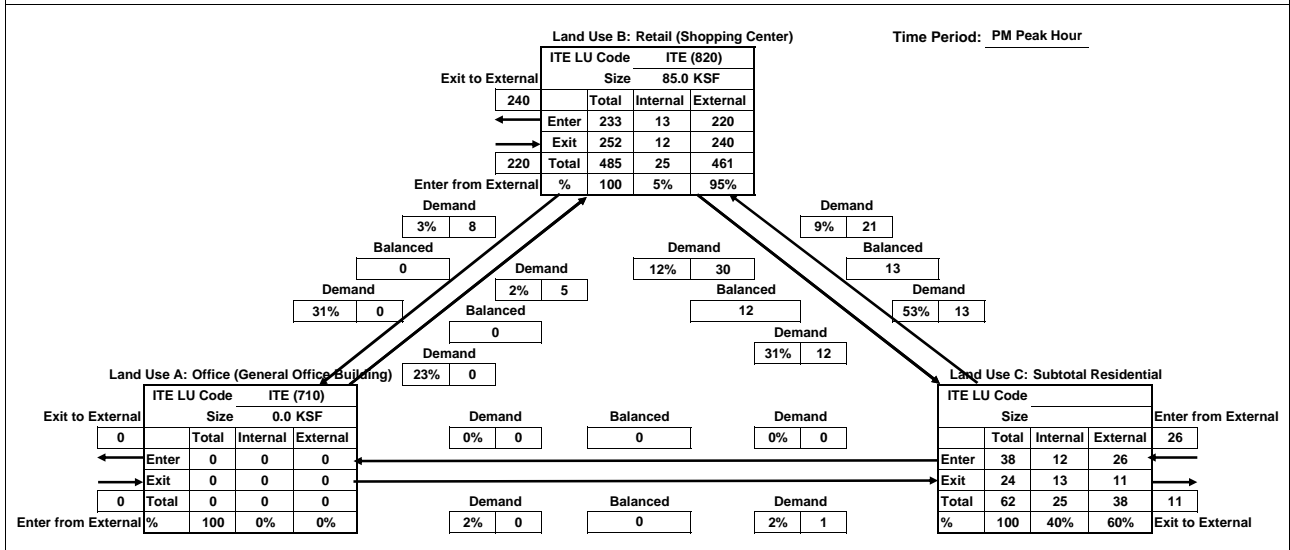
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	68	8	77	
Exit	0	44	47	92	
Total	0	113	56	168	INTERNAL CAPTURE
Single-Use Trip	0	123	66	189	11%



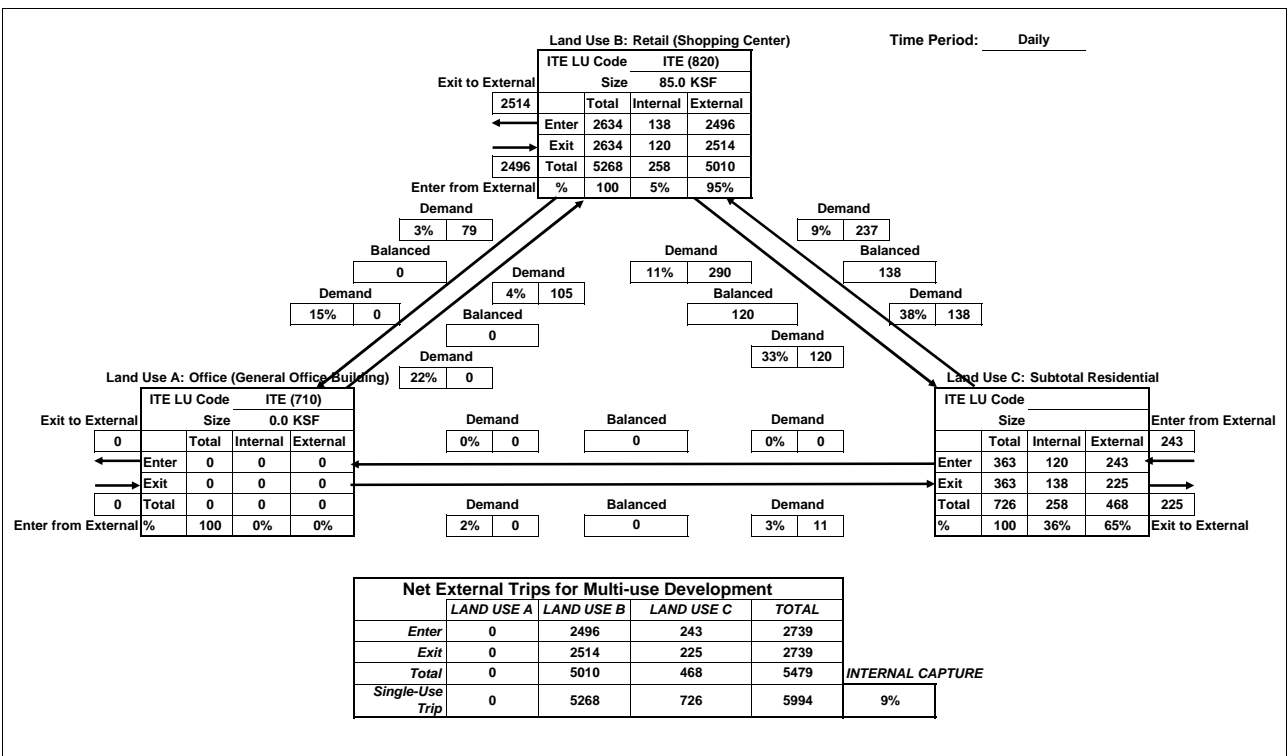
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	220	26	247	
Exit	0	240	11	252	
Total	0	461	38	498	INTERNAL CAPTURE
Single-Use Trip	0	485	62	547	9%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

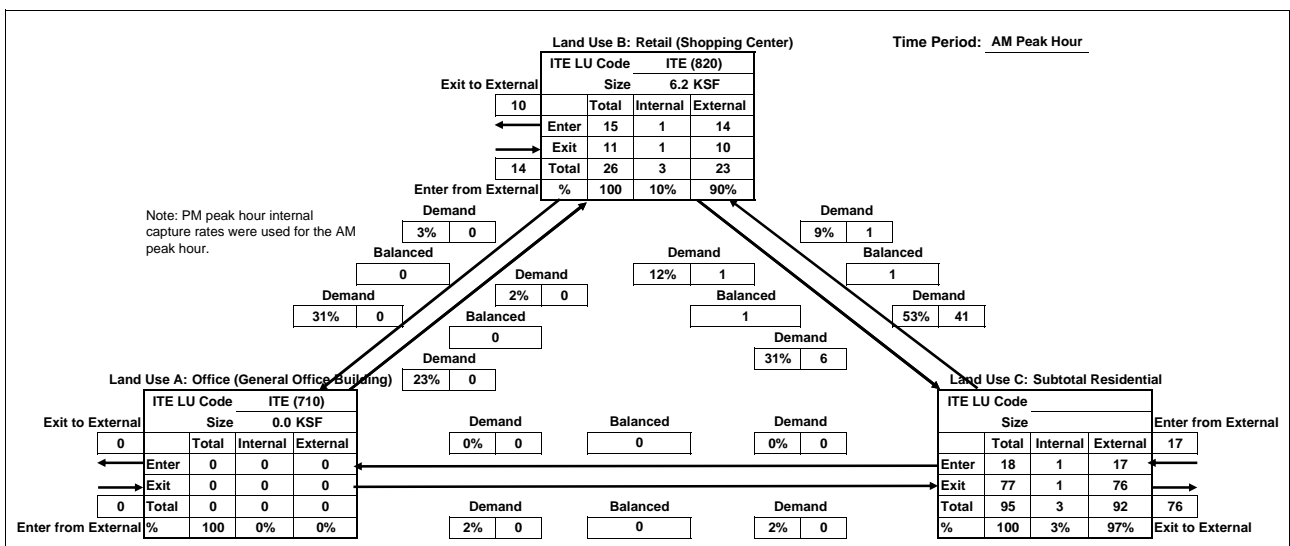
Time Period: Daily



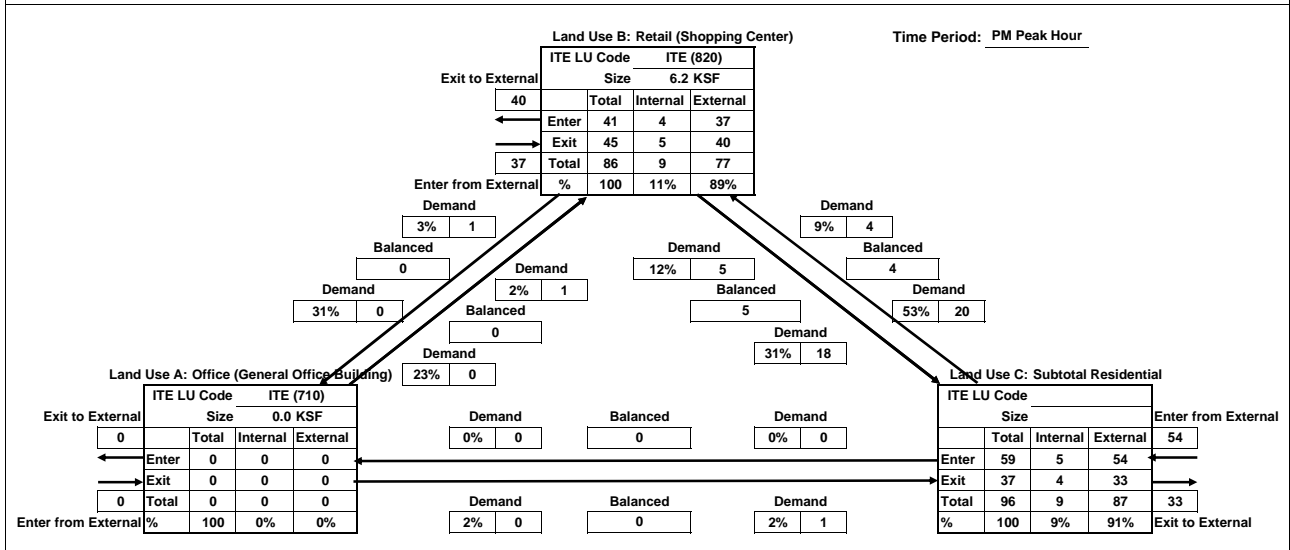
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Residential



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	14	17	30	
Exit	0	10	76	85	
Total	0	23	92	116	INTERNAL CAPTURE
Single-Use Trip	0	26	95	121	4%



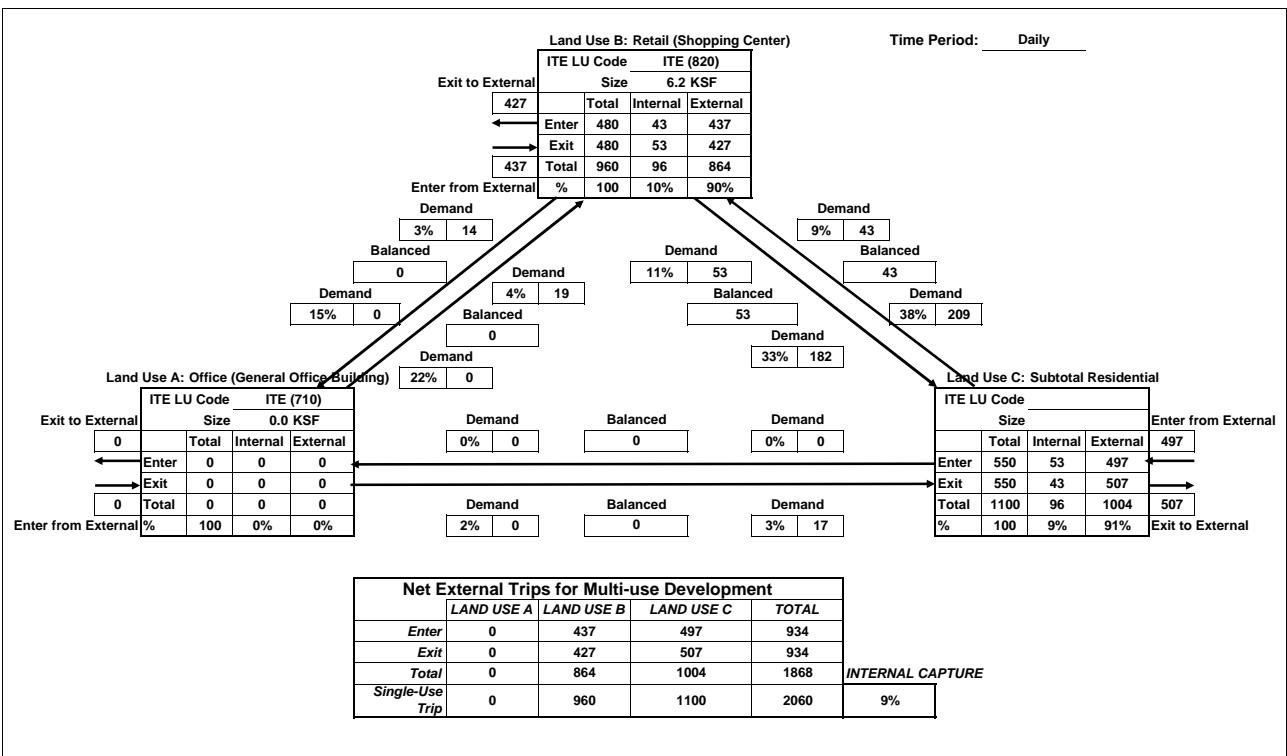
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	37	54	91	
Exit	0	40	33	73	
Total	0	77	87	164	INTERNAL CAPTURE
Single-Use Trip	0	86	96	182	10%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

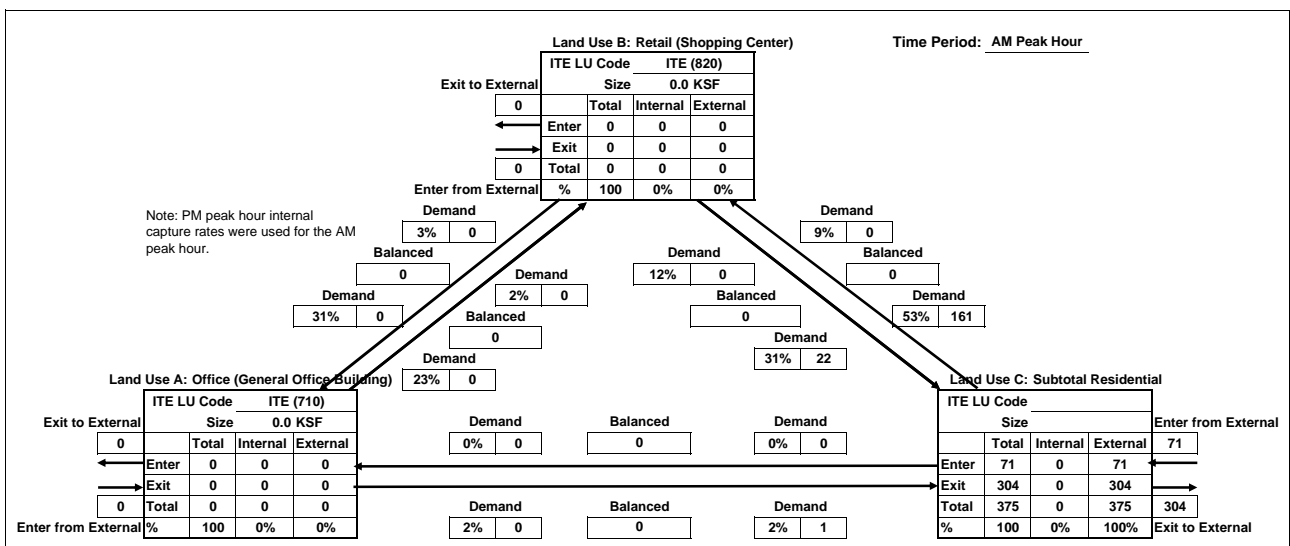


Analyst: Dowling

Date: 8/17/2007

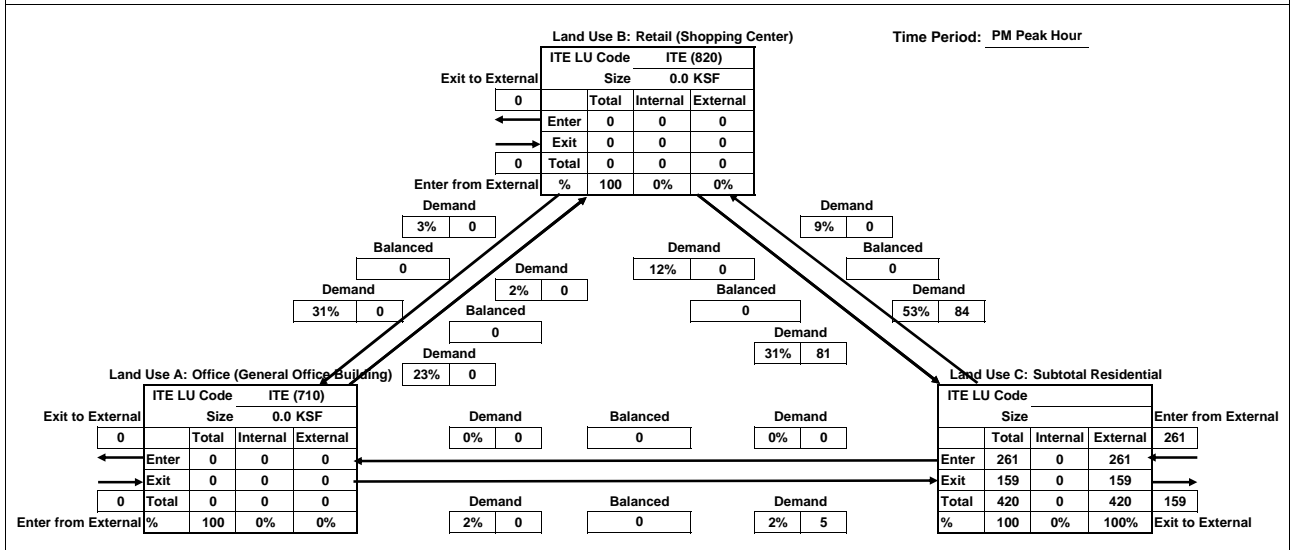
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Full Project with Maximum Residential



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	71	71	
Exit	0	0	304	304	
Total	0	0	375	375	INTERNAL CAPTURE
Single-Use Trip	0	0	375	375	0%



Net External Trips for Multi-use Development

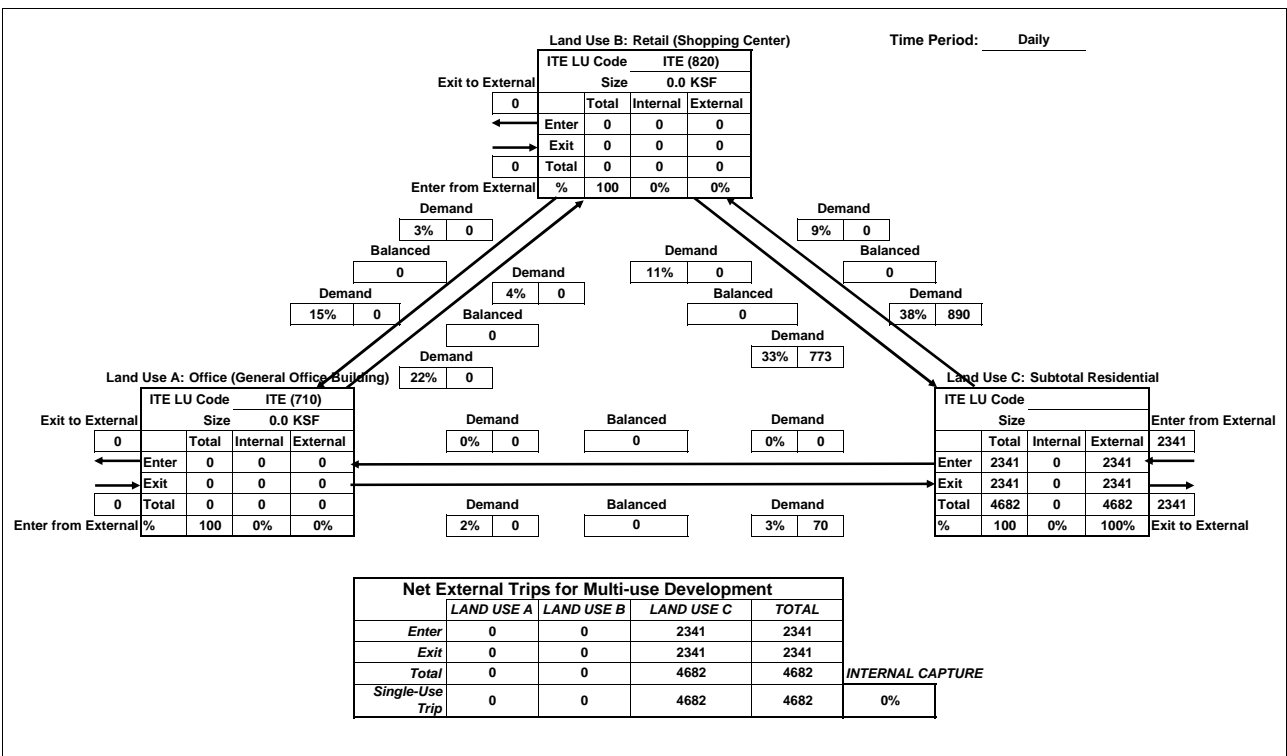
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	261	261	
Exit	0	0	159	159	
Total	0	0	420	420	INTERNAL CAPTURE
Single-Use Trip	0	0	420	420	0%

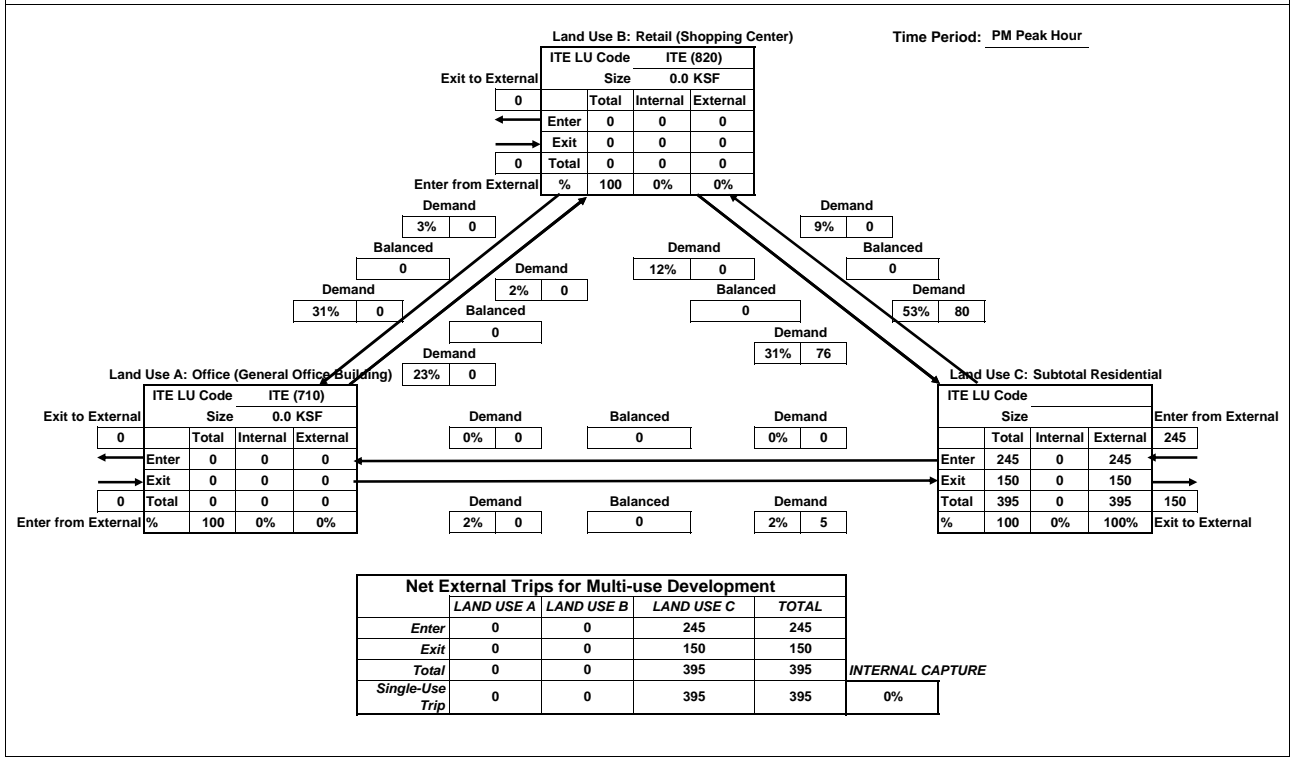
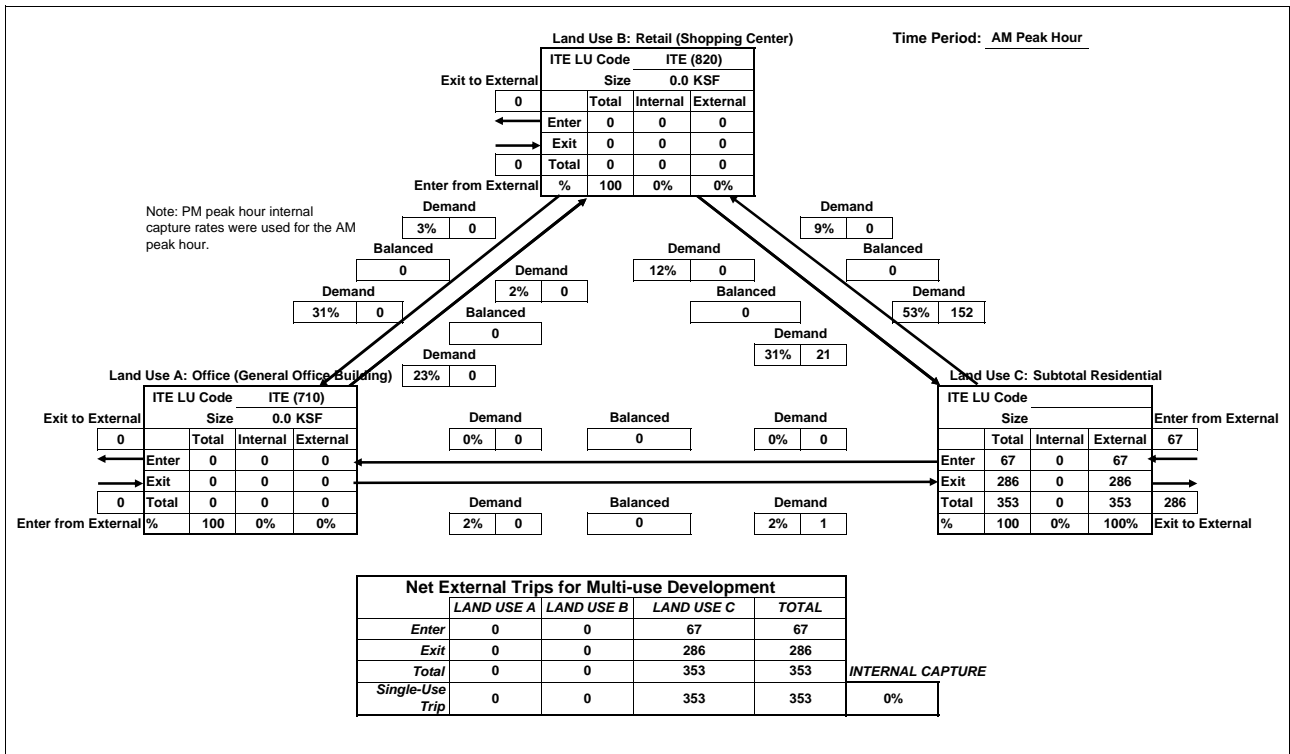
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily



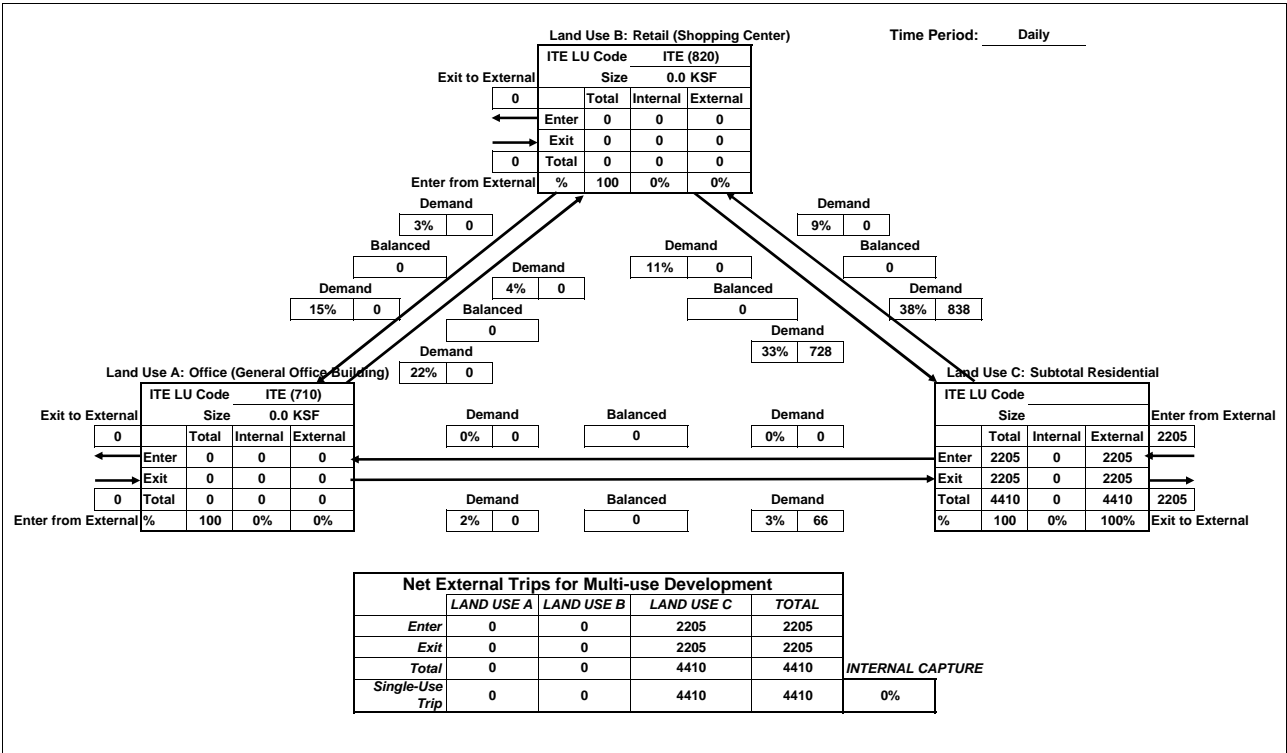


Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
Full Project with Maximum Residential

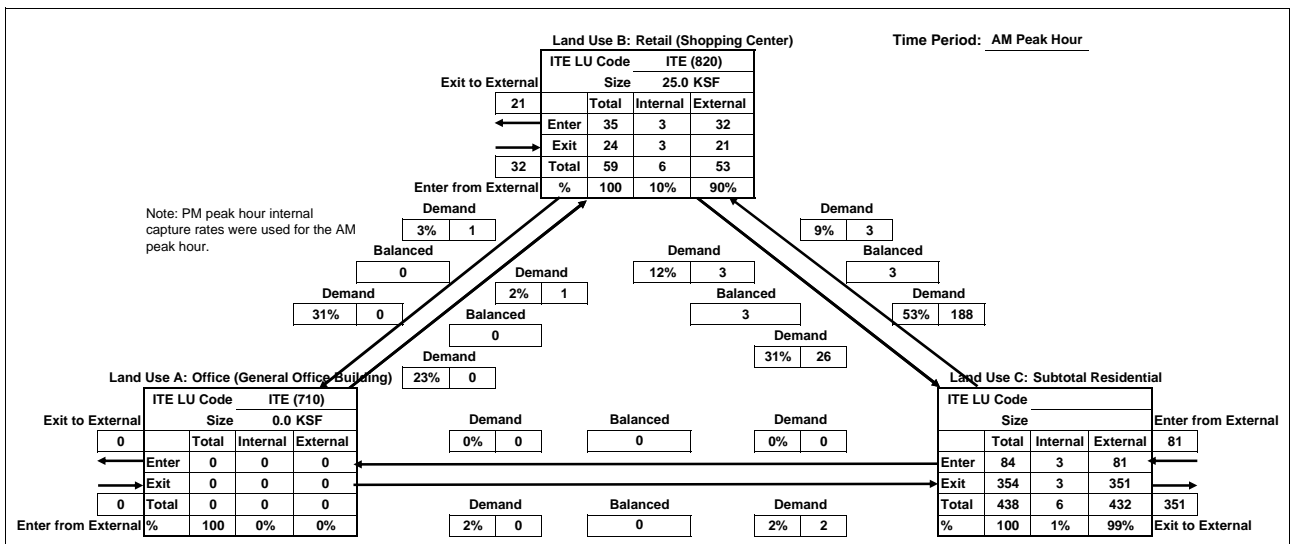
Time Period: Daily



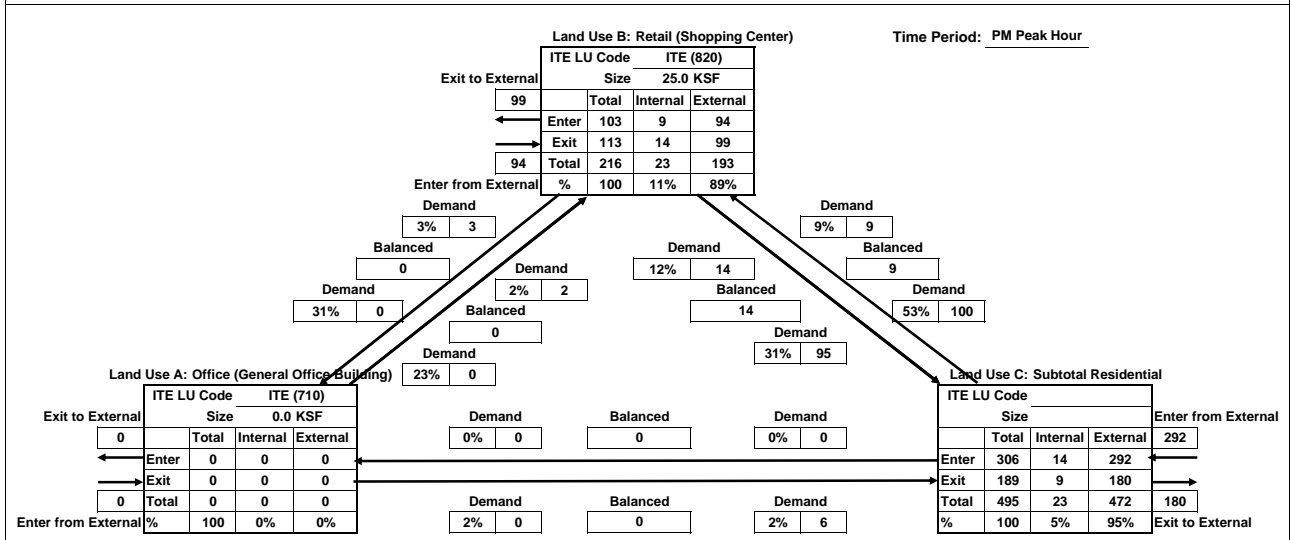
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	32	81	113	
Exit	0	21	351	372	
Total	0	53	432	485	INTERNAL CAPTURE
Single-Use Trip	0	59	438	497	2%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	94	292	386	
Exit	0	99	180	279	
Total	0	193	472	665	INTERNAL CAPTURE
Single-Use Trip	0	216	495	711	6%

Analyst: Dowling

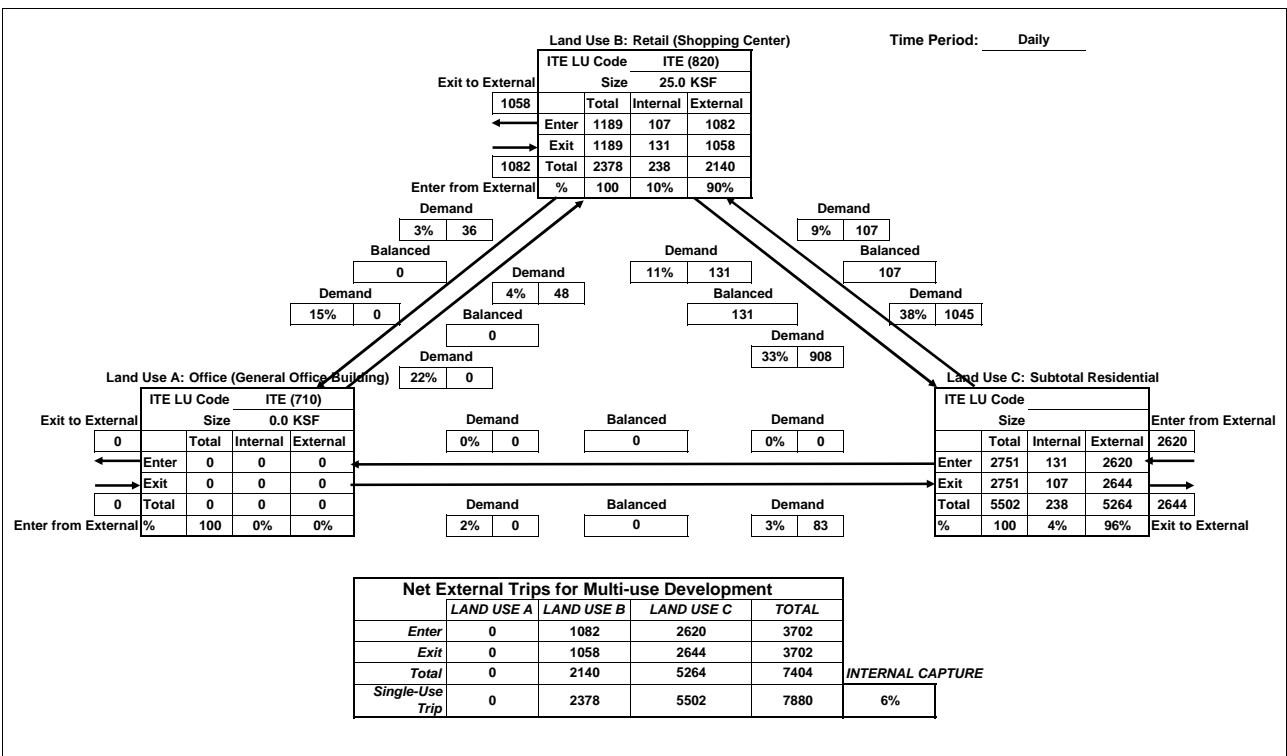
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study

Full Project with Maximum Residential

Time Period: Daily

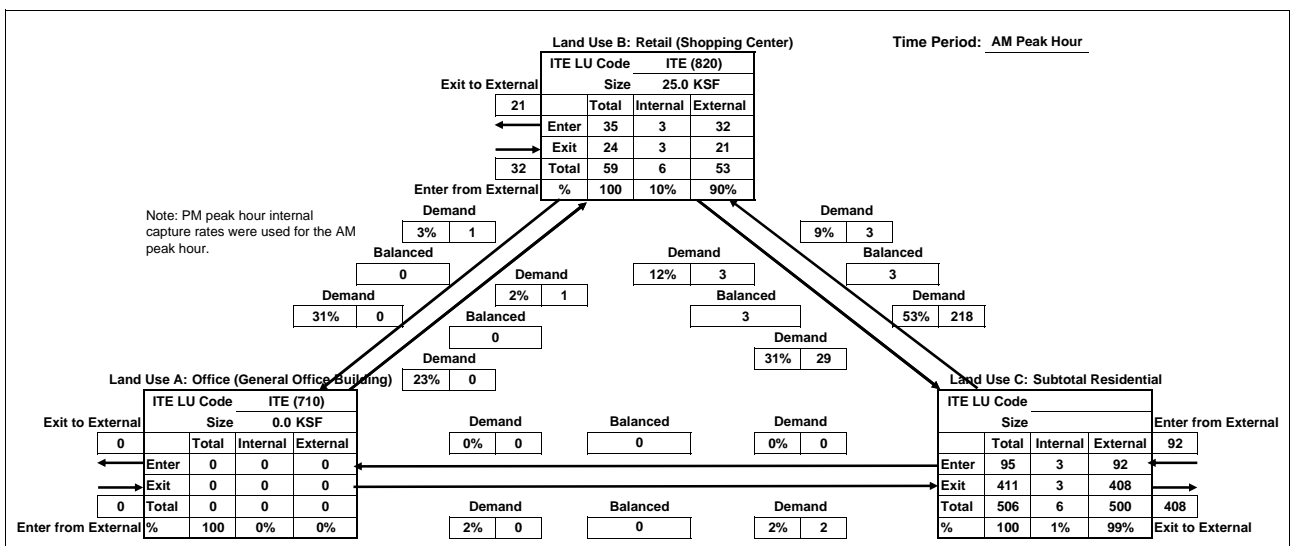


Analyst: Dowling

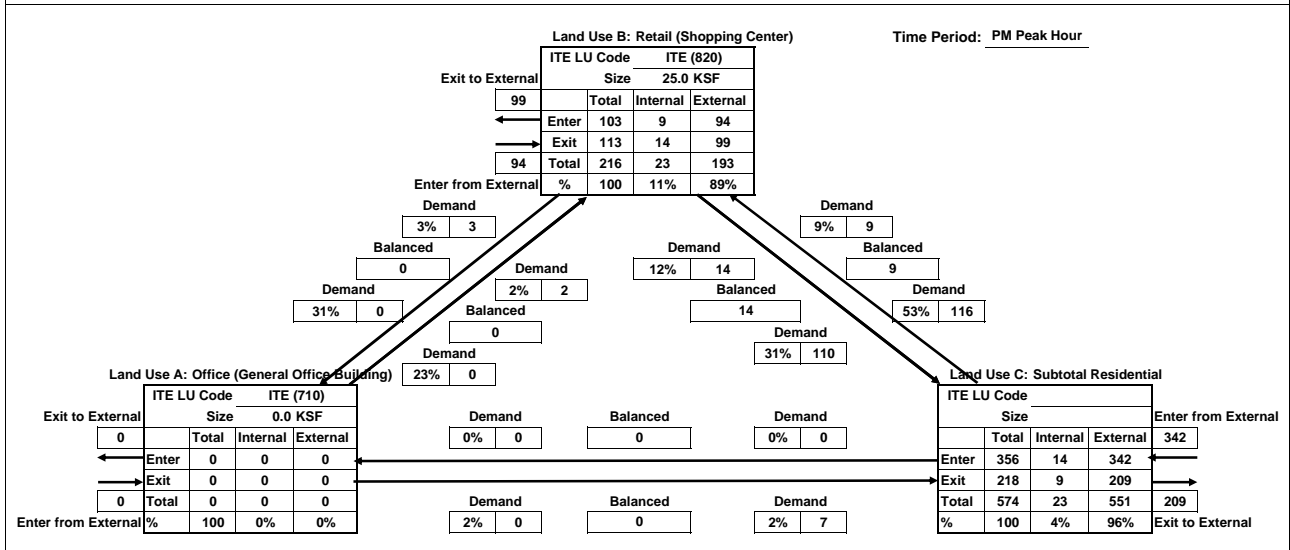
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study
Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	32	92	124	
Exit	0	21	408	429	
Total	0	53	500	553	INTERNAL CAPTURE
Single-Use Trip	0	59	506	565	2%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	94	342	436	
Exit	0	99	209	308	
Total	0	193	551	744	INTERNAL CAPTURE
Single-Use Trip	0	216	574	790	6%

Analyst: Dowling

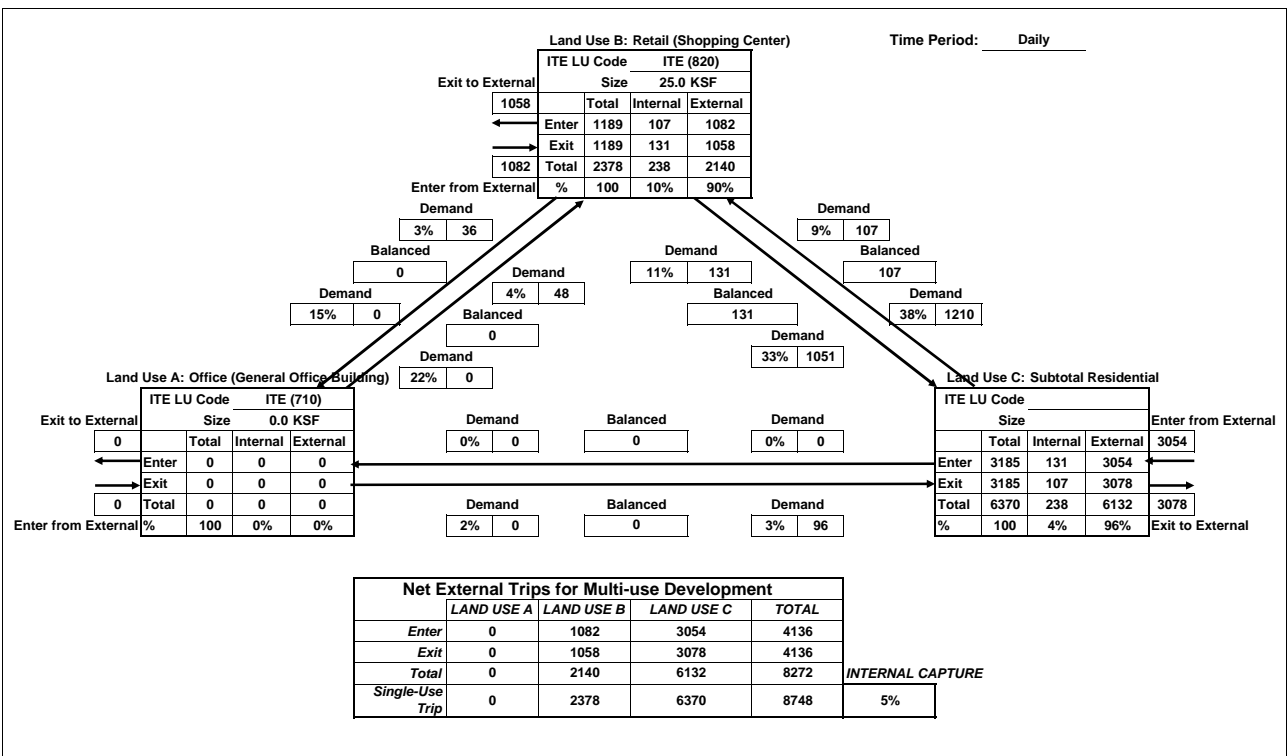
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study

Full Project with Maximum Residential

Time Period: Daily

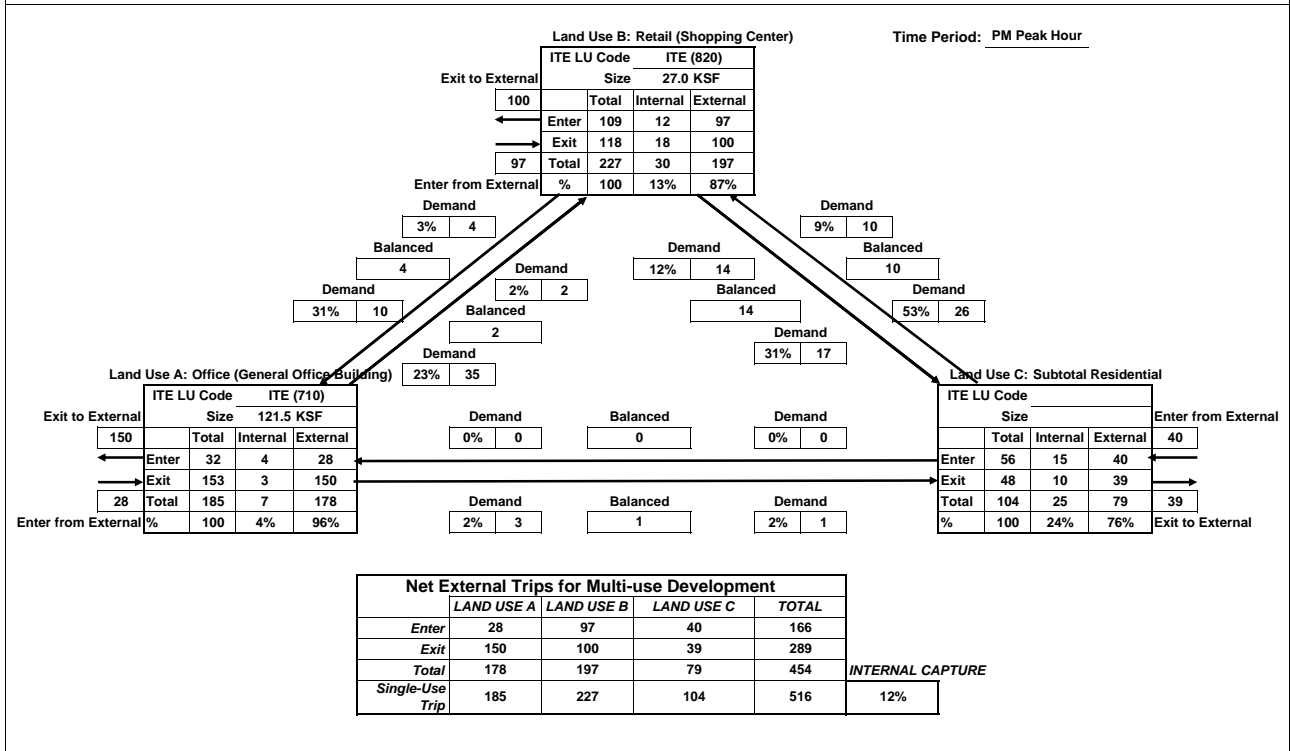
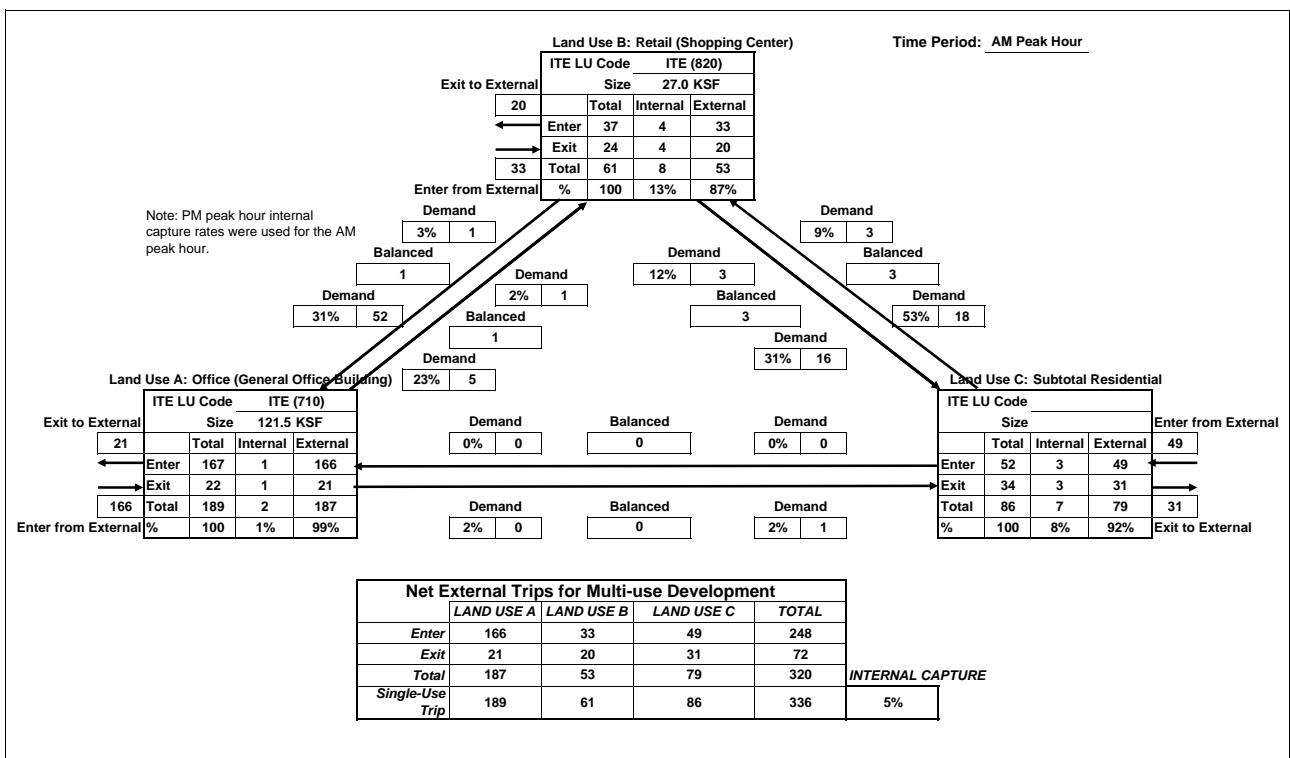


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Full Project with Maximum Residential

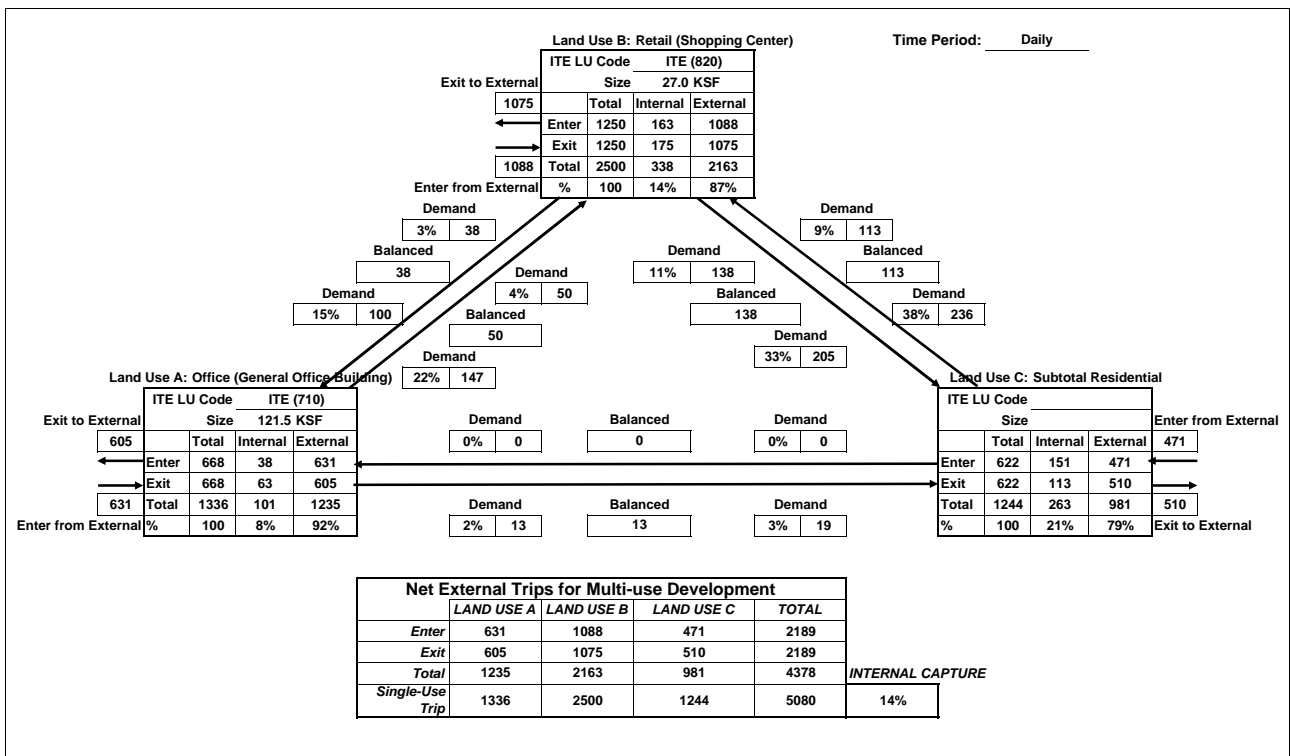


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Full Project with Maximum Residential

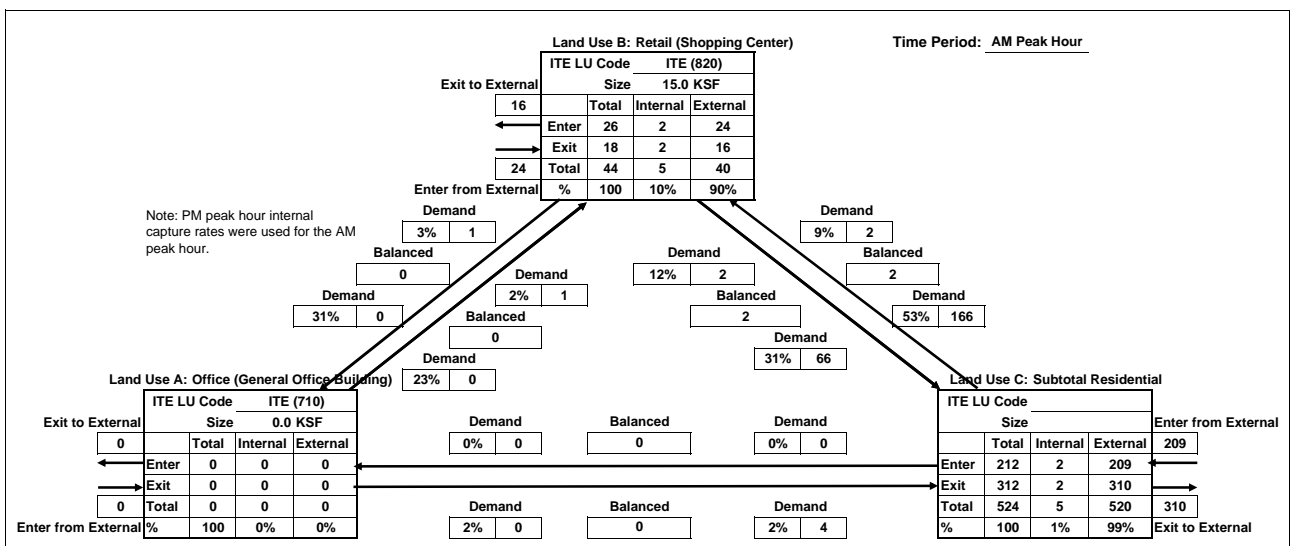
Time Period: Daily



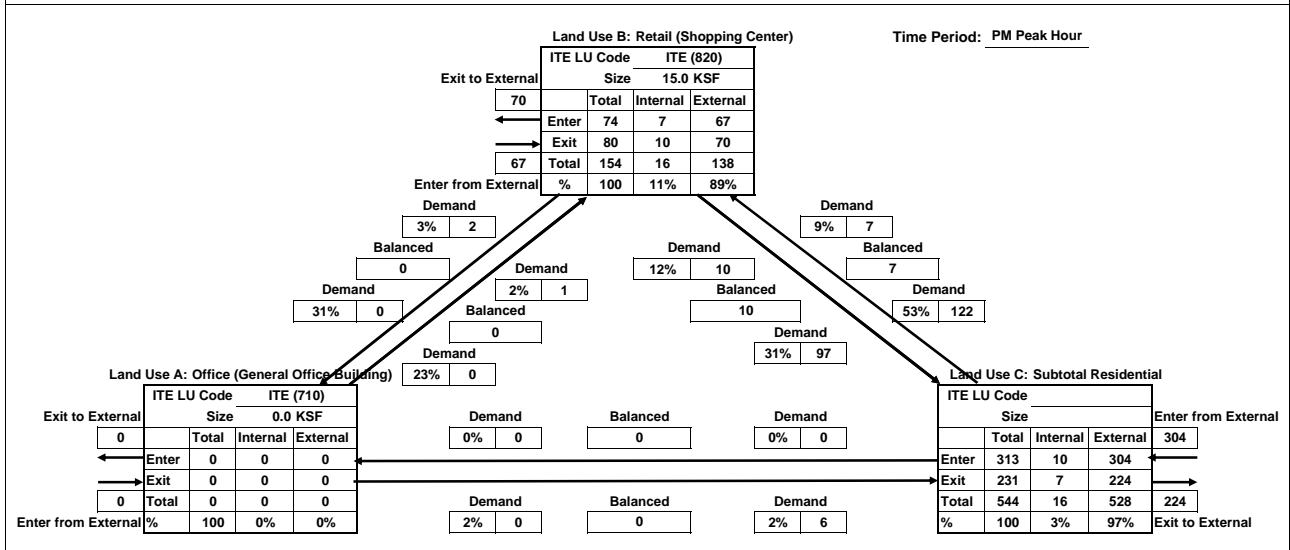
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary**

Name of Development: Railyards Study
Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	24	209	233	
Exit	0	16	310	326	
Total	0	40	520	559	INTERNAL CAPTURE
Single-Use Trip	0	44	524	568	2%



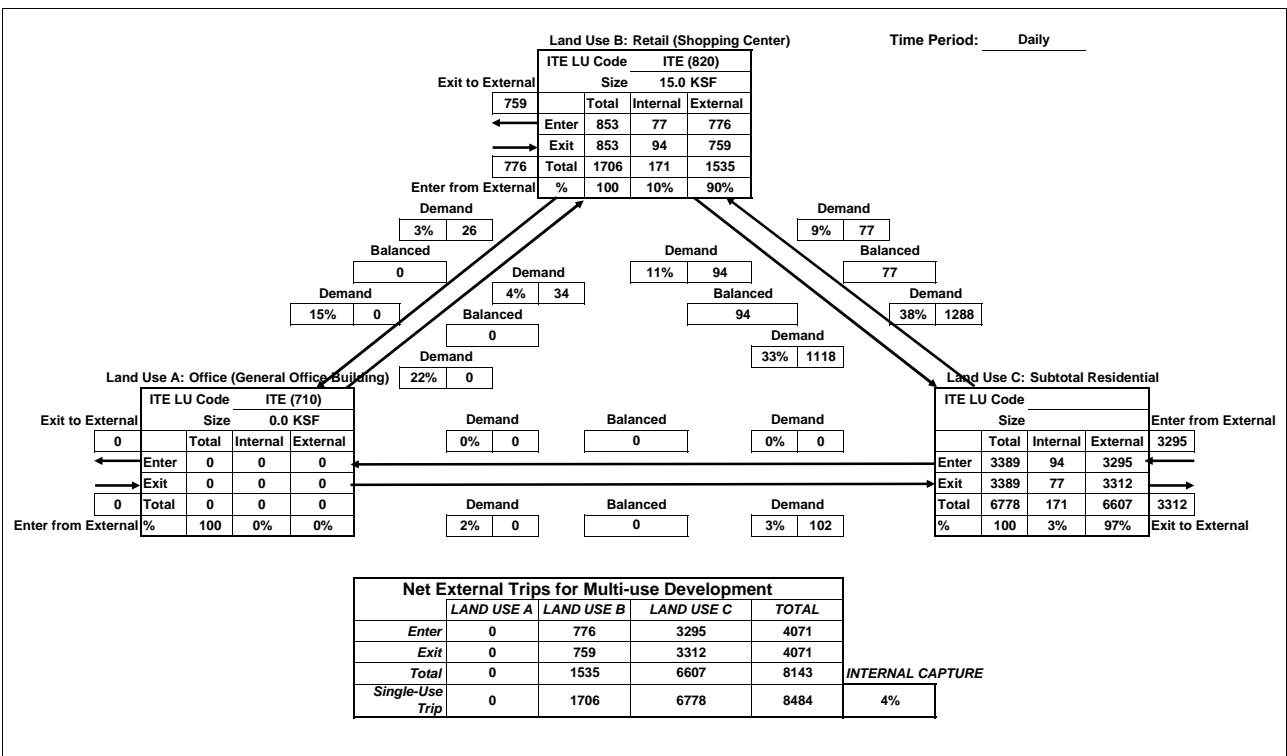
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	67	304	371	
Exit	0	70	224	294	
Total	0	138	528	665	INTERNAL CAPTURE
Single-Use Trip	0	154	544	698	5%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

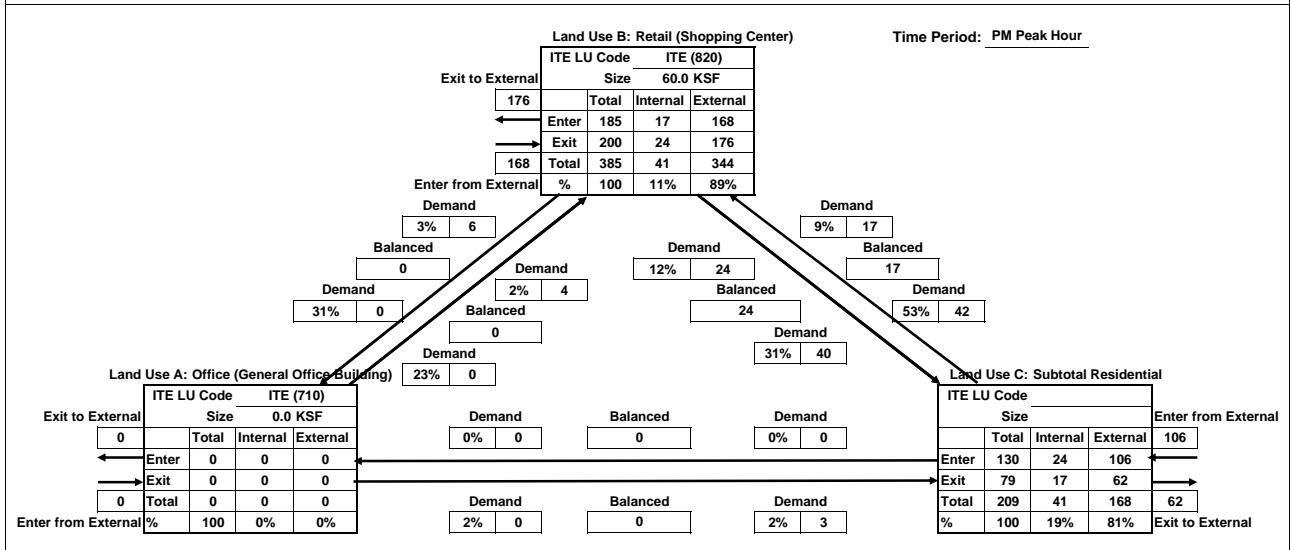
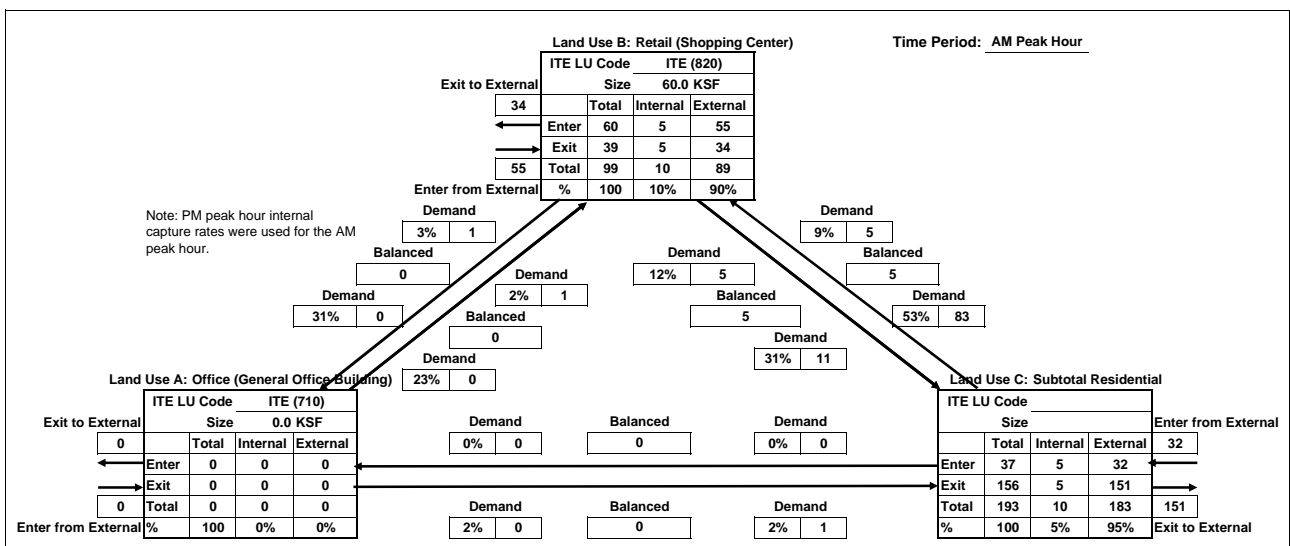


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Full Project with Maximum Residential



Analyst: Dowling

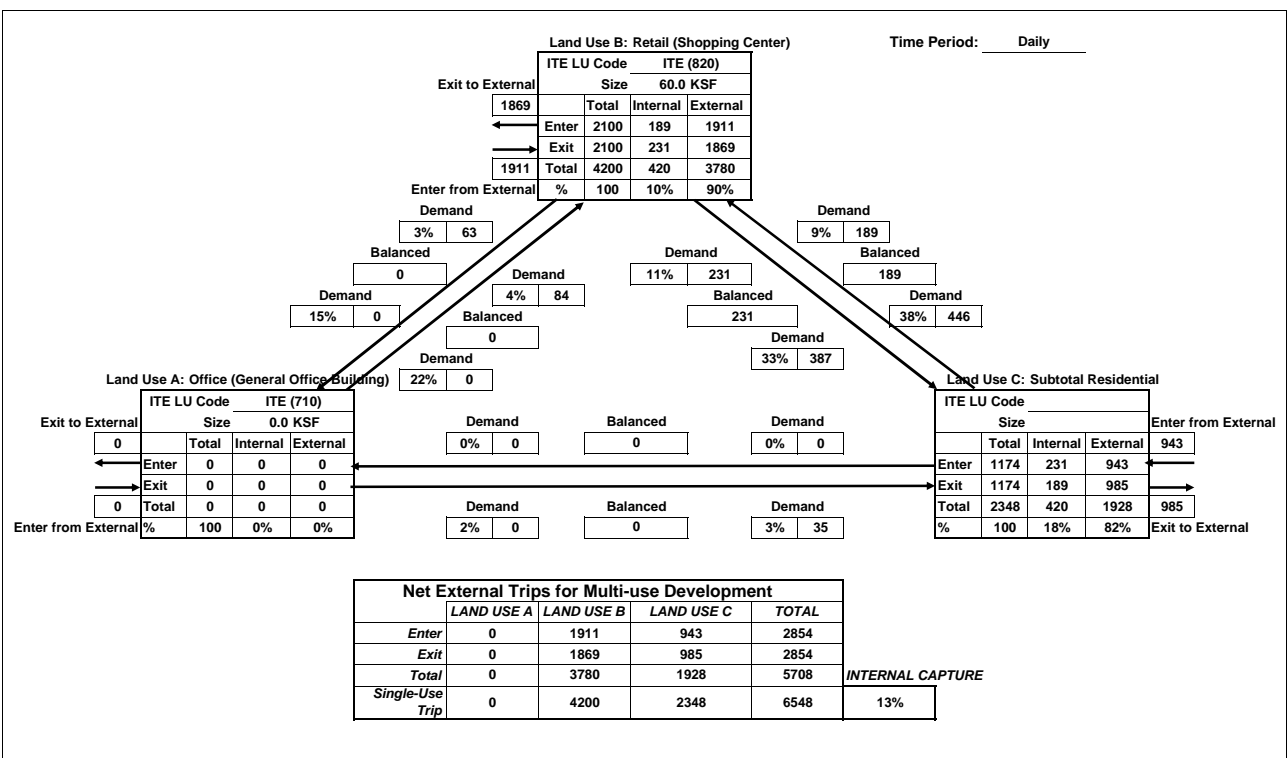
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study

Full Project with Maximum Residential

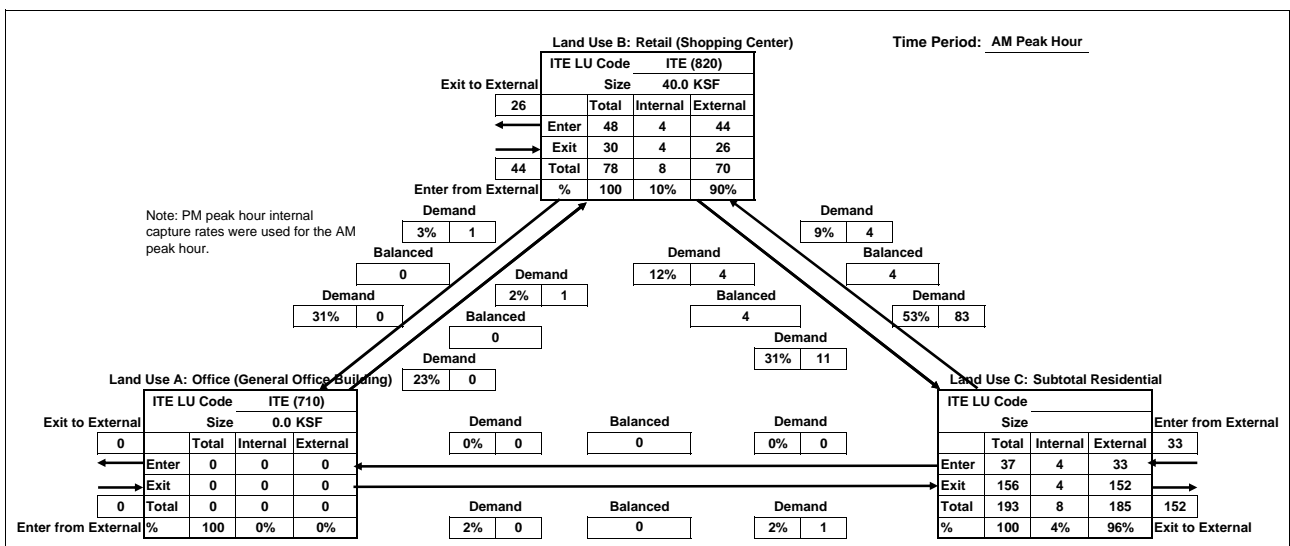
Time Period: Daily



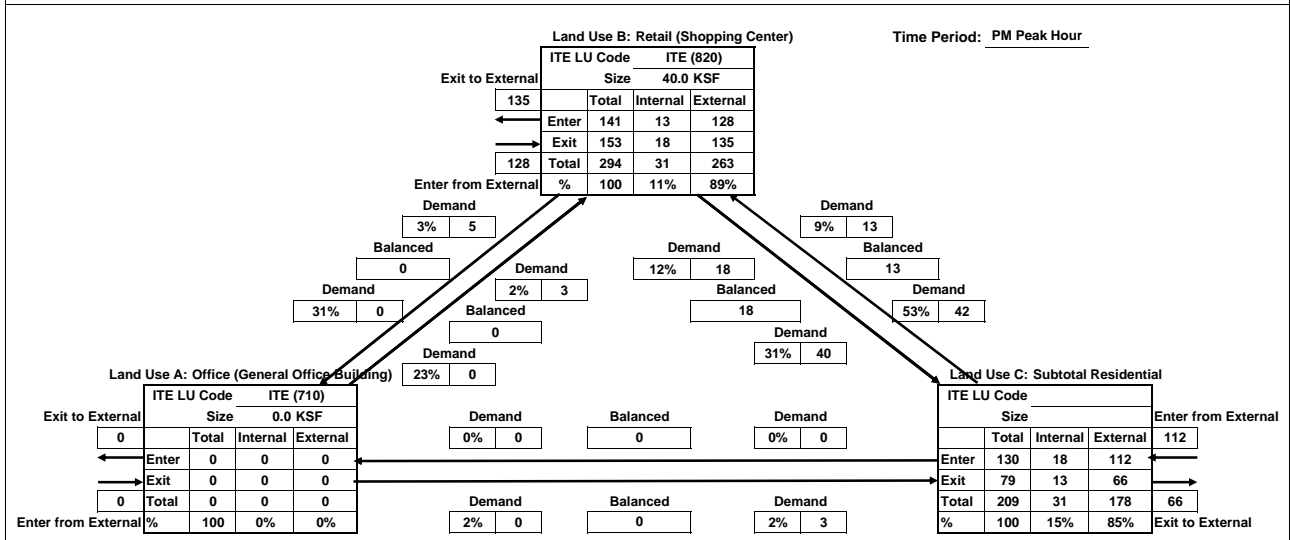
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
 Full Project with Maximum Residential



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	44	33	77	
Exit	0	26	152	178	
Total	0	70	185	255	INTERNAL CAPTURE
Single-Use Trip	0	78	193	271	6%



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	128	112	240	
Exit	0	135	66	201	
Total	0	263	178	441	INTERNAL CAPTURE
Single-Use Trip	0	294	209	503	12%

Analyst: Dowling

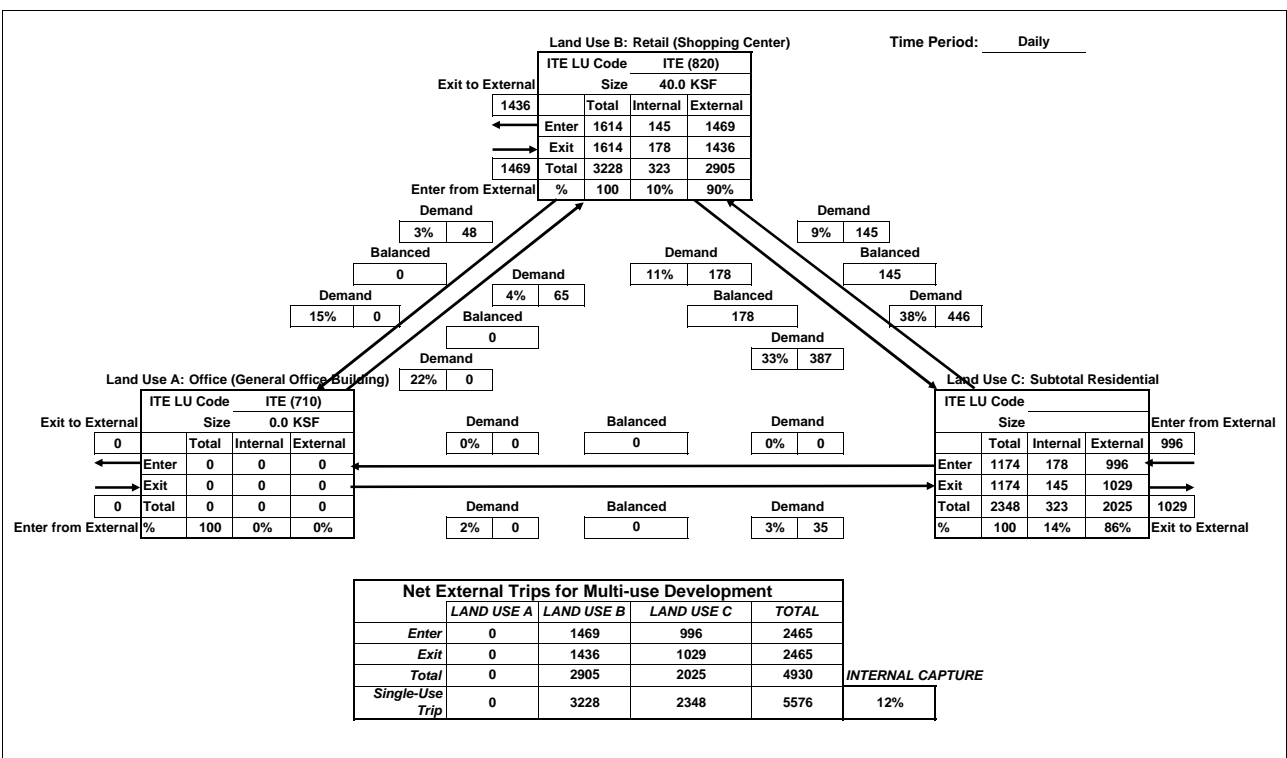
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 24: Bounded by Property Boundary, Railyards, N. 10th

Name of Development: Railyards Study

Full Project with Maximum Residential

Time Period: Daily

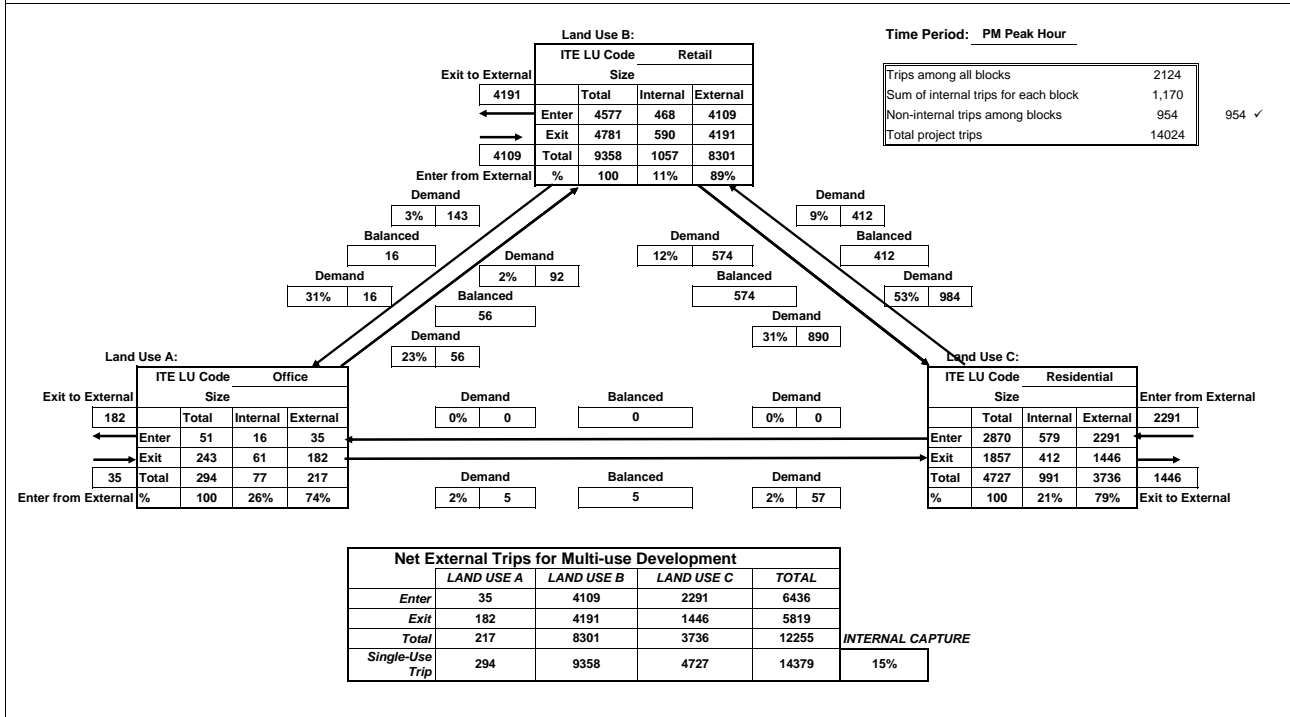
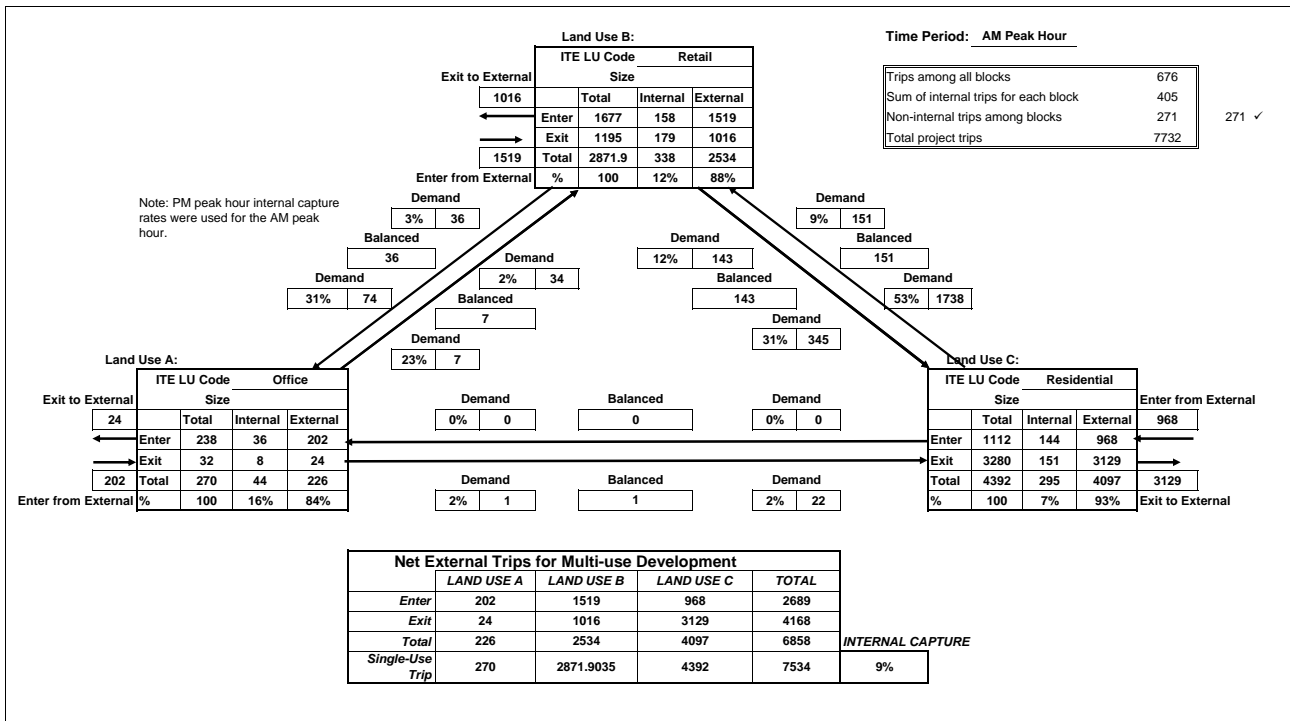


**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling

Name of Development: Downtown Study
Full Project with Maximum Residential

Date: 8/17/2007



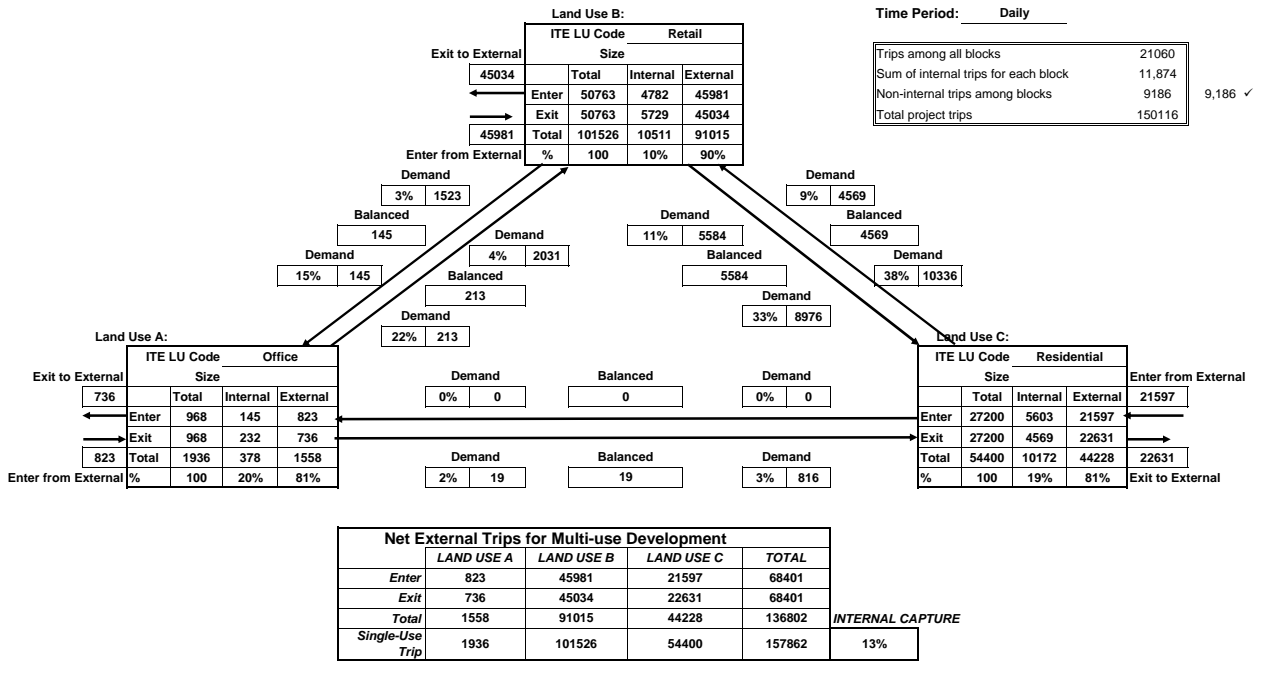
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 TRIPS AMONG ALL BLOCKS**

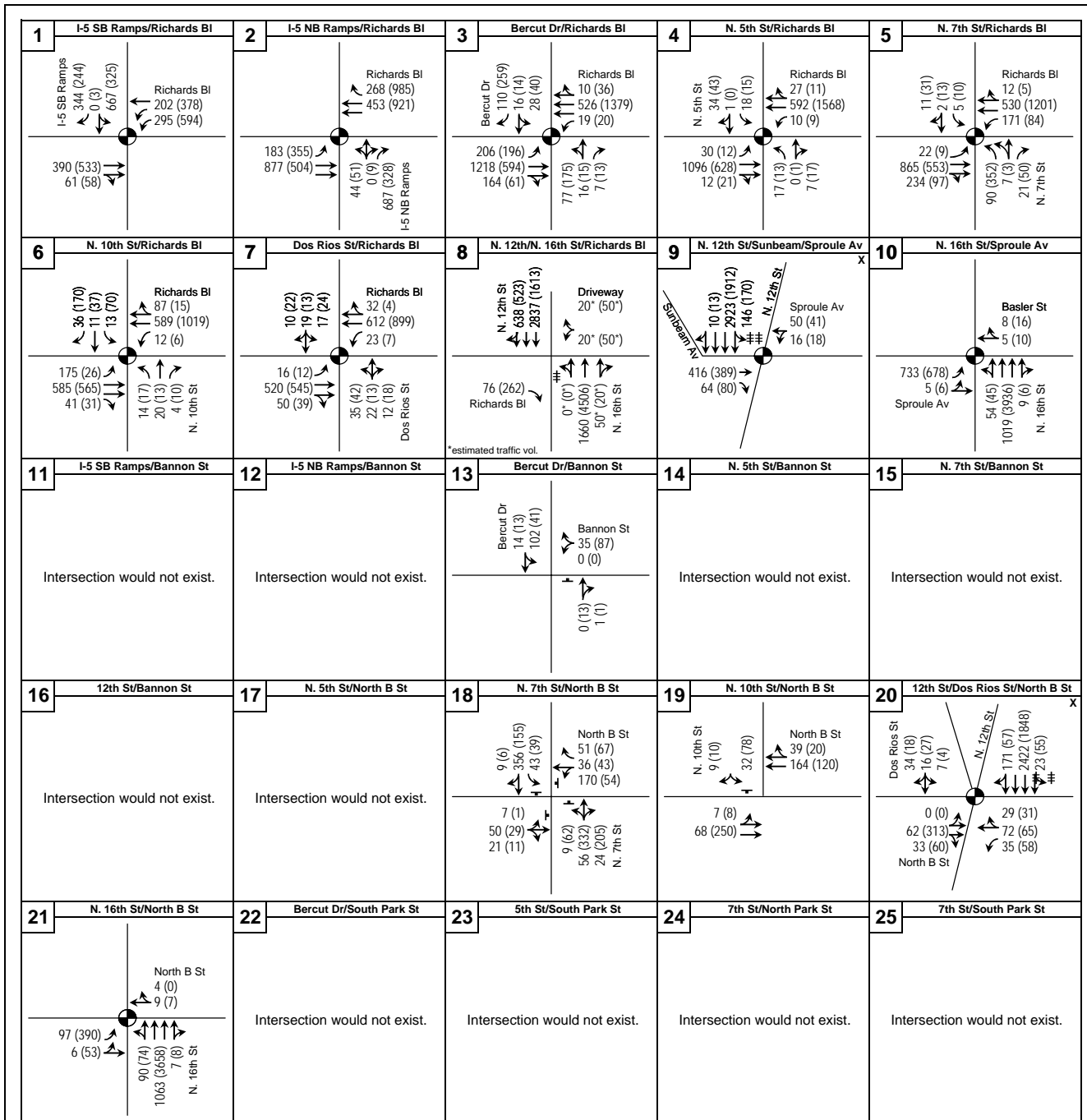
Name of Development: Downtown Study
 Full Project with Maximum Residential

Time Period: Daily

Trips among all blocks	21060	
Sum of internal trips for each block	11,874	
Non-internal trips among blocks	9186	9,186 ✓
Total project trips	150116	

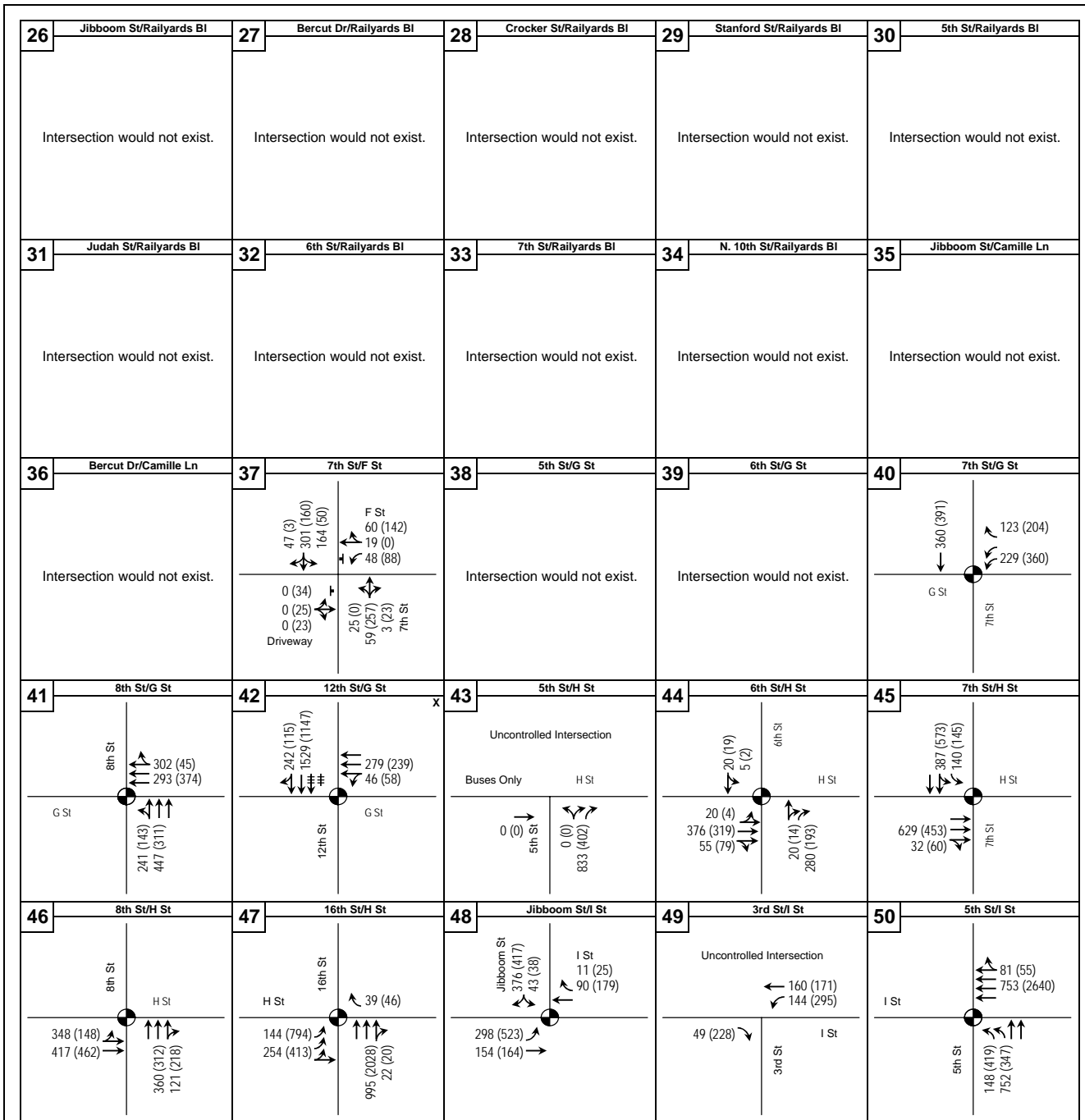


Traffic Volume Figures



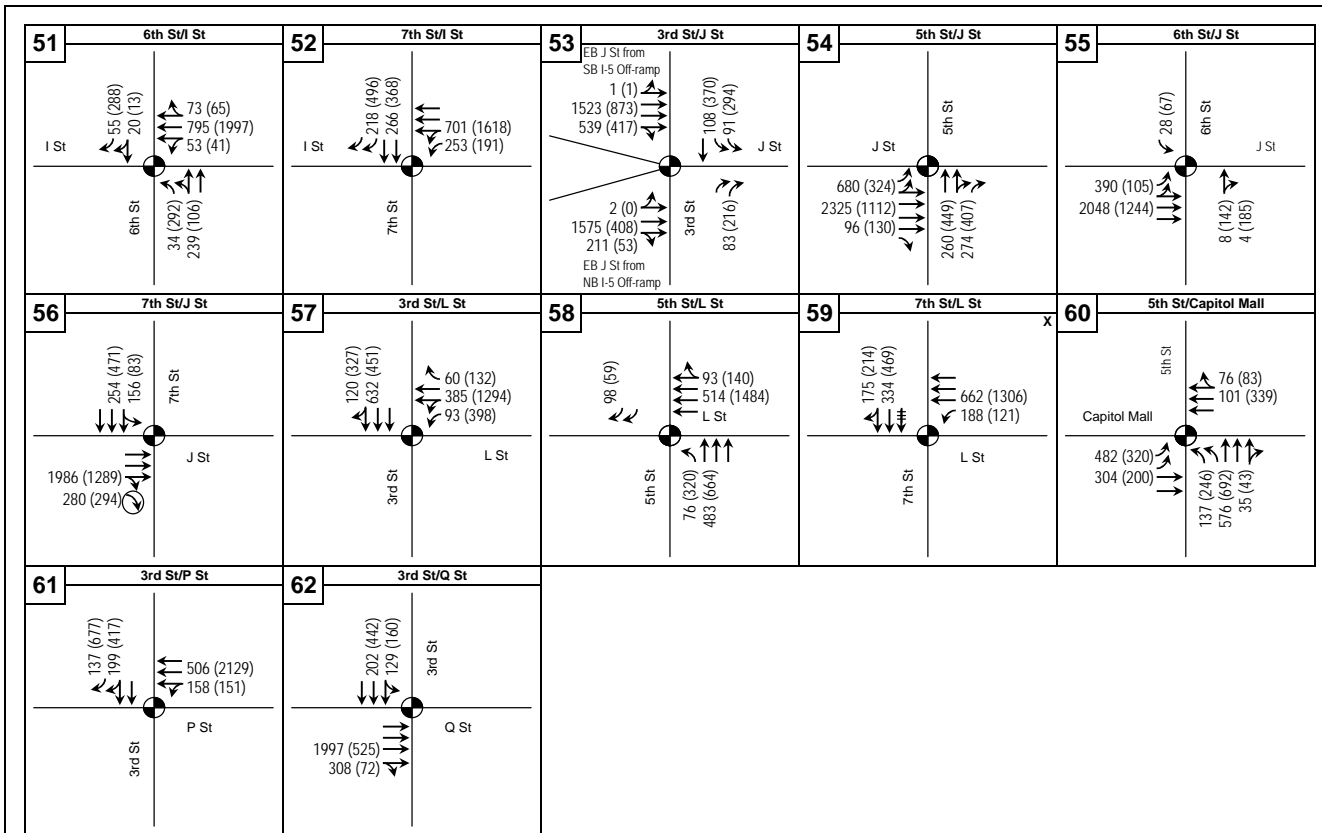
KEY
 31 (27) = AM (PM) peak hour traffic volume
 = Signalized intersection
 = Intersection approach lane
 = Lane provided during AM peak, only
 = Lane provided during PM peak, only





KEY
 31 (27) = AM (PM) peak hour traffic volume
 = Signalized intersection
 = Intersection approach lane
 = Lane provided during AM peak, only
 = Lane provided during PM peak, only

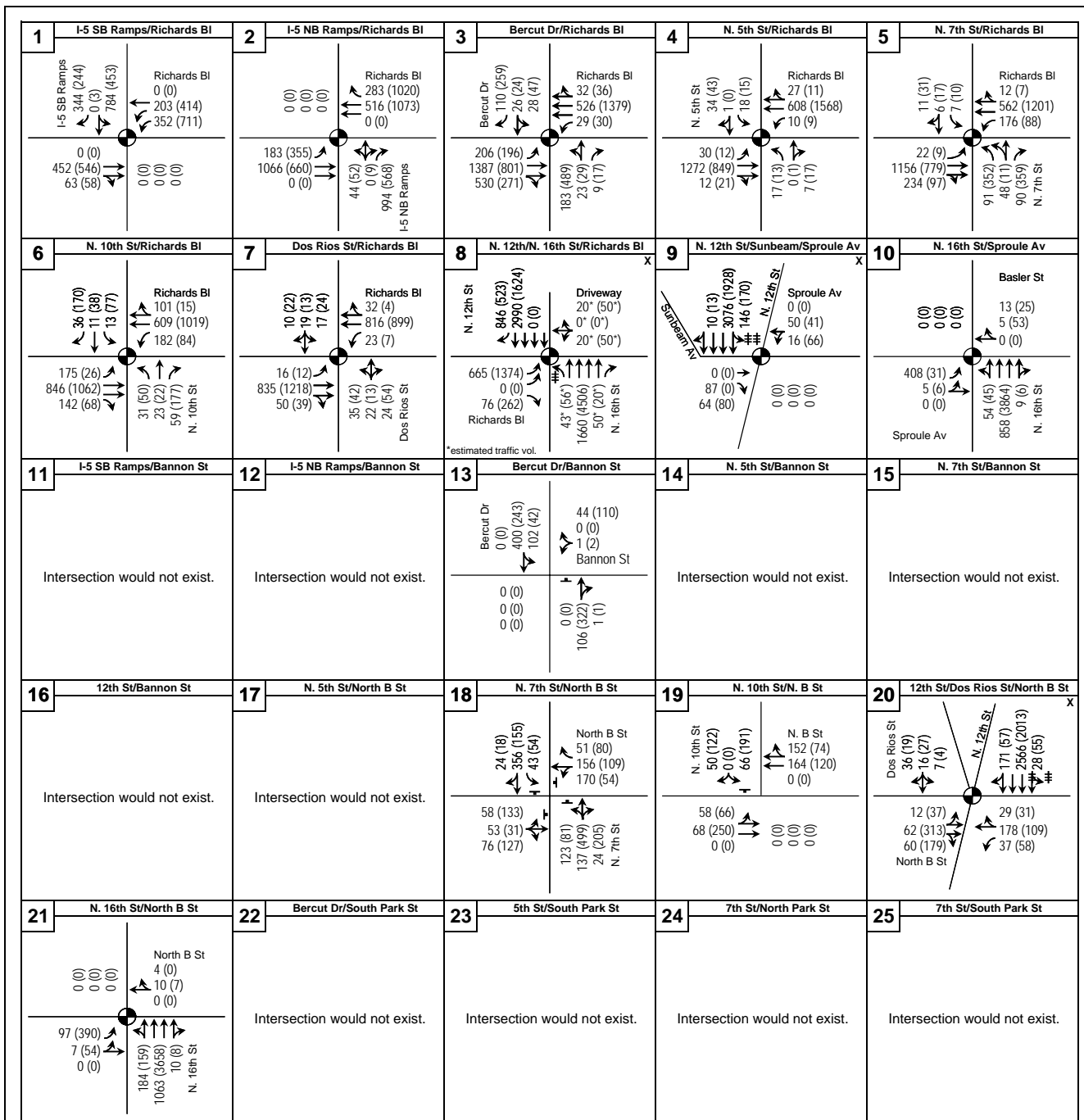




KEY

- 31 (27) = AM (PM) peak hour traffic volume
- = Signalized intersection
- ↔ = Intersection approach lane
- ↔ = Lane provided during AM peak, only
- ↔ = Lane provided during PM peak, only

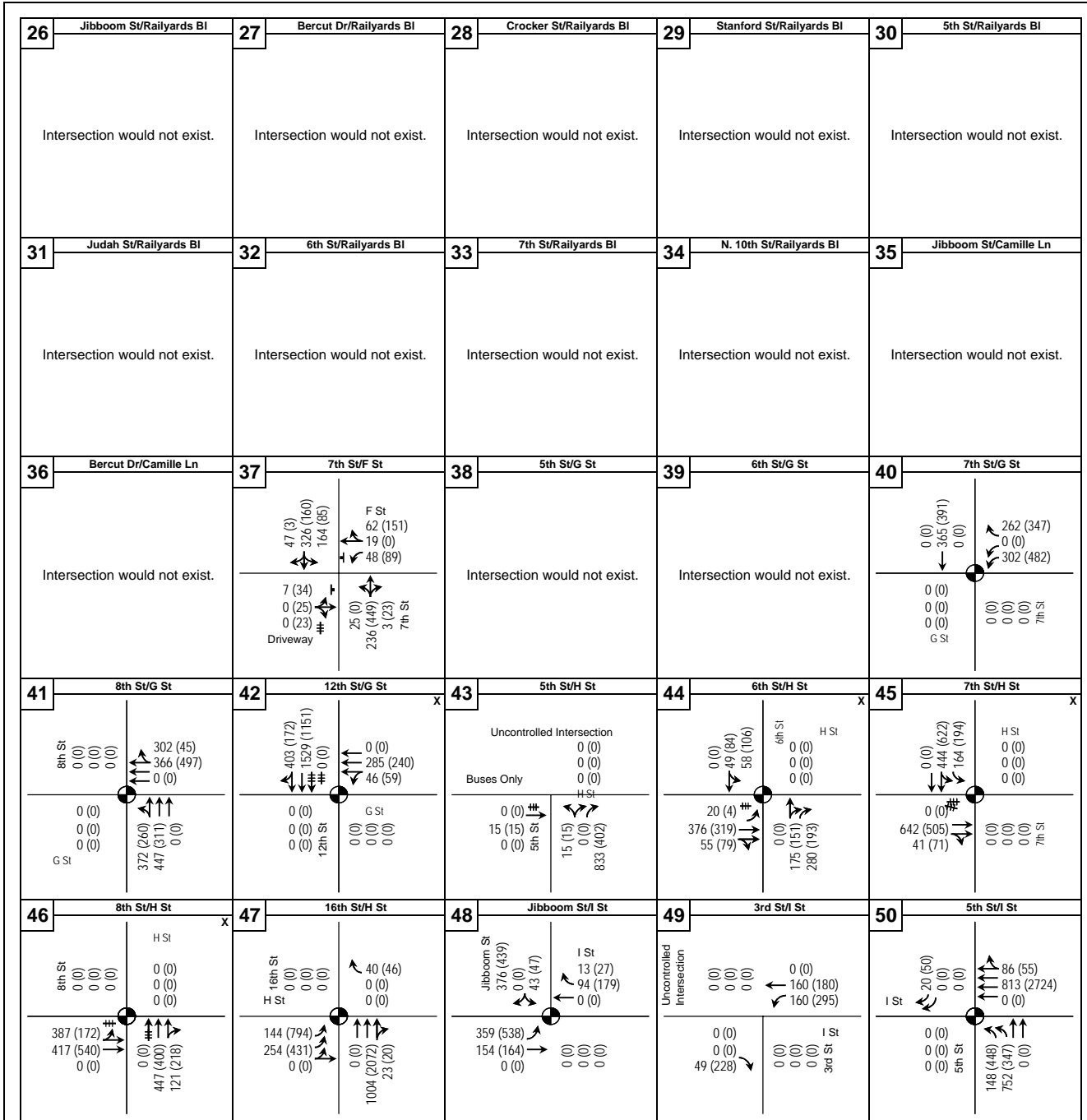




KEY
 31 (27) = AM (PM) peak hour traffic volume
 = Signalized intersection
 = Intersection approach lane
 = Lane provided during AM peak, only
 = Lane provided during PM peak, only

Notes:
 Traffic volumes include the effects of:
 - 3rd Street conversion to two-way operations from Capitol Mall to L Street
 - 5th Street conversion to two-way operations from H Street to I Street
 - New intersection at 12th Street and Richards Boulevard

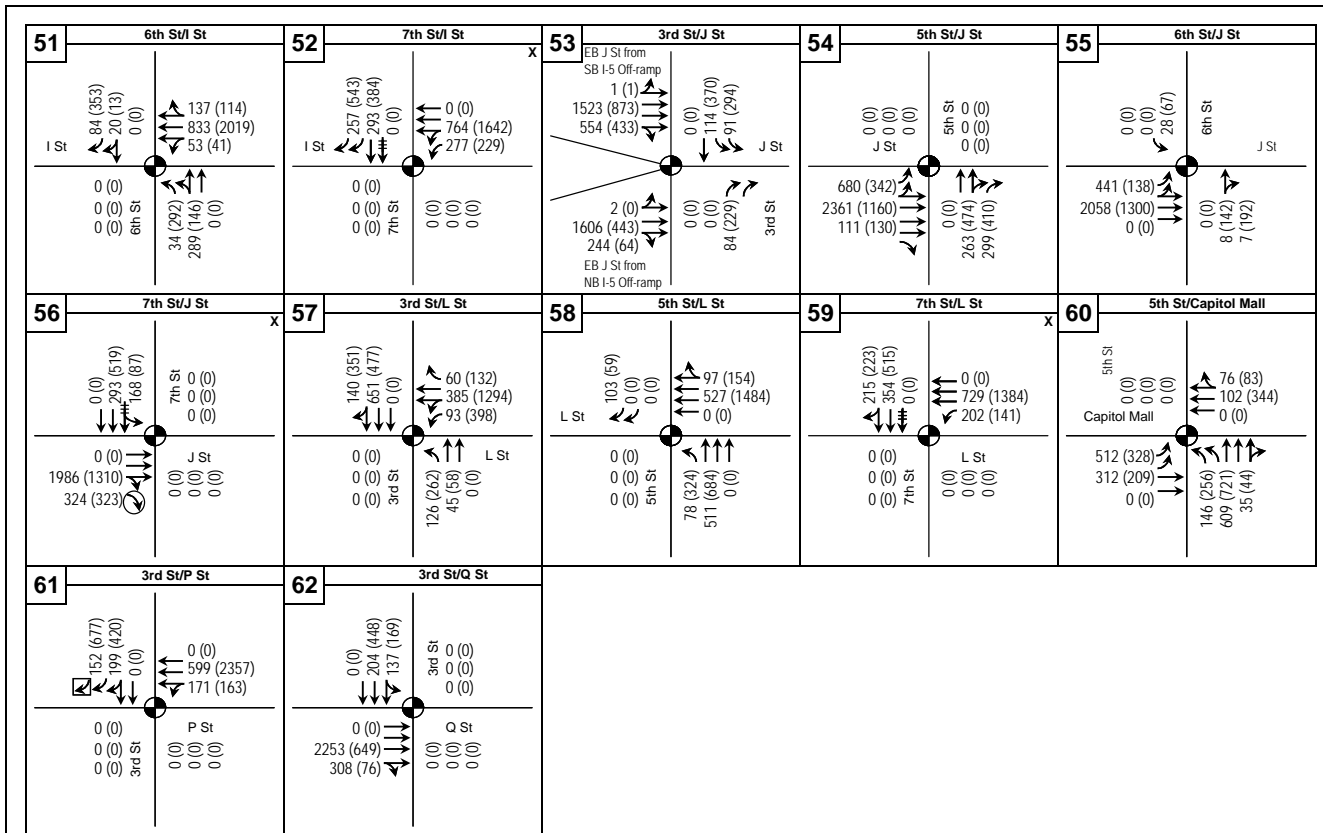




KEY
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 = Signalized intersection
 = Intersection approach lane
 = Lane provided during AM peak, only
 = Lane provided during PM peak, only

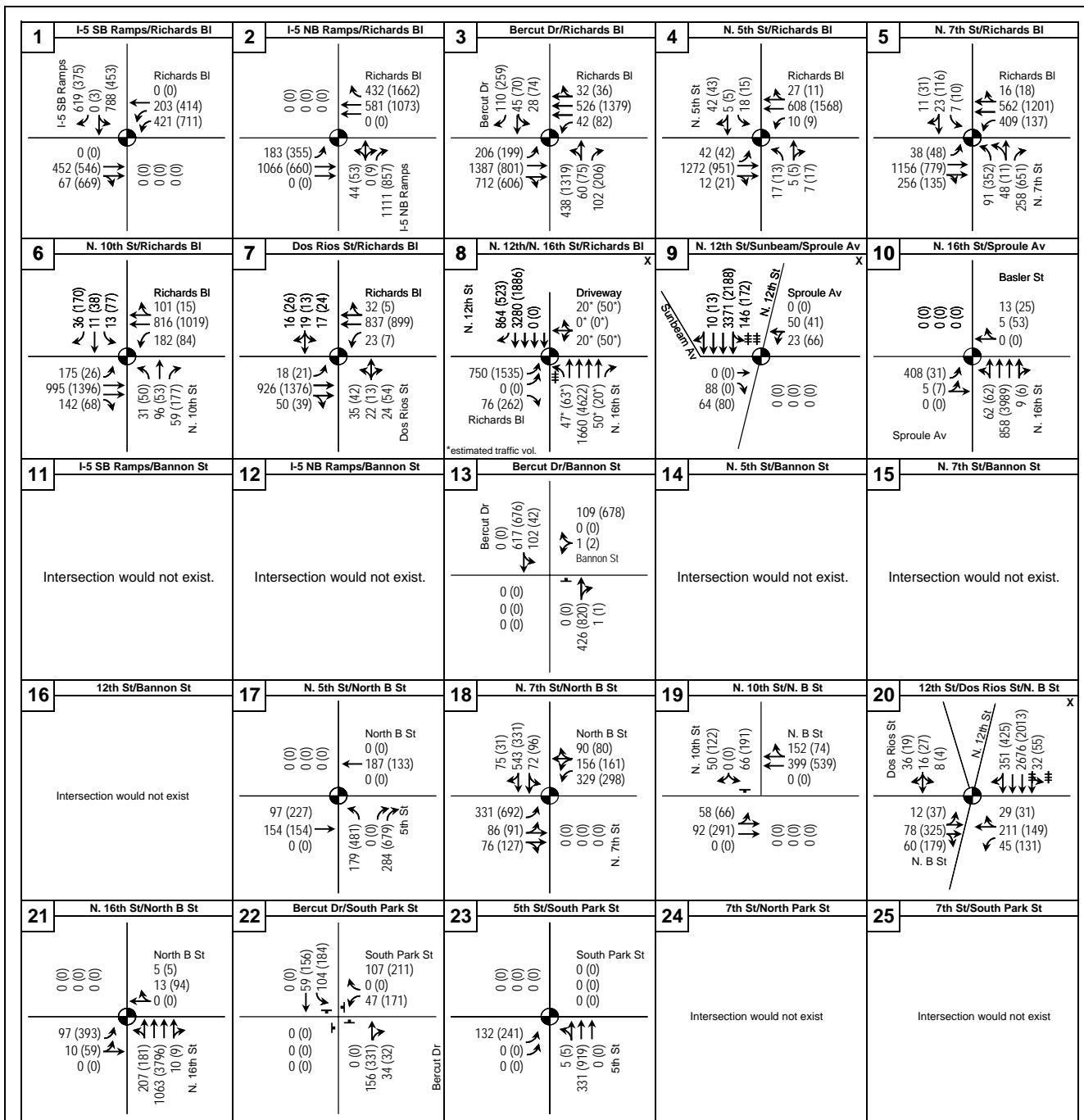
Notes:
 Traffic volumes include the effects of:
 - 3rd Street conversion to two-way operations from Capitol Mall to L Street
 - 5th Street conversion to two-way operations from H Street to I Street
 - New intersection at 12th Street and Richards Boule





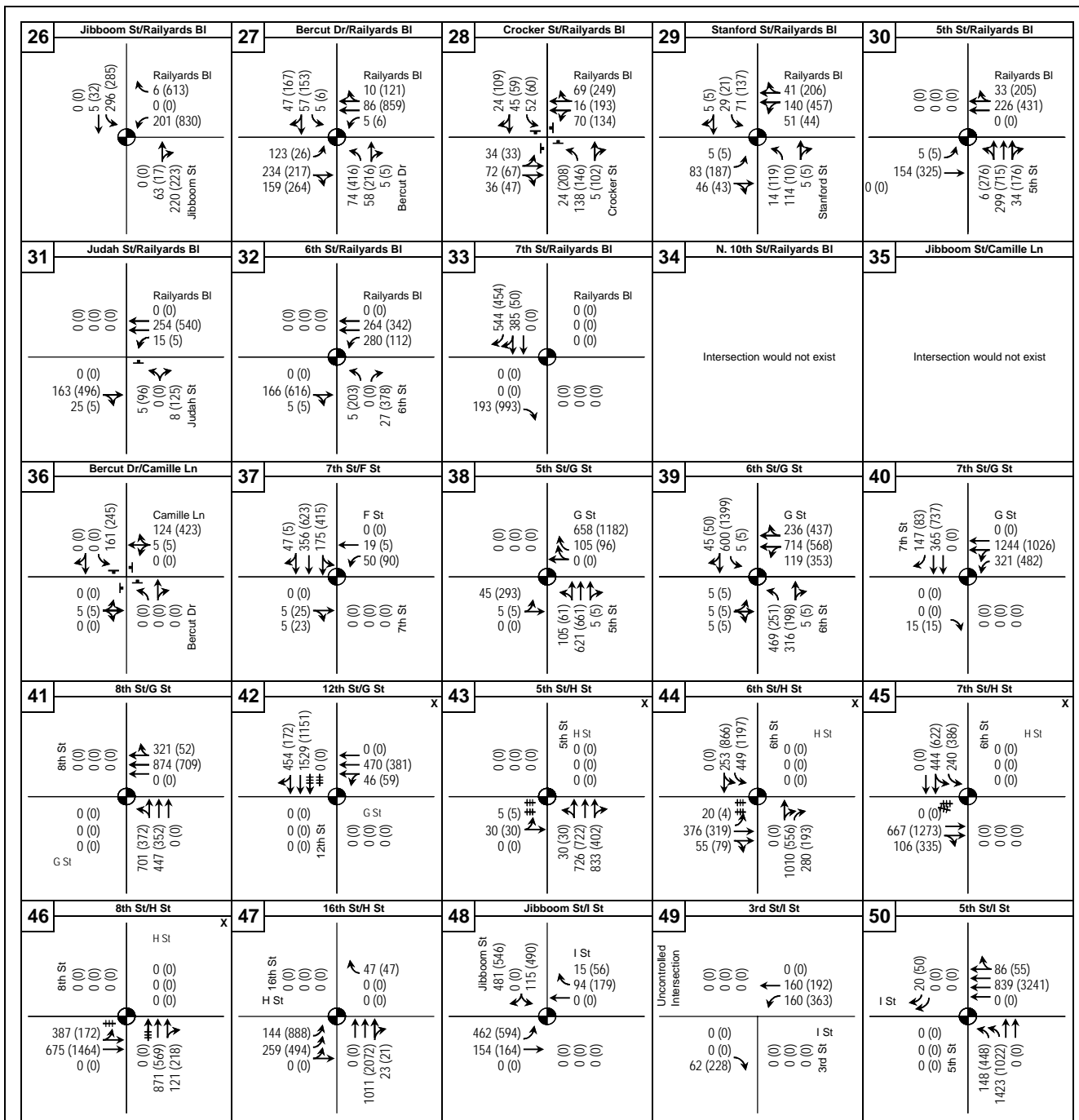
- KEY**
- 31 (27) = AM (PM) peak hour traffic volume
 - = Signalized intersection
 - ↔ = Intersection approach lane
 - ↔ = Lane provided during AM peak, only
 - ↔ = Lane provided during PM peak, only

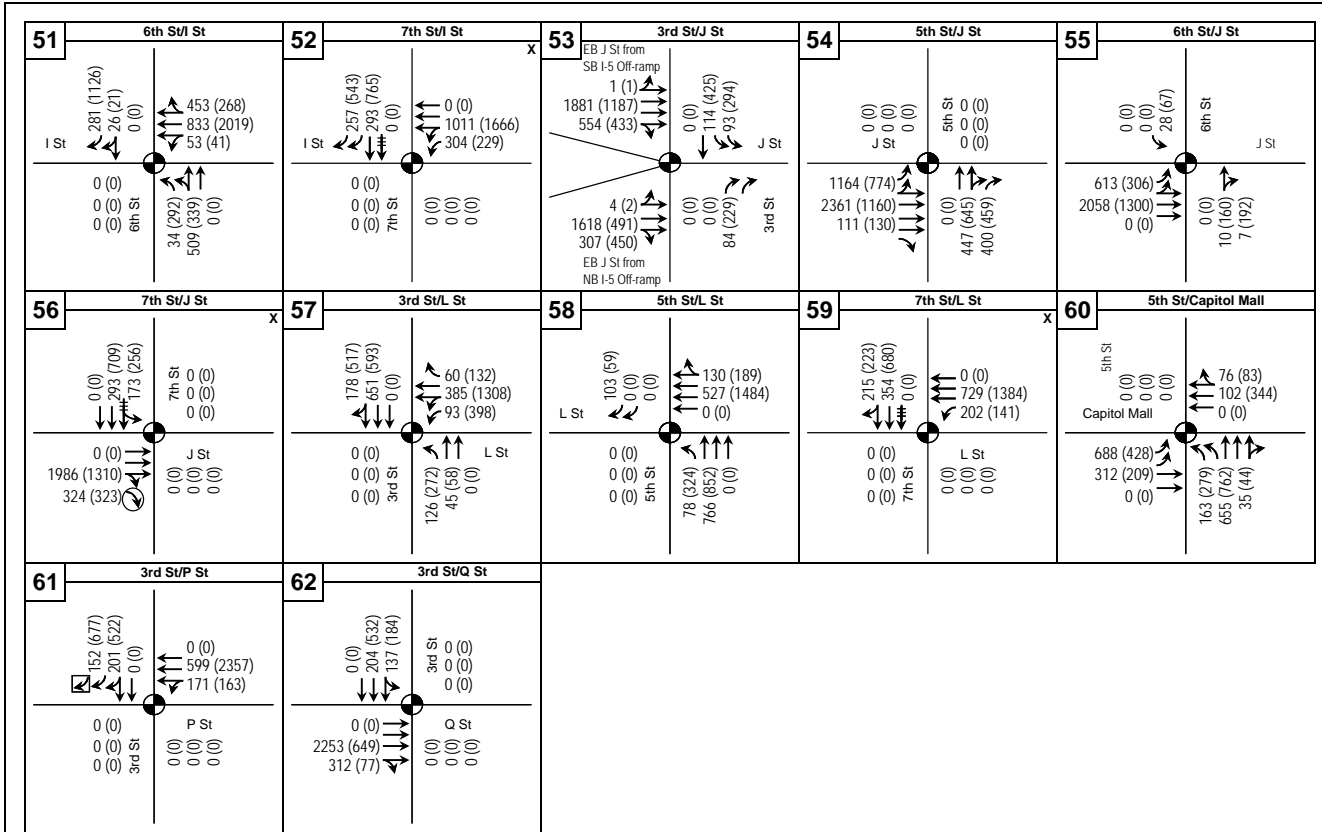




- KEY**
- 31 (27) = AM (PM) peak hour traffic volume
 - = Signalized intersection
 - ↔ = Intersection approach lane
 - ↔ = Lane provided during AM peak, only
 - ↔ = Lane provided during PM peak, only

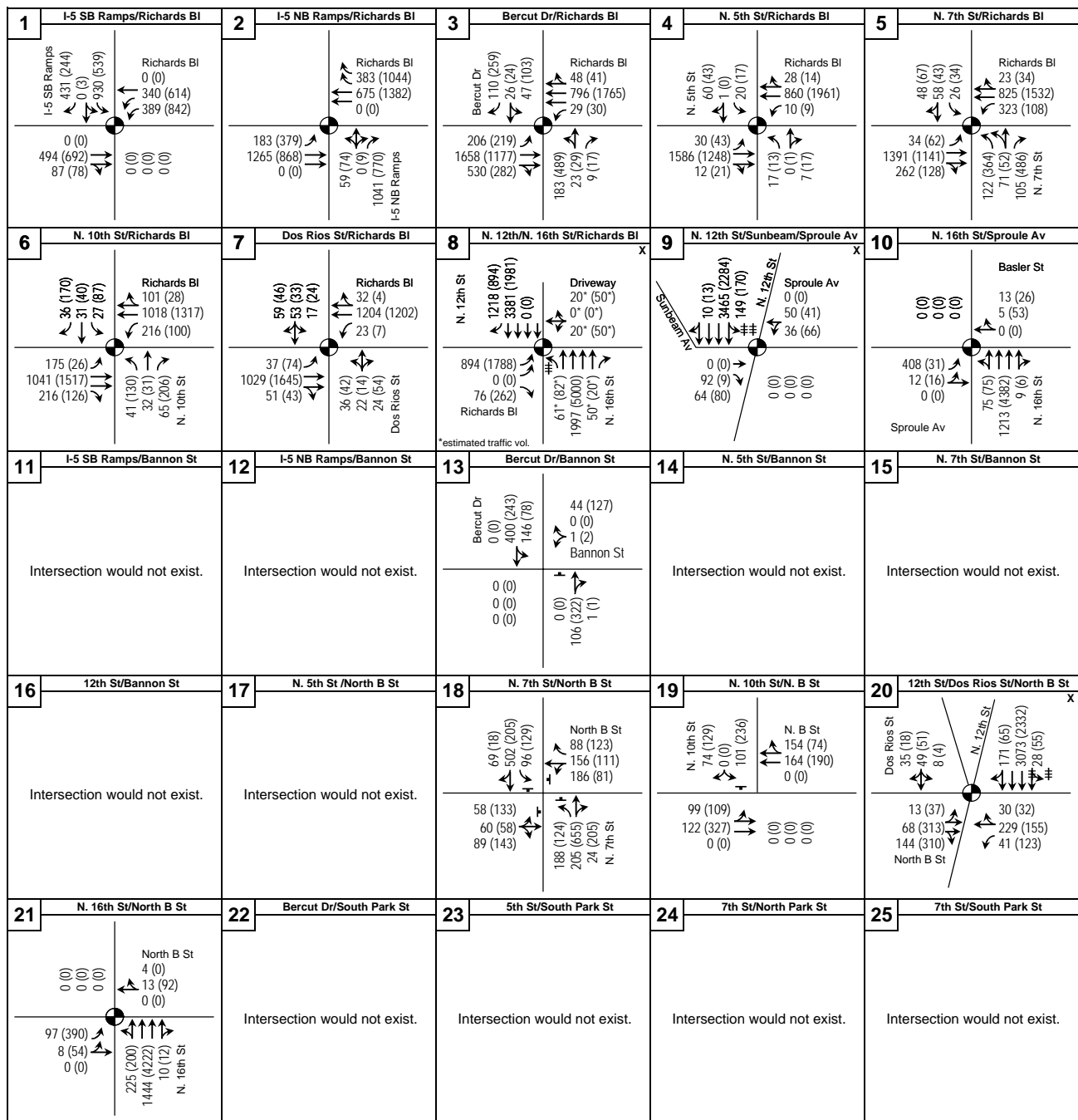






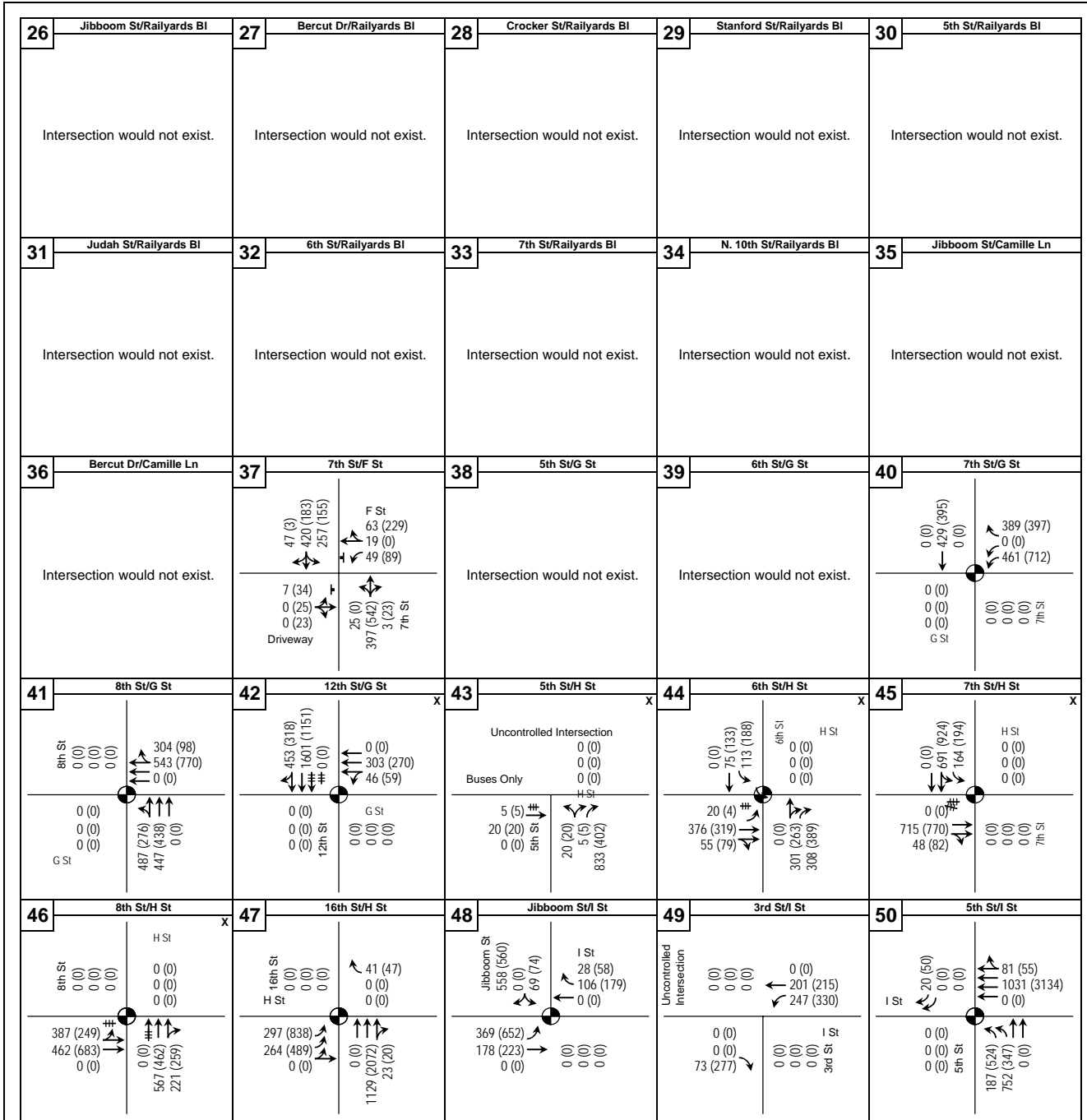
- KEY**
- 31 (27) = AM (PM) peak hour traffic volume
 - = Signalized intersection
 - ↔ = Intersection approach lane
 - ↕ = Lane provided during AM peak, only
 - ☒ = Lane provided during PM peak, only





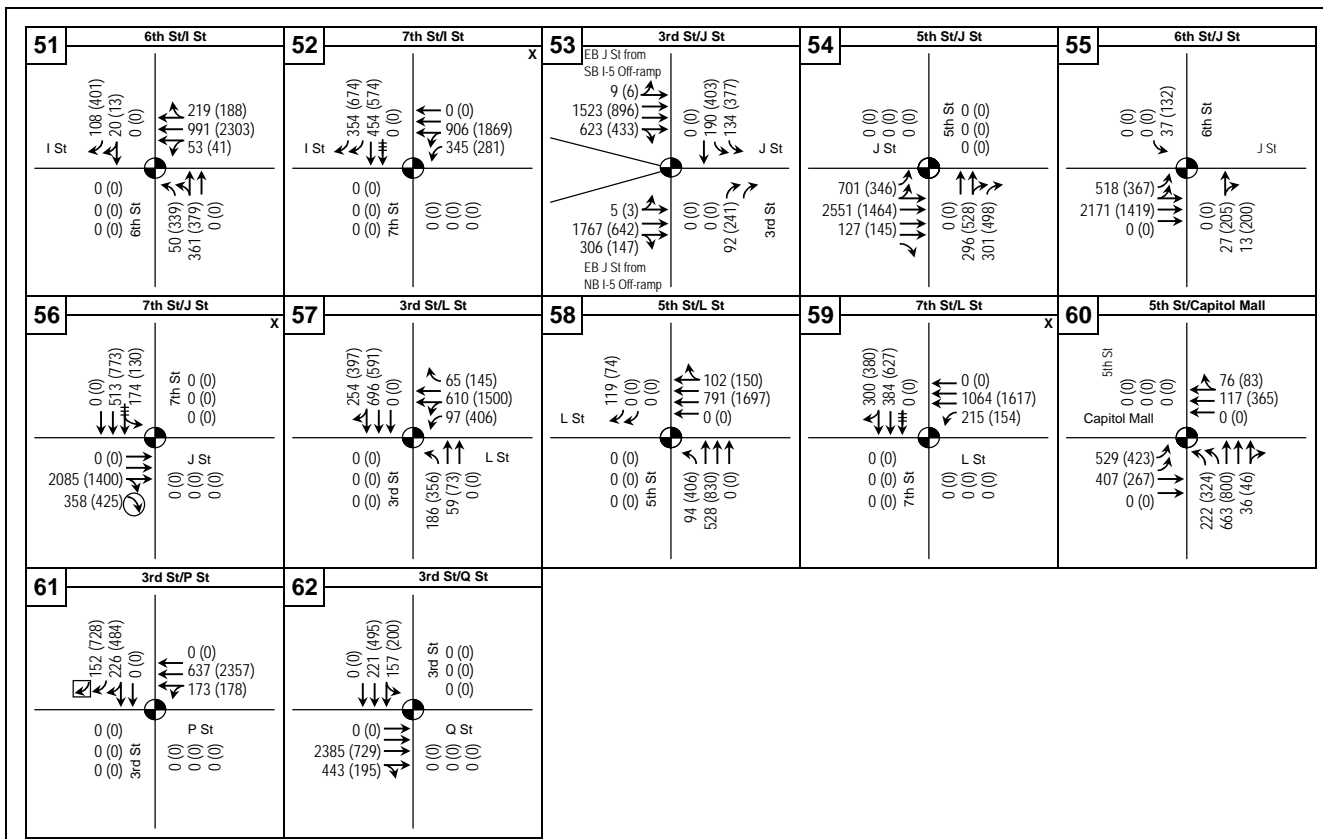
KEY
 31 (27) = AM (PM) peak hour traffic volume
 ● = Signalized intersection
 ↖ = Intersection approach lane
 ⊙ = Lane provided during AM peak, only
 ⊗ = Lane provided during PM peak, only





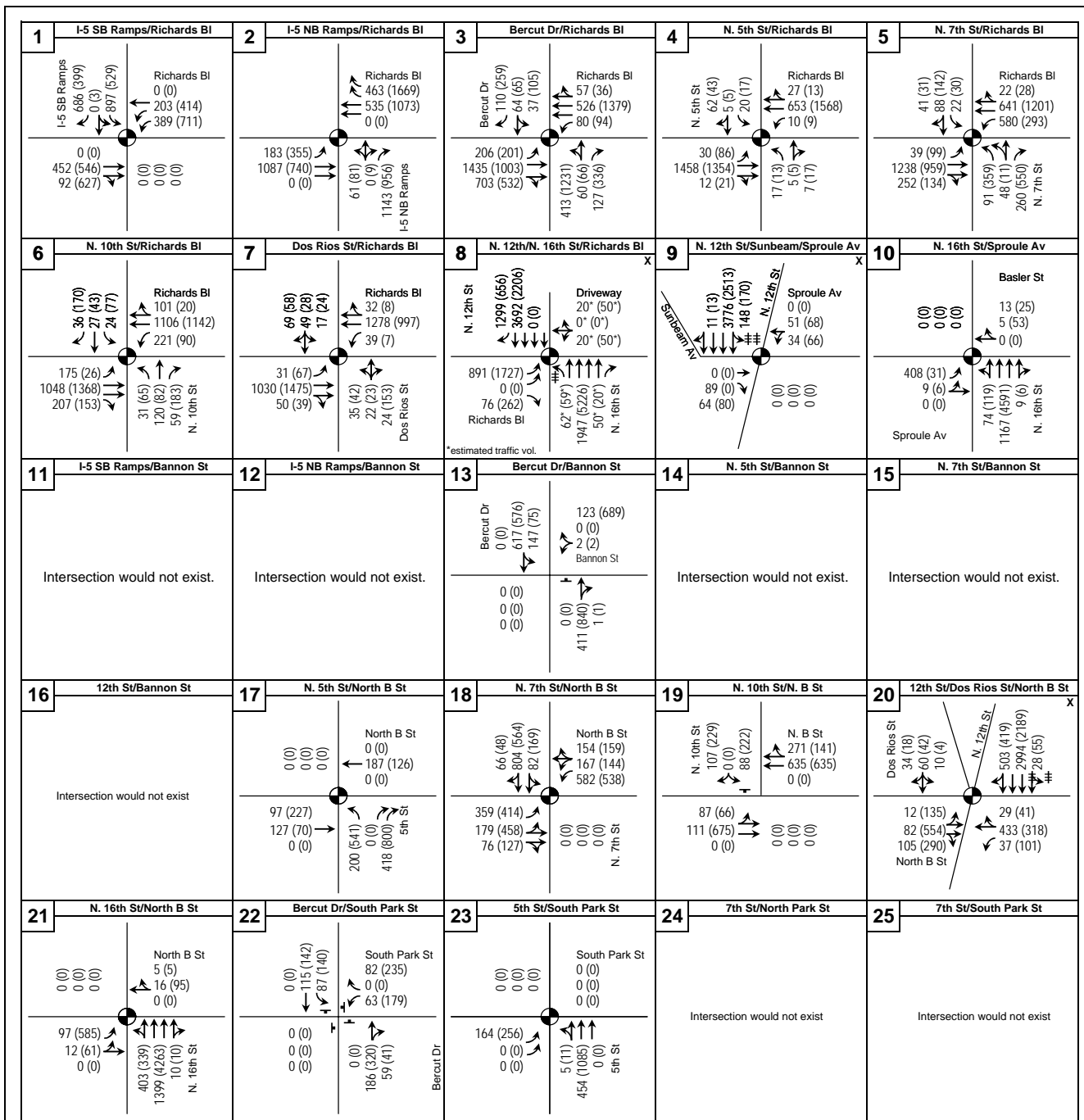
KEY
 31 (27) = AM (PM) peak hour traffic volume
 = Signalized intersection
 = Intersection approach lane
 = Lane provided during AM peak, only
 = Lane provided during PM peak, only





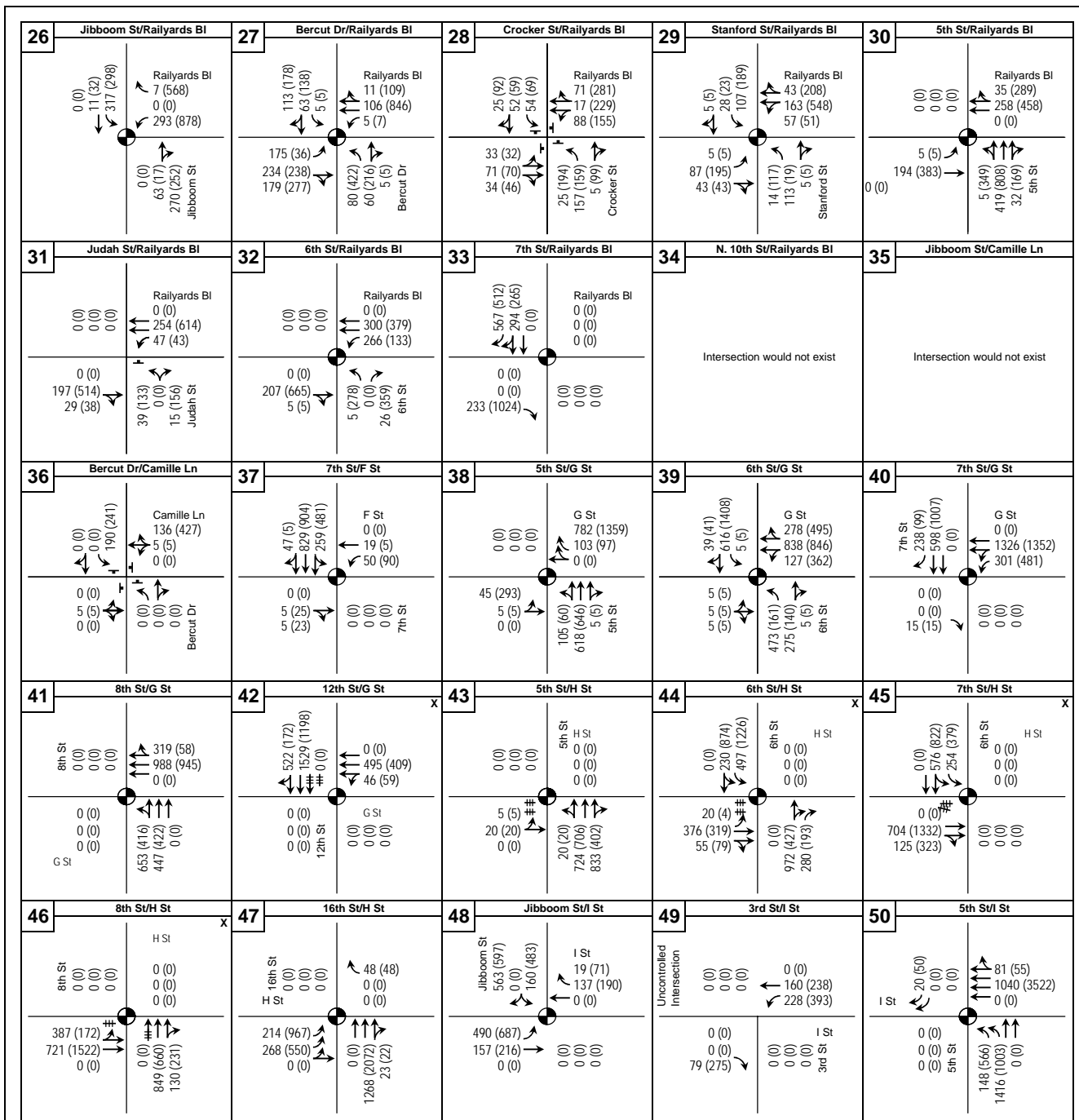
KEY
 31 (27) = AM (PM) peak hour traffic volume
 ● = Signalized intersection
 ✓ = Intersection approach lane
 ✓ = Lane provided during AM peak, only
 ☑ = Lane provided during PM peak, only





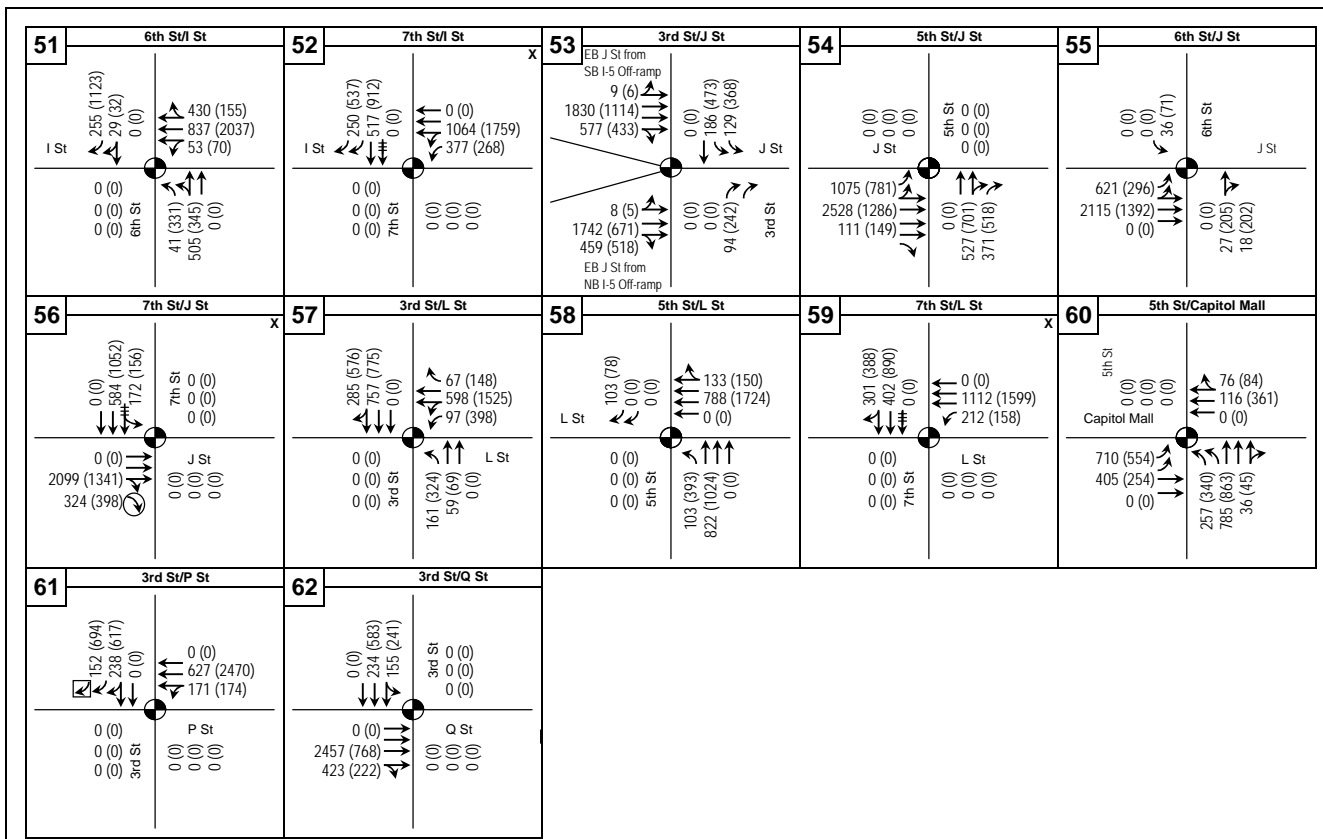
- KEY**
- 31 (27) = AM (PM) peak hour traffic volume
 - = Signalized intersection
 - ↔ = Intersection approach lane
 - ↔ = Lane provided during AM peak, only
 - ↔ = Lane provided during PM peak, only





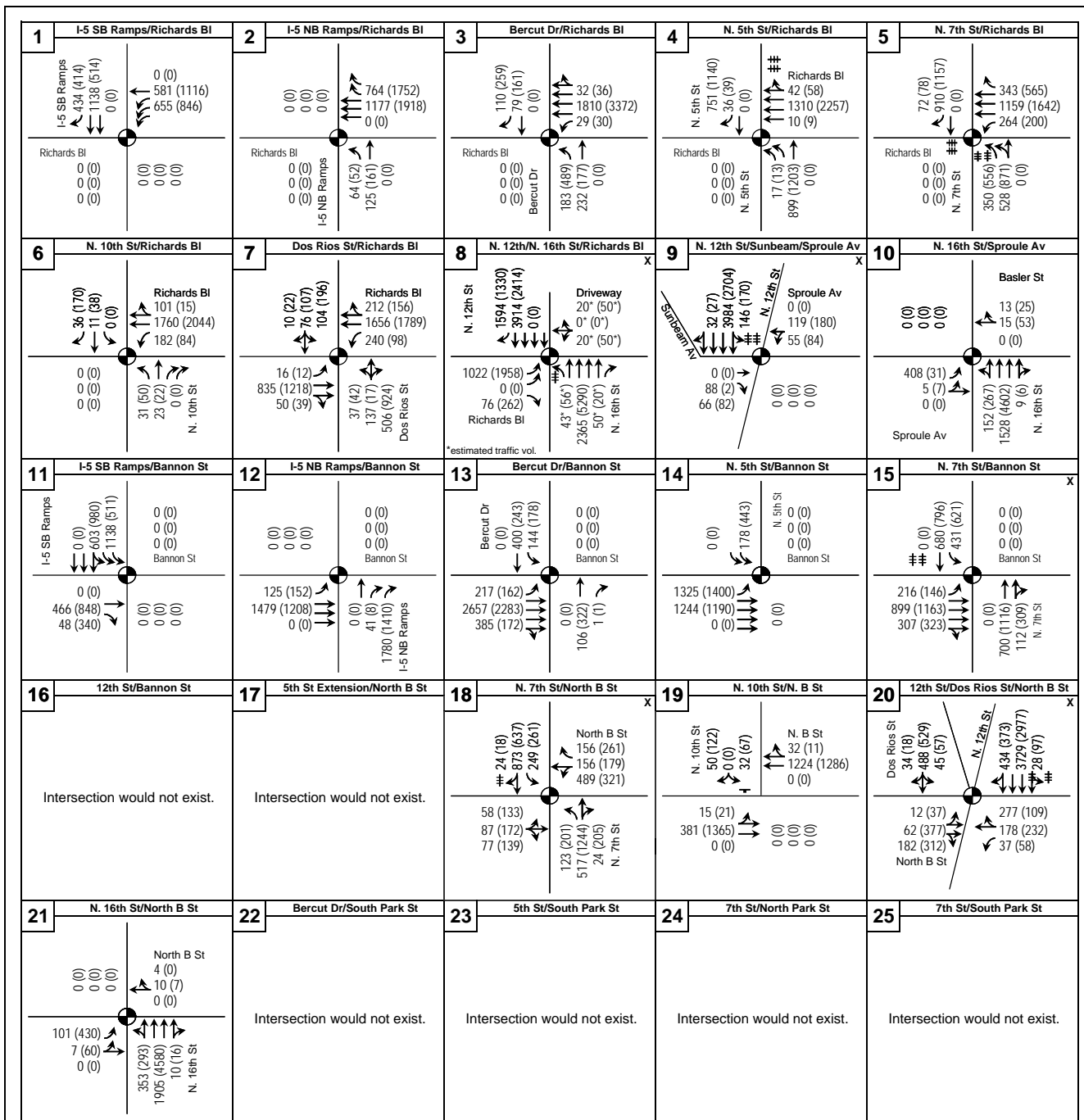
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 = Lane provided during AM peak, only
 = Lane provided during PM peak, only





KEY
 31 (27) = AM (PM) peak hour traffic volume
 ● = Signalized intersection
 ✓ = Intersection approach lane
 ✓ = Lane provided during AM peak, only
 ☑ = Lane provided during PM peak, only





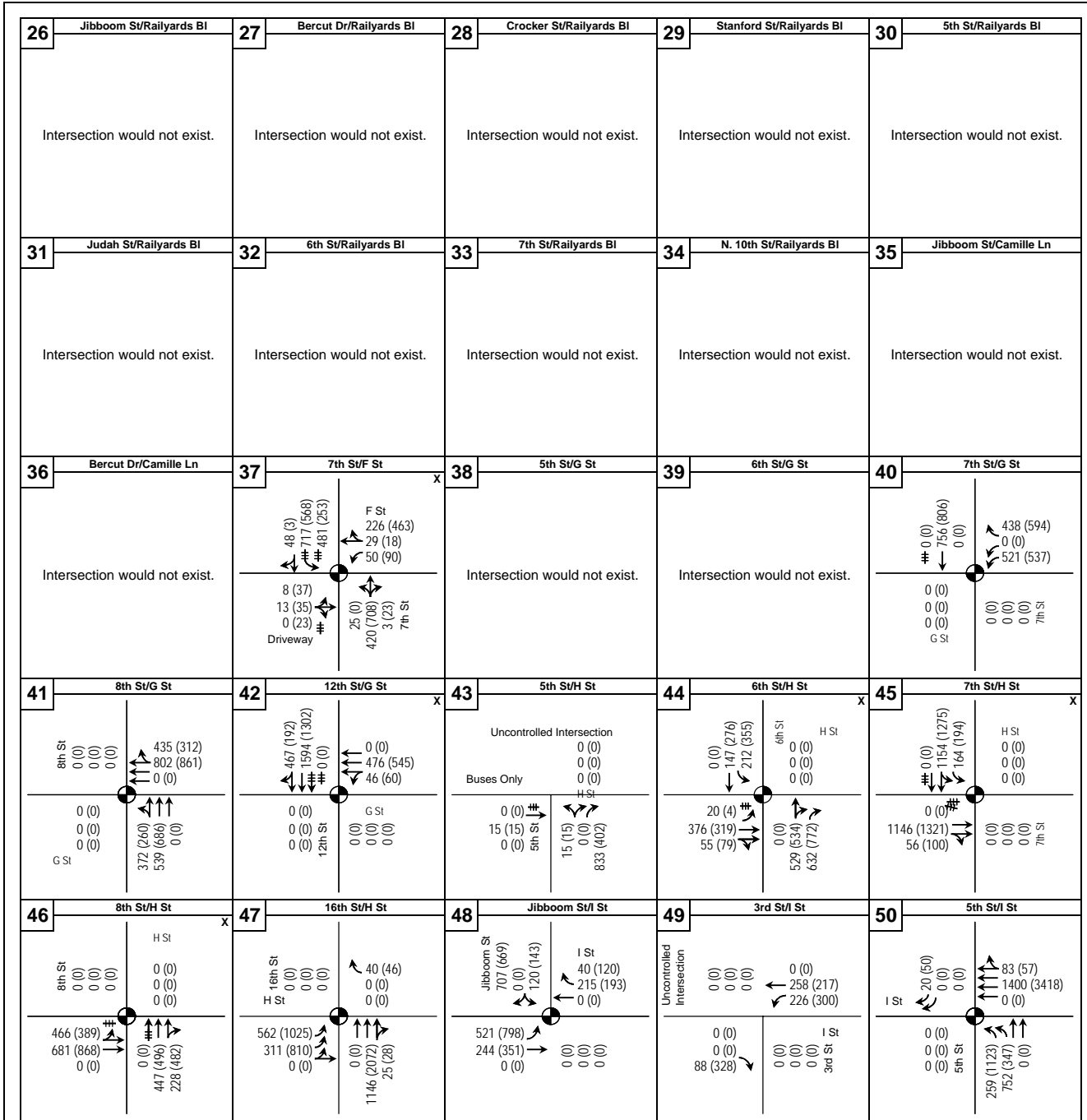
KEY
 31 (27) = AM (PM) peak hour traffic volume
 ● = Signalized intersection
 ↕ = Intersection approach lane
 ⊕ = Lane provided during AM peak, only
 ⊖ = Lane provided during PM peak, only

Dowling Associates, Inc.

Sacramento Railyards Traffic Study

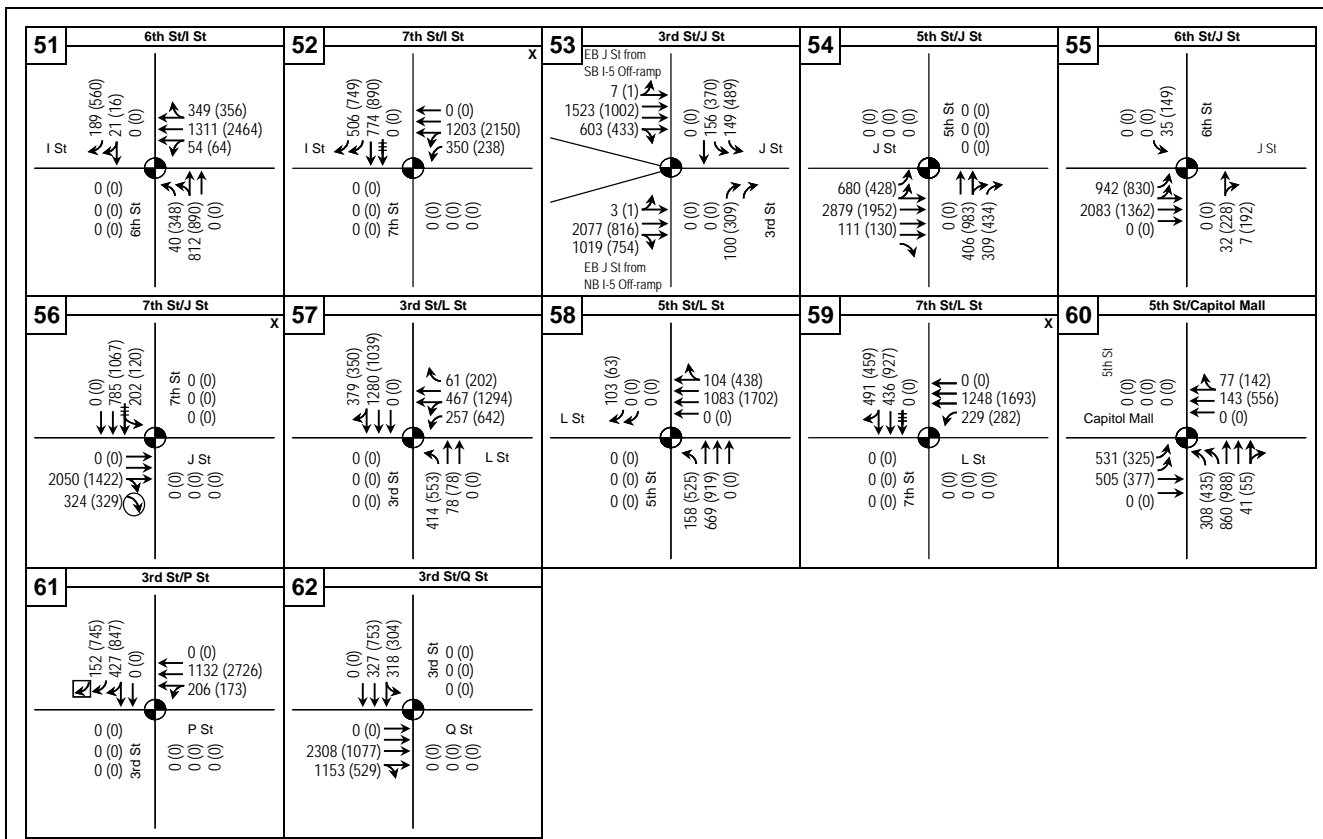


Figure A.6
 2030 NO PROJECT
 TRAFFIC VOLUMES, LANES, & CONTROLS



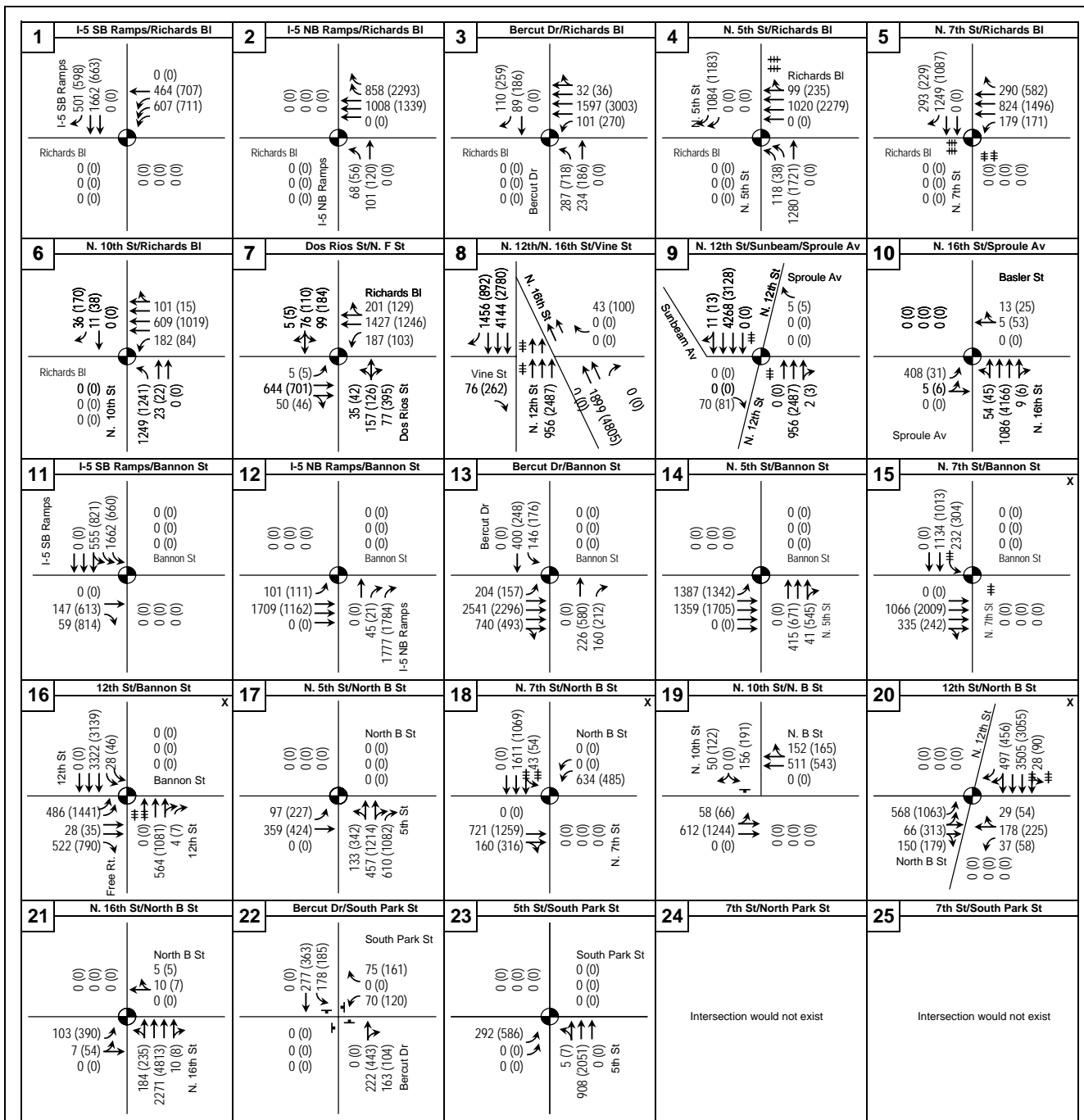
KEY
 31 (27) = AM (PM) peak hour traffic volume
 = Signalized intersection
 = Intersection approach lane
 = Lane provided during AM peak, only
 = Lane provided during PM peak, only





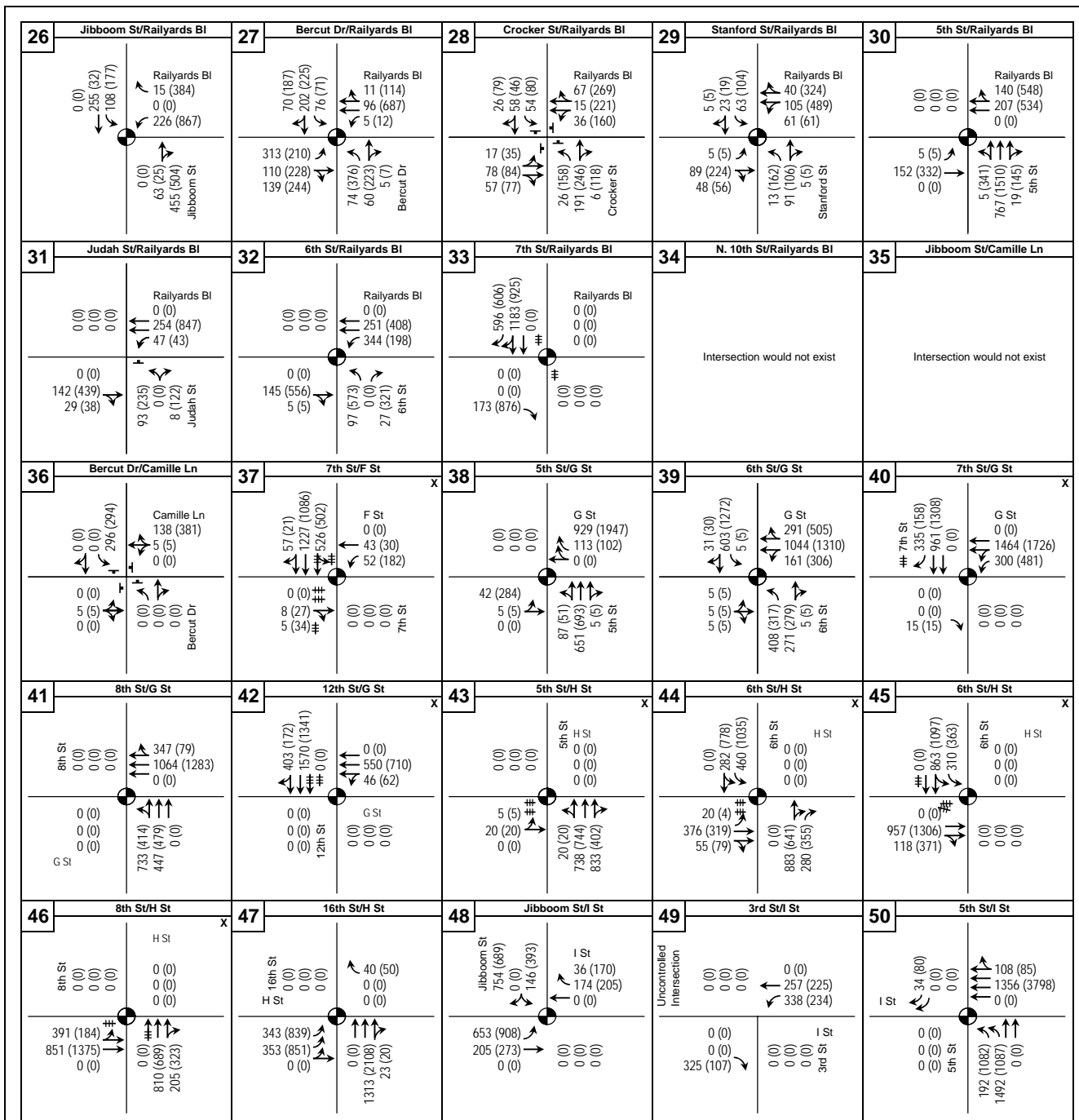
KEY
 31 (27) = AM (PM) peak hour traffic volume
 ● = Signalized intersection
 ↕ = Intersection approach lane
 ↕ = Lane provided during AM peak, only
 ↕ = Lane provided during PM peak, only

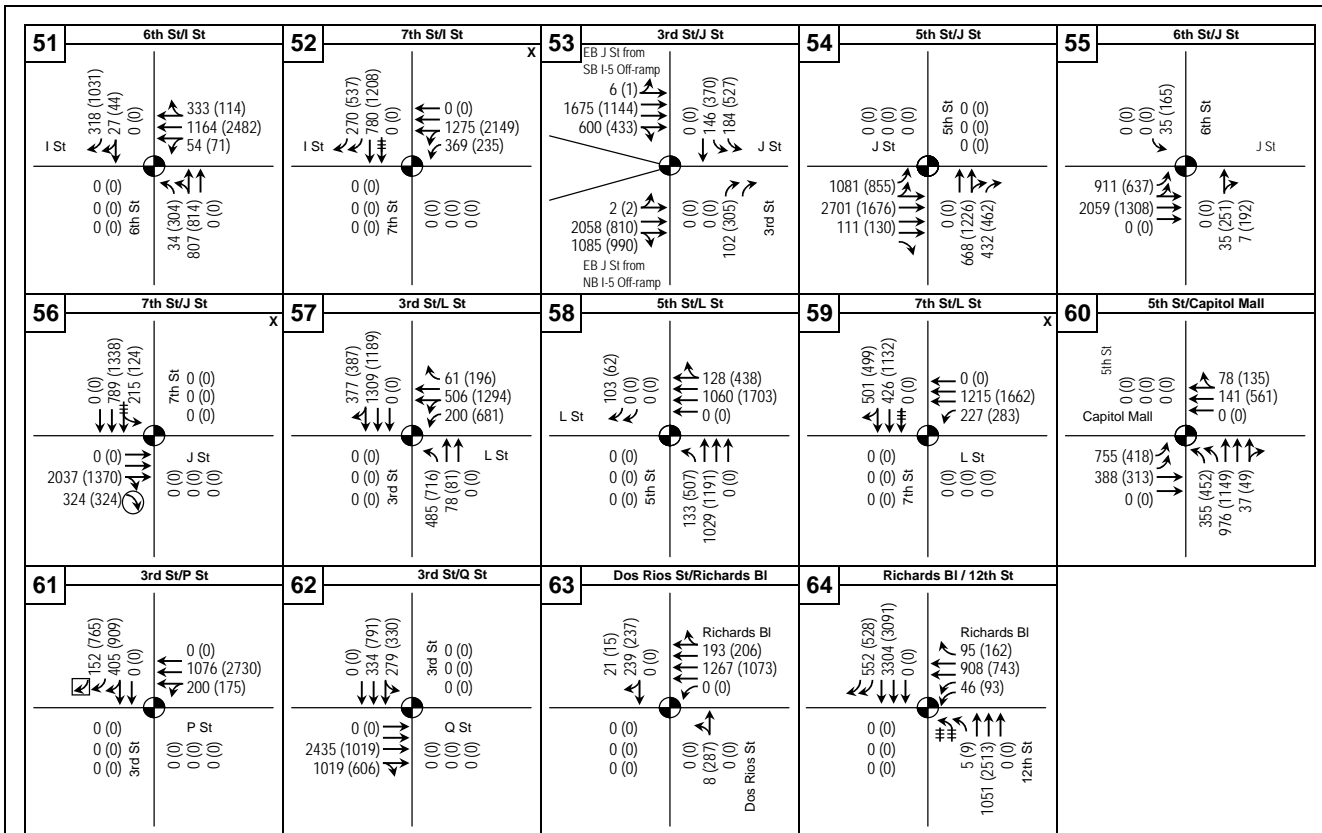




- KEY**
- 31 (27) = AM (PM) peak hour traffic volume
 - = Signalized intersection
 - ↔ = Intersection approach lane
 - ↔ (with circle) = Lane provided during AM peak, only
 - ↔ (with square) = Lane provided during PM peak, only

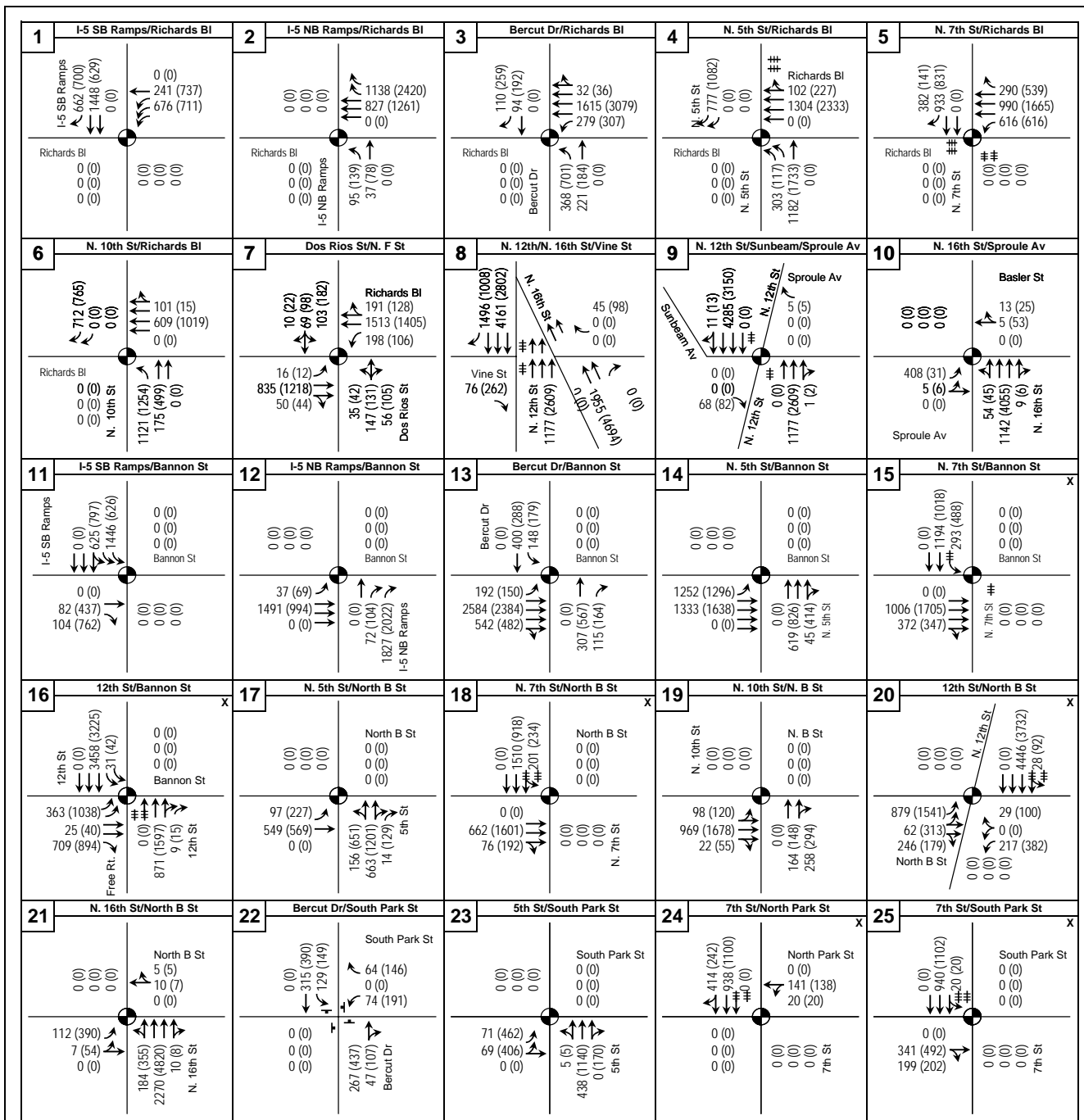






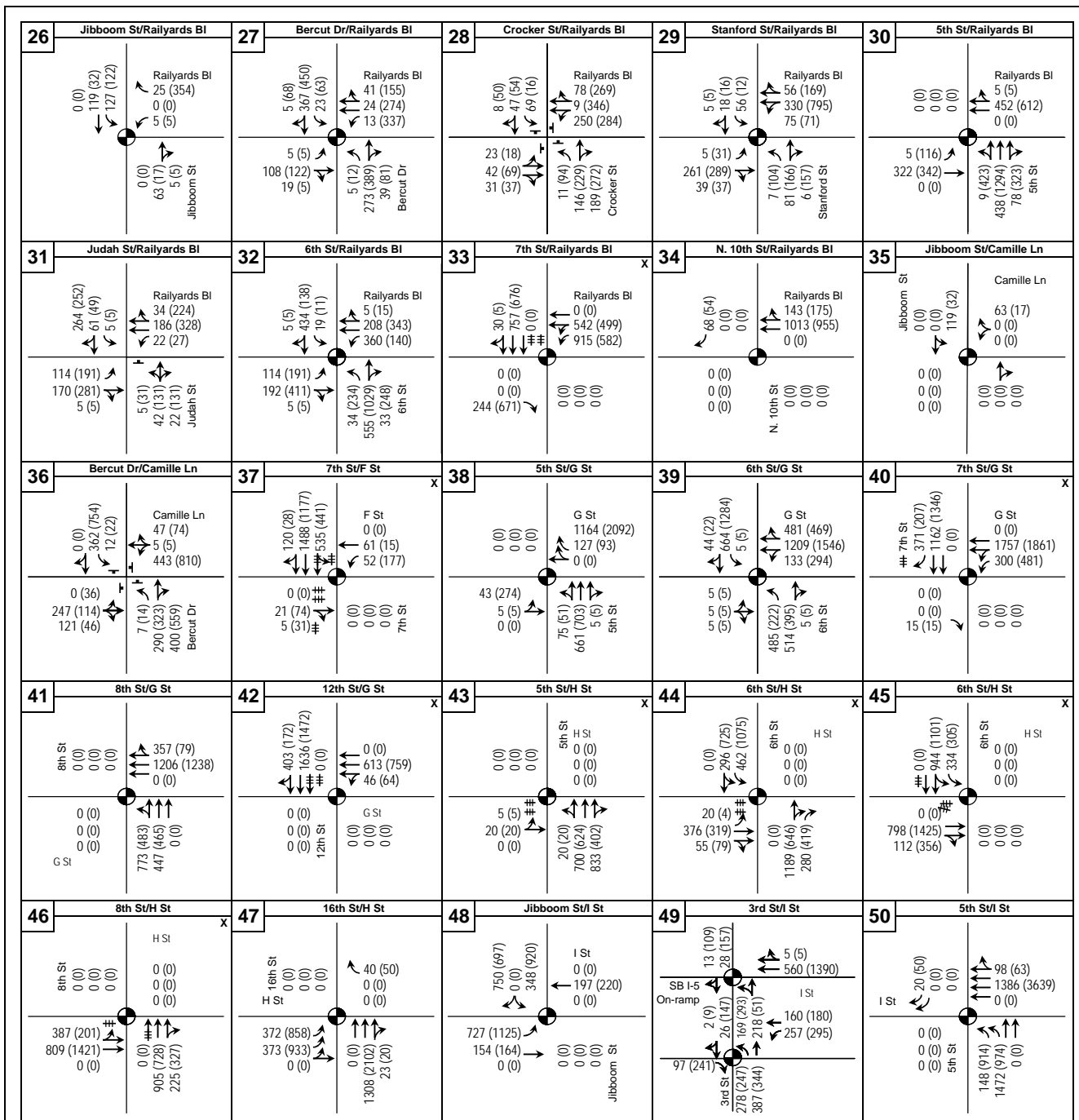
- KEY**
- 31 (27) = AM (PM) peak hour traffic volume
 - = Signalized intersection
 - ↔ = Intersection approach lane
 - ↔ = Lane provided during AM peak, only
 - ↔ = Lane provided during PM peak, only

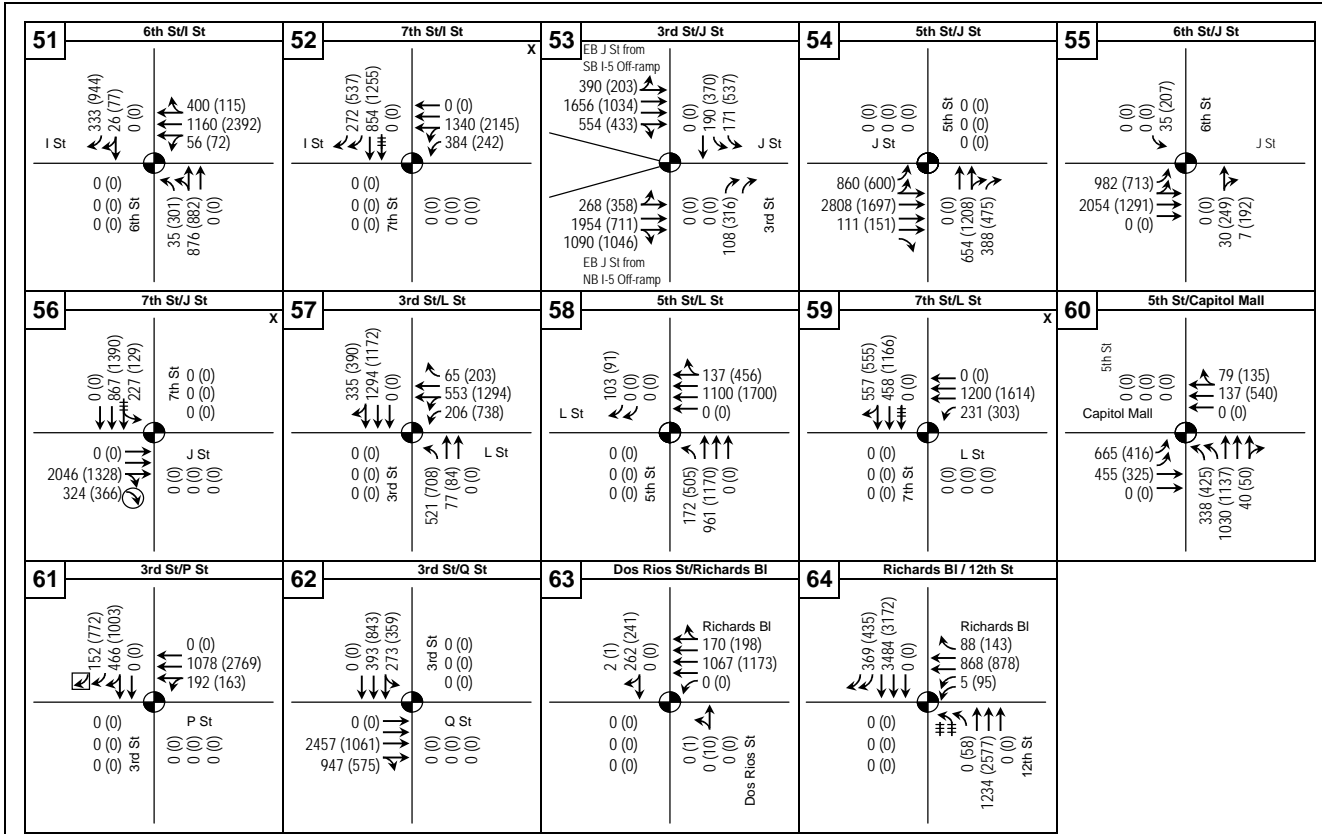




- KEY**
- 31 (27) = AM (PM) peak hour traffic volume
 - = Signalized intersection
 - ↔ = Intersection approach lane
 - ↔ (with circle) = Lane provided during AM peak, only
 - ↔ (with square) = Lane provided during PM peak, only







KEY
 31 (27) = AM (PM) peak hour traffic volume
 ● = Signalized intersection
 ↕ = Intersection approach lane
 ↕ = Lane provided during AM peak, only
 ↕ = Lane provided during PM peak, only



Exit Ramp Queues

Interstate 5 Exit Ramp Queues – Existing Conditions			
Exit Ramp	Without Project		
	Storage (feet)	Demand (feet)	
		AM	PM
J Street Northbound	1,750	1,581	1,020
Richards Boulevard Northbound	1,025	275	102
Richards Boulevard Southbound	1,175	614	314
J Street Southbound	3,600	2,048	1,220
Q Street Southbound	2,225	604	120

Source: Dowling Associates, Inc., 2006.
Note: **Bold** values show potential significant impacts.

Interstate 5 Exit Ramp Queues – Baseline Conditions									
Exit Ramp	Without Project			Initial Phase			Initial Phase with Mitigation		
	Storage (feet)	Demand (feet)		Storage (feet)	Demand (feet)		Storage (feet)	Demand (feet)	
		AM	PM		AM	PM		AM	PM
J Street Northbound	1,750	1,626	399	1,750	1,794	819	1,750	1,923	963
Richards Boulevard Northbound	1,025	667	189	1,025	800	294	1,025	698	318
Richards Boulevard Southbound	1,175	722	450	1,175	768	465	1,525	880	581
J Street Southbound	3,600	2,072	888	3,600	2,612	1,812	3,600	2,104	1,198
Q Street Southbound	2,225	724	144	2,225	724	144	2,225	724	144

Source: Dowling Associates, Inc., 2006.
Note: **Bold** values show potential significant impacts.

Interstate 5 Exit Ramp Queues – Initial Phase Near Term (2013) Conditions									
Exit Ramp	Without Project			Initial Phase			Initial Phase with Mitigation		
	Storage (feet)	Demand (feet)		Storage (feet)	Demand (feet)		Storage (feet)	Demand (feet)	
		AM	PM		AM	PM		AM	PM
J Street Northbound	1,750	1,974	645	1,750	2,149	1,158	1,750	2,213	1,201
Richards Boulevard Northbound	1,025	761	346	1,025	872	499	1,025	818	522
Richards Boulevard Southbound	1,525	940	445	1,525	950	448	1,525	1,032	701
J Street Southbound	3,600	2,200	1,256	3,600	2,584	1,704	3,600	2,243	1,258
Q Street Southbound	2,225	860	180	2,225	892	204	2,225	892	204

Source: Dowling Associates, Inc., 2006.
Note: **Bold** values show potential significant impacts.

Interstate 5 Exit Ramp Queues – Initial Phase Long Term (2030) Conditions									
Exit Ramp	Without Project			Initial Phase			Initial Phase with Mitigation		
	Storage (feet)	Demand (feet)		Storage (feet)	Demand (feet)		Storage (feet)	Demand (feet)	
		AM	PM		AM	PM		AM	PM
J Street Northbound	1,750	3,443	1,582	1,750	3,485	1,935	1,750	3,372	1,804
Richards Boulevard Northbound	1,350	1,739	1,030	1,350	1,736	1,763	1,350	1,695	1,525
Richards Boulevard Southbound	1,525	1,033	844	1,525	1,818	1,123	1,525	1,563	1,123
J Street Southbound	3,600	2,160	2,544	3,600	2,384	1,672	3,600	2,336	1,508
Q Street Southbound	2,225	1,584	384	2,225	1,572	392	2,225	1,572	392

Source: Dowling Associates, Inc., 2006.
Note: **Bold** values show potential significant impacts.

Interstate 5 Exit Ramp Queues – Full Project Long Term (2030) Conditions									
Exit Ramp	Without Project			Full Project			Full Project with Mitigation		
	Storage (feet)	Demand (feet)		Storage (feet)	Demand (feet)		Storage (feet)	Demand (feet)	
		AM	PM		AM	PM		AM	PM
J Street Northbound	1,750	3,443	1,582	1,750	3,733	2,426	1,750	3,611	2,298
Richards Boulevard Northbound	1,350	1,739	1,030	1,350	1,825	2,303	1,350	1,710	2,013
Richards Boulevard Southbound	1,525	1,033	844	1,525	1,472	1,279	1,525	1,164	1,312
J Street Southbound	3,600	2,160	2,544	3,600	2,868	1,824	3,600	2,824	1,664
Q Street Southbound	2,225	1,584	384	2,225	1,552	400	2,225	1,552	400

Source: Dowling Associates, Inc., 2006.
Note: **Bold** values show potential significant impacts.

Freeway Mainline Segments

Capacity Analysis of Freeway Mainline Segments
2000 Highway Capacity Manual
 Capacity based on 2010 vphpl for freeway lanes, 1500 vphpl for auxiliary lanes

Mainline Segment	Dir	Frwy Lanes	Aux Lanes	Existing Conditions				Baseline Conditions				Near Term - Year 2013				Long Term - Year 2030			
				Without Project		Without Project		With Initial Phase		Without Project		With Initial Phase		Without Project		With Initial Phase		With Full Project	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Freeway Traffic Volume																			
I-5, South of L Street on-ramp	NB	3	0	5,979	6,229	6,224	6,476	6,166	6,322	6,455	7,130	6,430	6,993	7,220	7,407	7,136	7,434	7,141	7,550
I-5, South of I Street on-ramp	NB	4	0	6,248	7,141	6,549	7,429	6,510	7,370	6,980	8,256	6,952	8,205	7,850	8,505	7,820	8,632	7,845	8,746
I-5, South of Richards Blvd off-ramp	NB	4	1	6,478	8,255	6,781	8,563	6,724	8,614	7,316	9,648	7,239	9,688	8,448	10,742	8,309	10,909	8,364	11,260
I-5, North of Richards Blvd off-ramp	NB	4	1	5,747	7,876	5,743	7,934	5,569	7,704	6,216	8,795	6,035	8,642	6,627	9,324	6,487	9,104	6,465	9,134
I-5, North of Richards Blvd on-ramp	NB	4	1	6,198	9,216	6,209	9,318	6,184	9,730	6,782	10,227	6,681	10,675	7,516	11,237	7,446	11,517	7,640	11,632
SR 160 at American River Bridge ¹	NB	3/4 ¹	0	1,680	4,556	2,351	5,941	2,359	6,006	2,915	6,850	2,896	7,694	3,465	7,336	2,870	9,526	3,093	7,279
Volume to Capacity (V/C)																			
I-5, South of L Street on-ramp	NB	3	0	0.99	1.03	1.03	1.07	1.02	1.05	1.07	1.18	1.07	1.16	1.20	1.23	1.18	1.23	1.18	1.25
I-5, South of I Street on-ramp	NB	4	0	0.78	0.89	0.81	0.92	0.81	0.92	0.87	1.03	0.86	1.02	0.98	1.06	0.97	1.07	0.98	1.09
I-5, South of Richards Blvd off-ramp	NB	4	1	0.68	0.87	0.71	0.90	0.70	0.90	0.77	1.01	0.76	1.02	0.89	1.13	0.87	1.14	0.88	1.18
I-5, North of Richards Blvd off-ramp	NB	4	1	0.60	0.83	0.60	0.83	0.58	0.81	0.65	0.92	0.63	0.91	0.69	0.98	0.68	0.95	0.68	0.96
I-5, North of Richards Blvd on-ramp	NB	4	1	0.65	0.97	0.65	0.98	0.65	1.02	0.71	1.07	0.70	1.12	0.79	1.18	0.78	1.21	0.80	1.22
SR 160 at American River Bridge ¹	NB	3/4 ¹	0	0.27	0.73	0.38	0.95	0.38	0.96	0.47	1.10	0.46	1.23	0.42	0.88	0.34	1.14	0.37	0.87
Level of Service:																			
I-5, South of L Street on-ramp	NB			<i>E</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>	<i>F</i>
I-5, South of I Street on-ramp	NB			D	D	D	<i>E</i>	D	<i>E</i>	D	<i>F</i>	D	<i>F</i>	<i>E</i>	<i>F</i>	<i>E</i>	<i>F</i>	<i>E</i>	<i>F</i>
I-5, South of Richards Blvd off-ramp	NB			C	D	C	D	C	<i>E</i>	D	<i>F</i>	D	<i>F</i>	D	<i>F</i>	D	<i>F</i>	D	<i>F</i>
I-5, North of Richards Blvd off-ramp	NB			C	D	C	D	C	D	C	<i>E</i>	C	<i>E</i>	C	<i>E</i>	C	<i>E</i>	C	<i>E</i>
I-5, North of Richards Blvd on-ramp	NB			C	<i>E</i>	C	<i>E</i>	C	<i>F</i>	C	<i>F</i>	C	<i>F</i>	D	<i>F</i>	D	<i>F</i>	D	<i>F</i>
SR 160 at American River Bridge ¹	NB			A	D	B	<i>E</i>	B	<i>E</i>	B	<i>F</i>	B	<i>F</i>	B	<i>E</i>	B	<i>F</i>	B	D

Freeway Capacity Source: 2000 Highway Capacity Manual

Ideal Freeway Capacity =	2400 (p. 23-4)	V/C	LOS
Free-Flow Speed =	70 mph	0.32	A
Peak Hour Factor =	0.92	0.53	B
I-5 Percent Trucks =	9.6%	0.74	C
I-5 Actual Capacity / Ideal Capacity =	84%	0.90	D
I-5 Adjusted Freeway Capacity =	2010	1.00	E

Ideal Freeway Capacity =	2400 (p. 23-4)	V/C	LOS
Free-Flow Speed =	60 mph	0.29	A
Peak Hour Factor =	0.92	0.47	B
SR 160 Percent Trucks =	6.0%	0.68	C
SR 160 Actual Capacity / Ideal Capacity =	87%	0.88	D
SR 160 Adjusted Freeway Capacity =	2080	1.00	E

Note:

¹ SR 160 has four travel lanes on each direction under Long Term scenarios.

**Capacity Analysis of Freeway Mainline Segments
2000 Highway Capacity Manual**

Capacity based on vphpl for freeway lanes, 0 vphpl for auxiliary lanes

Mainline Segment	Dir	Frwy Lanes	Aux Lanes	Existing Conditions		Baseline Conditions				Near Term - Year 2013				Long Term - Year 2030					
				Without Project		Without Project		With Initial Phase		Without Project		With Initial Phase		Without Project		With Initial Phase		With Full Project	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Freeway Traffic Volume																			
I-5, North of Richards Blvd off-ramp	SB	4	1	9,977	6,952	10,252	7,109	10,480	6,933	11,450	7,902	11,736	7,846	12,721	8,798	13,223	9,036	13,211	9,163
I-5, North of Richards Blvd on-ramp	SB	4	0	8,966	6,380	9,124	6,409	9,073	6,102	10,089	7,119	10,153	6,915	11,149	7,870	11,060	7,775	11,101	7,834
I-5, North of J Street off-ramp	SB	4	1	9,322	7,032	9,539	7,181	9,561	7,485	10,565	8,042	10,634	8,256	11,800	9,190	11,674	9,410	11,830	9,393
I-5, North of I Street on-ramp	SB	4	0	7,413	5,741	7,461	5,874	7,125	5,864	8,401	6,707	8,218	6,703	9,667	7,754	9,393	7,832	9,230	7,723
SR 160 at American River Bridge ¹	SB	3/4 ¹	0	3,475	2,136	3,870	2,150	4,044	2,343	4,663	2,882	4,791	3,701	5,599	3,715	5,385	3,661	5,411	3,857
Volume to Capacity (V/C)																			
I-5, North of Richards Blvd off-ramp	SB	4	1	1.05	0.73	1.07	0.75	1.10	0.73	1.20	0.83	1.23	0.82	1.33	0.92	1.39	0.95	1.38	0.96
I-5, North of Richards Blvd on-ramp	SB	4	0	1.12	0.79	1.13	0.80	1.13	0.76	1.25	0.89	1.26	0.86	1.39	0.98	1.38	0.97	1.38	0.97
I-5, North of J Street off-ramp	SB	4	1	0.98	0.74	1.00	0.75	1.00	0.78	1.11	0.84	1.11	0.87	1.24	0.96	1.22	0.99	1.24	0.98
I-5, North of I Street on-ramp	SB	4	0	0.92	0.71	0.93	0.73	0.89	0.73	1.04	0.83	1.02	0.83	1.20	0.96	1.17	0.97	1.15	0.96
SR 160 at American River Bridge ¹	SB	3/4 ¹	0	0.56	0.34	0.62	0.34	0.65	0.38	0.75	0.46	0.77	0.59	0.67	0.45	0.65	0.44	0.65	0.46
Level of Service:																			
I-5, North of Richards Blvd off-ramp	SB			F	C	F	D	F	C	F	D	F	D	F	E	F	E	F	E
I-5, North of Richards Blvd on-ramp	SB			F	D	F	D	F	D	F	D	F	D	F	E	F	E	F	E
I-5, North of J Street off-ramp	SB			E	C	E	D	F	D	F	D	F	D	F	E	F	E	F	E
I-5, North of I Street on-ramp	SB			E	C	E	C	D	C	F	D	F	D	F	E	F	E	F	E
SR 160 at American River Bridge ¹	SB			C	B	C	B	C	B	D	B	D	C	C	B	C	B	C	B

Freeway Capacity Source: 2000 Highway Capacity Manual
Interstate 5

Note:

Ideal Freeway Capacity = 2400 (p. 23-4)	V/C	LOS	Ideal Freeway Capacity = 2400 (p. 23-4)	V/C	LOS	¹ SR 160 has four travel lanes on each direction under Long Term scenarios.
Free-Flow Speed = 70 mph	0.32	A	Free-Flow Speed = 60 mph	0.29	A	
Peak Hour Factor = 0.92	0.53	B	Peak Hour Factor = 0.92	0.47	B	
Percent Trucks = 9.6%	0.74	C	SR 160 Percent Trucks = 6.0%	0.68	C	
I-5 Actual Capacity / Ideal Capacity = 84%	0.90	D	SR 160 Actual Capacity / Ideal Capacity = 87%	0.88	D	
Adjusted Freeway Capacity = 2010	1.00	E	SR 160 Adjusted Freeway Capacity = 2080	1.00	E	

NB I-5 - Weaving from P St to J St

Highway Capacity Manual
2000 Edition
Capacity Analysis of Freeway Ramps

Weaving Analysis Type B

Type B
Existing Upstrm Frwy Lanes / Aux. Lanes 4
Existing Dnstrm Frwy Lanes / Aux. Lanes 4
Sacramento Factor. [Note: Capacity is fixed hence adjust volume] 1

eg. 2200/2400

	Existing		Baseline				Near Term - Year 2013				Long Term - Year 2030					
	Without Project		Without Project		With Initial Phase		Without Project		With Initial Phase		Without Project		With Full Project			
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM		
PHF (Peak Hour Factor) =	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
f _{HV} (Adjustment factor for heavy vehicles) =	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
f _p (Adjustment factor for driver population) =	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
P _T (Proportion of trucks/buses in the traffic stream) =	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
P _R (Proportion of RVs in the traffic stream) =	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
E _T (Passenger-car equivalents for trucks/buses in the traffic stream) =	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
E _R (Passenger-car equivalents for RVs in the traffic stream) =	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
L - Length of weaving segment (ft)	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
N, Total number of lanes in the weaving segment	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
N _u , Number of lanes to be used by weaving vehicles if unconstrained operation is to be achieved. note: Type-B, Ex 24-7	2.198733	0.570615	2.22225	0.599775	2.25671	0.590133	2.345708	0.628349	2.430649	0.854732	3.049824	1.333913	3.06724	1.447107	3.178993	1.542136
N _{u(max)} , Maximum number of lanes that can be used by weaving vehicles for a given configuration. note: A:1.4, B:3.5, C:3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
N _{nw} , Number of lanes used by nonweaving vehicles. note: Nw < Nw(max) implies unconstrained, and Nw >= Nw(max) implies constrained	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
v, Total flow rate in the weaving segment (pc/h)	7767	6690	8076	6983	8097	6841	8533	7922	8639	8187	10319	8978	10281	9236	10453	9665
v _{o1} , Larger of the two outer, or nonweaving, flow rates in the weaving segment (pc/h)	5722	5107	5929	5258	5906	5178	6131	5847	6112	5690	6566	5551	6518	5565	6493	5708
v _{o2} , Smaller of the two outer, or nonweaving, flow rates in the weaving segment (pc/h)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v _{w1} , Larger of two weaving flow rates in the weaving segment (pc/h)	1788	461	1852	507	1931	519	2078	792	2209	1194	3099	1571	3145	1802	3312	2115
v _{w2} , Smaller of two weaving flow rates in the weaving segment (pc/h)	257	1122	295	1218	260	1144	324	1283	318	1303	654	1856	618	1869	648	1842
v _w , Total weaving flow rate in the weaving segment (pc/h) (v _w = v _{w1} + v _{w2})	2045	1583	2147	1725	2191	1663	2402	2075	2527	2497	3753	3427	3763	3671	3960	3957
v _{nw} , Total nonweaving flow rate in the weaving segment (pc/h) (v _{nw} = v _{o1} + v _{o2})	5722	5107	5928.5	5257.5	5905.5	5177.5	6131	5846.5	6112	5689.5	6566	5550.5	6518	5564.5	6492.5	5708
VR, Volume ratio; the ratio of weaving flow rate to total flow rate in the weaving segment (VR = v _w /v)	0.263293	0.236622	0.265866	0.247046	0.270611	0.243111	0.281495	0.261945	0.292511	0.305014	0.363698	0.381732	0.366015	0.397488	0.378857	0.409415
R, Weaving ratio; the ratio of the smaller weaving flow rate to total weaving flow rate (R = vw2/vw)	0.125672	0.708781	0.137401	0.706807	0.118667	0.687913	0.134888	0.618313	0.125841	0.521826	0.174261	0.541582	0.164231	0.509126	0.163636	0.465504
S _w , Speed of weaving vehicles in the weaving segment (mi/h)	48.57603	42.11678	48.15947	41.45145	48.02701	41.7445	47.2905	39.88517	46.92337	38.57239	43.62931	36.05183	43.6135	35.47312	43.17169	34.82816
S _{nw} , Speed of nonweaving vehicles in the weaving segment (mi/h)	56.26712	63.84137	55.73329	63.31317	55.46707	63.5418	54.33161	62.06421	53.6082	60.33738	47.3613	56.37621	47.27472	55.36476	46.2997	54.30574
S, Speed of all vehicles in the weaving segment (mi/h) [Eq 24-5, HCM2000]	54.01535	56.89689	53.49652	56.0148	53.23537	56.38423	52.14606	54.1733	51.46361	51.47764	45.93233	46.39241	45.86546	45.27361	45.06272	44.1882
D, Density of all vehicles in the weaving segment (pc/mi/h) [Eq 24-6, HCM2000]	23.96541	19.59685	25.15896	20.77576	25.34812	20.2199	27.27275	24.37086	27.9777	26.50504	37.44276	32.25204	37.35927	33.99883	38.65908	36.45392
W _w , Weaving intensity factor for prediction of weaving speed	0.638074	1.028265	0.658651	1.079281	0.665303	1.056498	0.703287	1.210152	0.722876	1.333238	0.921108	1.6126	0.92217	1.68645	0.952314	1.773832
W _{nw} , Weaving intensity factor for prediction of nonweaving speed	0.33278	0.126095	0.350247	0.138406	0.35913	0.133044	0.398366	0.168616	0.424568	0.213127	0.699561	0.329266	0.70412	0.362575	0.757206	0.399287
S _{min} , Minimum speed expected in a weaving segment (mi/h)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
S _{max} , Maximum speed expected in a weaving segment (mi/h)	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
a (weaving) [Exhibit 24-6, AM:Unconstrained, PM:Constrained]	0.08	0.15	0.08	0.15	0.08	0.15	0.08	0.15	0.08	0.15	0.08	0.15	0.08	0.15	0.08	0.15
b (weaving)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
c (weaving)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
d (weaving)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
a (non-weaving)	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001
b (non-weaving)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
c (non-weaving)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
d (non-weaving)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
LOS	C	B	C	C	C	C	C	C	C	C	E	D	E	D	E	E

SB I-5 - Weaving from I St to Q St

Highway Capacity Manual
 2000 Edition
 Capacity Analysis of Freeway Ramps

Weaving Analysis Type B

Type B
 Existing Upstrm Frwy Lanes / Aux. Lanes 4
 Existing Dnstrm Frwy Lanes / Aux. Lanes 5
 Sacramento Factor. [Note: Capacity is fixed hence adjust volume] 1

eg. 2200/2400

	Existing		Baseline				Near Term - Year 2013				Long Term - Year 2030					
	Without Project		Without Project		With Initial Phase		Without Project		With Initial Phase		Without Project		With Initial Phase		With Full Project	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
PHF (Peak Hour Factor) =	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
f_{HV} (Adjustment factor for heavy vehicles) =	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
f_p (Adjustment factor for driver population) =	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
P_T (Proportion of trucks/buses in the traffic stream) =	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
P_R (Proportion of RVs in the traffic stream) =	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E_T (Passenger-car equivalents for trucks/buses in the traffic stream) =	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R (Passenger-car equivalents for RVs in the traffic stream) =	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
L - Length of weaving segment (ft)	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
N, Total number of lanes in the weaving segment	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
$N_{w,u}$, Number of lanes to be used by weaving vehicles if unconstrained operation is to be achieved. note: Type-B, Ex 24-7	1.345125	1.515963	1.416173	1.548868	1.464589	1.704561	1.424473	1.668491	1.509081	1.832598	1.738924	1.83827	1.72583	1.919759	1.816656	2.157065
$N_{w(max)}$, Maximum number of lanes that can be used by weaving vehicles for a given configuration. note: A:1.4, B:3.5, C:3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
$N_{w,w}$, Number of lanes used by nonweaving vehicles. note: $N_w < N_w(max)$ implies unconstrained, and $N_w \geq N_w(max)$ implies constrained	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
v_w , Total flow rate in the weaving segment (pc/h)	7643	6652	7695	6803	7438	7025	8602	7760	8481	7924	9907	8810	9684	9017	9657	9209
V_{w1} , Larger of the two outer, or nonweaving, flow rates in the weaving segment (pc/h)	6666	5627	6612	5710	6335	5704	7356	6337	7136	6266	7983	6963	7820	7022	7671	6870
V_{w2} , Smaller of the two outer, or nonweaving, flow rates in the weaving segment (pc/h)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
V_{w1} , Larger of two weaving flow rates in the weaving segment (pc/h)	747	114	849	164	790	160	1045	370	1082	437	1684	791	1573	810	1559	853
V_{w2} , Smaller of two weaving flow rates in the weaving segment (pc/h)	230	911	234	929	313	1161	201	1053	263	1221	240	1056	291	1185	427	1486
v_w , Total weaving flow rate in the weaving segment (pc/h) ($v_w = V_{w1} + V_{w2}$)	977	1025	1083	1093	1103	1321	1246	1423	1345	1658	1924	1847	1864	1995	1986	2339
V_{nw} , Total nonweaving flow rate in the weaving segment (pc/h) ($V_{nw} = V_{o1} + V_{o2}$)	6666	5627	6612	5710	6335	5704	7356	6337	7136	6266	7983	6963	7820	7022	7671	6870
VR, Volume ratio; the ratio of weaving flow rate to total flow rate in the weaving segment ($VR = v_w/v$)	0.127829	0.154089	0.140741	0.160664	0.148293	0.188043	0.14485	0.183376	0.15859	0.209238	0.194206	0.209648	0.192482	0.221249	0.205654	0.253991
R, Weaving ratio; the ratio of the smaller weaving flow rate to total weaving flow rate ($R = v_{w2}/v_w$)	0.235415	0.88878	0.216066	0.849954	0.283772	0.87888	0.161316	0.739986	0.195539	0.736429	0.12474	0.571738	0.156116	0.593985	0.215005	0.635314
S_w , Speed of weaving vehicles in the weaving segment (mi/h)	51.87337	52.43481	51.50954	52.09583	51.62305	51.19379	50.44071	50.4318	50.23442	49.64085	47.96323	48.67092	48.2152	48.18248	47.9223	47.21533
S_{nw} , Speed of nonweaving vehicles in the weaving segment (mi/h)	62.17762	62.18281	61.6602	61.79596	61.62035	60.5216	60.67501	59.91134	60.22193	58.61092	57.21358	57.60449	57.51946	56.81459	56.90001	54.92891
S, Speed of all vehicles in the weaving segment (mi/h) [Eq 24-5, HCM2000]	60.63788	60.45112	59.99621	60.00101	59.90012	58.51668	58.9427	57.91508	58.38114	56.47563	55.148	55.46995	55.45947	54.64845	54.78915	52.74047
D, Density of all vehicles in the weaving segment (pc/mi/ln) [Eq 24-6, HCM2000]	21.00722	18.33989	21.37635	18.8969	20.69556	20.00854	24.32306	22.33155	24.21158	23.38472	29.94064	26.47079	29.10233	27.50002	29.37626	29.10162
W_w , Weaving intensity factor for prediction of weaving speed	0.491591	0.469221	0.506456	0.482646	0.501787	0.519598	0.551888	0.552278	0.560974	0.587721	0.668526	0.633457	0.655869	0.657501	0.6706	0.707262
W_{nw} , Weaving intensity factor for prediction of nonweaving speed	0.165807	0.165679	0.178735	0.175315	0.179742	0.208218	0.20416	0.224635	0.216224	0.261152	0.302898	0.290944	0.293525	0.31533	0.312649	0.377448
S_{min} , Minimum speed expected in a weaving segment (mi/h)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
S_{max} , Maximum speed expected in a weaving segment (mi/h)	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
a (weaving) [Exhibit 24-6, Unconstrained]	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
b (weaving)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
c (weaving)	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
d (weaving)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
a (non-weaving)	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
b (non-weaving)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
c (non-weaving)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
d (non-weaving)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
LOS	C	B	C	B	C	C	C	C	C	C	D	C	D	C	D	D

I-5 NB On-Ramp from I St

Highway Capacity Manual
2000 Edition
Capacity Analysis of Freeway Ramps

Ramp Analysis Type: 8 lane freeway, 2 Lane On-Ramp (Pfm=0.209 for 2-lane ramp)

Existing Upstrm Frwy Lanes / Aux. Lanes 4

Existing Dnstrm Frwy Lanes / Aux. Lanes 5

	Existing		Baseline				Near Term - Year 2013				Long Term - Year 2030					
	Without Project		Without Project		With Initial Phase		Without Project		With Initial Phase		Without Project		With Initial Phase		With Full Project	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Freeway Volume (Upstream):	6,248	7,141	6,549	7,429	6,510	7,370	6,980	8,256	6,952	8,205	7,850	8,505	7,820	8,632	7,845	8,746
Ramp Volume:	230	1,114	232	1,134	214	1,244	336	1,392	287	1,483	598	2,237	489	2,277	519	2,514
L _{Acc} (Effective length of the acceleration lane, ft)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Sacto Adjusted Freeway Volume (Upstream):	6,816	7,790	7,144	8,104	7,102	8,040	7,615	9,007	7,584	8,951	8,564	9,278	8,531	9,417	8,558	9,541
Sacto Adjusted Ramp Volume:	251	1,215	253	1,237	233	1,357	367	1,519	313	1,618	652	2,440	533	2,484	566	2,743
V _{FO} Capacity (downstream segment capacity)	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Downstream Freeway V/C:	0.59	0.75	0.62	0.78	0.61	0.78	0.67	0.88	0.66	0.88	0.77	0.98	0.76	0.99	0.76	1.02
V ₁₂ (Maximum total flow entering the ramp, diverge influence area, two-lane volume):	1,425	1,628	1,493	1,694	1,484	1,680	1,592	1,882	1,585	1,871	1,790	1,939	1,783	1,968	1,789	1,994
V _{R12} (Maximum total flow entering the ramp, merge influence area, two-lane volume):	1,676	2,843	1,746	2,931	1,717	3,037	1,959	3,401	1,898	3,489	2,442	4,379	2,316	4,452	2,355	4,737
V _{R12} Capacity:	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600
V _{R12} V/C:	0.36	0.62	0.38	0.64	0.37	0.66	0.43	0.74	0.41	0.76	0.53	0.95	0.50	0.97	0.51	1.03
D _R (Density of merge influence area (pc/mi/ln))	12.16	20.82	12.71	21.50	12.49	22.27	14.32	25.03	13.87	25.67	17.95	32.24	17.02	32.79	17.31	34.89
V _E (Maximum total flow approaching a major diverge area on the freeway) =	6,816	7,790	7,144	8,104	7,102	8,040	7,615	9,007	7,584	8,951	8,564	9,278	8,531	9,417	8,558	9,541
V _R (Maximum flow on a ramp) =	251	1,215	253	1,237	233	1,357	367	1,519	313	1,618	652	2,440	533	2,484	566	2,743
V _{FO} (Maximum total departing from a merge or diverge area on the freeway)	7,067	9,005	7,397	9,341	7,335	9,397	7,982	10,526	7,897	10,569	9,216	11,718	9,064	11,901	9,124	12,284
Level of Service:	B	C	B	C	B	C	B	C	B	C	B	D	B	D	B	F

Proportion in lanes 1,2 (P _{FM}):	0.209
PHF (Peak Hour Factor) =	1
f _{HV} (Adjustment factor for heavy vehicles) =	1
f _p (Adjustment factor for driver population) =	1
P _T (Proportion of trucks/buses in the traffic stream)	
=	0.01
P _R (Proportion of RVs in the traffic stream) =	0
E _T (Passenger-car equivalents for trucks/buses in the traffic stream) =	1.5
E _R (Passenger-car equivalents for RVs in the traffic stream) =	1.5

I-5 NB Off-ramp to Richards Blvd

Highway Capacity Manual
2000 Edition
Capacity Analysis of Freeway Ramps

Ramp Analysis Type: 10 lane freeway, Single Lane Off-Ramp

Existing Upstrm Frwy Lanes / Aux. Lanes 5
Existing Dnstrm Frwy Lanes / Aux. Lanes 4

	Existing		Baseline				Near Term - Year 2013				Long Term - Year 2030					
	Without Project		Without Project		With Initial Phase		Without Project		With Initial Phase		Without Project		With Initial Phase		With Full Project	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Freeway Volume (Upstream):	6,478	8,255	6,781	8,563	6,724	8,614	7,316	9,648	7,239	9,688	8,448	10,742	8,309	10,909	8,364	11,260
Ramp Volume:	731	379	1,038	629	1,155	910	1,100	853	1,204	1,046	1,821	1,418	1,822	1,805	1,899	2,126
L_D	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Ramp Design Speed (mph):	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Sacto Adjusted Freeway Volume (Upstream):	7,067	9,005	7,397	9,341	7,335	9,397	7,981	10,525	7,897	10,569	9,216	11,719	9,064	11,901	9,124	12,284
Sacto Adjusted Ramp Volume:	797	413	1,132	686	1,260	993	1,200	931	1,313	1,141	1,987	1,547	1,988	1,969	2,072	2,319
Sacto Adjusted Freeway Volume (Downstream):	6,270	8,592	6,265	8,655	6,075	8,404	6,781	9,594	6,584	9,428	7,229	10,172	7,076	9,932	7,052	9,965
V_p (Maximum total flow approaching a major diverge area on the freeway) =	7,102	9,050	7,434	9,388	7,372	9,444	8,021	10,578	7,936	10,622	9,262	11,778	9,109	11,961	9,170	12,345
V_{R12} (Off-ramp demand flow rate (pc/h)) =	801	415	1,138	689	1,266	998	1,206	936	1,320	1,147	1,997	1,555	1,998	1,979	2,082	2,331
Upstream Freeway Capacity:	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Freeway V/C:	0.59	0.75	0.62	0.78	0.61	0.79	0.67	0.88	0.66	0.89	0.77	0.98	0.76	1.00	0.76	1.03
Downstream Freeway Capacity:	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Freeway V/C:	0.65	0.90	0.65	0.90	0.63	0.88	0.71	1.00	0.69	0.98	0.75	1.06	0.74	1.03	0.73	1.04
Ramp Capacity:	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800
Ramp V/C:	0.21	0.11	0.30	0.18	0.33	0.26	0.32	0.25	0.35	0.30	0.53	0.41	0.53	0.52	0.55	0.61
V_{12} (Maximum total flow entering the ramp, diverge influence area, two-lane volume):	2,929	4,180	3,235	4,482	3,285	4,680	3,478	5,140	3,512	5,278	4,357	6,012	4,304	6,331	4,373	6,697
Density (pc/mi/ln):	20.44	31.20	23.07	33.80	23.51	35.50	25.16	39.45	25.46	40.64	32.72	46.95	32.27	49.70	32.86	52.85
V_5	1,420	1,810	1,487	1,878	1,474	1,889	1,604	2,116	1,587	2,124	1,852	2,356	1,822	2,392	1,834	2,469
VF4eff	5,682	7,240	5,947	7,510	5,897	7,555	6,417	8,462	6,349	8,497	7,410	9,422	7,287	9,568	7,336	9,876
Level of Service:	C	D	C	D	C	E	C	E	C	E	D	F	D	F	D	F

Proportion in lanes 1,2 (P_{FD}):	0.436
PHF (Peak Hour Factor) =	1
f_{HV} (Adjustment factor for heavy vehicles) =	1.00
f_p (Adjustment factor for driver population) =	1
P_T (Proportion of trucks/buses in the traffic stream) =	0.01
P_R (Proportion of RVs in the traffic stream) =	0
E_T (Passenger-car equivalents for trucks/buses in the traffic stream) =	1.5
E_R (Passenger-car equivalents for RVs in the traffic stream) =	1.5

I-5 NB On-Ramp from Richards Blvd

Highway Capacity Manual
 2000 Edition
 Capacity Analysis of Freeway Ramps

Analysis Type: Single Lane On-Ramp, Enters Own Lane

Existing Upstrm Frwy Lanes / Aux. Lanes 4

Existing Dnstrm Frwy Lanes / Aux. Lanes 5

	Existing		Baseline				Near Term - Year 2013				Long Term - Year 2030					
	Without Project		Without Project		With Initial Phase		Without Project		With Initial Phase		Without Project		With Initial Phase		With Full Project	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Ramp Volume:	451	1,340	466	1,384	615	2,026	566	1,432	646	2,033	889	1,913	959	2,413	1,175	2,498
Ramp Design Speed (mph):	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Adjusted Ramp Volume:	492	1,462	508	1,510	671	2,210	617	1,562	705	2,218	970	2,087	1,046	2,632	1,282	2,725
Service Flow Rate @ LOS "A"	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Service Flow Rate @ LOS "B"	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Service Flow Rate @ LOS "C"	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Service Flow Rate @ LOS "D"	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700
Service Flow Rate @ LOS "E"	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Level of Service:	C	D	C	D	C	F	C	D	C	F	C	F	C	F	C	F

I-5 NB Off-ramp to Garden Highway

Highway Capacity Manual
2000 Edition
Capacity Analysis of Freeway Ramps

Ramp Analysis Type: 10 lane freeway, Single Lane Off-Ramp

Existing Upstrm Frwy Lanes / Aux. Lanes 5
Existing Dnstrm Frwy Lanes / Aux. Lanes 4

	Existing		Baseline				Near Term - Year 2013				Long Term - Year 2030					
	Without Project		Without Project		With Initial Phase		Without Project		With Initial Phase		Without Project		With Initial Phase		With Full Project	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Freeway Volume (Upstream):	6,198	9,216	6,209	9,318	6,184	9,730	6,782	10,227	6,681	10,675	7,516	11,237	7,446	11,517	7,640	11,632
Ramp Volume:	1,017	1,203	1,008	1,243	1,038	1,242	1,080	1,292	1,088	1,402	1,324	1,603	1,315	1,644	1,328	1,658
L_D	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Ramp Design Speed (mph):	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Sacto Adjusted Freeway Volume (Upstream):	6,761	10,054	6,773	10,165	6,746	10,615	7,399	11,157	7,288	11,645	8,199	12,259	8,123	12,564	8,335	12,689
Sacto Adjusted Ramp Volume:	1,109	1,312	1,100	1,356	1,132	1,355	1,178	1,409	1,187	1,529	1,444	1,749	1,435	1,793	1,449	1,809
Sacto Adjusted Freeway Volume (Downstream):	5,652	8,742	5,673	8,809	5,614	9,260	6,221	9,748	6,101	10,116	6,755	10,510	6,688	10,771	6,886	10,880
V_p (Maximum total flow approaching a major diverge area on the freeway) =	6,795	10,104	6,807	10,216	6,780	10,668	7,436	11,213	7,324	11,703	8,240	12,320	8,164	12,627	8,377	12,752
V_{R12} (Off-ramp demand flow rate (pc/h)) =	1,115	1,319	1,106	1,363	1,138	1,362	1,184	1,416	1,193	1,537	1,451	1,758	1,442	1,802	1,456	1,818
Upstream Freeway Capacity:	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Freeway V/C:	0.57	0.84	0.57	0.85	0.56	0.89	0.62	0.93	0.61	0.98	0.69	1.03	0.68	1.05	0.70	1.06
Downstream Freeway Capacity:	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Freeway V/C:	0.59	0.91	0.59	0.92	0.58	0.96	0.65	1.02	0.64	1.05	0.70	1.09	0.70	1.12	0.72	1.13
Ramp Capacity:	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800
Ramp V/C:	0.29	0.35	0.29	0.36	0.30	0.36	0.31	0.37	0.31	0.40	0.38	0.46	0.38	0.47	0.38	0.48
V_{12} (Maximum total flow entering the ramp, diverge influence area, two-lane volume):	3,147	5,149	3,146	5,223	3,154	5,419	3,261	5,687	3,228	5,969	3,693	6,363	3,661	6,522	3,743	6,585
Density (pc/mi/ln):	22.31	39.53	22.31	40.17	22.38	41.86	23.30	44.16	23.01	46.59	27.01	49.97	26.74	51.34	27.44	51.89
V_5	1,019	2,021	1,021	2,043	1,017	2,134	1,487	2,243	1,465	2,341	1,648	2,464	1,633	2,525	1,675	2,550
VF_{4eff}	5,776	8,083	5,786	8,173	5,763	8,534	5,949	8,970	5,860	9,363	6,592	9,856	6,531	10,101	6,701	10,202
Level of Service:	C	E	C	E	C	E	C	F	C	F	C	F	C	F	C	F

Proportion in lanes 1,2 (P_{FD}):	0.436
PHF (Peak Hour Factor) =	1
f_{HV} (Adjustment factor for heavy vehicles) =	1.00
f_p (Adjustment factor for driver population) =	1
P_T (Proportion of trucks/buses in the traffic stream) =	0.01
P_R (Proportion of RVs in the traffic stream) =	0
E_T (Passenger-car equivalents for trucks/buses in the traffic stream) =	1.5
E_R (Passenger-car equivalents for RVs in the traffic stream) =	1.5

Freeway Mainline Operations – Existing Conditions						
Location	AM Peak Hour			PM Peak Hour		
	Volume	V/C¹	LOS²	Volume	V/C¹	LOS²
Northbound I-5						
South of L Street on-ramp	5,979	0.99	E	6,229	1.03	F
South of I Street on-ramp	6,248	0.78	D	7,141	0.89	D
South of Richards Blvd off-ramp	6,478	0.68	C	8,255	0.87	D
North of Richards Blvd off-ramp	5,747	0.60	C	7,876	0.83	D
North of Richards Blvd on-ramp	6,198	0.65	C	9,216	0.97	E
Southbound I-5						
North of Richards Blvd off-ramp	9,977	1.05	F	6,952	0.73	C
North of Richards Blvd on-ramp	8,966	1.12	F	6,380	0.79	D
North of J Street off-ramp	9,322	0.98	E	7,032	0.74	C
North of I Street on-ramp	7,413	0.92	E	5,741	0.71	C
Northbound SR 160						
At the American River Bridge	1,680	0.27	A	4,556	0.73	D
Southbound SR 160						
At the American River Bridge	3,475	0.56	C	2,136	0.34	B
Source: Dowling Associates, Inc., 2007						
¹ V/C = Volume / Capacity						
² LOS = Level of Service						

Freeway Mainline Operations – Baseline Conditions												
Location	without Project						with Initial Phase					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	Volume	V/C ¹	LOS ²	Volume	V/C ¹	LOS ²	Volume	V/C ¹	LOS ²	Volume	V/C ¹	LOS ²
Northbound I-5												
South of L Street on-ramp	6,224	1.03	F	6,476	1.07	F	6,166	1.02	F	6,322	1.05	F
South of I Street on-ramp	6,549	0.81	D	7,429	0.92	E	6,510	0.81	D	7,370	0.92	E
South of Richards Blvd off-ramp	6,781	0.71	C	8,563	0.90	D	6,724	0.70	C	8,614	0.90	E
North of Richards Blvd off-ramp	5,743	0.60	C	7,934	0.83	D	5,569	0.58	C	7,704	0.81	D
North of Richards Blvd on-ramp	6,209	0.65	C	9,318	0.98	E	6,184	0.65	C	9,730	1.02	F
Southbound I-5												
North of Richards Blvd off-ramp	10,252	1.07	F	7,109	0.75	D	10,480	1.10	F	6,933	0.73	C
North of Richards Blvd on-ramp	9,124	1.13	F	6,409	0.80	D	9,073	1.13	F	6,102	0.76	D
North of J Street off-ramp	9,539	1.00	E	7,181	0.75	D	9,561	1.00	F	7,485	0.78	D
North of I Street on-ramp	7,461	0.93	E	5,874	0.73	C	7,125	0.89	D	5,864	0.73	C
Northbound SR 160												
At the American River Bridge	2,351	0.38	B	5,941	0.95	E	2,359	0.38	B	6,006	0.96	E
Southbound SR 160												
At the American River Bridge	3,870	0.62	C	2,150	0.34	B	4,044	0.65	C	2,343	0.38	B
Source: Dowling Associates, Inc., 2007												
¹ V/C = Volume / Capacity												
² LOS = Level of Service												
Note: Bold values show potential significant impacts.												

Freeway Mainline Operations – Near-Term Cumulative Conditions (2013)

Location	Without Project						With Initial Phase					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	Volume	V/C ¹	LOS ²	Volume	V/C ¹	LOS ²	Volume	V/C ¹	LOS ²	Volume	V/C ¹	LOS ²
Northbound I-5												
South of L Street on-ramp	6,455	1.07	F	7,130	1.18	F	6,430	1.07	F	6,993	1.16	F
South of I Street on-ramp	6,980	0.87	D	8,256	1.03	F	6,952	0.86	D	8,205	1.02	F
South of Richards Blvd off-ramp	7,316	0.77	D	9,648	1.01	F	7,239	0.76	D	9,688	1.02	F
North of Richards Blvd off-ramp	6,216	0.65	C	8,795	0.92	E	6,035	0.63	C	8,642	0.91	E
North of Richards Blvd on-ramp	6,782	0.71	C	10,227	1.07	F	6,681	0.70	C	10,675	1.12	F
Southbound I-5												
North of Richards Blvd off-ramp	11,450	1.20	F	7,902	0.83	D	11,736	1.23	F	7,846	0.82	D
North of Richards Blvd on-ramp	10,089	1.25	F	7,119	0.89	D	10,153	1.26	F	6,915	0.86	D
North of J Street off-ramp	10,565	1.11	F	8,042	0.84	D	10,634	1.11	F	8,256	0.87	D
North of I Street on-ramp	8,401	1.04	F	6,707	0.83	D	8,218	1.02	F	6,703	0.83	D
Northbound SR 160												
At the American River Bridge	2,915	0.47	B	6,850	1.10	E	2,896	0.46	B	7,694	1.23	F
Southbound SR 160												
At the American River Bridge	4,663	0.75	D	2,882	0.46	B	4,791	0.77	D	3,701	0.59	C
Source: Dowling Associates, Inc., 2007												
¹ V/C = Volume / Capacity												
² LOS = Level of Service												
Note: Bold values show potential significant impacts.												

Freeway Mainline Operations – Long-Term Cumulative Conditions (2030)																		
Location	Without Project						With Initial Phase						With Full Project					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	Vol	V/C ¹	LOS ²	Vol	V/C ¹	LOS ²	Vol	V/C ¹	LOS ²	Vol	V/C ¹	LOS ²	Vol	V/C ²	LOS ³	Vol	V/C ²	LOS ³
Northbound I-5																		
South of L Street on-ramp	7,220	1.20	F	7,407	1.23	F	7,136	1.18	F	7,434	1.23	F	7,141	1.18	F	7,550	1.25	F
South of I Street on-ramp	7,850	0.98	E	8,505	1.06	F	7,820	0.97	E	8,632	1.07	F	7,845	0.98	E	8,746	1.09	F
South of Richards Blvd off-ramp	8,448	0.89	D	10,742	1.13	F	8,309	0.87	D	10,909	1.14	F	8,364	0.88	D	11,260	1.18	F
North of Richards Blvd off-ramp	6,627	0.69	C	9,324	0.98	E	6,487	0.68	C	9,104	0.95	E	6,465	0.68	C	9,134	0.96	E
North of Richards Blvd on-ramp	7,516	0.79	D	11,237	1.18	F	7,446	0.78	D	11,517	1.21	F	7,640	0.80	D	11,632	1.22	F
Southbound I-5																		
North of Richards Blvd off-ramp	12,721	1.33	F	8,798	0.92	E	13,223	1.39	F	9,036	0.95	E	13,211	1.38	F	9,163	0.96	E
North of Richards Blvd on-ramp	11,149	1.39	F	7,870	0.98	E	11,060	1.38	F	7,775	0.97	E	11,101	1.38	F	7,834	0.97	E
North of J Street off-ramp	11,800	1.24	F	9,190	0.96	E	11,674	1.22	F	9,410	0.99	E	11,830	1.24	F	9,393	0.98	E
North of I Street on-ramp	9,667	1.20	F	7,754	0.96	E	9,393	1.17	F	7,832	0.97	E	9,230	1.15	F	7,723	0.96	E
Northbound SR 160																		
At the American River	3,465	0.42	B	7,336	0.88	E	2,870	0.34	B	9,526	1.14	F	3,093	0.37	B	7,279	0.87	D
Southbound SR 160																		
At the American River	5,599	0.67	C	3,715	0.45	B	5,385	0.65	C	3,661	0.44	B	5,411	0.65	C	3,857	0.46	B

Source: Dowling Associates, Inc., 2007

¹ V/C = Vol / Capacity

² LOS = Level of Service

Note: **Bold** values show potential significant impacts.

Freeway Interchange Operations – Existing Conditions

Ramp	AM Peak Hour			PM Peak Hour		
	LOS ¹	Density ² (Flow)	Volume	LOS ¹	Density ² (Flow)	Volume
Northbound I-5						
P Street to J Street weave	C	23.97	7,767	B	19.60	6,690
L Street on-ramp	C	(293)	269	C	(995)	912
I Street on-ramp	B	12.16	230	C	20.82	1,114
Richards Boulevard off-ramp	C	20.44	731	D	31.20	379
Richards Boulevard on-ramp	C	(492)	451	D	(1462)	1,340
Garden Highway off-ramp	C	22.31	1,017	E	39.53	1,203
Southbound I-5						
Garden Highway on-ramp	C	(1027)	941	C	(884)	810
Richards Boulevard off-ramp	F	23.85	1,011	B	16.62	572
Richards Boulevard on-ramp	C	(388)	356	C	(711)	652
J Street off-ramp	C	22.28	1,909	B	16.81	1,291
I Street to Q Street weave	C	21.01	7,643	B	18.34	6,652

Source: Dowling Associates, Inc., 2007

¹ LOS = Level of Service

² Numbers with decimals indicate the density of passenger vehicles per mile per lane in the merge or diverge area. Whole numbers indicate the ramp flow rate in passenger car equivalents where a lane is added to the freeway at an on-ramp.

Note: **Bold** values show substandard traffic operations.

Freeway Interchange Operations – Baseline Conditions

Ramp	without Project						With Initial Phase					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	LOS ¹	Density ² (Flow)	Volume	LOS ¹	Density ² (Flow)	Volume	LOS ²	Density ³ (Flow)	Volume	LOS ²	Density ³ (Flow)	Volume
Northbound I-5												
P Street to J Street weave	C	25.16	8,076	C	20.78	6,983	C	25.35	8,097	C	20.22	6,841
L Street on-ramp	C	(355)	326	C	(1040)	954	C	(376)	345	C	(1144)	1,049
I Street on-ramp	B	12.71	232	C	21.50	1,134	B	12.49	214	C	22.27	1,244
Richards Boulevard off-ramp	C	23.07	1,038	D	33.80	629	C	23.51	1,155	E	35.50	910
Richards Boulevard on-ramp	C	(508)	466	D	(1510)	1,384	C	(671)	615	F	(2210)	2,026
Garden Highway off-ramp	C	22.31	1,008	E	40.17	1,243	C	22.38	1,038	E	41.86	1,242
Southbound I-5												
Garden Highway on-ramp	C	(1021)	936	C	(881)	808	C	(1097)	1,006	C	(919)	842
Richards Boulevard off-ramp	F	24.50	1,128	B	16.99	700	F	25.05	1,407	B	16.57	831
Richards Boulevard on-ramp	C	(453)	415	C	(842)	772	C	(532)	488	D	(1509)	1,383
J Street off-ramp	C	22.80	2,078	B	17.16	1307	C	22.85	2,436	B	17.89	1,621
I Street to Q Street weave	C	21.38	7,695	B	18.90	6803	C	20.70	7,438	C	20.01	7,025

Source: Dowling Associates, Inc., 2007

¹ LOS = Level of Service

² Numbers with decimals indicate the density of passenger vehicles per mile per lane in the merge or diverge area.

Whole numbers indicate the ramp flow rate in passenger car equivalents where a lane is added to the freeway at an on-ramp.

Note: **Bold** values show potential significant impacts.

Freeway Interchange Operations – Near Term (Year 2013) Conditions

Ramp	without Project						With Initial Phase					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	LOS ¹	Density ² (Flow)	Volume	LOS ¹	Density ² (Flow)	Volume	LOS ²	Density ³ (Flow)	Volume	LOS ²	Density ³ (Flow)	Volume
Northbound I-5												
P Street to J Street weave	C	27.27	8,533	C	24.37	7,922	C	27.98	8,639	C	26.51	8,187
L Street on-ramp	C	(573)	525	C	(1229)	1,127	C	(569)	522	C	(1323)	1,213
I Street on-ramp	B	14.32	336	C	25.03	1,392	B	13.87	287	C	25.67	1,483
Richards Boulevard off-ramp	C	25.16	1,100	E	39.45	853	C	25.46	1,204	E	40.64	1,046
Richards Boulevard on-ramp	C	(617)	566	D	(1562)	1,432	C	(705)	646	F	(2218)	2,033
Garden Highway off-ramp	C	23.30	1,080	F	44.16	1,292	C	23.01	1,088	F	46.59	1,402
Southbound I-5												
Garden Highway on-ramp	C	(1127)	1,033	C	(931)	853	C	(1150)	1,054	C	(952)	873
Richards Boulevard off-ramp	F	27.37	1,361	B	18.89	783	F	28.05	1,583	B	18.75	931
Richards Boulevard on-ramp	C	(519)	476	C	(1007)	923	C	(525)	481	D	(1463)	1,341
J Street off-ramp	C	25.25	2,164	B	19.22	1335	C	25.42	2,416	B	19.73	1,553
I Street to Q Street weave	C	24.32	8,602	C	22.33	7760	C	24.21	8,481	C	23.38	7,924

Source: Dowling Associates, Inc., 2007

¹ LOS = Level of Service

² Numbers with decimals indicate the density of passenger vehicles per mile per lane in the merge or diverge area.

Whole numbers indicate the ramp flow rate in passenger car equivalents where a lane is added to the freeway at an on-ramp.

Note: **Bold** values show potential significant impacts.

Freeway Interchange Operations – Long Term (Year 2030) Conditions																		
Ramp	without Project						With Initial Phase						With Full Project					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	LOS ¹	Density ² (Flow)	Volume	LOS ¹	Density ² (Flow)	Volume	LOS ²	Density ³ (Flow)	Volume	LOS ²	Density ³ (Flow)	Volume	LOS ¹	Density ² (Flow)	Volume	LOS ¹	Density ² (Flow)	Volume
Northbound I-5																		
P Street to J Street weave	E	37.44	10,319	D	32.25	8,978	E	37.36	10,281	D	34.00	9,236	E	38.66	10,453	E	36.45	9,665
L Street on-ramp	C	(687)	630	C	(1198)	1,099	C	(746)	684	C	(1307)	1,199	C	(769)	705	C	(1305)	1,196
I Street on-ramp	B	17.95	598	D	32.24	2,237	B	17.02	489	D	32.79	2,277	B	17.31	519	F	34.89	2,514
Richards Boulevard off-ramp	D	32.72	1,821	F	46.95	1,418	D	32.27	1,822	F	49.70	1,805	D	32.86	1,899	F	52.85	2,126
Richards Boulevard on-ramp	C	(970)	889	F	(2087)	1,913	C	(1046)	959	F	(2632)	2,413	C	(1282)	1,175	F	(2725)	2,498
Garden Highway off-ramp	C	27.01	1,324	F	49.97	1,603	C	26.74	1,315	F	51.34	1,644	C	27.44	1,328	F	51.89	1,658
Southbound I-5																		
Garden Highway on-ramp	C	(1053)	965	C	(279)	256	C	(1179)	1,081	C	(281)	258	C	(1207)	1,106	C	(289)	265
Richards Boulevard off-ramp	F	30.40	1,572	C	21.03	928	F	31.60	2,163	C	21.60	1,261	F	31.58	2,110	C	21.90	1,329
Richards Boulevard on-ramp	C	(710)	651	D	(1440)	1,320	C	(670)	614	E	(1784)	1,635	C	(795)	729	E	(1701)	1,559
J Street off-ramp	F	28	2,133	C	22	1,436	F	27.90	2,281	C	22.49	1,578	F	28.27	2,600	C	22.45	1,670
I Street to Q Street weave	D	29.94	9,907	C	26.47	8,810	D	29.10	9,684	C	27.50	9,017	D	29.38	9,657	D	29.10	9,209

Source: Dowling Associates, Inc., 2006.

¹ LOS = Level of Service

² Numbers with decimals indicate the density of passenger vehicles per mile per lane in the merge or diverge area. Whole numbers indicate the ramp flow rate in passenger car equivalents where a lane is added to the freeway at an on-ramp.

Note: **Bold** values show potential significant impacts.

Capacity Analysis of Freeway Ramps

Ramp Analysis Type: Major Diverge, 2 Lane Off-Ramp, $P_{FD}=0.260$

Existing Upstrm Frwy Lanes / Aux. Lanes 5
 Existing Dnstrm Frwy Lanes / Aux. Lanes 4

	Existing		Baseline				Near Term - Year 2013				Long Term - Year 2030					
	Without Project		Without Project		With Initial Phase		Without Project		With Initial Phase		Without Project		With Initial Phase		With Full Project	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Freeway Volume (Upstream):	9,977	6,952	10,252	7,109	10,480	6,933	11,450	7,902	11,736	7,846	12,721	8,798	13,223	9,036	13,211	9,163
Ramp Volume:	1,011	572	1,128	700	1,407	831	1,361	783	1,583	931	1,572	928	2,163	1,261	2,110	1,329
Ramp Design Speed (mph):	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Sacto Adjusted Freeway Volume (Upstream):	10,884	7,584	11,184	7,755	11,433	7,563	12,491	8,620	12,803	8,559	13,877	9,598	14,425	9,857	14,412	9,996
Sacto Adjusted Ramp Volume:	1,103	624	1,231	764	1,535	907	1,485	854	1,727	1,016	1,715	1,012	2,360	1,376	2,302	1,450
Sacto Adjusted Freeway Volume (Downstream):	9,781	6,960	9,953	6,991	9,898	6,656	11,006	7,766	11,076	7,543	12,162	8,586	12,065	8,481	12,110	8,546
V_F (Maximum total flow approaching a major diverge area on the freeway) =	10,938	7,622	11,240	7,794	11,490	7,601	12,553	8,663	12,867	8,602	13,946	9,646	14,497	9,906	14,484	10,046
V_{R12} (Off-ramp demand flow rate (pc/h)) =	1,109	627	1,237	768	1,543	912	1,492	858	1,736	1,021	1,724	1,017	2,372	1,383	2,314	1,457
Upstream Freeway Capacity:	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Freeway V/C:	0.91	0.64	0.94	0.65	0.96	0.63	1.05	0.72	1.07	0.72	1.16	0.80	1.21	0.83	1.21	0.84
Downstream Freeway Capacity:	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Freeway V/C:	1.02	0.73	1.04	0.73	1.03	0.69	1.15	0.81	1.15	0.79	1.27	0.89	1.26	0.88	1.26	0.89
Ramp Capacity:	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800
Ramp V/C:	0.29	0.17	0.33	0.20	0.41	0.24	0.39	0.23	0.46	0.27	0.45	0.27	0.62	0.36	0.61	0.38
V_{12} (Maximum total flow entering the ramp, diverge influence area, two-lane volume):	3,664	2,446	3,838	2,595	4,129	2,651	4,368	2,888	4,630	2,992	4,902	3,261	5,524	3,599	5,478	3,690
Density (pc/mi/ln):	23.85	16.62	24.50	16.99	25.05	16.57	27.37	18.89	28.05	18.75	30.40	21.03	31.60	21.60	31.58	21.90
V5	2,188	1,524	2,248	1,559	2,298	1,520	2,511	1,733	2,573	1,720	2,789	1,929	2,899	1,981	2,897	2,009
VF4eff	8,751	6,098	8,992	6,235	9,192	6,081	10,043	6,930	10,294	6,881	11,157	7,717	11,598	7,925	11,587	8,037
Level of Service:	F	B	F	B	F	B	F	B	F	B	F	C	F	C	F	C

Proportion in lanes 1,2 (P_{FD}):	0.260
PHF (Peak Hour Factor) =	1
f_{HV} (Adjustment factor for heavy vehicles) =	1.00
f_p (Adjustment factor for driver population) =	1
P_T (Proportion of trucks/buses in the traffic stream) =	0.01
P_R (Proportion of RVs in the traffic stream) =	0
E_T (Passenger-car equivalents for trucks/buses in the traffic stream) =	1.5
E_R (Passenger-car equivalents for RVs in the traffic stream) =	1.5

I-5 SB On-Ramp from Richards Blvd

Highway Capacity Manual
 2000 Edition
 Capacity Analysis of Freeway Ramps

Ramp Analysis Type: Single Lane On-Ramp, Enters Own Lane

Existing Upstrm Frwy Lanes / Aux. Lanes 4

Existing Dnstrm Frwy Lanes / Aux. Lanes 5

	Existing		Baseline				Near Term - Year 2013				Long Term - Year 2030					
	Without Project		Without Project		With Initial Phase		Without Project		With Initial Phase		Without Project		With Initial Phase		With Full Project	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Ramp Volume:	356	652	415	772	488	1,383	476	923	481	1,341	651	1,320	614	1,635	729	1,559
Ramp Design Speed (mph):	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Adjusted Ramp Volume:	388	711	453	842	532	1,509	519	1,007	525	1,463	710	1,440	670	1,784	795	1,701
Service Flow Rate @ LOS "A"	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Service Flow Rate @ LOS "B"	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Service Flow Rate @ LOS "C"	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Service Flow Rate @ LOS "D"	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700
Service Flow Rate @ LOS "E"	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Level of Service:	C	C	C	C	C	D	C	C	C	D	C	D	C	E	C	E

I-5 SB off-ramp to J St

Highway Capacity Manual
2000 Edition
Capacity Analysis of Freeway Ramps

Ramp Analysis Type: Major Diverge, 2 Lane Off-Ramp, $P_{FD}=0.260$

Existing Upstrm Frwy Lanes / Aux. Lanes 5

Existing Dnstrm Frwy Lanes / Aux. Lanes 4

	Existing		Baseline				Near Term - Year 2013				Long Term - Year 2030					
	Without Project		Without Project		With Initial Phase		Without Project		With Initial Phase		Without Project		With Initial Phase		With Full Project	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Freeway Volume (Upstream):	9,322	7,032	9,539	7,181	9,561	7,485	10,565	8,042	10,634	8,256	11,800	9,190	11,674	9,410	11,830	9,393
Ramp Volume:	1,909	1,291	2,078	1,307	2,436	1,621	2,164	1,335	2,416	1,553	2,133	1,436	2,281	1,578	2,600	1,670
Ramp Design Speed (mph):	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Sacto Adjusted Freeway Volume (Upstream):	10,169	7,671	10,406	7,834	10,430	8,165	11,525	8,773	11,601	9,007	12,873	10,025	12,735	10,265	12,905	10,247
Sacto Adjusted Ramp Volume:	2,083	1,408	2,267	1,426	2,657	1,768	2,361	1,456	2,636	1,694	2,327	1,567	2,488	1,721	2,836	1,822
Sacto Adjusted Freeway Volume (Downstream):	8,086	6,263	8,139	6,408	7,773	6,397	9,164	7,317	8,965	7,313	10,546	8,458	10,247	8,544	10,069	8,425
V_p (Maximum total flow approaching a major diverge area on the freeway) =	10,220	7,709	10,458	7,873	10,482	8,206	11,583	8,817	11,659	9,052	12,937	10,075	12,799	10,316	12,970	10,298
V_{R12} (Off-ramp demand flow rate (pc/h)) =	2,093	1,415	2,278	1,433	2,670	1,777	2,373	1,463	2,649	1,702	2,339	1,575	2,500	1,730	2,850	1,831
Upstream Freeway Capacity:	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Upstream Freeway V/C:	0.85	0.64	0.87	0.66	0.87	0.68	0.97	0.73	0.97	0.75	1.08	0.84	1.07	0.86	1.08	0.86
Downstream Freeway Capacity:	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Downstream Freeway V/C:	0.84	0.65	0.85	0.67	0.81	0.67	0.95	0.76	0.93	0.76	1.10	0.88	1.07	0.89	1.05	0.88
Ramp Capacity:	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800
Ramp V/C:	0.55	0.37	0.60	0.38	0.70	0.47	0.62	0.39	0.70	0.45	0.62	0.41	0.66	0.46	0.75	0.48
V_{i2} (Maximum total flow entering the ramp, diverge influence area, two-lane volume):	4,206	3,052	4,405	3,108	4,701	3,448	4,767	3,375	4,992	3,613	5,094	3,785	5,178	3,962	5,481	4,033
Density (pc/mi/ln):	22.28	16.81	22.80	17.16	22.85	17.89	25.25	19.22	25.42	19.73	28.20	21.96	27.90	22.49	28.27	22.45
V_5	2,044	1,542	2,092	1,575	2,096	1,641	2,317	1,763	2,332	1,810	2,587	2,015	2,560	2,063	2,594	2,060
VF4eff	8,176	6,167	8,366	6,299	8,386	6,565	9,266	7,053	9,327	7,242	10,350	8,060	10,239	8,253	10,376	8,239
Level of Service:	C	B	C	B	C	B	C	B	C	B	F	C	F	C	F	C

Proportion in lanes 1,2 (P_{FD}):	0.260
PHF (Peak Hour Factor) =	1
f_{HV} (Adjustment factor for heavy vehicles) =	1.00
f_p (Adjustment factor for driver population) =	1
P_T (Proportion of trucks/buses in the traffic stream) =	0.01
P_R (Proportion of RVs in the traffic stream) =	0
E_T (Passenger-car equivalents for trucks/buses in the traffic stream) =	1.5
E_R (Passenger-car equivalents for RVs in the traffic stream) =	1.5

Segment	Existing Counts		Base-Model		Base		Base-Proj		
	AM	PM	AM	PM	AM	PM	AM	PM	
1	941	810	1371	1366	941	811	1232	822	
2	1011	572	876	689	1011	715	1007	701	
3	356	652	311	877	356	792	425	1006	
4	2063	1291	106	1049	2063	1327	3435	1407	
5	288	1047	239	873	288	1065	294	1160	
6	747	114	923	666	747	172	673	139	
7	187	685	401	933	187	798	157	716	
8	1788	461	1701	1058	1788	495	1893	632	
9	201	915	653	1200	201	1049	237	1102	
10	283	1267	347	830	283	1313	278	1326	
11	731	379	1252	833	731	625	756	767	
12	451	1340	535	980	451	1367	367	1482	
13	1017	1203	1232	1462	1017	1237	1011	1249	
14	9322	7032	6220	7157	9322	7198	9309	7430	
15	6478	8255	6950	7612	6478	8588	6506	8643	

See separate spreadsheet "Railyards_Volume" for details

2013		2013-Proj		2030		2030-Proj		2030-Full	
AM	PM	AM	PM	AM	PM	AM	PM	AM	
	1030	857	1055	859	960	268	1020	255	1050
	1241	778	1160	790	1656	997	1884	1126	1949
	423	972	471	1123	763	1363	698	1424	675
	3589	1543	3668	1588	4531	2144	4501	2167	4492
	263	1186	299	1211	333	1165	314	1128	426
	952	387	986	407	1457	810	1660	820	1490
	218	860	222	901	561	1454	517	1379	538
	1876	505	1981	618	1800	586	1844	521	2136
	299	1193	350	1259	203	1015	301	1006	236
	397	1612	383	1618	669	2192	652	2400	605
	818	895	835	974	1740	1448	1377	1462	1134
	551	1426	462	1586	1021	2211	870	2239	1005
	1051	1306	1066	1374	1324	1646	1291	1628	1299
	10330	8113	10457	8211	13054	10826	13032	10931	12988
	7030	9737	7066	9791	9278	13193	9318	12766	9117

PM

277

1168

1215

2191

1583

838

1382

759

876

2446

1247

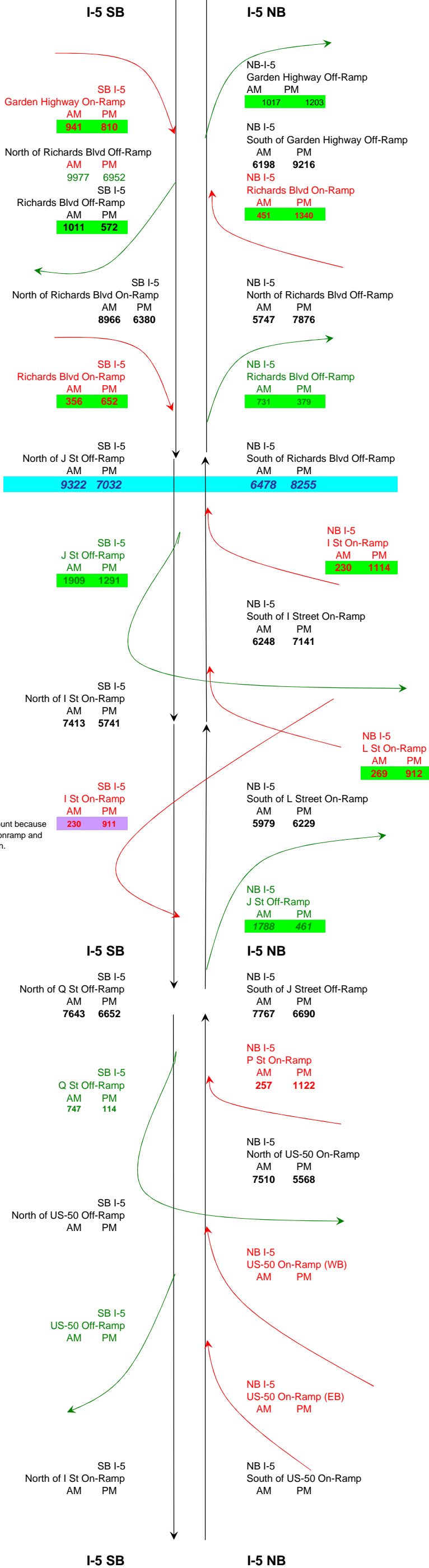
2230

1641

10813

12601

Existing Conditions

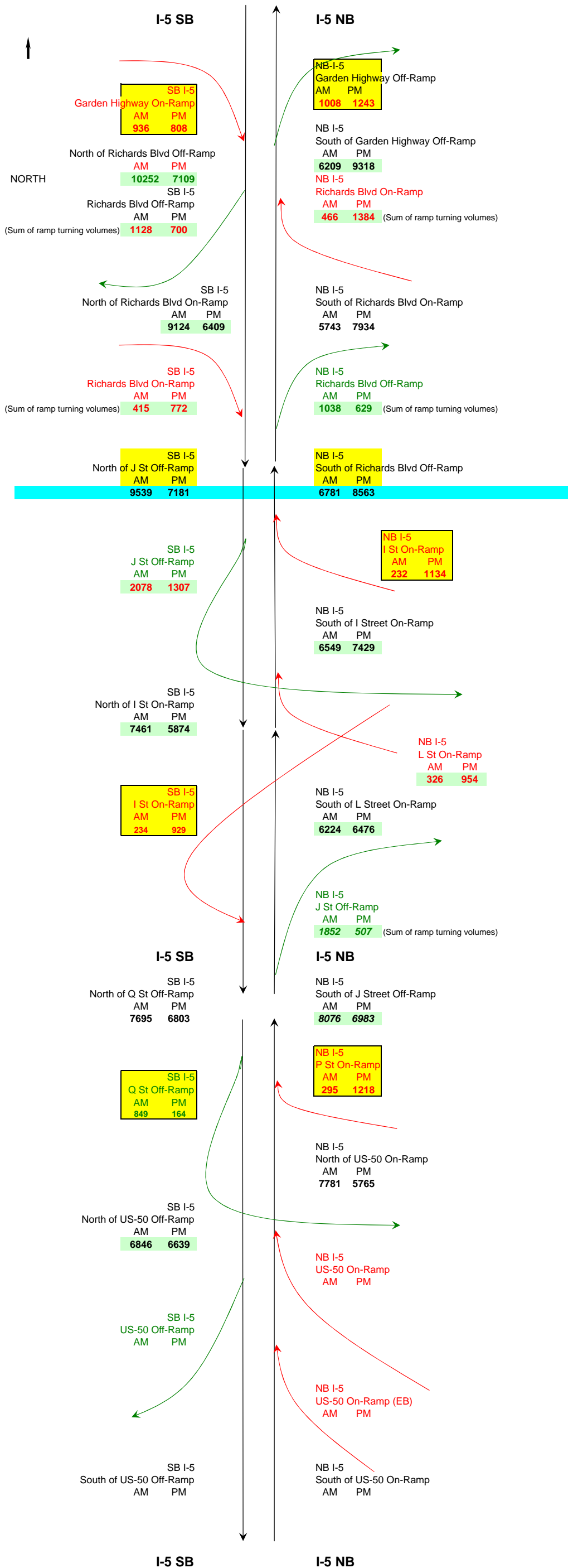


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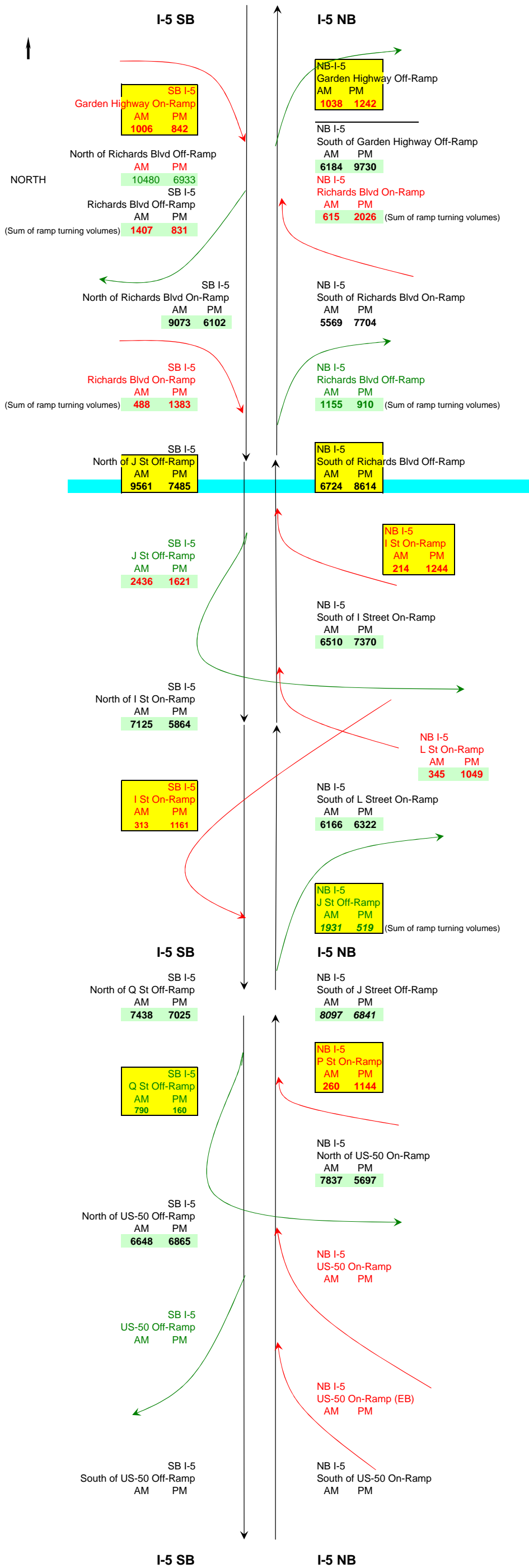
Sep 20 Peak hr ADT taken from Caltrans website = 15800 south of richard off
 Assume ADT for AM peak - use derived ratio to calculate PM peak ADT
 Use directional ratio from downtown study's derived volumes at this location = 59% SB in AM/46% SB in PM
 Also considered calculated ratio at "next to P St" directly from Caltrans downtown study data but decided against

* Did not use new ry count because the separation of SB onramp and I St Bridge is uncertain.

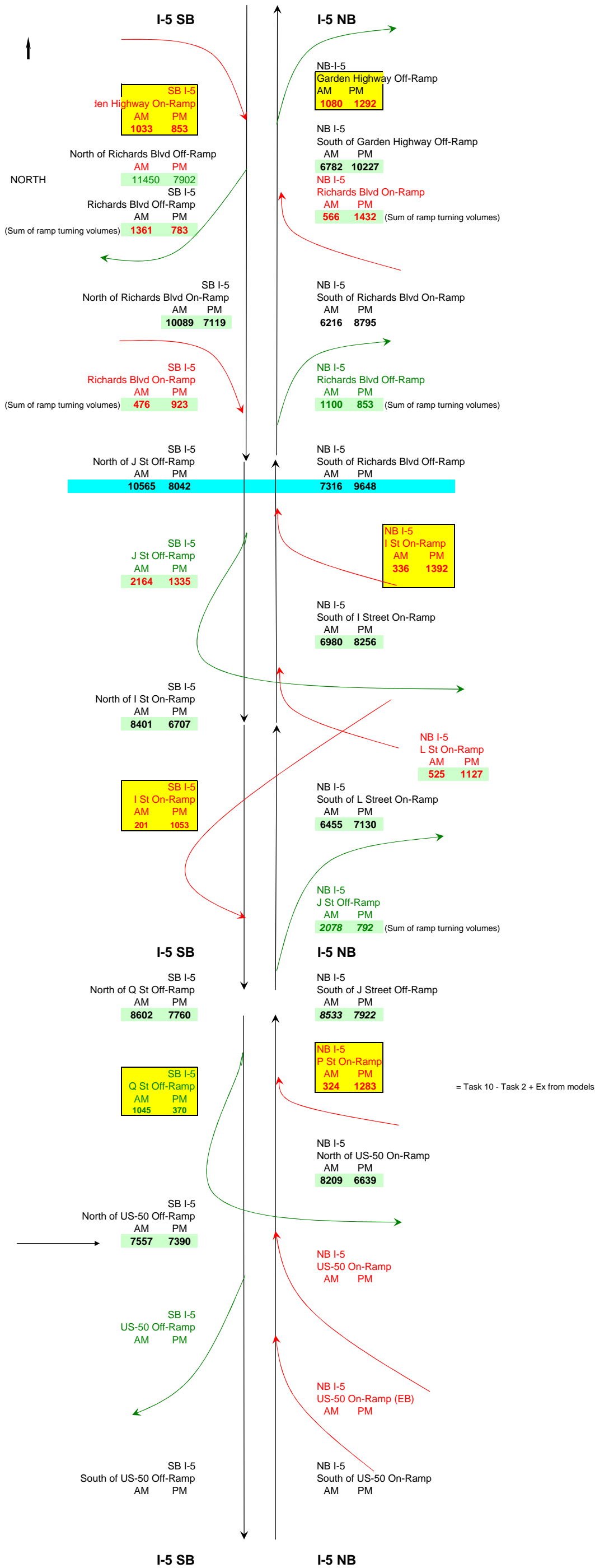
Baseline No Project

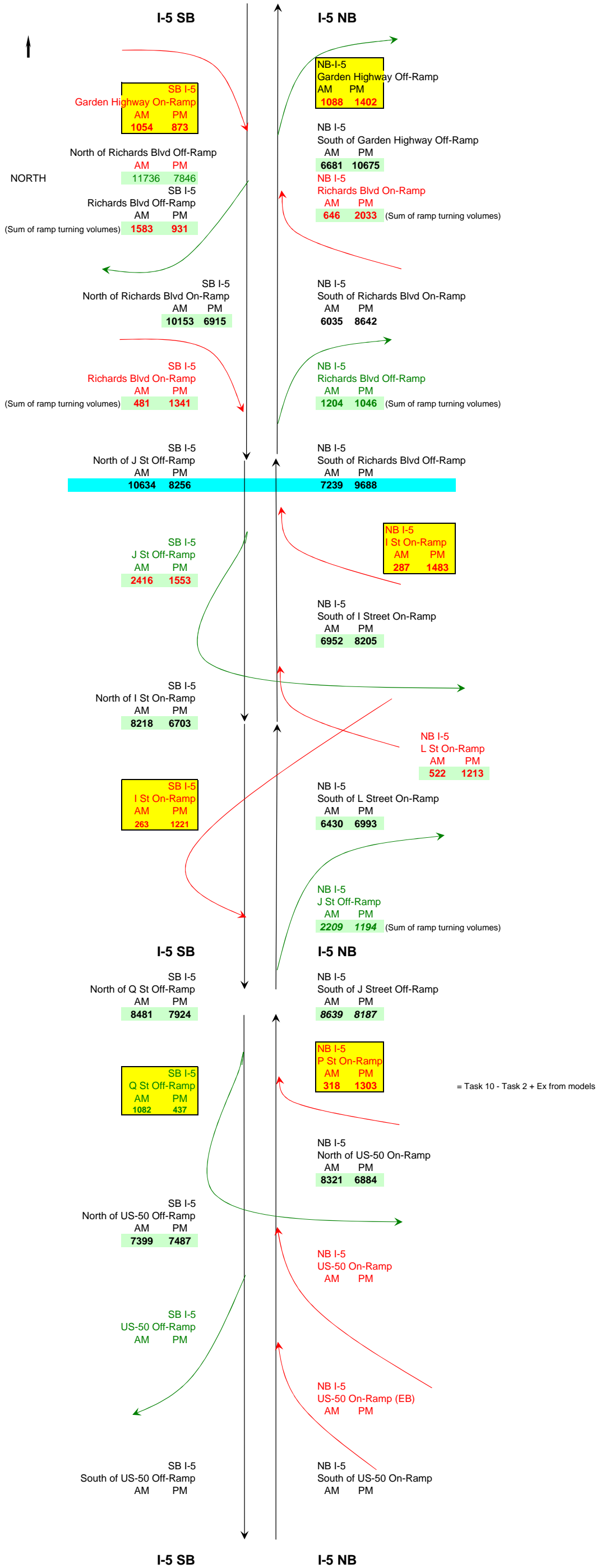


Baseline with Project

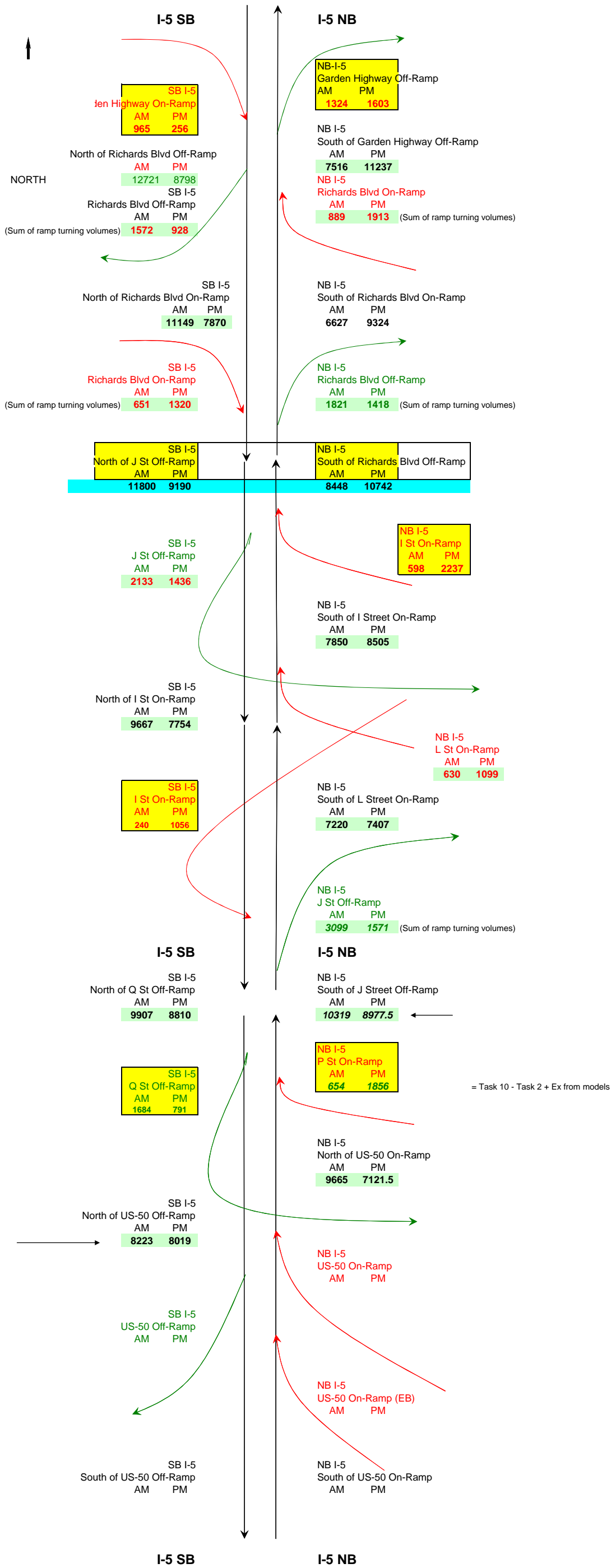


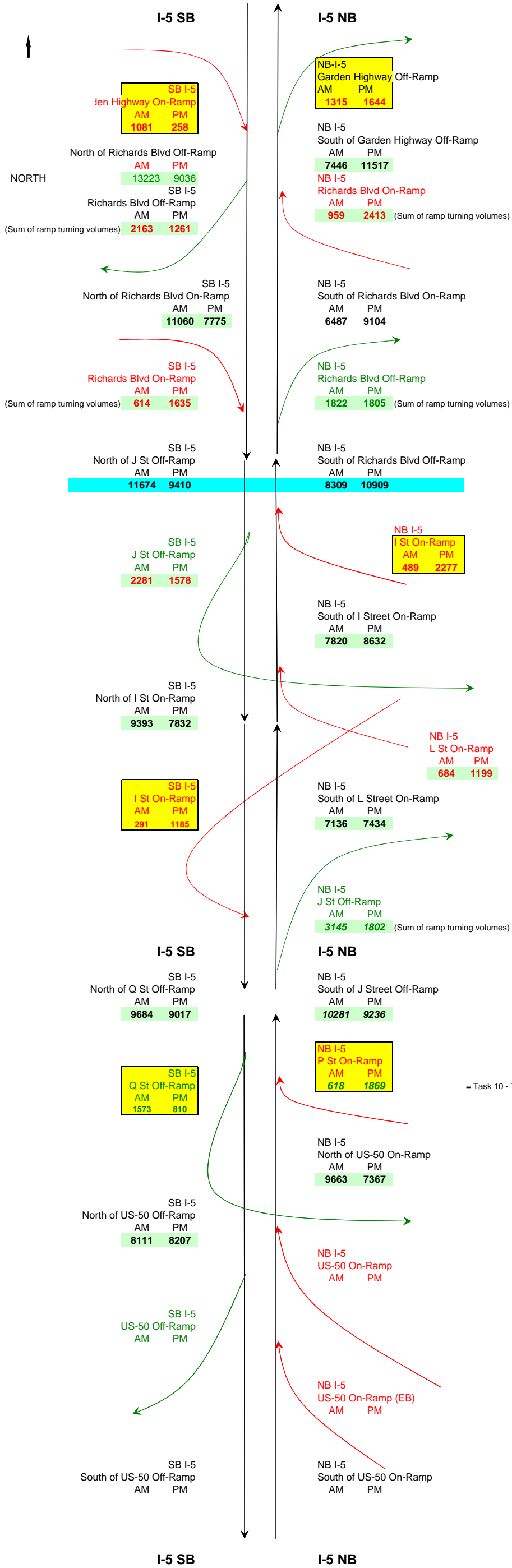
2013 No Project



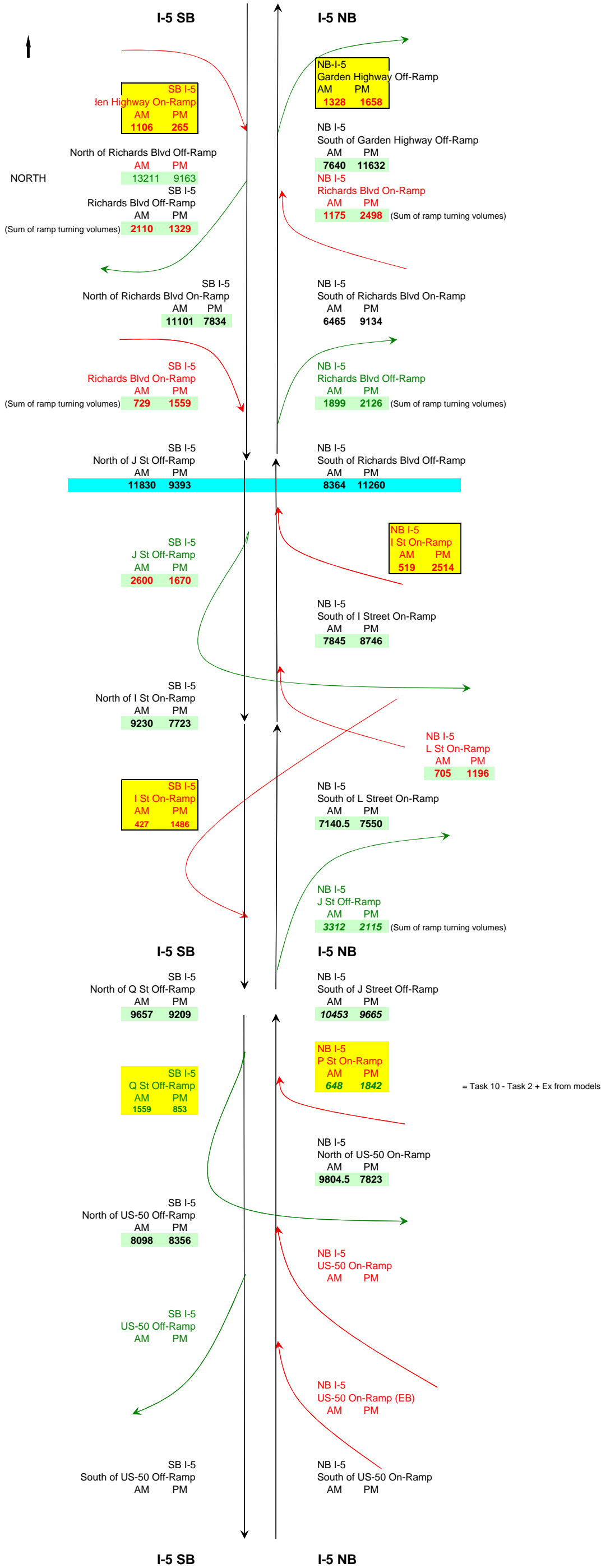


2030 No Project

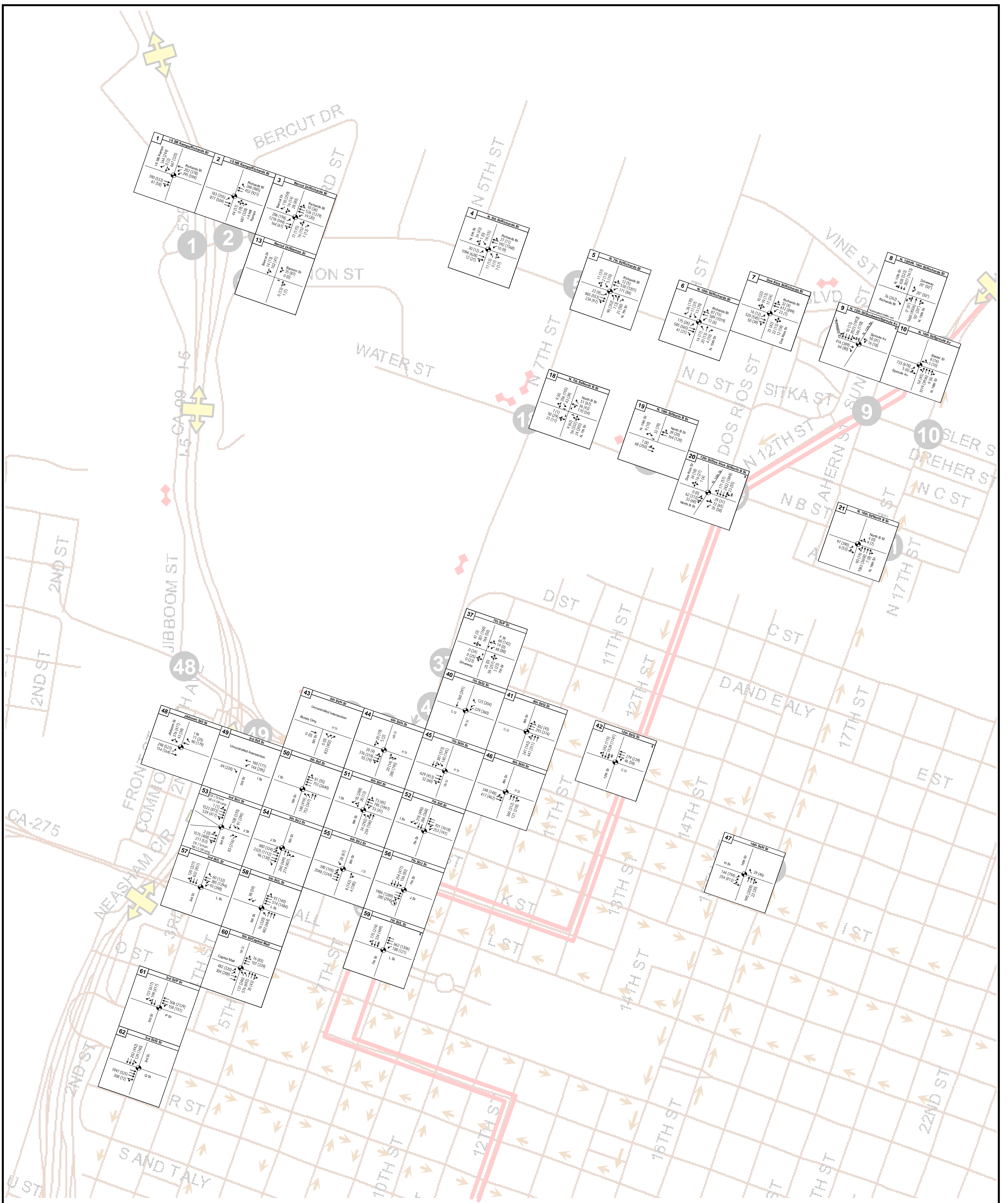




2030 Program with Project



Traffic Forecast Maps



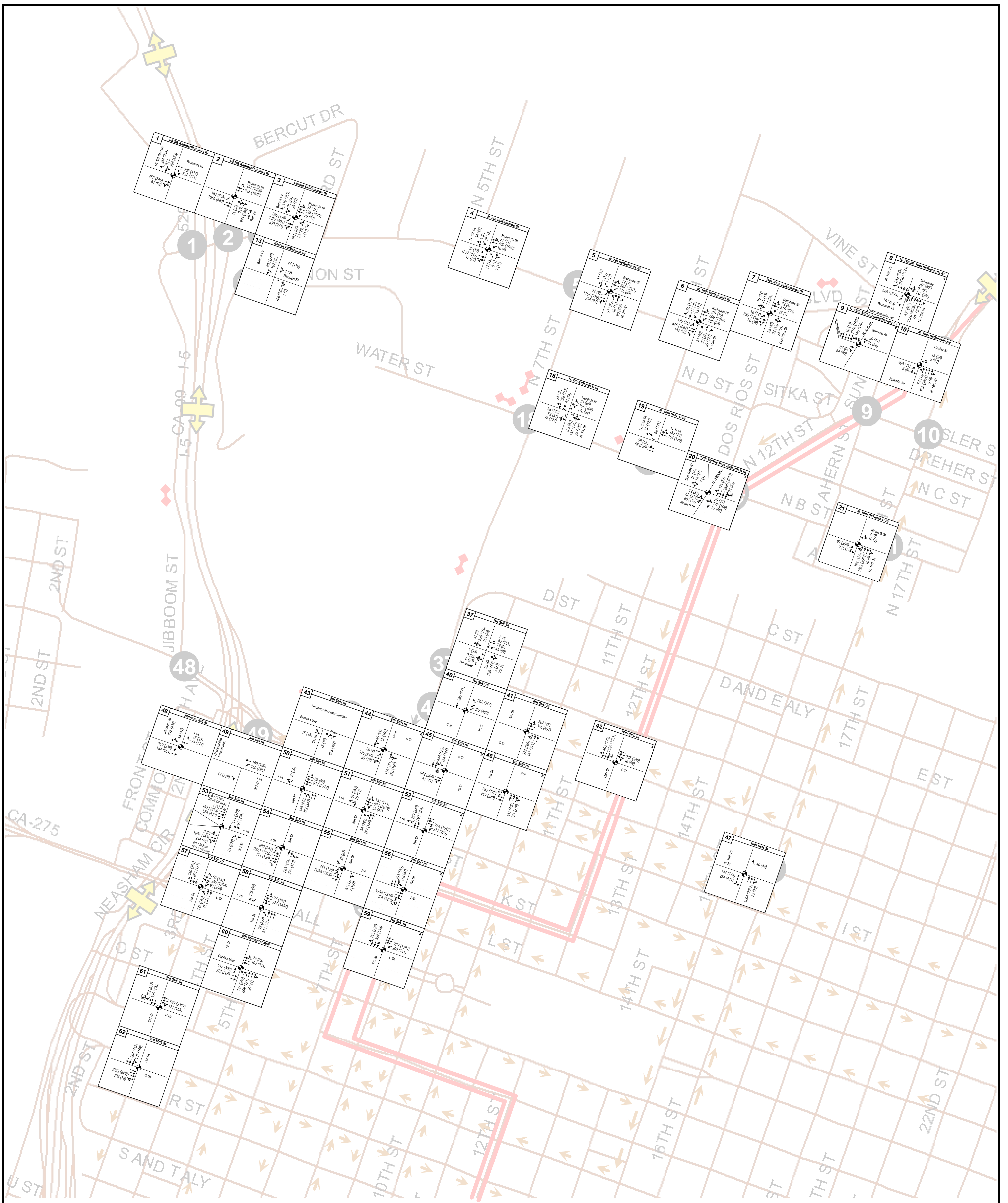
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure A
ROADWAY NETWORK
EXISTING CONDITIONS



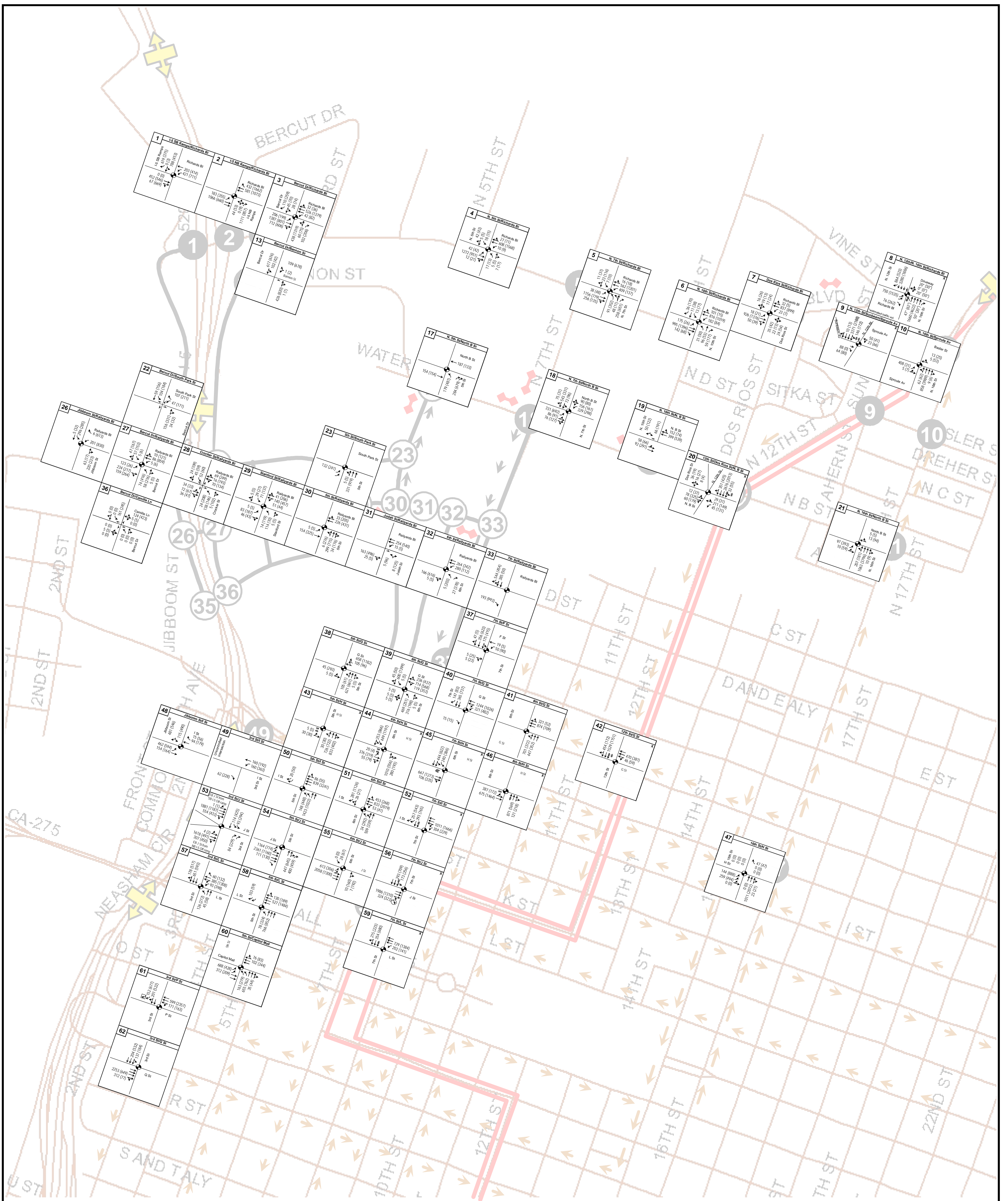
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure B
ROADWAY NETWORK
BASELINE CONDITIONS



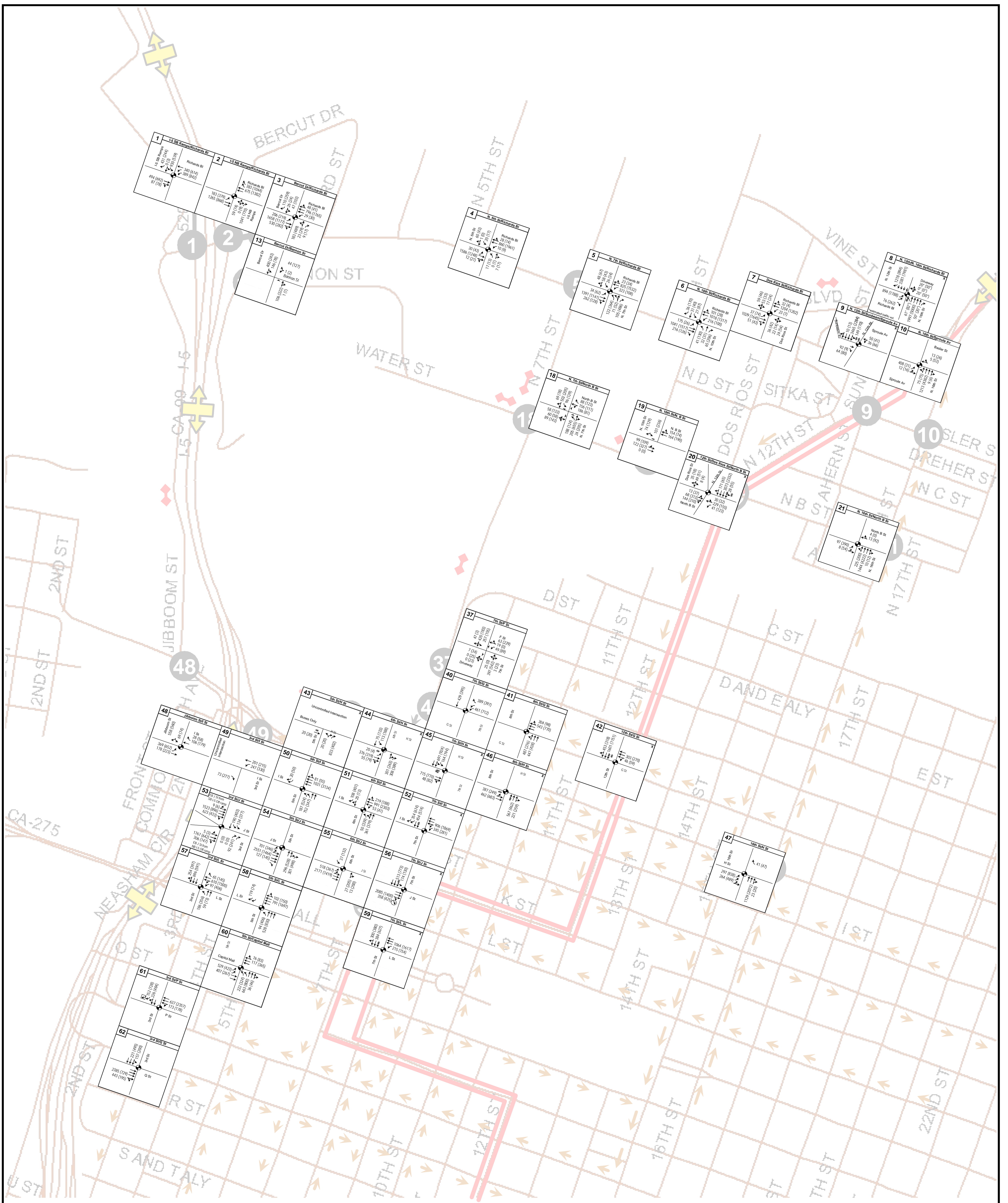
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure C
ROADWAY NETWORK
BASELINE PLUS INITIAL PHASE



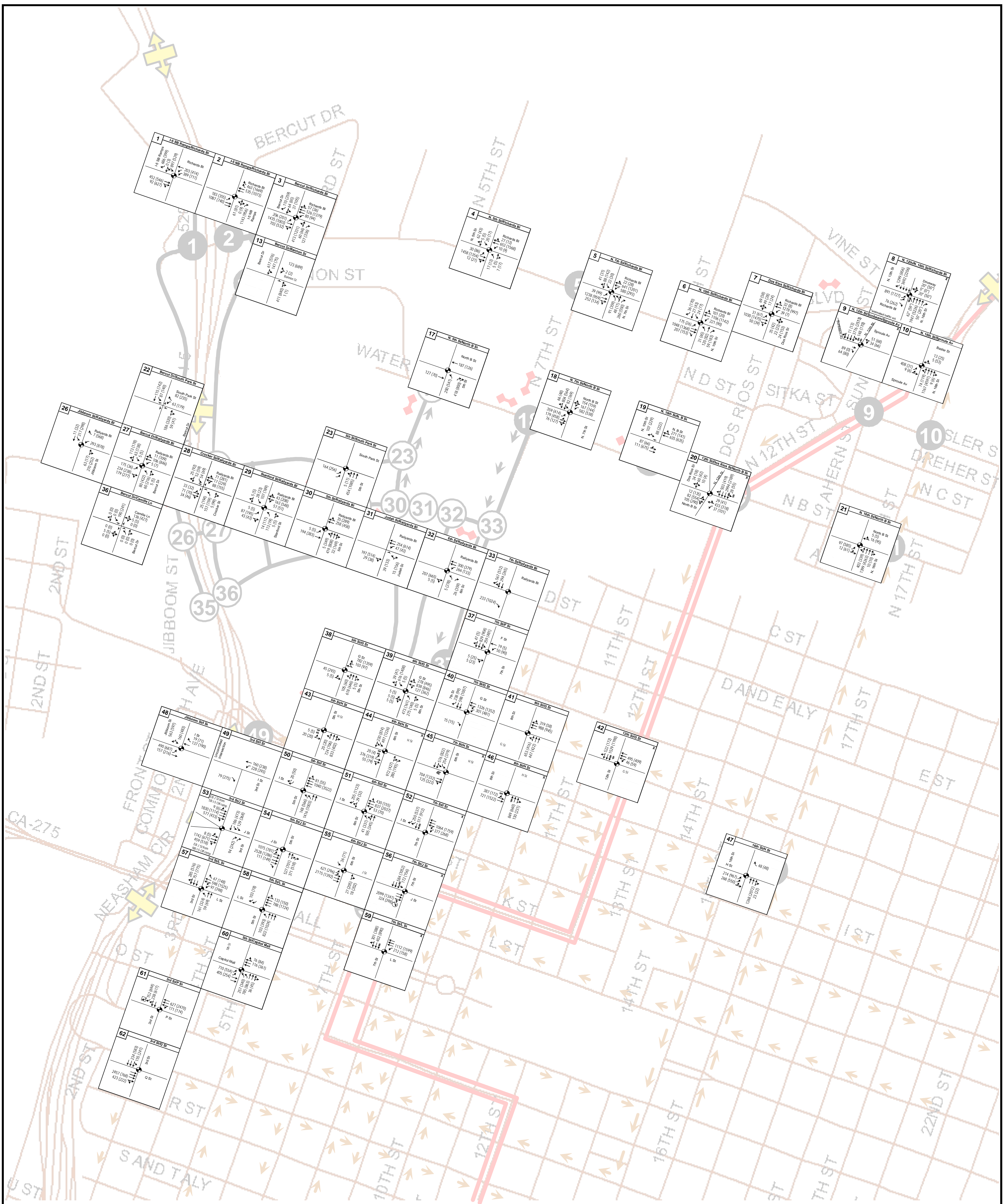
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure D
ROADWAY NETWORK
NEAR-TERM (2013) NO PROJECT



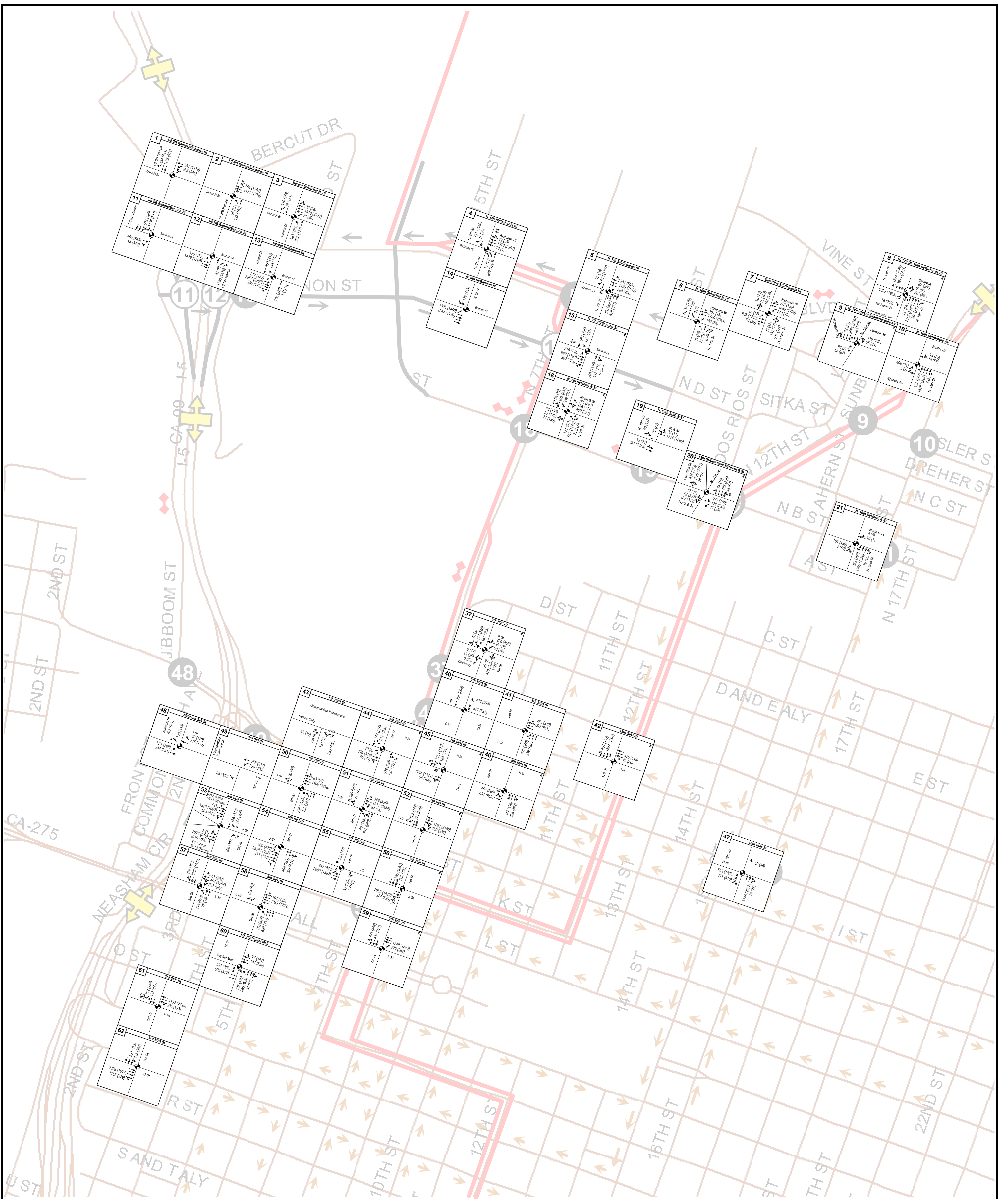
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure E
ROADWAY NETWORK
NEAR-TERM (2013) PLUS INITIAL PHASE



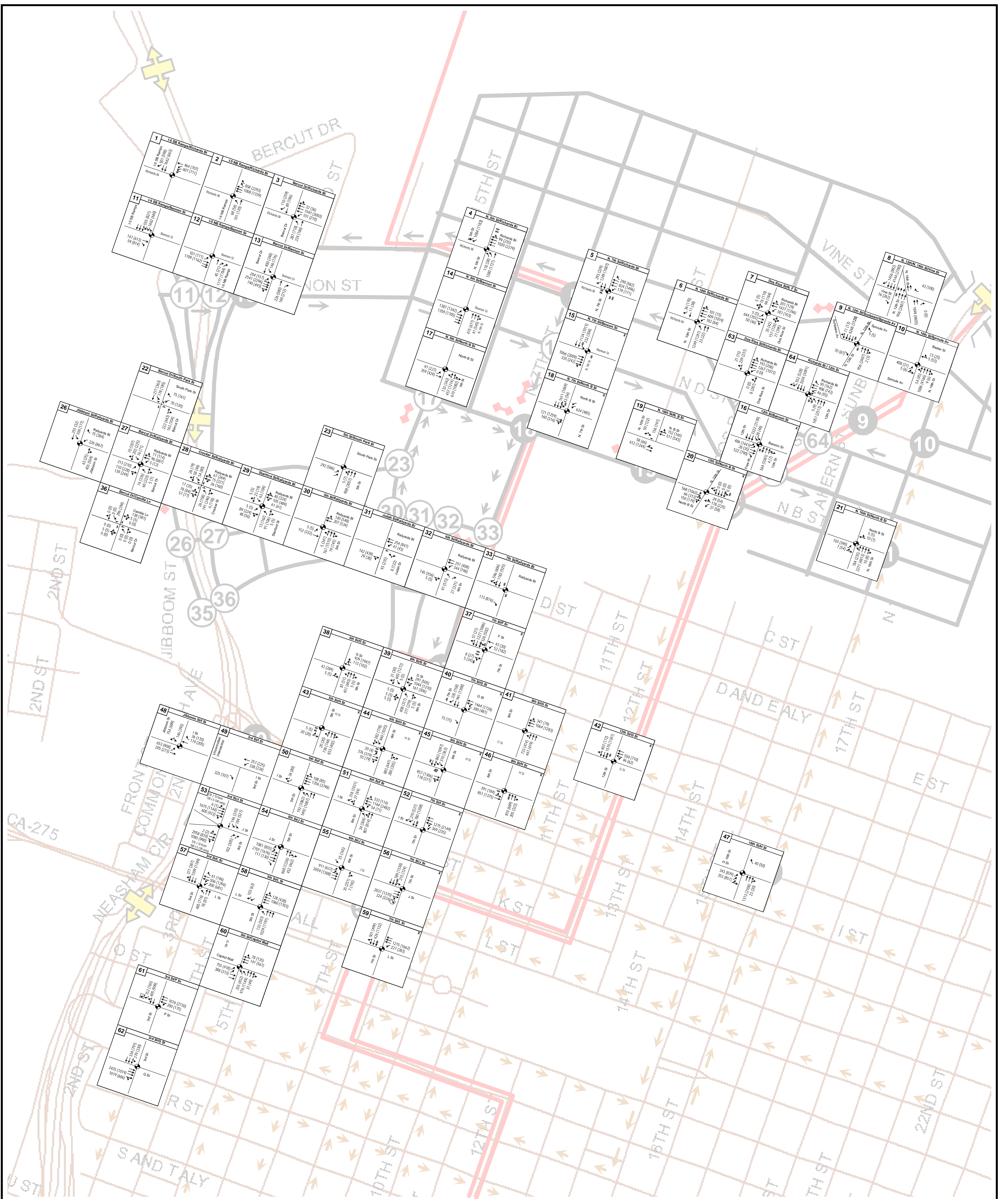
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure F
ROADWAY NETWORK
LONG-TERM (2030) NO PROJECT



Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure G
ROADWAY NETWORK
LONG-TERM (2030) PLUS INITIAL PHASE



Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure H
ROADWAY NETWORK
LONG-TERM (2030) PLUS FULL PROJECT

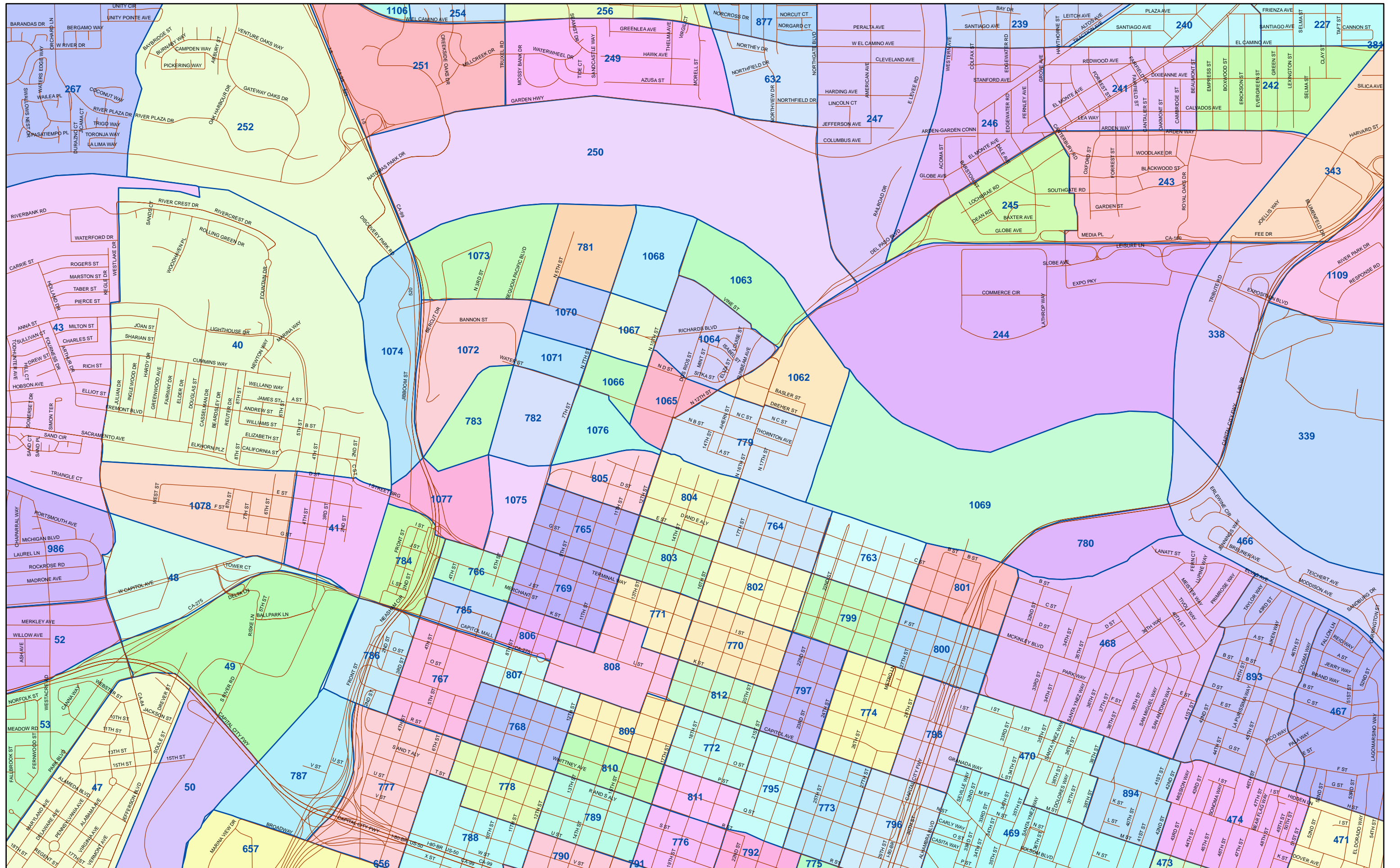
Regional Vehicle Miles Traveled

Regional VMT (1000's, rounded to nearest 10K)

	AM Peak Hr	PM Peak Hour
Baseline No Project	3,320	3,710
Baseline + Initial Phase	3,340	3,730
2013 No Project	4,000	4,570
2013 + Initial Phase	4,020	4,600
2030 No Project	5,140	5,890
2030 + Initial Phase	5,180	5,940
2030 + Full Project	5,210	5,990

SACOG Boundaries

SACOG TAZ Boundaries



Central Shop Gross Area

The Railyards													
Central Shops Gross Areas													
		Gross Floor Areas				Uses [1]							
#	Building	1st	2nd	3rd	Total	Exhibit	F&B	Retail	Market	Theater	Office	Notes	
Historic Cultural													
15a	Performing Arts Theater	100,000	0	0	100,000					100,000		1,200 and 600 seat theater footprint	
20	Paint Shop	56,278	0	0	56,278				56,278			Includes BOH/Service/Circulation	
22	New Retail	6,500	0	0	6,500			6,500				Includes BOH/Service/Circulation	
23	New Bay Car Shop 3	14,000	8,500	0	22,500		22,500					Includes Kitchen	
24	Car Shop 3				38,711								
	North Bay	9,383	7,730	0				9,383			7,730	Includes BOH/Service/Circulation	
	Middle Bay	8,799	0	0			8,799					Includes Kitchen	
	South Bay	11,017	0	0			11,017					Includes Kitchen	
	Privy	594	594	594				1,782				Includes BOH/Service/Circulation	
25	Planning Mill	21,014	21,014	0	42,028		21,014				21,014	Includes Kitchen	
26	Machine Shop	14,250	14,250	0	28,500			14,250			14,250	Includes BOH/Service/Circulation	
27	Blacksmith Shop	28,043	0	0	28,043	25,000		3,043				Includes BOH/Service/Circulation	
28	Erecting Shop	93,134	0	0	93,134	93,134						Includes BOH/Service/Circulation	
29	Boiler Shop	69,696	0	0	69,696	69,696						Includes BOH/Service/Circulation	
	Total	432,708	52,088	594	485,390	187,830	63,330	34,958	56,278	100,000	42,994		
						39%	13%	7%	12%	21%	9%		
		[1] Suggested uses. Actual uses and mix to be determined by market forces.											
		Source: Thomas Enterprises											

New Land Use Update for Model

New = Baseline					
TAZ	Office Employees	Retail Employees	Households	Medical Employees	Other Employees
765	2,272	74	339	6	627
766	2,991	875	400	5	496
767	6,938	125	1,054	4	600
768	8,725	261	191	138	643
769	8,129	757	1,186	20	1,148
771	2,683	183	117	0	385
774	414	241	959	218	327
781	71	2	187	0	999
782	116	19	117	0	0
783	205	19	0	0	0
785	4,112	1,274	810	0	218
786	116	10	94	0	113
796	1,151	193	360	1,773	1,160
798	371	339	107	1,970	301
806	5,532	473	570	6	410
807	6,071	0	37	0	37
808	7,232	121	43	5	1,068
809	1,182	151	1,031	0	131
1065	113	37	0	0	308
1067	2,600	43	0	0	197
1072	2,789	39	22	0	260
1074	3	38	3	0	127
1075	982	53	58	0	0
1076	205	19	58	0	0
1077	205	19	0	0	0

New = Baseline Initial Phase					
TAZ	Office Employees	Retail Employees	Households	Medical Employees	Other Employees
765	2,272	74	339	6	627
766	2,991	875	400	5	496
767	6,205	97	1,054	4	541
768	4,852	136	165	138	643
769	8,035	671	158	20	1,148
771	2,683	183	117	0	385
774	414	241	959	218	327
781	71	2	187	0	999
782	805	567	851	0	900
783	863	1,354	914	0	319
785	2,904	1,079	21	0	68
786	116	10	94	0	113
796	1,151	193	360	264	1,160
798	371	339	107	1,970	301
806	5,272	473	218	6	410
807	6,071	0	37	0	37
808	7,232	121	43	5	1,068
809	1,182	126	956	0	131
1065	113	37	0	0	308
1067	161	43	0	0	197
1072	2,841	435	386	0	308
1074	3	38	3	0	127
1075	5,872	700	230	0	3,375
1076	205	19	58	0	0
1077	511	424	80	0	150

Default = 2005					
Zone	Office Employment	Retail Employment	Households	Medical Employment	Other
765	2272	74	339	6	627
766	2991	875	400	5	496
767	6205	97	1054	4	541
768	4852	136	165	138	643
769	8035	671	158	20	1148
771	2683	183	117	0	385
774	414	241	959	218	327
781	71	2	187	0	999
782	116	19	117	0	0
783	205	19	0	0	0
785	2904	1079	21	0	68
786	116	10	94	0	113
796	1151	193	360	264	1160
798	371	339	107	1970	301
806	5272	473	218	6	410
807	6071	0	37	0	37
808	7232	121	43	5	1068
809	1182	126	956	0	131
1065	113	37	0	0	308
1067	161	43	0	0	197
1072	160	39	22	0	154
1074	3	38	3	0	127
1075	982	53	58	0	0
1076	205	19	58	0	0
1077	205	19	0	0	0

New = 2013 No Project					
TAZ	Office Employees	Retail Employees	Households	Medical Employees	Other Employees
765	2,401	93	375	8	715
766	4,821	1,147	393	6	561
767	7,882	135	1,191	5	597
768	8,856	257	241	165	734
769	8,915	777	1,190	24	1,288
771	3,878	260	471	0	558
774	425	363	921	260	368
781	73	5	465	0	855
782	767	51	332	0	0
783	599	51	43	0	0
785	5,437	1,404	821	0	224
786	119	20	148	0	151
796	1,230	214	402	1,825	1,324
798	381	333	121	2,507	335
806	7,539	543	572	7	459
807	6,734	0	46	0	42
808	7,426	132	41	6	1,212
809	1,631	159	988	0	156
1065	116	42	0	0	312
1067	3,061	64	0	0	231
1072	2,780	37	21	0	255
1074	3	51	206	0	146
1075	1,454	103	165	0	0
1076	804	51	165	0	0
1077	593	51	0	0	0

New = 2013 + Initial Pahse					
TAZ	Office Employees	Retail Employees	Households	Medical Employees	Other Employees
765	2,401	93	375	8	715
766	4,821	1,147	393	6	561
767	7,882	135	1,191	5	597
768	8,856	257	241	165	734
769	8,915	777	1,190	24	1,288
771	3,878	260	471	0	558
774	425	363	921	260	368
781	73	5	465	0	855
782	1,262	588	1,066	0	754
783	808	1,378	957	0	294
785	5,437	1,404	821	0	224
786	119	20	148	0	151
796	1,230	214	402	1,825	1,324
798	381	333	121	2,507	335
806	7,539	543	572	7	459
807	6,734	0	46	0	42
808	7,426	132	41	6	1,212
809	1,631	159	988	0	156
1065	116	42	0	0	312
1067	3,061	64	0	0	231
1072	2,828	433	382	0	255
1074	3	51	206	0	146
1075	6,539	700	230	0	3,375
1076	804	51	165	0	0
1077	593	424	80	0	150

Default = 2013					
Zone	Office Employment	Retail Employment	Households	Medical Employment	Other
765	2333	72	343	8	715
766	4821	848	393	6	561
767	7149	107	1191	5	538
768	4983	132	215	165	734
769	8821	691	162	24	1288
771	3878	260	123	0	558
774	425	363	921	260	368
781	73	5	465	0	855
782	767	51	330	0	0
783	599	51	0	0	0
785	4229	1209	32	0	74
786	119	20	148	0	151
796	1230	214	402	316	1324
798	381	333	121	2507	335
806	7279	543	220	7	459
807	6734	0	46	0	42
808	7426	132	41	6	1212
809	1631	134	913	0	156
1065	116	42	0	0	312
1067	622	64	0	0	231
1072	164	37	21	0	176
1074	3	51	3	0	146
1075	1454	103	165	0	0
1076	804	51	165	0	0
1077	593	51	0	0	0

New = 2030 No Project					
TAZ	Office Employees	Retail Employees	Households	Medical Employees	Other Employees
765	2,522	93	415	8	820
766	5,550	1,174	458	6	639
767	8,422	135	1,383	5	595
768	7,385	261	331	181	841
769	11,221	808	1,190	27	1,456
771	4,694	321	471	0	669
774	460	379	1,067	286	417
781	174	97	2,811	0	654
782	1,832	103	1,068	0	0
783	1,258	103	0	0	0
785	6,563	1,404	821	0	224
786	129	31	229	0	190
796	1,378	233	534	1,245	1,519
798	412	345	164	3,042	375
806	9,346	775	572	7	516
807	8,205	0	60	0	49
808	8,026	145	47	6	1,385
809	1,883	159	1,055	0	200
1,065	126	54	0	0	313
1,067	3,061	88	0	0	260
1,072	2,793	39	25	0	282
1,074	3	80	206	0	168
1,075	2,180	170	321	0	0
1,076	1,803	105	342	0	0
1,077	1,458	103	0	0	0

New = 2030 initial Phase					
TAZ	Office Employees	Retail Employees	Households	Medical Employees	Other Employees
765	2,522	93	415	8	820
766	5,550	1,174	458	6	639
767	8,422	135	1,383	5	595
768	7,385	261	331	181	841
769	11,221	808	1,190	27	1,456
771	4,694	321	471	0	669
774	460	379	1,067	286	417
781	174	97	2,811	0	654
782	1,832	627	1,798	0	581
783	1,258	1,412	815	0	250
785	6,563	1,404	821	0	224
786	129	31	229	0	190
796	1,378	233	534	1,245	1,519
798	412	345	164	3,042	375
806	9,346	775	572	7	516
807	8,205	0	60	0	49
808	8,026	145	47	6	1,385
809	1,883	159	1,055	0	200
1,065	126	54	0	0	313
1,067	3,061	88	0	0	260
1,072	2,841	435	386	0	282
1,074	3	80	206	0	168
1,075	5,872	700	321	0	3,375
1,076	1,803	105	342	0	0
1,077	1,458	424	80	0	150

New =2030 Full Project					
TAZ	Office Employees	Retail Employees	Households	Medical Employees	Other Employees
765	2522	93	415	8	820
766	5550	1174	458	6	639
767	8422	135	1383	5	595
768	7385	261	331	181	841
769	11221	808	1190	27	1456
771	4694	321	471	0	669
774	460	379	1067	286	417
781	174	97	2811	0	654
782	1832	690	4756	0	581
783	1258	1412	815	0	250
785	6563	1404	821	0	224
786	129	31	229	0	190
796	1378	233	534	1245	1519
798	412	345	164	3042	375
806	9346	775	572	7	516
807	8205	0	60	0	49
808	8026	145	47	6	1385
809	1883	159	1055	0	200
1065	363	54	0	0	313
1067	3061	88	0	0	260
1072	2841	435	386	0	282
1074	3	80	206	0	168
1075	6539	700	321	0	3375
1076	1803	120	2931	0	0
1077	1458	518	1520	0	375

Default = 2030					
Zone	Office Employment	Retail Employment	Households	Medical Employment	Other
765	2522	74	415	8	820
766	5550	875	458	6	639
767	8422	110	1383	5	545
768	5385	136	331	181	841
769	11221	808	200	27	1456
771	4694	321	149	0	669
774	460	379	1067	286	417
781	79	8	619	0	654
782	1832	103	1068	0	0
783	1258	103	0	0	0
785	6563	1401	45	0	82
786	129	31	229	0	190
796	1378	233	534	347	1519
798	412	345	164	3042	375
806	9346	775	259	7	516
807	8205	0	60	0	49
808	8026	145	47	6	1385
809	1883	152	1055	0	200
1065	126	54	0	0	313
1067	1021	88	0	0	260
1072	177	39	25	0	203
1074	3	80	3	0	168
1075	2180	170	321	0	0
1076	1803	105	342	0	0
1077	1458	103	0	0	0

Intersection Queues

Queue Summary for Existing Conditions		Sacramento Railyards Traffic Study																
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other				
39	#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
40	G Street & 7th Street	Storage Length (ft)								360				359				
		AM Queue (ft)				0			0					129				
		PM Queue (ft)				0			0					141				
41	G Street & 8th Street	Storage Length (ft)		344			1612							219				
		AM Queue (ft)					m23							50				
		PM Queue (ft)					27							39				
42	G Street & 12th Street	Storage Length (ft)		1612			843							359				
		AM Queue (ft)					35							m208				
		PM Queue (ft)					31							195				
43	#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
44	H Street & 6th Street	Storage Length (ft)		322			333				349			99				
		AM Queue (ft)		0						4	3			18				
		PM Queue (ft)		101						m10	m8			16				
45	H Street & 7th Street	Storage Length (ft)		333			337							360				
		AM Queue (ft)		82									38	75				
		PM Queue (ft)		47									27	89				
46	H Street & 8th Street	Storage Length (ft)		337			496							358				
		AM Queue (ft)		0										39				
		PM Queue (ft)		9										36				
47	H Street & 16th Street	Storage Length (ft)		1181			746							3447				
		AM Queue (ft)	14	#167					0					103				
		PM Queue (ft)	146	#326					#53					#317				
48	I Street & Jibboom St	Storage Length (ft)	75	1090			186											
		AM Queue (ft)	162	75			66	6					96					
		PM Queue (ft)	353	75			145	12					106					
49	#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	<(NEL)	#N/A	
		AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	(NER)>	#N/A	
		PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
50	I St & 5th Street	Storage Length (ft)		402			324							179				
		AM Queue (ft)					29		9	96								
		PM Queue (ft)					m165		161	143								
51	I St & 6th Street	Storage Length (ft)		324			345							349				
		AM Queue (ft)					120			m27	67			17	8			
		PM Queue (ft)					423			#195	121			#224	#225			
52	I St & 7th Street	Storage Length (ft)		345			1246							351	100			
		AM Queue (ft)				32	69							10	0			
		PM Queue (ft)				27	255							108	138			
53	J St & 3rd St	Storage Length (ft)		265			756							262				
		AM Queue (ft)		#512							50	52		122		#527	#508	
		PM Queue (ft)		#305							0	109		309		340	0	
54	J St & 5th Street	Storage Length (ft)	140	756	200		329				807			353				
		AM Queue (ft)	m50	m212	m3						163	175						
		PM Queue (ft)	41	94	23						96	104						
55	J St & 6th Street	Storage Length (ft)		329			341							362				
		AM Queue (ft)	156	275							19		m20					
		PM Queue (ft)	m60	167							126		m21					
56	J St & 7th Street	Storage Length (ft)		341			1203							371				
		AM Queue (ft)		45	0									89				
		PM Queue (ft)		30										121				
57	L St & 3rd St	Storage Length (ft)		488			756									441		
		AM Queue (ft)				4	50	45	3					103				
		PM Queue (ft)				m46	m224	m190	m0					150				
58	L St & 5th Street	Storage Length (ft)		756			747							807				
		AM Queue (ft)					63			m14	m64			0				
		PM Queue (ft)					230			91	61			13				
59	L St & 7th Street	Storage Length (ft)		747			1840							790				
		AM Queue (ft)					34	82						69				
		PM Queue (ft)					28	#202						57				
60	Capitol Mall & 5th Street	Storage Length (ft)	200	329			343							379				
		AM Queue (ft)	#164	63			30		31	79								
		PM Queue (ft)	101	44			74		53	99								
61	P St & 3rd St	Storage Length (ft)		441			333							1692				
		AM Queue (ft)					39							46	28			
		PM Queue (ft)					245							#206	#260			
62	Q St & 3rd St	Storage Length (ft)		423			339							362				
		AM Queue (ft)		151										29				
		PM Queue (ft)		30										m55				

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		#142		7	3						#559	55			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m59	m8			113	45		107	168						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	75	287		21	83			57	7		31	29			
4	Richard Blvd & 5th Street	Queue Length 95th (ft)	36	257		18	132		19	0		19	19				
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	40	422		173	143		60	60	20	15	21				
6	Richard Blvd & 10th St	Queue Length 95th (ft)	135	130	18	22	195		17	22	6	17	15	20			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	12	98		16	113			35			26				
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)		368	37		68						606				
10	Basler St & 16th Street	Queue Length 95th (ft)	#232	#243			9			76							
20	Water St & 12th Street	Queue Length 95th (ft)		37		37	80						48		#513		
21	North B St & 16th Street	Queue Length 95th (ft)	m16	m16			12			11							
40	G Street & 7th Street	Queue Length 95th (ft)				0		0					129				
41	G Street & 8th Street	Queue Length 95th (ft)					m23			50							
42	G Street & 12th Street	Queue Length 95th (ft)					35						m208				
44	H Street & 6th Street	Queue Length 95th (ft)		0						4	3		18				
45	H Street & 7th Street	Queue Length 95th (ft)		82								38	75				
46	H Street & 8th Street	Queue Length 95th (ft)		0						39							
47	H Street & 16th Street	Queue Length 95th (ft)	14	#167				0		103							
48	I Street & Jibboom St	Queue Length 95th (ft)	162	75			66	6				96					
50	I St & 5th Street	Queue Length 95th (ft)					29		9	96							
51	I St & 6th Street	Queue Length 95th (ft)					120	m27		67			17	8			
52	I St & 7th Street	Queue Length 95th (ft)				32	69						10	0			
53	J St & 3rd St	Queue Length 95th (ft)		#512							50	52	122		#527		#508
54	J St & 5th Street	Queue Length 95th (ft)	m50	m212	m3					163	175						
55	J St & 6th Street	Queue Length 95th (ft)	156	275						19		m20					
56	J St & 7th Street	Queue Length 95th (ft)		45	0								89				
57	L St & 3rd St	Queue Length 95th (ft)				4	50	45	3					103			
58	L St & 5th Street	Queue Length 95th (ft)					63		m14	m64				0			
59	L St & 7th Street	Queue Length 95th (ft)				34	82						69				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	#164	63			30		31	79							
61	P St & 3rd St	Queue Length 95th (ft)					39						46	28			
62	Q St & 3rd St	Queue Length 95th (ft)		151									29				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		#229		8	2						#262	52			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m#224	m4			230	#497		71	31						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	80	106		21	267			135	12		45	50			
4	Richard Blvd & 5th Street	Queue Length 95th (ft)	22	131		18	#478		18	15		19	0				
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	21	203		91	393		154	156	31	22	40				
6	Richard Blvd & 10th St	Queue Length 95th (ft)	35	127	16	14	273		19	16	10	53	32	40			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	11	104		8	176			36			29				
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)		303	36		54						311				
10	Basler St & 16th Street	Queue Length 95th (ft)	#512	#526			38			110							
20	Water St & 12th Street	Queue Length 95th (ft)		147		m58	m81						50		#232		
21	North B St & 16th Street	Queue Length 95th (ft)	m#292	m#294			16			m473							
40	G Street & 7th Street	Queue Length 95th (ft)				0		0					141				
41	G Street & 8th Street	Queue Length 95th (ft)					27			39							
42	G Street & 12th Street	Queue Length 95th (ft)					31						195				
44	H Street & 6th Street	Queue Length 95th (ft)		101						m10	m8		16				
45	H Street & 7th Street	Queue Length 95th (ft)		47								27	89				
46	H Street & 8th Street	Queue Length 95th (ft)		9						36							
47	H Street & 16th Street	Queue Length 95th (ft)	146	#326				#53		#317							
48	I Street & Jibboom St	Queue Length 95th (ft)	353	75			145	12				106					
50	I St & 5th Street	Queue Length 95th (ft)					m165		161	143							
51	I St & 6th Street	Queue Length 95th (ft)					423	#195		121			#224	#225			
52	I St & 7th Street	Queue Length 95th (ft)				27	255						108	138			
53	J St & 3rd St	Queue Length 95th (ft)		#305							0	109	309		340		0
54	J St & 5th Street	Queue Length 95th (ft)	41	94	23					96	104						
55	J St & 6th Street	Queue Length 95th (ft)	m60	167						126		m21					
56	J St & 7th Street	Queue Length 95th (ft)		30									121				
57	L St & 3rd St	Queue Length 95th (ft)				m46	m224	m190	m0					150			
58	L St & 5th Street	Queue Length 95th (ft)					230		91	61				13			
59	L St & 7th Street	Queue Length 95th (ft)				28	#202						57				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	101	44			74		53	99							
61	P St & 3rd St	Queue Length 95th (ft)					245						#206	#260			
62	Q St & 3rd St	Queue Length 95th (ft)		30									m55				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		205			310			566			611			
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		310			238			719			564			
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		238			1336			432			634			
4	Richard Blvd & 5th Street	Internal Link Dist (ft)		727			1052			442			731			
5	Richard Blvd & 7th Street	Internal Link Dist (ft)		1052			1196			1332			821			
6	Richard Blvd & 10th St	Internal Link Dist (ft)		1196			830			1437			985			
7	Richard Blvd & Dos Rios St	Internal Link Dist (ft)		830			1264			1815			765			
9	Sunbeam Ave & 12th Street	Internal Link Dist (ft)		480			562			31			881			
10	Basler St & 16th Street	Internal Link Dist (ft)		562			720			1090			552			
20	Water St & 12th Street	Internal Link Dist (ft)		354			1674			2557			1815		1536	
21	North B St & 16th Street	Internal Link Dist (ft)		1674			657			3447			1090			
40	G Street & 7th Street	Internal Link Dist (ft)				344				360			359			
41	G Street & 8th Street	Internal Link Dist (ft)		344			1612			358			219			
42	G Street & 12th Street	Internal Link Dist (ft)		1612			843			1219			359			
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			99			
45	H Street & 7th Street	Internal Link Dist (ft)		333			337			351			360			
46	H Street & 8th Street	Internal Link Dist (ft)		337			496			222			358			
47	H Street & 16th Street	Internal Link Dist (ft)		1181			746			798			3447			
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186					1014				
50	I St & 5th Street	Internal Link Dist (ft)		402			324			353			179			
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349			
52	I St & 7th Street	Internal Link Dist (ft)		345			1246			371			351			
53	J St & 3rd St	Internal Link Dist (ft)		265			756			332			262		540	
54	J St & 5th Street	Internal Link Dist (ft)		756			329			807			353			
55	J St & 6th Street	Internal Link Dist (ft)		329			341			356			362			
56	J St & 7th Street	Internal Link Dist (ft)		341			1203			790			371			
57	L St & 3rd St	Internal Link Dist (ft)		488			756				1692			411		441
58	L St & 5th Street	Internal Link Dist (ft)		756			747			379			807			
59	L St & 7th Street	Internal Link Dist (ft)		747			1840			823			790			
60	Capitol Mall & 5th Street	Internal Link Dist (ft)		329			343			365			379			
61	P St & 3rd St	Internal Link Dist (ft)		441			333			362			1692			
62	Q St & 3rd St	Internal Link Dist (ft)		423			339			788			362			

Queue Summary for Baseline Conditions		Sacramento Railyards Traffic Study														
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other		
39	#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
40	G Street & 7th Street	Storage Length (ft)														
		AM Queue (ft)				2		11								
		PM Queue (ft)				0		0								
41	G Street & 8th Street	Storage Length (ft)		344												
		AM Queue (ft)						1612								
		PM Queue (ft)						m36								
42	G Street & 12th Street	Storage Length (ft)														
		AM Queue (ft)						843								
		PM Queue (ft)						36								
43	#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
44	H Street & 6th Street	Storage Length (ft)		322												
		AM Queue (ft)	m15	111				333								
		PM Queue (ft)	m2	41												
45	H Street & 7th Street	Storage Length (ft)														
		AM Queue (ft)						333								
		PM Queue (ft)						106								
46	H Street & 8th Street	Storage Length (ft)														
		AM Queue (ft)						337								
		PM Queue (ft)						150								
47	H Street & 16th Street	Storage Length (ft)														
		AM Queue (ft)						496								
		PM Queue (ft)						45								
48	I Street & Jibboom St	Storage Length (ft)														
		AM Queue (ft)						337								
		PM Queue (ft)						92								
49	#N/A	Storage Length (ft)														
		AM Queue (ft)	16	#170				746								
		PM Queue (ft)	146	#341				0								
50	I St & 5th Street	Storage Length (ft)														
		AM Queue (ft)						186								
		PM Queue (ft)						73								
51	I St & 6th Street	Storage Length (ft)														
		AM Queue (ft)						7								
		PM Queue (ft)						12								
52	I St & 7th Street	Storage Length (ft)														
		AM Queue (ft)														
		PM Queue (ft)														
53	J St & 3rd St	Storage Length (ft)														
		AM Queue (ft)														
		PM Queue (ft)														
54	J St & 5th Street	Storage Length (ft)														
		AM Queue (ft)														
		PM Queue (ft)														
55	J St & 6th Street	Storage Length (ft)														
		AM Queue (ft)														
		PM Queue (ft)														
56	J St & 7th Street	Storage Length (ft)														
		AM Queue (ft)														
		PM Queue (ft)														
57	L St & 3rd St	Storage Length (ft)														
		AM Queue (ft)														
		PM Queue (ft)														
58	L St & 5th Street	Storage Length (ft)														
		AM Queue (ft)														
		PM Queue (ft)														
59	L St & 7th Street	Storage Length (ft)														
		AM Queue (ft)														
		PM Queue (ft)														
60	Capitol Mall & 5th Street	Storage Length (ft)														
		AM Queue (ft)														
		PM Queue (ft)														
61	P St & 3rd St	Storage Length (ft)														
		AM Queue (ft)														
		PM Queue (ft)														
62	Q St & 3rd St	Storage Length (ft)														
		AM Queue (ft)														
		PM Queue (ft)														

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		#186		m8	m3						#677	55			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m50	m10			128	46		#310	#357						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	67	505		31	79			#210	13		61	43			
4	Richard Blvd & 5th Street	Queue Length 95th (ft)	38	298		19	132		20	0		21	20				
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	45	574		#226	143		91	94	45	21	29				
6	Richard Blvd & 10th St	Queue Length 95th (ft)	148	263	61	153	209		34	27	28	19	17	22			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	13	165		16	157			37			26				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#486			51		57		#109	215	29			#690	344	
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)		91	35		69						318				
10	Basler St & 16th Street	Queue Length 95th (ft)	68	68			11			61							
20	Water St & 12th Street	Queue Length 95th (ft)		44		55	205						49		#429		
21	North B St & 16th Street	Queue Length 95th (ft)	m40	m42			13				16						
40	G Street & 7th Street	Queue Length 95th (ft)				2		11					131				
41	G Street & 8th Street	Queue Length 95th (ft)					m36				12						
42	G Street & 12th Street	Queue Length 95th (ft)					36						56				
44	H Street & 6th Street	Queue Length 95th (ft)	m15	111						128	98		47				
45	H Street & 7th Street	Queue Length 95th (ft)		106								42	89				
46	H Street & 8th Street	Queue Length 95th (ft)		45						51							
47	H Street & 16th Street	Queue Length 95th (ft)	16	#170				0		104							
48	I Street & Jibboom St	Queue Length 95th (ft)	197	73			73	7				103					
50	I St & 5th Street	Queue Length 95th (ft)					33		11	95				1			
51	I St & 6th Street	Queue Length 95th (ft)					148		m26	78			14	11			
52	I St & 7th Street	Queue Length 95th (ft)				38	87						14	0			
53	J St & 3rd St	Queue Length 95th (ft)		#518							51	52	127		#542	#547	
54	J St & 5th Street	Queue Length 95th (ft)	m53	m225	m3					169	183						
55	J St & 6th Street	Queue Length 95th (ft)	176	273						21		m19					
56	J St & 7th Street	Queue Length 95th (ft)		264	73								90				
57	L St & 3rd St	Queue Length 95th (ft)				67	172	124	24	129	16			202			
58	L St & 5th Street	Queue Length 95th (ft)					65		m14	m65				0			
59	L St & 7th Street	Queue Length 95th (ft)				35	91						69				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	#180	65			30		32	83							
61	P St & 3rd St	Queue Length 95th (ft)					45						114	m97			
62	Q St & 3rd St	Queue Length 95th (ft)		181									27				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		#236		m7	m2						#398	52			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m#176	m7			282	#532		87	102						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	78	187		30	267			#510	17		58	50			
4	Richard Blvd & 5th Street	Queue Length 95th (ft)	22	186		18	#478		18	15		19	0				
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	21	294		98	394		164	167	114	22	44				
6	Richard Blvd & 10th St	Queue Length 95th (ft)	38	309	35	86	268		47	26	45	66	38	44			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	11	280		8	176			52			29				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#1143			213		133		#124	#1834	29			230	43	
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)			39		m101						255				
10	Basler St & 16th Street	Queue Length 95th (ft)	m9	m10			86			108							
20	Water St & 12th Street	Queue Length 95th (ft)		195		m45	m88						50		#291		
21	North B St & 16th Street	Queue Length 95th (ft)	m#260	m#249			16			m479							
40	G Street & 7th Street	Queue Length 95th (ft)				0		0					141				
41	G Street & 8th Street	Queue Length 95th (ft)					42			9							
42	G Street & 12th Street	Queue Length 95th (ft)					32						m175				
44	H Street & 6th Street	Queue Length 95th (ft)	m2	41						m104	m66		93				
45	H Street & 7th Street	Queue Length 95th (ft)		150								35	100				
46	H Street & 8th Street	Queue Length 95th (ft)		92						53							
47	H Street & 16th Street	Queue Length 95th (ft)	146	#341				#53		#328							
48	I Street & Jibboom St	Queue Length 95th (ft)	#463	88			158	12				171					
50	I St & 5th Street	Queue Length 95th (ft)					m270		167	138				28			
51	I St & 6th Street	Queue Length 95th (ft)					408	#195		142			#278	#282			
52	I St & 7th Street	Queue Length 95th (ft)				37	318						156	148			
53	J St & 3rd St	Queue Length 95th (ft)		222							46	90	258		133		118
54	J St & 5th Street	Queue Length 95th (ft)	54	99	23					100	110						
55	J St & 6th Street	Queue Length 95th (ft)	75	178						131		m19					
56	J St & 7th Street	Queue Length 95th (ft)		155									35				
57	L St & 3rd St	Queue Length 95th (ft)				175	529	370	23	#377	27			#290			
58	L St & 5th Street	Queue Length 95th (ft)					232		92	62				13			
59	L St & 7th Street	Queue Length 95th (ft)				30	#222						57				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	103	45			75		55	103							
61	P St & 3rd St	Queue Length 95th (ft)					#367						m142	m127			
62	Q St & 3rd St	Queue Length 95th (ft)		36									m28				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		205			310			566			611				
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		310			238			719			564				
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		238			1336			432			634				
4	Richard Blvd & 5th Street	Internal Link Dist (ft)		727			1052			442			731				
5	Richard Blvd & 7th Street	Internal Link Dist (ft)		1052			1196			1332			821				
6	Richard Blvd & 10th St	Internal Link Dist (ft)		1196			830			1437			270				
7	Richard Blvd & Dos Rios St	Internal Link Dist (ft)		830			1264			1815			765				
8	Richard Blvd & 12th Street	Internal Link Dist (ft)		370				221			221			1158			223
9	Sunbeam Ave & 12th Street	Internal Link Dist (ft)		480			573			31			585				
10	Basler St & 16th Street	Internal Link Dist (ft)		573			720			1090			552				
20	Water St & 12th Street	Internal Link Dist (ft)		354			1674			2557			1815		1536		
21	North B St & 16th Street	Internal Link Dist (ft)		1674			657			3447			1090				
40	G Street & 7th Street	Internal Link Dist (ft)				344				360			359				
41	G Street & 8th Street	Internal Link Dist (ft)		344			1612			358			219				
42	G Street & 12th Street	Internal Link Dist (ft)		1612			843			1219			359				
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			99				
45	H Street & 7th Street	Internal Link Dist (ft)		333			337			351			360				
46	H Street & 8th Street	Internal Link Dist (ft)		337			496			222			358				
47	H Street & 16th Street	Internal Link Dist (ft)		1181			746			798			3447				
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186					1014					
50	I St & 5th Street	Internal Link Dist (ft)		402			324			353			179				
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349				
52	I St & 7th Street	Internal Link Dist (ft)		345			1246			371			351				
53	J St & 3rd St	Internal Link Dist (ft)		265			756			332			262		540		
54	J St & 5th Street	Internal Link Dist (ft)		756			329			807			353				
55	J St & 6th Street	Internal Link Dist (ft)		329			341			356			362				
56	J St & 7th Street	Internal Link Dist (ft)		341			1203			790			371				
57	L St & 3rd St	Internal Link Dist (ft)		488			756				1692			411		441	
58	L St & 5th Street	Internal Link Dist (ft)		756			747			379			807				
59	L St & 7th Street	Internal Link Dist (ft)		747			1840			823			790				
60	Capitol Mall & 5th Street	Internal Link Dist (ft)		329			343			365			379				
61	P St & 3rd St	Internal Link Dist (ft)		441			333			362			1692				
62	Q St & 3rd St	Internal Link Dist (ft)		423			339			788			362				

Queue Summary for Baseline with Project Conditions		Sacramento Railyards Traffic Study													
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other	
1 Richard Blvd & 1-5 SB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)		277 #187 #471		100 m8 m7	347 m3 m2			566			611 #680 #398	300 88 67		
2 Richard Blvd & 1-5 NB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)	100 m49 m95	347 m15 m21			238 145 282	55		719 #373 108	300 #427 186		564			
3 Richard Blvd & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150 67 86	238 646 205		150 #72 #111	1336 79 260			432 #670 #1759	100 74 154		634 87 #239	100 43 58		
4 Richard Blvd & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150 50 51	727 314 210		150 20 19	1052 136 #531		21 14 19	442		22 26 20	731 26 27			
5 Richard Blvd & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	200 #78 76	1052 #748 409		200 #536 165	1196 144 538		200 91 205	1413 94 208	100 71 119	150 21 23	821 52 167			
6 Richard Blvd & 10th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150 161 39	1196 321 451	100 65 37	150 166 88	830 285 260		125 37 49	214 87 50	100 30 47	150 21 69	270 19 39	75 24 46		
7 Richard Blvd & Dos Rios St	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150 14 16	830 187 #333		150 17 8	1264 162 171			1815 37 53			765 27 29			
8 Richard Blvd & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		370 #578 #1311	58 227		57 133		#121 #144	215 #1748	29 25		300 #844 213	300 #520 41		
9 Sunbeam Ave & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		480 92 41	150 35 41		573 79 m94			31			879 382 304			
10 Basler St & 16th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		573 65 m10	m10		720 11 86			1090 62 m108			552			
11 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
12 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
14 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
15 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
16 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
17 N B Street & 5th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		260 47 122			1025 29 112				83 0					
18 North B St & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150 82 54	1025 59 15		175 157	1205 129 82			982			1413 186 145			
19 Water St & 10th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)	1220 0 0	1200 0 0			400 0 0	400 0 0					1200 0 0			
20 North B St & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		354 51 203		125 63 m#173	1674 232 m138			2557			1815 49 50	1536 #685 #423	<(SWL)	
21 North B St & 16th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1674 m43 m#256	m44 m#270		657 15 101			3447 17 m506			1090			
22 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
23 South Park St & 5th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		52 86						378 6 9			230			
24 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
26 Railyards Blvd & Jibboom St	Storage Length (ft) AM Queue (ft) PM Queue (ft)					120 m#589	8 m28		199 42 52		150 138 #271	2503 5 29			
27 Railyards Blvd & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)	75 87 m28	199 241 m#370		170 9 12	399 31 #393		100 66 #362	556 55 160		150 11 11	516 64 204			
28 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
29 Railyards Blvd & Stanford St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		241 81 10			255 0 103		150 19 94	328 88 18		140 62 106	304 32 26			
30 Railyards Blvd & 5th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		255 m7 m3			218 101 206			305 51 239			378			
31 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
32 Railyards Blvd & 6th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		204 28 160			364 117 107		10 10		19 65					
33 Railyards Blvd & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)			5 #396					1432			982 117 37	50 67		
34 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
35 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
36 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
37 F Street & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		163 13 44			100 35 92	961 18 12		138			1432 106 194			
38 G Street & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		34 22 #190			304 m87 m98	m84 m94		374 14 132			183			

Queue Summary for Baseline with Project Conditions		Sacramento Railyards Traffic Study													
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other	
39 G Street & 6th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		304 m19 m9			340 m#516 #765		150 m193 m#137	376 m4 m62		150 15 15	639 #658 #1591			
40 G Street & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		340	m0 2	26 52	344 145 66			360			141 59 134	53 28		
41 G Street & 8th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		344			1612 m69 48			358 46 m16			219			
42 G Street & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1612			843 57 46			1219			359 m27 m145			
43 H Street & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		164 22 22			322			91 0 m219			374			
44 H Street & 6th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150 m14 m7	322 #217 186			333			349 #1125 m#647	m68 m91	m#280 m#562	m#286 m#592			
45 H Street & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		333 m132 m266			337			351		m29 103	m80 136			
46 H Street & 8th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		337 43 m67			496			222 104 94			358			
47 H Street & 16th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	16 #197	1181 #174 #404			746	0 #58		798 105 #329			3447			
48 I Street & Jibboom St	Storage Length (ft) AM Queue (ft) PM Queue (ft)	75 #489 #795	1090 126 136			186 116 206	8 18				411 #1364				
49 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	<(NEL) (NER)>	#N/A #N/A #N/A
50 I St & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		402			324 44 m315		m11 178	353 #251 #535			179 2 29			
51 I St & 6th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		324			345 149 458		m21 #304	362 138 #258			349 m65 m#532	m60 m#533		
52 I St & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		345		40 37	1246 119 326			371			351 17 m277	100 0 m135		
53 J St & 3rd St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		267 #653 #453						51 61	53 109	127 363		#598 273	#570 208	
54 J St & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	140 m179 151	756 m243 123	200 m2 23		329			807 229 130	109 247 143		353			
55 J St & 6th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		329 275 133	296 296 168		341			356 23 140		m17 m14	362			
56 J St & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		341 279 155		73	1203			790			371 89 60			
57 L St & 3rd St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		488		67 175	756 175 500	142 415	24 23	129 #393	16 27			213 #438	441	
58 L St & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		756			747 66 #244		m14 102	379 m90 82			807 0 13			
59 L St & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		747			1840 35 91 #222			823			790 63 18			
60 Capitol Mall & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	200 #273 134	329 65 45			343 30 76		36 57	365 90 106			379			
61 P St & 3rd St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		441			333 45 #367			362			1692 114 m147	100 m94 m131		
62 Q St & 3rd St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		423 181 36			339			788			362 27 m36			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		#187		m8	m3						#680	88			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m49	m15			145	55		#373	#427						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	67	646		#72	79			#670	74		87	43			
4	Richard Blvd & 5th Street	Queue Length 95th (ft)	50	314		20	136		21	14		22	26				
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	#78	#748		#536	144		91	94	71	21	52				
6	Richard Blvd & 10th St	Queue Length 95th (ft)	161	321	65	166	285		37	87	30	21	19	24			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	14	187		17	162			37			27				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#578			58		57		#121	215	29			#844	#520	
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)		92	35		79						382				
10	Basler St & 16th Street	Queue Length 95th (ft)	65	65			11			62							
17	N B Street & 5th St	Queue Length 95th (ft)		47			29		83		0						
18	North B St & 7th Street	Queue Length 95th (ft)	82	59		175	129						186				
20	North B St & 12th Street	Queue Length 95th (ft)		51		63	232						49		#685		
21	North B St & 16th Street	Queue Length 95th (ft)	m43	m44			15			17							
23	South Park St & 5th St	Queue Length 95th (ft)	52							6							
26	Railyards Blvd & Jibboom St	Queue Length 95th (ft)				120		8		42		138	5				
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	87	241		9	31		66	55		11	64				
29	Railyards Blvd & Stanford St	Queue Length 95th (ft)	10	81			0		19	88		62	32				
30	Railyards Blvd & 5th St	Queue Length 95th (ft)	m7	82			101			51							
32	Railyards Blvd & 6th St	Queue Length 95th (ft)		28		117	17		10		19						
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			5								117	50			
37	F Street & 7th Street	Queue Length 95th (ft)		13		35	18						106				
38	G Street & 5th Street	Queue Length 95th (ft)		22			m87	m84		14							
39	G Street & 6th Street	Queue Length 95th (ft)		m19			m#516		m193	m4		15	#658				
40	G Street & 7th Street	Queue Length 95th (ft)			m0	26	145						59	53			
41	G Street & 8th Street	Queue Length 95th (ft)					m69			46							
42	G Street & 12th Street	Queue Length 95th (ft)					57						m27				
43	H Street & 5th Street	Queue Length 95th (ft)		22						0							
44	H Street & 6th Street	Queue Length 95th (ft)	m14	#217						#1125	m68	m#280	m#286				
45	H Street & 7th Street	Queue Length 95th (ft)		m132								m29	m80				
46	H Street & 8th Street	Queue Length 95th (ft)		43						104							
47	H Street & 16th Street	Queue Length 95th (ft)	16	#174				0		105							
48	I Street & Jibboom St	Queue Length 95th (ft)	#489	126			116	8				411					
50	I St & 5th Street	Queue Length 95th (ft)					44		m11	#251				2			
51	I St & 6th Street	Queue Length 95th (ft)					149		m21	138			m65	m60			
52	I St & 7th Street	Queue Length 95th (ft)				40	119						17	0			
53	J St & 3rd St	Queue Length 95th (ft)		#653							51	53	127	#598	#570		
54	J St & 5th Street	Queue Length 95th (ft)	m179	m243	m2					229	247						
55	J St & 6th Street	Queue Length 95th (ft)	275	296						23		m17					
56	J St & 7th Street	Queue Length 95th (ft)		279	73								89				
57	L St & 3rd St	Queue Length 95th (ft)				67	175	142	24	129	16			213			
58	L St & 5th Street	Queue Length 95th (ft)					66		m14	m90				0			
59	L St & 7th Street	Queue Length 95th (ft)				35	91						63				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	#273	65			30		36	90							
61	P St & 3rd St	Queue Length 95th (ft)					45						114	m94			
62	Q St & 3rd St	Queue Length 95th (ft)		181									27				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		#471		m7	m2						#398	67			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m95	m21			282	#1167		108	186						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	86	205		#111	260			#1759	154		#239	58			
4	Richard Blvd & 5th Street	Queue Length 95th (ft)	51	210		19	#531		18	19		20	27				
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	76	409		165	538		205	208	119	23	167				
6	Richard Blvd & 10th St	Queue Length 95th (ft)	39	451	37	88	260		49	50	47	69	39	46			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	16	#333		8	171			53			29				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#1311			227		133		#144	#1748	25			213	41	
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)			41		m94						304				
10	Basler St & 16th Street	Queue Length 95th (ft)	m10	m10			86			m108							
17	N B Street & 5th St	Queue Length 95th (ft)		122			112		100		0						
18	North B St & 7th Street	Queue Length 95th (ft)	54	15		157	82						145				
20	North B St & 12th Street	Queue Length 95th (ft)		203		m#173	m138						50		#423		
21	North B St & 16th Street	Queue Length 95th (ft)	m#256	m#270			101			m506							
23	South Park St & 5th St	Queue Length 95th (ft)	86							9							
26	Railyards Blvd & Jibboom St	Queue Length 95th (ft)				m#589		m28		52		#271	29				
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	m28	m#370		12	#393		#362	160		11	204				
29	Railyards Blvd & Stanford St	Queue Length 95th (ft)	10	157			103		94	18		106	26				
30	Railyards Blvd & 5th St	Queue Length 95th (ft)	m3	135			206			239							
32	Railyards Blvd & 6th St	Queue Length 95th (ft)		160		107	88		149		65						
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			#396								37	67			
37	F Street & 7th Street	Queue Length 95th (ft)		44		92	12						194				
38	G Street & 5th Street	Queue Length 95th (ft)		#190			m98	m94		132							
39	G Street & 6th Street	Queue Length 95th (ft)		m9			#765		m#137	m62		15	#1591				
40	G Street & 7th Street	Queue Length 95th (ft)			2	52	66						134	28			
41	G Street & 8th Street	Queue Length 95th (ft)					48			m16							
42	G Street & 12th Street	Queue Length 95th (ft)					46						m145				
43	H Street & 5th Street	Queue Length 95th (ft)		22						m219							
44	H Street & 6th Street	Queue Length 95th (ft)	m7	186						m#647	m91	m#562	m#592				
45	H Street & 7th Street	Queue Length 95th (ft)		m266								103	136				
46	H Street & 8th Street	Queue Length 95th (ft)		m67						94							
47	H Street & 16th Street	Queue Length 95th (ft)	#197	#404				#58		#329							
48	I Street & Jibboom St	Queue Length 95th (ft)	#795	136			206	18				#1364					
50	I St & 5th Street	Queue Length 95th (ft)					m315		178	#535				29			
51	I St & 6th Street	Queue Length 95th (ft)					458	#304	#258				m#532	m#533			
52	I St & 7th Street	Queue Length 95th (ft)				37	326						m277	m135			
53	J St & 3rd St	Queue Length 95th (ft)		#453							61	109	363		273		208
54	J St & 5th Street	Queue Length 95th (ft)	151	123	23					130	143						
55	J St & 6th Street	Queue Length 95th (ft)	133	168						140		m14					
56	J St & 7th Street	Queue Length 95th (ft)		155									60				
57	L St & 3rd St	Queue Length 95th (ft)				175	500	415	23	#393	27			#438			
58	L St & 5th Street	Queue Length 95th (ft)					#244		102	82					13		
59	L St & 7th Street	Queue Length 95th (ft)				30	#222						18				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	134	45			76		57	106							
61	P St & 3rd St	Queue Length 95th (ft)					#367						m147	m131			
62	Q St & 3rd St	Queue Length 95th (ft)		36									m36				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		277			347			566			611				
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		347			238			719			564				
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		238			1336			432			634				
4	Richard Blvd & 5th Street	Internal Link Dist (ft)		727			1052			442			731				
5	Richard Blvd & 7th Street	Internal Link Dist (ft)		1052			1196			1413			821				
6	Richard Blvd & 10th St	Internal Link Dist (ft)		1196			830			214			270				
7	Richard Blvd & Dos Rios St	Internal Link Dist (ft)		830			1264			1815			765				
8	Richard Blvd & 12th Street	Internal Link Dist (ft)		370				221			221			1158			879
9	Sunbeam Ave & 12th Street	Internal Link Dist (ft)		480			573			31			879				
10	Basler St & 16th Street	Internal Link Dist (ft)		573			720			1090			552				
17	N B Street & 5th St	Internal Link Dist (ft)		260			1025		314								
18	North B St & 7th Street	Internal Link Dist (ft)		1025			1205			982			1413				
20	North B St & 12th Street	Internal Link Dist (ft)		354			1674			2557			1815		1536		
21	North B St & 16th Street	Internal Link Dist (ft)		1674			657			3447			1090				
23	South Park St & 5th St	Internal Link Dist (ft)	361							378			230				
26	Railyards Blvd & Jibboom St	Internal Link Dist (ft)				199				199			2503				
27	Railyards Blvd & Bercut Dr	Internal Link Dist (ft)		199			399			556			516				
29	Railyards Blvd & Stanford St	Internal Link Dist (ft)		241			255			328			304				
30	Railyards Blvd & 5th St	Internal Link Dist (ft)		255			218			305			378				
32	Railyards Blvd & 6th St	Internal Link Dist (ft)		204			364		301								
33	Railyards Blvd & 7th Street	Internal Link Dist (ft)	364							1432			982				
37	F Street & 7th Street	Internal Link Dist (ft)		163			961			138			1432				
38	G Street & 5th Street	Internal Link Dist (ft)		34			304			374			183				
39	G Street & 6th Street	Internal Link Dist (ft)		304			340			376			639				
40	G Street & 7th Street	Internal Link Dist (ft)		340			344			360			141				
41	G Street & 8th Street	Internal Link Dist (ft)		344			1612			358			219				
42	G Street & 12th Street	Internal Link Dist (ft)		1612			843			1219			359				
43	H Street & 5th Street	Internal Link Dist (ft)		164			322			91			374				
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			376				
45	H Street & 7th Street	Internal Link Dist (ft)		333			337			351			360				
46	H Street & 8th Street	Internal Link Dist (ft)		337			496			222			358				
47	H Street & 16th Street	Internal Link Dist (ft)		1181			746			798			3447				
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186					1030					
50	I St & 5th Street	Internal Link Dist (ft)		402			324			353			179				
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349				
52	I St & 7th Street	Internal Link Dist (ft)		345			1246			371			351				
53	J St & 3rd St	Internal Link Dist (ft)		267			756			332			262		540		
54	J St & 5th Street	Internal Link Dist (ft)		756			329			807			353				
55	J St & 6th Street	Internal Link Dist (ft)		329			341			356			362				
56	J St & 7th Street	Internal Link Dist (ft)		341			1203			790			371				
57	L St & 3rd St	Internal Link Dist (ft)		488			756				1692			411		441	
58	L St & 5th Street	Internal Link Dist (ft)		756			747			379			807				
59	L St & 7th Street	Internal Link Dist (ft)		747			1840			823			790				
60	Capitol Mall & 5th Street	Internal Link Dist (ft)		329			343			365			379				
61	P St & 3rd St	Internal Link Dist (ft)		441			333			362			1692				
62	Q St & 3rd St	Internal Link Dist (ft)		423			339			788			362				

Queue Summary for Baseline Conditions		Sacramento Railyards Traffic Study													
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other	
39 G Street & 6th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		304 m11 m18			340 m#296 #681				376 m3 m#155 m71			639 #297 #687		
40 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
41 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
42 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
43 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
44 H Street & 6th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150 m15 m0	322 #207 186			333 m113 m205				349 #517 m#350			376 m#307 m#313 m#786 m#830		
45 H Street & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		333 m113 m205			337				351			360 m29 m80 80 109		
46 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
47 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
48 I Street & Jibboom St	Storage Length (ft) AM Queue (ft) PM Queue (ft)	75 #489 #841	1090 126 174			186 116 #357	8 16						411 #1326		
49 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A <(NEL) (NER)> #N/A	
50 I St & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		402			324 43 m246			m10 167	353 #225 #527			179 2 28		
51 I St & 6th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		324			345 149 #518			m20 #302	362 126 #254			349 m84 m334 m335	m77	
52 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
53 J St & 3rd St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		266 #519 275	#547 373						55 92	#155 #299	66 184		#641 #321	#614 212
54 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
55 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
56 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
57 L St & 3rd St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		488		75 251	756 #756	198 #635	161 32	27 #163	65 41	28		212 208	125 #523	441
58 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
59 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
60 Capitol Mall & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	200 178 134	329 37 45			343 31 76			52 57	365 129 106			379		
61 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
62 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		163		m9	m3					#380	#380	#120			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m124	m132			190	39		#322	#376						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	m55	242	m35	45	88		#216	84			53	32			
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	67	#746		#537	146		91	94	125	22	53				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#555			56		60		#121	215	38			#628	269	
13	Bannon St & Bercut Dr	Queue Length 95th (ft)				40				255		m78	268				
20	North B St & 12th Street	Queue Length 95th (ft)		76		80	#363						69		292		
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			0								117	50			
38	G Street & 5th Street	Queue Length 95th (ft)	38	38			m71	m30		130							
39	G Street & 6th Street	Queue Length 95th (ft)		m11			m#296		m190	m3			#297				
44	H Street & 6th Street	Queue Length 95th (ft)	m15	#207						#517		m#307	m#313				
45	H Street & 7th Street	Queue Length 95th (ft)		m113								m29	m80				
48	I Street & Jibboom St	Queue Length 95th (ft)	#489	126			116	8				411					
50	I St & 5th Street	Queue Length 95th (ft)					43		m10	#225				2			
51	I St & 6th Street	Queue Length 95th (ft)					149		m20	126			m84	m77			
53	J St & 3rd St	Queue Length 95th (ft)		#519	#547						55	#155	66		#641		#614
57	L St & 3rd St	Queue Length 95th (ft)				75	198	161	27	65	28			212	125		
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	178	37			31		52	129							

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		#546		9	m2					#245	#250	86			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m#308	m84			m168	m5		121	197						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	#224	245	23	#101	#405		m#698	m#653			96	51			
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	74	395		160	512		207	209	257	23	164				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#1311			227		133		#144	#1748	25			213	41	
13	Bannon St & Bercut Dr	Queue Length 95th (ft)				#527				#684		m40	409				
20	North B St & 12th Street	Queue Length 95th (ft)		303		#305	227						73		#424		
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			23								31	60			
38	G Street & 5th Street	Queue Length 95th (ft)	156	156			m212	m204		194							
39	G Street & 6th Street	Queue Length 95th (ft)		m18			#681		m#155	m71			#687				
44	H Street & 6th Street	Queue Length 95th (ft)	m0	186						m#350		m#786	m#830				
45	H Street & 7th Street	Queue Length 95th (ft)		m205								80	109				
48	I Street & Jibboom St	Queue Length 95th (ft)	#841	174			#357	16				#1326					
50	I St & 5th Street	Queue Length 95th (ft)					m246		167	#527				28			
51	I St & 6th Street	Queue Length 95th (ft)					#518		#302	#254			m334	m335			
53	J St & 3rd St	Queue Length 95th (ft)		275	373						92	#299	184		#321		212
57	L St & 3rd St	Queue Length 95th (ft)				251	#756	#635	32	#163	41			208	#523		
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	134	45			76		57	106							

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		290			347			566			611				
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		347			238			719			348				
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		238			1336			432			634				
5	Richard Blvd & 7th Street	Internal Link Dist (ft)		1052			1196			1413			821				
8	Richard Blvd & 12th Street	Internal Link Dist (ft)		370				221			221			1158			879
13	Bannon St & Bercut Dr	Internal Link Dist (ft)				1103				738			432				
20	North B St & 12th Street	Internal Link Dist (ft)		354			1674			2557			1815		1536		
33	Railyards Blvd & 7th Street	Internal Link Dist (ft)	364							1432			982				
38	G Street & 5th Street	Internal Link Dist (ft)		34			304			374			183				
39	G Street & 6th Street	Internal Link Dist (ft)		304			340			376			639				
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			376				
45	H Street & 7th Street	Internal Link Dist (ft)		333			337			351			360				
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186					1030					
50	I St & 5th Street	Internal Link Dist (ft)		402			324			353			179				
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349				
53	J St & 3rd St	Internal Link Dist (ft)		266			756			332			262		540		
57	L St & 3rd St	Internal Link Dist (ft)		488			756				1692			411		441	
60	Capitol Mall & 5th Street	Internal Link Dist (ft)		329			343			365			379				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		191		m60	m224					#434	#434	72			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m105	m94			171	15		#343	#418						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	m38	#764		#38	121			154	10		59	35			
4	Richard Blvd & 5th Street	Queue Length 95th (ft)		45	413		23	188	25	0		28	32				
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	#66	#830		#502	224		121	123	47	51	#184				
6	Richard Blvd & 10th St	Queue Length 95th (ft)		167	356	101	197	376	48	39	33	35	38	24			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)		29	216		17	263		38			58				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#733			67		57		#161	275	34			#897	#1517	
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)		95	35		85						406				
10	Basler St & 16th Street	Queue Length 95th (ft)	m62	m64			11			86							
20	Water St & 12th Street	Queue Length 95th (ft)		53		m58	249						82		#802		
21	North B St & 16th Street	Queue Length 95th (ft)	m35	m36			15			33							
40	G Street & 7th Street	Queue Length 95th (ft)				10		28					158				
41	G Street & 8th Street	Queue Length 95th (ft)					m48			52							
42	G Street & 12th Street	Queue Length 95th (ft)					38						m14				
44	H Street & 6th Street	Queue Length 95th (ft)	m14	106						m150	m90	58	34				
45	H Street & 7th Street	Queue Length 95th (ft)		111								34	118				
46	H Street & 8th Street	Queue Length 95th (ft)		85						64							
47	H Street & 16th Street	Queue Length 95th (ft)		23	#191			7		119							
48	I Street & Jibboom St	Queue Length 95th (ft)	328	135			123	11				338					
50	I St & 5th Street	Queue Length 95th (ft)					44		19	87				3			
51	I St & 6th Street	Queue Length 95th (ft)					181		m31	84			33	29			
52	I St & 7th Street	Queue Length 95th (ft)				41	106						45	0			
53	J St & 3rd St	Queue Length 95th (ft)		#550							56	70	#254		#660		#654
54	J St & 5th Street	Queue Length 95th (ft)	m72	m247	m4					176	191						
55	J St & 6th Street	Queue Length 95th (ft)		194	269					42		m21					
56	J St & 7th Street	Queue Length 95th (ft)		354	94								170				
57	L St & 3rd St	Queue Length 95th (ft)				69	261	211	25	183	20			249			
58	L St & 5th Street	Queue Length 95th (ft)					99		m18	m65				17			
59	L St & 7th Street	Queue Length 95th (ft)				36	137						m114				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	#189	83			32		47	91							
61	P St & 3rd St	Queue Length 95th (ft)					48						m119	m85			
62	Q St & 3rd St	Queue Length 95th (ft)		215									28				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		#327		m8	m4					#194	#200	51			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m#247	m8			m103	m15		149	197						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	m#156	#378		33	#403			#427	12		88	51			
4	Richard Blvd & 5th Street	Queue Length 95th (ft)	52	305		19	#766		18	16		22	0				
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	89	#672		134	#865		212	213	213	55	102				
6	Richard Blvd & 10th St	Queue Length 95th (ft)	39	#581	61	101	382		111	34	50	77	41	46			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	#72	#503		9	253			55			47				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#1572			243		133		#197	#2112	30			298	116	
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)		18	42		m87						322				
10	Basler St & 16th Street	Queue Length 95th (ft)	m13	m14			87			m109							
20	Water St & 12th Street	Queue Length 95th (ft)		213		m#161	m130						73		#405		
21	North B St & 16th Street	Queue Length 95th (ft)	m#229	m#234			95			m692							
40	G Street & 7th Street	Queue Length 95th (ft)				1		2					144				
41	G Street & 8th Street	Queue Length 95th (ft)					91			36							
42	G Street & 12th Street	Queue Length 95th (ft)					35						m158				
44	H Street & 6th Street	Queue Length 95th (ft)	m2	m42						m178	m120	#155	62				
45	H Street & 7th Street	Queue Length 95th (ft)		m206								25	124				
46	H Street & 8th Street	Queue Length 95th (ft)		95						62							
47	H Street & 16th Street	Queue Length 95th (ft)	#163	#395				#56		#328							
48	I Street & Jibboom St	Queue Length 95th (ft)	#888	180			204	23				390					
50	I St & 5th Street	Queue Length 95th (ft)					m302		200	142				29			
51	I St & 6th Street	Queue Length 95th (ft)					547	#361	#304				#335	#328			
52	I St & 7th Street	Queue Length 95th (ft)				40	389						237	219			
53	J St & 3rd St	Queue Length 95th (ft)		#314							79	132	326		224		197
54	J St & 5th Street	Queue Length 95th (ft)	76	129	24					121	137						
55	J St & 6th Street	Queue Length 95th (ft)	174	200						168		m50					
56	J St & 7th Street	Queue Length 95th (ft)		171									64				
57	L St & 3rd St	Queue Length 95th (ft)				178	#824	448	24	#521	33			#373			
58	L St & 5th Street	Queue Length 95th (ft)					#309		124	78				15			
59	L St & 7th Street	Queue Length 95th (ft)				31	#280						m90				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	132	56			81		65	112							
61	P St & 3rd St	Queue Length 95th (ft)					#371						m155	m138			
62	Q St & 3rd St	Queue Length 95th (ft)		45									m33				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		205			310			566			611				
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		310			238			719			564				
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		238			1336			432			634				
4	Richard Blvd & 5th Street	Internal Link Dist (ft)		727			1052			442			731				
5	Richard Blvd & 7th Street	Internal Link Dist (ft)		1052			1196			1332			821				
6	Richard Blvd & 10th St	Internal Link Dist (ft)		1196			830			1437			270				
7	Richard Blvd & Dos Rios St	Internal Link Dist (ft)		830			1264			1815			765				
8	Richard Blvd & 12th Street	Internal Link Dist (ft)		370				221			221			1158			223
9	Sunbeam Ave & 12th Street	Internal Link Dist (ft)		480			573			31			585				
10	Basler St & 16th Street	Internal Link Dist (ft)		573			720			1090			552				
20	Water St & 12th Street	Internal Link Dist (ft)		354			1674			2557			1815		1536		
21	North B St & 16th Street	Internal Link Dist (ft)		1674			657			3447			1090				
40	G Street & 7th Street	Internal Link Dist (ft)				344				360			359				
41	G Street & 8th Street	Internal Link Dist (ft)		344			1612			358			219				
42	G Street & 12th Street	Internal Link Dist (ft)		1612			843			1219			359				
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			99				
45	H Street & 7th Street	Internal Link Dist (ft)		333			337			351			360				
46	H Street & 8th Street	Internal Link Dist (ft)		337			496			222			358				
47	H Street & 16th Street	Internal Link Dist (ft)		1181			746			798			3447				
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186					1014					
50	I St & 5th Street	Internal Link Dist (ft)		402			324			353			179				
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349				
52	I St & 7th Street	Internal Link Dist (ft)		345			1246			371			351				
53	J St & 3rd St	Internal Link Dist (ft)		265			756			332			262		540		
54	J St & 5th Street	Internal Link Dist (ft)		756			329			807			353				
55	J St & 6th Street	Internal Link Dist (ft)		329			341			356			362				
56	J St & 7th Street	Internal Link Dist (ft)		341			1203			790			371				
57	L St & 3rd St	Internal Link Dist (ft)		488			756				1692			411		441	
58	L St & 5th Street	Internal Link Dist (ft)		756			747			379			807				
59	L St & 7th Street	Internal Link Dist (ft)		747			1840			823			790				
60	Capitol Mall & 5th Street	Internal Link Dist (ft)		329			343			365			379				
61	P St & 3rd St	Internal Link Dist (ft)		441			333			362			1692				
62	Q St & 3rd St	Internal Link Dist (ft)		423			339			788			362				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		176		m75	m65					#413	#414	#123			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m110	m76			m127	m30		#411	#461						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	m47	m#734		#123	83			#480	77		83	35			
4	Richard Blvd & 5th Street	Queue Length 95th (ft)	42	370		22	142		23	15		25	33				
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	#79	645		#953	167		91	94	72	45	#248				
6	Richard Blvd & 10th St	Queue Length 95th (ft)	167	362	98	201	420		39	110	31	33	35	25			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	26	216		27	288			37			62				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#730			67		57		#163	266	32			#1063	#1694	
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)		93	35		84						#700				
10	Basler St & 16th Street	Queue Length 95th (ft)	m67	m68			11			88							
17	N B Street & 5th St	Queue Length 95th (ft)		40			m54		94		71						
18	North B St & 7th Street	Queue Length 95th (ft)	138	102		#400	283						283				
20	North B St & 12th Street	Queue Length 95th (ft)		56		m51	#534						97		m#976		
21	North B St & 16th Street	Queue Length 95th (ft)	m41	m42			17				29						
23	South Park St & 5th St	Queue Length 95th (ft)	61								3						
26	Railyards Blvd & Jibboom St	Queue Length 95th (ft)				184		m8		44		162	8				
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	120	256		9	36		70	57		11	82				
29	Railyards Blvd & Stanford St	Queue Length 95th (ft)	10	83			1		19	88		87	31				
30	Railyards Blvd & 5th St	Queue Length 95th (ft)	m5	84			104			73							
32	Railyards Blvd & 6th St	Queue Length 95th (ft)		42		101	20		10		19						
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			12								m93	m60			
37	F Street & 7th Street	Queue Length 95th (ft)		13		35	18						#258				
38	G Street & 5th Street	Queue Length 95th (ft)		22			m97	m95		13							
39	G Street & 6th Street	Queue Length 95th (ft)		m19			m#606		m210	m3		15	#674				
40	G Street & 7th Street	Queue Length 95th (ft)			0	31	#285						97	87			
41	G Street & 8th Street	Queue Length 95th (ft)					m80			47							
42	G Street & 12th Street	Queue Length 95th (ft)					60						m4				
43	H Street & 5th Street	Queue Length 95th (ft)		18						0							
44	H Street & 6th Street	Queue Length 95th (ft)	m13	#216						#1070	m78	m#278	m#286				
45	H Street & 7th Street	Queue Length 95th (ft)		m123								m52	m118				
46	H Street & 8th Street	Queue Length 95th (ft)		137						102							
47	H Street & 16th Street	Queue Length 95th (ft)	19	#187				0		138							
48	I Street & Jibboom St	Queue Length 95th (ft)	#580	132			163	9				#700					
50	I St & 5th Street	Queue Length 95th (ft)					58		m13	228				4			
51	I St & 6th Street	Queue Length 95th (ft)					158		m25	126			m55	m49			
52	I St & 7th Street	Queue Length 95th (ft)				59	127						47	0			
53	J St & 3rd St	Queue Length 95th (ft)		#646							57	69	#249		#724		#701
54	J St & 5th Street	Queue Length 95th (ft)	m188	m246	m2					241	254						
55	J St & 6th Street	Queue Length 95th (ft)	261	287						44		m24					
56	J St & 7th Street	Queue Length 95th (ft)		372	88								190				
57	L St & 3rd St	Queue Length 95th (ft)				69	253	211	25	159	20			273			
58	L St & 5th Street	Queue Length 95th (ft)					100		m19	m91				14			
59	L St & 7th Street	Queue Length 95th (ft)				36	145						m133				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	#285	83			35		53	108							
61	P St & 3rd St	Queue Length 95th (ft)					47						m118	m83			
62	Q St & 3rd St	Queue Length 95th (ft)		223									27				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		#441		m12	m5					#187	#192	69			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m#225	m30			m115	m31		#247	252						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	m#112	#446		#123	258			#1213	164		#194	51			
4	Richard Blvd & 5th Street	Queue Length 95th (ft)	87	351		19	#578		19	20		23	28				
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	146	#710		353	628		241	246	113	53	218				
6	Richard Blvd & 10th St	Queue Length 95th (ft)	39	440	69	93	307		60	70	48	70	43	46			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	45	#421		8	195			104			45				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#1509			240		133		#134	#2238	30			369	125	
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)			43		m95						373				
10	Basler St & 16th Street	Queue Length 95th (ft)	m9	m10			86			m155							
17	N B Street & 5th St	Queue Length 95th (ft)		64			m66		286		9						
18	North B St & 7th Street	Queue Length 95th (ft)	#265	50		#336	#398						#289				
20	North B St & 12th Street	Queue Length 95th (ft)		#636		m#113	m243						64	#492			
21	North B St & 16th Street	Queue Length 95th (ft)	m63	m66			102			m#766							
23	South Park St & 5th St	Queue Length 95th (ft)	91							4							
26	Railyards Blvd & Jibboom St	Queue Length 95th (ft)				m#647		m28		55	#303		29				
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	m36	m#374		13	#376		#369	160		10	193				
29	Railyards Blvd & Stanford St	Queue Length 95th (ft)	10	163			153		92	25		145	28				
30	Railyards Blvd & 5th St	Queue Length 95th (ft)	m2	#185			228			#313							
32	Railyards Blvd & 6th St	Queue Length 95th (ft)		179		#132	95		204		63						
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			#628								m104	m46			
37	F Street & 7th Street	Queue Length 95th (ft)		44		92	12						276				
38	G Street & 5th Street	Queue Length 95th (ft)		#228			m175	m175		132							
39	G Street & 6th Street	Queue Length 95th (ft)		m9			#993		m69	m54		15	#1591				
40	G Street & 7th Street	Queue Length 95th (ft)			5	73	113						#243	m54			
41	G Street & 8th Street	Queue Length 95th (ft)					66			m34							
42	G Street & 12th Street	Queue Length 95th (ft)					50						m128				
43	H Street & 5th Street	Queue Length 95th (ft)		18						m217							
44	H Street & 6th Street	Queue Length 95th (ft)	m7	186						m#401	m92	m#556	m#575				
45	H Street & 7th Street	Queue Length 95th (ft)		m274								m87	m160				
46	H Street & 8th Street	Queue Length 95th (ft)		m60						98							
47	H Street & 16th Street	Queue Length 95th (ft)	#226	#459				#60		#329							
48	I Street & Jibboom St	Queue Length 95th (ft)	#971	177			218	30				#1455					
50	I St & 5th Street	Queue Length 95th (ft)					m379		226	#522				29			
51	I St & 6th Street	Queue Length 95th (ft)					389		#329	#284			m#541	m#532			
52	I St & 7th Street	Queue Length 95th (ft)				39	355						m#366	m127			
53	J St & 3rd St	Queue Length 95th (ft)		#426							85	135	#419	#388			302
54	J St & 5th Street	Queue Length 95th (ft)	170	138	24					148	169						
55	J St & 6th Street	Queue Length 95th (ft)	m119	181						169		m14					
56	J St & 7th Street	Queue Length 95th (ft)		167									m102				
57	L St & 3rd St	Queue Length 95th (ft)				175	#710	554	24	#473	31			#561			
58	L St & 5th Street	Queue Length 95th (ft)					#317		m120	m100				15			
59	L St & 7th Street	Queue Length 95th (ft)				31	#276						95				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	#203	54			83		69	121							
61	P St & 3rd St	Queue Length 95th (ft)					#398						m156	m138			
62	Q St & 3rd St	Queue Length 95th (ft)		51									m51				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
1	Richard Blvd & I-5 SB Off	Turn Bay Length (ft)				100						300		300		
2	Richard Blvd & I-5 NB Off	Turn Bay Length (ft)	100					300			300					
3	Richard Blvd & Bercut Dr	Turn Bay Length (ft)	150			150					100			100		
4	Richard Blvd & 5th Street	Turn Bay Length (ft)	150			150										
5	Richard Blvd & 7th Street	Turn Bay Length (ft)	200			200			200		100	150				
6	Richard Blvd & 10th St	Turn Bay Length (ft)	150		100	150			125		100	150		75		
7	Richard Blvd & Dos Rios St	Turn Bay Length (ft)	150			150										
8	Richard Blvd & 12th Street	Turn Bay Length (ft)								200		300			300	300
9	Sunbeam Ave & 12th Street	Turn Bay Length (ft)			150											
10	Basler St & 16th Street	Turn Bay Length (ft)														
17	N B Street & 5th St	Turn Bay Length (ft)														
18	North B St & 7th Street	Turn Bay Length (ft)	150													
20	North B St & 12th Street	Turn Bay Length (ft)				125										
21	North B St & 16th Street	Turn Bay Length (ft)														
23	South Park St & 5th St	Turn Bay Length (ft)														
26	Railyards Blvd & Jibboom St	Turn Bay Length (ft)										150				
27	Railyards Blvd & Bercut Dr	Turn Bay Length (ft)	75			170			100			150				
29	Railyards Blvd & Stanford St	Turn Bay Length (ft)							150			140				
30	Railyards Blvd & 5th St	Turn Bay Length (ft)														
32	Railyards Blvd & 6th St	Turn Bay Length (ft)														
33	Railyards Blvd & 7th Street	Turn Bay Length (ft)														
37	F Street & 7th Street	Turn Bay Length (ft)				100										
38	G Street & 5th Street	Turn Bay Length (ft)														
39	G Street & 6th Street	Turn Bay Length (ft)							150			150				
40	G Street & 7th Street	Turn Bay Length (ft)														
41	G Street & 8th Street	Turn Bay Length (ft)														
42	G Street & 12th Street	Turn Bay Length (ft)														
43	H Street & 5th Street	Turn Bay Length (ft)														
44	H Street & 6th Street	Turn Bay Length (ft)	150													
45	H Street & 7th Street	Turn Bay Length (ft)														
46	H Street & 8th Street	Turn Bay Length (ft)														
47	H Street & 16th Street	Turn Bay Length (ft)														
48	I Street & Jibboom St	Turn Bay Length (ft)	75													
50	I St & 5th Street	Turn Bay Length (ft)														
51	I St & 6th Street	Turn Bay Length (ft)														
52	I St & 7th Street	Turn Bay Length (ft)												100		
53	J St & 3rd St	Turn Bay Length (ft)														
54	J St & 5th Street	Turn Bay Length (ft)	140		200											
55	J St & 6th Street	Turn Bay Length (ft)														
56	J St & 7th Street	Turn Bay Length (ft)														
57	L St & 3rd St	Turn Bay Length (ft)														
58	L St & 5th Street	Turn Bay Length (ft)														
59	L St & 7th Street	Turn Bay Length (ft)														
60	Capitol Mall & 5th Street	Turn Bay Length (ft)	200													
61	P St & 3rd St	Turn Bay Length (ft)												100		
62	Q St & 3rd St	Turn Bay Length (ft)														

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		290			347			566			611				
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		347			238			719			564				
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		238			1336			432			634				
4	Richard Blvd & 5th Street	Internal Link Dist (ft)		727			1052			442			731				
5	Richard Blvd & 7th Street	Internal Link Dist (ft)		1052			1196			1413			821				
6	Richard Blvd & 10th St	Internal Link Dist (ft)		1196			830			214			270				
7	Richard Blvd & Dos Rios St	Internal Link Dist (ft)		830			1264			1815			765				
8	Richard Blvd & 12th Street	Internal Link Dist (ft)		370				221			221			1158			879
9	Sunbeam Ave & 12th Street	Internal Link Dist (ft)		480			573			31			879				
10	Basler St & 16th Street	Internal Link Dist (ft)		573			720			1090			552				
17	N B Street & 5th St	Internal Link Dist (ft)		260			1025		314								
18	North B St & 7th Street	Internal Link Dist (ft)		1025			1205			982			1413				
20	North B St & 12th Street	Internal Link Dist (ft)		354			1674			2557			1815		1536		
21	North B St & 16th Street	Internal Link Dist (ft)		1674			657			3447			1090				
23	South Park St & 5th St	Internal Link Dist (ft)	361							378			230				
26	Railyards Blvd & Jibboom St	Internal Link Dist (ft)				199				199			2503				
27	Railyards Blvd & Bercut Dr	Internal Link Dist (ft)		199			399			556			516				
29	Railyards Blvd & Stanford St	Internal Link Dist (ft)		241			255			328			304				
30	Railyards Blvd & 5th St	Internal Link Dist (ft)		255			218			305			378				
32	Railyards Blvd & 6th St	Internal Link Dist (ft)		204			364		301								
33	Railyards Blvd & 7th Street	Internal Link Dist (ft)	364							1432			982				
37	F Street & 7th Street	Internal Link Dist (ft)		163			961			359			1432				
38	G Street & 5th Street	Internal Link Dist (ft)		34			304			374			183				
39	G Street & 6th Street	Internal Link Dist (ft)		304			340			376			639				
40	G Street & 7th Street	Internal Link Dist (ft)		340			344			360			359				
41	G Street & 8th Street	Internal Link Dist (ft)		344			1612			358			219				
42	G Street & 12th Street	Internal Link Dist (ft)		1612			843			1219			359				
43	H Street & 5th Street	Internal Link Dist (ft)		164			322			91			374				
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			376				
45	H Street & 7th Street	Internal Link Dist (ft)		333			337			351			360				
46	H Street & 8th Street	Internal Link Dist (ft)		337			496			222			358				
47	H Street & 16th Street	Internal Link Dist (ft)		1181			746			798			3447				
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186					1030					
50	I St & 5th Street	Internal Link Dist (ft)		402			324			353			179				
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349				
52	I St & 7th Street	Internal Link Dist (ft)		345			1246			371			351				
53	J St & 3rd St	Internal Link Dist (ft)		262			756			332			262		540		
54	J St & 5th Street	Internal Link Dist (ft)		756			329			807			353				
55	J St & 6th Street	Internal Link Dist (ft)		329			341			356			362				
56	J St & 7th Street	Internal Link Dist (ft)		341			1203			790			371				
57	L St & 3rd St	Internal Link Dist (ft)		488			756				1692			411		441	
58	L St & 5th Street	Internal Link Dist (ft)		756			747			379			807				
59	L St & 7th Street	Internal Link Dist (ft)		747			1840			823			790				
60	Capitol Mall & 5th Street	Internal Link Dist (ft)		329			343			365			379				
61	P St & 3rd St	Internal Link Dist (ft)		441			333			362			1692				
62	Q St & 3rd St	Internal Link Dist (ft)		423			339			788			362				

Queue Summary for 2013 with Project		Sacramento Railyards Traffic Study													
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other	
	PM Queue (ft)	m7	186						m#276		m#703	m#727			
H Street & 7th Street	Storage Length (ft)		333			337			351			360			
	AM Queue (ft)		m130								m53	m119			
	PM Queue (ft)		m318								m96	m#196			
H Street & 8th Street	Storage Length (ft)		337			496			222			358			
	AM Queue (ft)		130						102						
	PM Queue (ft)		m#302						101						
#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
I Street & Jibboom St	Storage Length (ft)	75	1090			186									
	AM Queue (ft)	#377	99			#130	7				#376				
	PM Queue (ft)	#1053	230			#399	22				#1527				
#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	<(NEL)
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	(NER)>
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
I St & 5th Street	Storage Length (ft)		402			324			353			179			
	AM Queue (ft)					57		m13	228			4			
	PM Queue (ft)					m245		209	#525			29			
I St & 6th Street	Storage Length (ft)		324			345			362			349			
	AM Queue (ft)					157		m25	126			m46	m41		
	PM Queue (ft)					#301	#255					m250	m246		
#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
J St & 3rd St	Storage Length (ft)		262												
	AM Queue (ft)		#542	#617					60	#200	#108			#745	#723
	PM Queue (ft)		275	#433					103	#393	199			#435	#331
#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
L St & 3rd St	Storage Length (ft)		488			756								441	
	AM Queue (ft)				77	312	258	28	80	34			252	204	
	PM Queue (ft)				241	#1011	#836	32	#228	49			282	#612	
#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Capitol Mall & 5th Street	Storage Length (ft)	200	329			343			365			379			
	AM Queue (ft)	203	59			36		69	140						
	PM Queue (ft)	#203	54			83		69	121						
#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Volume exceeds capacity, queue is theoretically infinite.														
	Queue shown is maximum after two cycles.														
	95th percentile volume exceeds capacity, queue may be longer.														
	Queue shown is maximum after two cycles.														
	Volume for 95th percentile queue is metered by upstream signal.														

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		173		m80	m81					#437	#438	#157			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m74	m84			m160	m41		#373	#445						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	m46	m227	m23	#116	75		#272	#135			77	34			
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	68	#845		#811	172		91	94	138	45	#243				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#730			67		57		#163	266	32			#1063	#1694	
13	Bannon St & Bercut Dr	Queue Length 95th (ft)				43				249		m95	162				
19	North B St & 10th St	Queue Length 95th (ft)		32			115					50					
20	North B St & 12th Street	Queue Length 95th (ft)		85		69	#851						150		#689		
21	North B St & 16th Street	Queue Length 95th (ft)	36	37			17			29							
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			0								66	37			
37	F Street & 7th Street	Queue Length 95th (ft)		13		36	18						#246				
38	G Street & 5th Street	Queue Length 95th (ft)	38	38			m75	m46		129							
39	G Street & 6th Street	Queue Length 95th (ft)		m10			m#515		m#350	m6			#317				
44	H Street & 6th Street	Queue Length 95th (ft)	m19	#212						#513		m71	m72				
45	H Street & 7th Street	Queue Length 95th (ft)		m130								m53	m119				
46	H Street & 8th Street	Queue Length 95th (ft)		130						102							
48	I Street & Jibboom St	Queue Length 95th (ft)	#377	99			#130	7				#376					
50	I St & 5th Street	Queue Length 95th (ft)					57		m13	228					4		
51	I St & 6th Street	Queue Length 95th (ft)					157		m25	126			m46	m41			
53	J St & 3rd St	Queue Length 95th (ft)		#542	#617						60	#200	#108		#745		#723
57	L St & 3rd St	Queue Length 95th (ft)				77	312	258	28	80	34				252	204	
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	203	59			36		69	140							

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)		#524		15	m4					#303	#307	91			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)	m#278	m85			m157	m0		269	253						
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)	m#213	361	54	#161	#420		m#707	m#647			#180	51			
5	Richard Blvd & 7th Street	Queue Length 95th (ft)	#148	#468		#342	#434		156	158	269	43	#224				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#1509			240		133		#134	#2238	30			369	125	
13	Bannon St & Bercut Dr	Queue Length 95th (ft)				#532				#710		m64	m338				
19	North B St & 10th St	Queue Length 95th (ft)		134			122					128					
20	North B St & 12th Street	Queue Length 95th (ft)		#919		#282	#496						98		#575		
21	North B St & 16th Street	Queue Length 95th (ft)	#470	#488			102			m#766							
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			17								79	48			
37	F Street & 7th Street	Queue Length 95th (ft)		44		92	12						276				
38	G Street & 5th Street	Queue Length 95th (ft)	156	156			m205	m200			204						
39	G Street & 6th Street	Queue Length 95th (ft)		m17			#832		m#106	m82			#724				
44	H Street & 6th Street	Queue Length 95th (ft)	m7	186						m#276		m#703	m#727				
45	H Street & 7th Street	Queue Length 95th (ft)		m318								m96	m#196				
46	H Street & 8th Street	Queue Length 95th (ft)		m#302						101							
48	I Street & Jibboom St	Queue Length 95th (ft)	#1053	230			#399	22				#1527					
50	I St & 5th Street	Queue Length 95th (ft)					m245		209	#525				29			
51	I St & 6th Street	Queue Length 95th (ft)					#506		#301	#255			m250	m246			
53	J St & 3rd St	Queue Length 95th (ft)		275	#433						103	#393	199		#435		#331
57	L St & 3rd St	Queue Length 95th (ft)				241	#1011	#836	32	#228	49			282	#612		
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	#203	54			83		69	121							

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
1	Richard Blvd & I-5 SB Off	Turn Bay Length (ft)				100						300		300		
2	Richard Blvd & I-5 NB Off	Turn Bay Length (ft)	100					300			300					
3	Richard Blvd & Bercut Dr	Turn Bay Length (ft)	150		150	150			200					100		
5	Richard Blvd & 7th Street	Turn Bay Length (ft)	200			200			200		100	150				
8	Richard Blvd & 12th Street	Turn Bay Length (ft)								200		300			300	300
13	Bannon St & Bercut Dr	Turn Bay Length (ft)				150						100				
19	North B St & 10th St	Turn Bay Length (ft)														
20	North B St & 12th Street	Turn Bay Length (ft)				125										
21	North B St & 16th Street	Turn Bay Length (ft)														
33	Railyards Blvd & 7th Street	Turn Bay Length (ft)														
37	F Street & 7th Street	Turn Bay Length (ft)				100										
38	G Street & 5th Street	Turn Bay Length (ft)														
39	G Street & 6th Street	Turn Bay Length (ft)														
44	H Street & 6th Street	Turn Bay Length (ft)	150													
45	H Street & 7th Street	Turn Bay Length (ft)														
46	H Street & 8th Street	Turn Bay Length (ft)														
48	I Street & Jibboom St	Turn Bay Length (ft)	75													
50	I St & 5th Street	Turn Bay Length (ft)														
51	I St & 6th Street	Turn Bay Length (ft)														
53	J St & 3rd St	Turn Bay Length (ft)														
57	L St & 3rd St	Turn Bay Length (ft)														
60	Capitol Mall & 5th Street	Turn Bay Length (ft)	200													

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		277			347			566			611				
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		347			238			719			564				
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		238			1336			432			634				
5	Richard Blvd & 7th Street	Internal Link Dist (ft)		1052			1196			1413			821				
8	Richard Blvd & 12th Street	Internal Link Dist (ft)		370				221			221			1158			879
13	Bannon St & Bercut Dr	Internal Link Dist (ft)				1103				738			432				
19	North B St & 10th St	Internal Link Dist (ft)		1205			327					1143					
20	North B St & 12th Street	Internal Link Dist (ft)		354			1674			2557			1815		1536		
21	North B St & 16th Street	Internal Link Dist (ft)		1674			657			3447			1090				
33	Railyards Blvd & 7th Street	Internal Link Dist (ft)	364							1432			982				
37	F Street & 7th Street	Internal Link Dist (ft)		163			961			138			1432				
38	G Street & 5th Street	Internal Link Dist (ft)		34			304			374			183				
39	G Street & 6th Street	Internal Link Dist (ft)		304			340			376			639				
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			376				
45	H Street & 7th Street	Internal Link Dist (ft)		333			337			351			360				
46	H Street & 8th Street	Internal Link Dist (ft)		337			496			222			358				
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186					1030					
50	I St & 5th Street	Internal Link Dist (ft)		402			324			353			179				
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349				
53	J St & 3rd St	Internal Link Dist (ft)		262			756			332			262		540		
57	L St & 3rd St	Internal Link Dist (ft)		488			756				1692			411		441	
60	Capitol Mall & 5th Street	Internal Link Dist (ft)		329			343			365			379				

Queue Summary for 2030 Conditions		Sacramento Railyards Traffic Study														
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other		
39	#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
40	G Street & 7th Street	Storage Length (ft)														
		AM Queue (ft)				26		23								
		PM Queue (ft)				15		0								
41	G Street & 8th Street	Storage Length (ft)		344												
		AM Queue (ft)						1612								
		PM Queue (ft)						m111								
42	G Street & 12th Street	Storage Length (ft)		1612												
		AM Queue (ft)						843								
		PM Queue (ft)						57								
43	#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
		PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
44	H Street & 6th Street	Storage Length (ft)		322												
		AM Queue (ft)	m13	106												
		PM Queue (ft)	m2	m24												
45	H Street & 7th Street	Storage Length (ft)		333												
		AM Queue (ft)		m#178												
		PM Queue (ft)		m268												
46	H Street & 8th Street	Storage Length (ft)		337												
		AM Queue (ft)		m93												
		PM Queue (ft)		m73												
47	H Street & 16th Street	Storage Length (ft)		1181												
		AM Queue (ft)		#254												
		PM Queue (ft)	64	#246												
48	I Street & Jibboom St	Storage Length (ft)	75	1090												
		AM Queue (ft)	#704	198												
		PM Queue (ft)	#1184	292												
49	#N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	<(NEL)
		AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	(NER)>
		PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
50	I St & 5th Street	Storage Length (ft)		402												
		AM Queue (ft)		m54												
		PM Queue (ft)		m302												
51	I St & 6th Street	Storage Length (ft)		324												
		AM Queue (ft)		#330												
		PM Queue (ft)		701												
52	I St & 7th Street	Storage Length (ft)		345												
		AM Queue (ft)		76												
		PM Queue (ft)		37												
53	J St & 3rd St	Storage Length (ft)		265												
		AM Queue (ft)		#540												
		PM Queue (ft)		#363												
54	J St & 5th Street	Storage Length (ft)	140	756	200											
		AM Queue (ft)	m106	m264	m3											
		PM Queue (ft)	#214	190	23											
55	J St & 6th Street	Storage Length (ft)		329												
		AM Queue (ft)		316												
		PM Queue (ft)		m260												
56	J St & 7th Street	Storage Length (ft)		341												
		AM Queue (ft)		545	106											
		PM Queue (ft)		170												
57	L St & 3rd St	Storage Length (ft)		488												
		AM Queue (ft)		167												
		PM Queue (ft)		328												
58	L St & 5th Street	Storage Length (ft)		756												
		AM Queue (ft)		138												
		PM Queue (ft)		#386												
59	L St & 7th Street	Storage Length (ft)		747												
		AM Queue (ft)		37												
		PM Queue (ft)		67												
60	Capitol Mall & 5th Street	Storage Length (ft)	200	329												
		AM Queue (ft)	#191	104												
		PM Queue (ft)	108	76												
61	P St & 3rd St	Storage Length (ft)		441												
		AM Queue (ft)		98												
		PM Queue (ft)		#463												
62	Q St & 3rd St	Storage Length (ft)		423												
		AM Queue (ft)		#396												
		PM Queue (ft)		96												

- ~ Volume exceeds capacity, queue is theoretically infinite.
- Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
- Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)				24	496						417	199			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)					33	13	43	129							
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)				m7	115		181	195			95	51			
4	Richard Blvd & N 5th Street	Queue Length 95th (ft)				m3	m80		m5	m159			24	#632			
5	Richard Blvd & 7th Street	Queue Length 95th (ft)				m193	#339	m141	98	#543			#415	34			
6	Richard Blvd & 10th St	Queue Length 95th (ft)				84	642		m33	m26			26	#37			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	17	193		#259	#659			#467			109				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#869			73		57		#109	351	38			#1179	#2215	
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)		92	36		155						594				
10	Basler St & 16th Street	Queue Length 95th (ft)	m66	m65			16			111							
11	Bannon St & I-5 SB Off	Queue Length 95th (ft)		328	21							75	90				
12	Bannon St & I-5 NB Off	Queue Length 95th (ft)		31	#439					23	#858						
13	Bannon St & Bercut Dr	Queue Length 95th (ft)	m58	m177						113	5	126	319				
14	Bannon St & N 5th Street	Queue Length 95th (ft)	#1158	5								86					
15	Bannon St & 7th Street	Queue Length 95th (ft)		179	225					307		m263	m45				
18	N B Street & 7th Street	Queue Length 95th (ft)		#448			#988	105	#292	#682		#422	#1260				
20	Water St & 12th Street	Queue Length 95th (ft)		87		m44	#565						#763		#1133		
21	North B St & 16th Street	Queue Length 95th (ft)	m22	m21			13			m81							
37	F Street & 7th Street	Queue Length 95th (ft)		34			70	77		#591		#553	#781				
40	G Street & 7th Street	Queue Length 95th (ft)				26		23					m206				
41	G Street & 8th Street	Queue Length 95th (ft)					m111			66							
42	G Street & 12th Street	Queue Length 95th (ft)					57						m21				
44	H Street & 6th Street	Queue Length 95th (ft)	m13	106						m#308	m138	#192	58				
45	H Street & 7th Street	Queue Length 95th (ft)		m#178								m9	m172				
46	H Street & 8th Street	Queue Length 95th (ft)		m93						52							
47	H Street & 16th Street	Queue Length 95th (ft)	64	#254				25		122							
48	I Street & Jibboom St	Queue Length 95th (ft)	#704	198			244	13				#858					
50	I St & 5th Street	Queue Length 95th (ft)					m54		m23	70					5		
51	I St & 6th Street	Queue Length 95th (ft)					#330		m15	203				25	20		
52	I St & 7th Street	Queue Length 95th (ft)				76	148						m83	m26			
53	J St & 3rd St	Queue Length 95th (ft)		#540							61	77	#198		#1148	#1137	
54	J St & 5th Street	Queue Length 95th (ft)	m106	m264	m3					203	215						
55	J St & 6th Street	Queue Length 95th (ft)	316	253						45		m18					
56	J St & 7th Street	Queue Length 95th (ft)		545	106									264			
57	L St & 3rd St	Queue Length 95th (ft)				167	239	134	24	#532	25			#602			
58	L St & 5th Street	Queue Length 95th (ft)					138		m46	m75					22		
59	L St & 7th Street	Queue Length 95th (ft)				37	#173						197				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	#191	104			42		65	124							
61	P St & 3rd St	Queue Length 95th (ft)					98						m121	m68			
62	Q St & 3rd St	Queue Length 95th (ft)		#396									39				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)				11	903						215	#414			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)					m58	m13	55	154							
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)				m5	m200		#587	m127			#194	#353			
4	Richard Blvd & N 5th Street	Queue Length 95th (ft)				m2	m#219		m3	m#790			29	#1226			
5	Richard Blvd & 7th Street	Queue Length 95th (ft)				m98	#543	m306	m68	m#772			#682		51		
6	Richard Blvd & 10th St	Queue Length 95th (ft)				46	#896		m53	m30			57	#84			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	13	314		#124	#696			#805			#274				
8	Richard Blvd & 12th Street	Queue Length 95th (ft)	#1724			246		136		#124	#2274	30			#489	#1501	
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)		7	42		m153						424				
10	Basler St & 16th Street	Queue Length 95th (ft)	m10	m10			86			m110							
11	Bannon St & I-5 SB Off	Queue Length 95th (ft)		528	151							80	300				
12	Bannon St & I-5 NB Off	Queue Length 95th (ft)	m54	335						8	511						
13	Bannon St & Bercut Dr	Queue Length 95th (ft)	m80	203						284	4	m173	m182				
14	Bannon St & N 5th Street	Queue Length 95th (ft)	#1261	2								#221					
15	Bannon St & 7th Street	Queue Length 95th (ft)	m118	#393						#672		m317	m67				
18	N B Street & 7th Street	Queue Length 95th (ft)		#955			#723	135	#421	#2537		#451	734				
20	Water St & 12th Street	Queue Length 95th (ft)		#386		m44	m215						#819		#951		
21	North B St & 16th Street	Queue Length 95th (ft)	m81	m81			16			m#1017							
37	F Street & 7th Street	Queue Length 95th (ft)		#193		#127	137			#622		233	397				
40	G Street & 7th Street	Queue Length 95th (ft)				15		0					m#523				
41	G Street & 8th Street	Queue Length 95th (ft)					57			53							
42	G Street & 12th Street	Queue Length 95th (ft)					66						m83				
44	H Street & 6th Street	Queue Length 95th (ft)	m2	m24						m254	m187	#282	122				
45	H Street & 7th Street	Queue Length 95th (ft)		m268								m20	m#326				
46	H Street & 8th Street	Queue Length 95th (ft)		m73						106							
47	H Street & 16th Street	Queue Length 95th (ft)	#246	#681				#58		#331							
48	I Street & Jibboom St	Queue Length 95th (ft)	#1184	292			221	54				#862					
50	I St & 5th Street	Queue Length 95th (ft)					m302		#584	m142					29		
51	I St & 6th Street	Queue Length 95th (ft)					701		m#481	#662			#461	#458			
52	I St & 7th Street	Queue Length 95th (ft)				37	492						m290	m188			
53	J St & 3rd St	Queue Length 95th (ft)		#363							121	180	309		#557		#468
54	J St & 5th Street	Queue Length 95th (ft)	#214	190	23					191	#196						
55	J St & 6th Street	Queue Length 95th (ft)	m260	244						#176		m56					
56	J St & 7th Street	Queue Length 95th (ft)		170									m106				
57	L St & 3rd St	Queue Length 95th (ft)				328	#818	265	17	#813	34			#591			
58	L St & 5th Street	Queue Length 95th (ft)					#386		213	90					14		
59	L St & 7th Street	Queue Length 95th (ft)				67	#299						132				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	108	76			132		98	161							
61	P St & 3rd St	Queue Length 95th (ft)					#463						m194	m142			
62	Q St & 3rd St	Queue Length 95th (ft)		96									m79				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		332			264			250			573				
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		264			219			328			325				
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		219			1382			413			632				
4	Richard Blvd & N 5th Street	Internal Link Dist (ft)		664			1043			501			750				
5	Richard Blvd & 7th Street	Internal Link Dist (ft)		1043			1163			540			348				
6	Richard Blvd & 10th St	Internal Link Dist (ft)		1163			848			281			285				
7	Richard Blvd & Dos Rios St	Internal Link Dist (ft)		848			1341			1816			765				
8	Richard Blvd & 12th Street	Internal Link Dist (ft)		370				221			221			1158			223
9	Sunbeam Ave & 12th Street	Internal Link Dist (ft)		480			573			31			585				
10	Basler St & 16th Street	Internal Link Dist (ft)		573			720			1090			552				
11	Bannon St & I-5 SB Off	Internal Link Dist (ft)		195			196			341			250				
12	Bannon St & I-5 NB Off	Internal Link Dist (ft)		196			86			624			328				
13	Bannon St & Bercut Dr	Internal Link Dist (ft)		86			1126			744			413				
14	Bannon St & N 5th Street	Internal Link Dist (ft)		947			1034					501					
15	Bannon St & 7th Street	Internal Link Dist (ft)		1034			622			779			540				
18	N B Street & 7th Street	Internal Link Dist (ft)		548			1156			240			779				
20	Water St & 12th Street	Internal Link Dist (ft)		828			1674			2557			1816		1536		
21	North B St & 16th Street	Internal Link Dist (ft)		1674			657			3447			1090				
37	F Street & 7th Street	Internal Link Dist (ft)		466			961			359			2181				
40	G Street & 7th Street	Internal Link Dist (ft)				344				360			359				
41	G Street & 8th Street	Internal Link Dist (ft)		344			1612			358			219				
42	G Street & 12th Street	Internal Link Dist (ft)		1612			843			1219			359				
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			99				
45	H Street & 7th Street	Internal Link Dist (ft)		333			337			351			360				
46	H Street & 8th Street	Internal Link Dist (ft)		337			496			222			358				
47	H Street & 16th Street	Internal Link Dist (ft)		1181			746			798			3447				
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186					1014					
50	I St & 5th Street	Internal Link Dist (ft)		402			324			353			179				
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349				
52	I St & 7th Street	Internal Link Dist (ft)		345			1246			371			351				
53	J St & 3rd St	Internal Link Dist (ft)		265			756			332			262		540		
54	J St & 5th Street	Internal Link Dist (ft)		756			329			807			353				
55	J St & 6th Street	Internal Link Dist (ft)		329			341			356			362				
56	J St & 7th Street	Internal Link Dist (ft)		341			1203			790			371				
57	L St & 3rd St	Internal Link Dist (ft)		488			756				1692			411		441	
58	L St & 5th Street	Internal Link Dist (ft)		756			747			379			807				
59	L St & 7th Street	Internal Link Dist (ft)		747			1840			823			790				
60	Capitol Mall & 5th Street	Internal Link Dist (ft)		329			343			365			379				
61	P St & 3rd St	Internal Link Dist (ft)		441			333			362			1692				
62	Q St & 3rd St	Internal Link Dist (ft)		423			339			788			362				

Queue Summary for 2030 with Project		Sacramento Railyards Traffic Study													
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other	
1 Richard Blvd & I-5 SB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)		389		100	264				250			573	300	
2 Richard Blvd & I-5 NB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)		264			219	150		328			325			
3 Richard Blvd & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)		219		150	1382		150	413			632	150		
4 Richard Blvd & N 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		664			1043			501			750	150		
5 Richard Blvd & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1043		200	1144			540			348	200		
6 Richards Blvd & 10th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1144		150	1033		300	1392			329	150		
7 Richard Blvd & Dos Rios St	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150	771		150	1307			996			765			
8 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
9 Sunbeam Ave & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		476			520			518			939			
10 Basler St & 16th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		520			713			1154			337			
11 Bannon St & I-5 SB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)		195	150		196			341		150	250			
12 Bannon St & I-5 NB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150	196			86			624	200		328			
13 Bannon St & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150	86			1116			746	150	150	413			
14 Bannon St & N 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150	960			1034			852			501			
15 Bannon St & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1034			622			779			540			
16 Richards & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		339			404								531 150	
17 N B Street &	Storage Length (ft) AM Queue (ft) PM Queue (ft)		260			1007			314			852			
18 N B Street & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1007			1156			976			779			
19 Water St & 10th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)	1220	1200			400	400					1200			
20 N B Street & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		741			1056			356			531	150		
21 N B Street & 16th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		551			657			435			1154			
22 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
23 South Park St & 5th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		103						378			230			
24 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
25 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
26 Railyards Blvd & Jibboom St	Storage Length (ft) AM Queue (ft) PM Queue (ft)								199		150	2527			
27 Railyards Blvd & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)	75	199		170	399		100	556		150	516			
28 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
29 Railyards Blvd & Stanford St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		241			255		150	328		140	304			
30 Railyards Blvd & 5th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		255			218			305			378			
31 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
32 Railyards Blvd & 6th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		204			364									
33 Railyards Blvd & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)				75				1432			976			
34 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
35 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
36 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
37 F Street & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		163		100	961			138			1432			
38 G Street & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		34			304			374			183			

Queue Summary for 2030 with Project		Sacramento Railyards Traffic Study														
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other		
39 G Street & 6th Street	Storage Length (ft)		304			340		150	376		150	639				
	AM Queue (ft)		m19			m#503		m188	m4		15	#643				
	PM Queue (ft)		m11			m#938		m#153	m82		15	#1385				
40 G Street & 7th Street	Storage Length (ft)		340			340			360			141				
	AM Queue (ft)			0	65	#678						#421	84			
	PM Queue (ft)			0	136	#897						#674	m5			
41 G Street &	Storage Length (ft)		340			1616			362			182				
	AM Queue (ft)					m86			m58							
	PM Queue (ft)					69			m50							
42 G Street & 12th Street	Storage Length (ft)		1616			843			1219			359				
	AM Queue (ft)					66						#288				
	PM Queue (ft)					87						166				
43 H Street & 5th Street	Storage Length (ft)		164			322			84			374				
	AM Queue (ft)		18						m0							
	PM Queue (ft)		19						77							
44 H Street & 6th Street	Storage Length (ft)	150	322			333			349			376				
	AM Queue (ft)	m13	#140						m#897	m66	m#280	m#293				
	PM Queue (ft)	12	172						m#320	m120	m#371	m380				
45 H Street & 7th Street	Storage Length (ft)		333			338			351			360				
	AM Queue (ft)		m162								m59	m310				
	PM Queue (ft)		m#347								m147	m301				
46 H Street &	Storage Length (ft)		338			390			125			362				
	AM Queue (ft)		#246						99							
	PM Queue (ft)		m64						116							
47 H Street & 16th Street	Storage Length (ft)		1181			746			798			2877				
	AM Queue (ft)	30	#276				13		144							
	PM Queue (ft)	#167	#700				#59		#338							
48 I Street & Jibboom St	Storage Length (ft)	75	1090			186										
	AM Queue (ft)	#897	169			201	13				#982					
	PM Queue (ft)	#1380	222			233	78				#1463					
49 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	<(NEL)	#N/A
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	(NER)>	#N/A
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
50 I St & 5th Street	Storage Length (ft)		402			324			353			186				
	AM Queue (ft)					m79		m20	#315			7				
	PM Queue (ft)					m379		m#530	m#555			42				
51 I St & 6th Street	Storage Length (ft)		324			345			362			349				
	AM Queue (ft)					#243		m14	214			m69	m66			
	PM Queue (ft)					405		#430	#596			m#575	m#573			
52 I St & 7th Street	Storage Length (ft)		345			1246			371			351	100			
	AM Queue (ft)				84	159						m103	m12			
	PM Queue (ft)				37	491						m#531	m111			
53 J St & 3rd St	Storage Length (ft)		265													
	AM Queue (ft)		#596						63	92	#182		#1162	#1161		
	PM Queue (ft)		#418						119	195	309		#673	#589		
54 J St & 5th Street	Storage Length (ft)	140	756	200		329			807			353				
	AM Queue (ft)	m249	m282	m3					289	309						
	PM Queue (ft)	#346	196	23					#313	#238						
55 J St & 6th Street	Storage Length (ft)		329			341			356			362				
	AM Queue (ft)	395	340						47		m19					
	PM Queue (ft)	m210	m208						#200		m43					
56 J St & 7th Street	Storage Length (ft)		341			1203			790			371				
	AM Queue (ft)		274	74								267				
	PM Queue (ft)		156									m96				
57 L St & 3rd St	Storage Length (ft)		488			756								441		
	AM Queue (ft)				130	302	108	24	#637	25			#600			
	PM Queue (ft)				360	#942	208	27	#1047	35			#670			
58 L St & 5th Street	Storage Length (ft)		756			747			379			807				
	AM Queue (ft)					137		m34	m105			21				
	PM Queue (ft)					#391		202	122			14				
59 L St & 7th Street	Storage Length (ft)		747			1840			823			790				
	AM Queue (ft)				37	#163						194				
	PM Queue (ft)				77	#291						214				
60 Capitol Mall & 5th Street	Storage Length (ft)	200	329			343			365			379				
	AM Queue (ft)	#308	80			45		74	142							
	PM Queue (ft)	138	64			135		103	190							
61 P St & 3rd St	Storage Length (ft)		441			333			362			1692	100			
	AM Queue (ft)					92						m118	m65			
	PM Queue (ft)					#465						m199	m140			
62 Q St & 3rd St	Storage Length (ft)		423			339			788			362				
	AM Queue (ft)		#393									38				
	PM Queue (ft)		98									m77				

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)				23	358						#807	204			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)					40	44	44	110							
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)				m48	178		m260	m197			104	71			
4	Richard Blvd & N 5th Street	Queue Length 95th (ft)					209		m8	m#1076				274			
5	Richard Blvd & 7th Street	Queue Length 95th (ft)				m23	m157	m21					383	76			
6	Richards Blvd & 10th Street	Queue Length 95th (ft)				144	122		m#1227	m6			26	#42			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	7	127		#141	#491			115			92				
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)			41			m0		6			596				
10	Basler St & 16th Street	Queue Length 95th (ft)	98	100			11			94							
11	Bannon St & I-5 SB Off	Queue Length 95th (ft)		144	34							m0	m0				
12	Bannon St & I-5 NB Off	Queue Length 95th (ft)	20	#553						24	#856						
13	Bannon St & Bercut Dr	Queue Length 95th (ft)	m50	m144						#251	120	152	220				
14	Bannon St & N 5th Street	Queue Length 95th (ft)	#1188	145						131							
15	Bannon St & 7th Street	Queue Length 95th (ft)		84								m4	81				
16	Richards & 12th Street	Queue Length 95th (ft)	274	25	#745											m15	m0
17	N B Street &	Queue Length 95th (ft)	32	108						28	1						
18	N B Street & 7th Street	Queue Length 95th (ft)		#428		#322							#472				
20	N B Street & 12th Street	Queue Length 95th (ft)	#556	#380		74	#451						m550	m167			
21	N B Street & 16th Street	Queue Length 95th (ft)	37	37			13			m59							
23	South Park St & 5th St	Queue Length 95th (ft)	103							18							
26	Railyards Blvd & Jibboom St	Queue Length 95th (ft)				144		m11		50		51	91				
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	#277	133		10	36		66	57		63	188				
29	Railyards Blvd & Stanford St	Queue Length 95th (ft)	10	86			11		18	74		56	28				
30	Railyards Blvd & 5th St	Queue Length 95th (ft)	m7	87			97			122							
32	Railyards Blvd & 6th St	Queue Length 95th (ft)		18		m220	m20		79		19						
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			75								368	57			
37	F Street & 7th Street	Queue Length 95th (ft)		22		71	47						340				
38	G Street & 5th Street	Queue Length 95th (ft)		21			m122	m116		12							
39	G Street & 6th Street	Queue Length 95th (ft)		m19			m#503		m188	m4		15	#643				
40	G Street & 7th Street	Queue Length 95th (ft)			0	65	#678						#421	84			
41	G Street &	Queue Length 95th (ft)					m86			m58							
42	G Street & 12th Street	Queue Length 95th (ft)					66						#288				
43	H Street & 5th Street	Queue Length 95th (ft)		18						m0							
44	H Street & 6th Street	Queue Length 95th (ft)	m13	#140						m#897	m66	m#280	m#293				
45	H Street & 7th Street	Queue Length 95th (ft)		m162								m59	m310				
46	H Street &	Queue Length 95th (ft)		#246						99							
47	H Street & 16th Street	Queue Length 95th (ft)	30	#276				13		144							
48	I Street & Jibboom St	Queue Length 95th (ft)	#897	169			201	13				#982					
50	I St & 5th Street	Queue Length 95th (ft)					m79		m20	#315				7			
51	I St & 6th Street	Queue Length 95th (ft)					#243		m14	214			m69	m66			
52	I St & 7th Street	Queue Length 95th (ft)				84	159						m103	m12			
53	J St & 3rd St	Queue Length 95th (ft)		#596							63	92	#182		#1162		#1161
54	J St & 5th Street	Queue Length 95th (ft)	m249	m282	m3					289	309						
55	J St & 6th Street	Queue Length 95th (ft)	395	340						47		m19					
56	J St & 7th Street	Queue Length 95th (ft)		274	74								267				
57	L St & 3rd St	Queue Length 95th (ft)				130	302	108	24	#637	25			#600			
58	L St & 5th Street	Queue Length 95th (ft)					137		m34	m105				21			
59	L St & 7th Street	Queue Length 95th (ft)				37	#163						194				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	#308	80			45		74	142							
61	P St & 3rd St	Queue Length 95th (ft)					92						m118	m65			
62	Q St & 3rd St	Queue Length 95th (ft)		#393									38				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)				9	400						#305	#513			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)					m52	m#756	30	116							
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)				m53	m177		m#702	m112			#236	#374			
4	Richard Blvd & N 5th Street	Queue Length 95th (ft)					#657		m2	m#1505					382		
5	Richard Blvd & 7th Street	Queue Length 95th (ft)				m4	m301	m0					377	80			
6	Richards Blvd & 10th Street	Queue Length 95th (ft)				34	76		m#1215	m5			#75	#277			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	7	156		72	#412			#334			#261				
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)			49			m0		17			286				
10	Basler St & 16th Street	Queue Length 95th (ft)	m30	m30				86									
11	Bannon St & I-5 SB Off	Queue Length 95th (ft)		306	#619							m116	m267				
12	Bannon St & I-5 NB Off	Queue Length 95th (ft)	m39	312						15	#874						
13	Bannon St & Bercut Dr	Queue Length 95th (ft)	m66	m260						#671	149	m150	m135				
14	Bannon St & N 5th Street	Queue Length 95th (ft)	m#1152	m153						#407							
15	Bannon St & 7th Street	Queue Length 95th (ft)		m166								m0	67				
16	Richards & 12th Street	Queue Length 95th (ft)	#1003	25	#1146											m341	m1
17	N B Street &	Queue Length 95th (ft)	160	#348						#206	#563						
18	N B Street & 7th Street	Queue Length 95th (ft)		#700		#239							#421				
20	N B Street & 12th Street	Queue Length 95th (ft)	#947	#797		101	#555						m496	m101			
21	N B Street & 16th Street	Queue Length 95th (ft)	#300	#289			22										
23	South Park St & 5th St	Queue Length 95th (ft)	175														
26	Railyards Blvd & Jibboom St	Queue Length 95th (ft)				#646		m26		77		#251	29				
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	m#265	m#301		18	268		#311	166		60	#322				
29	Railyards Blvd & Stanford St	Queue Length 95th (ft)	10	193				m113		125	83	85	25				
30	Railyards Blvd & 5th St	Queue Length 95th (ft)	m3	138				m241			#586						
32	Railyards Blvd & 6th St	Queue Length 95th (ft)		m105		m#193	m100		#562		60						
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			#683								#441	73			
37	F Street & 7th Street	Queue Length 95th (ft)		51		179	31						358				
38	G Street & 5th Street	Queue Length 95th (ft)		#220				m309	m301		90						
39	G Street & 6th Street	Queue Length 95th (ft)		m11				m#938		m#153	m82	15	#1385				
40	G Street & 7th Street	Queue Length 95th (ft)			0	136	#897						#674	m5			
41	G Street &	Queue Length 95th (ft)					69				m50						
42	G Street & 12th Street	Queue Length 95th (ft)					87						166				
43	H Street & 5th Street	Queue Length 95th (ft)		19						77							
44	H Street & 6th Street	Queue Length 95th (ft)	12	172							m#320	m120	m#371	m380			
45	H Street & 7th Street	Queue Length 95th (ft)		m#347								m147	m301				
46	H Street &	Queue Length 95th (ft)		m64						116							
47	H Street & 16th Street	Queue Length 95th (ft)	#167	#700				#59		#338							
48	I Street & Jibboom St	Queue Length 95th (ft)	#1380	222			233	78				#1463					
50	I St & 5th Street	Queue Length 95th (ft)					m379		m#530	m#555				42			
51	I St & 6th Street	Queue Length 95th (ft)					405		#430	#596			m#575	m#573			
52	I St & 7th Street	Queue Length 95th (ft)				37	491						m#531	m111			
53	J St & 3rd St	Queue Length 95th (ft)		#418							119	195	309		#673		#589
54	J St & 5th Street	Queue Length 95th (ft)	#346	196	23					#313	#238						
55	J St & 6th Street	Queue Length 95th (ft)	m210	m208						#200		m43					
56	J St & 7th Street	Queue Length 95th (ft)		156									m96				
57	L St & 3rd St	Queue Length 95th (ft)				360	#942	208	27	#1047	35			#670			
58	L St & 5th Street	Queue Length 95th (ft)					#391		202	122				14			
59	L St & 7th Street	Queue Length 95th (ft)				77	#291						214				
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	138	64				135	103	190							
61	P St & 3rd St	Queue Length 95th (ft)					#465						m199	m140			
62	Q St & 3rd St	Queue Length 95th (ft)		98									m77				

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		389			264			250			573			
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		264			219			328			325			
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		219			1382			413			632			
4	Richard Blvd & N 5th Street	Internal Link Dist (ft)		664			1043			501			750			
5	Richard Blvd & 7th Street	Internal Link Dist (ft)		1043			1144			540			348			
6	Richards Blvd & 10th Street	Internal Link Dist (ft)		1144			1033			1392			329			
7	Richard Blvd & Dos Rios St	Internal Link Dist (ft)		771			1307			996			765			
9	Sunbeam Ave & 12th Street	Internal Link Dist (ft)		476			520			518			939			
10	Basler St & 16th Street	Internal Link Dist (ft)		520			713			1154			337			
11	Bannon St & I-5 SB Off	Internal Link Dist (ft)		195			196			341			250			
12	Bannon St & I-5 NB Off	Internal Link Dist (ft)		196			86			624			328			
13	Bannon St & Bercut Dr	Internal Link Dist (ft)		86			1116			746			413			
14	Bannon St & N 5th Street	Internal Link Dist (ft)		960			1034			852			501			
15	Bannon St & 7th Street	Internal Link Dist (ft)		1034			622			779			540			
16	Richards & 12th Street	Internal Link Dist (ft)		339			404									531
17	N B Street &	Internal Link Dist (ft)		260			1007			314			852			
18	N B Street & 7th Street	Internal Link Dist (ft)		1007			1156			976			779			
20	N B Street & 12th Street	Internal Link Dist (ft)		741			1056			356			531			
21	N B Street & 16th Street	Internal Link Dist (ft)		551			657			435			1154			
23	South Park St & 5th St	Internal Link Dist (ft)	361							378			230			
26	Railyards Blvd & Jibboom St	Internal Link Dist (ft)				199				199			2527			
27	Railyards Blvd & Bercut Dr	Internal Link Dist (ft)		199			399			556			516			
29	Railyards Blvd & Stanford St	Internal Link Dist (ft)		241			255			328			304			
30	Railyards Blvd & 5th St	Internal Link Dist (ft)		255			218			305			378			
32	Railyards Blvd & 6th St	Internal Link Dist (ft)		204			364		301							
33	Railyards Blvd & 7th Street	Internal Link Dist (ft)	364							1432			976			
37	F Street & 7th Street	Internal Link Dist (ft)		163			961			138			1432			
38	G Street & 5th Street	Internal Link Dist (ft)		34			304			374			183			
39	G Street & 6th Street	Internal Link Dist (ft)		304			340			376			639			
40	G Street & 7th Street	Internal Link Dist (ft)		340			340			360			141			
41	G Street &	Internal Link Dist (ft)		340			1616			362			182			
42	G Street & 12th Street	Internal Link Dist (ft)		1616			843			1219			359			
43	H Street & 5th Street	Internal Link Dist (ft)		164			322			84			374			
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			376			
45	H Street & 7th Street	Internal Link Dist (ft)		333			338			351			360			
46	H Street &	Internal Link Dist (ft)		338			390			125			362			
47	H Street & 16th Street	Internal Link Dist (ft)		1181			746			798			2877			
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186					1030				
50	I St & 5th Street	Internal Link Dist (ft)		402			324			353			186			
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349			
52	I St & 7th Street	Internal Link Dist (ft)		345			1246			371			351			
53	J St & 3rd St	Internal Link Dist (ft)		265			756			332			262		540	
54	J St & 5th Street	Internal Link Dist (ft)		756			329			807			353			
55	J St & 6th Street	Internal Link Dist (ft)		329			341			356			362			
56	J St & 7th Street	Internal Link Dist (ft)		341			1203			790			371			
57	L St & 3rd St	Internal Link Dist (ft)		488			756				1692			411		441
58	L St & 5th Street	Internal Link Dist (ft)		756			747			379			807			
59	L St & 7th Street	Internal Link Dist (ft)		747			1840			823			790			
60	Capitol Mall & 5th Street	Internal Link Dist (ft)		329			343			365			379			
61	P St & 3rd St	Internal Link Dist (ft)		441			333			362			1692			
62	Q St & 3rd St	Internal Link Dist (ft)		423			339			788			362			

63	Richards Blvd & Dos Rios St	Internal Link Dist (ft)		1033			705			350			996			
64	Richards Blvd & 12th Street	Internal Link Dist (ft)		705			258			468			518			
69	I St &	Internal Link Dist (ft)		212			402								533	
152	N B Street &	Internal Link Dist (ft)		1056			551			362			778			

Queue Summary for 2030 with Project		Sacramento Railyards Traffic Study															
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other			
1 Richard Blvd & 1-5 SB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)		389		100	264			250			573	300				
2 Richard Blvd & 1-5 NB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)		264			219			328			325					
3 Richard Blvd & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)		219		150	1382		150	413			632	150				
4 Richard Blvd & N 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		664			1043			501			750	150				
5 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
6 Richards Blvd & 10th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1144		150	1033		300	1392			329	150				
7 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
8 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
9 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
10 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
11 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
12 Bannon St & 1-5 NB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150	196			86			624	200		328					
13 Bannon St & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150	86			1116			746	150	150	413					
14 Bannon St & N 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150	960			1034			852			501					
15 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
16 Richards & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		339			404									531	150	
17 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
18 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
19 Water St & 10th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)	1220	1200			400	400					1200					
20 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
21 N B Street & 16th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		551			657			435			1154					
22 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
23 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
24 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
26 Railyards Blvd & Jibboom St	Storage Length (ft) AM Queue (ft) PM Queue (ft)				69				199		150	2527					
27 Railyards Blvd & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)	75	199		170	399		100	556			516					
28 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
29 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
30 Railyards Blvd & 5th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		255			218			305			378					
31 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
32 Railyards Blvd & 6th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		204		100	364											
33 Railyards Blvd & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)				2				1432			976					
34 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
35 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
36 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
37 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
38 G Street & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		34			304			374			183					

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)				59	411						#671	221			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)					37	74	32	96							
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)				m50	154		m250	m257			104	51			
4	Richard Blvd & N 5th Street	Queue Length 95th (ft)					175		m11	393				290			
6	Richards Blvd & 10th Street	Queue Length 95th (ft)				108	88		m390	m13			25	31			
12	Bannon St & I-5 NB Off	Queue Length 95th (ft)	43	#377						23	#836						
13	Bannon St & Bercut Dr	Queue Length 95th (ft)	m45	m528						#238	137	#168	299				
14	Bannon St & N 5th Street	Queue Length 95th (ft)	m509	134						126							
16	Richards & 12th Street	Queue Length 95th (ft)	274	25	#745											m15	m0
21	N B Street & 16th Street	Queue Length 95th (ft)	37	37			13			m59							
26	Railyards Blvd & Jibboom St	Queue Length 95th (ft)				69				49		49	87				
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	#280	134		10	36		65	66			199	29			
30	Railyards Blvd & 5th St	Queue Length 95th (ft)	m7	87			92			122							
32	Railyards Blvd & 6th St	Queue Length 95th (ft)		18		145	16		79		19						
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			2								89	48			
38	G Street & 5th Street	Queue Length 95th (ft)	37	36			m63	m35		182							
39	G Street & 6th Street	Queue Length 95th (ft)		m14			m#387		m#345	m39			#324				
40	G Street & 7th Street	Queue Length 95th (ft)			m0	58	#663						#356				
44	H Street & 6th Street	Queue Length 95th (ft)	m13	#150						m#306		m266	m277				
45	H Street & 7th Street	Queue Length 95th (ft)		m230								m10	m103				
48	I Street & Jibboom St	Queue Length 95th (ft)	#887	193			#321	16				#1039					
50	I St & 5th Street	Queue Length 95th (ft)					102		m19	#241				7			
51	I St & 6th Street	Queue Length 95th (ft)					194		m14	#226			m93	m88			
52	I St & 7th Street	Queue Length 95th (ft)				84	159						m103	m12			
53	J St & 3rd St	Queue Length 95th (ft)		#584							#72	#125	#244		#1120		#1132
57	L St & 3rd St	Queue Length 95th (ft)				163	#456	146	30	#239	35			#543	272		
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	208	51			42		100	193							
61	P St & 3rd St	Queue Length 95th (ft)					92						m70	m30			
64	Richards Blvd & 12th Street	Queue Length 95th (ft)				36	#665	72	m7	208			#1284	77			

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)				0	153						#311	#552			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)					m61	m#910	39	140							
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)				202	541		m#410	m#426			199	#337			
4	Richard Blvd & N 5th Street	Queue Length 95th (ft)					#477		m6	#750				400			
6	Richards Blvd & 10th Street	Queue Length 95th (ft)				78	168		m444	m13			50	#174			
12	Bannon St & I-5 NB Off	Queue Length 95th (ft)	m41	238						11	#757						
13	Bannon St & Bercut Dr	Queue Length 95th (ft)	m84	#647						#620	168	#250	112				
14	Bannon St & N 5th Street	Queue Length 95th (ft)		535	325					309							
16	Richards & 12th Street	Queue Length 95th (ft)	#1003	25	#1146											m341	m1
21	N B Street & 16th Street	Queue Length 95th (ft)	#322	#312			22			m#1071							
26	Railyards Blvd & Jibboom St	Queue Length 95th (ft)				209				60		#177	24				
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	m#306	#389		18	268		234	241			216	80			
30	Railyards Blvd & 5th St	Queue Length 95th (ft)	15	#425			#516			#675							
32	Railyards Blvd & 6th St	Queue Length 95th (ft)		#426		#219	76		#457		50						
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			10								m57	m36			
38	G Street & 5th Street	Queue Length 95th (ft)	153	152			m138	m134		#250							
39	G Street & 6th Street	Queue Length 95th (ft)		m14			m#903		m#209	m152			#691				
40	G Street & 7th Street	Queue Length 95th (ft)			m1	184	#806						#491				
44	H Street & 6th Street	Queue Length 95th (ft)	12	172						m#322		m#543	m#558				
45	H Street & 7th Street	Queue Length 95th (ft)		m#286								m130	m274				
48	I Street & Jibboom St	Queue Length 95th (ft)	#1380	255			#405	94				#1575					
50	I St & 5th Street	Queue Length 95th (ft)					m239		m#440	m#464				37			
51	I St & 6th Street	Queue Length 95th (ft)					m#556		#321	#482			m#357	m#357			
52	I St & 7th Street	Queue Length 95th (ft)				55	#656						m297	m59			
53	J St & 3rd St	Queue Length 95th (ft)		#377							130	231	#431		#618		#568
57	L St & 3rd St	Queue Length 95th (ft)				#557	#1224	340	38	#429	54			#618	#393		
60	Capitol Mall & 5th Street	Queue Length 95th (ft)	138	64			135		103	190							
61	P St & 3rd St	Queue Length 95th (ft)					#825						m342	m241			
64	Richards Blvd & 12th Street	Queue Length 95th (ft)				63	#510	170	m5	m245			989	65			

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Turn Bay Length (ft)				100								300			
2	Richard Blvd & I-5 NB Off	Turn Bay Length (ft)															
3	Richard Blvd & Bercut Dr	Turn Bay Length (ft)				150			150					150			
4	Richard Blvd & N 5th Street	Turn Bay Length (ft)												150			
6	Richards Blvd & 10th Street	Turn Bay Length (ft)				150			300					150			
12	Bannon St & I-5 NB Off	Turn Bay Length (ft)	150								200						
13	Bannon St & Bercut Dr	Turn Bay Length (ft)	150								150	150					
14	Bannon St & N 5th Street	Turn Bay Length (ft)	150														
16	Richards & 12th Street	Turn Bay Length (ft)															150
21	N B Street & 16th Street	Turn Bay Length (ft)															
26	Railyards Blvd & Jibboom St	Turn Bay Length (ft)										150					
27	Railyards Blvd & Bercut Dr	Turn Bay Length (ft)	75			170			100								
30	Railyards Blvd & 5th St	Turn Bay Length (ft)															
32	Railyards Blvd & 6th St	Turn Bay Length (ft)				100											
33	Railyards Blvd & 7th Street	Turn Bay Length (ft)															
38	G Street & 5th Street	Turn Bay Length (ft)															
39	G Street & 6th Street	Turn Bay Length (ft)															
40	G Street & 7th Street	Turn Bay Length (ft)															
44	H Street & 6th Street	Turn Bay Length (ft)	150														
45	H Street & 7th Street	Turn Bay Length (ft)															
48	I Street & Jibboom St	Turn Bay Length (ft)	75														
50	I St & 5th Street	Turn Bay Length (ft)															
51	I St & 6th Street	Turn Bay Length (ft)															
52	I St & 7th Street	Turn Bay Length (ft)												100			
53	J St & 3rd St	Turn Bay Length (ft)															
57	L St & 3rd St	Turn Bay Length (ft)															
60	Capitol Mall & 5th Street	Turn Bay Length (ft)	200														
61	P St & 3rd St	Turn Bay Length (ft)												100			
64	Richards Blvd & 12th Street	Turn Bay Length (ft)				150								300			

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		389			264			250			573			
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		264			219			328			325			
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		219			1382			413			632			
4	Richard Blvd & N 5th Street	Internal Link Dist (ft)		664			1043			501			750			
6	Richards Blvd & 10th Street	Internal Link Dist (ft)		1144			1033			1392			329			
12	Bannon St & I-5 NB Off	Internal Link Dist (ft)		196			86			624			328			
13	Bannon St & Bercut Dr	Internal Link Dist (ft)		86			1116			746			413			
14	Bannon St & N 5th Street	Internal Link Dist (ft)		960			1034			852			501			
16	Richards & 12th Street	Internal Link Dist (ft)		339			404									531
21	N B Street & 16th Street	Internal Link Dist (ft)		551			657			435			1154			
26	Railyards Blvd & Jibboom St	Internal Link Dist (ft)				199				199			2527			
27	Railyards Blvd & Bercut Dr	Internal Link Dist (ft)		199			399			556			516			
30	Railyards Blvd & 5th St	Internal Link Dist (ft)		255			218			305			378			
32	Railyards Blvd & 6th St	Internal Link Dist (ft)		204			364		301							
33	Railyards Blvd & 7th Street	Internal Link Dist (ft)	364							1432			976			
38	G Street & 5th Street	Internal Link Dist (ft)		34			304			374			183			
39	G Street & 6th Street	Internal Link Dist (ft)		304			340			376			639			
40	G Street & 7th Street	Internal Link Dist (ft)		340			340			360			141			
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			376			
45	H Street & 7th Street	Internal Link Dist (ft)		333			338			351			360			
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186					1030				
50	I St & 5th Street	Internal Link Dist (ft)		402			324			353			186			
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349			
52	I St & 7th Street	Internal Link Dist (ft)		345			1246			371			351			
53	J St & 3rd St	Internal Link Dist (ft)		265			756			332			262		540	
57	L St & 3rd St	Internal Link Dist (ft)		488			756				1692			411		441
60	Capitol Mall & 5th Street	Internal Link Dist (ft)		329			343			365			379			
61	P St & 3rd St	Internal Link Dist (ft)		441			333			362			1692			
64	Richards Blvd & 12th Street	Internal Link Dist (ft)		705			258			468			518			

Queue Summary for 2030 Program with Project		Sacramento Railyards Traffic Study													
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other	
1 Richard Blvd & I-5 SB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)		389		100	264			250			573	300		
2 Richard Blvd & I-5 NB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)		264			219	150		328			325			
3 Richard Blvd & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)		219		150	1382		150	413			632	150		
4 Richard Blvd & N 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		664			1043			501			750	150		
5 Richard Blvd & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1043		200	1133			540			348	200		
6 Richards Blvd & 10th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1133			1005		300	1462			325	150		
7 Richard Blvd & Dos Rios St	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150	771		150	1307			996			765			
8 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
9 Sunbeam Ave & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		476			520			518			939			
10 Basler St & 16th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		520			713			1154			337			
11 Bannon St & I-5 SB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)		195	150		196			341		150	250			
12 Bannon St & I-5 NB Off	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150	196			86		624	200			328			
13 Bannon St & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150	86			1116		746	150	150	413				
14 Bannon St & N 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150	960			1034		852			501				
15 Bannon St & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1034			622		779			540				
16 Richards & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		339			404		531	150	150	468				
17 N B Street & 5th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		273			274		314			852				
18 N B Street & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		344			310		353			779				
19 N B Street & 10th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		329			806		304			1462				
20 N B Street & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		806			1056		356			531				
21 N B Street & 16th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#919	#653		#223	#194					m#1494				
22 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
23 South Park St & 5th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		361			315		381			230				
24 North Park St & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		326			331		104			353				
25 South Park St & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		321			337		375			104				
26 Railyards Blvd & Jibboom St	Storage Length (ft) AM Queue (ft) PM Queue (ft)				m10		m19	218		150	2527				
27 Railyards Blvd & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)	75	199		170	399		100	556		150	516			
28 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
29 Railyards Blvd & Stanford St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		241			255		150	328		140	304			
30 Railyards Blvd & 5th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		255			218		305			381				
31 Railyards Blvd & Judas St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		218		70	204		150		150	392				
32 Railyards Blvd & 6th St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		204			319		125	301		150	395			
33 Railyards Blvd & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		319		m150	84	#402		1418		375				
34 Railyards Blvd &	Storage Length (ft) AM Queue (ft) PM Queue (ft)		346			929					19				
35 #N/A	Storage Length (ft) AM Queue (ft) PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
36 Camille Ln & Bercut Dr	Storage Length (ft) AM Queue (ft) PM Queue (ft)		142			424		150	463		100	556			
37 F Street & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		163		100	961			138		1418				
38 G Street & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		34			304			374		183				

Queue Summary for 2030 Program with Project		Sacramento Railyards Traffic Study												
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other
39 G Street & 6th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		304 m19 m11			340 m#769 m#1188		150 m155 m59	376 m4 m149		150 15 15	639 #750 #1393		
40 G Street & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		340	m0 m2	m83 100	340 #901 #713			360			141 #571 #647	m120 m108	
41 G Street &	Storage Length (ft) AM Queue (ft) PM Queue (ft)		340			1616 m152 60			362 m57 m56			182		
42 G Street & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1616			843 73 93			1219			2495 #306 189		
43 H Street & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		164 18 19			322			84 m0 62			374		
44 H Street & 6th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	150 m14 12	322 #139 172			333			349 m#1336 m300	m57 m137	m#248 m346	m#252 m362		
45 H Street & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		333 m134 m#418			338			351		m50 m42	m296 m175		
46 H Street &	Storage Length (ft) AM Queue (ft) PM Queue (ft)		338 #167 m42			390			125 115 123			362		
47 H Street & 16th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1181 #297 #199			746	16 #62		798 143 #323			2877		
48 I Street & Jibboom St	Storage Length (ft) AM Queue (ft) PM Queue (ft)	75 #1114 #1919	1090 162 180			186 #402 #457							#1564 #2689	
49 I Street & 3rd St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		189	0 0	#191 m172	528 78 m62	140 #599	#277 76 38	473 76 38			206 35 #311	664 <(NEL) (NER)>	
50 I St & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		165			324 m78 m356		m14 m#409	#331 m#471			186 5 29		
51 I St & 6th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		324			345 #272 312		m14 #426	362 #259 #649			349 m73 m#556	m67 m#533	
52 I St & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		345		96 38	1246 169 490			371			351 106 m#563	100 m10 m112	
53 J St & 3rd St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		464 #717 #456						65 118	87 200	#254 309		#1251 #848	#1231 #730
54 J St & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	140 m188 #303	756 m234 170	200 m0 25		329			807 271 #307	200 289 #248		353		
55 J St & 6th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		329 406 m239			341			356 43 #197		m18 m50	362		
56 J St & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		341 279 m150	79		1203			790			371 294 m99		
57 L St & 3rd St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		488		133 410	756 359 #945	102 210	25 28	#683 #1036	24 36			#557 #663	441
58 L St & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		756			747 143 #396		m49 201	379 m99 119			807 22 18		
59 L St & 7th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		747		38 87	1840 159 #279			823			790 218 m219		
60 Capitol Mall & 5th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)	200 #261 138	329 93 67			343 44 131		71 96	365 151 188			379		
61 P St & 3rd St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		441			333 92 #472			362			1692 m145 m219	100 m70 m140	
62 Q St & 3rd St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		423 #388 100			339			788			362 37 m77		
63 Richards Blvd & Dos Rios St	Storage Length (ft) AM Queue (ft) PM Queue (ft)		1005			705 59 124			350 9			996 98 90		
64 Richards Blvd & 12th Street	Storage Length (ft) AM Queue (ft) PM Queue (ft)		705		150 5 39	258 329 334	33		468 176 542			518 #1049 #1076	300 m58 22	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)				0	64						#655	162			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)					25	182	23	46							
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)				m95	136		m295	m172			108	90			
4	Richard Blvd & N 5th Street	Queue Length 95th (ft)					287		m11	m#1084				142			
5	Richard Blvd & 7th Street	Queue Length 95th (ft)				m168	m146	m0					307	162			
6	Richards Blvd & 10th Street	Queue Length 95th (ft)					138		#1021	28				#559			
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	16	171		#182	#527			103			91				
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)			39			m0		5			604				
10	Basler St & 16th Street	Queue Length 95th (ft)	98	100			11			98							
11	Bannon St & I-5 SB Off	Queue Length 95th (ft)		94	48							m0	m4				
12	Bannon St & I-5 NB Off	Queue Length 95th (ft)	15	#464						35	#895						
13	Bannon St & Bercut Dr	Queue Length 95th (ft)	m50	m186						#378	80	163	286				
14	Bannon St & N 5th Street	Queue Length 95th (ft)	m#1006	148						#126							
15	Bannon St & 7th Street	Queue Length 95th (ft)		76								m12	m106				
16	Richards & 12th Street	Queue Length 95th (ft)	204	23	#1150										m226	m1	
17	N B Street & 5th St	Queue Length 95th (ft)	37	209						152	8						
18	N B Street & 7th Street	Queue Length 95th (ft)		84									184				
19	N B Street & 10th Street	Queue Length 95th (ft)		105						64							
20	N B Street & 12th Street	Queue Length 95th (ft)	#919	#653		#223	#194						m#1494				
21	N B Street & 16th Street	Queue Length 95th (ft)	40	40			13			m61							
23	South Park St & 5th St	Queue Length 95th (ft)	35	41						10							
24	North Park St & 7th Street	Queue Length 95th (ft)					67						26				
25	South Park St & 7th Street	Queue Length 95th (ft)		#262									13				
26	Railyards Blvd & Jibboom St	Queue Length 95th (ft)				m10		m19		27		50	45				
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	10	92		18	19		10	224		27	275				
29	Railyards Blvd & Stanford St	Queue Length 95th (ft)	11	243			0		16	87		65	30				
30	Railyards Blvd & 5th St	Queue Length 95th (ft)	m1	253			180			117							
31	Railyards Blvd & Judas St	Queue Length 95th (ft)	104	140		m18	54			20		4	38				
32	Railyards Blvd & 6th St	Queue Length 95th (ft)	129	197		m214	m14		54	#548		36	346				
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			m150	84	#402						194				
34	Railyards Blvd &	Queue Length 95th (ft)					178									19	
36	Camille Ln & Bercut Dr	Queue Length 95th (ft)		104			#366		9	#439		14	182				
37	F Street & 7th Street	Queue Length 95th (ft)		35		71	61						429				
38	G Street & 5th Street	Queue Length 95th (ft)		22			m129	m127		14							
39	G Street & 6th Street	Queue Length 95th (ft)		m19			m#769		m155	m4		15	#750				
40	G Street & 7th Street	Queue Length 95th (ft)			m0	m83	#901						#571	m120			
41	G Street &	Queue Length 95th (ft)					m152			m57							
42	G Street & 12th Street	Queue Length 95th (ft)					73						#306				
43	H Street & 5th Street	Queue Length 95th (ft)		18						m0							
44	H Street & 6th Street	Queue Length 95th (ft)	m14	#139						m#1336	m57	m#248	m#252				
45	H Street & 7th Street	Queue Length 95th (ft)		m134								m50	m296				
46	H Street &	Queue Length 95th (ft)		#167						115							
47	H Street & 16th Street	Queue Length 95th (ft)	35	#297				16		143							
48	I Street & Jibboom St	Queue Length 95th (ft)	#1114	162			#402									#1564	
49	I Street & 3rd St	Queue Length 95th (ft)			0	#191	78	140	#277	76			35				
50	I St & 5th Street	Queue Length 95th (ft)					m78		m14	#331				5			
51	I St & 6th Street	Queue Length 95th (ft)					#272		m14	#259			m73	m67			
52	I St & 7th Street	Queue Length 95th (ft)				96	169						106	m10			
53	J St & 3rd St	Queue Length 95th (ft)		#717							65	87	#254		#1251		#1231
54	J St & 5th Street	Queue Length 95th (ft)	m188	m234	m0					271	289						
55	J St & 6th Street	Queue Length 95th (ft)	406	351						43		m18					

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)				24	552						270	#739			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)					m50	m#890	90	88							
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)				194	640		m#642	m68			#265	#401			
4	Richard Blvd & N 5th Street	Queue Length 95th (ft)					#702		m25	m#1314							393
5	Richard Blvd & 7th Street	Queue Length 95th (ft)				m200	m217	m20					292				104
6	Richards Blvd & 10th Street	Queue Length 95th (ft)						163	#1235								#635
7	Richard Blvd & Dos Rios St	Queue Length 95th (ft)	13	316		#136	#492			127				174			
9	Sunbeam Ave & 12th Street	Queue Length 95th (ft)			50			m0		146				290			
10	Basler St & 16th Street	Queue Length 95th (ft)	m31	m31				86			m91						
11	Bannon St & I-5 SB Off	Queue Length 95th (ft)		192	498							107	290				
12	Bannon St & I-5 NB Off	Queue Length 95th (ft)	m42	292						51	#1126						
13	Bannon St & Bercut Dr	Queue Length 95th (ft)	m62	m313						#724	137	m#195	m170				
14	Bannon St & N 5th Street	Queue Length 95th (ft)	#1095	95						m#434							
15	Bannon St & 7th Street	Queue Length 95th (ft)		m#524								243	234				
16	Richards & 12th Street	Queue Length 95th (ft)	#712	31	#1561											m372	m5
17	N B Street & 5th St	Queue Length 95th (ft)	177	#556						#798	26						
18	N B Street & 7th Street	Queue Length 95th (ft)		#268										m186			
19	N B Street & 10th Street	Queue Length 95th (ft)		187							83						
20	N B Street & 12th Street	Queue Length 95th (ft)	#1528	#1092		#530	#467							m#1034			
21	N B Street & 16th Street	Queue Length 95th (ft)	#300	#289				22									
23	South Park St & 5th St	Queue Length 95th (ft)	165	177													
24	North Park St & 7th Street	Queue Length 95th (ft)						65						m36			
25	South Park St & 7th Street	Queue Length 95th (ft)		#387													9
26	Railyards Blvd & Jibboom St	Queue Length 95th (ft)				m1		m19		21		85	29				
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	m12	129		#338	105		17	#416		55	#479				
29	Railyards Blvd & Stanford St	Queue Length 95th (ft)	38	281				m171	102	260		22	27				
30	Railyards Blvd & 5th St	Queue Length 95th (ft)	m45	#335				#281		#559							
31	Railyards Blvd & Judas St	Queue Length 95th (ft)	m59	m89		m14	86			88		6	48				
32	Railyards Blvd & 6th St	Queue Length 95th (ft)	#304	#452		m#109	m10		216	#1332		26	111				
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			m#277	87	#415							m192			
34	Railyards Blvd &	Queue Length 95th (ft)						171									12
36	Camille Ln & Bercut Dr	Queue Length 95th (ft)		56			#548		11	#412		15	#382				
37	F Street & 7th Street	Queue Length 95th (ft)		96		164	25							m296			
38	G Street & 5th Street	Queue Length 95th (ft)		#213			m363	m362		91							
39	G Street & 6th Street	Queue Length 95th (ft)		m11			m#1188		m59	m149		15	#1393				
40	G Street & 7th Street	Queue Length 95th (ft)			m2	100	#713							#647	m108		
41	G Street &	Queue Length 95th (ft)					60			m56							
42	G Street & 12th Street	Queue Length 95th (ft)					93										189
43	H Street & 5th Street	Queue Length 95th (ft)		19						62							
44	H Street & 6th Street	Queue Length 95th (ft)	12	172							m300	m137	m346	m362			
45	H Street & 7th Street	Queue Length 95th (ft)		m#418								m42	m175				
46	H Street &	Queue Length 95th (ft)		m42						123							
47	H Street & 16th Street	Queue Length 95th (ft)	#199	#781				#62		#323							
48	I Street & Jibboom St	Queue Length 95th (ft)	#1919	180			#457										#2689
49	I Street & 3rd St	Queue Length 95th (ft)			0	m172	m62	m#674	#599	38			#311				
50	I St & 5th Street	Queue Length 95th (ft)					m356		m#409	m#471							29
51	I St & 6th Street	Queue Length 95th (ft)					312		#426	#649			m#556	m#533			
52	I St & 7th Street	Queue Length 95th (ft)				38	490						m#563	m112			
53	J St & 3rd St	Queue Length 95th (ft)		#456							118	200	309		#848		#730
54	J St & 5th Street	Queue Length 95th (ft)	#303	170	25					#307	#248						
55	J St & 6th Street	Queue Length 95th (ft)	m239	m214						#197		m50					

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		389			264			250			573			
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		264			219			328			325			
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		219			1382			413			632			
4	Richard Blvd & N 5th Street	Internal Link Dist (ft)		664			1043			501			750			
5	Richard Blvd & 7th Street	Internal Link Dist (ft)		1043			1133			540			348			
6	Richards Blvd & 10th Street	Internal Link Dist (ft)		1133			1005			1462			325			
7	Richard Blvd & Dos Rios St	Internal Link Dist (ft)		771			1307			996			765			
9	Sunbeam Ave & 12th Street	Internal Link Dist (ft)		476			520			518			939			
10	Basler St & 16th Street	Internal Link Dist (ft)		520			713			1154			337			
11	Bannon St & I-5 SB Off	Internal Link Dist (ft)		195			196			341			250			
12	Bannon St & I-5 NB Off	Internal Link Dist (ft)		196			86			624			328			
13	Bannon St & Bercut Dr	Internal Link Dist (ft)		86			1116			746			413			
14	Bannon St & N 5th Street	Internal Link Dist (ft)		960			1034			852			501			
15	Bannon St & 7th Street	Internal Link Dist (ft)		1034			622			779			540			
16	Richards & 12th Street	Internal Link Dist (ft)		339			404									531
17	N B Street & 5th St	Internal Link Dist (ft)		273			274			314			852			
18	N B Street & 7th Street	Internal Link Dist (ft)		344			310			353			779			
19	N B Street & 10th Street	Internal Link Dist (ft)		329			806			304			1462			
20	N B Street & 12th Street	Internal Link Dist (ft)		806			1056			356			531			
21	N B Street & 16th Street	Internal Link Dist (ft)		551			657			435			1154			
23	South Park St & 5th St	Internal Link Dist (ft)		361			315			381			230			
24	North Park St & 7th Street	Internal Link Dist (ft)		326			331			104			353			
25	South Park St & 7th Street	Internal Link Dist (ft)		321			337			375			104			
26	Railyards Blvd & Jibboom St	Internal Link Dist (ft)				199				218			2527			
27	Railyards Blvd & Bercut Dr	Internal Link Dist (ft)		199			399			556			516			
29	Railyards Blvd & Stanford St	Internal Link Dist (ft)		241			255			328			304			
30	Railyards Blvd & 5th St	Internal Link Dist (ft)		255			218			305			381			
31	Railyards Blvd & Judas St	Internal Link Dist (ft)		218			204			150			392			
32	Railyards Blvd & 6th St	Internal Link Dist (ft)		204			319			301			395			
33	Railyards Blvd & 7th Street	Internal Link Dist (ft)		319			347			1418			375			
34	Railyards Blvd &	Internal Link Dist (ft)		346			929					213				
36	Camille Ln & Bercut Dr	Internal Link Dist (ft)		142			424			463			556			
37	F Street & 7th Street	Internal Link Dist (ft)		163			961			138			1418			
38	G Street & 5th Street	Internal Link Dist (ft)		34			304			374			183			
39	G Street & 6th Street	Internal Link Dist (ft)		304			340			376			639			
40	G Street & 7th Street	Internal Link Dist (ft)		340			340			360			141			
41	G Street &	Internal Link Dist (ft)		340			1616			362			182			
42	G Street & 12th Street	Internal Link Dist (ft)		1616			843			1219			2495			
43	H Street & 5th Street	Internal Link Dist (ft)		164			322			84			374			
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			376			
45	H Street & 7th Street	Internal Link Dist (ft)		333			338			351			360			
46	H Street &	Internal Link Dist (ft)		338			390			125			362			
47	H Street & 16th Street	Internal Link Dist (ft)		1181			746			798			2877			
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186								630	
49	I Street & 3rd St	Internal Link Dist (ft)		189			528			473			206		664	
50	I St & 5th Street	Internal Link Dist (ft)		165			324			353			186			
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349			
52	I St & 7th Street	Internal Link Dist (ft)		345			1246			371			351			
53	J St & 3rd St	Internal Link Dist (ft)		464			756			332			473		540	
54	J St & 5th Street	Internal Link Dist (ft)		756			329			807			353			
55	J St & 6th Street	Internal Link Dist (ft)		329			341			356			362			

56	J St & 7th Street	Internal Link Dist (ft)	341	1203	790	371		
57	L St & 3rd St	Internal Link Dist (ft)	488	756		1692	411	441
58	L St & 5th Street	Internal Link Dist (ft)	756	747	379		807	
59	L St & 7th Street	Internal Link Dist (ft)	747	1840	823		790	
60	Capitol Mall & 5th Street	Internal Link Dist (ft)	329	343	365		379	
61	P St & 3rd St	Internal Link Dist (ft)	441	333	362		1692	
62	Q St & 3rd St	Internal Link Dist (ft)	423	339	788		362	
63	Richards Blvd & Dos Rios St	Internal Link Dist (ft)	1005	705	350		996	
64	Richards Blvd & 12th Street	Internal Link Dist (ft)	705	258	468		518	
152	N B Street &	Internal Link Dist (ft)	1056	551	362		778	

Queue Summary for 2030 Program with Project		Sacramento Railyards Traffic Study													
Intersection		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Other	
39 G Street & 6th Street	Storage Length (ft)		304			340				376		639			
	AM Queue (ft)		m16			m#617		m#312	m88			#382			
	PM Queue (ft)		m14			m#939		m#133	m199			#681			
40 G Street & 7th Street	Storage Length (ft)		340			340				360		141			
	AM Queue (ft)			m0	m72	#885						#495			
	PM Queue (ft)			m0	105	#853						m#464			
41 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
42 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
43 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
44 H Street & 6th Street	Storage Length (ft)	150	322			333			349			376			
	AM Queue (ft)	m14	#149						m#644		m223	m211			
	PM Queue (ft)	12	172						m#333		m#582	m#607			
45 H Street & 7th Street	Storage Length (ft)		333			338			351			360			
	AM Queue (ft)		m152								m9	m93			
	PM Queue (ft)		m278								m146	m391			
46 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
47 H Street & 16th Street	Storage Length (ft)		1181			746			798			2877			
	AM Queue (ft)	35	#297					16		143					
	PM Queue (ft)	156	#756					#58		#349					
48 I Street & Jibboom St	Storage Length (ft)	75	1090			186									
	AM Queue (ft)	#1126	162			#402							#1564		
	PM Queue (ft)	#1949	172			#470							#2666		
49 I Street & 3rd St	Storage Length (ft)		189			528			473			206		664 <(NEL)>	
	AM Queue (ft)			0	#191	78	140	#277	76			35		(NER)>	
	PM Queue (ft)			0	m184	m63	m1	210	210			161			
50 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
51 I St & 6th Street	Storage Length (ft)		324			345			362			349			
	AM Queue (ft)					#220		m13	#296			m98	m90		
	PM Queue (ft)					m#523		#317	#535			m#336	m#316		
52 I St & 7th Street	Storage Length (ft)		345			1246			371			351	100		
	AM Queue (ft)				96	169						106	m10		
	PM Queue (ft)				56	#654						m#456	m53		
53 J St & 3rd St	Storage Length (ft)		464												
	AM Queue (ft)		#706						#77	#114	#316			#1208	
	PM Queue (ft)		#416						125	237	#431			#793	
54 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
55 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
56 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
57 L St & 3rd St	Storage Length (ft)		488			756								441	
	AM Queue (ft)				167	#555	138	31	#266	35			#532	235	
	PM Queue (ft)				#634	#1226	345	40	#423	55			#606	#398	
58 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
59 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
60 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
61 P St & 3rd St	Storage Length (ft)		441			333			362			1692	100		
	AM Queue (ft)					92						m86	m30		
	PM Queue (ft)					#839						m375	m238		
62 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
63 #N/A	Storage Length (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	AM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	PM Queue (ft)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
64 Richards Blvd & 12th Street	Storage Length (ft)		705		150	258			468			518	300		
	AM Queue (ft)				8	#646	68		151			1063	42		
	PM Queue (ft)				63	#619	142	m41	421			1089	72		

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)				63	156						482	200			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)					49	94	18	42							
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)				118	133		m277	m283			108	50			
4	Richard Blvd & N 5th Street	Queue Length 95th (ft)					233		101	380				158			
6	Richards Blvd & 10th Street	Queue Length 95th (ft)					92		#477	128				#376			
11	Bannon St & I-5 SB Off	Queue Length 95th (ft)		94	48							0	0				
12	Bannon St & I-5 NB Off	Queue Length 95th (ft)	24	#329						30	#840						
13	Bannon St & Bercut Dr	Queue Length 95th (ft)	m49	m516						#303	89	#177	190				
14	Bannon St & N 5th Street	Queue Length 95th (ft)	m141	46						204							
15	Bannon St & 7th Street	Queue Length 95th (ft)		194								m12	m106				
16	Richards & 12th Street	Queue Length 95th (ft)	201	23	#1132											m13	m0
21	N B Street & 16th Street	Queue Length 95th (ft)	40	40			13			m61							
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	6	51		11	12		6	111		15	139				
28	Railyards Blvd & Crocker St	Queue Length 95th (ft)		24		199	5			75	36	41	31				
32	Railyards Blvd & 6th St	Queue Length 95th (ft)	128	197		#363	m22		54	#548		36	346				
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			m0	69	296						205				
36	Camille Ln & Bercut Dr	Queue Length 95th (ft)		104			#366		9	#439		14	182				
38	G Street & 5th Street	Queue Length 95th (ft)	37	37			m64	m45		180							
39	G Street & 6th Street	Queue Length 95th (ft)		m16			m#617		m#312	m88			#382				
40	G Street & 7th Street	Queue Length 95th (ft)			m0	m72	#885						#495				
44	H Street & 6th Street	Queue Length 95th (ft)	m14	#149						m#644		m223	m211				
45	H Street & 7th Street	Queue Length 95th (ft)		m152								m9	m93				
47	H Street & 16th Street	Queue Length 95th (ft)	35	#297				16		143							
48	I Street & Jibboom St	Queue Length 95th (ft)	#1126	162			#402									#1564	
49	I Street & 3rd St	Queue Length 95th (ft)			0	#191	78	140	#277	76			35				
51	I St & 6th Street	Queue Length 95th (ft)					#220		m13	#296			m98	m90			
52	I St & 7th Street	Queue Length 95th (ft)				96	169						106	m10			
53	J St & 3rd St	Queue Length 95th (ft)		#706							#77	#114	#316		#1208		#1195
57	L St & 3rd St	Queue Length 95th (ft)				167	#555	138	31	#266	35			#532	235		
61	P St & 3rd St	Queue Length 95th (ft)					92						m86	m30			
64	Richards Blvd & 12th Street	Queue Length 95th (ft)				8	#646	68		151			1063	42			

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Queue Length 95th (ft)				0	158						288	#736			
2	Richard Blvd & I-5 NB Off	Queue Length 95th (ft)					m54	m#936	72	95							
3	Richard Blvd & Bercut Dr	Queue Length 95th (ft)				231	#562		m#400	m#416			205	#337			
4	Richard Blvd & N 5th Street	Queue Length 95th (ft)					380		60	#637					355		
6	Richards Blvd & 10th Street	Queue Length 95th (ft)					143	#596	#443					#441			
11	Bannon St & I-5 SB Off	Queue Length 95th (ft)		189	492							9	215				
12	Bannon St & I-5 NB Off	Queue Length 95th (ft)	m32	220						33	#990						
13	Bannon St & Bercut Dr	Queue Length 95th (ft)	m70	m#441						#612	132	#257	120				
14	Bannon St & N 5th Street	Queue Length 95th (ft)	523	310						m246							
15	Bannon St & 7th Street	Queue Length 95th (ft)		317								210	203				
16	Richards & 12th Street	Queue Length 95th (ft)	554	26	#1332											m471	m17
21	N B Street & 16th Street	Queue Length 95th (ft)	#322	#312			22			m#1086							
27	Railyards Blvd & Bercut Dr	Queue Length 95th (ft)	6	50		160	52		11	195		39	224				
28	Railyards Blvd & Crocker St	Queue Length 95th (ft)		24		#368	7			137	37	13	34				
32	Railyards Blvd & 6th St	Queue Length 95th (ft)	#304	#491		#234	176		216	#1307		26	107				
33	Railyards Blvd & 7th Street	Queue Length 95th (ft)			m81	62	240						m128				
36	Camille Ln & Bercut Dr	Queue Length 95th (ft)		55		#476	17		11	#412		15	#382				
38	G Street & 5th Street	Queue Length 95th (ft)	148	148			m115	m114		#256							
39	G Street & 6th Street	Queue Length 95th (ft)		m14			m#939		m#133	m199			#681				
40	G Street & 7th Street	Queue Length 95th (ft)			m0	105	#853						m#464				
44	H Street & 6th Street	Queue Length 95th (ft)	12	172						m#333		m#582	m#607				
45	H Street & 7th Street	Queue Length 95th (ft)		m278								m146	m391				
47	H Street & 16th Street	Queue Length 95th (ft)	156	#756				#58		#349							
48	I Street & Jibboom St	Queue Length 95th (ft)	#1949	172			#470									#2666	
49	I Street & 3rd St	Queue Length 95th (ft)				0	m184	m63	m1	210	210		161				
51	I St & 6th Street	Queue Length 95th (ft)						m#523		#317	#535		m#336	m#316			
52	I St & 7th Street	Queue Length 95th (ft)				56	#654						m#456	m53			
53	J St & 3rd St	Queue Length 95th (ft)		#416							125	237	#431		#793		#712
57	L St & 3rd St	Queue Length 95th (ft)				#634	#1226	345	40	#423	55			#606	#398		
61	P St & 3rd St	Queue Length 95th (ft)					#839						m375	m238			
64	Richards Blvd & 12th Street	Queue Length 95th (ft)				63	#619	142	m41	421			1089	72			

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
1	Richard Blvd & I-5 SB Off	Turn Bay Length (ft)				100								300			
2	Richard Blvd & I-5 NB Off	Turn Bay Length (ft)															
3	Richard Blvd & Bercut Dr	Turn Bay Length (ft)				150			150					150			
4	Richard Blvd & N 5th Street	Turn Bay Length (ft)												150			
6	Richards Blvd & 10th Street	Turn Bay Length (ft)												150			
11	Bannon St & I-5 SB Off	Turn Bay Length (ft)			150							150					
12	Bannon St & I-5 NB Off	Turn Bay Length (ft)	150								200						
13	Bannon St & Bercut Dr	Turn Bay Length (ft)	150								150	150					
14	Bannon St & N 5th Street	Turn Bay Length (ft)	150														
15	Bannon St & 7th Street	Turn Bay Length (ft)															
16	Richards & 12th Street	Turn Bay Length (ft)															150
21	N B Street & 16th Street	Turn Bay Length (ft)															
27	Railyards Blvd & Bercut Dr	Turn Bay Length (ft)	75			170			100			150					
28	Railyards Blvd & Crocker St	Turn Bay Length (ft)				95						150					
32	Railyards Blvd & 6th St	Turn Bay Length (ft)	70			80			125			150					
33	Railyards Blvd & 7th Street	Turn Bay Length (ft)															
36	Camille Ln & Bercut Dr	Turn Bay Length (ft)							150			100					
38	G Street & 5th Street	Turn Bay Length (ft)															
39	G Street & 6th Street	Turn Bay Length (ft)															
40	G Street & 7th Street	Turn Bay Length (ft)															
44	H Street & 6th Street	Turn Bay Length (ft)	150														
45	H Street & 7th Street	Turn Bay Length (ft)															
47	H Street & 16th Street	Turn Bay Length (ft)															
48	I Street & Jibboom St	Turn Bay Length (ft)	75														
49	I Street & 3rd St	Turn Bay Length (ft)															
51	I St & 6th Street	Turn Bay Length (ft)															
52	I St & 7th Street	Turn Bay Length (ft)												100			
53	J St & 3rd St	Turn Bay Length (ft)															
57	L St & 3rd St	Turn Bay Length (ft)															
61	P St & 3rd St	Turn Bay Length (ft)												100			
64	Richards Blvd & 12th Street	Turn Bay Length (ft)				150								300			

			EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
1	Richard Blvd & I-5 SB Off	Internal Link Dist (ft)		389			264			250			573			
2	Richard Blvd & I-5 NB Off	Internal Link Dist (ft)		264			219			328			325			
3	Richard Blvd & Bercut Dr	Internal Link Dist (ft)		219			1382			413			632			
4	Richard Blvd & N 5th Street	Internal Link Dist (ft)		664			1043			501			750			
6	Richards Blvd & 10th Street	Internal Link Dist (ft)		1133			1005			1462			325			
11	Bannon St & I-5 SB Off	Internal Link Dist (ft)		195			196			341			250			
12	Bannon St & I-5 NB Off	Internal Link Dist (ft)		196			86			624			328			
13	Bannon St & Bercut Dr	Internal Link Dist (ft)		86			1116			746			413			
14	Bannon St & N 5th Street	Internal Link Dist (ft)		960			1034			852			501			
15	Bannon St & 7th Street	Internal Link Dist (ft)		1034			622			779			540			
16	Richards & 12th Street	Internal Link Dist (ft)		339			404									531
21	N B Street & 16th Street	Internal Link Dist (ft)		551			657			435			1154			
27	Railyards Blvd & Bercut Dr	Internal Link Dist (ft)		199			399			556			516			
28	Railyards Blvd & Crocker St	Internal Link Dist (ft)		518			241			343			364			
32	Railyards Blvd & 6th St	Internal Link Dist (ft)		204			364			301			395			
33	Railyards Blvd & 7th Street	Internal Link Dist (ft)		364			303			1432			360			
36	Camille Ln & Bercut Dr	Internal Link Dist (ft)		142			424			463			556			
38	G Street & 5th Street	Internal Link Dist (ft)		34			304			374			183			
39	G Street & 6th Street	Internal Link Dist (ft)		304			340			376			639			
40	G Street & 7th Street	Internal Link Dist (ft)		340			340			360			141			
44	H Street & 6th Street	Internal Link Dist (ft)		322			333			349			376			
45	H Street & 7th Street	Internal Link Dist (ft)		333			338			351			360			
47	H Street & 16th Street	Internal Link Dist (ft)		1181			746			798			2877			
48	I Street & Jibboom St	Internal Link Dist (ft)		1090			186									630
49	I Street & 3rd St	Internal Link Dist (ft)		189			528			473			206			664
51	I St & 6th Street	Internal Link Dist (ft)		324			345			362			349			
52	I St & 7th Street	Internal Link Dist (ft)		345			1246			371			351			
53	J St & 3rd St	Internal Link Dist (ft)		464			756			332			473			540
57	L St & 3rd St	Internal Link Dist (ft)		488			756									411
61	P St & 3rd St	Internal Link Dist (ft)		441			333			362			1692			441
64	Richards Blvd & 12th Street	Internal Link Dist (ft)		705			258			468			518			

Initial Phase with Maximum Office (Baseline & 2013)

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	32 KSF	555	66	9	75	20	95	115
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	808 Units	5,487	206	213	419	230	185	415
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,646	429	322	751	768	841	1,609
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.7%)		-1,889	-36	-29	-65	-81	-83	-164
Internal Trips Within This Block (-12.8%)		-2,262	-28	-28	-56	-118	-118	-235
Trips To-From Other Blocks within the Project (-3.4%)		-600	-14	-14	-27	-15	-15	-31
New External Trips (73%) of Total Trips for Block		12,895	351	252	603	554	625	1,179
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	526 Units	2,207	34	147	181	120	74	194
Other	0	0	0	0	0	0	0	0
Total Trips for Block		8,673	244	214	458	386	467	853
Transit Adjustments (-1.7%)		-148	-9	-3	-12	-6	-11	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-867	-16	-17	-33	-39	-40	-79
Internal Trips Within This Block (-14.9%)		-1,289	-14	-14	-28	-59	-59	-117
Trips To-From Other Blocks within the Project (-3.3%)		-283	-8	-8	-17	-8	-8	-16
New External Trips (70%) of Total Trips for Block		6,086	197	172	368	274	349	623
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-3.9%)		-449	-5	-5	-10	-12	-12	-24
New External Trips (84%) of Total Trips for Block		9,662	131	83	214	439	477	916
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	65 KSF	957	117	16	133	26	126	152
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	106 Units	623	11	49	60	32	20	52
Total Trips for Block		9,059	232	132	364	389	505	894
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-955	-17	-12	-29	-41	-47	-88
Internal Trips Within This Block (-8.4%)		-761	-15	-15	-30	-33	-33	-66
Trips To-From Other Blocks within the Project (-3.6%)		-326	-7	-7	-13	-9	-9	-19
New External Trips (77%) of Total Trips for Block		7,016	193	98	291	306	416	721

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	129 KSF	1,623	202	28	230	38	185	223
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	162 Units	834	14	62	76	44	27	71
Total Trips for Block		10,102	323	158	481	421	579	1,000
Transit Adjustments (-1.8%)		-186	-12	-4	-16	-7	-14	-21
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-1,012	-18	-14	-32	-44	-50	-94
Internal Trips Within This Block (-10.1%)		-1,018	-16	-16	-33	-42	-42	-83
Trips To-From Other Blocks within the Project (-3.5%)		-350	-9	-9	-17	-10	-10	-20
New External Trips (75%) of Total Trips for Block		7,536	268	115	383	318	463	781
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	294 Units	1,332	22	92	114	71	44	115
Total Trips for Block		7,897	234	160	394	341	442	783
Transit Adjustments (-1.7%)		-137	-8	-3	-11	-6	-11	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-794	-15	-13	-28	-35	-38	-73
Internal Trips Within This Block (-14.9%)		-1,178	-15	-15	-29	-51	-51	-102
Trips To-From Other Blocks within the Project (-3.3%)		-257	-7	-7	-14	-8	-8	-15
New External Trips (70%) of Total Trips for Block		5,531	189	122	312	241	334	576
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	86 KSF	1,188	146	20	166	30	145	175
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	100 Units	522	25	16	41	31	28	59
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,676	663	457	1,120	859	998	1,857
Transit Adjustments (-1.8%)		-356	-14	-6	-20	-12	-18	-30
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-2,002	-63	-51	-114	-95	-87	-181
Internal Trips Within This Block (-3.8%)		-747	-30	-30	-61	-45	-45	-89
Trips To-From Other Blocks within the Project (-3.7%)		-736	-20	-20	-40	-20	-20	-40
New External Trips (80%) of Total Trips for Block		15,835	535	350	885	688	828	1,517

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	40 KSF	659	79	11	90	21	103	124
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	72 Units	301	5	20	24	17	10	27
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,543	307	204	510	767	889	1,656
Transit Adjustments (-1.4%)		-228	-6	-3	-9	-10	-15	-24
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-1,823	-29	-22	-51	-85	-92	-176
Internal Trips Within This Block (-2.5%)		-422	-18	-18	-36	-28	-28	-57
Trips To-From Other Blocks within the Project (-3.8%)		-625	-9	-9	-18	-18	-18	-36
New External Trips (81%) of Total Trips for Block		13,445	245	152	396	626	736	1,364
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	30 KSF	528	63	9	72	19	93	112
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	236 Units	1,113	18	79	97	60	36	96
Total Trips for Block		4,610	126	116	242	209	269	478
Transit Adjustments (-1.7%)		-77	-5	-2	-7	-3	-7	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-466	-8	-10	-18	-21	-21	-42
Internal Trips Within This Block (-15.3%)		-704	-8	-8	-16	-32	-32	-64
Trips To-From Other Blocks within the Project (-3.2%)		-149	-4	-4	-9	-5	-5	-9
New External Trips (70%) of Total Trips for Block		3,213	100	91	192	148	204	353
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	115 KSF	1,488	185	25	210	35	173	208
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		5,109	239	59	298	194	345	539
Transit Adjustments (-2.4%)		-123	-12	-1	-13	-4	-12	-16
Walk, Bike & Other Non-Auto Travel Adjustments (-9%)		-462	-11	-5	-16	-19	-25	-44
Internal Trips Within This Block (-4.3%)		-221	-2	-2	-4	-7	-7	-15
Trips To-From Other Blocks within the Project (-3.7%)		-191	-6	-6	-11	-6	-6	-12
New External Trips (80%) of Total Trips for Block		4,111	208	45	254	158	295	453
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	250 KSF	2,701	343	47	390	61	298	359
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		6,096	633	133	766	218	655	873
Transit Adjustments (-4%)		-246	-24	-4	-28	-5	-22	-27
Walk, Bike & Other Non-Auto Travel Adjustments (-5.8%)		-356	-21	-5	-26	-15	-26	-41
Internal Trips Within This Block (-2.1%)		-129	-1	-1	-2	-4	-4	-8
Trips To-From Other Blocks within the Project (-3.9%)		-238	-15	-15	-31	-10	-10	-20
New External Trips (84%) of Total Trips for Block		5,127	572	108	679	184	593	776
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	680 KSF	5,837	765	104	869	143	697	840
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		7,549	792	121	913	217	777	994
Transit Adjustments (-4.6%)		-346	-43	-6	-49	-9	-40	-49
Walk, Bike & Other Non-Auto Travel Adjustments (-4.8%)		-362	-24	-5	-29	-13	-29	-42
Internal Trips Within This Block (-1.4%)		-105	-1	-1	-2	-3	-3	-7
Trips To-From Other Blocks within the Project (-4%)		-299	-18	-18	-36	-11	-11	-23
New External Trips (85%) of Total Trips for Block		6,437	706	91	797	180	693	873

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	192 KSF	2,205	278	38	316	50	244	294
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		8,315	365	93	458	320	536	856
Transit Adjustments (-2.3%)		-190	-17	-3	-20	-6	-16	-22
Walk, Bike & Other Non-Auto Travel Adjustments (-9.3%)		-771	-18	-7	-25	-32	-41	-73
Internal Trips Within This Block (-4.5%)		-373	-3	-3	-6	-12	-12	-25
Trips To-From Other Blocks within the Project (-3.7%)		-310	-9	-9	-18	-9	-9	-19
New External Trips (80%) of Total Trips for Block		6,670	318	71	389	260	457	718
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	300 KSF	3,109	398	54	452	71	344	415
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		4,223	416	66	482	119	396	515
Transit Adjustments (-4.4%)		-186	-22	-3	-25	-4	-20	-24
Walk, Bike & Other Non-Auto Travel Adjustments (-5.1%)		-216	-13	-3	-16	-8	-16	-24
Internal Trips Within This Block (-1.6%)		-68	-1	-1	-1	-2	-2	-4
Trips To-From Other Blocks within the Project (-3.9%)		-167	-10	-10	-19	-6	-6	-12
New External Trips (85%) of Total Trips for Block		3,586	371	50	421	99	352	451
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 20: Bounded by South Park, N. 10th, Railyards, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
----- Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Total Project Trips								
Office (General Office Building)	2,071 KSF	23,010	2,908	397	3,305	570	2,775	3,345
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	2,304 Units	12,419	335	678	1,012	606	423	1,029
Other		3,528	258	65	323	102	445	546
Total Project Trips		136,936	5,157	2,334	7,490	5,719	8,251	13,970
Transit Adjustments (-1.6%)		-2,223	-172	-38	-210	-72	-186	-257
Walk, Bike & Other Non-Auto Travel Adjustments (-9.7%)		-13,302	-307	-204	-511	-587	-659	-1,244
Internal Trips Within This Block (-6.8%)		-9,279	-152	-152	-304	-437	-437	-873
Trips To-From Other Blocks within the Project (-3.6%)		-4,982	-140	-140	-280	-147	-147	-295
New External Trips (78%) of Total Project Trips		107,150	4,385	1,800	6,185	4,476	6,822	11,301

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		78.2%				82.6%			80.9%

Table Xb: Transit Trips for Initial Phase with Maximum Office (Baseline & 2013) (By City Block)							
City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	274	10	7	17	12	17	29
Block 2: Bounded by South Park, 5th, Railyards, Crocker	173	11	5	16	7	13	20
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	149	2	1	3	7	7	14
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	167	8	3	11	7	13	20
Block 6: Bounded by Railyards, 5th, Camille, Crocker	214	13	5	18	7	17	24
Block 7: Bounded by Railyards, 6th, Camille, 5th	160	10	4	14	6	13	19
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	410	16	7	23	14	29	43
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	268	8	4	12	12	18	30
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	90	5	3	8	4	9	13
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	141	12	2	14	4	13	17
Block 13: Bounded by Rail Lines, 6th, G, 5th	278	39	7	46	9	36	45
Block 14: Bounded by Rail Lines, 7th, G, 6th	390	49	7	56	10	45	55
Block 15: Bounded by G, 6th, H, 6th	218	19	3	22	6	20	26
Block 16: Bounded by G, 7th, Property Boundary, 6th	210	25	3	28	4	23	27
Block 17: Bounded by N. B, 7th, South Park, 5th	0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th	0	0	0	0	0	0	0
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	0	0	0	0	0	0	0
Block 21: SITF Site	0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th	0	0	0	0	0	0	0
Total New Transit Trips	3,142	227	61	288	109	273	382

Source: Dowling Associates, Inc. 2006

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
1 OS	1	1	0.75						
1 RRMU	2	1	4.31		200,000				
1 RRMU	3a	1	2.84						
2 OS	3b	1	0.13						
2 RRMU	3c	1	0.93			500			
2 RRMU	3d	1	0.73	168	28,000		32,000		32,000
2 OS	3e	1	0.67						
2 RRMU	3f	1	0.28	140					
Subtotal				308	228,000	500	32,000	0	32,000
2 RRMU	5a	2	1.14	104					
2 RRMU	5b	2	0.68	80	27,000		29,000		29,000
2 RRMU	6a	2	1.28	242					
2 RRMU	6b	2	1.07	100	43,000		47,000		47,000
2 OS	6c	2	0.15						
Subtotal				526	70,000	0	76,000	0	76,000
1 RRMU	33	3	2.62						
1 RRMU	11a	4	4.42		223,000				
1 OS	11b	4	0.27						
Subtotal				0	223,000	0	0	0	0
1 RRMU	10a	5	3.88	106	116,000		65,000		65,000
1 OS	10b	5	0.57						
Subtotal				106	116,000	0	65,000	0	65,000
1 RRMU	8a	6	0.61	22	27,000		27,000		27,000
1 RRMU	8b	6	1.22	48	33,000		38,000		38,000
1 RRMU	9a	6	0.60	44	26,000		26,000		26,000
1 RRMU	9b	6	1.27	48	34,000		38,000		38,000
Subtotal				162	120,000	0	129,000	0	129,000
2 RRMU	7a	7	2.06	186	18,000		18,000		18,000
2 RRMU	7b	7	1.19	108	54,000		58,000		58,000
2 OS	7c	7	0.03						
Subtotal				294	72,000	0	76,000	0	76,000
3 ORMU	47a	8	2.21						
1 RRMU	47b	8	0.78						

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 ORMU	48	8	2.56						
Subtotal				0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
1 RRMU	12	9	1.17		71,000		43,000		43,000
1 RRMU	13a	9	0.11		3,500				
1 RRMU	13b	9	0.23		8,000				
1 RRMU	13c	9	0.12		5,600				
1 OS	13d	9	0.60						
1 RRMU	14	9	0.62		13,000	100			
1 RRMU	23	9	0.34				22,500	Restaurant	
1 RRMU	24	9	0.73				42,028	19816 Rest; 11165 Retail; 7730 Office	
1 RRMU	25	9	0.53				38,711	21014 Restaurant; 21014 Office	
1 RRMU	26	9	0.33				28,500	14250 Retail; 14250 Office	
1 RRMU	27	9	0.65				28,043	25000 Exhibit; 3043 Retail	
1 RRMU	28	9	2.24				93,134	Exhibit	
1 RRMU	29	9	1.67				69,696	Exhibit	
1 OS	30a	9	5.07						
1 OS	30b	9	1.35						
1 OS	31a	9	2.66						
1 OS	31b	9	0.32						
1 TU	38	9	16.78						
1 OS	45	9	0.33						
Subtotal				0	101,100	100	43,000	322,612	43,000
1 RRMU	15a	10	3.33	72	65,500		40,000	100,000	40,000
1 OS	15b	10	0.05						
1 OS	18a	10	1.05						
1 RRMU	18b	10	0.25		38,500				
1 RRMU	20	10	1.30				56,278	Market	
1 OS	21	10	5.30						
1 RRMU	22	10	0.15				6,500	Retail	
Subtotal				72	104,000	0	40,000	162,778	40,000
2 RRMU	16a	11	1.67	236	28,000		30,000		30,000
2 OS	16b	11	0.07						
1 RRMU	17	11	1.48						
Subtotal				236	28,000	0	30,000	0	30,000
2 ORMU	40	12	1.93		38,000		115,200		
2 ORMU	44	13	1.96		16,500		250,000		
2 ORMU	43	14	2.56		12,000		500,000		

Dowling Associates, Inc

Baseline_Initial_Phase_Max_Office_2007_05_08.xls \ Lots

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THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
2 ORMU	46	14	2.89				180,000		
Subtotal				0	12,000	0	680,000	0	0
1 ORMU	41	15	2.43		85,000		192,000		
1 ORMU	42	16	1.19		6,200		300,000		
3 OS	60	17	1.12						
3 OS	61	17	0.71						
3 OS	62	17	0.92						
3 RMU	69N	17	1.64						
3 RMU	69S	17	1.21						
3 RMU	70N	17	1.10						
3 RMU	70S	17	0.88						
3 RMU	71N	17	0.77						
3 RMU	71S	17	0.84						
Subtotal				0	0	0	0	0	0
4 OS	63	18	0.97						
4 OS	64	18	0.89						
4 OS	65	18	0.92						
4 RMU	66N	18	0.33						
4 RMU	66S	18	1.07						
4 RMU	67N	18	1.27						
4 RMU	67S	18	1.12						
4 RMU	68N	18	1.48						
4 RMU	68S	18	1.17						
Subtotal				0	0	0	0	0	0
3 OS	57a	19	0.12						
3 RMU	57N	19	1.24						
3 RMU	57S	19	1.38						
3 RMU	58N	19	1.17						
3 RMU	58S	19	1.15						
3 RMU	59N	19	1.27						
3 RMU	59S	19	1.11						
Subtotal				0	0	0	0	0	0
4 RMU	52N	20	0.98						
4 RMU	52S	20	1.30						
4 RMU	53N	20	1.38						

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THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
4 RMU	53S	20	1.49						
4 RMU	54N	20	1.35						
4 RMU	54S	20	1.68						
4 OS	54a	20	0.12						
Subtotal				0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 TU	39	21	15.34						
3 OS	34	22	1.26						
3 RMU	35	22	4.00						
Subtotal				0	0	0	0	0	0
4 RMU	49a	23	4.87						
1 ORMU	49b	23	0.73						
1 ORMU	49c	23	1.00						
3 OS	50	23	1.26						
Subtotal				0	0	0	0	0	0
4 RMU	51	24	4.70						
3 OS	72	25	10.37						
Subtotal				0		1,537,200			
TOTAL Max		180.39	1,704	1,704	1,219,800	600	2,028,200	485,390	491,000
Min			1,704				491,000		
Check				2,504	1,401,366		2,193,194		

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips ^a	Non-Work Trips ^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office¹	5.4%	0.1%	5.6%	
Retail²	0.4%	0.7%	1.1%	
Residential^{3,c}	Home-Work	Home-Non-Work	Non Home-Based	
AM Peak Hour	1.2%	0.3%	0.1%	1.7%
PM Peak Hour	1.0%	0.3%	0.2%	1.5%
Daily	0.8%	0.3%	0.2%	1.3%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office¹	1.5%	1.2%	2.8%	
Retail²	0.1%	11.4%	11.6%	
Residential^c	Home-Work	Home-Non-Work	Non Home-Based	
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office¹	6.1%	0.2%	6.3%	
Retail²	0.5%	0.8%	1.3%	
Residential^c	Home-Work	Home-Non-Work	Non Home-Based	
AM Peak Hour	1.5%	0.4%	0.1%	2.1%
PM Peak Hour	1.3%	0.3%	0.2%	1.9%
Daily	0.9%	0.4%	0.3%	1.6%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001. Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 1: Bounded by South Park, Crocker, Railyards, Bercut													
Office (General Office Building)	32.0 KSF	ITE (710)	555	66	9	75	20	95	115	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%
Residential													
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%
High Rise Residential Condominium	308 Units	ITE (232)	1,385	22	96	118	74	46	120	19%	81%	62%	38%
Subtotal Residential	808 Units		5,487	206	213	419	230	185	415				
Other													
Total Trips for Block			17,646	429	322	751	768	841	1,609				
Transit Adjustments													
Office (-5.6%)													
Retail (-1.1%)													
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)													
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-16	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-527	-16	-17	-33	-20	-16	-36				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,889	-36	-29	-65	-81	-83	-164				
Internal Trips Within This Block			-2,262	-28	-28	-56	-118	-118	-235				
Trips To-From Other Blocks within the Project			-600	-14	-14	-27	-15	-15	-31				
New External Trips													
Office (General Office Building)				59	6	65	13	80	93				
Retail (Shopping Center)				120	71	190	397	421	818				
Subtotal Residential				172	175	347	144	124	268				
Other				0	0	0	0	0	0				
Total				12,895	351	252	603	554	625	1,179			
New External Trips Percent of Total Project Trips				73%	82%	78%	80%	72%	74%	73%			
Transit Trips													
Office (6.3%)				35	4	1	5	1	6	7			
Retail (1.3%)				151	2	1	3	7	7	14			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				88	4	5	9	4	4	8			
Other				0	0	0	0	0	0	0			
Total Transit Trips				274	10	7	17	12	17	29			

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 2: Bounded by South Park, 5th, Railyards, Crocker													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	526 Units	ITE (232)	2,207	34	147	181	120	74	194	19%	81%	62%	38%
Subtotal Residential	526 Units		2,207	34	147	181	120	74	194				
Other													
Total Trips for Block			8,673	244	214	458	386	467	853				
Transit Adjustments													
Office (-5.6%)			-60	-7	-1	-8	-2	-7	-9				
Retail (-1.1%)			-59	-1	0	-1	-2	-3	-5				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-29	-1	-2	-3	-2	-1	-3				
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-148	-9	-3	-12	-6	-11	-17				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-212	-3	-11	-14	-11	-6	-17				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-867	-16	-17	-33	-39	-40	-79				
Internal Trips Within This Block			-1,289	-14	-14	-28	-59	-59	-117				
Trips To-From Other Blocks within the Project			-283	-8	-8	-17	-8	-8	-16				
New External Trips													
Office (General Office Building)				116	15	131	18	116	134				
Retail (Shopping Center)				57	35	92	181	186	367				
Subtotal Residential				23	122	146	75	47	122				
Other				0	0	0	0	0	0				
Total				6,086	197	172	368	274	349	623			
New External Trips Percent of Total Project Trips				70%	81%	80%	80%	71%	75%	73%			
Transit Trips													
Office (6.3%)				68	9	1	10	2	8	10			
Retail (1.3%)				70	1	1	2	3	3	6			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				35	1	3	4	2	2	4			
Other				0	0	0	0	0	0	0			
Total Transit Trips				173	11	5	16	7	13	20			

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-449	-5	-5	-10	-12	-12	-24					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				131	83	214	439	477	916					
Subtotal Residential				0	0	0	0	0	0					
Total			9,662	131	83	214	439	477	916					
New External Trips Percent of Total Project Trips			84%	85%	84%	85%	86%	86%	86%					
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0					
Retail (1.3%)			149	2	1	3	7	7	14					
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0					
Total Transit Trips			149	2	1	3	7	7	14					

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 5: Bounded by Railyards, Crocker, Camille, Huntington													
Office (General Office Building)	65.0 KSF	ITE (710)	957	117	16	133	26	126	152	88%	12%	17%	83%
Retail (Shopping Center) (90%)	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	106 Units	ITE (232)	623	11	49	60	32	20	52	19%	81%	62%	38%
Subtotal Residential	106 Units		623	11	49	60	32	20	52				
Other													
Total Trips for Block			9,059	232	132	364	389	505	894				
Transit Adjustments													
Office (-5.6%)													
Retail (-1.1%)													
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)													
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-27	-4	0	-4	-1	-3	-4				
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-60	-1	-4	-5	-2	-2	-4				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-955	-17	-12	-29	-41	-47	-88				
Internal Trips Within This Block			-761	-15	-15	-30	-33	-33	-66				
Trips To-From Other Blocks within the Project			-326	-7	-7	-13	-9	-9	-19				
New External Trips													
Office (General Office Building)				108	13	121	17	114	131				
Retail (Shopping Center) (90%)				79	51	130	270	293	563				
Subtotal Residential				6	34	41	19	8	27				
Total			7,016	193	98	291	306	416	721				
New External Trips Percent of Total Project Trips			77%	83%	74%	80%	79%	82%	81%				
Transit Trips													
Office (6.3%)			60	7	1	8	2	8	10				
Retail (1.3%)			97	1	1	2	4	5	9				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			10	0	1	1	1	0	1				
Total Transit Trips			167	8	3	11	7	13	20				

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 6: Bounded by Railyards, 5th, Camille, Crocker													
Office (General Office Building)	129.0 KSF	ITE (710)	1,623	202	28	230	38	185	223	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	162 Units	ITE (232)	834	14	62	76	44	27	71	19%	81%	62%	38%
Subtotal Residential	162 Units		834	14	62	76	44	27	71				
Other													
Total Trips for Block			10,102	323	158	481	421	579	1,000				
Transit Adjustments													
Office (-5.6%)			-91	-11	-2	-13	-2	-10	-12				
Retail (-1.1%)			-84	-1	-1	-2	-4	-4	-8				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-11	0	-1	-1	-1	0	-1				
Other													
Total Transit Adjustments			-186	-12	-4	-16	-7	-14	-21				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-45	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-80	-1	-5	-6	-4	-2	-6				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,012	-18	-14	-32	-44	-50	-94				
Internal Trips Within This Block			-1,018	-16	-16	-33	-42	-42	-83				
Trips To-From Other Blocks within the Project			-350	-9	-9	-17	-10	-10	-20				
New External Trips													
Office (General Office Building)				179	21	200	24	160	184				
Retail (Shopping Center)				81	50	130	269	292	561				
Subtotal Residential				8	44	52	25	11	36				
Total				7,536	268	115	383	318	463				
New External Trips Percent of Total Project Trips				75%	83%	73%	80%	76%	80%				
Transit Trips													
Office (6.3%)				102	12	2	14	2	12				
Retail (1.3%)				99	1	1	2	4	5				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				13	0	2	2	1	0				
Total Transit Trips				214	13	5	18	7	17				

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 7: Bounded by Railyards, 6th, Camille, 5th													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	294 Units	ITE (232)	1,332	22	92	114	71	44	115	19%	81%	62%	38%
Subtotal Residential	294 Units		1,332	22	92	114	71	44	115				
Other													
Total Trips for Block			7,897	234	160	394	341	442	783				
Transit Adjustments													
Office (-5.6%)			-60	-7	-1	-8	-2	-7	-9				
Retail (-1.1%)			-60	-1	0	-1	-3	-3	-6				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-17	0	-2	-2	-1	-1	-2				
Other													
Total Transit Adjustments			-137	-8	-3	-11	-6	-11	-17				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-128	-2	-7	-9	-6	-4	-10				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-794	-15	-13	-28	-35	-38	-73				
Internal Trips Within This Block			-1,178	-15	-15	-29	-51	-51	-102				
Trips To-From Other Blocks within the Project			-257	-7	-7	-14	-8	-8	-15				
New External Trips													
Office (General Office Building)				117	14	131	18	117	135				
Retail (Shopping Center)				59	35	94	183	198	380				
Subtotal Residential				14	73	86	41	19	61				
Total				5,531	189	122	312	241	334				
New External Trips Percent of Total Project Trips				70%	81%	77%	79%	71%	76%				
Transit Trips													
Office (6.3%)				68	9	1	10	2	8				
Retail (1.3%)				71	1	1	2	3	4				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				21	0	2	2	1	1				
Total Transit Trips				160	10	4	14	6	13				

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	86.0 KSF	ITE (710)	1,188	146	20	166	30	145	175	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	100 Units		522	25	16	41	31	28	59				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,676	663	457	1,120	859	998	1,857				
Transit Adjustments													
Office (-5.6%)			-67	-8	-1	-9	-2	-8	-10				
Retail (-1.1%)			-177	-5	-5	-10	-9	-7	-16				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-7	-1	0	-1	-1	0	-1				
Other (Museum Exhibit Space) (-5.6%)			-105	0	0	0	0	-3	-3				
Total Transit Adjustments			-356	-14	-6	-20	-12	-18	-30				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-33	-4	-1	-5	-1	-4	-5				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-50	-2	-1	-3	-3	-2	-5				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,002	-63	-51	-114	-95	-87	-181				
Internal Trips Within This Block			-747	-30	-30	-61	-45	-45	-89				
Trips To-From Other Blocks within the Project			-736	-20	-20	-40	-20	-20	-40				
New External Trips													
Office (General Office Building)				118	13	131	18	115	133				
Retail & Restaurant (see footnote)				403	331	734	635	541	1,175				
Subtotal Residential				14	6	20	18	11	29				
Other (Museum Exhibit Space)				0	0	0	18	161	180				
Total			15,835	535	350	885	688	828	1,517				
New External Trips Percent of Total Project Trips			80%	81%	77%	79%	80%	83%	82%				
Transit Trips													
Office (6.3%)			75	9	1	10	2	9	11				
Retail (1.3%)			209	6	6	12	10	9	19				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			8	1	0	1	1	0	1				
Other (Museum Exhibit Space) (6.3%)			118	0	0	0	1	11	12				
Total Transit Trips			410	16	7	23	14	29	43				

Footnote:

Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated									Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak			
				In	Out	Total	In	Out	Total	In	Out	In	Out		
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26															
Office (General Office Building)	40.0 KSF	ITE (710)	659	79	11	90	21	103	124	88%	12%	17%	83%		
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469						
Residential															
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%		
High Rise Residential Condominium	72 Units	ITE (232)	301	5	20	24	17	10	27	19%	81%	62%	38%		
Subtotal Residential	72 Units		301	5	20	24	17	10	27						
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36			50%	50%		
Total Trips for Block			16,543	307	204	510	767	889	1,656						
Transit Adjustments															
Office (-5.6%)			-37	-4	-1	-5	-1	-6	-7						
Retail (-1.1%)			-167	-2	-2	-4	-8	-8	-16						
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-4	0	0	0	0	0	0						
Other (Performing Arts) (-5.6%)			-20	0	0	0	-1	-1	-1						
Total Transit Adjustments			-228	-6	-3	-9	-10	-15	-24						
Walk, Bike & Other Non-Auto Travel Adjustments															
Office (-2.8%)			-18	-3	0	-3	-1	-2	-3						
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170						
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-29	0	-2	-2	-1	-1	-2						
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1						
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,823	-29	-22	-51	-85	-92	-176						
Internal Trips Within This Block			-422	-18	-18	-36	-28	-28	-57						
Trips To-From Other Blocks within the Project			-625	-9	-9	-18	-18	-18	-36						
New External Trips															
Office (General Office Building)				65	7	72	13	80	93						
Retail & Market (see footnote)				177	137	314	587	636	1,223						
Subtotal Residential				3	8	11	10	4	14						
Other (Performing Arts)				0	0	0	16	16	34						
Total			13,445	245	152	396	626	736	1,364						
New External Trips Percent of Total Project Trips			81%	80%	74%	78%	82%	83%	82%						
Transit Trips															
Office (6.3%)			42	5	1	6	1	7	8						
Retail (1.3%)			198	3	2	5	9	10	19						
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			5	0	1	1	1	0	1						
Other (Performing Arts) (6.3%)			23	0	0	0	1	1	2						
Total Transit Trips			268	8	4	12	12	18	30						
Footnote:															
Retail & Market															
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%		
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%		
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%		

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 11: Bounded by Camille, 6th, Rail Lines, 5th													
Office (General Office Building)	30.0 KSF	ITE (710)	528	63	9	72	19	93	112	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	236 Units	ITE (232)	1,113	18	79	97	60	36	96	19%	81%	62%	38%
Subtotal Residential	236 Units		1,113	18	79	97	60	36	96				
Other													
Total Trips for Block			4,610	126	116	242	209	269	478				
Transit Adjustments													
Office (-5.6%)			-30	-4	0	-4	-1	-5	-6				
Retail (-1.1%)			-33	-1	0	-1	-1	-2	-3				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-14	0	-2	-2	-1	0	-1				
Other													
Total Transit Adjustments			-77	-5	-2	-7	-3	-7	-10				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-15	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-107	-1	-7	-8	-5	-3	-8				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-466	-8	-10	-18	-21	-21	-42				
Internal Trips Within This Block			-704	-8	-8	-16	-32	-32	-64				
Trips To-From Other Blocks within the Project			-149	-4	-4	-9	-5	-5	-9				
New External Trips													
Office (General Office Building)				54	8	62	13	81	94				
Retail (Shopping Center)				33	20	53	99	101	200				
Subtotal Residential				13	64	77	37	22	59				
Total				3,213	100	91	192	148	204	353			
New External Trips Percent of Total Project Trips				70%	80%	79%	79%	71%	76%	74%			
Transit Trips													
Office (6.3%)				33	4	1	5	1	6	7			
Retail (1.3%)				39	1	0	1	2	2	4			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				18	0	2	2	1	1	2			
Total Transit Trips				90	5	3	8	4	9	13			

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 12: Bounded by Rail Lines, 5th, I Street, LRT													
Office (General Office Building)	115.2 KSF	ITE (710)	1,488	185	25	210	35	173	208	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			5,109	239	59	298	194	345	539				
Transit Adjustments													
Office (-5.6%)			-83	-11	-1	-12	-2	-10	-12				
Retail (-1.1%)			-40	-1	0	-1	-2	-2	-4				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other (-5.6%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-123	-12	-1	-13	-4	-12	-16				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-42	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-462	-11	-5	-16	-19	-25	-44				
Internal Trips Within This Block			-221	-2	-2	-4	-7	-7	-15				
Trips To-From Other Blocks within the Project			-191	-6	-6	-11	-6	-6	-12				
New External Trips													
Office (General Office Building)				164	20	183	26	152	179				
Retail (Shopping Center)				45	26	71	131	143	274				
Subtotal Residential				0	0	0	0	0	0				
Other				0	0	0	0	0	0				
Total				4,111	208	45	254	158	295	453			
New External Trips Percent of Total Project Trips				80%	87%	77%	85%	81%	85%	84%			
Transit Trips													
Office (6.3%)				94	11	2	13	2	11	13			
Retail (1.3%)				47	1	0	1	2	2	4			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				0	0	0	0	0	0	0			
Other (6.3%)				0	0	0	0	0	0	0			
Total Transit Trips				141	12	2	14	4	13	17			

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 13: Bounded by Rail Lines, 6th, G, 5th													
Office (General Office Building)	250.0 KSF	ITE (710)	2,701	343	47	390	61	298	359	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other (Transit)	514	Prkng ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%
Total Trips for Block			6,096	633	133	766	218	655	873				
Transit Adjustments													
Office (-5.6%)			-151	-19	-3	-22	-3	-17	-20				
Retail (-1.1%)			-23	-1	0	-1	-1	-1	-2				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other (Transit) (-5.6%)			-72	-4	-1	-5	-1	-4	-5				
Total Transit Adjustments			-246	-24	-4	-28	-5	-22	-27				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-76	-10	-1	-11	-2	-8	-10				
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-356	-21	-5	-26	-15	-26	-41				
Internal Trips Within This Block			-129	-1	-1	-2	-4	-4	-8				
Trips To-From Other Blocks within the Project			-238	-15	-15	-31	-10	-10	-20				
New External Trips													
Office (General Office Building)				299	32	331	49	264	313				
Retail (Shopping Center)				25	14	39	72	82	154				
Subtotal Residential				0	0	0	0	0	0				
Other (Transit)				247	62	309	62	247	309				
Total				5,127	572	108	679	184	593	776			
New External Trips Percent of Total Project Trips				84%	90%	81%	89%	84%	90%	89%			
Transit Trips													
Office (6.3%)				170	22	3	25	4	19	23			
Retail (1.3%)				27	1	0	1	1	1	2			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				0	0	0	0	0	0	0			
Other (Transit) (6.3%)				81	16	4	20	4	16	20			
Total Transit Trips				278	39	7	46	9	36	45			

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 14: Bounded by Rail Lines, 7th, G, 6th													
Office (General Office Building)	680.0 KSF	ITE (710)	5,837	765	104	869	143	697	840	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			7,549	792	121	913	217	777	994				
Transit Adjustments													
Office (-5.6%)			-327	-43	-6	-49	-8	-39	-47				
Retail (-1.1%)			-19	0	0	0	-1	-1	-2				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-346	-43	-6	-49	-9	-40	-49				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-163	-21	-3	-24	-4	-20	-24				
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-362	-24	-5	-29	-13	-29	-42				
Internal Trips Within This Block			-105	-1	-1	-2	-3	-3	-7				
Trips To-From Other Blocks within the Project			-299	-18	-18	-36	-11	-11	-23				
New External Trips													
Office (General Office Building)				683	79	762	121	626	748				
Retail (Shopping Center)				23	12	35	59	67	126				
Subtotal Residential				0	0	0	0	0	0				
Total				6,437	706	91	797	180	693	873			
New External Trips Percent of Total Project Trips				85%	89%	75%	87%	83%	89%	88%			
Transit Trips													
Office (6.3%)				368	48	7	55	9	44	53			
Retail (1.3%)				22	1	0	1	1	1	2			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				0	0	0	0	0	0	0			
Total Transit Trips				390	49	7	56	10	45	55			

Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 15: Bounded by G, 6th, H, 6th													
Office (General Office Building)	192.0 KSF	ITE (710)	2,205	278	38	316	50	244	294	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			8,315	365	93	458	320	536	856				
Transit Adjustments													
Office (-5.6%)			-123	-16	-2	-18	-3	-13	-16				
Retail (-1.1%)			-67	-1	-1	-2	-3	-3	-6				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-190	-17	-3	-20	-6	-16	-22				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-62	-8	-1	-9	-1	-7	-8				
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-771	-18	-7	-25	-32	-41	-73				
Internal Trips Within This Block			-373	-3	-3	-6	-12	-12	-25				
Trips To-From Other Blocks within the Project			-310	-9	-9	-18	-9	-9	-19				
New External Trips													
Office (General Office Building)				246	30	276	37	215	252				
Retail (Shopping Center)				72	41	114	223	242	466				
Subtotal Residential				0	0	0	0	0	0				
Total			6,670	318	71	389	260	457	718				
New External Trips Percent of Total Project Trips			80%	87%	77%	85%	81%	85%	84%				
Transit Trips													
Office (6.3%)			139	18	2	20	3	16	19				
Retail (1.3%)			79	1	1	2	3	4	7				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			218	19	3	22	6	20	26				

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 16: Bounded by G, 7th, Property Boundary, 6th													
Office (General Office Building)	300.0 KSF	ITE (710)	3,109	398	54	452	71	344	415	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			4,223	416	66	482	119	396	515				
Transit Adjustments													
Office (-5.6%)			-174	-22	-3	-25	-4	-19	-23				
Retail (-1.1%)			-12	0	0	0	0	-1	-1				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-186	-22	-3	-25	-4	-20	-24				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-87	-11	-2	-13	-2	-10	-12				
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-216	-13	-3	-16	-8	-16	-24				
Internal Trips Within This Block			-68	-1	-1	-1	-2	-2	-4				
Trips To-From Other Blocks within the Project			-167	-10	-10	-19	-6	-6	-12				
New External Trips													
Office (General Office Building)				356	41	396	60	309	369				
Retail (Shopping Center)				15	9	24	39	43	82				
Subtotal Residential				0	0	0	0	0	0				
Total				3,586	371	50	421	99	352	451			
New External Trips Percent of Total Project Trips				85%	89%	76%	87%	83%	89%	88%			
Transit Trips													
Office (6.3%)				196	25	3	28	4	22	26			
Retail (1.3%)				14	0	0	0	0	1	1			
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				0	0	0	0	0	0	0			
Total Transit Trips				210	25	3	28	4	23	27			

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-5.6%)			0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####				
Transit Trips													
Office (6.3%)			0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 21: SITF Site
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 21: SITF Site														
Office (General Office Building)	KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	Units		0	0	0	0	0	0	0	0				
Other (Transit)	Prkng	ITE(093)	0	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other (Transit) (-5.6%)			0	0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			0	0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####				
Other (Transit)			0	0	0	0	0	0	0	0				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Other (Transit) (6.3%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-5.6%)			0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####				
Transit Trips													
Office (6.3%)			0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Initial Phase with Maximum Office (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Initial Phase with Maximum Office (Baseline & 2013)

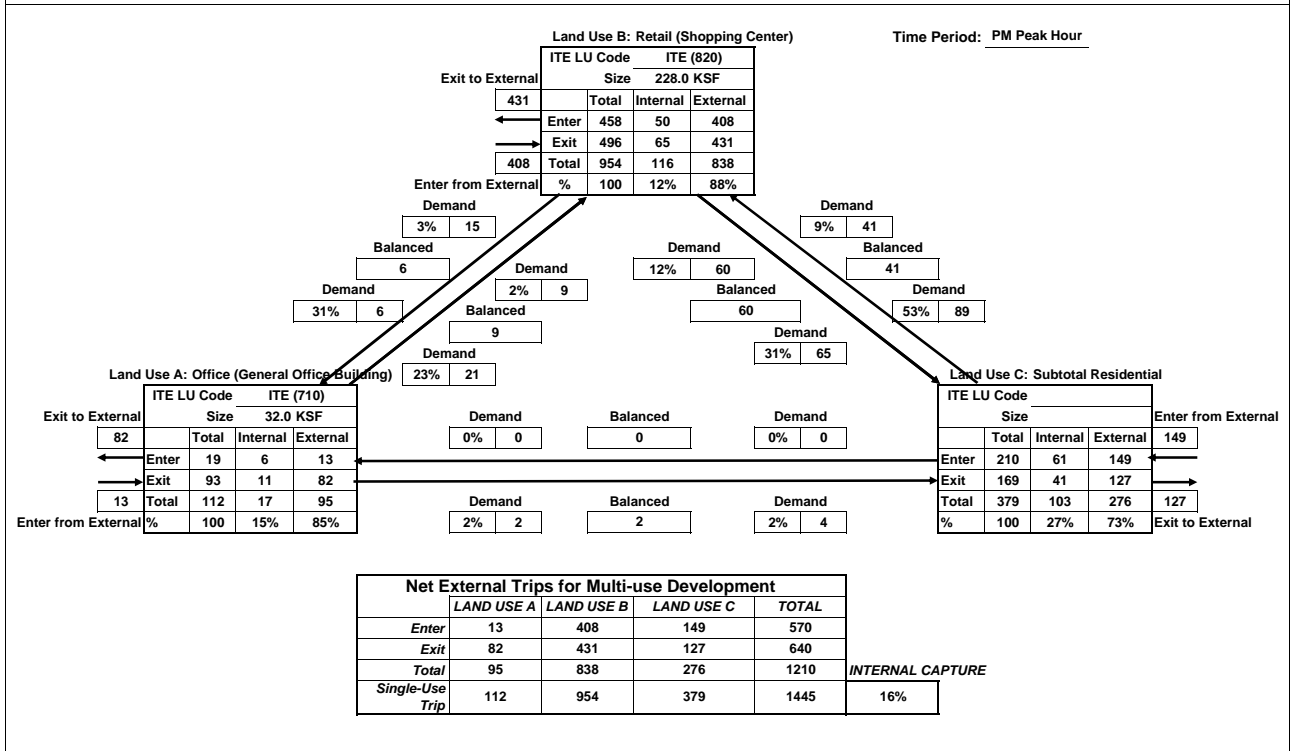
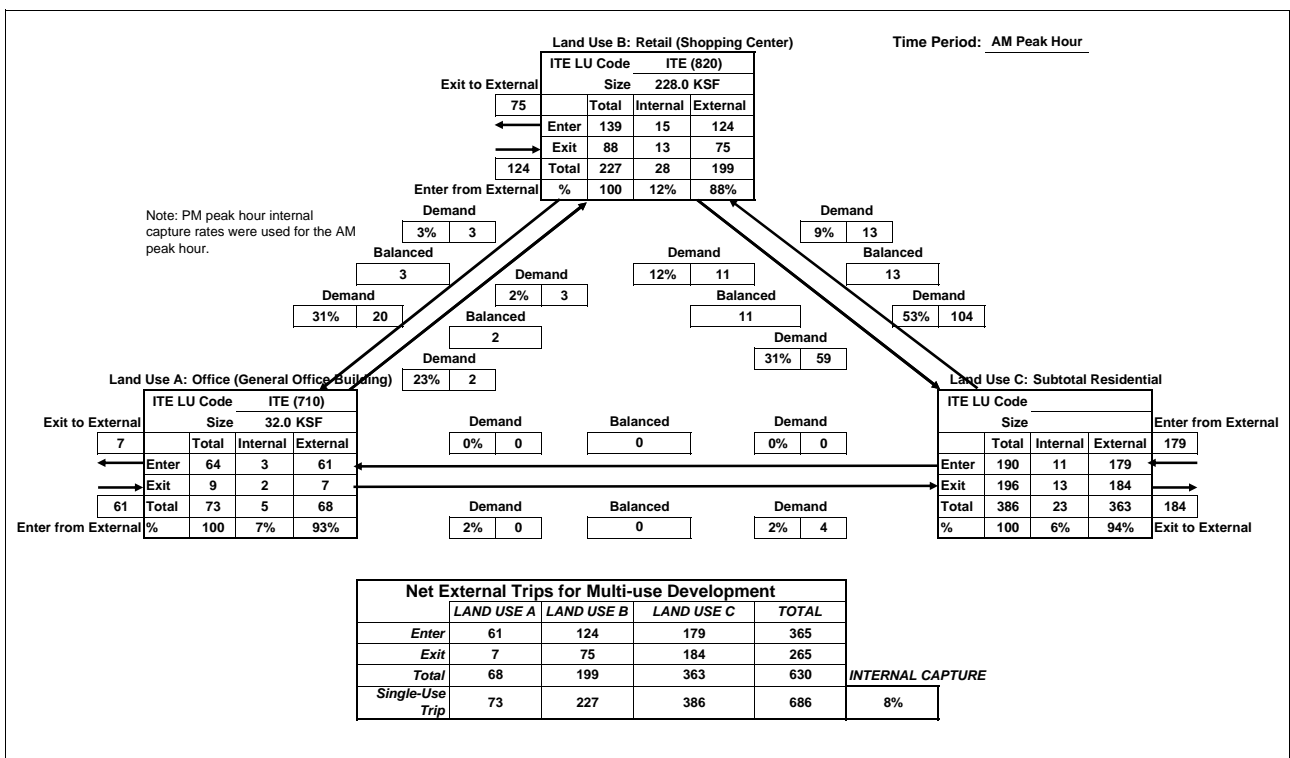
Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 24: Bounded by Property Boundary, Railyards, N. 10th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

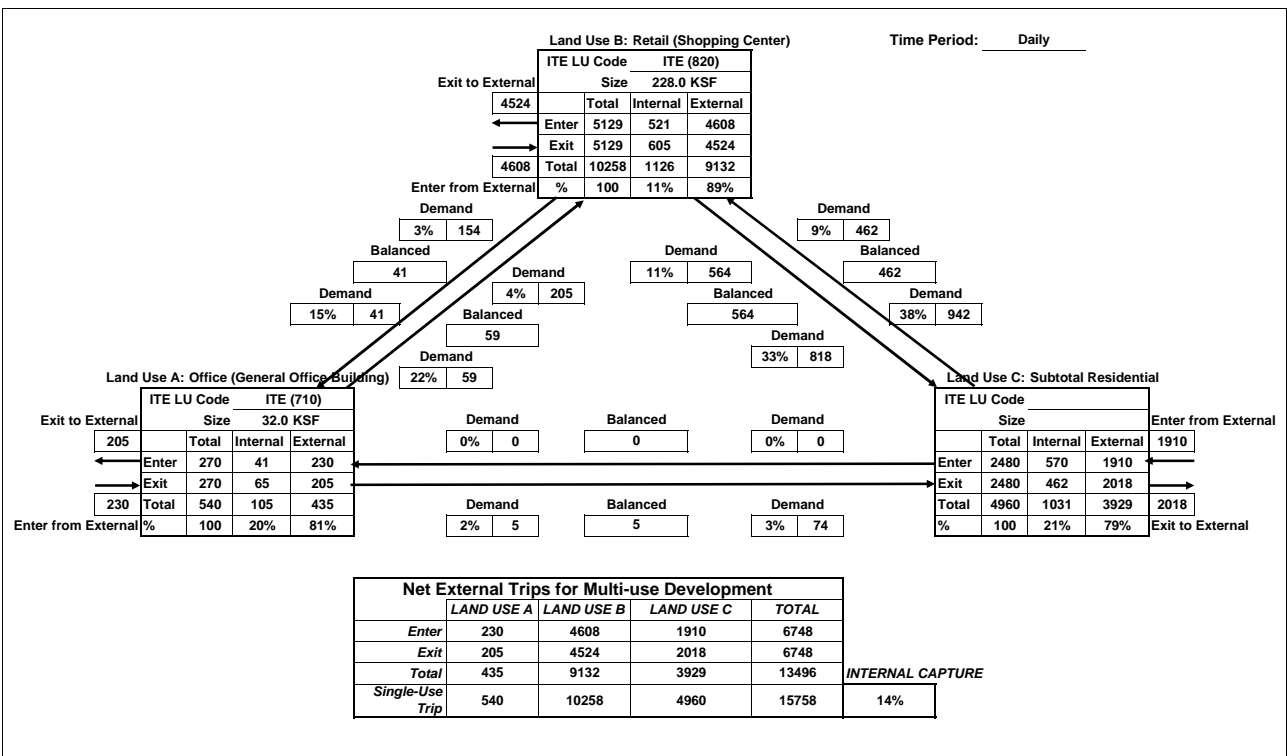


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

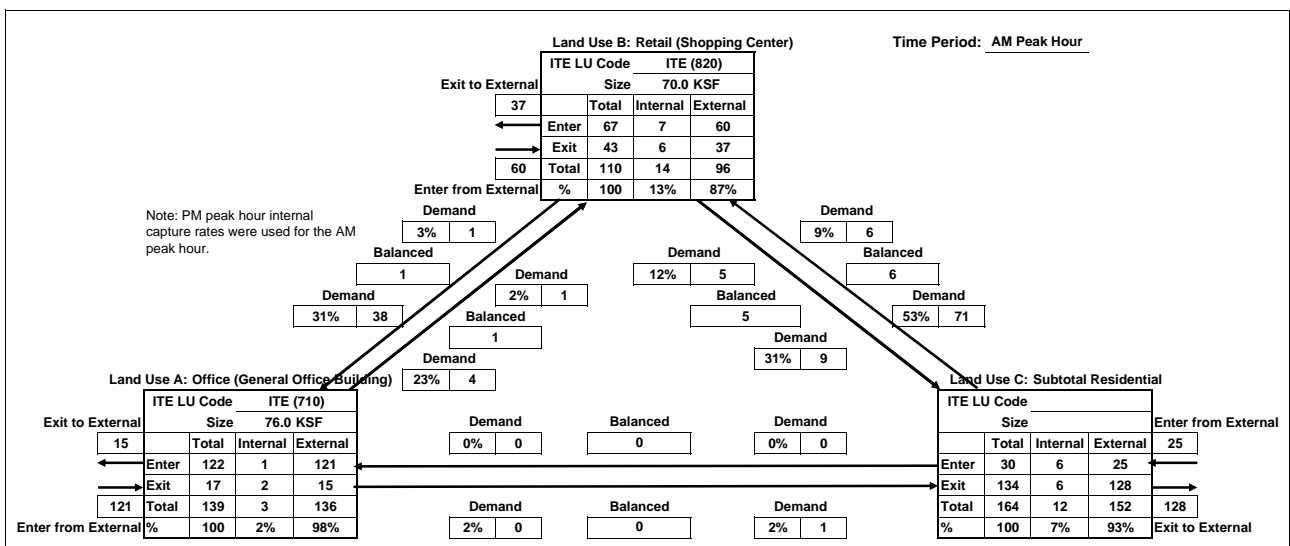
Time Period: Daily



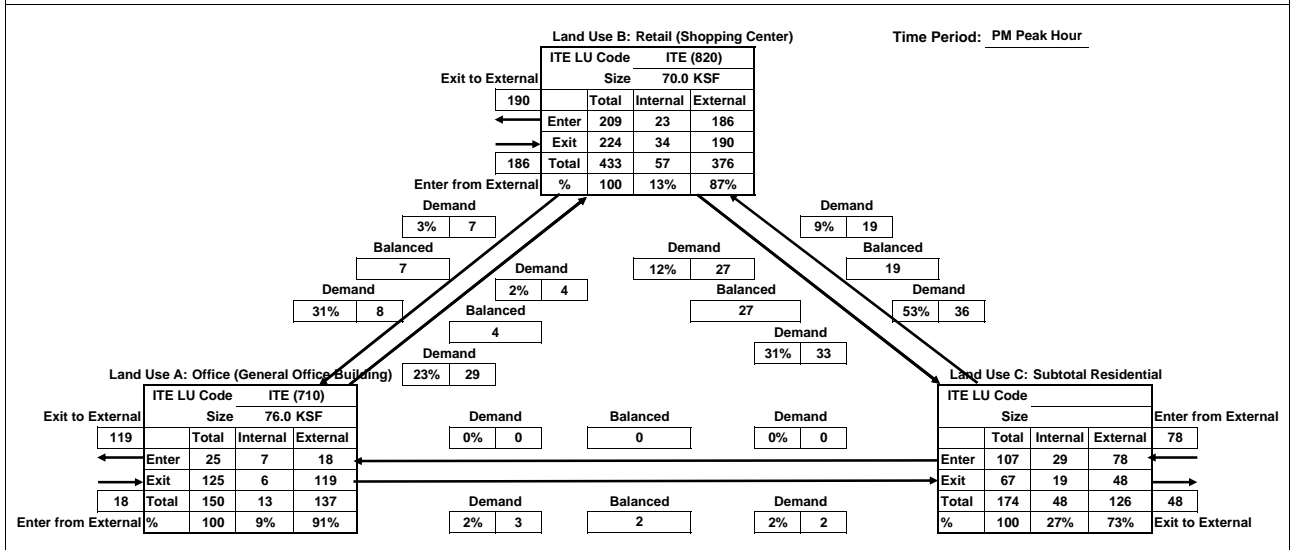
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	121	60	25	205	
Exit	15	37	128	180	
Total	136	96	152	385	INTERNAL CAPTURE
Single-Use Trip	139	110	164	413	7%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	18	186	78	282	
Exit	119	190	48	357	
Total	137	376	126	640	INTERNAL CAPTURE
Single-Use Trip	150	433	174	757	16%

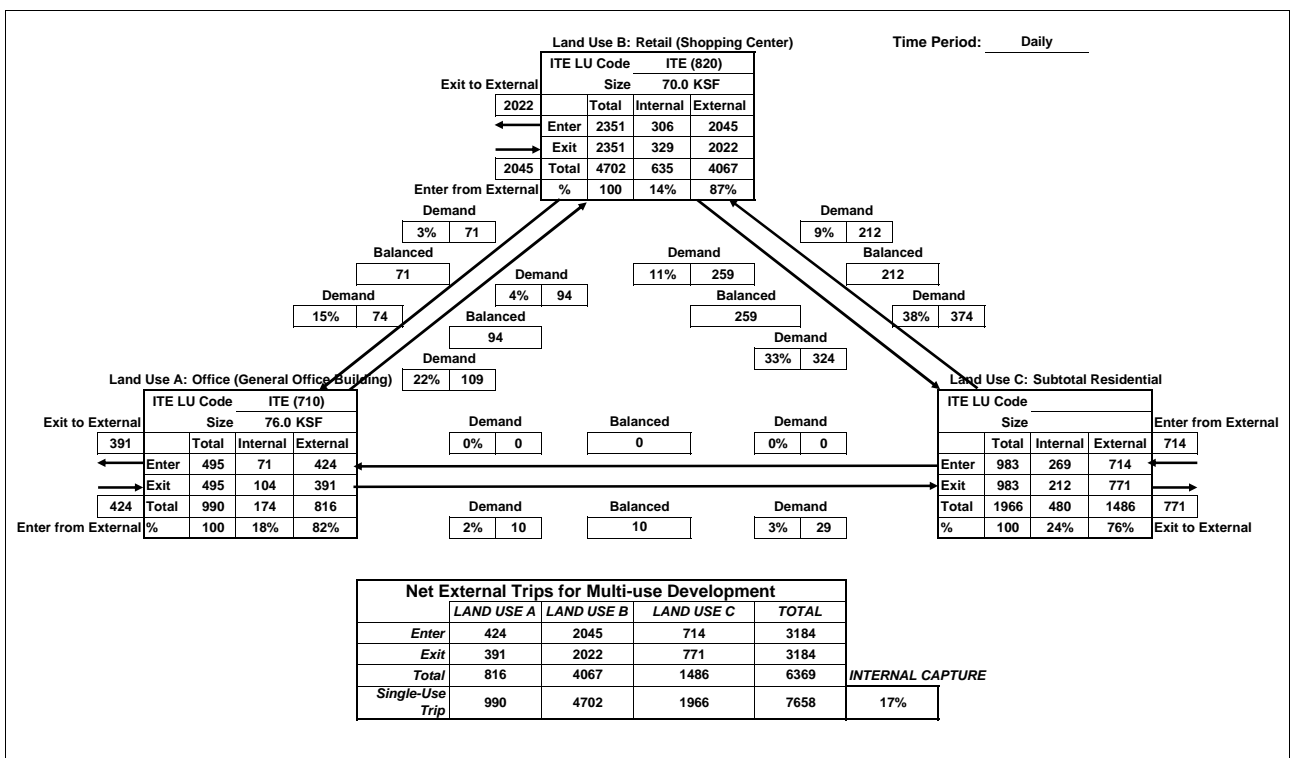
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

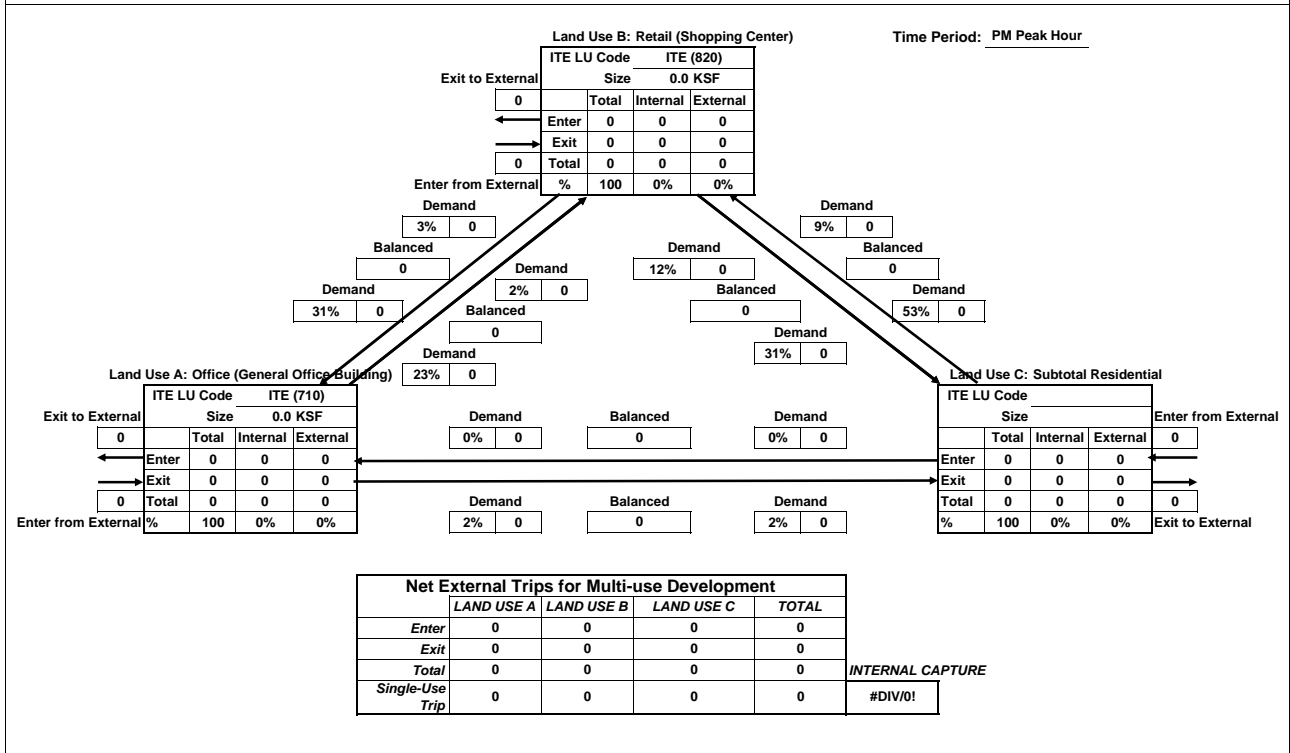
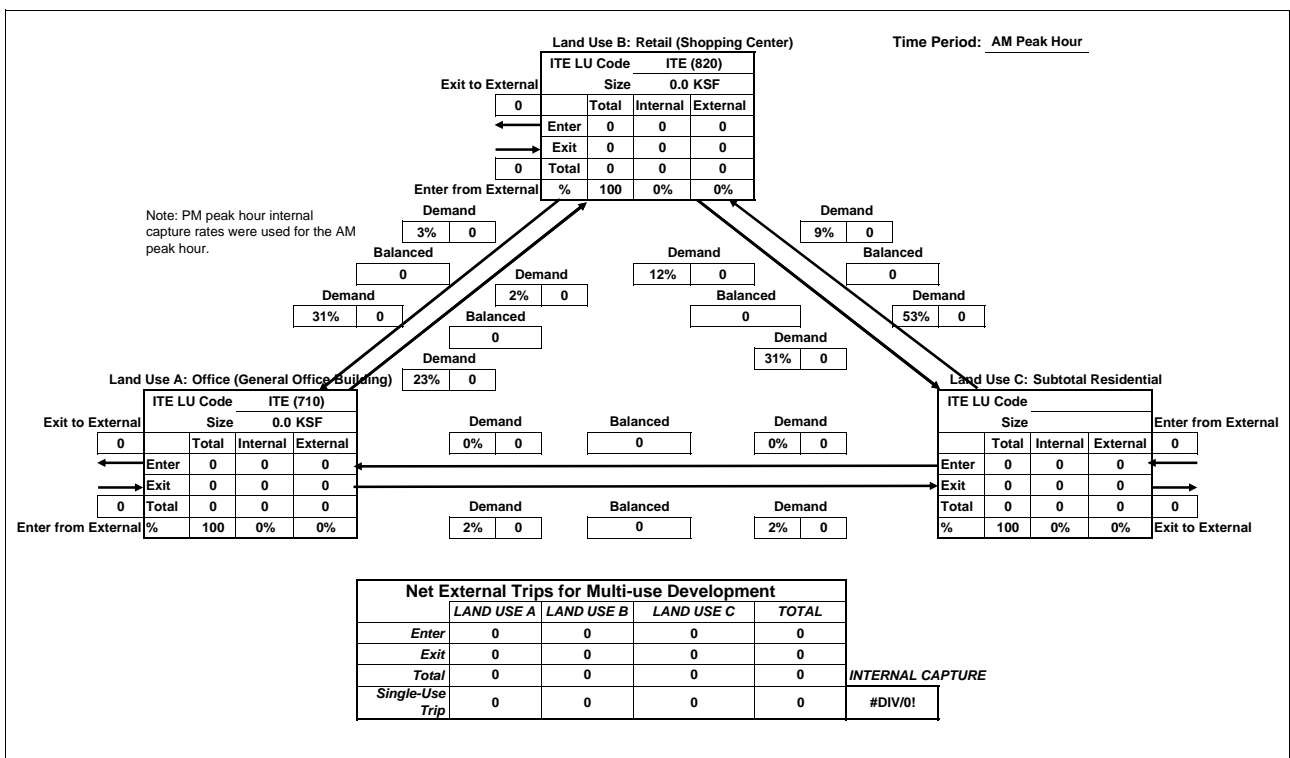


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



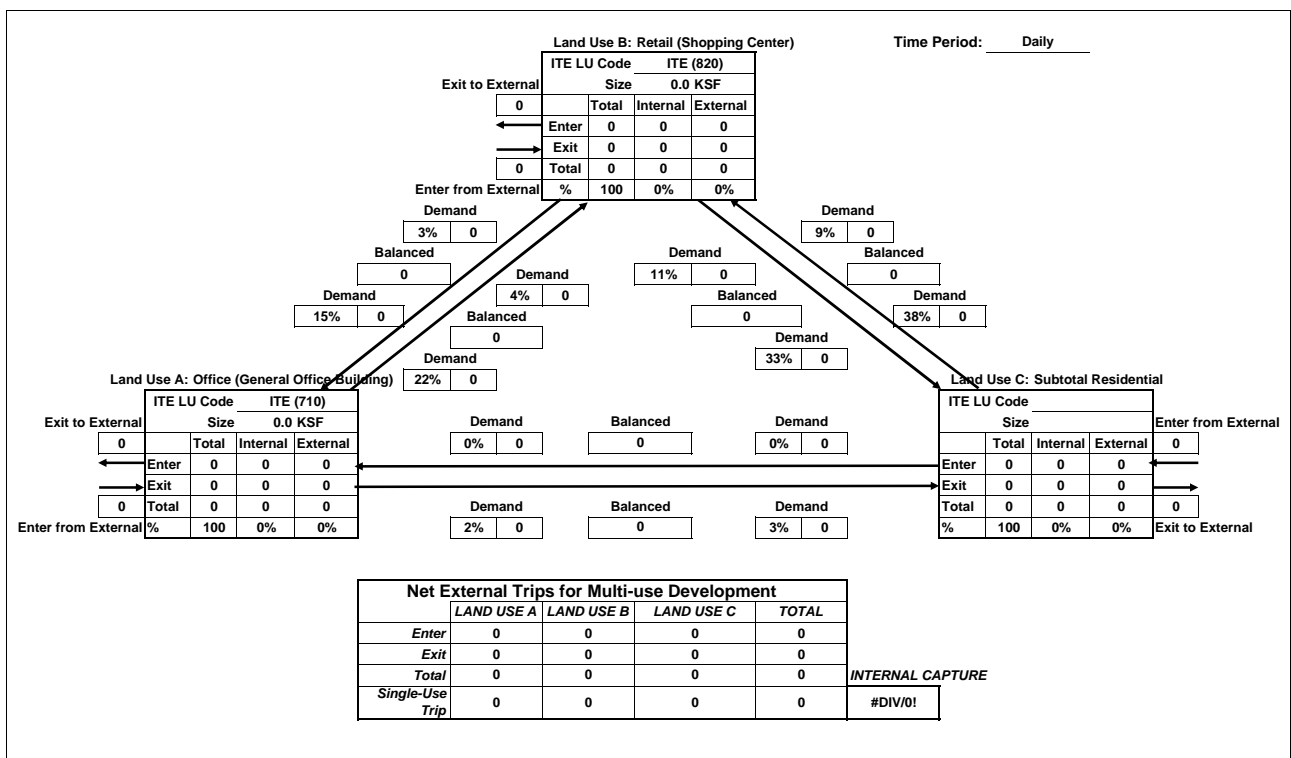
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

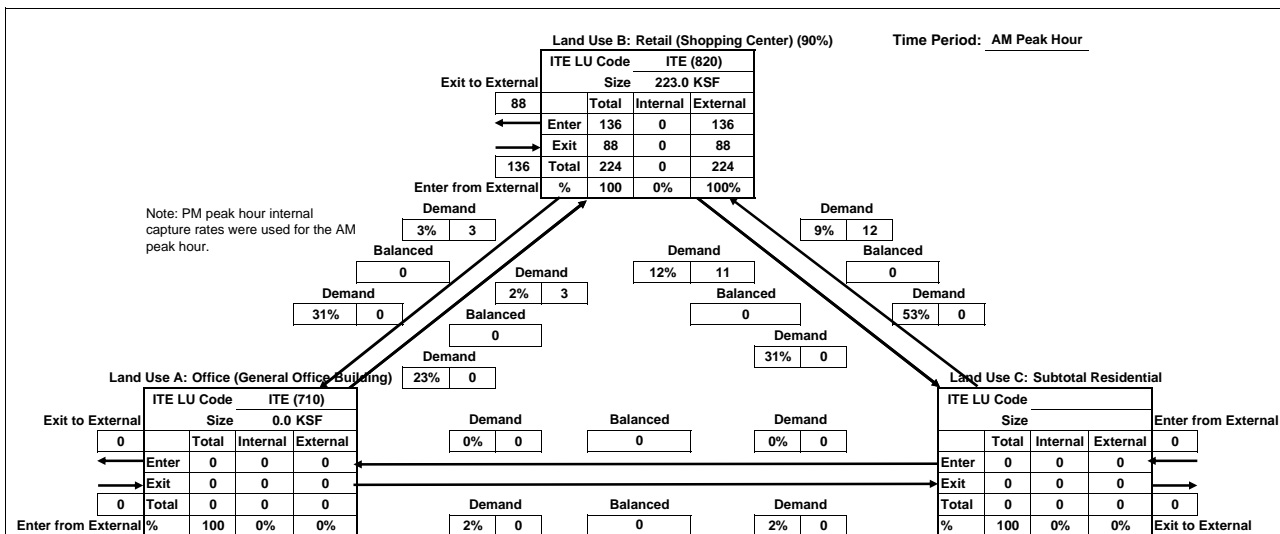
Time Period: Daily



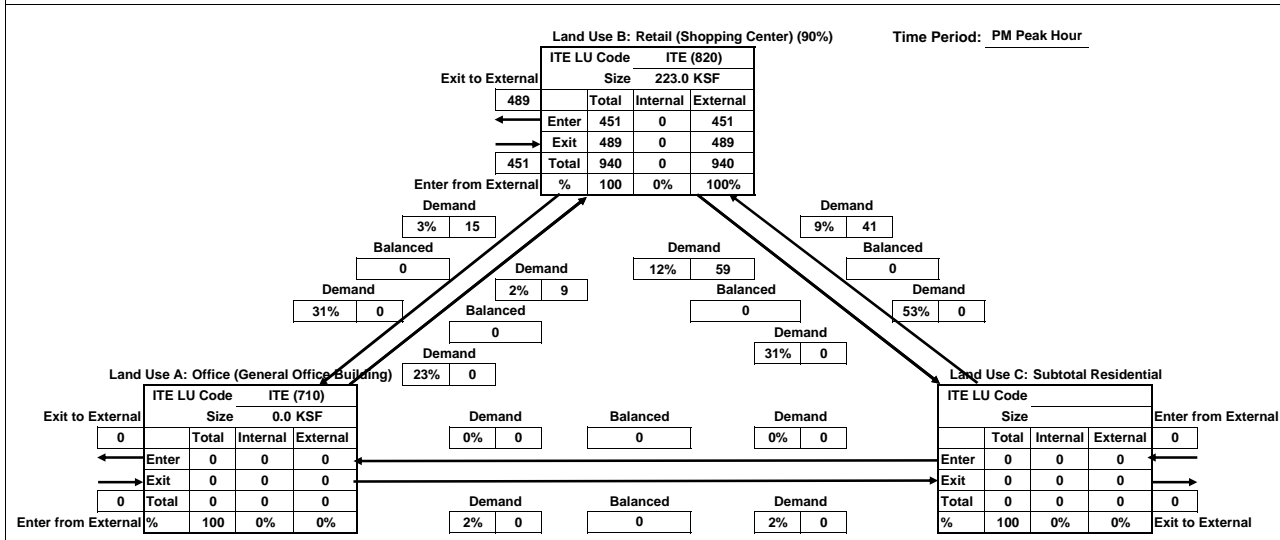
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	136	0	136	
Exit	0	88	0	88	
Total	0	224	0	224	INTERNAL CAPTURE
Single-Use Trip	0	224	0	224	0%



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	451	0	451	
Exit	0	489	0	489	
Total	0	940	0	940	INTERNAL CAPTURE
Single-Use Trip	0	940	0	940	0%

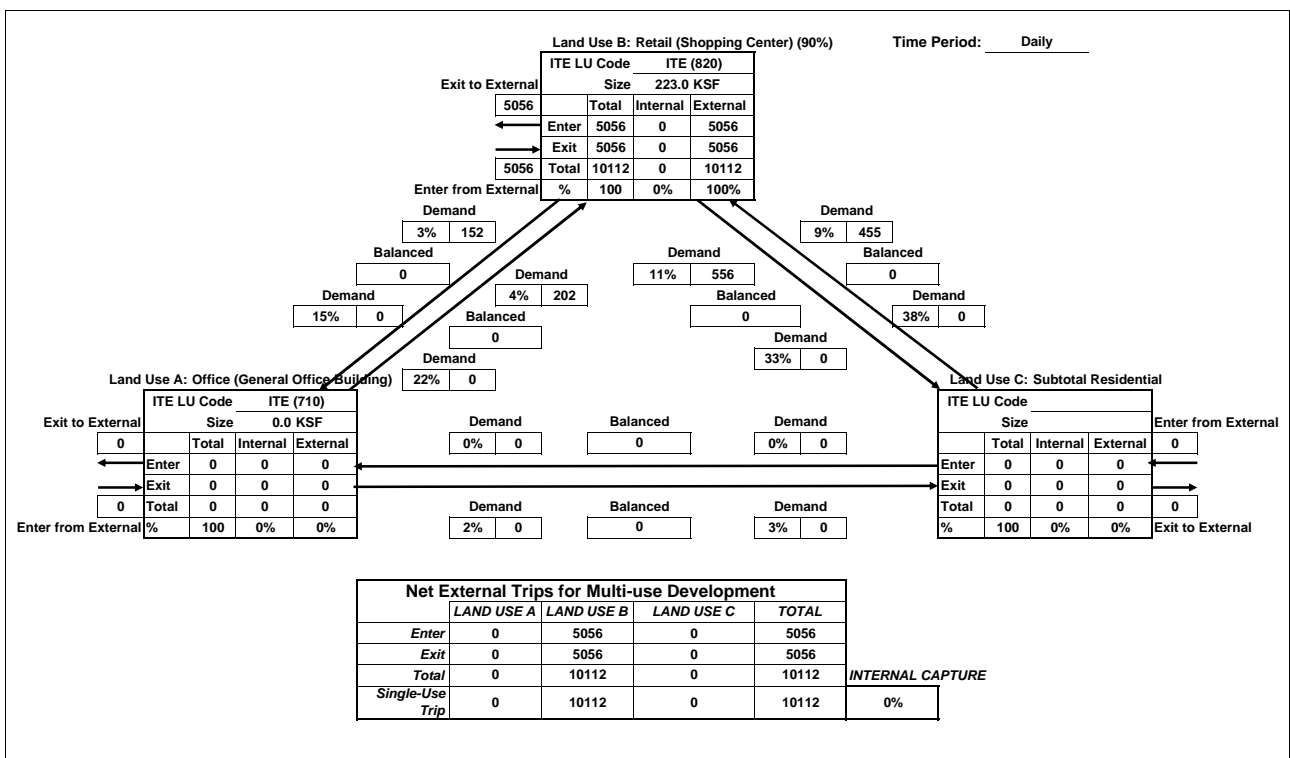
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

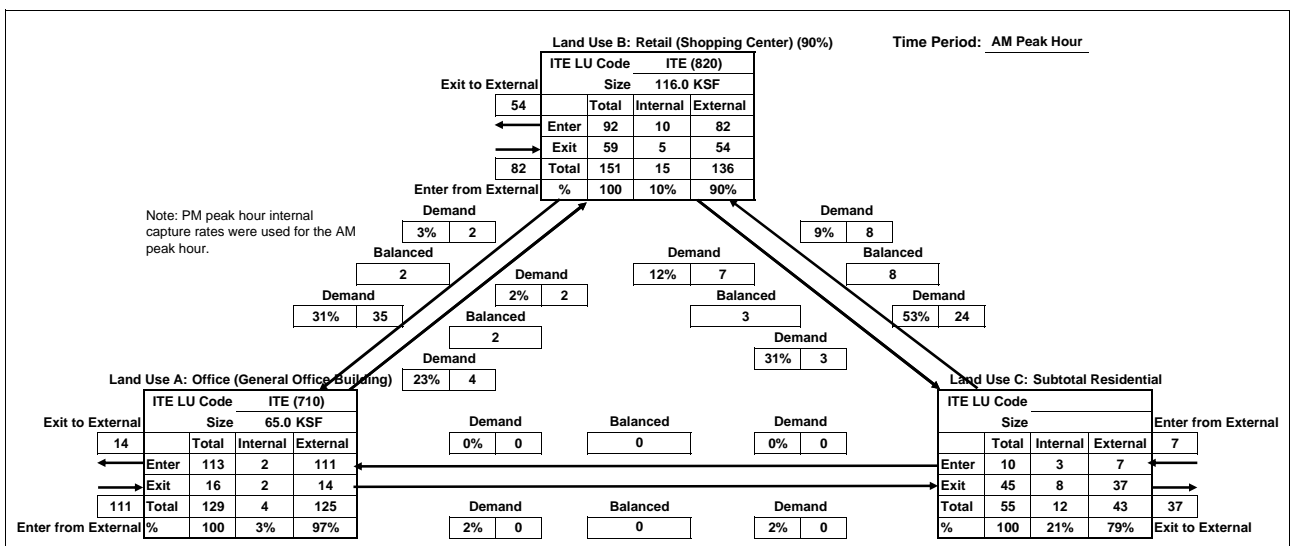
Time Period: Daily



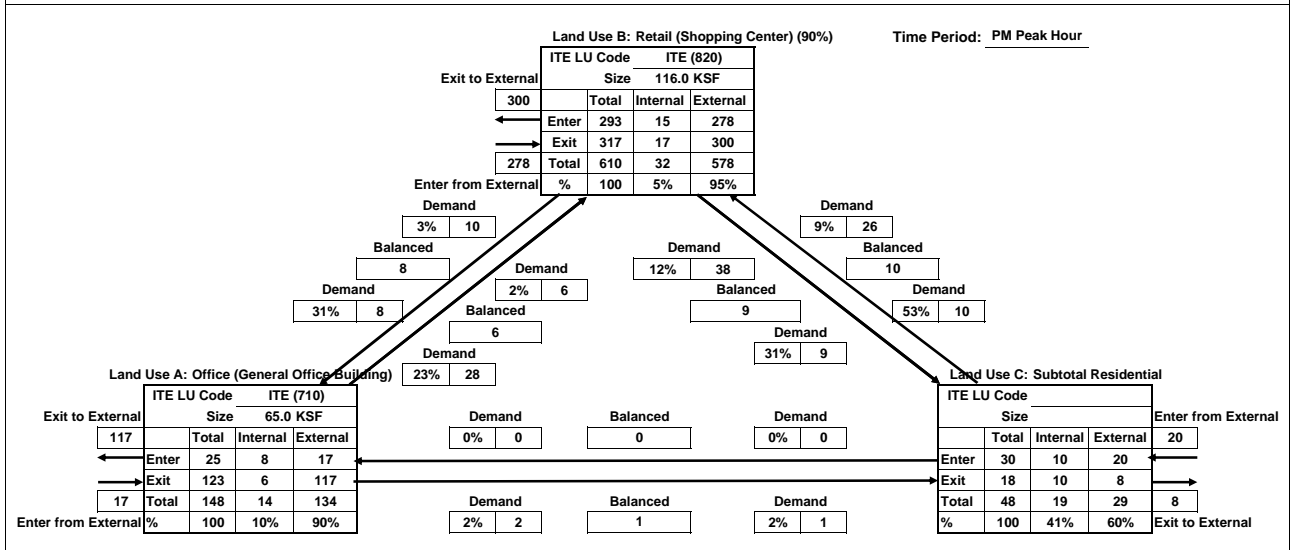
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	111	82	7	200	
Exit	14	54	37	105	
Total	125	136	43	305	INTERNAL CAPTURE
Single-Use Trip	129	151	55	335	9%



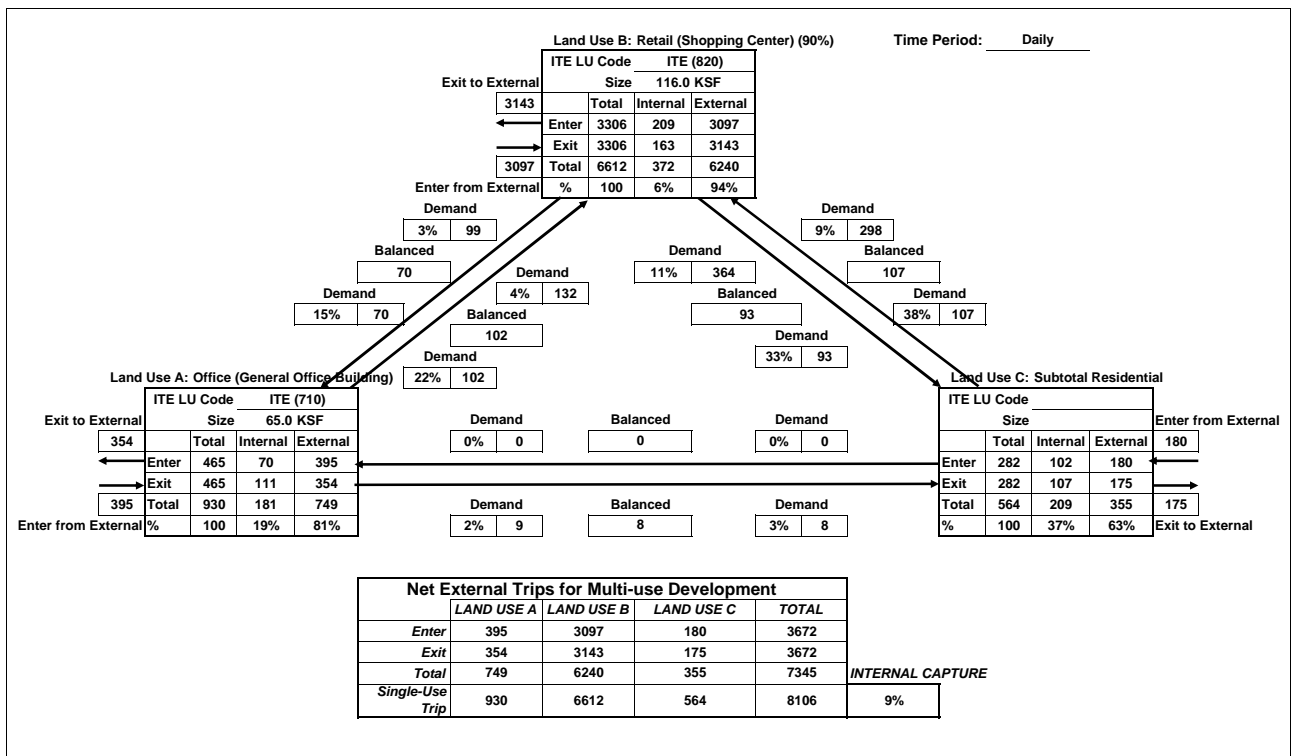
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	278	20	315	
Exit	117	300	8	425	
Total	134	578	29	740	INTERNAL CAPTURE
Single-Use Trip	148	610	48	806	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

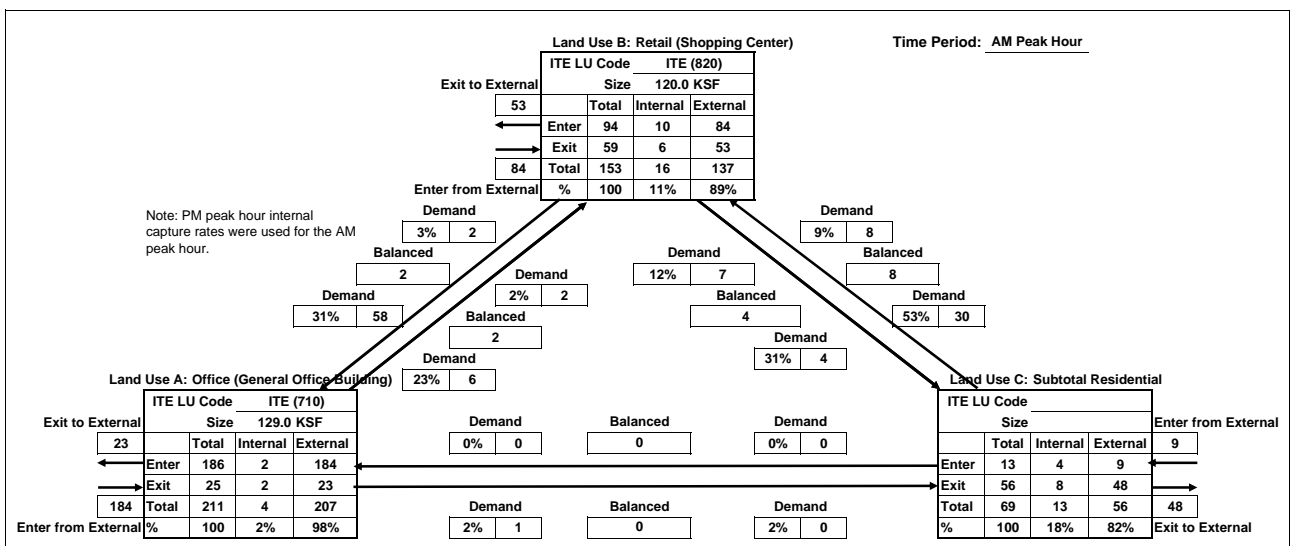


Analyst: Dowling

Date: 8/17/2007

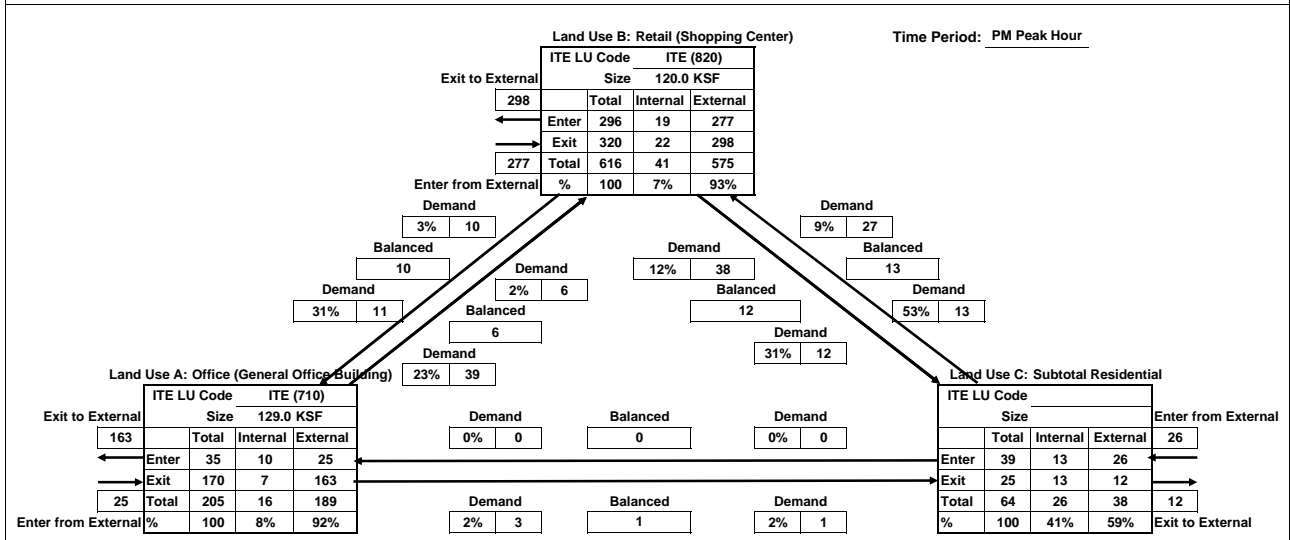
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	184	84	9	277	
Exit	23	53	48	124	
Total	207	137	56	400	INTERNAL CAPTURE
Single-Use Trip	211	153	69	433	8%



Net External Trips for Multi-use Development

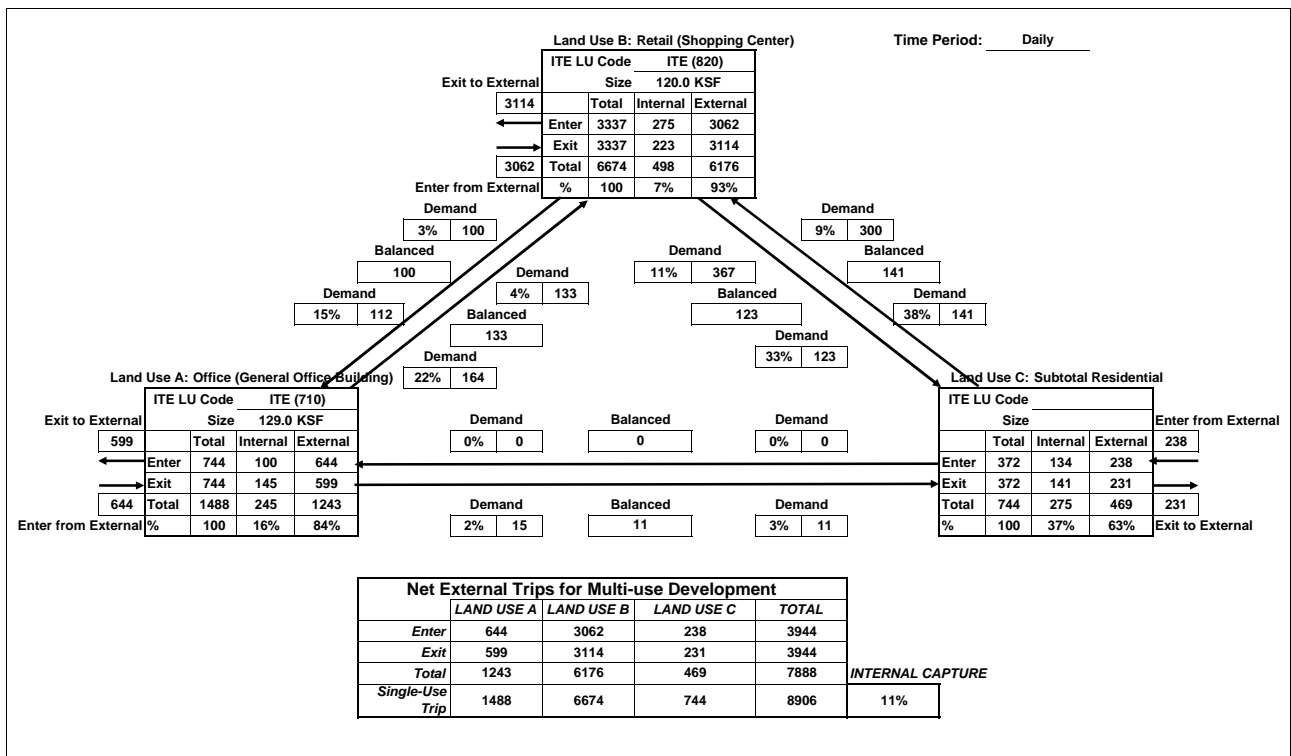
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	25	277	26	328	
Exit	163	298	12	473	
Total	189	575	38	802	INTERNAL CAPTURE
Single-Use Trip	205	616	64	885	9%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

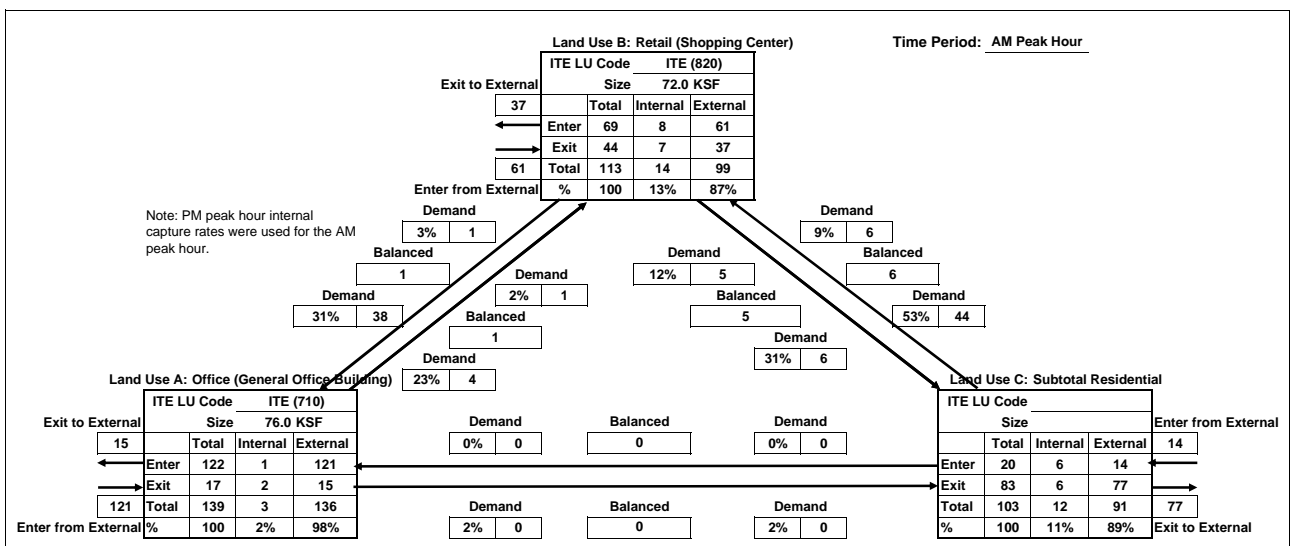
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

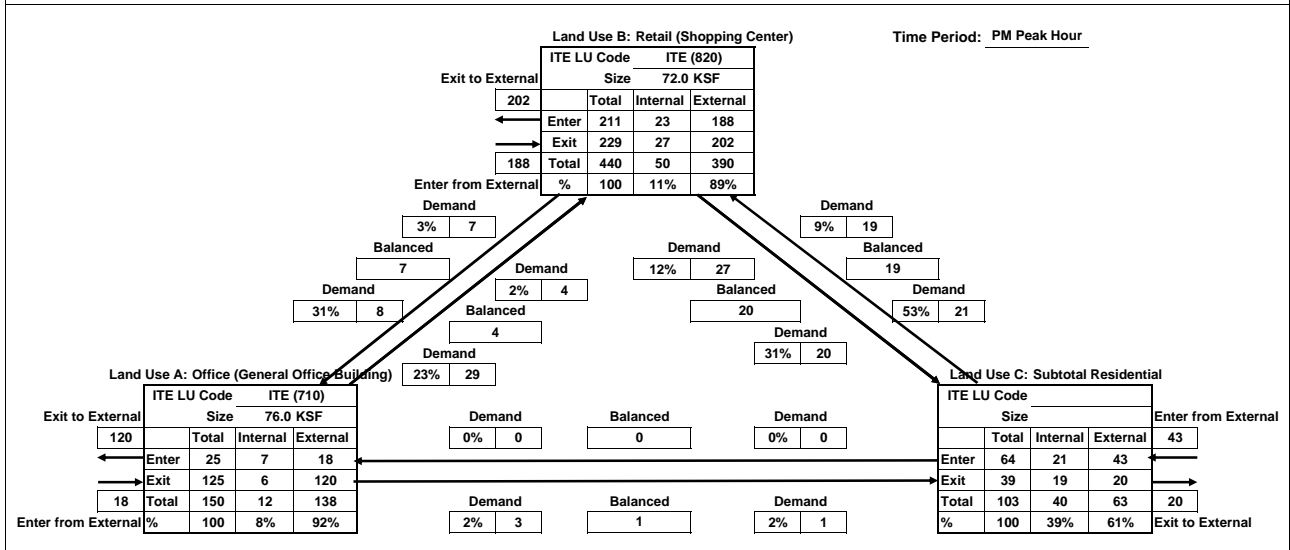
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	121	61	14	196	
Exit	15	37	77	129	
Total	136	99	91	326	INTERNAL CAPTURE
Single-Use Trip	139	113	103	355	8%



Net External Trips for Multi-use Development

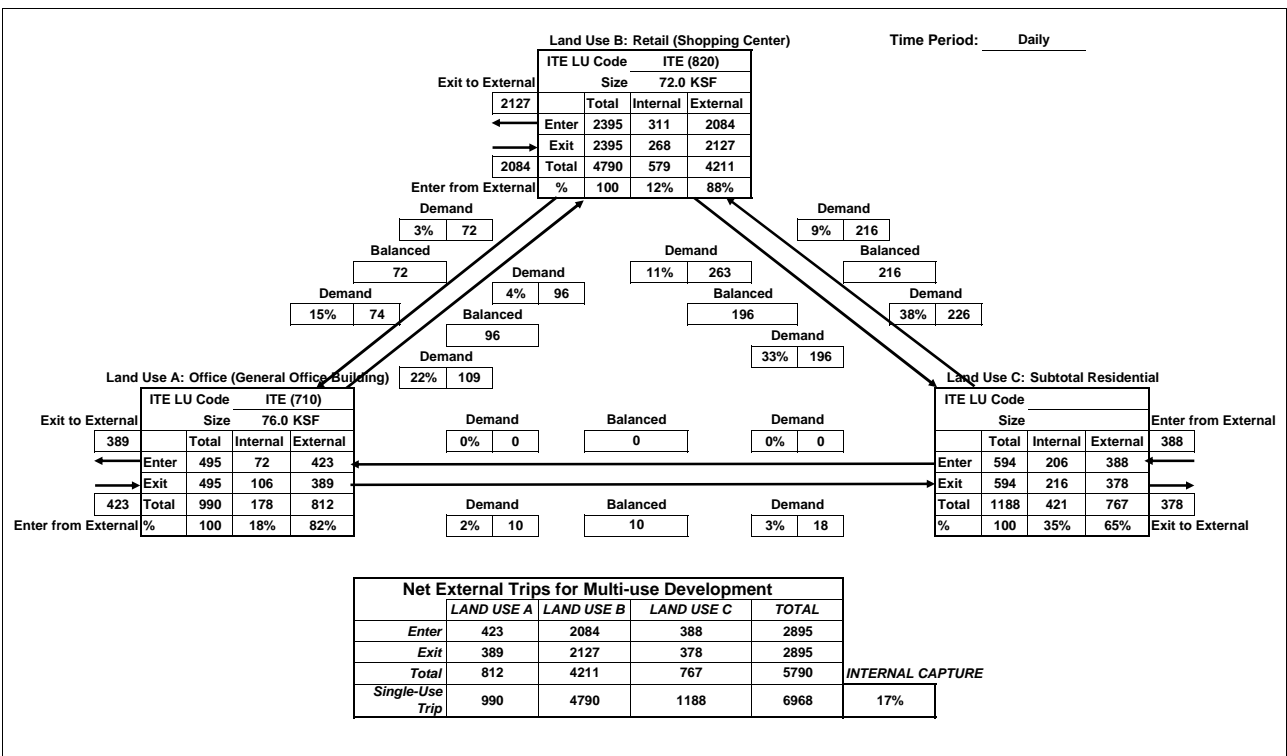
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	18	188	43	249	
Exit	120	202	20	342	
Total	138	390	63	591	INTERNAL CAPTURE
Single-Use Trip	150	440	103	693	15%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

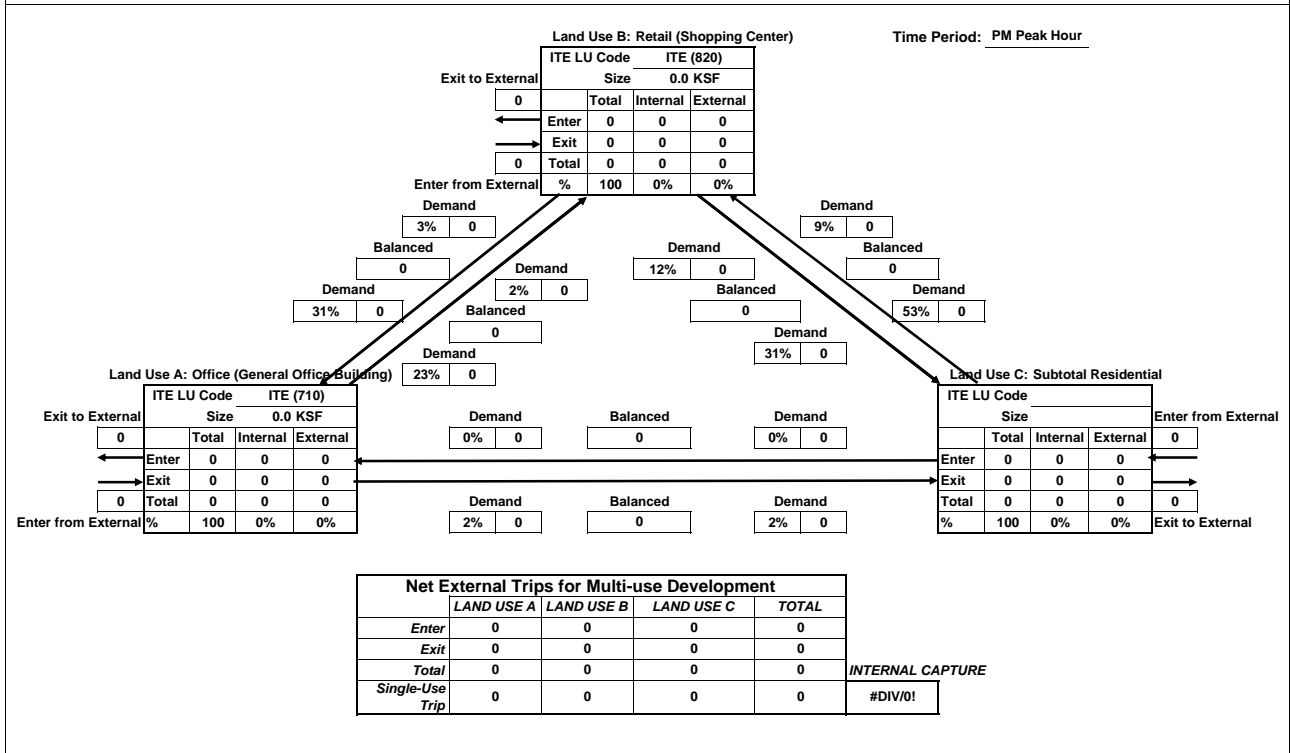
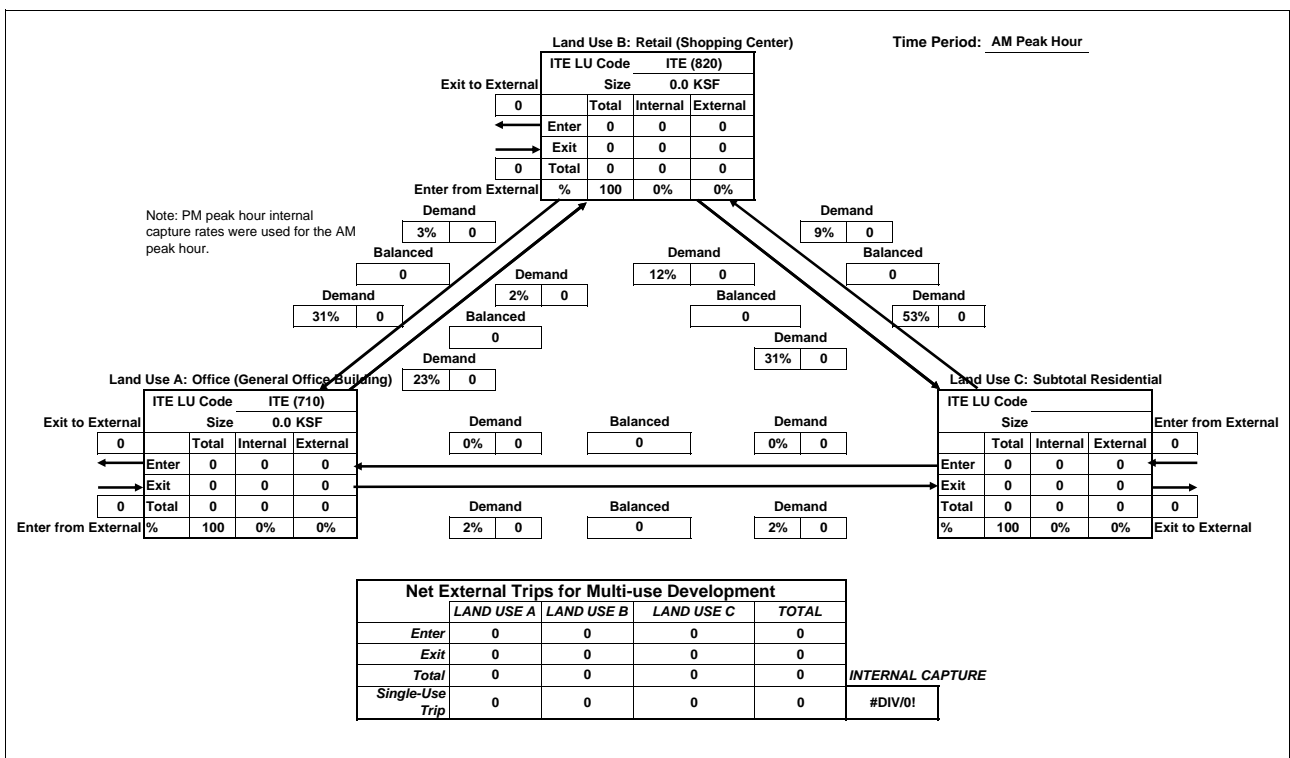


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



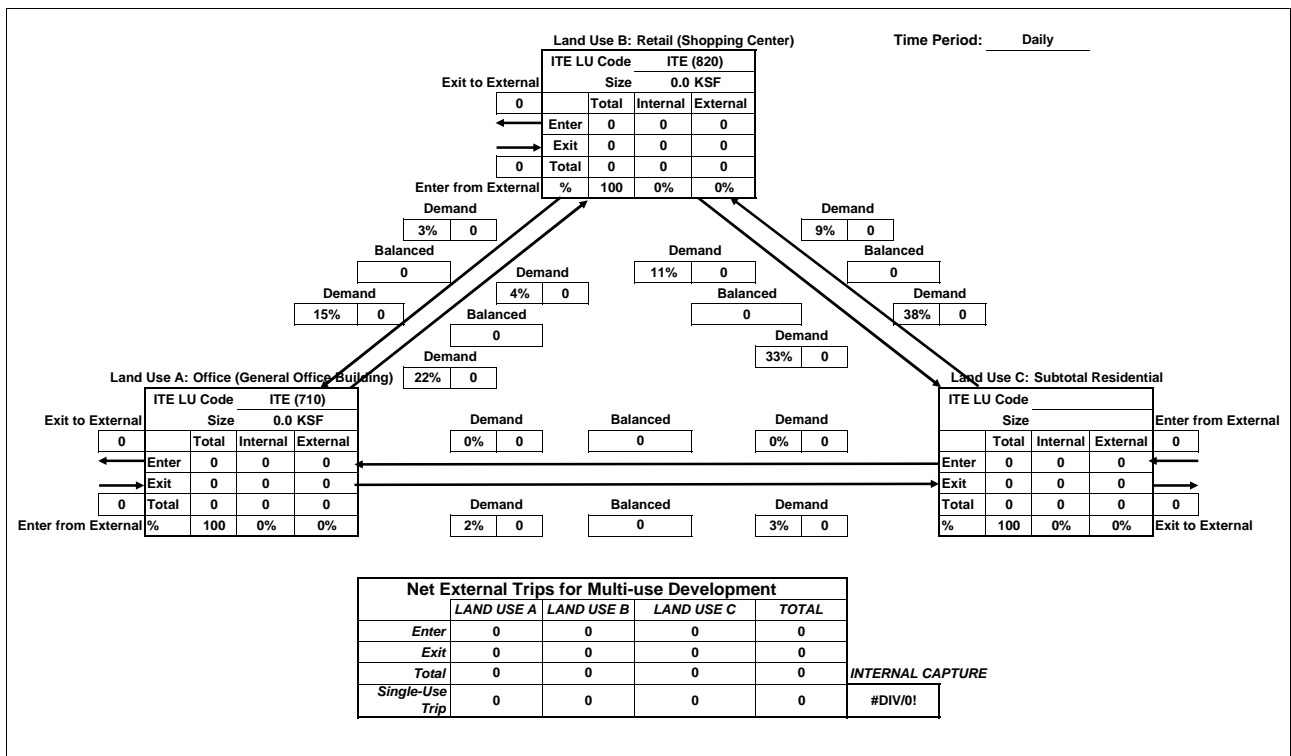
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

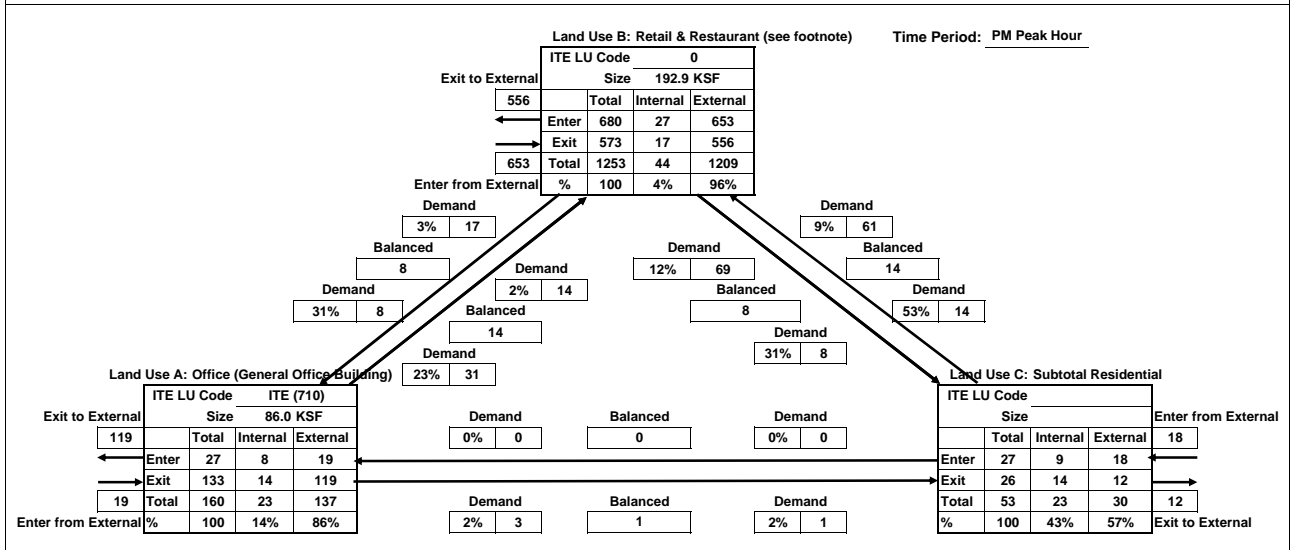
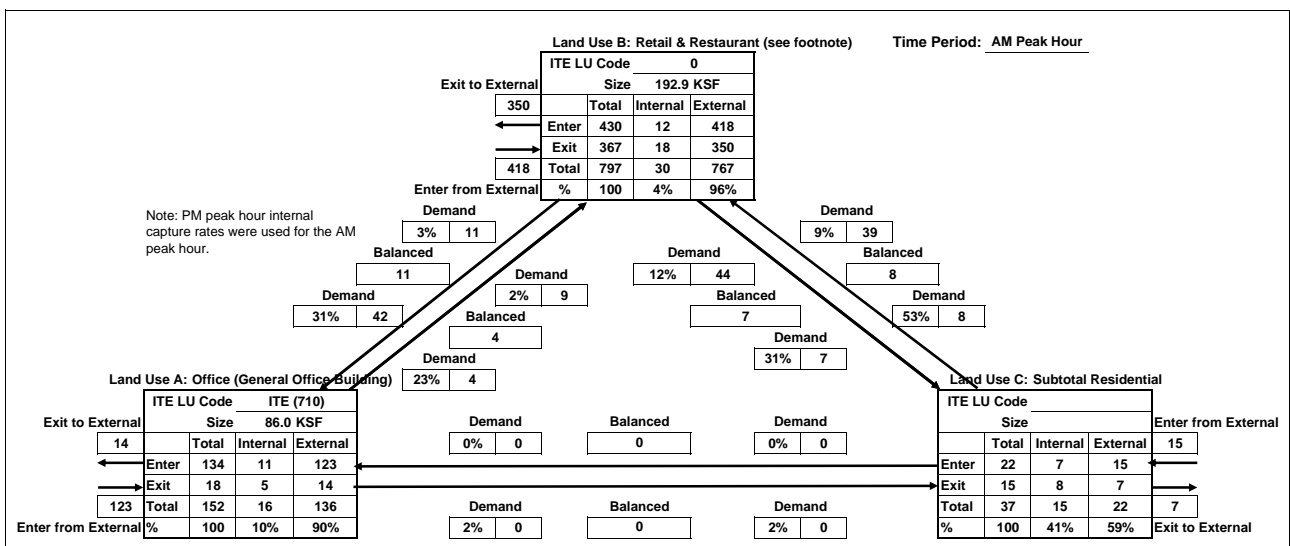
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

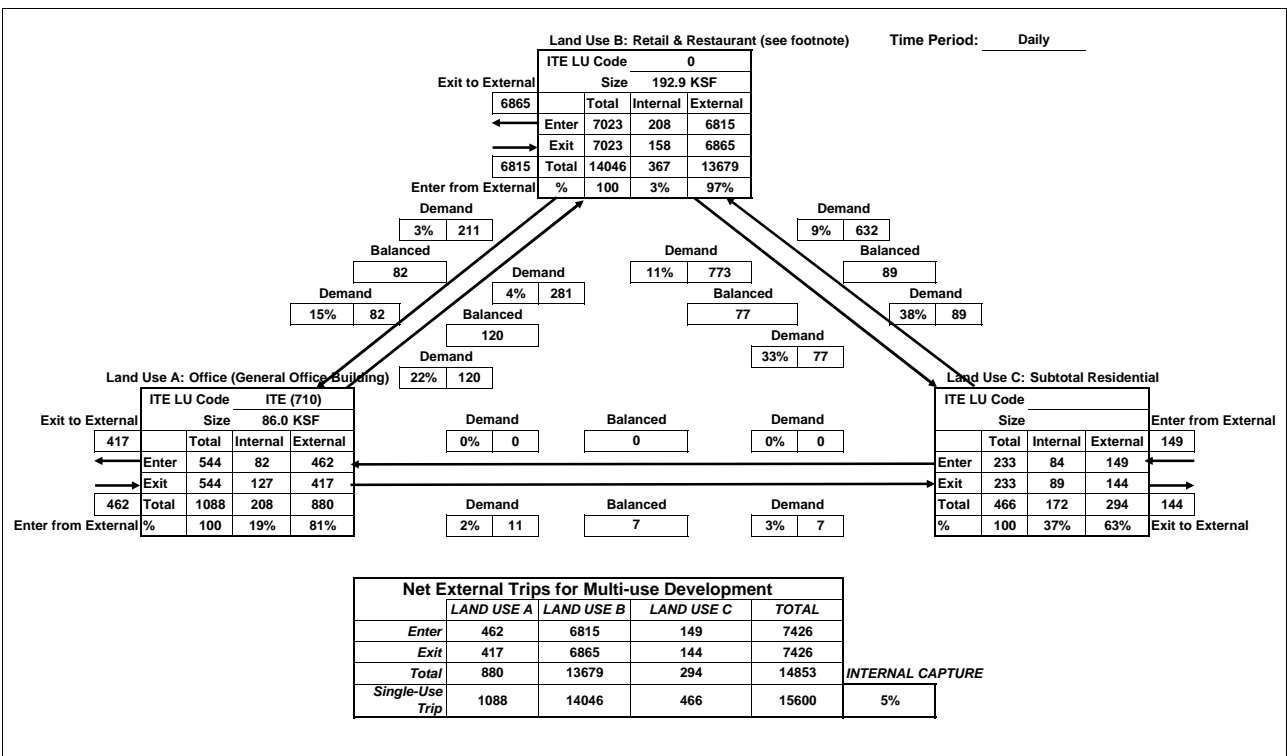


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

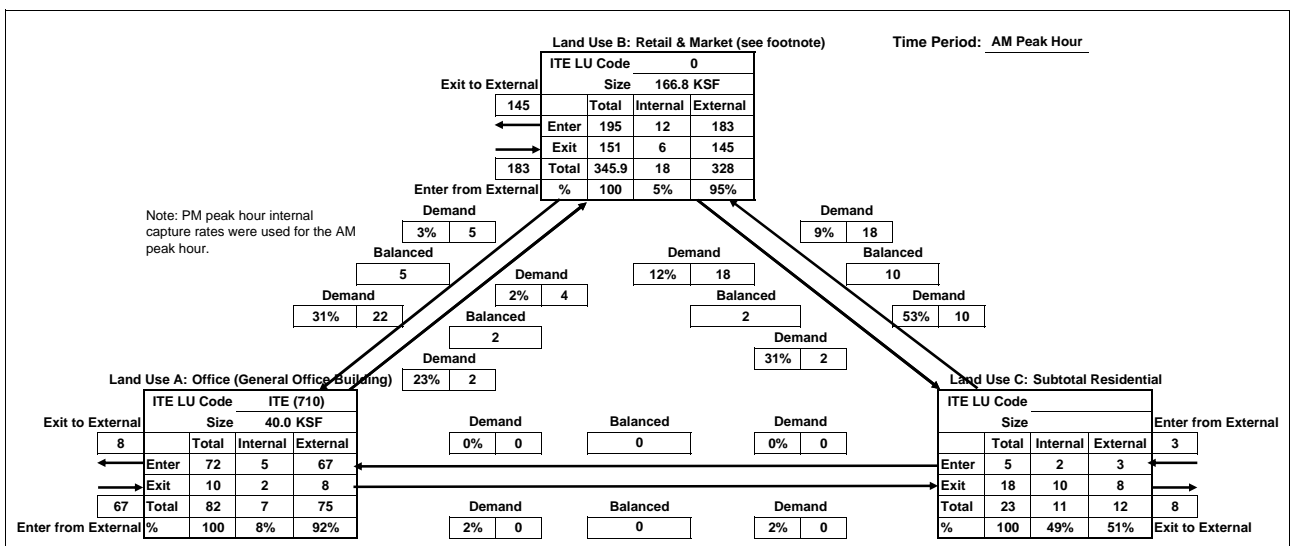
Time Period: Daily



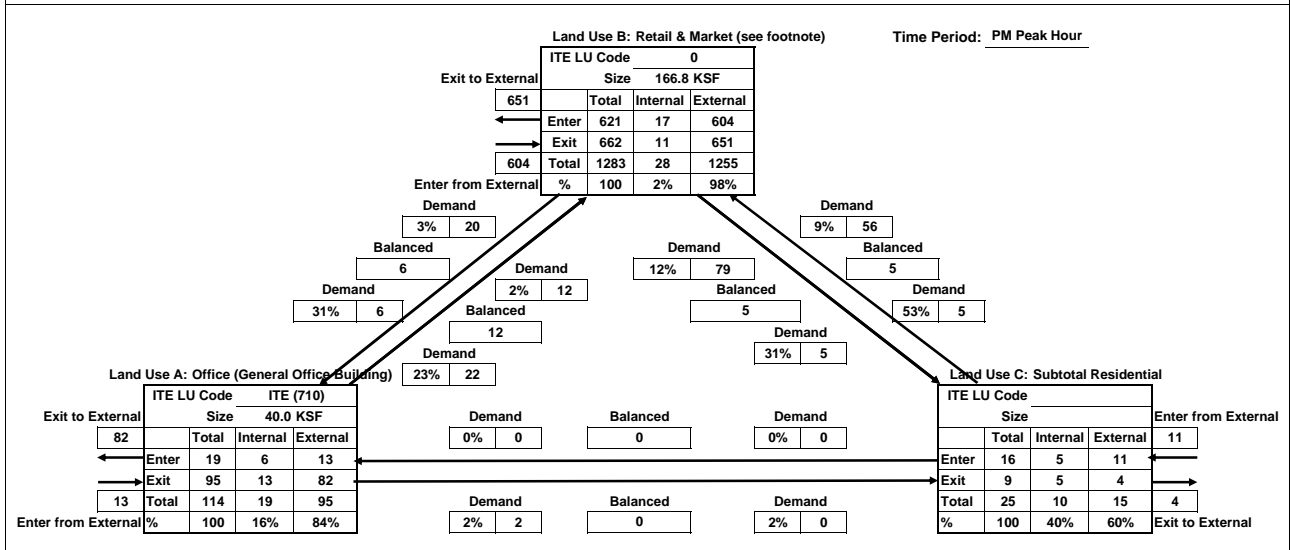
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	67	183	3	254	
Exit	8	145	8	161	
Total	75	328	12	415	INTERNAL CAPTURE
Single-Use Trip	82	345.9035	23	451	8%



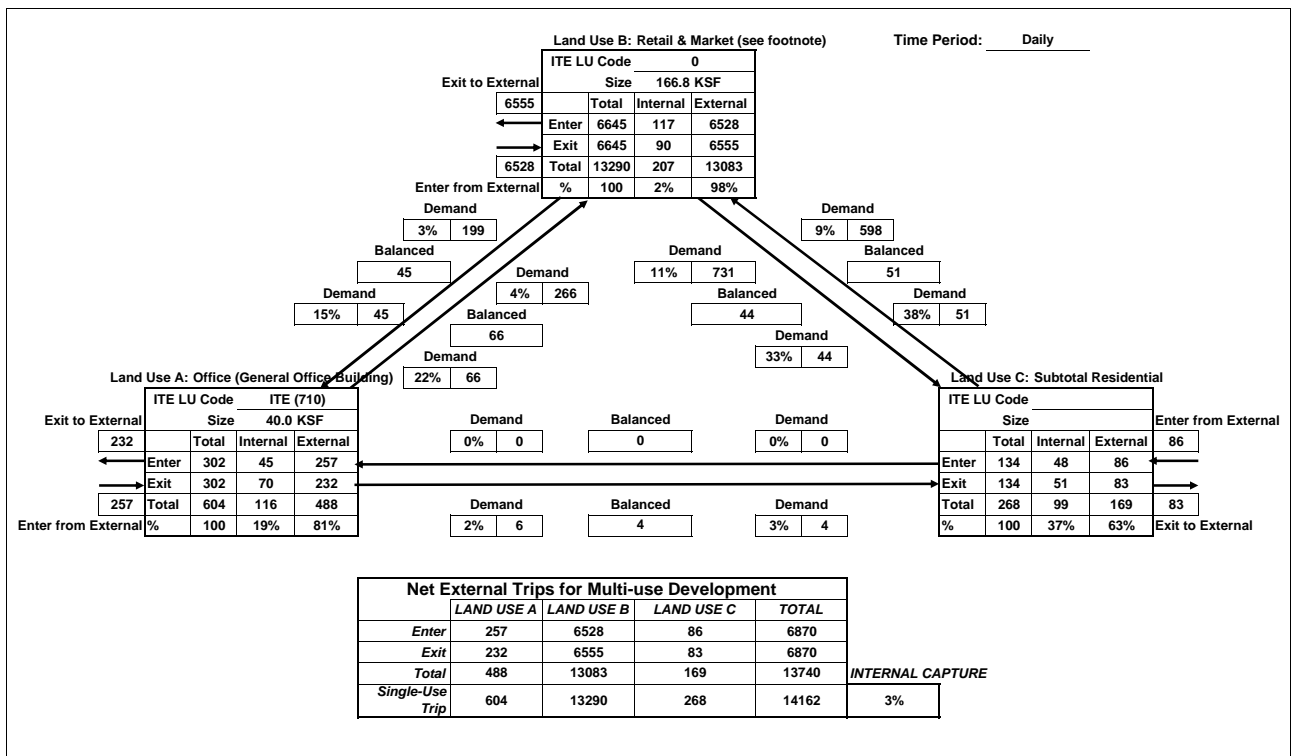
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	13	604	11	628	
Exit	82	651	4	738	
Total	95	1255	15	1365	INTERNAL CAPTURE
Single-Use Trip	114	1283	25	1422	4%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

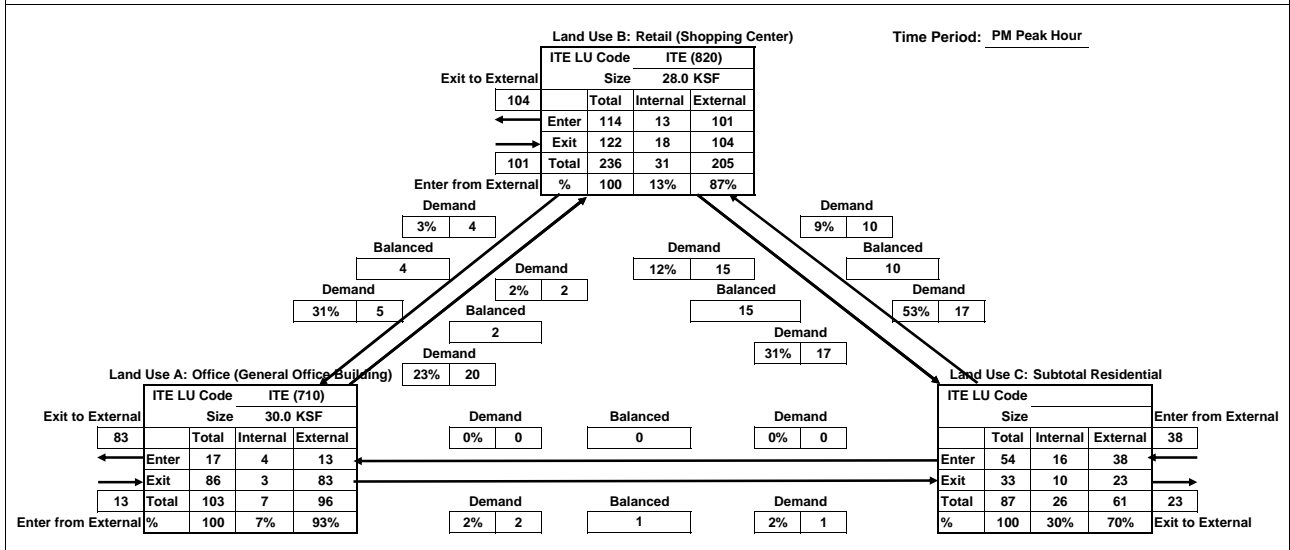
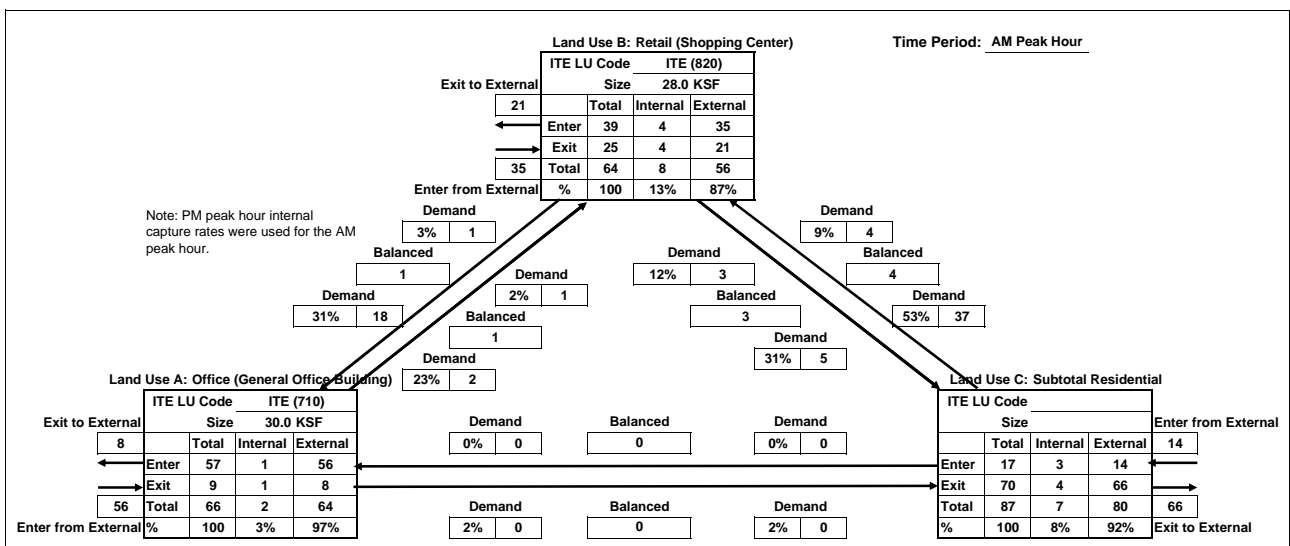


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

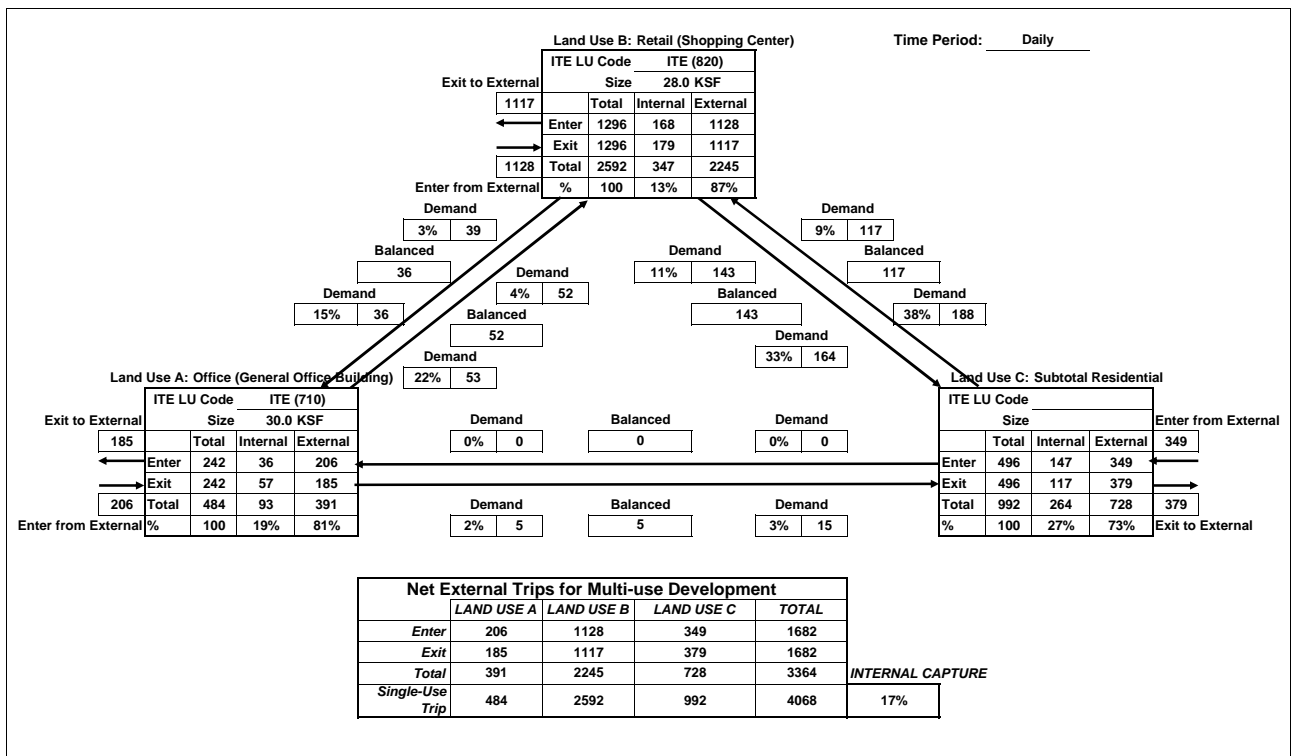


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

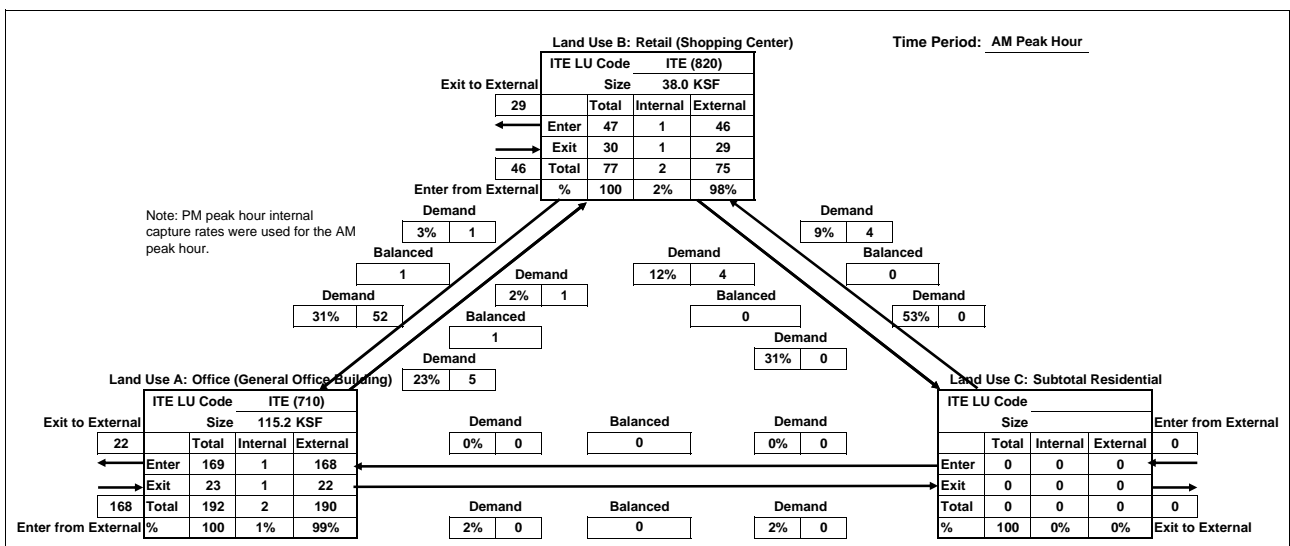


Analyst: Dowling

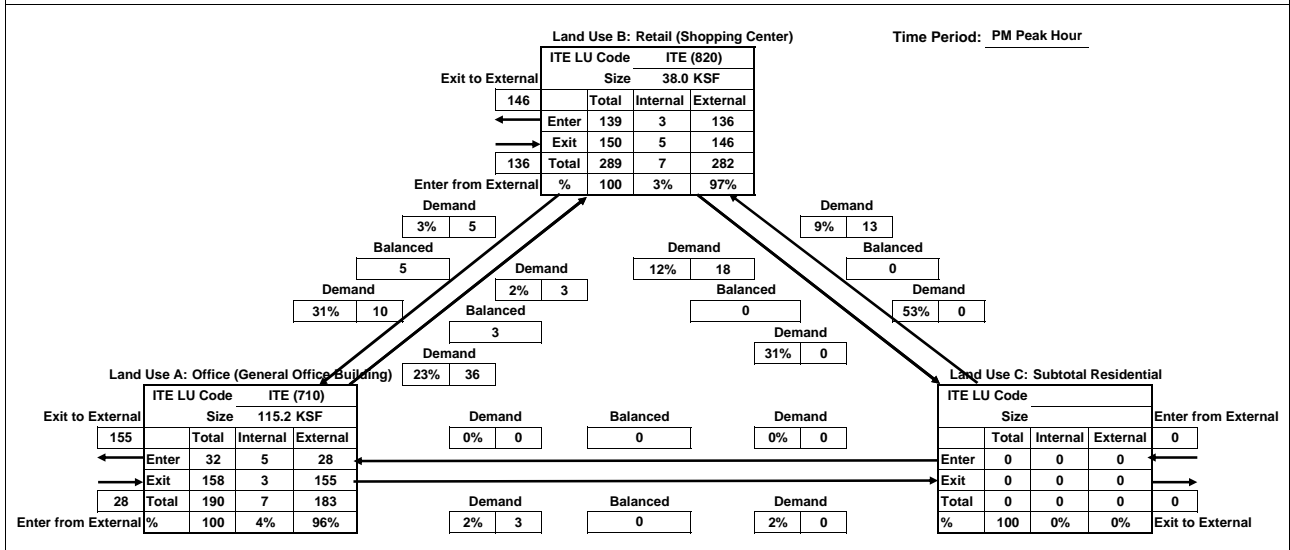
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	168	46	0	214	
Exit	22	29	0	51	
Total	190	75	0	265	INTERNAL CAPTURE
Single-Use Trip	192	77	0	269	1%



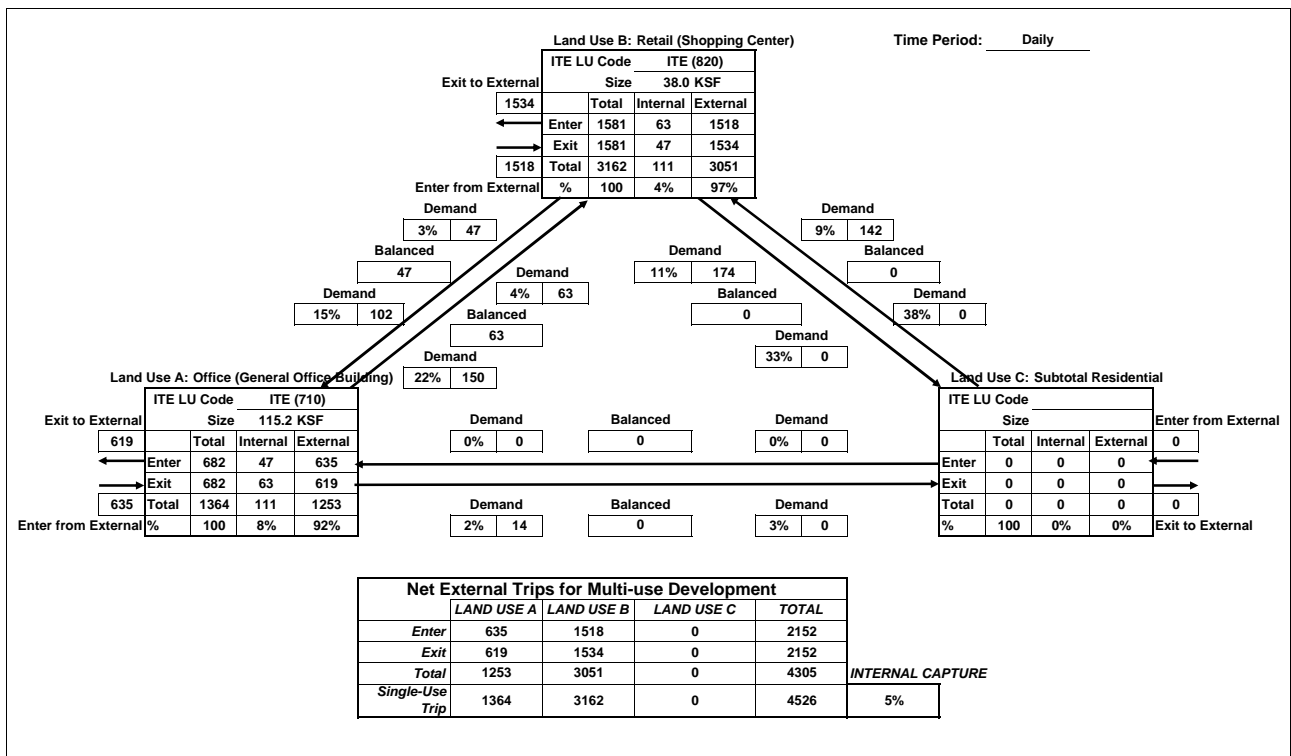
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	28	136	0	164	
Exit	155	146	0	301	
Total	183	282	0	464	INTERNAL CAPTURE
Single-Use Trip	190	289	0	479	3%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

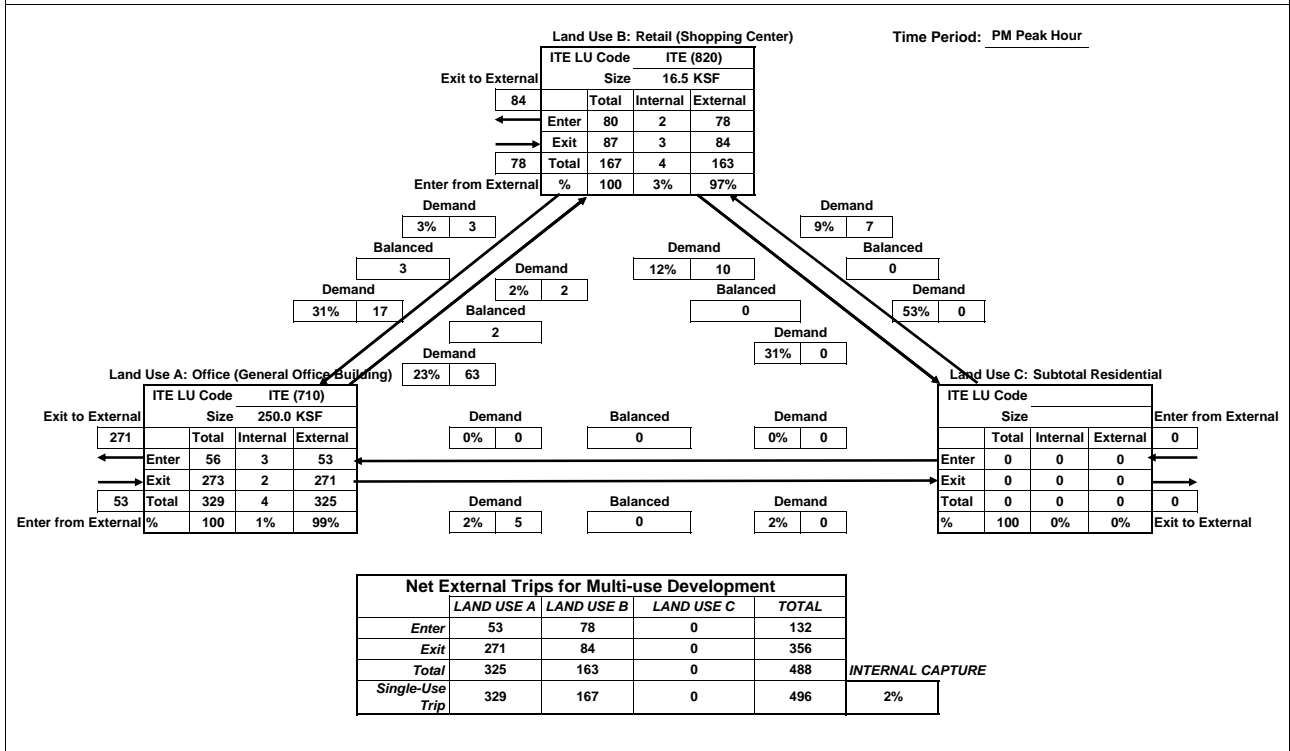
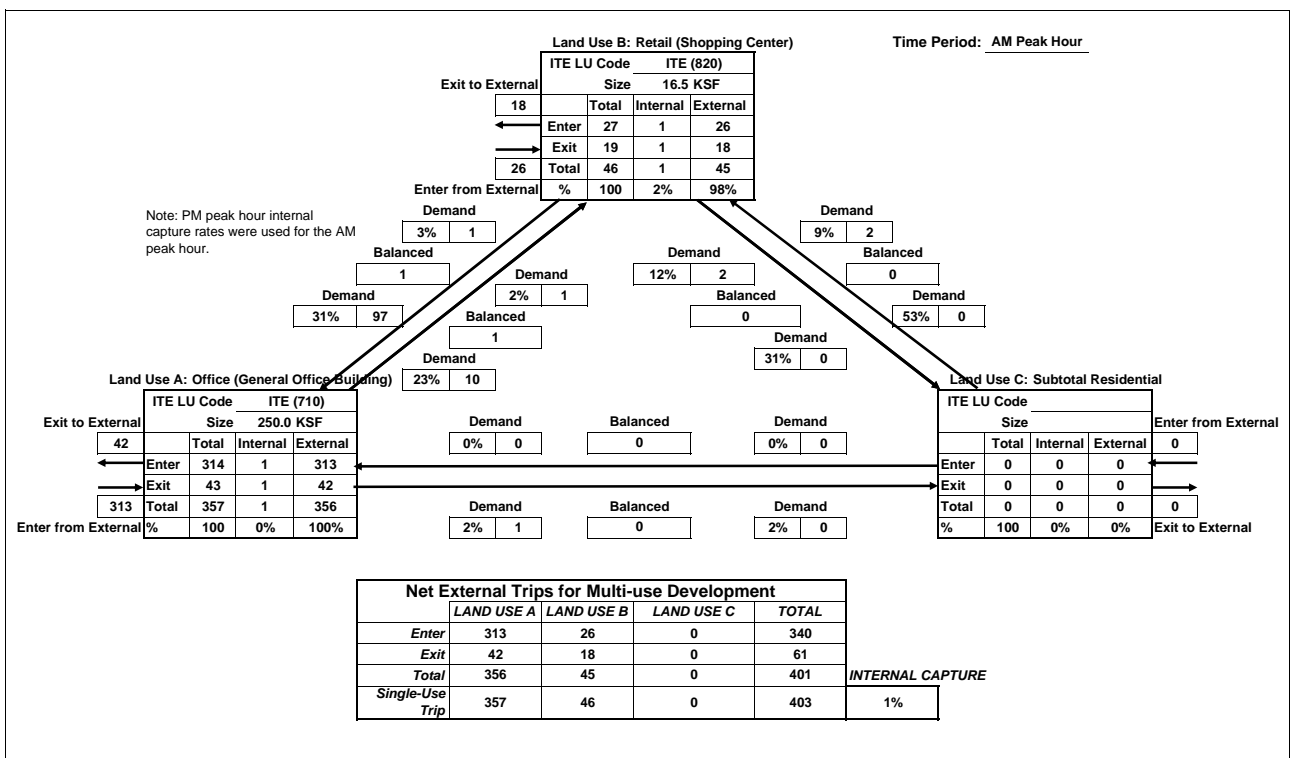


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



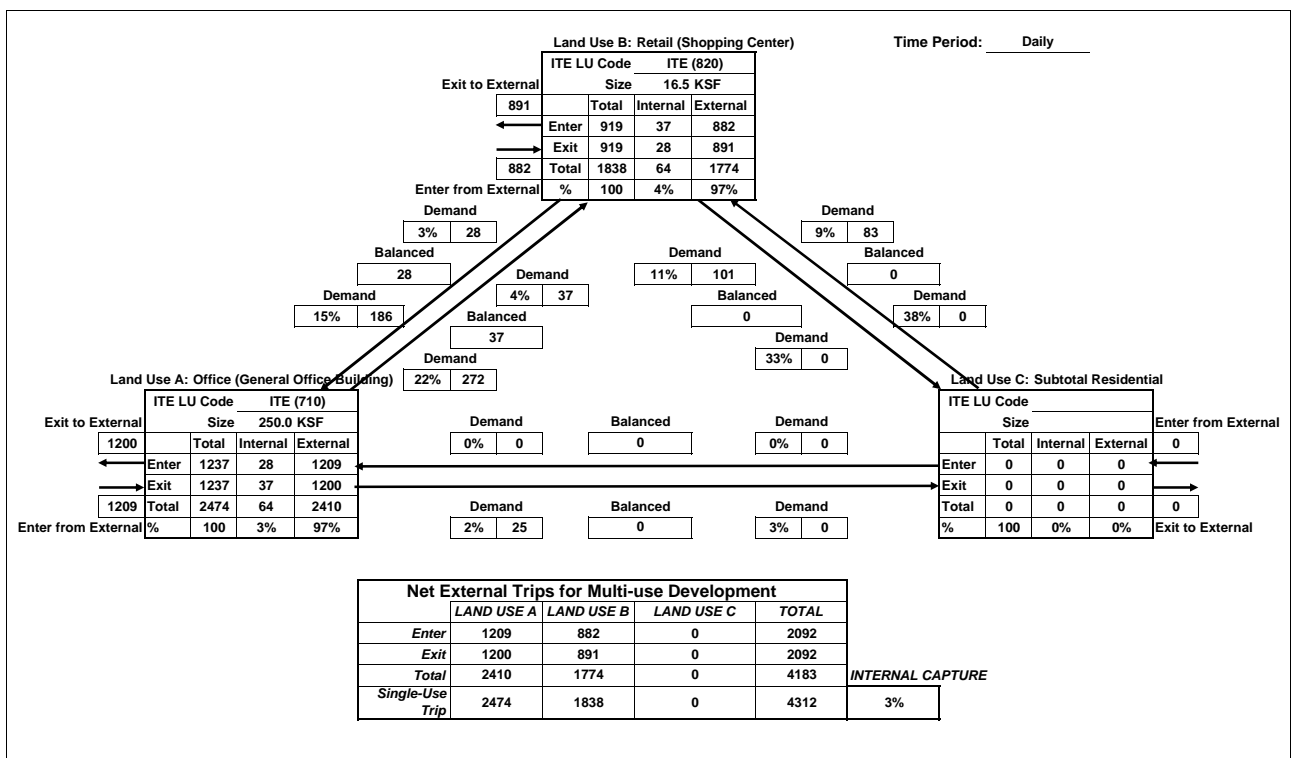
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

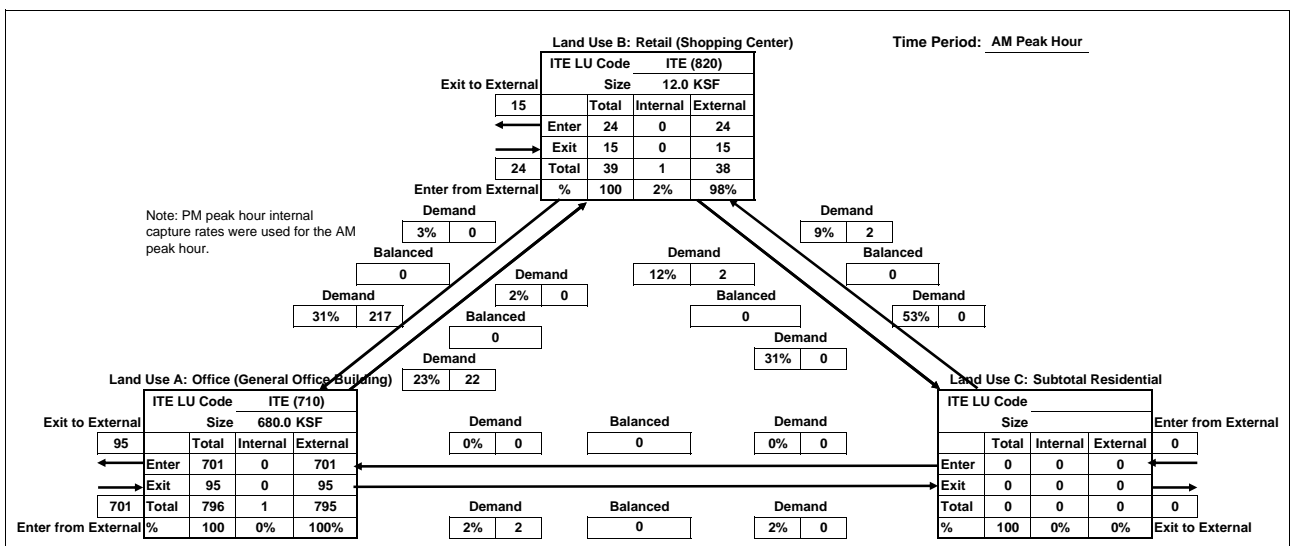


Analyst: Dowling

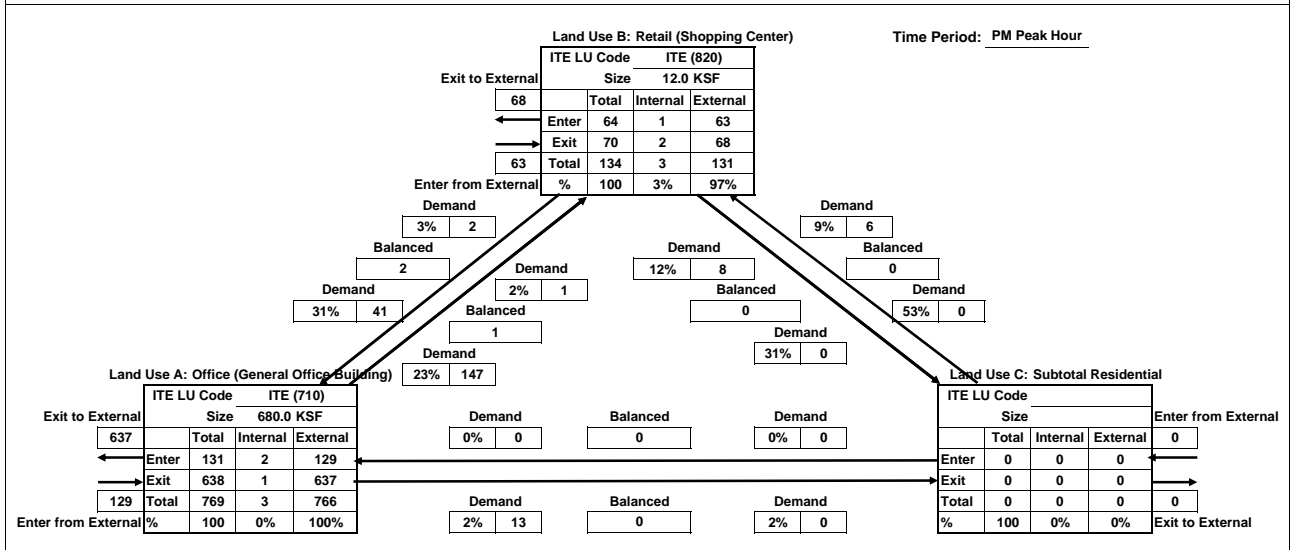
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	701	24	0	724	
Exit	95	15	0	109	
Total	795	38	0	833	INTERNAL CAPTURE
Single-Use Trip	796	39	0	835	0%



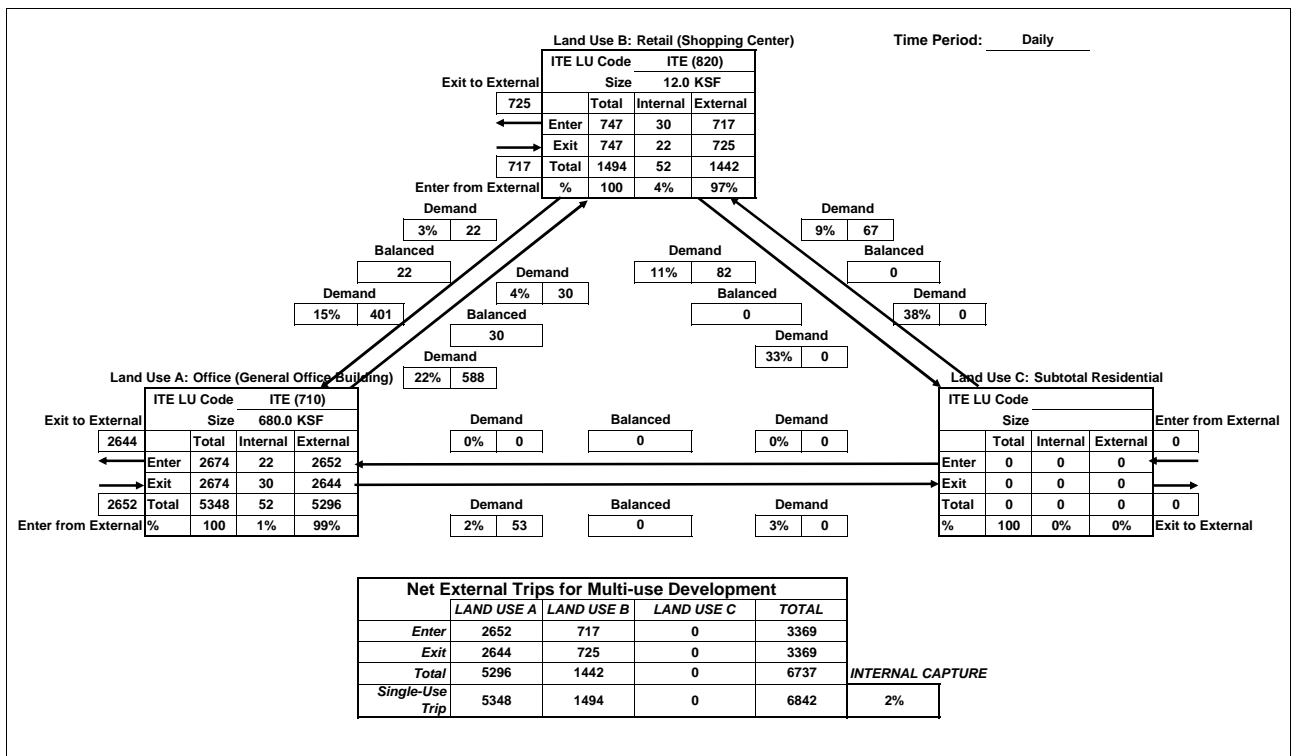
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	129	63	0	192	
Exit	637	68	0	705	
Total	766	131	0	896	INTERNAL CAPTURE
Single-Use Trip	769	134	0	903	1%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

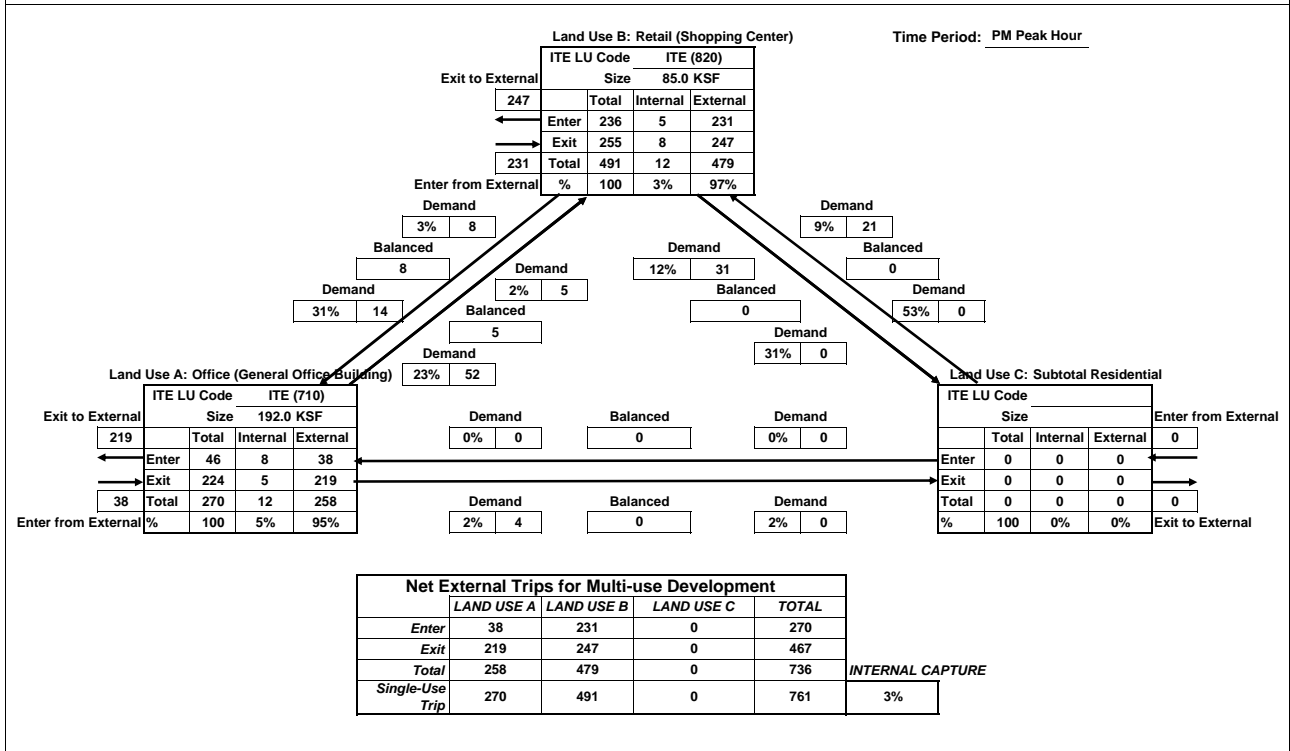
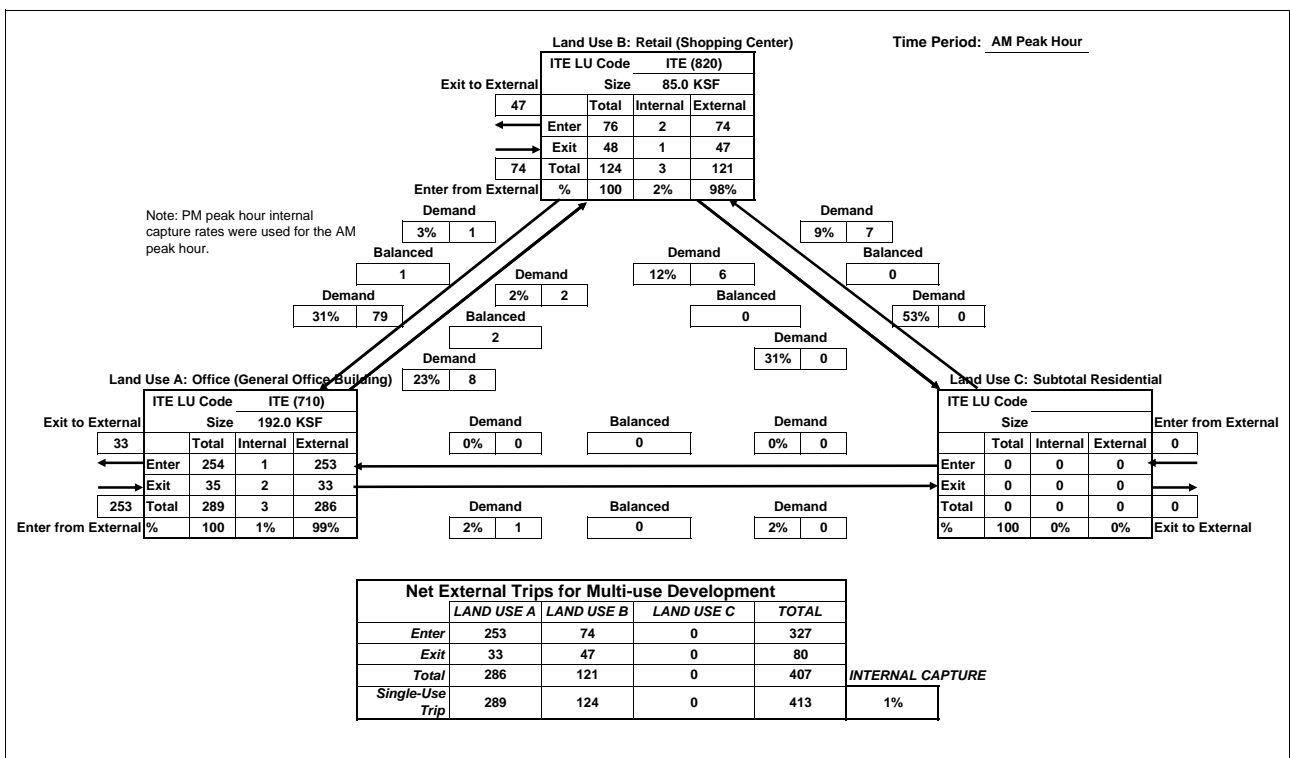


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

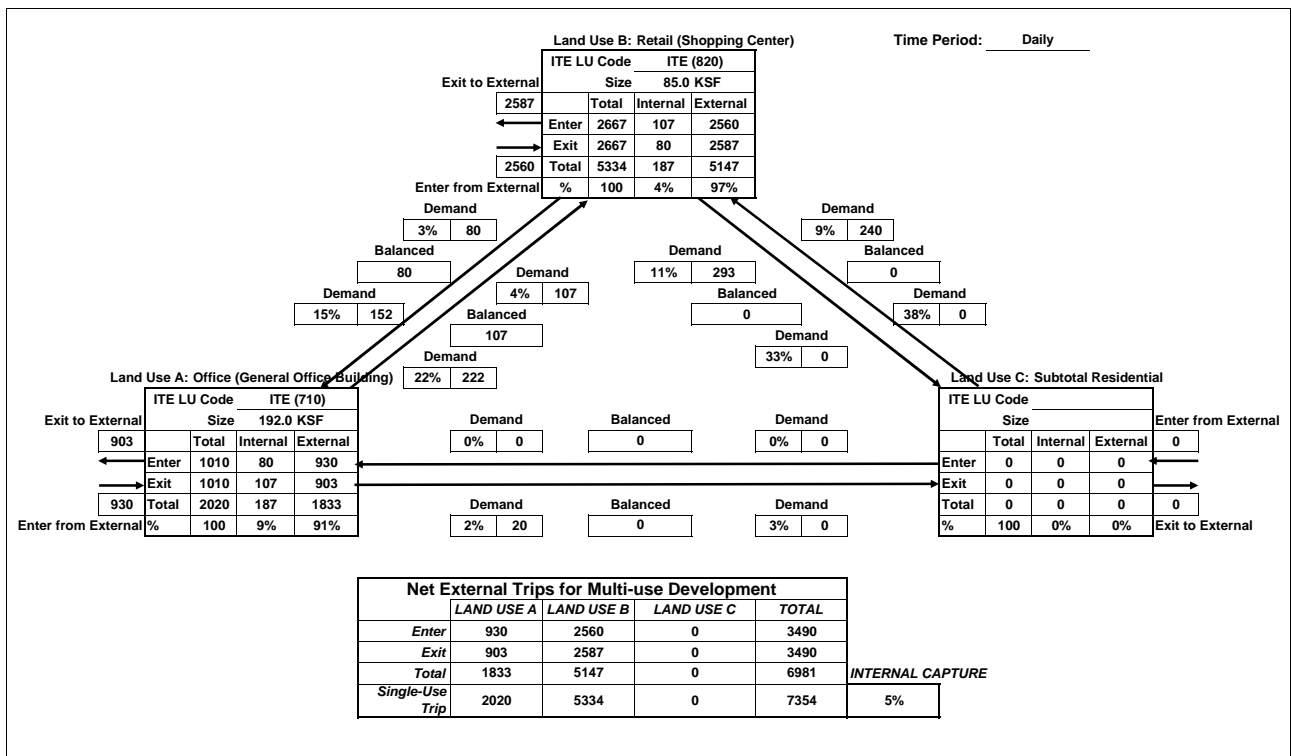


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

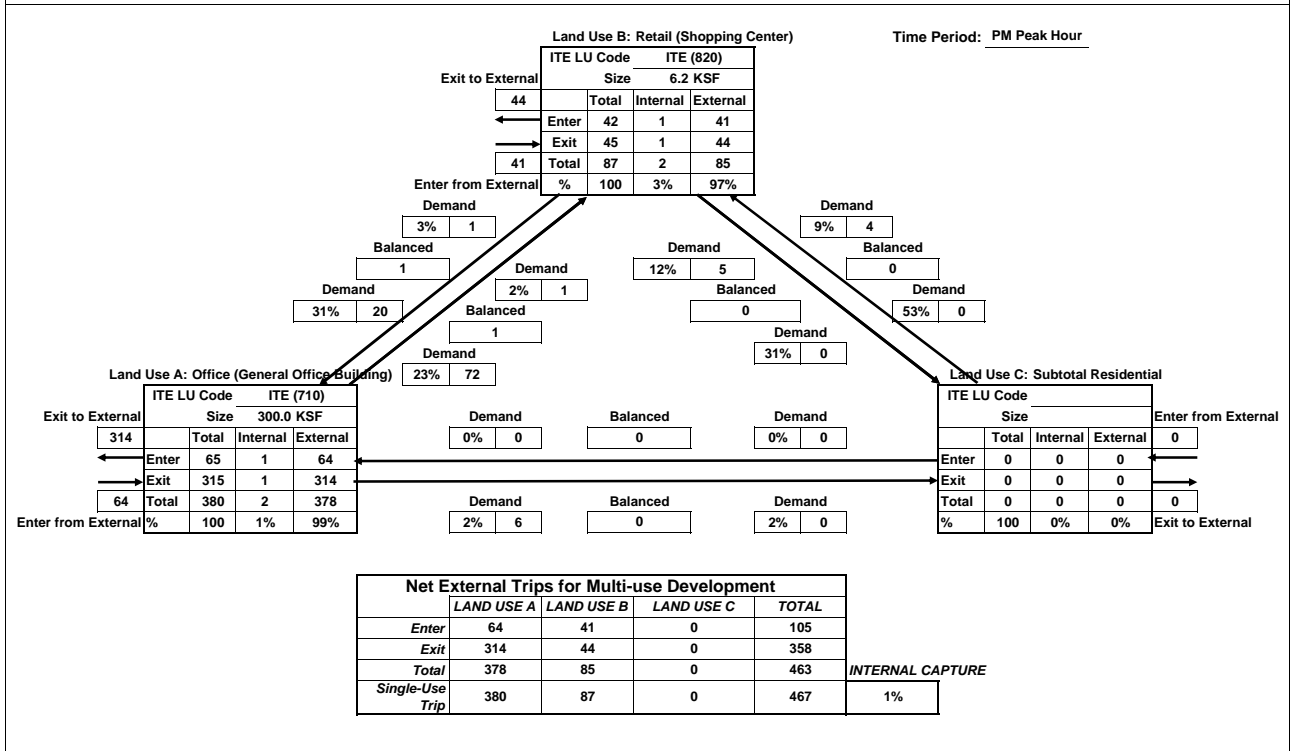
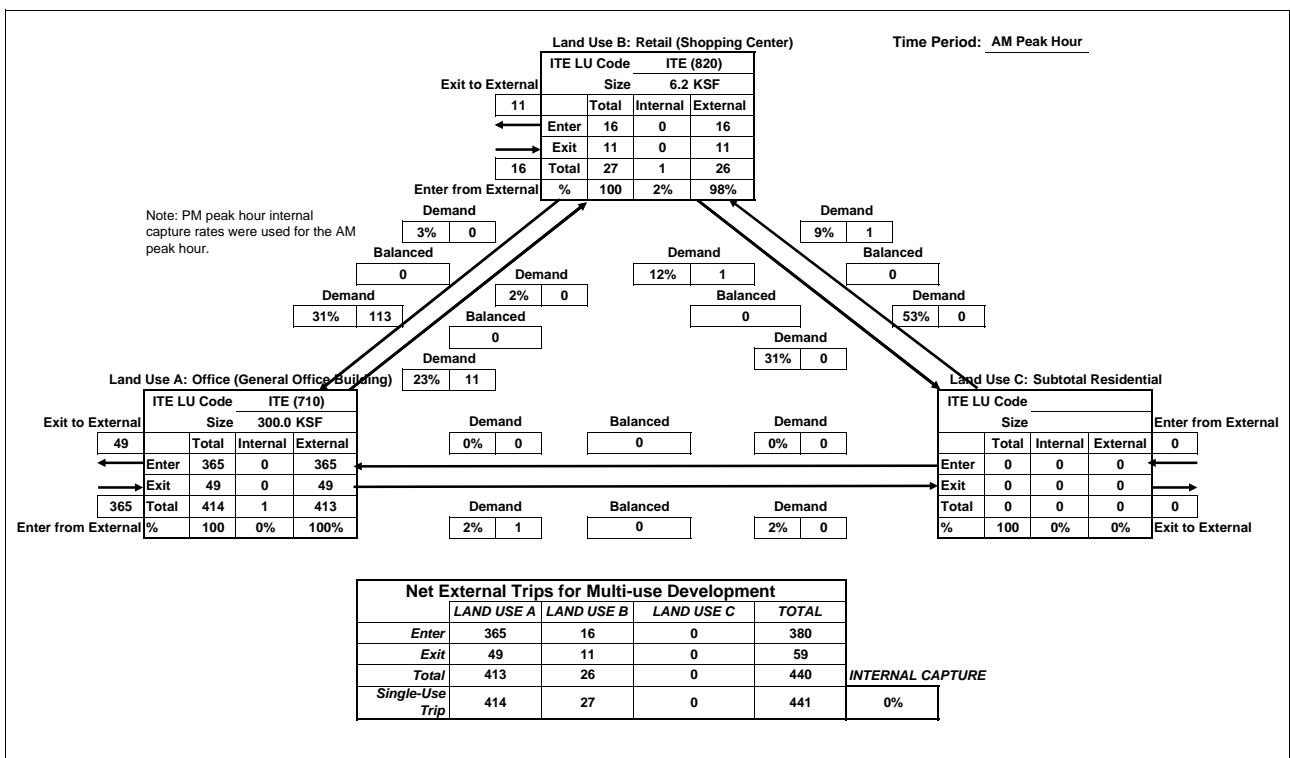


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

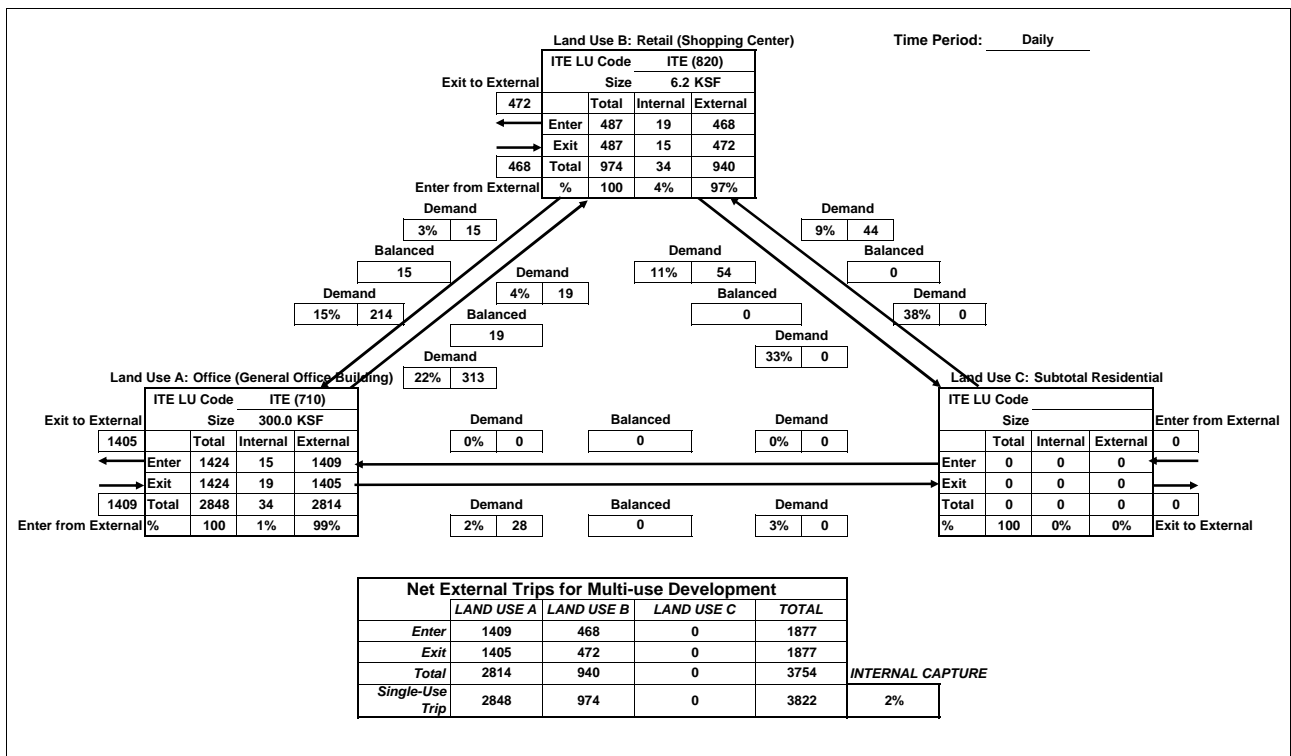


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

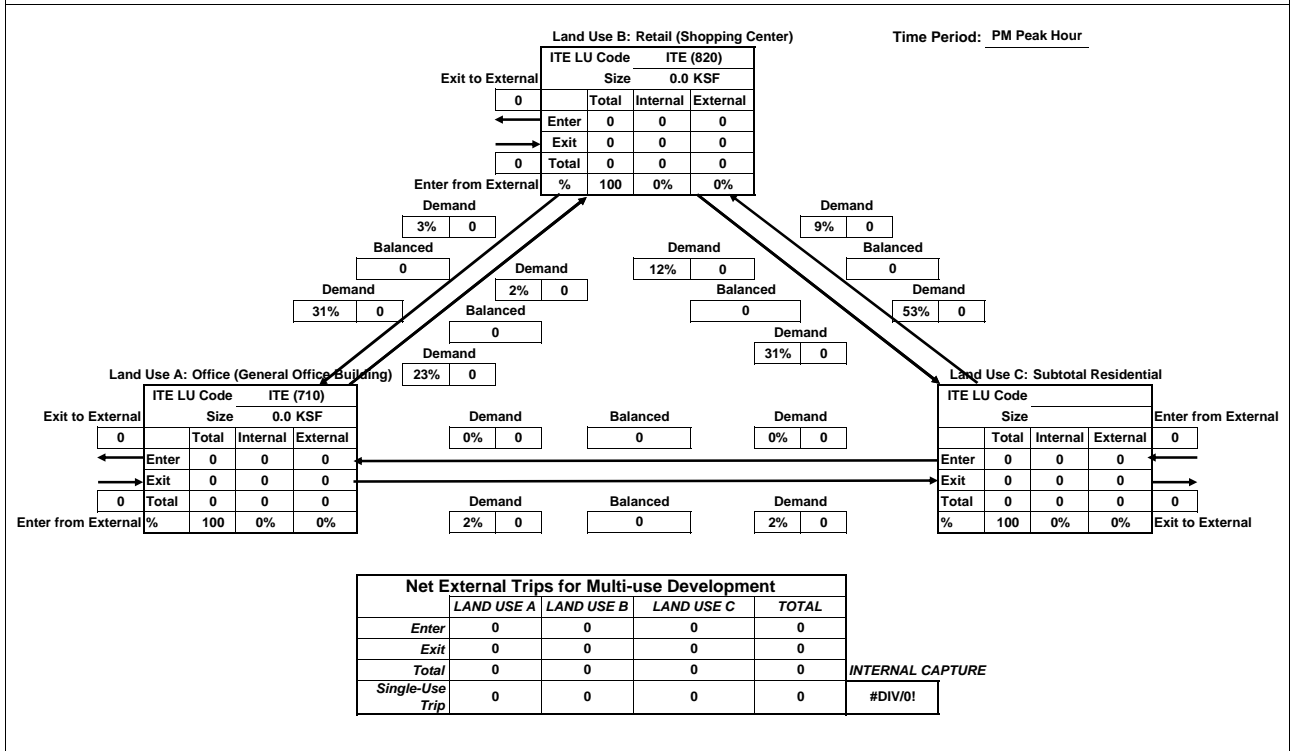
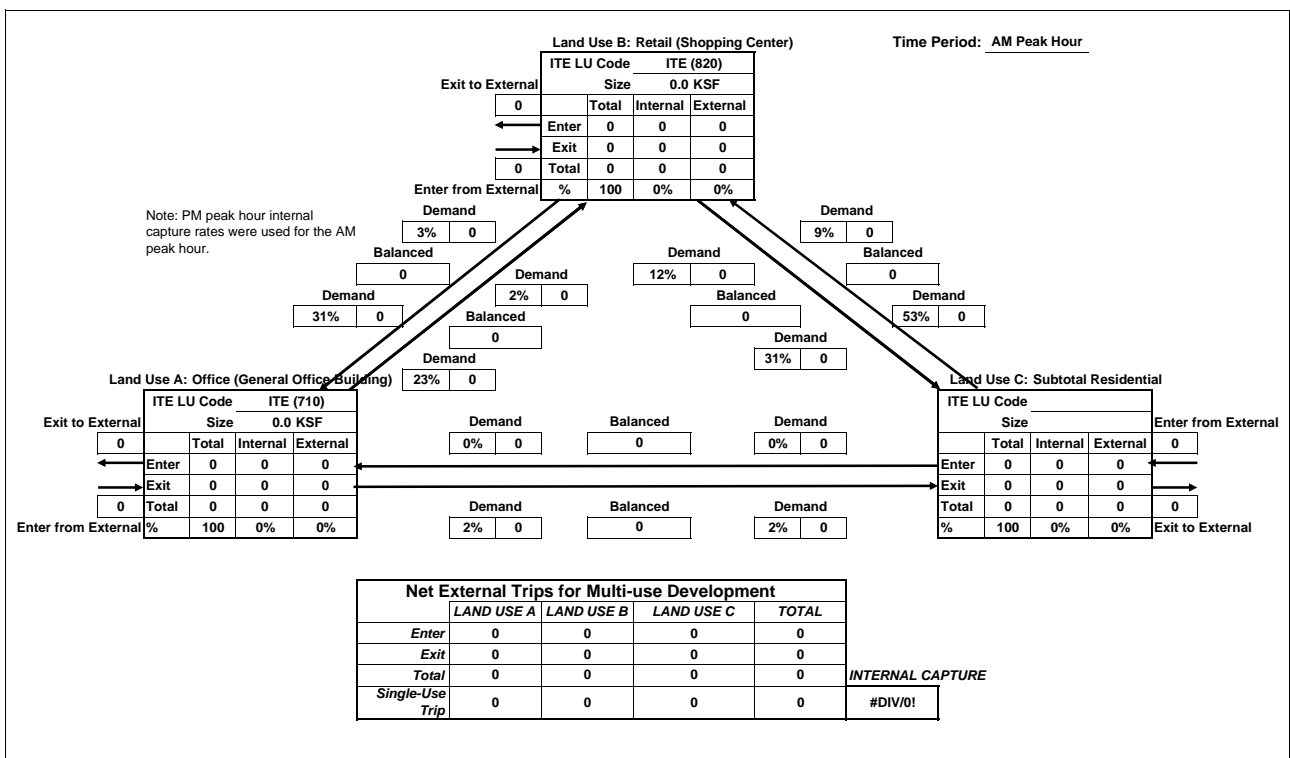


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



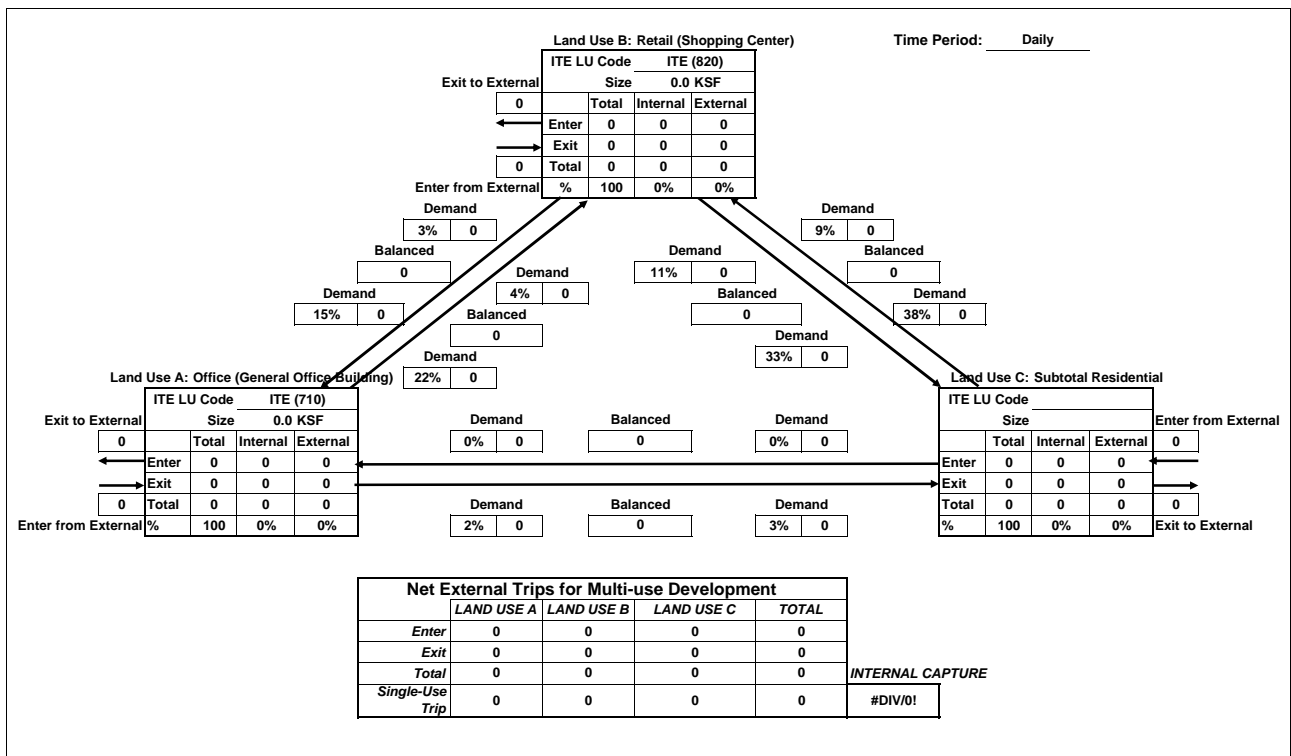
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

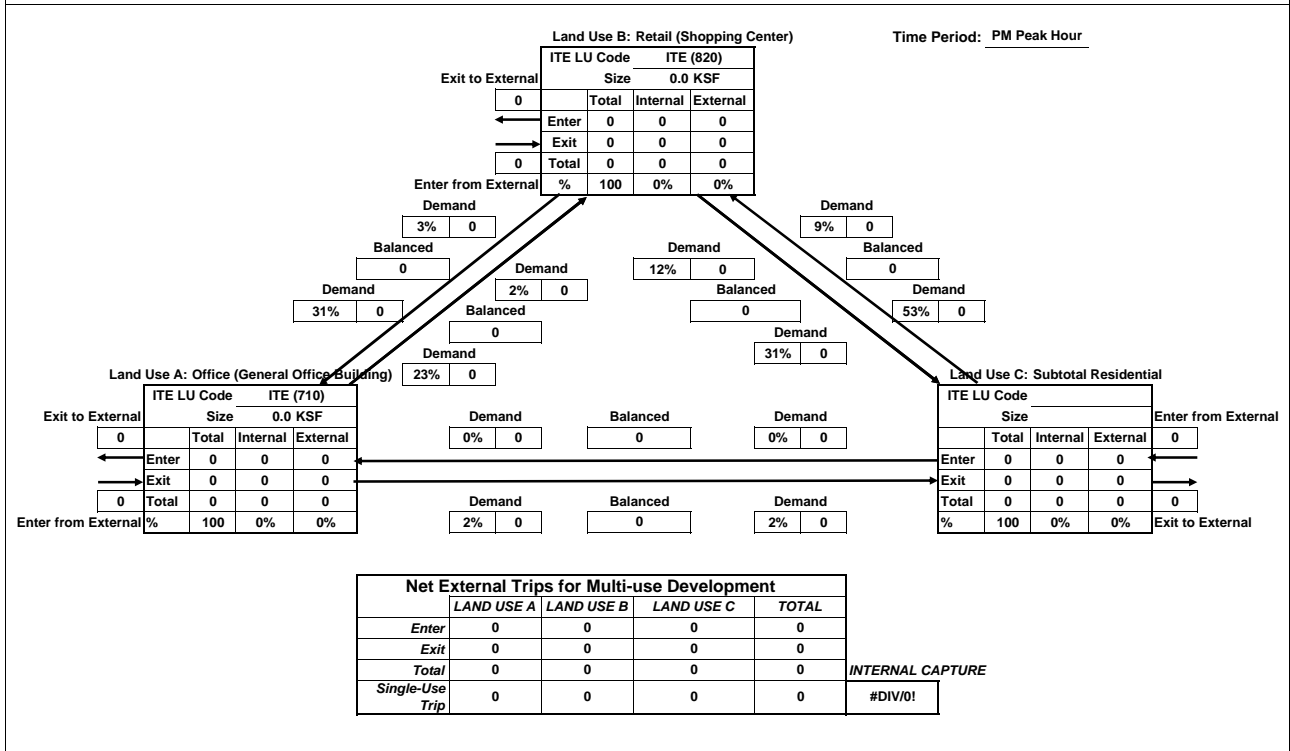
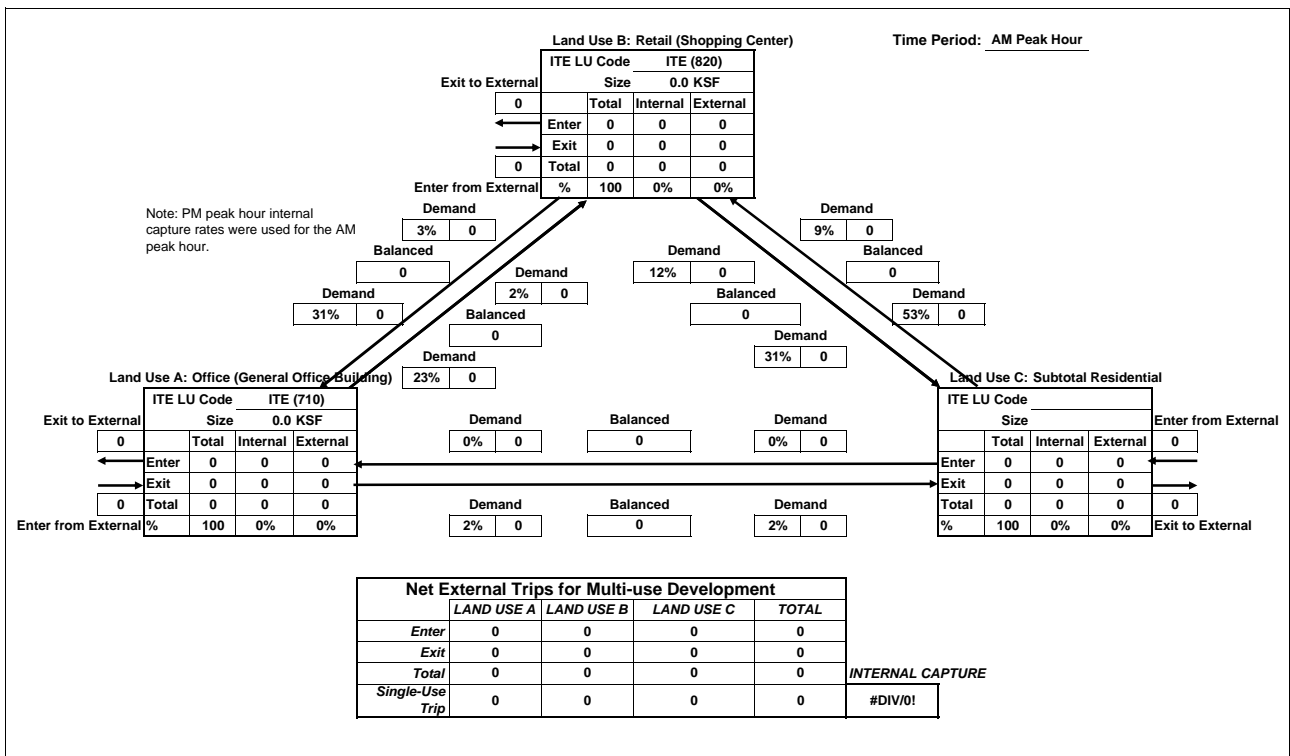


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



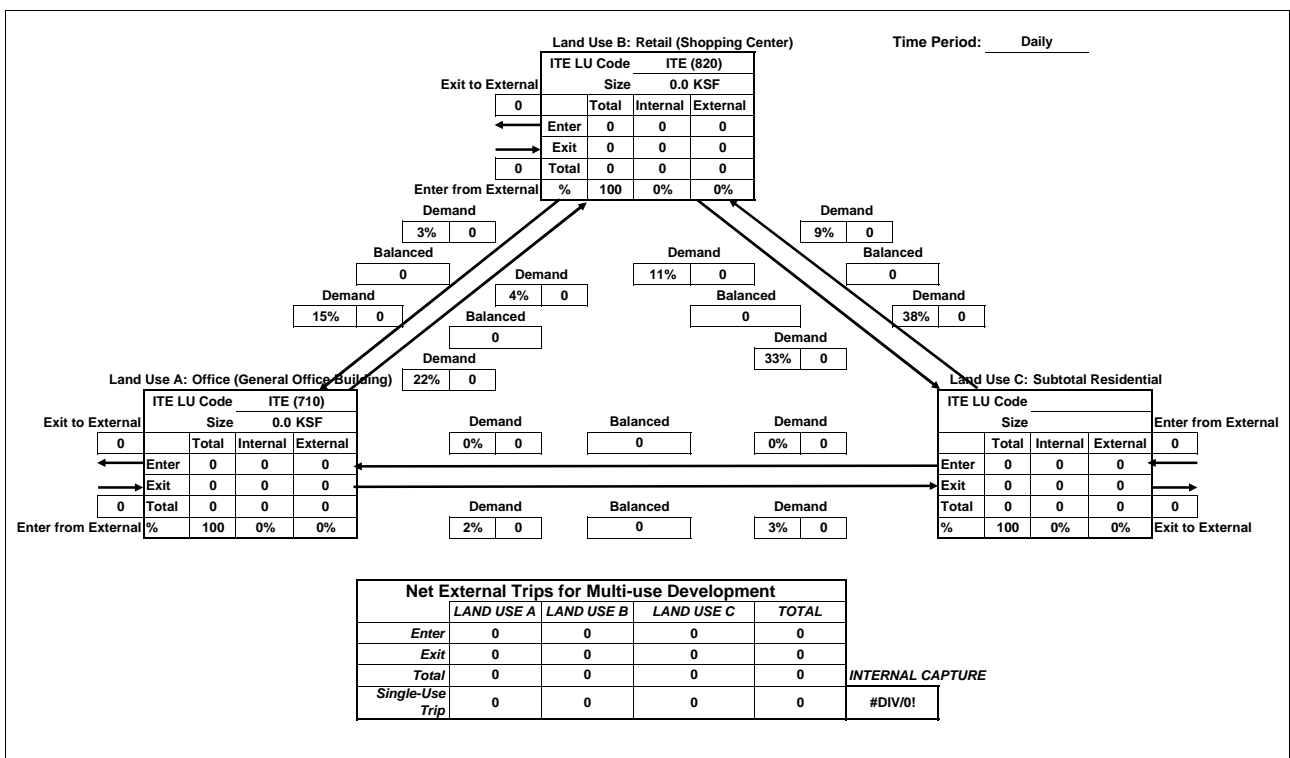
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

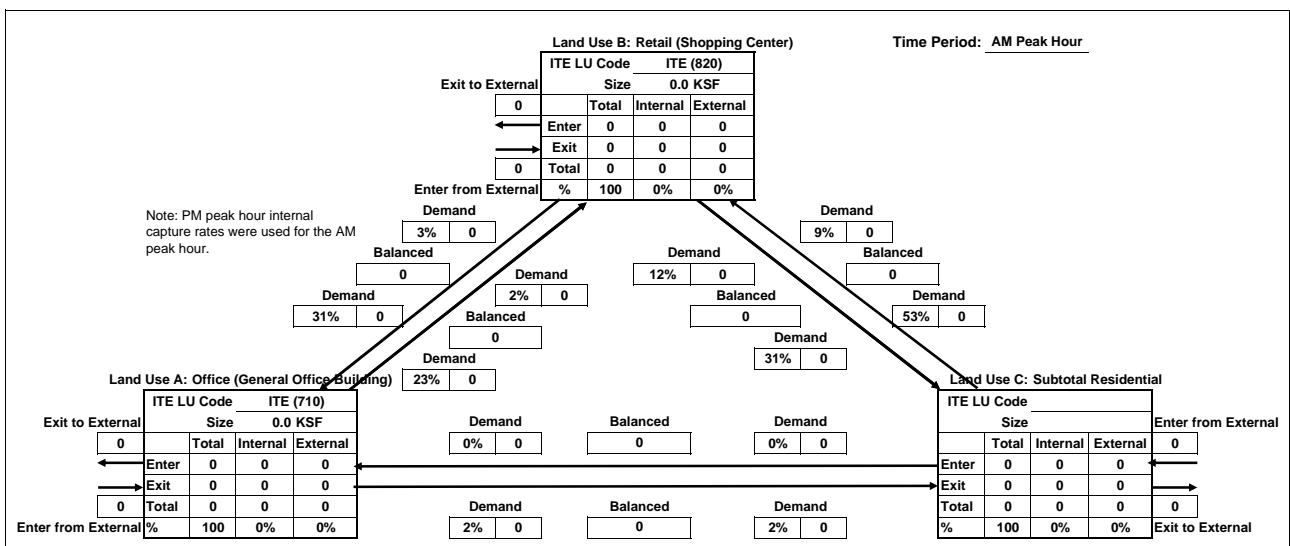


Analyst: Dowling

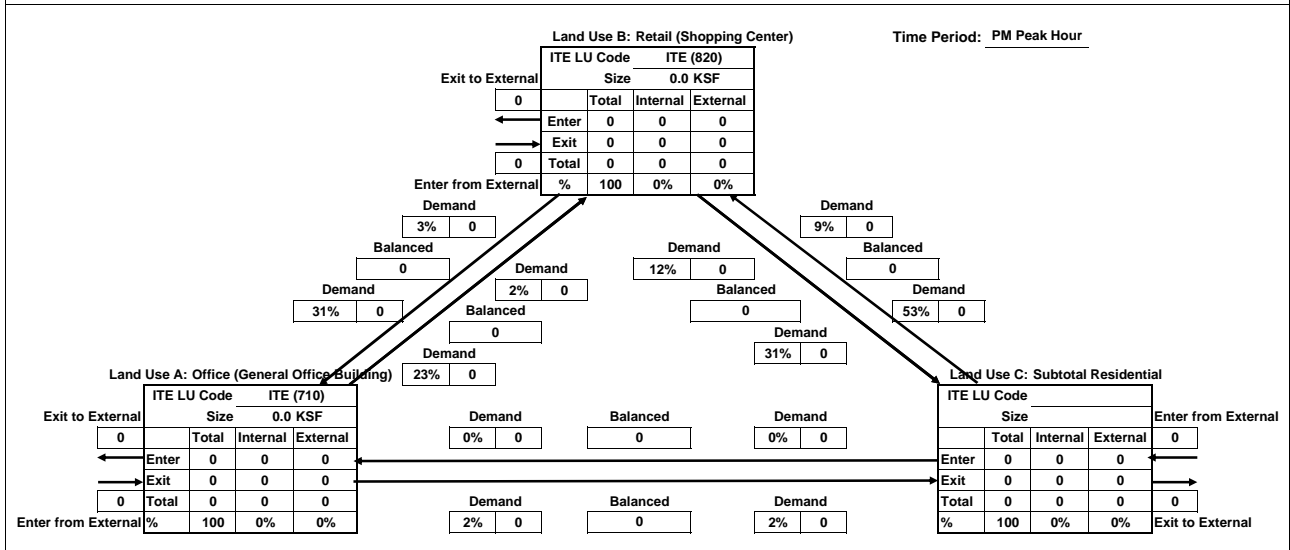
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	0	0	
Exit	0	0	0	0	
Total	0	0	0	0	INTERNAL CAPTURE
Single-Use Trip	0	0	0	0	#DIV/0!



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	0	0	
Exit	0	0	0	0	
Total	0	0	0	0	INTERNAL CAPTURE
Single-Use Trip	0	0	0	0	#DIV/0!

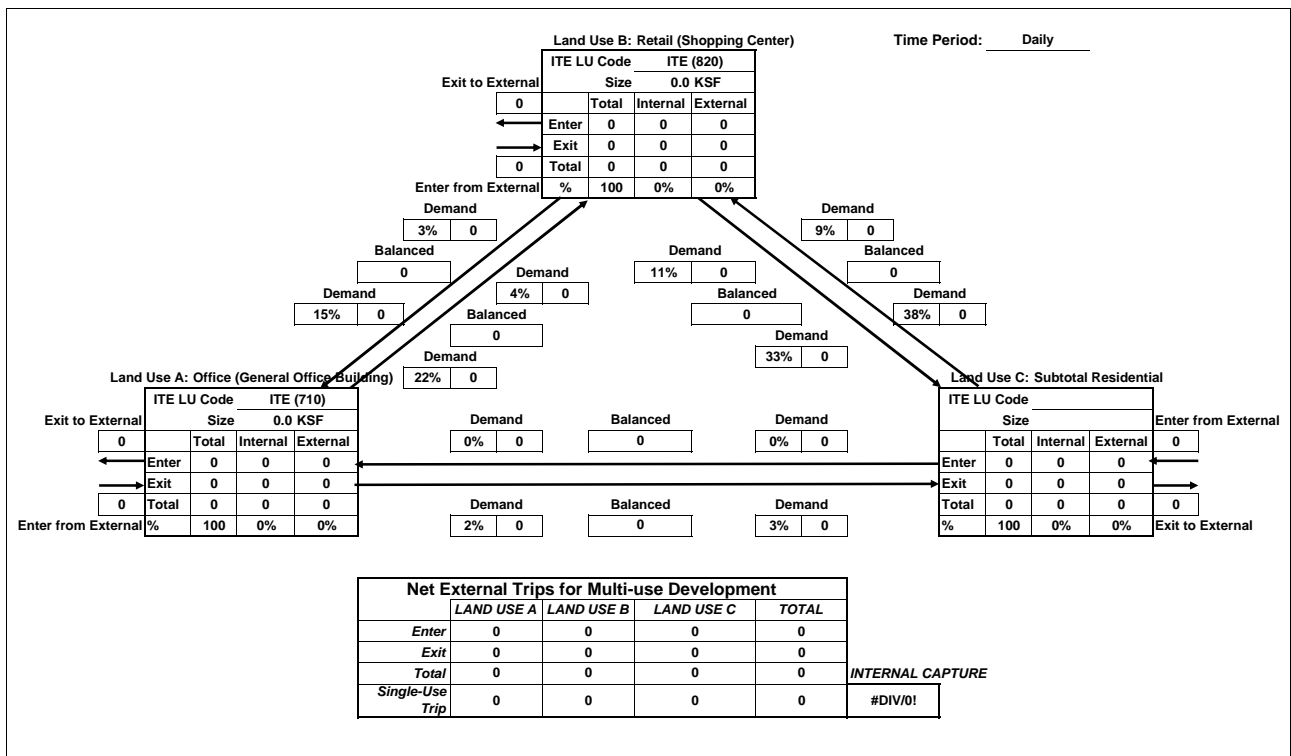
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

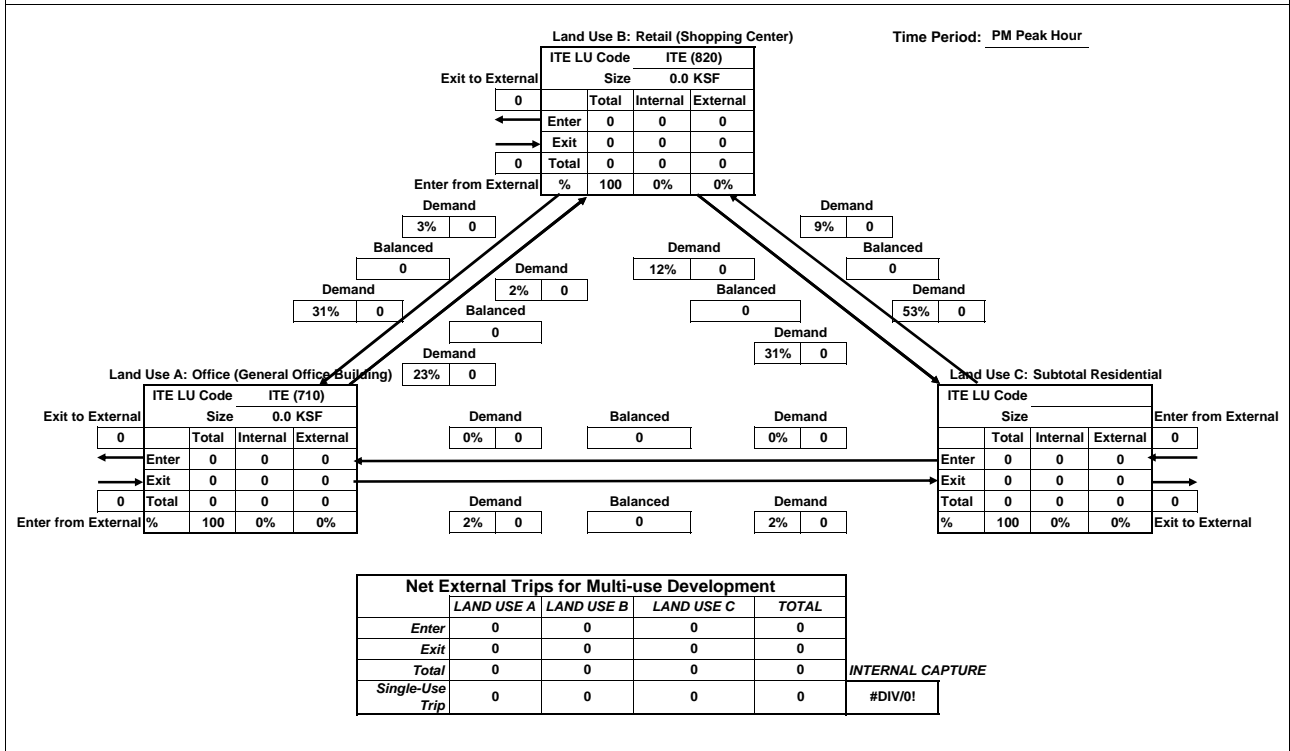
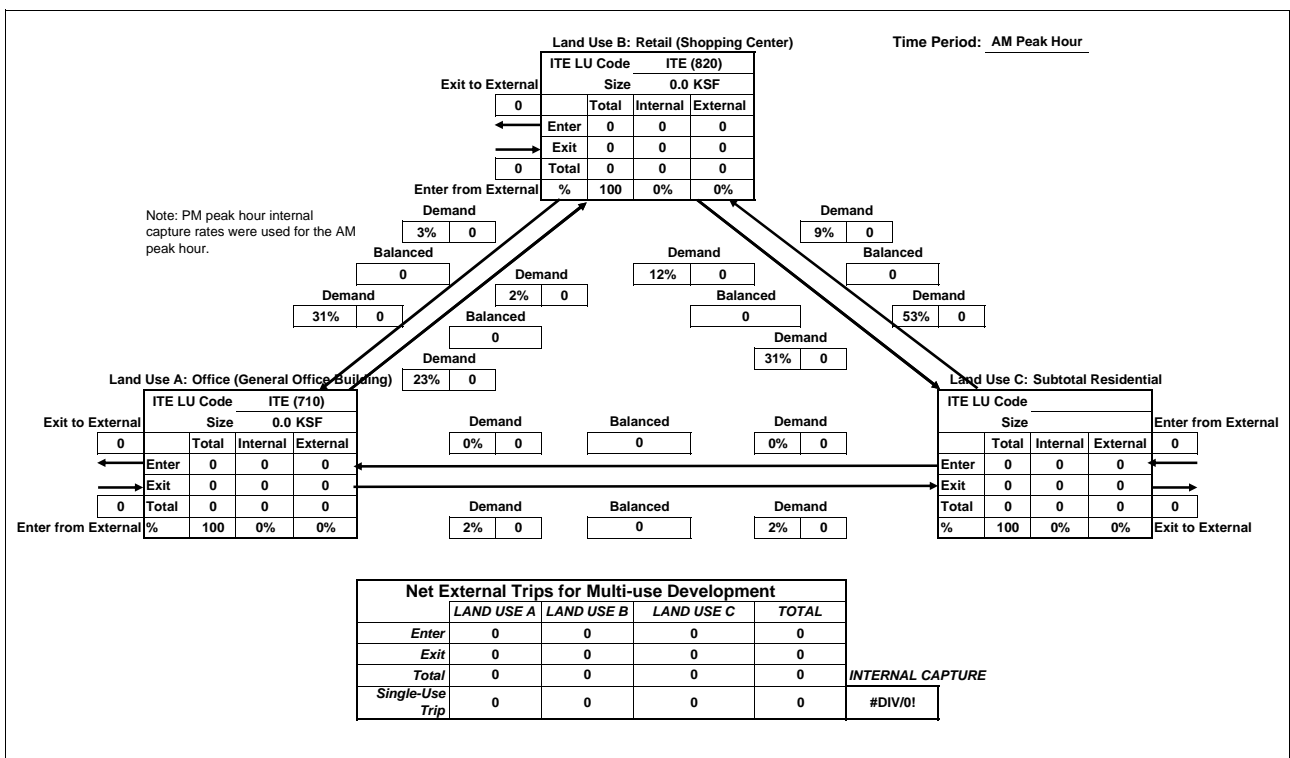


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



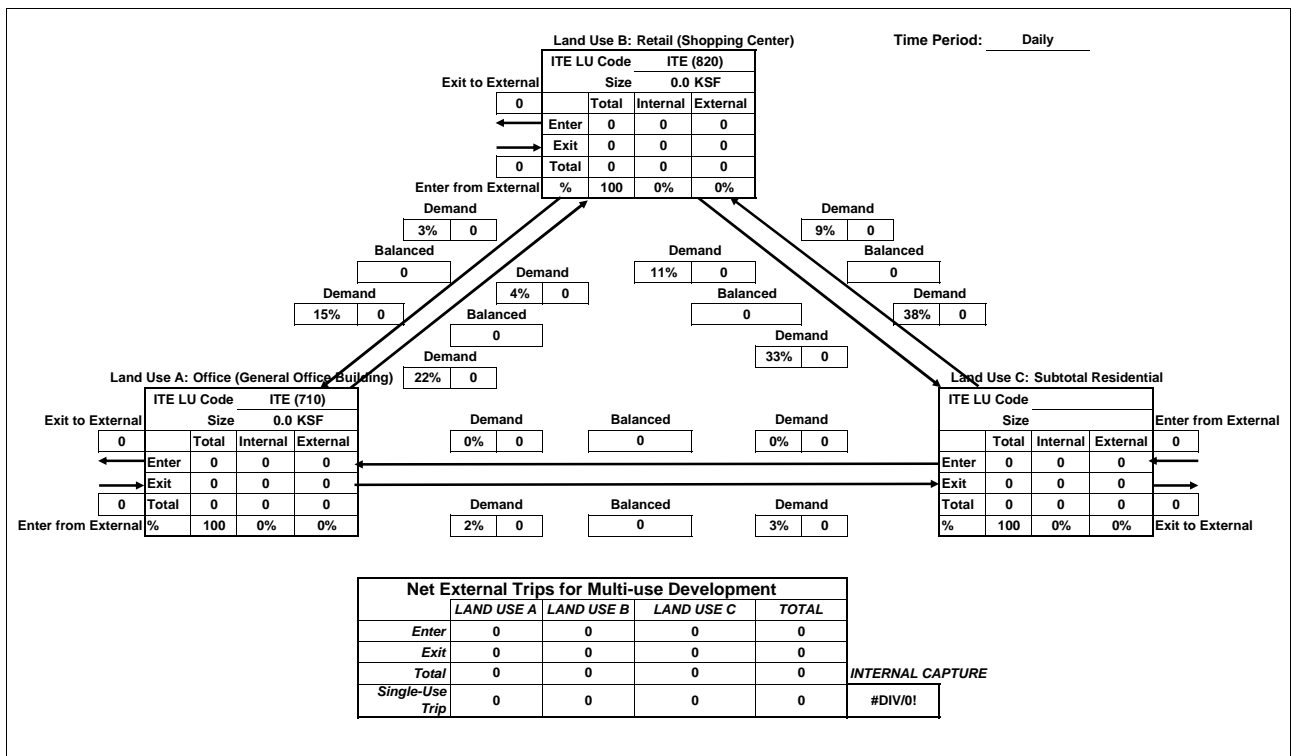
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 20: Bounded by South Park, N. 10th, Railyards, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

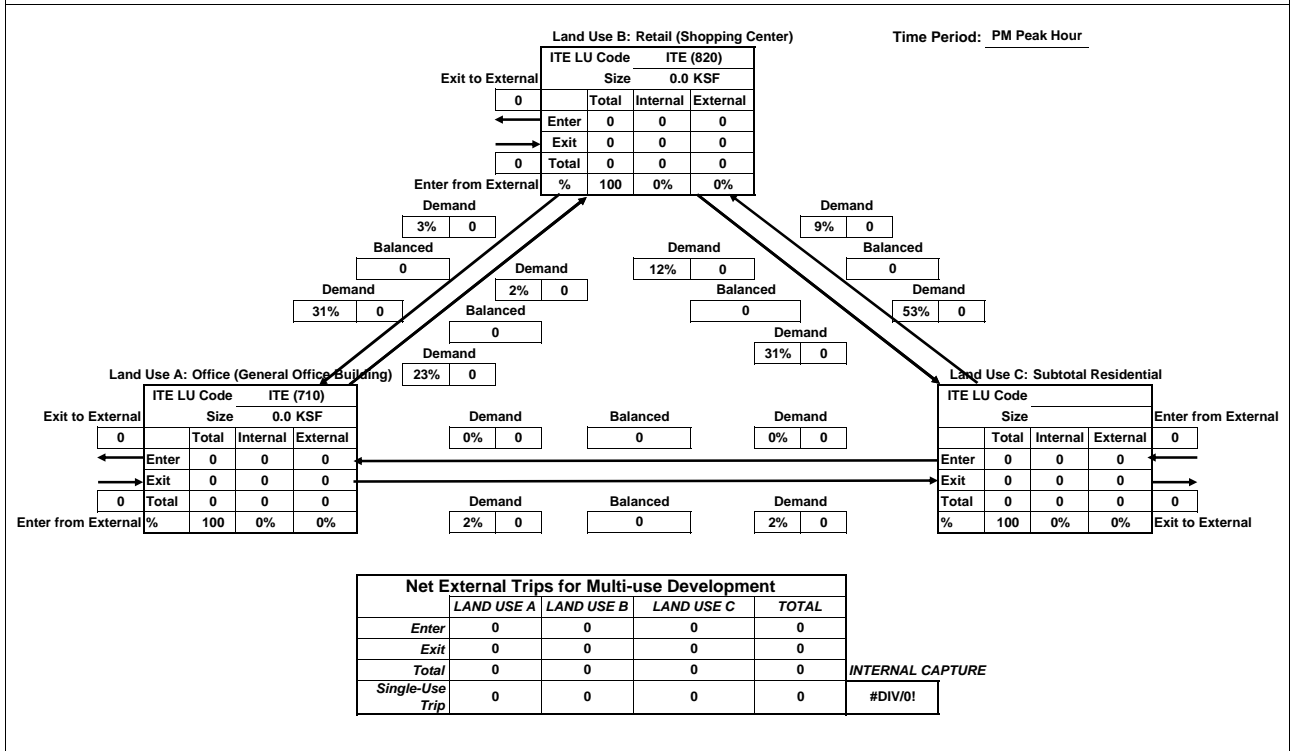
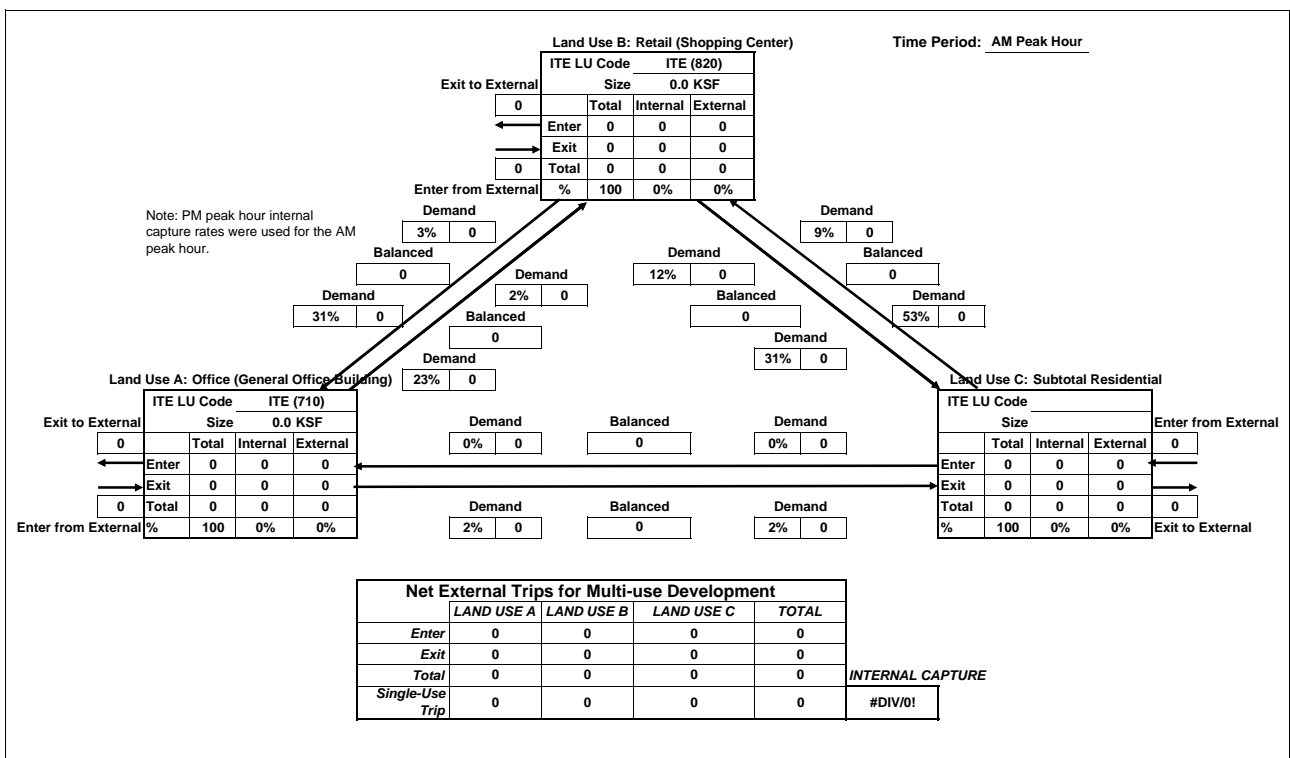


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

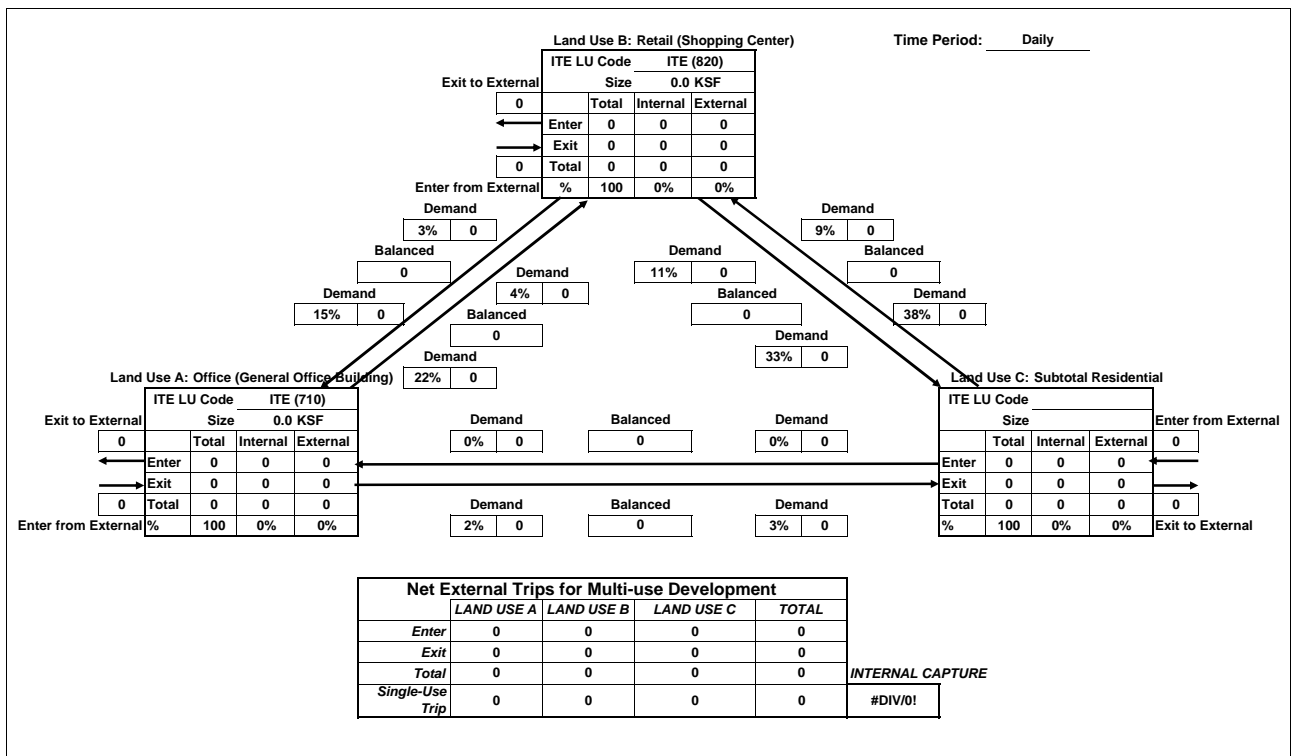


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (Baseline & 2013)

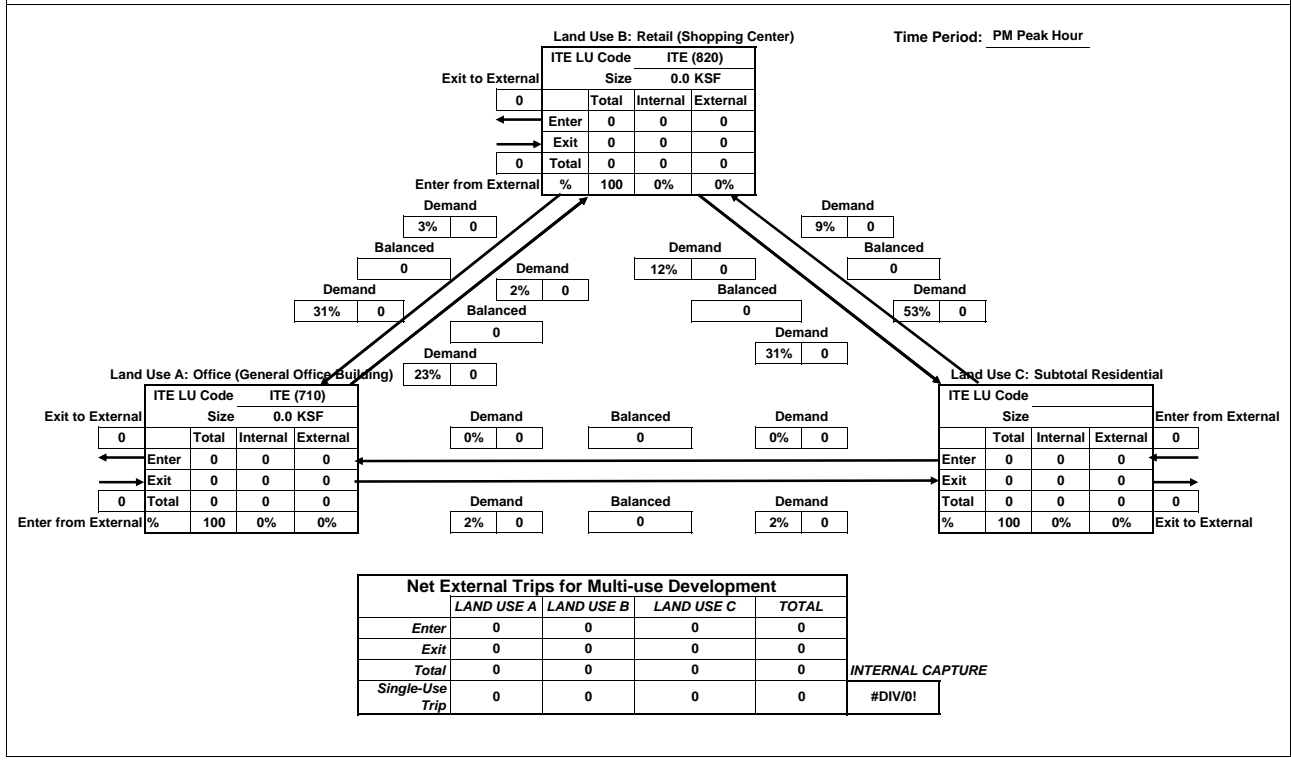
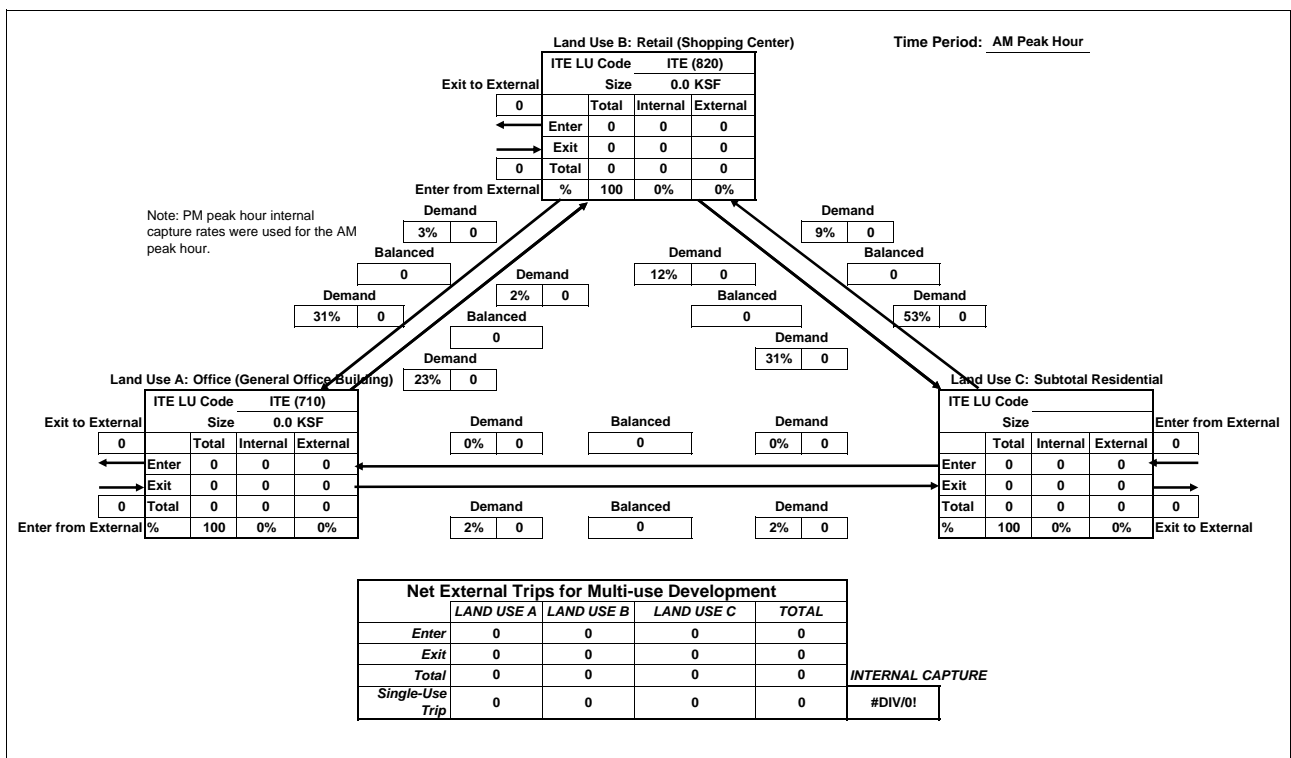
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



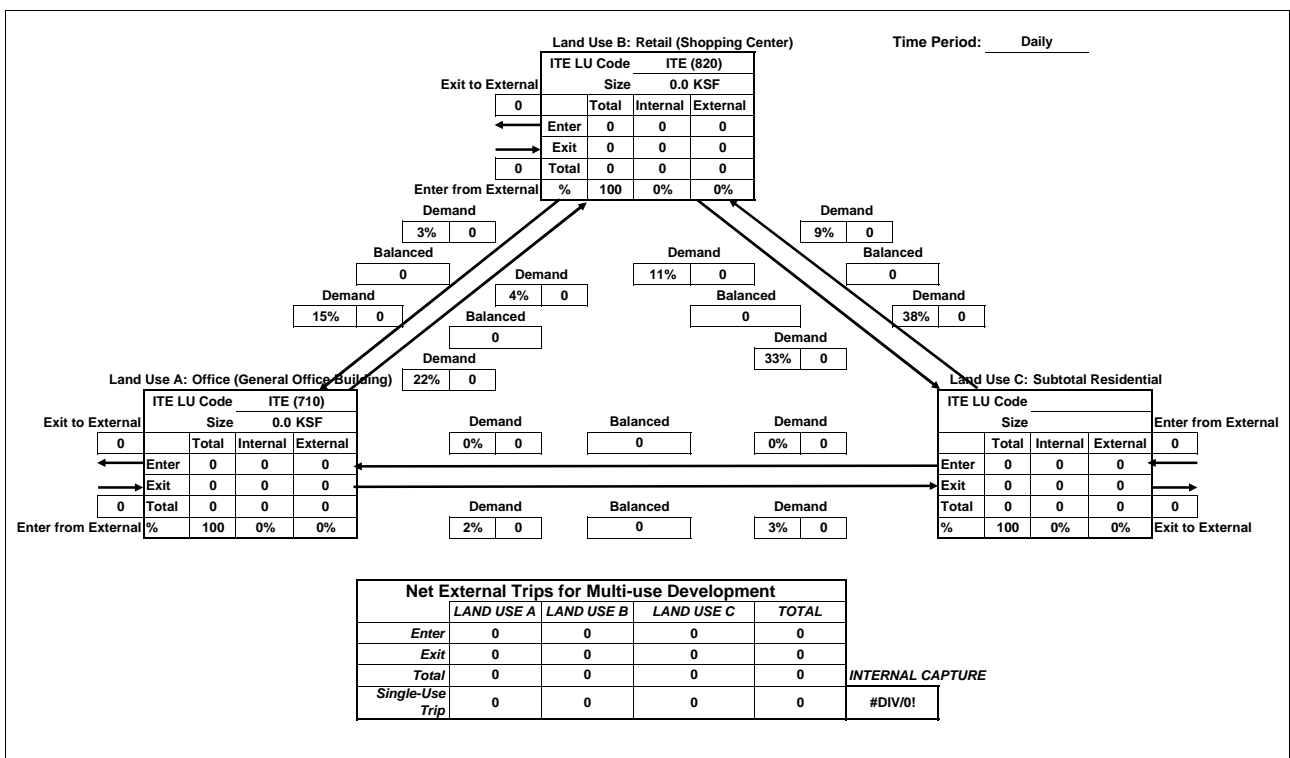
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

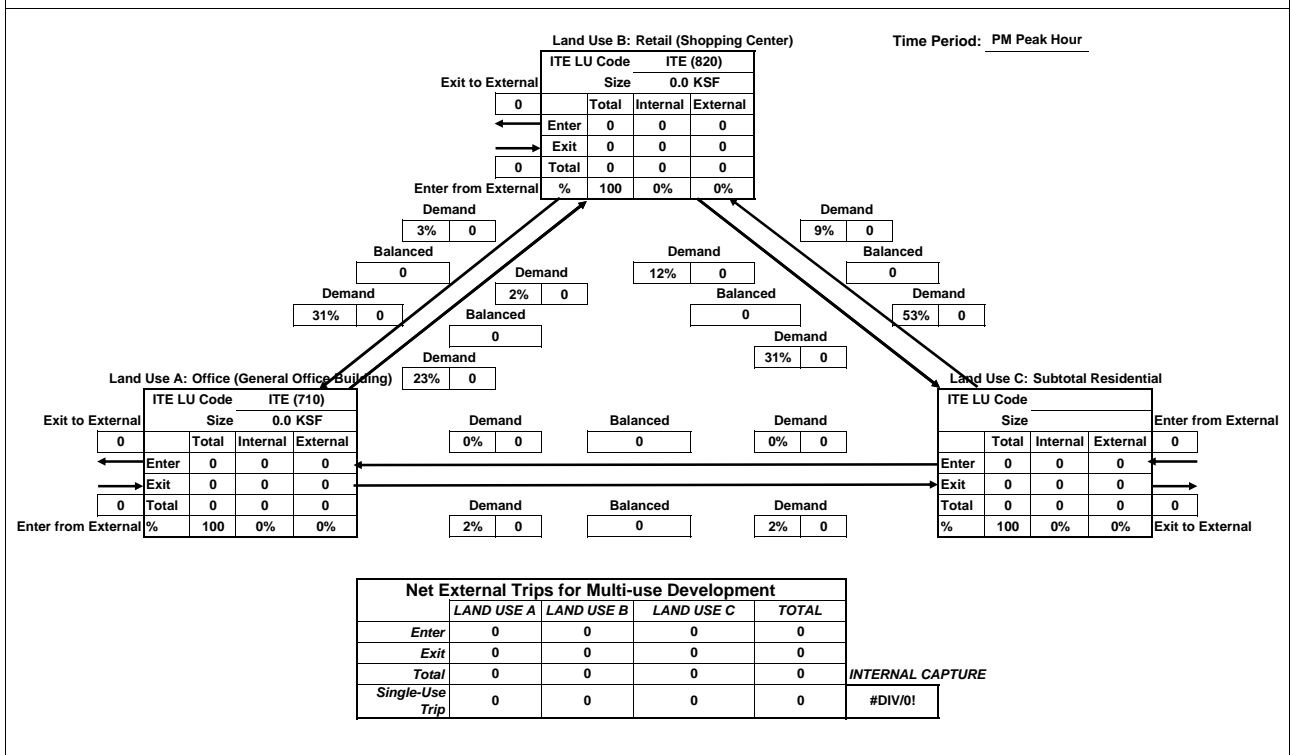
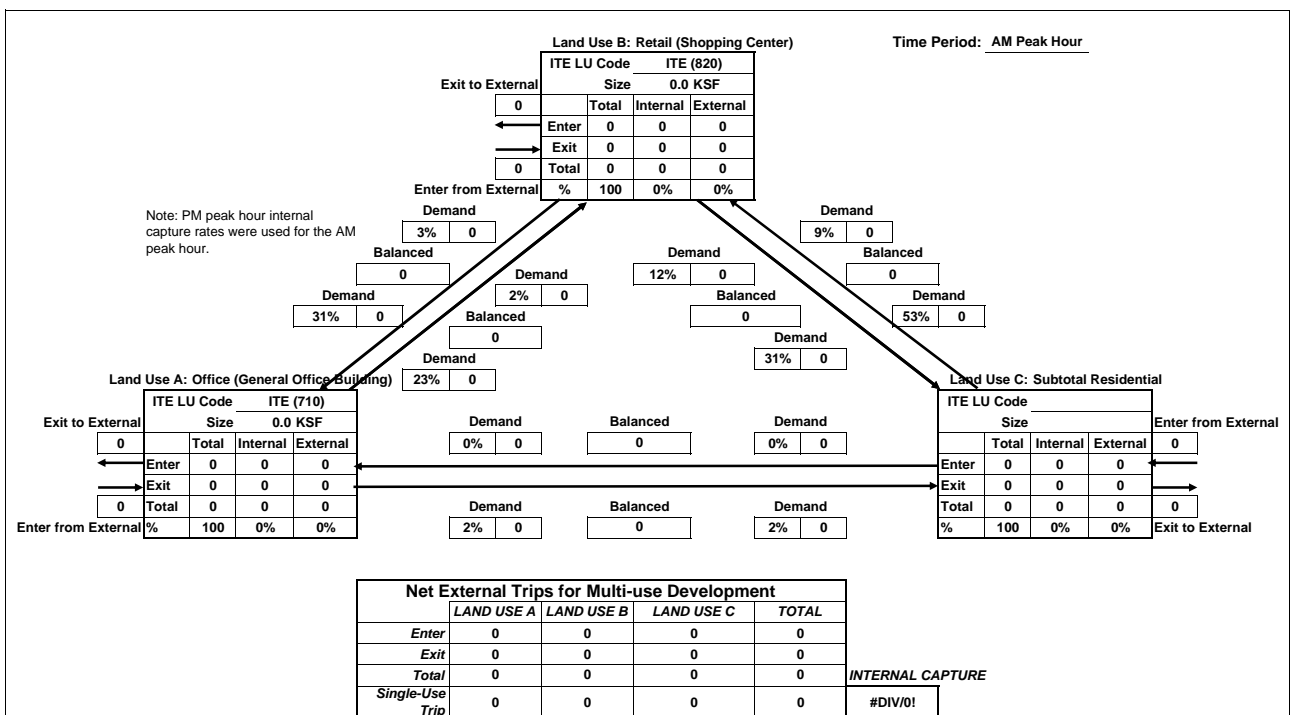


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



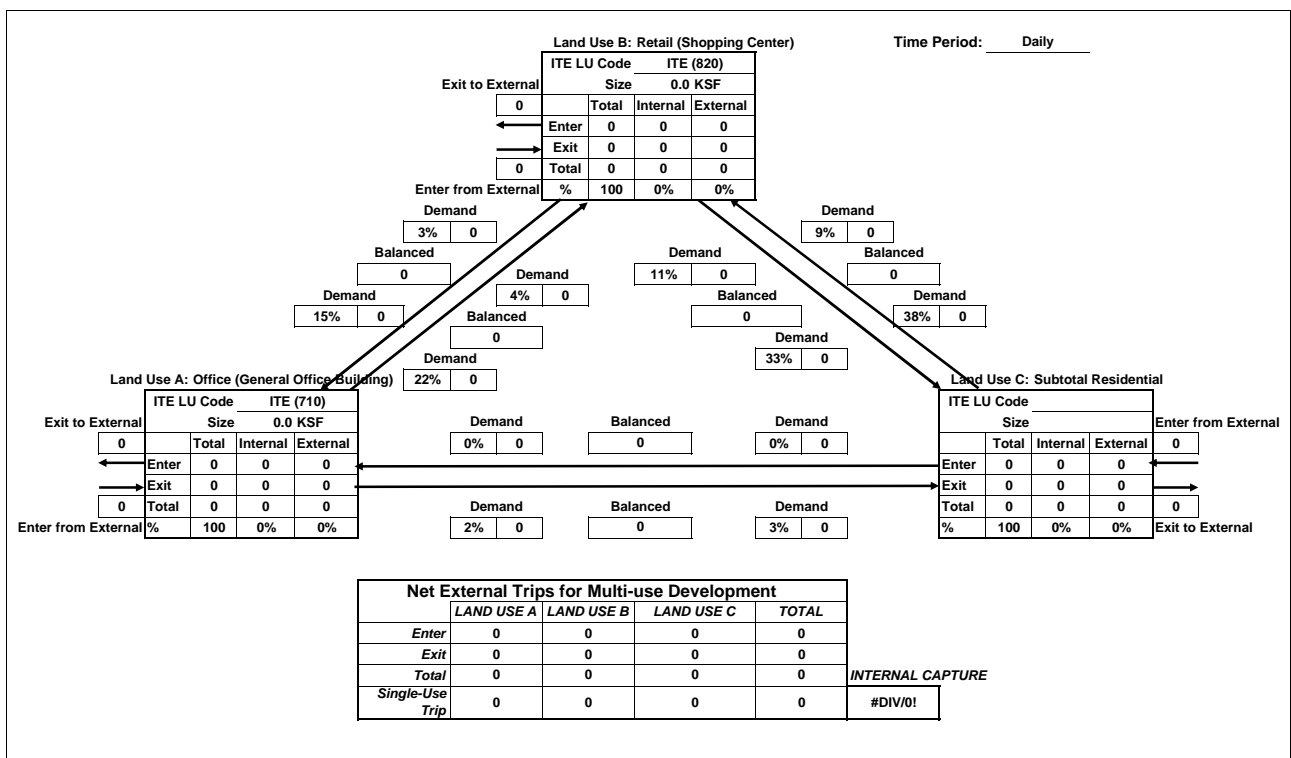
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

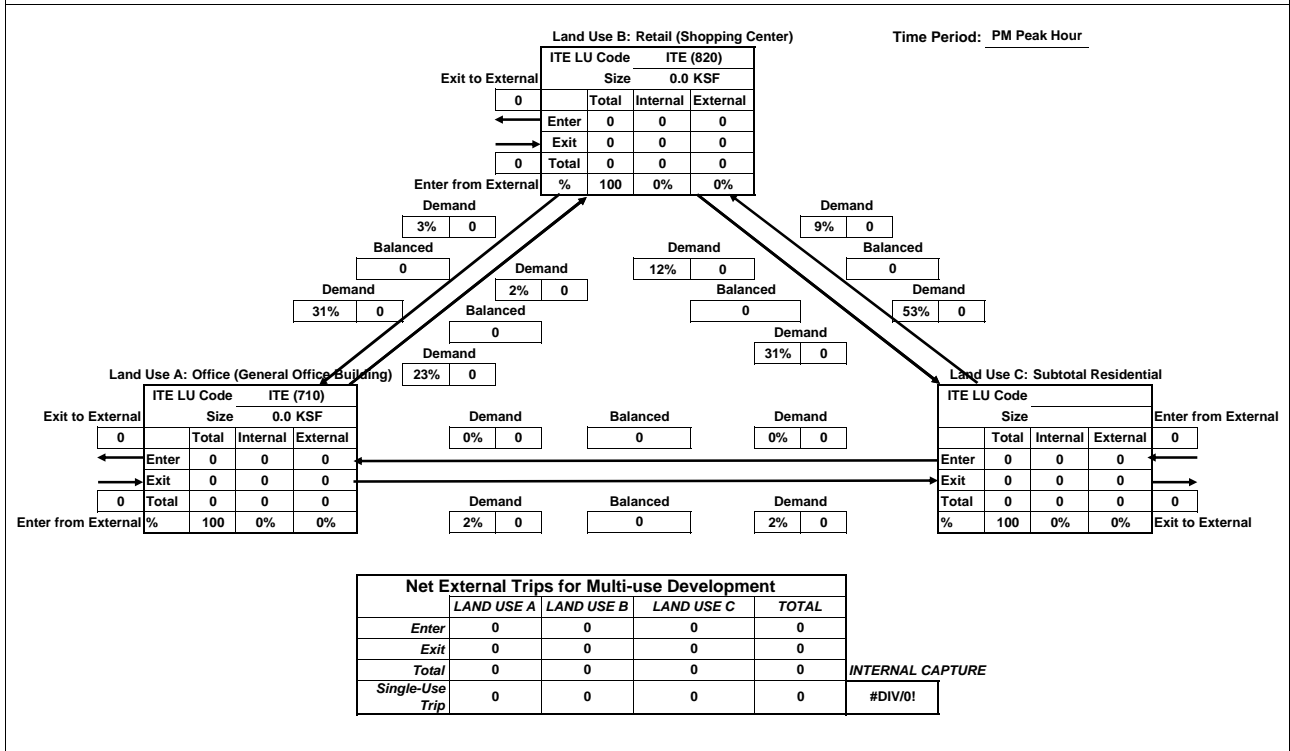
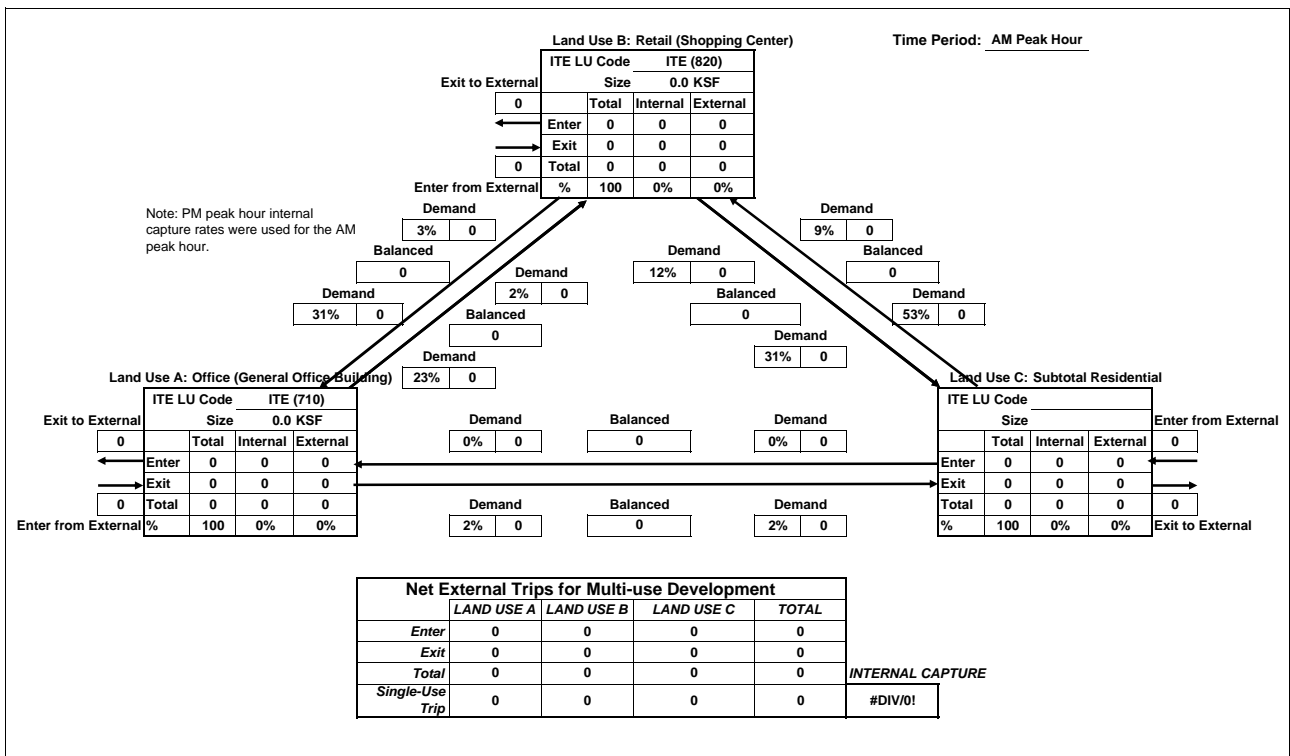


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)



Analyst: Dowling

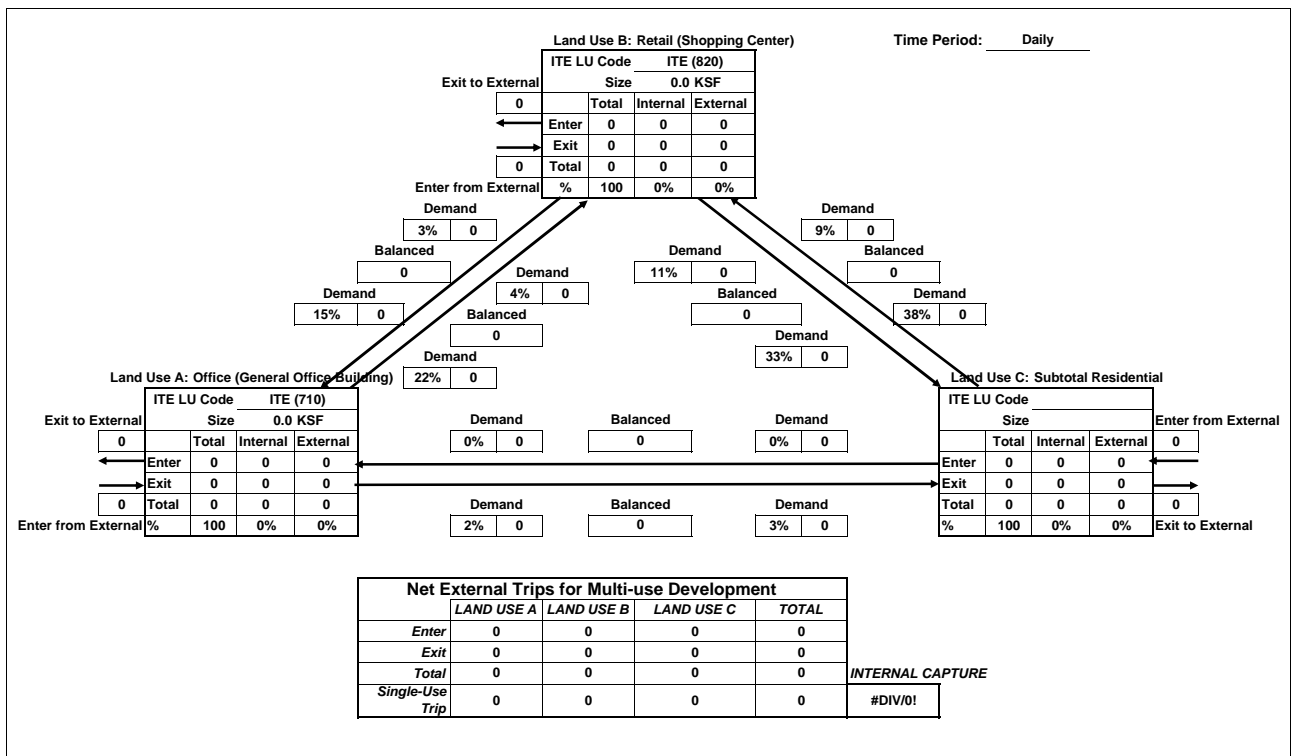
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Office (Baseline & 2013)

Block 24: Bounded by Property Boundary, Railyards, N. 10th

Time Period: Daily

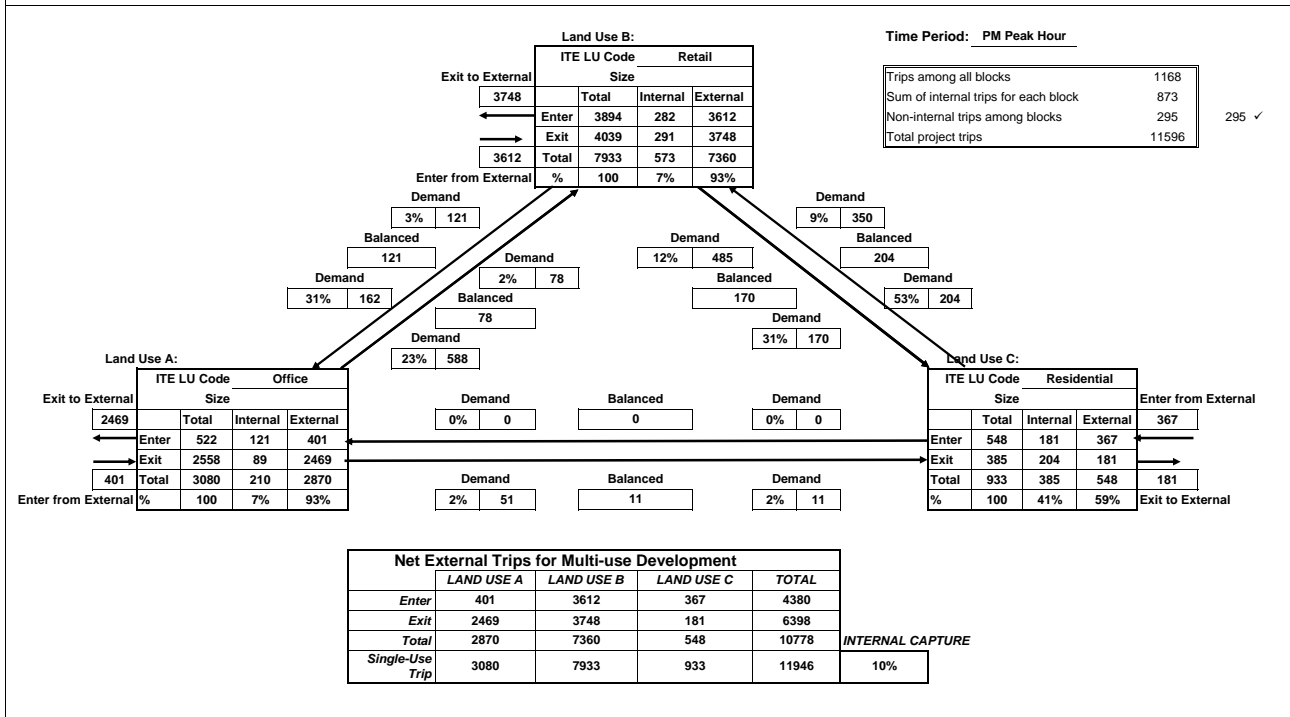
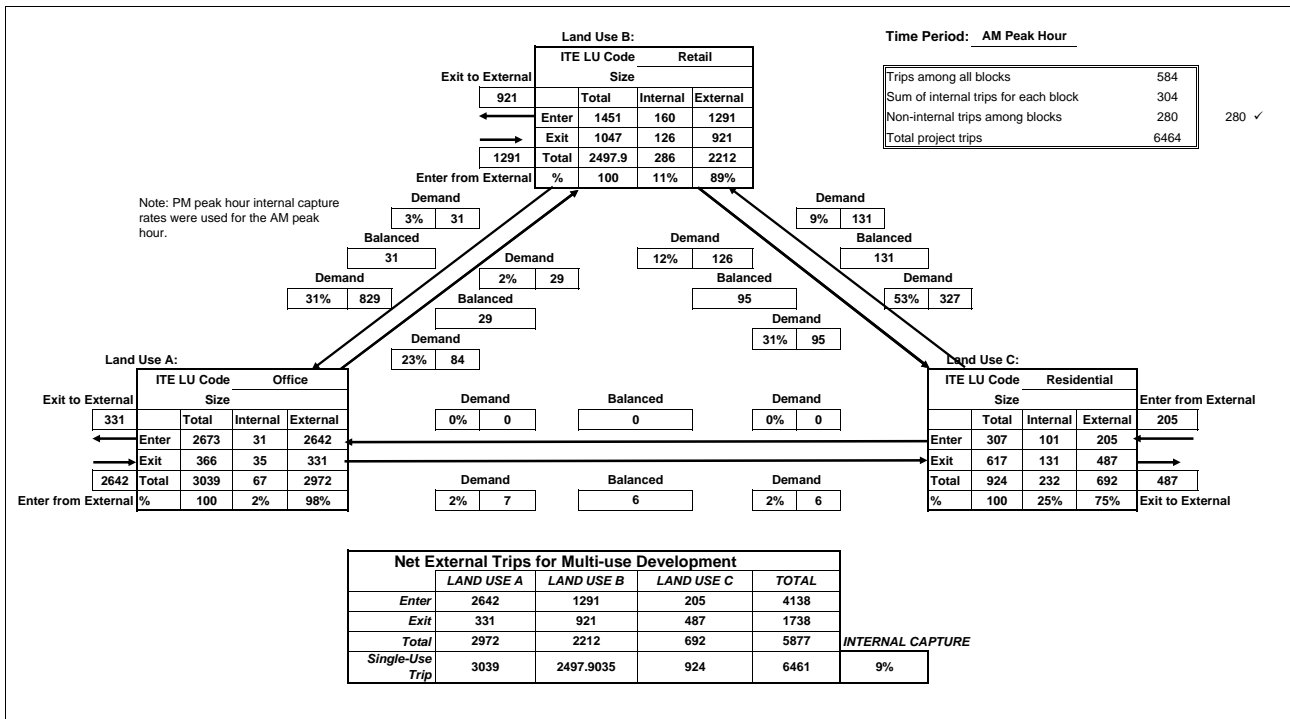


**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling

Name of Development: Downtown Study
Initial Phase with Maximum Office (Baseline & 2013)

Date: 8/17/2007



Analyst: Dowling
 Date: 8/17/2007

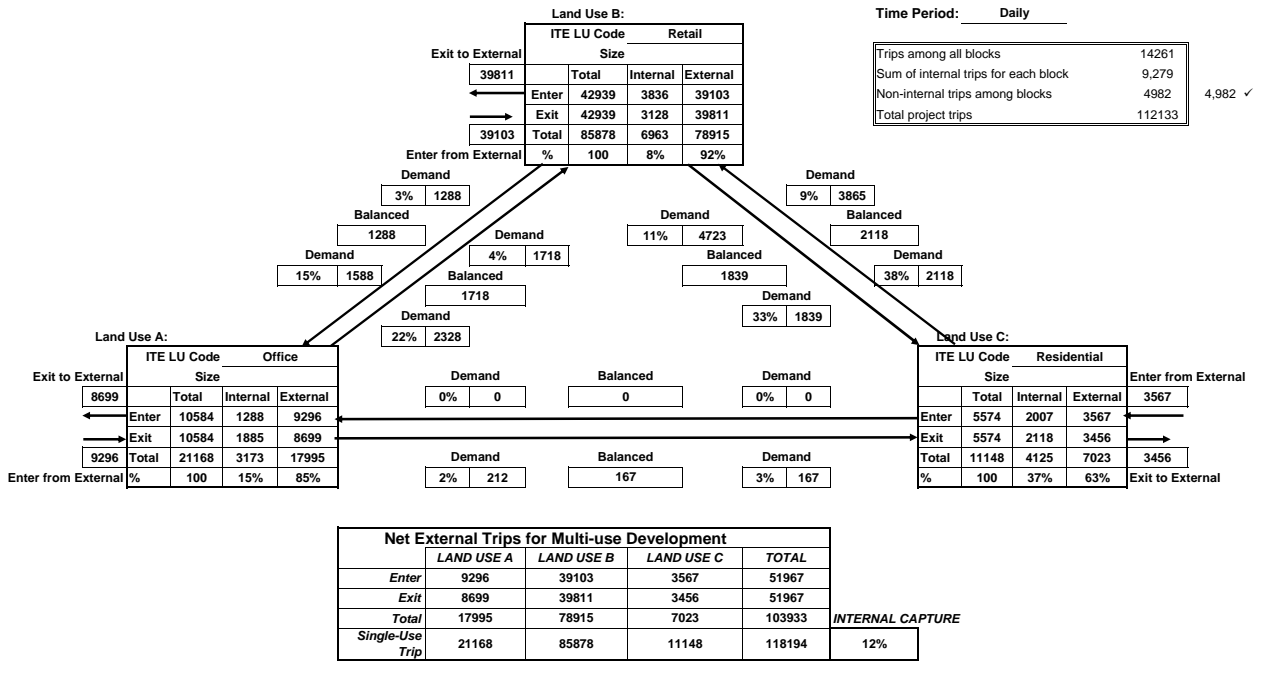
**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 TRIPS AMONG ALL BLOCKS**

Name of Development: Downtown Study
 Initial Phase with Maximum Office (Baseline & 2013)

Time Period: Daily

Trips among all blocks	14261
Sum of internal trips for each block	9,279
Non-internal trips among blocks	4982
Total project trips	112133

4,982 ✓



Initial Phase with Maximum Residential (Baseline & 2013)

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	837 Units	5,596	208	220	428	237	188	425
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,200	365	320	685	755	749	1,504
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-1,883	-34	-30	-64	-81	-81	-162
Internal Trips Within This Block (-11.9%)		-2,052	-23	-23	-46	-101	-101	-201
Trips To-From Other Blocks within the Project (-3.7%)		-633	-17	-17	-34	-28	-28	-56
New External Trips (73%) of Total Trips for Block		12,632	291	250	541	546	539	1,085
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	595 Units	2,467	38	163	201	135	83	218
Other	0	0	0	0	0	0	0	0
Total Trips for Block		7,853	115	212	327	373	340	713
Transit Adjustments (-1.2%)		-91	-2	-2	-4	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-862	-12	-19	-31	-39	-37	-76
Internal Trips Within This Block (-12%)		-940	-11	-11	-22	-46	-46	-91
Trips To-From Other Blocks within the Project (-3.6%)		-285	-8	-8	-16	-13	-13	-26
New External Trips (72%) of Total Trips for Block		5,675	82	172	254	271	240	511
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-4.2%)		-483	-7	-7	-13	-23	-23	-46
New External Trips (84%) of Total Trips for Block		9,628	129	81	211	428	466	894
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	165 Units	846	15	62	77	45	27	72
Total Trips for Block		8,325	119	129	248	376	386	762
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-949	-13	-13	-26	-42	-44	-86
Internal Trips Within This Block (-6.5%)		-544	-13	-13	-25	-26	-26	-52
Trips To-From Other Blocks within the Project (-3.9%)		-326	-6	-6	-12	-15	-15	-31
New External Trips (78%) of Total Trips for Block		6,506	88	98	185	293	301	594

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	281 Units	1,283	21	89	110	69	42	111
Total Trips for Block		8,928	128	157	285	408	409	817
Transit Adjustments (-1.1%)		-101	-1	-3	-4	-5	-5	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,010	-14	-15	-29	-45	-47	-92
Internal Trips Within This Block (-9.1%)		-812	-14	-14	-29	-39	-39	-78
Trips To-From Other Blocks within the Project (-3.7%)		-334	-7	-7	-13	-16	-16	-31
New External Trips (75%) of Total Trips for Block		6,670	92	118	210	304	303	606
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	363 Units	1,592	25	109	134	86	53	139
Total Trips for Block		7,077	104	159	263	328	315	643
Transit Adjustments (-1.1%)		-81	-1	-2	-3	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11.1%)		-789	-11	-15	-26	-35	-35	-70
Internal Trips Within This Block (-12.7%)		-899	-11	-11	-23	-43	-43	-86
Trips To-From Other Blocks within the Project (-3.6%)		-253	-6	-6	-12	-12	-12	-23
New External Trips (71%) of Total Trips for Block		5,055	74	124	199	234	221	455
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	139 Units	685	28	27	54	40	34	74
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,347	604	459	1,062	860	964	1,824
Transit Adjustments (-1.7%)		-330	-10	-6	-16	-11	-16	-27
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-2,004	-62	-51	-113	-95	-87	-181
Internal Trips Within This Block (-3.5%)		-682	-35	-35	-69	-48	-48	-96
Trips To-From Other Blocks within the Project (-4%)		-780	-25	-25	-51	-37	-37	-74
New External Trips (80%) of Total Trips for Block		15,552	472	343	814	669	775	1,445

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	108 Units	631	11	49	60	32	20	52
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,214	234	222	456	761	796	1,557
Transit Adjustments (-1.2%)		-195	-2	-3	-5	-10	-9	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,837	-27	-24	-51	-85	-91	-175
Internal Trips Within This Block (-2.5%)		-399	-21	-21	-41	-19	-19	-37
Trips To-From Other Blocks within the Project (-4.1%)		-658	-11	-11	-21	-32	-32	-65
New External Trips (81%) of Total Trips for Block		13,125	174	163	338	615	645	1,262
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	263 Units	1,215	20	85	105	65	40	105
Total Trips for Block		4,184	65	113	178	195	180	375
Transit Adjustments (-1.2%)		-49	-1	-2	-3	-2	-3	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-461	-7	-9	-16	-21	-19	-40
Internal Trips Within This Block (-12.4%)		-518	-7	-7	-13	-25	-25	-50
Trips To-From Other Blocks within the Project (-3.6%)		-151	-4	-4	-9	-7	-7	-14
New External Trips (72%) of Total Trips for Block		3,005	46	91	137	140	126	266
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	96 Units	401	6	26	33	23	14	36
Total Trips for Block		4,022	60	60	121	182	186	367
Transit Adjustments (-1.1%)		-45	-1	-1	-2	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-459	-7	-6	-13	-20	-21	-41
Internal Trips Within This Block (-6.3%)		-254	-6	-6	-12	-13	-13	-26
Trips To-From Other Blocks within the Project (-3.9%)		-156	-3	-3	-6	-7	-7	-14
New External Trips (77%) of Total Trips for Block		3,108	43	44	89	139	143	281
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	227 Units	1,079	18	77	95	58	35	93
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		4,474	308	163	471	215	392	607
Transit Adjustments (-2.4%)		-109	-5	-3	-8	-3	-5	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-8.6%)		-384	-13	-10	-23	-18	-21	-39
Internal Trips Within This Block (-8.2%)		-368	-5	-5	-9	-18	-18	-35
Trips To-From Other Blocks within the Project (-3.9%)		-173	-13	-13	-25	-13	-13	-26
New External Trips (77%) of Total Trips for Block		3,441	273	133	405	164	336	499
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	619 Units	2,557	40	168	208	140	86	226
Total Trips for Block		4,269	67	185	252	214	166	380
Transit Adjustments (-1.2%)		-52	-1	-3	-4	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-444	-6	-15	-21	-21	-16	-37
Internal Trips Within This Block (-7%)		-299	-4	-4	-8	-14	-14	-28
Trips To-From Other Blocks within the Project (-3.9%)		-166	-6	-6	-13	-8	-8	-15
New External Trips (77%) of Total Trips for Block		3,308	50	157	206	168	126	295

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	160 Units	827	14	61	75	43	27	70
Total Trips for Block		6,937	101	116	217	313	319	632
Transit Adjustments (-1.1%)		-78	-1	-2	-3	-4	-3	-7
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-788	-11	-11	-22	-35	-36	-71
Internal Trips Within This Block (-7.6%)		-524	-11	-11	-22	-25	-25	-50
Trips To-From Other Blocks within the Project (-3.8%)		-265	-5	-5	-10	-12	-12	-25
New External Trips (76%) of Total Trips for Block		5,282	73	87	160	237	243	479
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	273 Units	1,253	21	87	108	67	41	108
Total Trips for Block		2,367	39	99	138	115	93	208
Transit Adjustments (-1.2%)		-28	0	-2	-2	-1	-2	-3
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-249	-4	-8	-12	-12	-9	-21
Internal Trips Within This Block (-8.2%)		-195	-3	-3	-6	-9	-9	-18
Trips To-From Other Blocks within the Project (-3.8%)		-90	-3	-3	-7	-4	-4	-8
New External Trips (76%) of Total Trips for Block		1,805	29	83	112	89	69	158
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 20: Bounded by South Park, N. 10th, Railyards, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	
Subtotal Residential	0 Units	0	0	0	0	0	0	
-----		-----		-----		-----		
Total Trips for Block		0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Total Project Trips								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	4,126 Units	20,432	465	1,223	1,688	1,041	689	1,729
Other		3,528	258	65	323	102	445	546
Total Project Trips		122,636	2,463	2,493	4,955	5,606	5,847	11,452
Transit Adjustments (-0.9%)		-1,159	-25	-29	-54	-50	-55	-104
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-13,446	-239	-237	-476	-608	-608	-1,214
Internal Trips Within This Block (-6.9%)		-8,486	-163	-163	-325	-425	-425	-850
Trips To-From Other Blocks within the Project (-3.9%)		-4,753	-120	-120	-240	-227	-227	-455
New External Trips (77%) of Total Project Trips		94,792	1,916	1,945	3,860	4,296	4,532	8,829

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		77.3%				77.9%			77.1%

Table Xb: Transit Trips for Initial Phase with Maximum Residential (Baseline & 2013) (By City Block)							
City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	241	6	6	12	11	11	22
Block 2: Bounded by South Park, 5th, Railyards, Crocker	109	2	4	6	5	5	10
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	149	2	1	3	7	7	14
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	111	1	3	4	5	5	10
Block 6: Bounded by Railyards, 5th, Camille, Crocker	120	1	3	4	5	6	11
Block 7: Bounded by Railyards, 6th, Camille, 5th	96	2	3	5	5	5	10
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	382	12	7	19	13	27	40
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	231	3	3	6	11	11	22
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	58	1	2	3	3	3	6
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	53	1	1	2	3	2	5
Block 13: Bounded by Rail Lines, 6th, G, 5th	125	17	6	23	6	18	24
Block 14: Bounded by Rail Lines, 7th, G, 6th	63	2	3	5	3	3	6
Block 15: Bounded by G, 6th, H, 6th	92	1	3	4	4	4	8
Block 16: Bounded by G, 7th, Property Boundary, 6th	34	0	2	2	1	2	3
Block 17: Bounded by N. B, 7th, South Park, 5th	0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th	0	0	0	0	0	0	0
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	0	0	0	0	0	0	0
Block 21: SITF Site	0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th	0	0	0	0	0	0	0
Total New Transit Trips	1,864	51	47	98	82	109	191

Source: Dowling Associates, Inc. 2006

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 OS	1	1	0.75							
1 RRMU	2	1	4.31		200,000					
1 RRMU	3a	1	2.84							
2 OS	3b	1	0.13							
2 RRMU	3c	1	0.93			500				
2 RRMU	3d	1	0.73	197	28,000				32,000	29
2 OS	3e	1	0.67							
2 RRMU	3f	1	0.28	140						
Subtotal				337	228,000	500	0	0	32,000	29
2 RRMU	5a	2	1.14	104						
2 RRMU	5b	2	0.68	106	27,000				29,000	26
2 RRMU	6a	2	1.28	242						
2 RRMU	6b	2	1.07	143	43,000				47,000	43
2 OS	6c	2	0.15							
Subtotal				595	70,000	0	0	0	76,000	69
1 RRMU	33	3	2.62							
1 RRMU	11a	4	4.42		223,000					
1 OS	11b	4	0.27							
Subtotal				0	223,000	0	0	0	0	0
1 RRMU	10a	5	3.88	165	116,000				65,000	59
1 OS	10b	5	0.57							
Subtotal				165	116,000	0	0	0	65,000	59
1 RRMU	8a	6	0.61	47	27,000				27,000	25
1 RRMU	8b	6	1.22	83	33,000				38,000	35
1 RRMU	9a	6	0.60	68	26,000				26,000	24
1 RRMU	9b	6	1.27	83	34,000				38,000	35
Subtotal				281	120,000	0	0	0	129,000	119
2 RRMU	7a	7	2.06	202	18,000				18,000	16
2 RRMU	7b	7	1.19	161	54,000				58,000	53
2 OS	7c	7	0.03							
Subtotal				363	72,000	0	0	0	76,000	69
3 ORMU	47a	8	2.21							
1 RRMU	47b	8	0.78							
1 ORMU	48	8	2.56							

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				0	0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 RRMU	12	9	1.17	39	71,000				43,000	39
1 RRMU	13a	9	0.11		3,500					
1 RRMU	13b	9	0.23		8,000					
1 RRMU	13c	9	0.12		5,600					
1 OS	13d	9	0.60							
1 RRMU	14	9	0.62		13,000	100				
1 RRMU	23	9	0.34					22,500 Restaurant		
1 RRMU	24	9	0.73					42,028 19816 Rest; 11165 Retail; 7730 Office		
1 RRMU	25	9	0.53					38,711 21014 Restaurant; 21014 Office		
1 RRMU	26	9	0.33					28,500 14250 Retail; 14250 Office		
1 RRMU	27	9	0.65					28,043 25000 Exhibit; 3043 Retail		
1 RRMU	28	9	2.24					93,134 Exhibit		
1 RRMU	29	9	1.67					69,696 Exhibit		
1 OS	30a	9	5.07							
1 OS	30b	9	1.35							
1 OS	31a	9	2.66							
1 OS	31b	9	0.32							
1 TU	38	9	16.78							
1 OS	45	9	0.33							
Subtotal				39	101,100	100	0	322,612	43,000	39
1 RRMU	15a	10	3.33	108	65,500			100,000 1,8	40,000	36
1 OS	15b	10	0.05							
1 OS	18a	10	1.05							
1 RRMU	18b	10	0.25		38,500					
1 RRMU	20	10	1.30					56,278 Market		
1 OS	21	10	5.30							
1 RRMU	22	10	0.15					6,500 Retail		
Subtotal				108	104,000	0	0	162,778	40,000	36
2 RRMU	16a	11	1.67	263	28,000				30,000	27
2 OS	16b	11	0.07							
1 RRMU	17	11	1.48							
Subtotal				263	28,000	0	0	0	30,000	27
2 ORMU	40	12	1.93	96	38,000					
2 ORMU	44	13	1.96	227	16,500					
2 ORMU	43	14	2.56	455	12,000					
2 ORMU	46	14	2.89	164						

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				619	12,000	0	0	0	0	0
1 ORMU	41	15	2.43	160	85,000					
1 ORMU	42	16	1.19	273	6,200					
3 OS	60	17	1.12							
3 OS	61	17	0.71							
3 OS	62	17	0.92							
3 RMU	69N	17	1.64							
3 RMU	69S	17	1.21							
3 RMU	70N	17	1.10							
3 RMU	70S	17	0.88							
3 RMU	71N	17	0.77							
3 RMU	71S	17	0.84							
Subtotal				0	0	0	0	0	0	0
4 OS	63	18	0.97							
4 OS	64	18	0.89							
4 OS	65	18	0.92							
4 RMU	66N	18	0.33							
4 RMU	66S	18	1.07							
4 RMU	67N	18	1.27							
4 RMU	67S	18	1.12							
4 RMU	68N	18	1.48							
4 RMU	68S	18	1.17							
Subtotal				0	0	0	0	0	0	0
3 OS	57a	19	0.12							
3 RMU	57N	19	1.24							
3 RMU	57S	19	1.38							
3 RMU	58N	19	1.17							
3 RMU	58S	19	1.15							
3 RMU	59N	19	1.27							
3 RMU	59S	19	1.11							
Subtotal				0	0	0	0	0	0	0
4 RMU	52N	20	0.98							
4 RMU	52S	20	1.30							
4 RMU	53N	20	1.38							
4 RMU	53S	20	1.49							
4 RMU	54N	20	1.35							

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Baseline_Initial_Phase_Max_Res_2007_05_08.xls \ Lots

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THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
4 RMU	54S	20	1.68							
4 OS	54a	20	0.12							
Subtotal				0	0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (Baseline & 2013)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
3 TU	39	21	15.34							
3 OS	34	22	1.26							
3 RMU	35	22	4.00							
Subtotal				0	0	0	0	0	0	0
4 RMU	49a	23	4.87							
1 ORMU	49b	23	0.73							
1 ORMU	49c	23	1.00							
3 OS	50	23	1.26							
Subtotal				0	0	0	0	0	0	0
4 RMU	51	24	4.70							
3 OS	72	25	10.37							
Subtotal				1,375			0			
TOTAL Max		180.39	3,526	1,219,800	600	0	485,390		491,000	447
Min			2,151				0			
Check				4,326	1,401,366		164,994			

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips ^a	Non-Work Trips ^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office¹	5.4%	0.1%	5.6%	
Retail²	0.4%	0.7%	1.1%	
	Home- Work	Home-Non- Work	Non Home- Based	
Residential^{3,c}				
AM Peak Hour	1.2%	0.3%	0.1%	1.7%
PM Peak Hour	1.0%	0.3%	0.2%	1.5%
Daily	0.8%	0.3%	0.2%	1.3%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office¹	1.5%	1.2%	2.8%	
Retail²	0.1%	11.4%	11.6%	
	Home- Work	Home-Non- Work	Non Home- Based	
Residential^c				
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office¹	6.1%	0.2%	6.3%	
Retail²	0.5%	0.8%	1.3%	
	Home- Work	Home-Non- Work	Non Home- Based	
Residential^c				
AM Peak Hour	1.5%	0.4%	0.1%	2.1%
PM Peak Hour	1.3%	0.3%	0.2%	1.9%
Daily	0.9%	0.4%	0.3%	1.6%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001.

Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 1: Bounded by South Park, Crocker, Railyards, Bercut														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%	
Residential														
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%	
High Rise Residential Condominium	337 Units	ITE (232)	1,494	24	103	127	81	49	130	19%	81%	62%	38%	
Subtotal Residential	837 Units		5,596	208	220	428	237	188	425					
Other														
Total Trips for Block			17,200	365	320	685	755	749	1,504					

Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			0	0	0	0	0	0	0					

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-537	-16	-18	-34	-21	-16	-37					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,883	-34	-30	-64	-81	-81	-162					
Internal Trips Within This Block			-2,052	-23	-23	-46	-101	-101	-201					
Trips To-From Other Blocks within the Project			-633	-17	-17	-34	-28	-28	-56					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				119	72	192	398	416	814					
Subtotal Residential				171	178	349	148	123	271					
Other				0	0	0	0	0	0					
Total				12,632	291	250	541	546	539	1,085				
New External Trips Percent of Total Project Trips				73%	80%	78%	79%	72%	72%	72%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				151	2	1	3	7	7	14				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				90	4	5	9	4	4	8				
Other				0	0	0	0	0	0	0				
Total Transit Trips				241	6	6	12	11	11	22				

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 2: Bounded by South Park, 5th, Railyards, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	595 Units	ITE (232)	2,467	38	163	201	135	83	218	19%	81%	62%	38%	
Subtotal Residential	595 Units		2,467	38	163	201	135	83	218					
Other														
Total Trips for Block			7,853	115	212	327	373	340	713					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-59	-1	0	-1	-2	-3	-5					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-32	-1	-2	-3	-2	-1	-3					
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-91	-2	-2	-4	-4	-4	-8					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-237	-3	-13	-16	-12	-7	-19					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-862	-12	-19	-31	-39	-37	-76					
Internal Trips Within This Block			-940	-11	-11	-22	-46	-46	-91					
Trips To-From Other Blocks within the Project			-285	-8	-8	-16	-13	-13	-26					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				56	36	92	182	187	369					
Subtotal Residential				26	136	162	89	53	142					
Other				0	0	0	0	0	0					
Total				5,675	82	172	254	271	240	511				
New External Trips Percent of Total Project Trips				72%	71%	81%	78%	73%	71%	72%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				70	1	1	2	3	3	6				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				39	1	3	4	2	2	4				
Other				0	0	0	0	0	0	0				
Total Transit Trips				109	2	4	6	5	5	10				

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				

Internal Trips Within This Block														
			0	0	0	0	0	0	0	0				

Trips To-From Other Blocks within the Project														
			0	0	0	0	0	0	0	0				

New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####

Total			0	0	0	0	0	0	0	0				

New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####

Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				

Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-483	-7	-7	-13	-23	-23	-46					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				129	81	211	428	466	894					
Subtotal Residential				0	0	0	0	0	0					
Total			9,628	129	81	211	428	466	894					
New External Trips Percent of Total Project Trips			84%	84%	82%	83%	84%	84%	84%					
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0					
Retail (1.3%)			149	2	1	3	7	7	14					
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0					
Total Transit Trips			149	2	1	3	7	7	14					

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 5: Bounded by Railyards, Crocker, Camille, Huntington														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	165 Units	ITE (232)	846	15	62	77	45	27	72	19%	81%	62%	38%	
Subtotal Residential	165 Units		846	15	62	77	45	27	72					
Other														
Total Trips for Block			8,325	119	129	248	376	386	762					
Transit Adjustments														
Office (-5.6%)														
Retail (-1.1%)														
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-81	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-949	-13	-13	-26	-42	-44	-86					
Internal Trips Within This Block			-544	-13	-13	-25	-26	-26	-52					
Trips To-From Other Blocks within the Project			-326	-6	-6	-12	-15	-15	-31					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				79	52	130	266	290	556					
Subtotal Residential				9	46	55	26	11	37					
Total				6,506	88	98	185	293	301	594				
New External Trips Percent of Total Project Trips				78%	74%	76%	75%	78%	78%	78%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				97	1	1	2	4	5	9				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				14	0	2	2	1	0	1				
Total Transit Trips				111	1	3	4	5	5	10				

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 6: Bounded by Railyards, 5th, Camille, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	281 Units	ITE (232)	1,283	21	89	110	69	42	111	19%	81%	62%	38%	
Subtotal Residential	281 Units		1,283	21	89	110	69	42	111					
Other														
Total Trips for Block			8,928	128	157	285	408	409	817					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-84	-1	-1	-2	-4	-4	-8					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-17	0	-2	-2	-1	-1	-2					
Other														
Total Transit Adjustments			-101	-1	-3	-4	-5	-5	-10					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-123	-2	-7	-9	-6	-4	-10					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,010	-14	-15	-29	-45	-47	-92					
Internal Trips Within This Block			-812	-14	-14	-29	-39	-39	-78					
Trips To-From Other Blocks within the Project			-334	-7	-7	-13	-16	-16	-31					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				80	50	130	263	287	550					
Subtotal Residential				12	68	80	40	16	56					
Total				6,670	92	118	210	304	303	606				
New External Trips Percent of Total Project Trips				75%	72%	75%	74%	74%	74%	74%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				99	1	1	2	4	5	9				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				21	0	2	2	1	1	2				
Total Transit Trips				120	1	3	4	5	6	11				

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 7: Bounded by Railyards, 6th, Camille, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	363 Units	ITE (232)	1,592	25	109	134	86	53	139	19%	81%	62%	38%	
Subtotal Residential	363 Units		1,592	25	109	134	86	53	139					
Other														
Total Trips for Block			7,077	104	159	263	328	315	643					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-60	-1	0	-1	-3	-3	-6					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-21	0	-2	-2	-1	-1	-2					
Other														
Total Transit Adjustments			-81	-1	-2	-3	-4	-4	-8					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-153	-2	-9	-11	-7	-5	-12					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-789	-11	-15	-26	-35	-35	-70					
Internal Trips Within This Block			-899	-11	-11	-23	-43	-43	-86					
Trips To-From Other Blocks within the Project			-253	-6	-6	-12	-12	-12	-23					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				58	37	95	183	195	379					
Subtotal Residential				16	88	104	51	26	77					
Total				5,055	74	124	199	234	221	455				
New External Trips Percent of Total Project Trips				71%	71%	78%	76%	71%	70%	71%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				71	1	1	2	3	4	7				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				25	1	2	3	2	1	3				
Total Transit Trips				96	2	3	5	5	5	10				

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	43.0 KSF	ITE (710)	696	84	11	95	22	105	127	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	39 Units	ITE (232)	163	3	11	13	9	6	15	19%	81%	62%	38%
Subtotal Residential	139 Units		685	28	27	54	40	34	74				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,347	604	459	1,062	860	964	1,824				
Transit Adjustments													
Office (-5.6%)			-39	-4	-1	-5	-1	-6	-7				
Retail (-1.1%)			-177	-5	-5	-10	-9	-7	-16				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-9	-1	0	-1	-1	0	-1				
Other (Museum Exhibit Space) (-5.6%)			-105	0	0	0	0	-3	-3				
Total Transit Adjustments			-330	-10	-6	-16	-11	-16	-27				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-19	-3	0	-3	-1	-3	-4				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-66	-2	-2	-4	-3	-3	-6				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,004	-62	-51	-113	-95	-87	-181				
Internal Trips Within This Block			-682	-35	-35	-69	-48	-48	-96				
Trips To-From Other Blocks within the Project			-780	-25	-25	-51	-37	-37	-74				
New External Trips													
Office (General Office Building)				62	7	69	13	77	89				
Retail & Restaurant (see footnote)				394	326	719	616	525	1,141				
Subtotal Residential				16	10	26	22	13	35				
Other (Museum Exhibit Space)				0	0	0	18	161	180				
Total			15,552	472	343	814	669	775	1,445				
New External Trips Percent of Total Project Trips			80%	78%	75%	77%	78%	80%	79%				
Transit Trips													
Office (6.3%)			44	5	1	6	1	7	8				
Retail (1.3%)			209	6	6	12	10	9	19				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			11	1	0	1	1	0	1				
Other (Museum Exhibit Space) (6.3%)			118	0	0	0	1	11	12				
Total Transit Trips			382	12	7	19	13	27	40				
Footnote:													
Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469					
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	108 Units	ITE (232)	631	11	49	60	32	20	52	19%	81%	62%	38%	
Subtotal Residential	108 Units		631	11	49	60	32	20	52					
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36			50%	50%	
Total Trips for Block			16,214	234	222	456	761	796	1,557					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-167	-2	-2	-4	-8	-8	-16					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-8	0	-1	-1	-1	0	-1					
Other (Performing Arts) (-5.6%)			-20	0	0	0	-1	-1	-1					
Total Transit Adjustments			-195	-2	-3	-5	-10	-9	-18					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-61	-1	-4	-5	-2	-2	-4					
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,837	-27	-24	-51	-85	-91	-175					
Internal Trips Within This Block			-399	-21	-21	-41	-19	-19	-37					
Trips To-From Other Blocks within the Project			-658	-11	-11	-21	-32	-32	-65					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail & Market (see footnote)				168	139	307	580	621	1,202					
Subtotal Residential				6	24	30	19	8	26					
Other (Performing Arts)				0	0	0	16	16	34					
Total			13,125	174	163	338	615	645	1,262					
New External Trips Percent of Total Project Trips			81%	74%	74%	74%	81%	81%	81%					
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0					
Retail (1.3%)			198	3	2	5	9	10	19					
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			10	0	1	1	1	0	1					
Other (Performing Arts) (6.3%)			23	0	0	0	1	1	2					
Total Transit Trips			231	3	3	6	11	11	22					
Footnote:														
Retail & Market														
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%	
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%	
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%	

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 11: Bounded by Camille, 6th, Rail Lines, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	263 Units	ITE (232)	1,215	20	85	105	65	40	105	19%	81%	62%	38%	
Subtotal Residential	263 Units		1,215	20	85	105	65	40	105					
Other														
Total Trips for Block			4,184	65	113	178	195	180	375					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-33	-1	0	-1	-1	-2	-3					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-16	0	-2	-2	-1	-1	-2					
Other														
Total Transit Adjustments			-49	-1	-2	-3	-2	-3	-5					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-117	-2	-6	-8	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-461	-7	-9	-16	-21	-19	-40					
Internal Trips Within This Block			-518	-7	-7	-13	-25	-25	-50					
Trips To-From Other Blocks within the Project			-151	-4	-4	-9	-7	-7	-14					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				33	21	54	99	102	201					
Subtotal Residential				14	70	84	41	24	65					
Total				3,005	46	91	137	140	126	266				
New External Trips Percent of Total Project Trips				72%	71%	81%	77%	72%	70%	71%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				39	1	0	1	2	2	4				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				19	0	2	2	1	1	2				
Total Transit Trips				58	1	2	3	3	3	6				

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 12: Bounded by Rail Lines, 5th, I Street, LRT														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	96 Units	ITE (232)	401	6	26	33	23	14	36	19%	81%	62%	38%	
Subtotal Residential	96 Units		401	6	26	33	23	14	36					
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%	
Total Trips for Block			4,022	60	60	121	182	186	367					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-40	-1	0	-1	-2	-2	-4					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-5	0	-1	-1	-1	0	-1					
Other (-5.6%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-45	-1	-1	-2	-3	-2	-5					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-39	-1	-2	-3	-2	-1	-3					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-459	-7	-6	-13	-20	-21	-41					
Internal Trips Within This Block			-254	-6	-6	-12	-13	-13	-26					
Trips To-From Other Blocks within the Project			-156	-3	-3	-6	-7	-7	-14					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				40	27	67	126	137	263					
Subtotal Residential				3	18	21	13	6	18					
Other				0	0	0	0	0	0					
Total				3,108	43	44	89	139	143	281				
New External Trips Percent of Total Project Trips				77%	72%	74%	73%	76%	77%	76%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				47	1	0	1	2	2	4				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				6	0	1	1	1	0	1				
Other (6.3%)				0	0	0	0	0	0	0				
Total Transit Trips				53	1	1	2	3	2	5				

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 13: Bounded by Rail Lines, 6th, G, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	227 Units	ITE (232)	1,079	18	77	95	58	35	93	19%	81%	62%	38%	
Subtotal Residential	227 Units		1,079	18	77	95	58	35	93					
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%	
Total Trips for Block			4,474	308	163	471	215	392	607					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-23	-1	0	-1	-1	-1	-2					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-14	0	-2	-2	-1	0	-1					
Other (Transit) (-5.6%)			-72	-4	-1	-5	-1	-4	-5					
Total Transit Adjustments			-109	-5	-3	-8	-3	-5	-8					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-104	-2	-6	-8	-5	-3	-8					
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-384	-13	-10	-23	-18	-21	-39					
Internal Trips Within This Block			-368	-5	-5	-9	-18	-18	-35					
Trips To-From Other Blocks within the Project			-173	-13	-13	-25	-13	-13	-26					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				17	14	31	65	67	132					
Subtotal Residential				9	57	66	37	21	58					
Other (Transit)				247	62	309	62	247	309					
Total				3,441	273	133	405	164	336	499				
New External Trips Percent of Total Project Trips				77%	89%	81%	86%	76%	86%	82%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				27	1	0	1	1	1	2				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				17	0	2	2	1	1	2				
Other (Transit) (6.3%)				81	16	4	20	4	16	20				
Total Transit Trips				125	17	6	23	6	18	24				

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 14: Bounded by Rail Lines, 7th, G, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	619 Units	ITE (232)	2,557	40	168	208	140	86	226	19%	81%	62%	38%	
Subtotal Residential	619 Units		2,557	40	168	208	140	86	226					
Other														
Total Trips for Block			4,269	67	185	252	214	166	380					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-19	0	0	0	-1	-1	-2					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-33	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-52	-1	-3	-4	-3	-2	-5					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-245	-3	-13	-16	-12	-7	-19					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-444	-6	-15	-21	-21	-16	-37					
Internal Trips Within This Block			-299	-4	-4	-8	-14	-14	-28					
Trips To-From Other Blocks within the Project			-166	-6	-6	-13	-8	-8	-15					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				19	13	32	56	58	114					
Subtotal Residential				30	144	174	113	68	181					
Total				3,308	50	157	206	168	126	295				
New External Trips Percent of Total Project Trips				77%	74%	85%	82%	79%	76%	78%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				22	1	0	1	1	1	2				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				41	1	3	4	2	2	4				
Total Transit Trips				63	2	3	5	3	3	6				

Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 15: Bounded by G, 6th, H, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	160 Units	ITE (232)	827	14	61	75	43	27	70	19%	81%	62%	38%	
Subtotal Residential	160 Units		827	14	61	75	43	27	70					
Other														
Total Trips for Block			6,937	101	116	217	313	319	632					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-67	-1	-1	-2	-3	-3	-6					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-11	0	-1	-1	-1	0	-1					
Other														
Total Transit Adjustments			-78	-1	-2	-3	-4	-3	-7					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-79	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-788	-11	-11	-22	-35	-36	-71					
Internal Trips Within This Block			-524	-11	-11	-22	-25	-25	-50					
Trips To-From Other Blocks within the Project			-265	-5	-5	-10	-12	-12	-25					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				65	42	107	212	232	444					
Subtotal Residential				8	45	54	25	11	35					
Total				5,282	73	87	160	237	243	479				
New External Trips Percent of Total Project Trips				76%	72%	75%	74%	76%	76%	76%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				79	1	1	2	3	4	7				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				13	0	2	2	1	0	1				
Total Transit Trips				92	1	3	4	4	4	8				

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 16: Bounded by G, 7th, Property Boundary, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	273 Units	ITE (232)	1,253	21	87	108	67	41	108	19%	81%	62%	38%	
Subtotal Residential	273 Units		1,253	21	87	108	67	41	108					
Other														
Total Trips for Block			2,367	39	99	138	115	93	208					
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0					
Retail (-1.1%)			-12	0	0	0	0	-1	-1					
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			-16	0	-2	-2	-1	-1	-2					
Other														
Total Transit Adjustments			-28	0	-2	-2	-1	-2	-3					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-120	-2	-7	-9	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-249	-4	-8	-12	-12	-9	-21					
Internal Trips Within This Block			-195	-3	-3	-6	-9	-9	-18					
Trips To-From Other Blocks within the Project			-90	-3	-3	-7	-4	-4	-8					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				13	9	22	37	37	74					
Subtotal Residential				16	74	89	52	31	84					
Total				1,805	29	83	112	89	69	158				
New External Trips Percent of Total Project Trips				76%	74%	84%	81%	77%	74%	76%				
Transit Trips														
Office (6.3%)				0	0	0	0	0	0					
Retail (1.3%)				14	0	0	0	0	1	1				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)				20	0	2	2	1	1	2				
Total Transit Trips				34	0	2	2	1	2	3				

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-5.6%)			0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips													
Office (6.3%)			0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 21: SITF Site
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 21: SITF Site														
Office (General Office Building)	KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	Units		0	0	0	0	0	0	0	0				
Other (Transit)	Prkng	ITE(093)	0	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other (Transit) (-5.6%)			0	0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			0	0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)				#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)				#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential				#####	#####	#####	#####	#####	#####	#####				
Other (Transit)				0	0	0	0	0	0	0				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Other (Transit) (6.3%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-5.6%)			0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####				
Transit Trips													
Office (6.3%)			0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-5.6%)			0	0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (6.3%)			0	0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

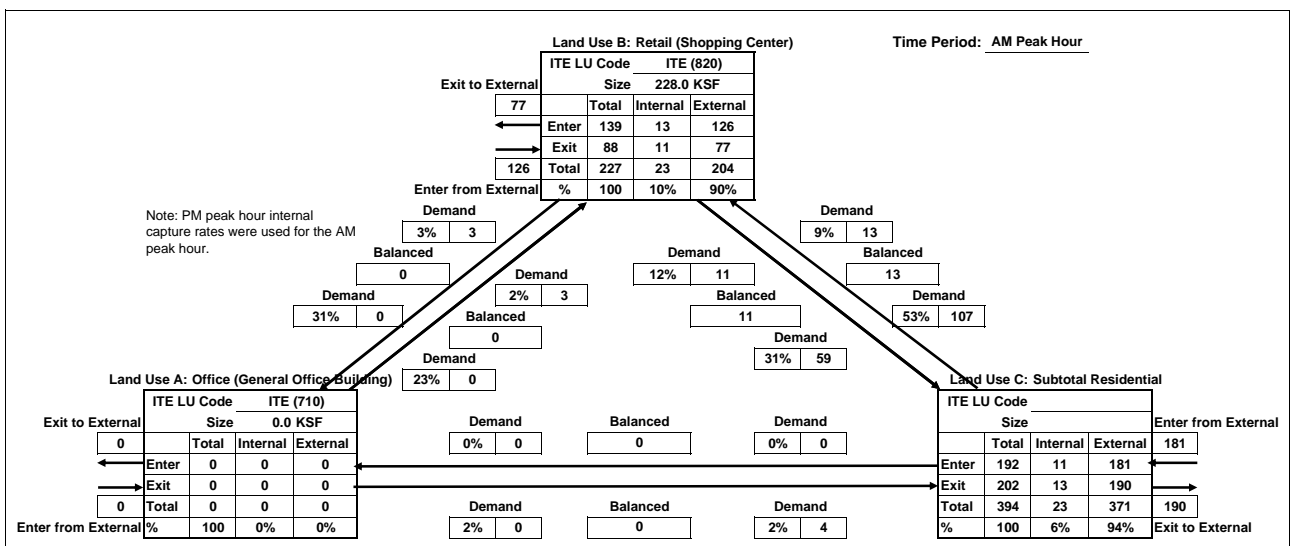
Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Initial Phase with Maximum Residential (Baseline & 2013)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 24: Bounded by Property Boundary, Railyards, N. 10th													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-5.6%)			0	0	0	0	0	0	0				
Retail (-1.1%)			0	0	0	0	0	0	0				
Residential (Daily -1.3%, a.m. -1.7%, p.m. -1.5%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####				
Transit Trips													
Office (6.3%)			0	0	0	0	0	0	0				
Retail (1.3%)			0	0	0	0	0	0	0				
Residential (Daily 1.6%, a.m. 2.1%, p.m. 1.9%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

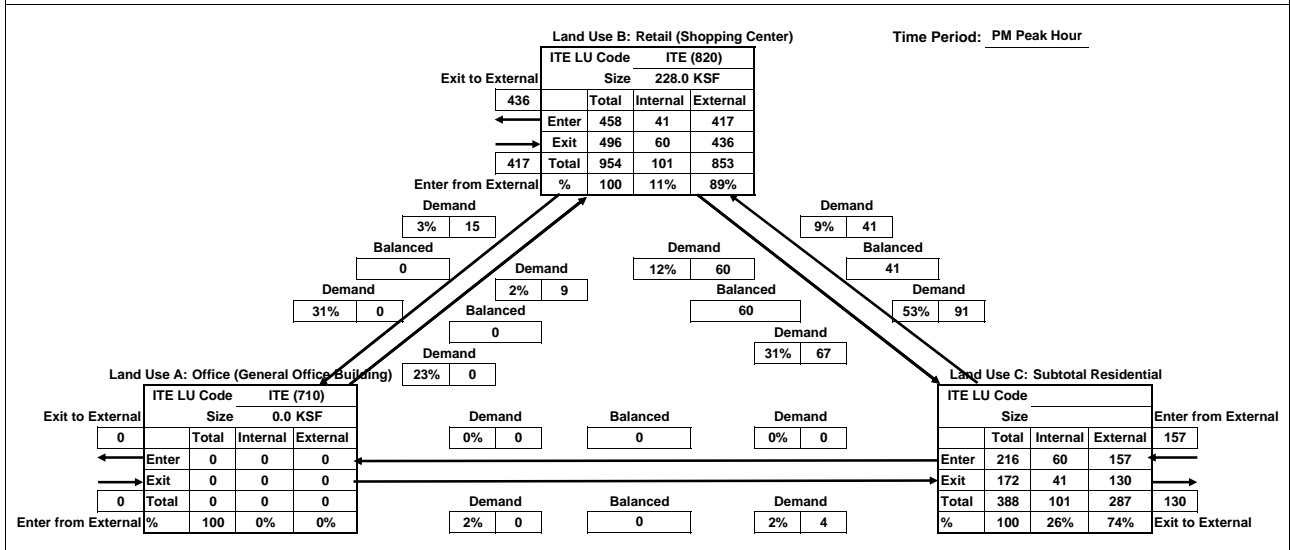
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	126	181	308	
Exit	0	77	190	267	
Total	0	204	371	575	
Single-Use Trip	0	227	394	621	INTERNAL CAPTURE 7%



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	417	157	574	
Exit	0	436	130	567	
Total	0	853	287	1141	
Single-Use Trip	0	954	388	1342	INTERNAL CAPTURE 15%

Analyst: Dowling

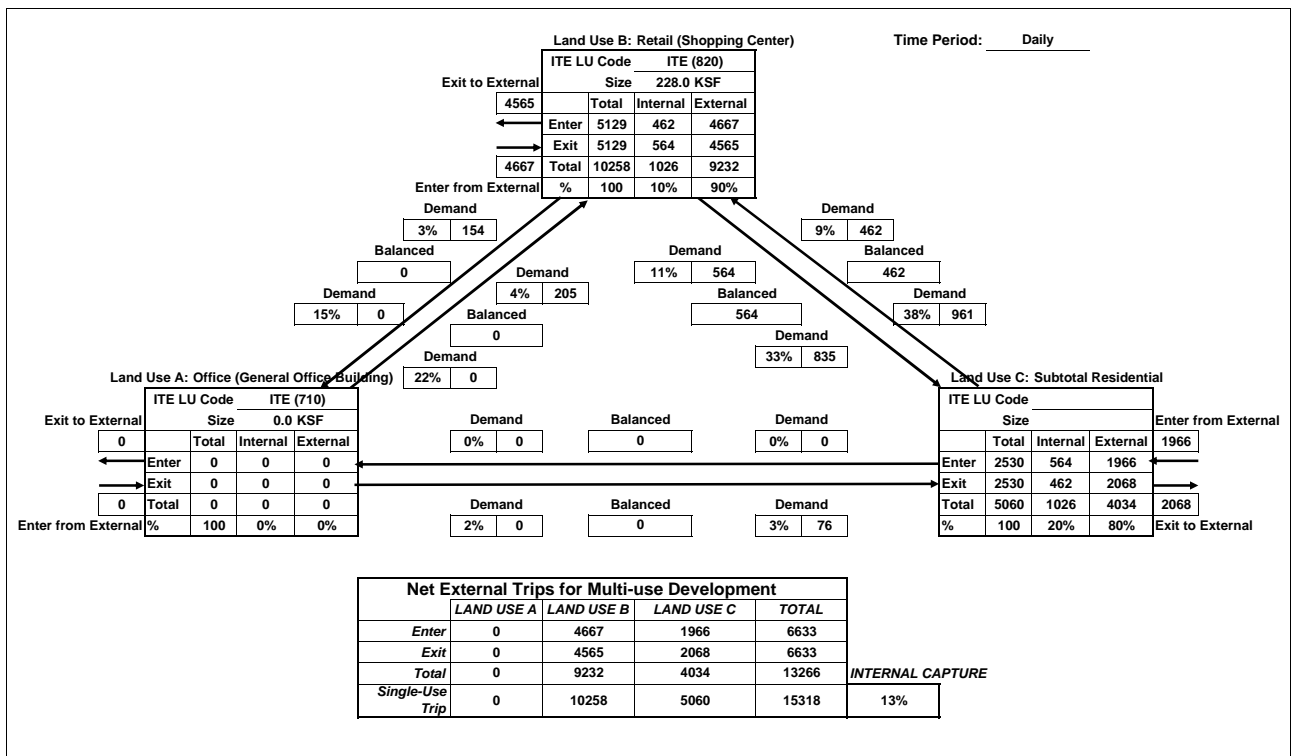
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Block 1: Bounded by South Park, Crocker, Railyards, Bercut

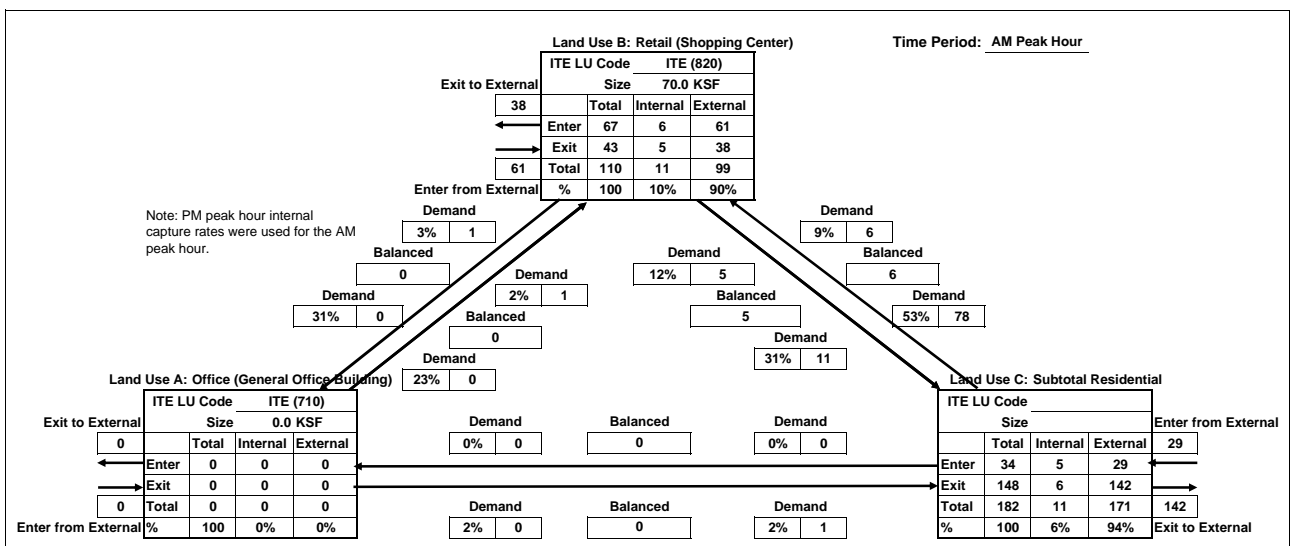
Time Period: Daily



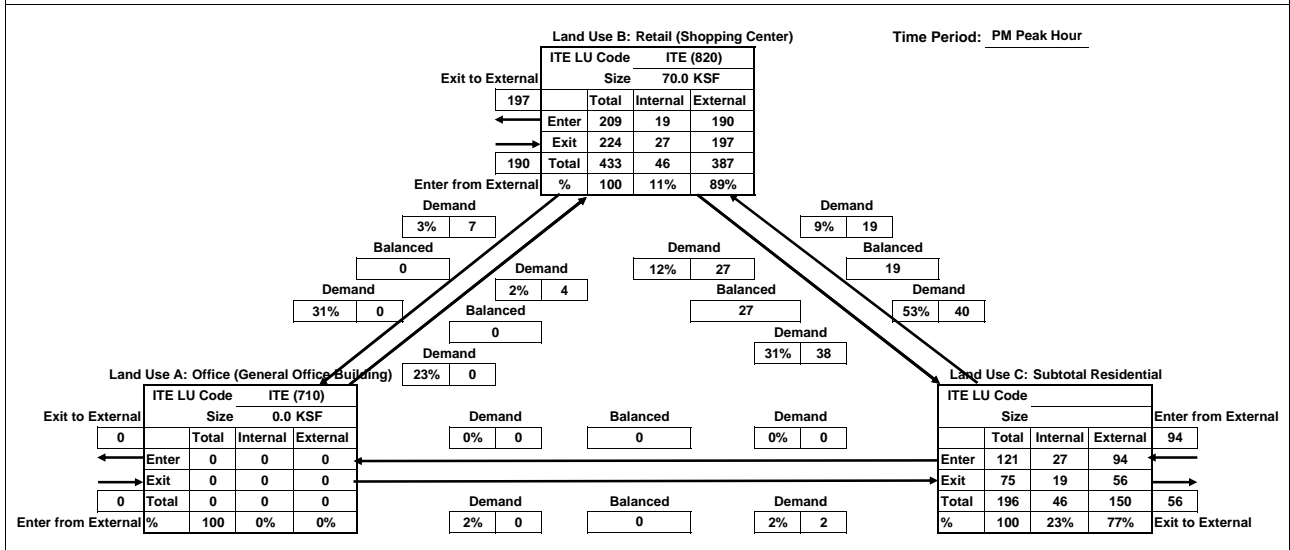
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	61	29	90	
Exit	0	38	142	180	
Total	0	99	171	270	INTERNAL CAPTURE
Single-Use Trip	0	110	182	292	8%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	190	94	284	
Exit	0	197	56	253	
Total	0	387	150	538	INTERNAL CAPTURE
Single-Use Trip	0	433	196	629	15%

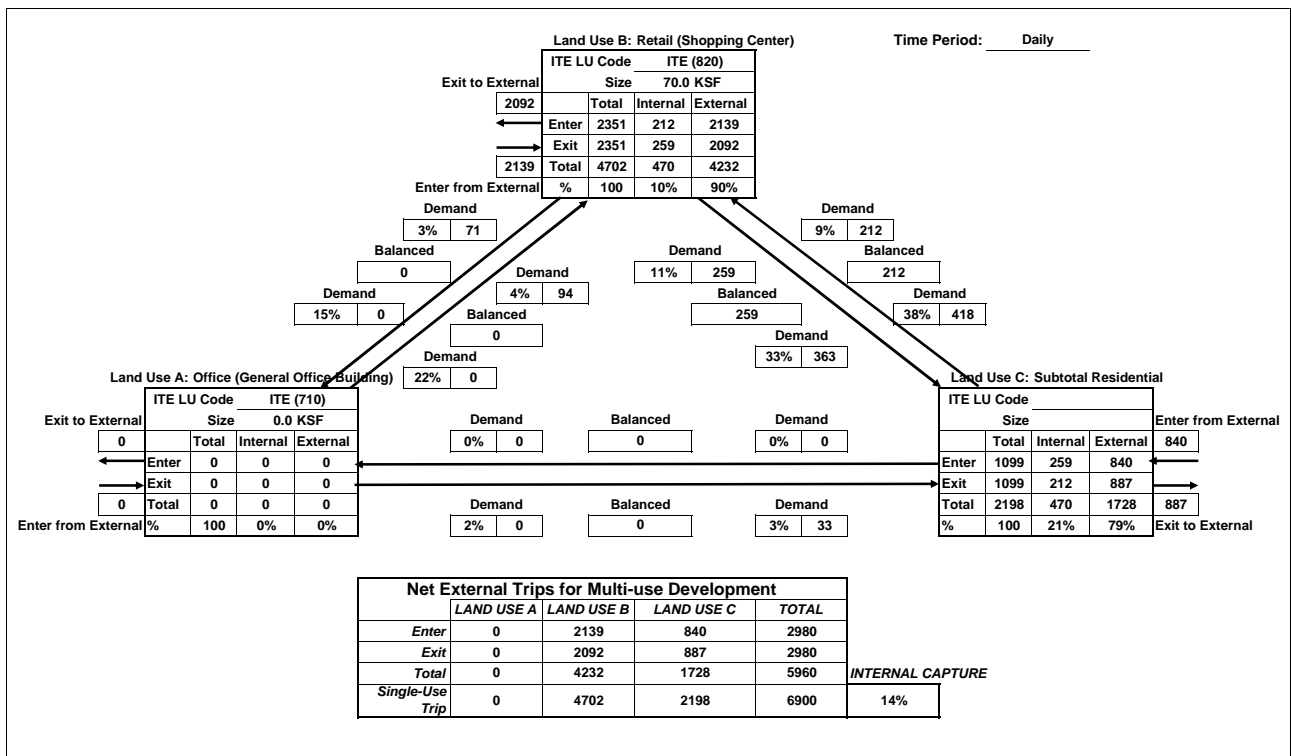
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

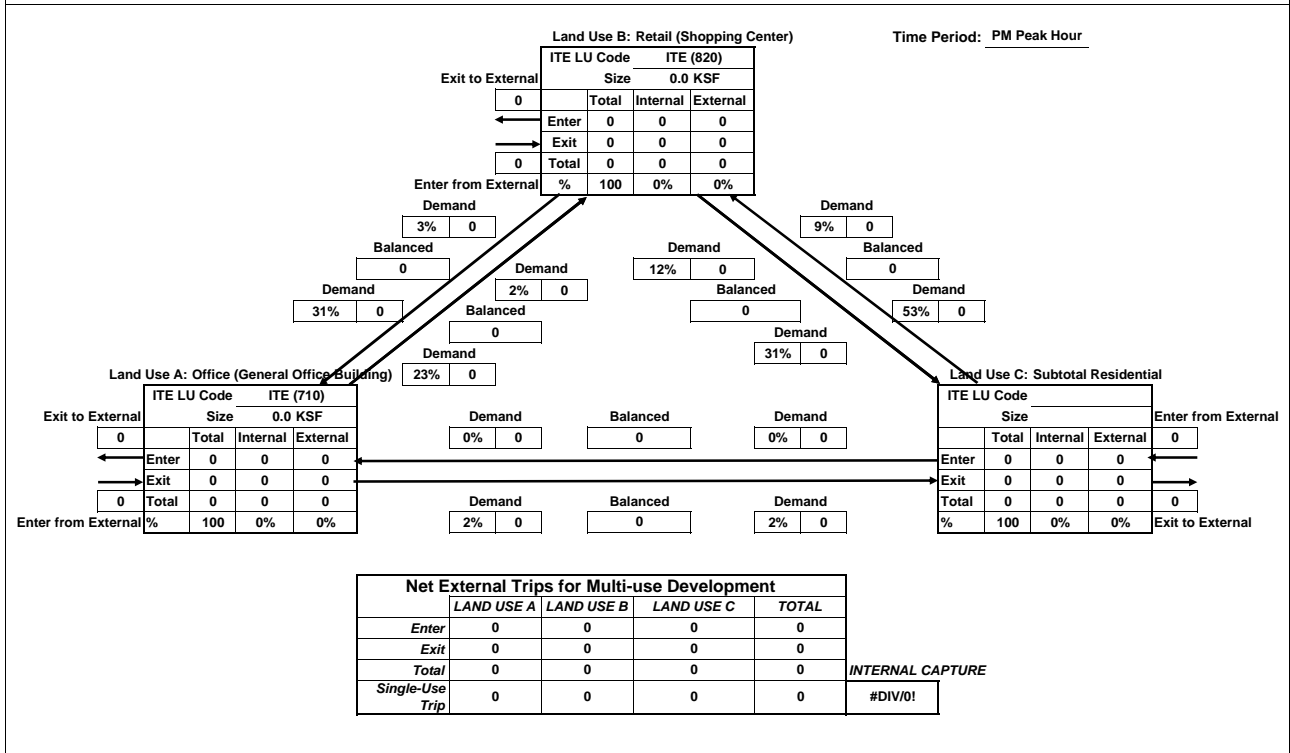
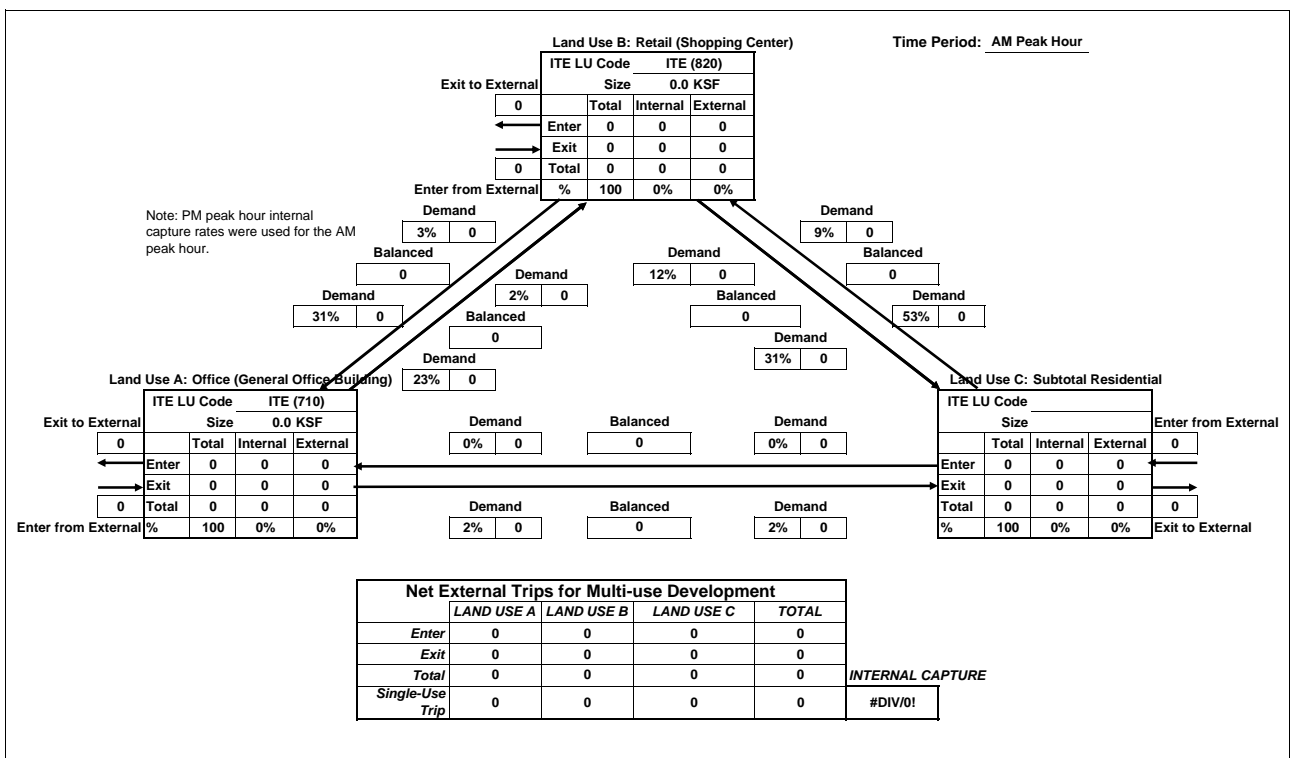


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



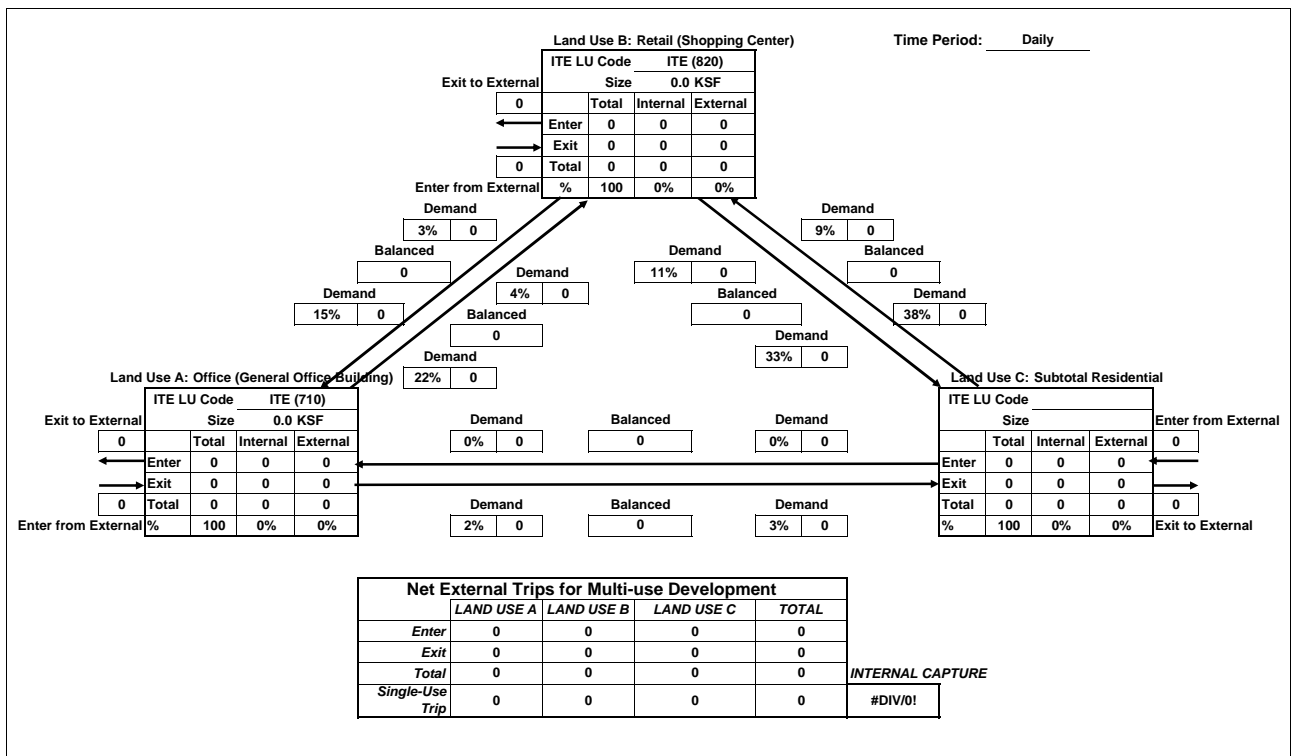
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

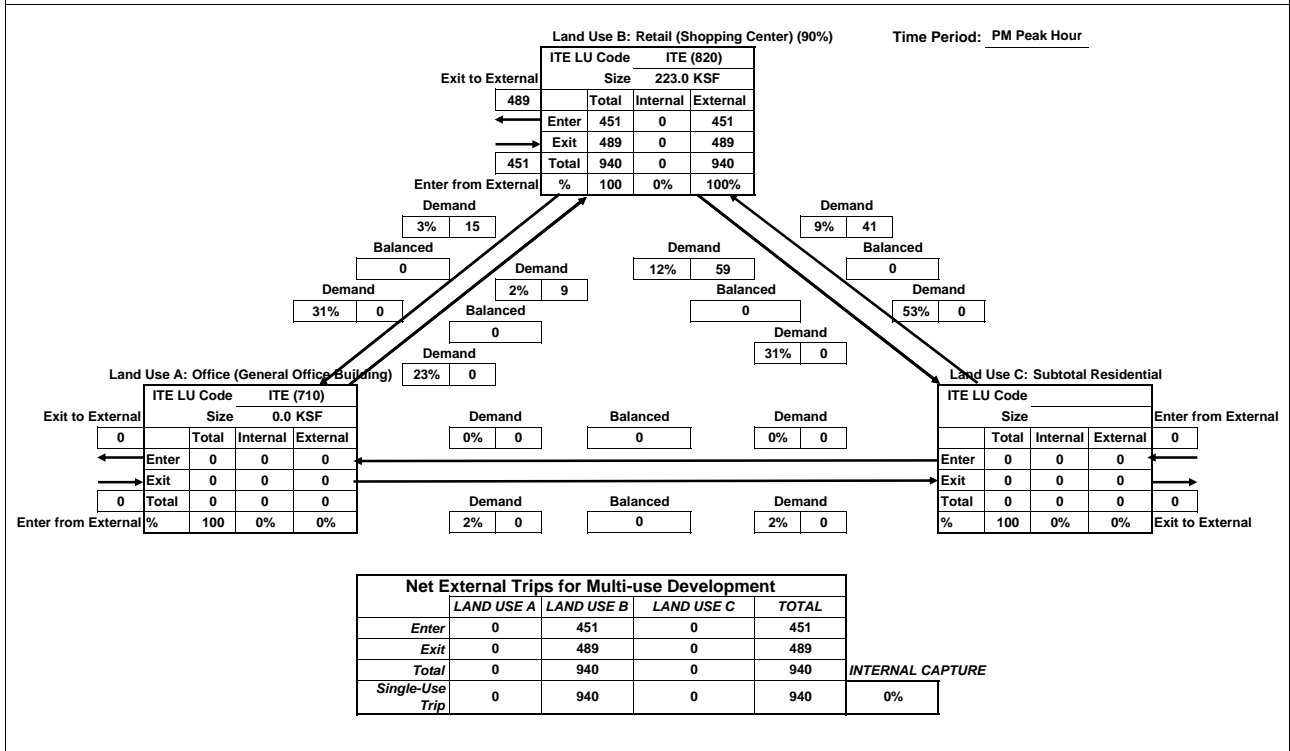
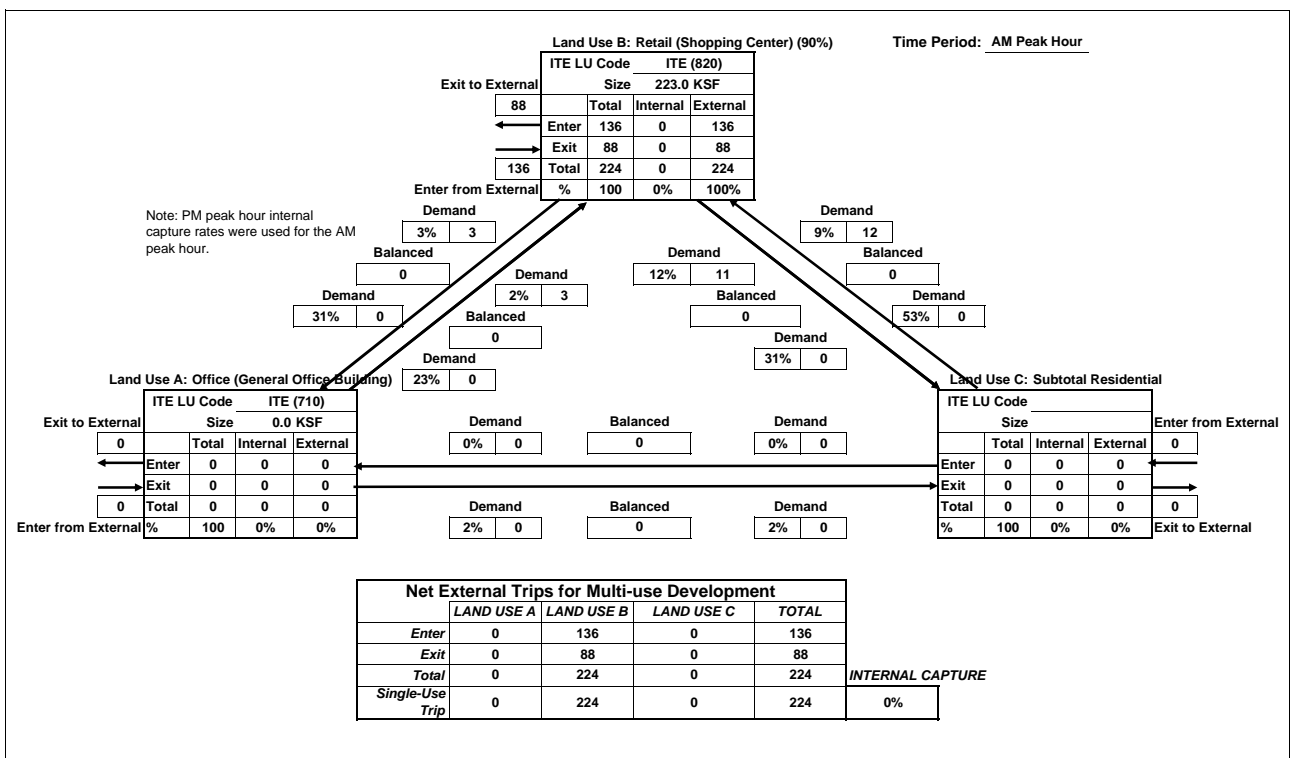
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)



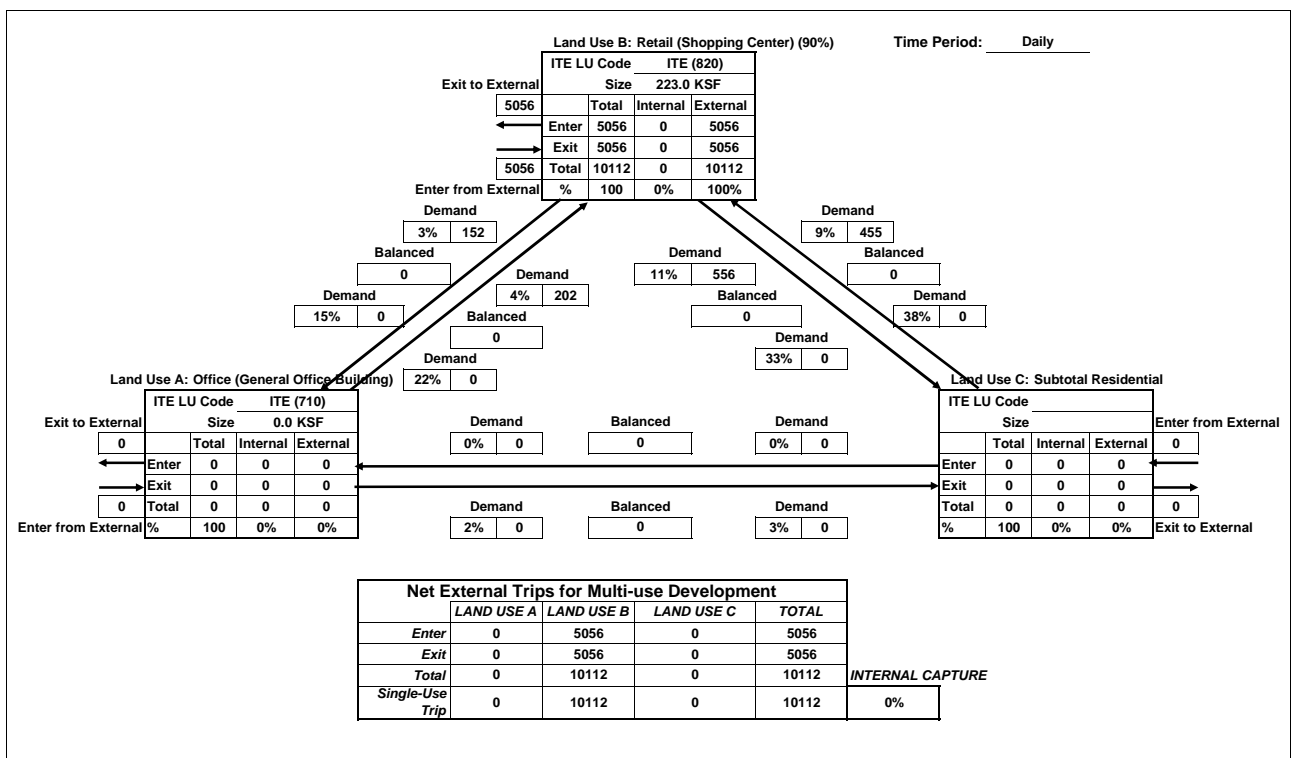
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

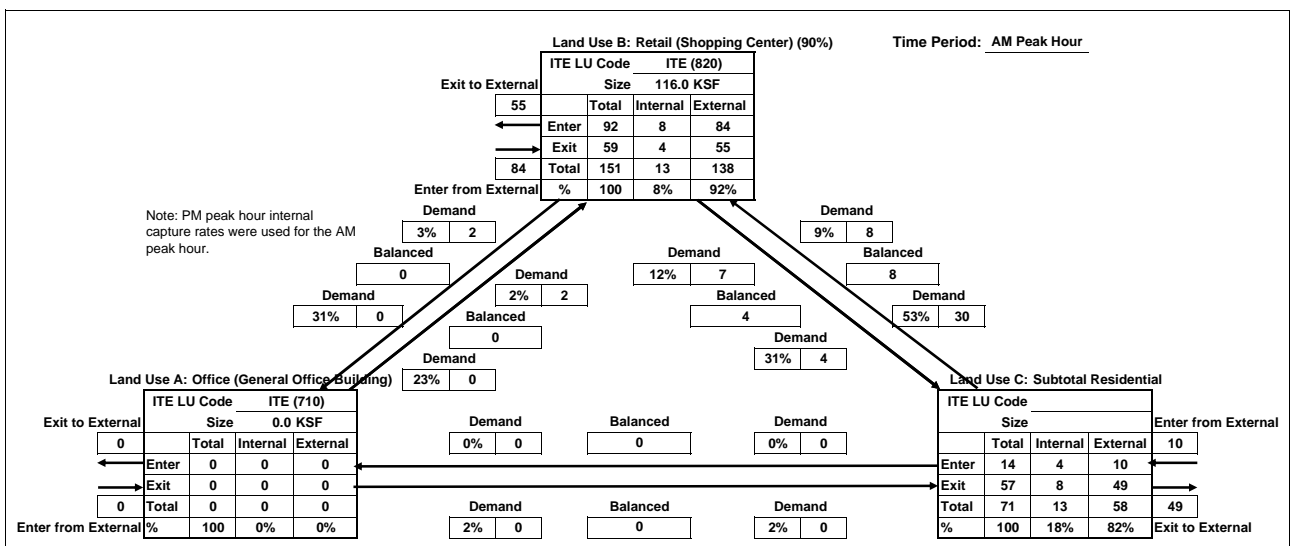
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt



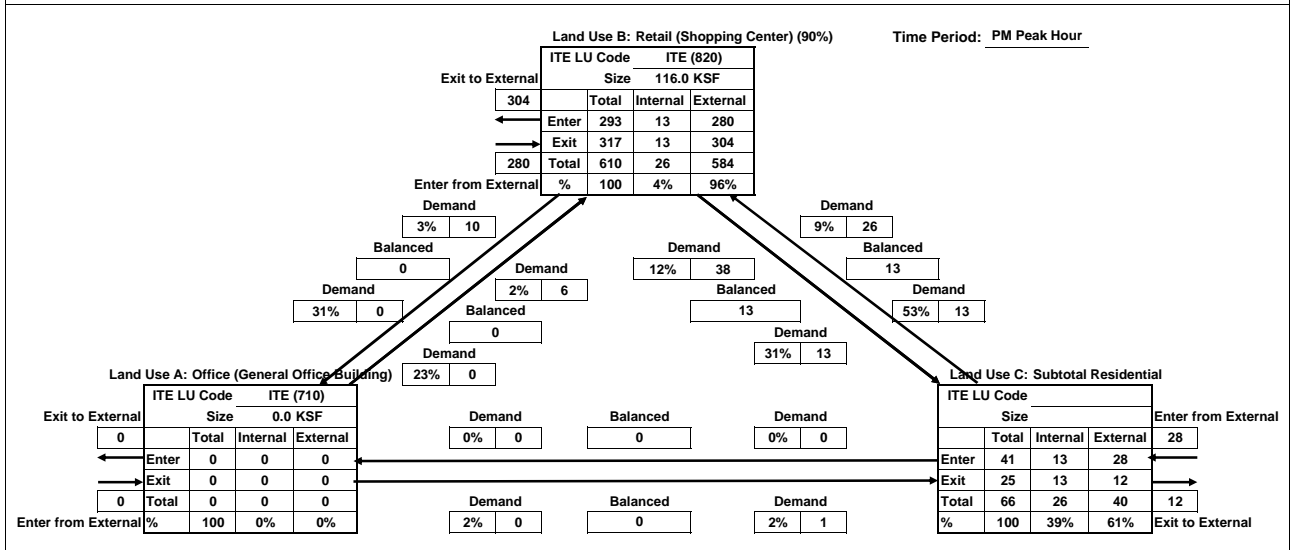
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	84	10	93	
Exit	0	55	49	103	
Total	0	138	58	197	INTERNAL CAPTURE
Single-Use Trip	0	151	71	222	11%



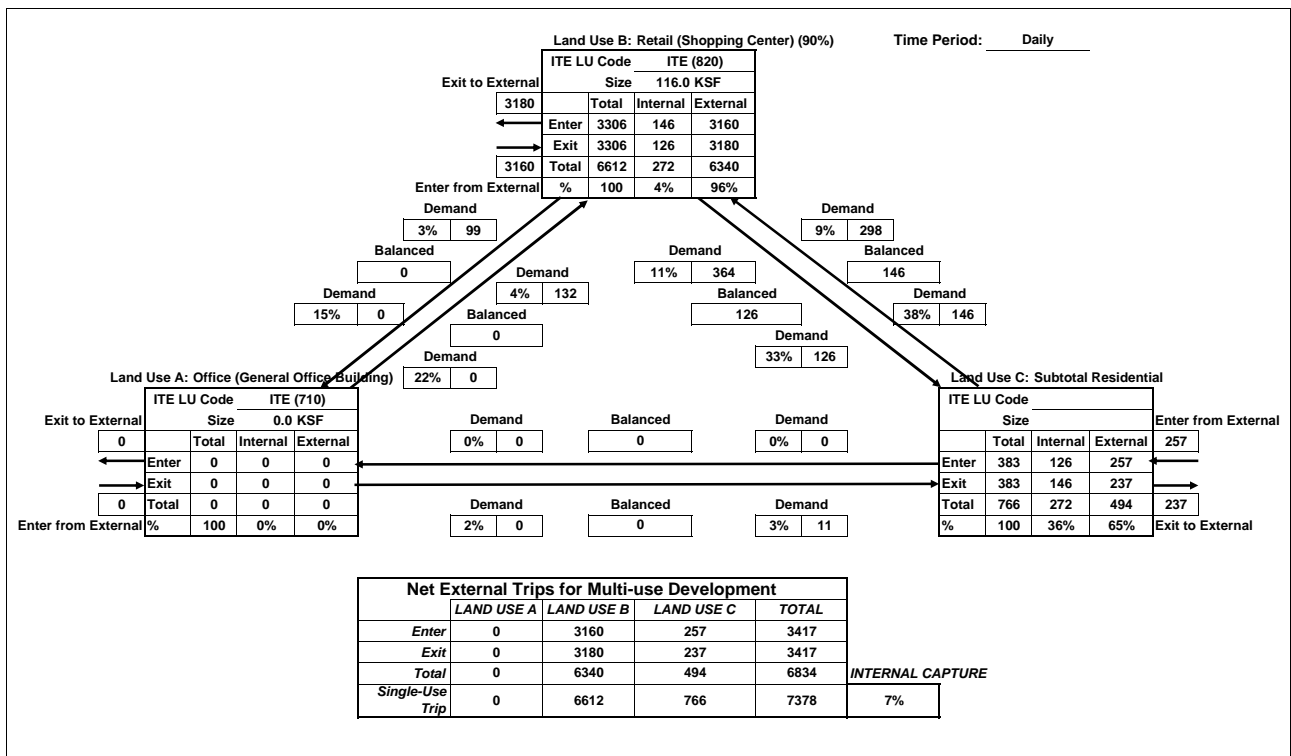
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	280	28	308	
Exit	0	304	12	316	
Total	0	584	40	624	INTERNAL CAPTURE
Single-Use Trip	0	610	66	676	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

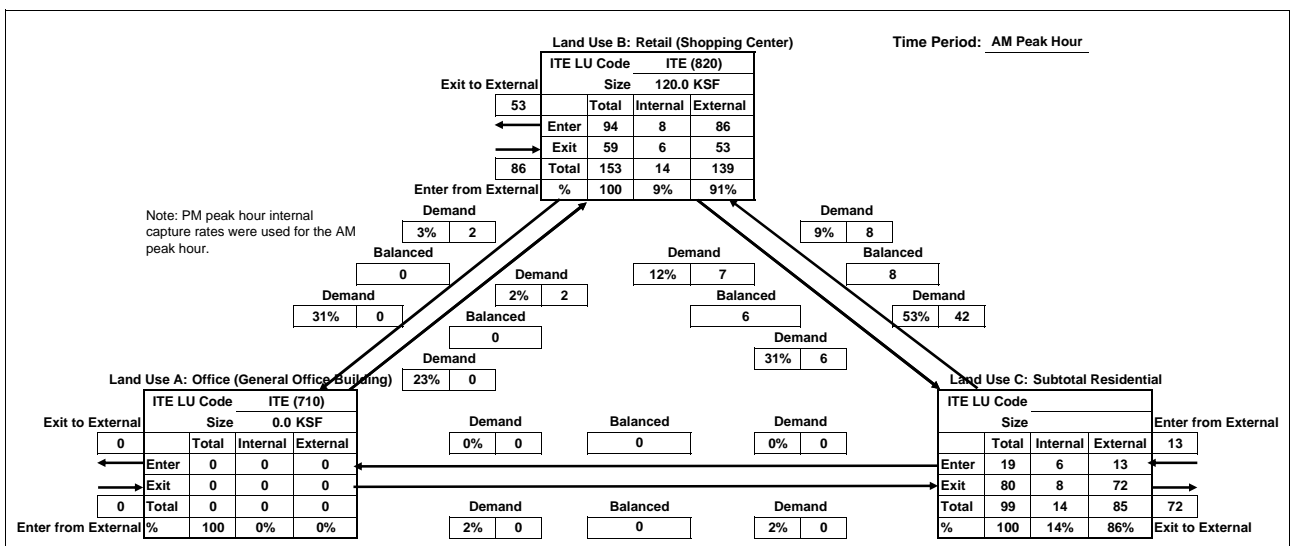


Analyst: Dowling

Date: 8/17/2007

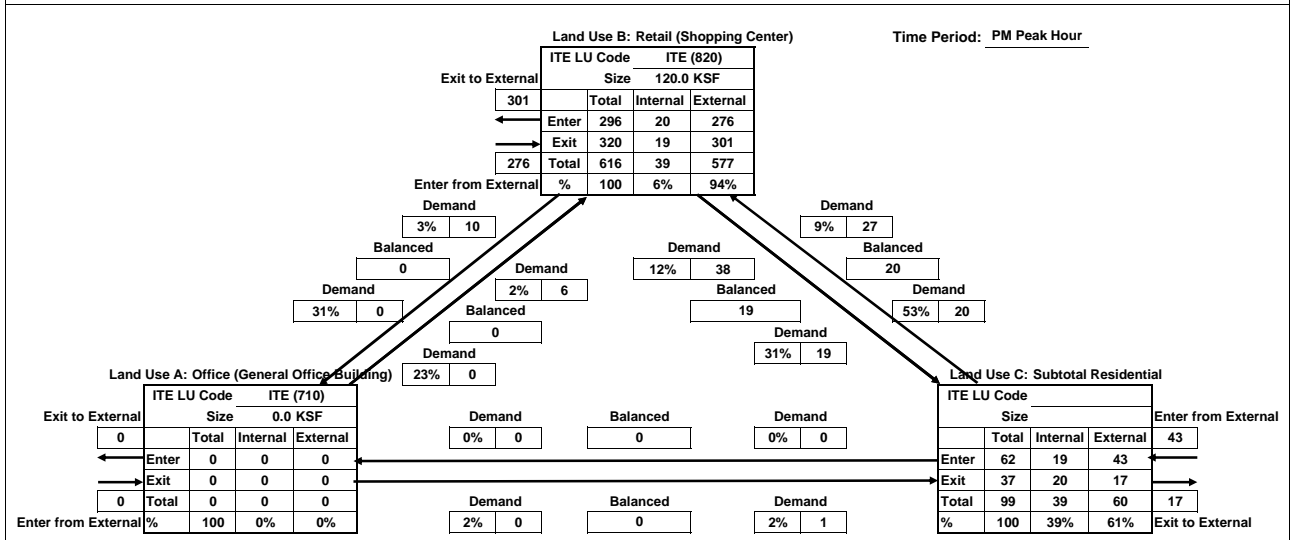
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	86	13	99	
Exit	0	53	72	125	
Total	0	139	85	223	INTERNAL CAPTURE
Single-Use Trip	0	153	99	252	11%



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	276	43	319	
Exit	0	301	17	318	
Total	0	577	60	637	INTERNAL CAPTURE
Single-Use Trip	0	616	99	715	11%

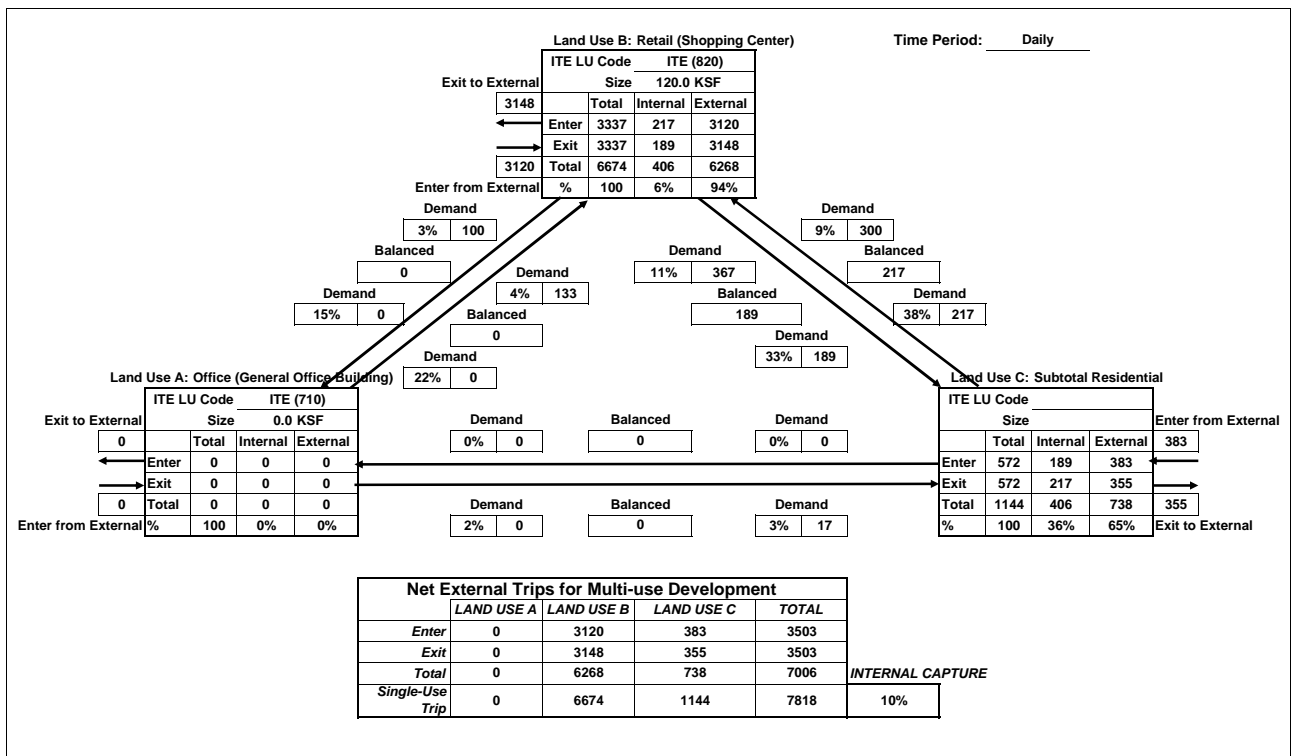
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

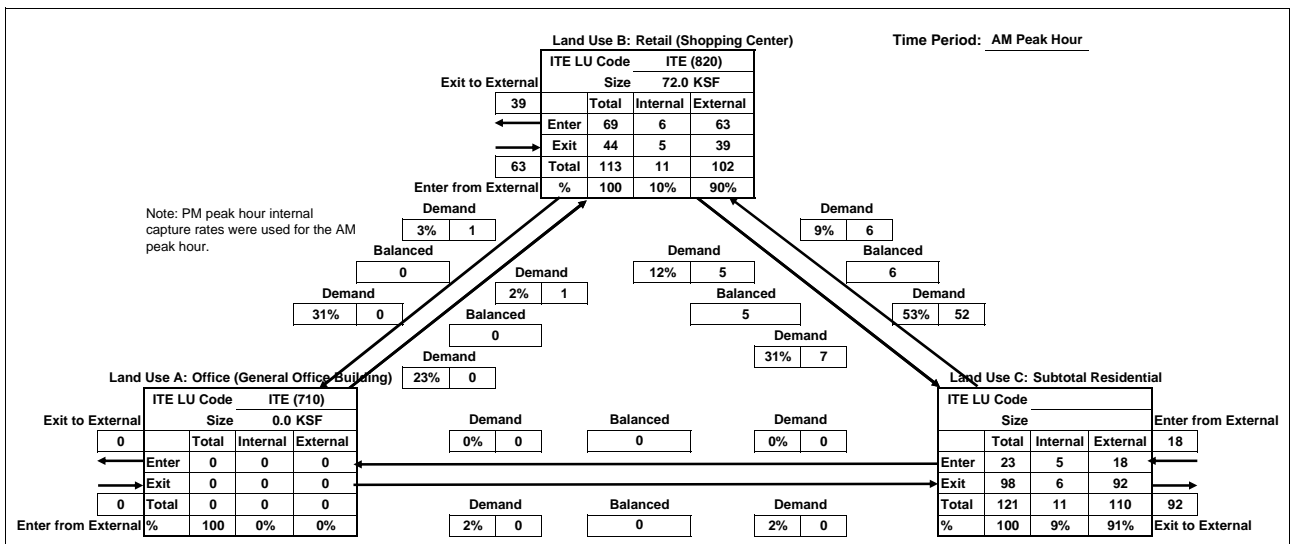


Analyst: Dowling

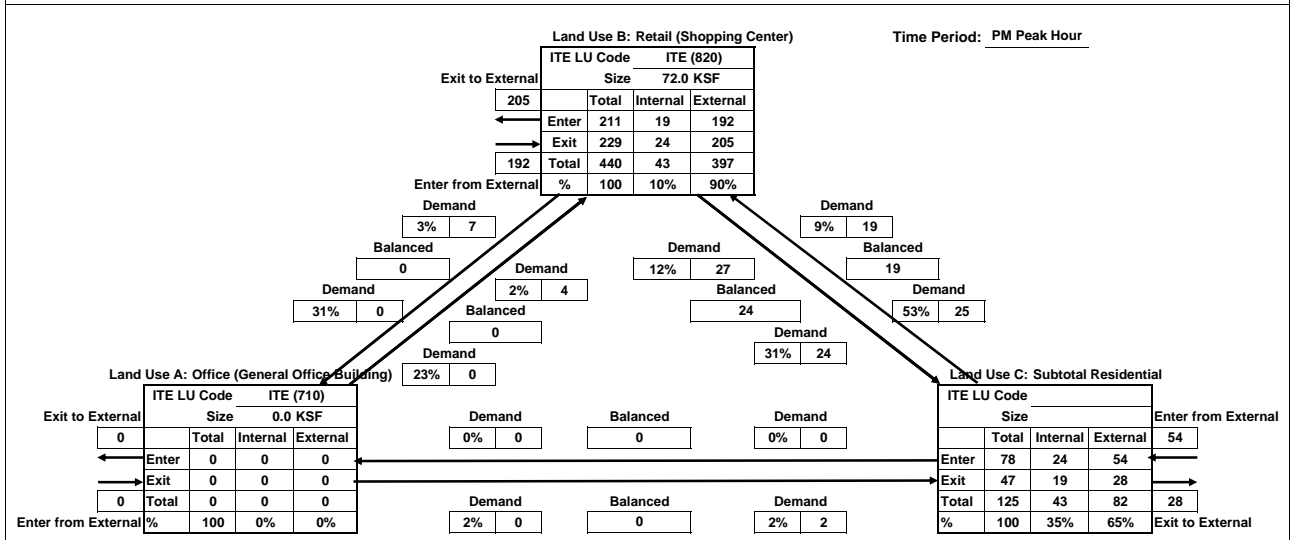
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	63	18	81	
Exit	0	39	92	131	
Total	0	102	110	211	INTERNAL CAPTURE
Single-Use Trip	0	113	121	234	10%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	192	54	246	
Exit	0	205	28	233	
Total	0	397	82	479	INTERNAL CAPTURE
Single-Use Trip	0	440	125	565	15%

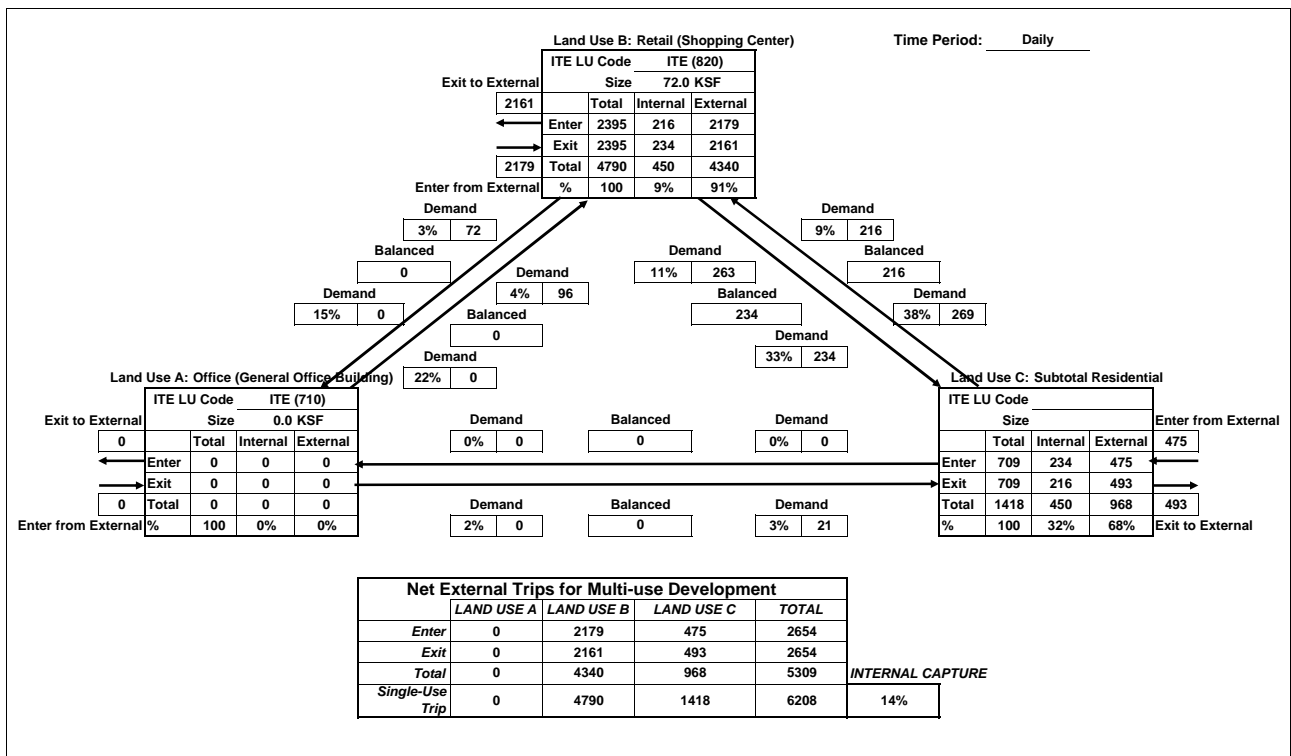
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

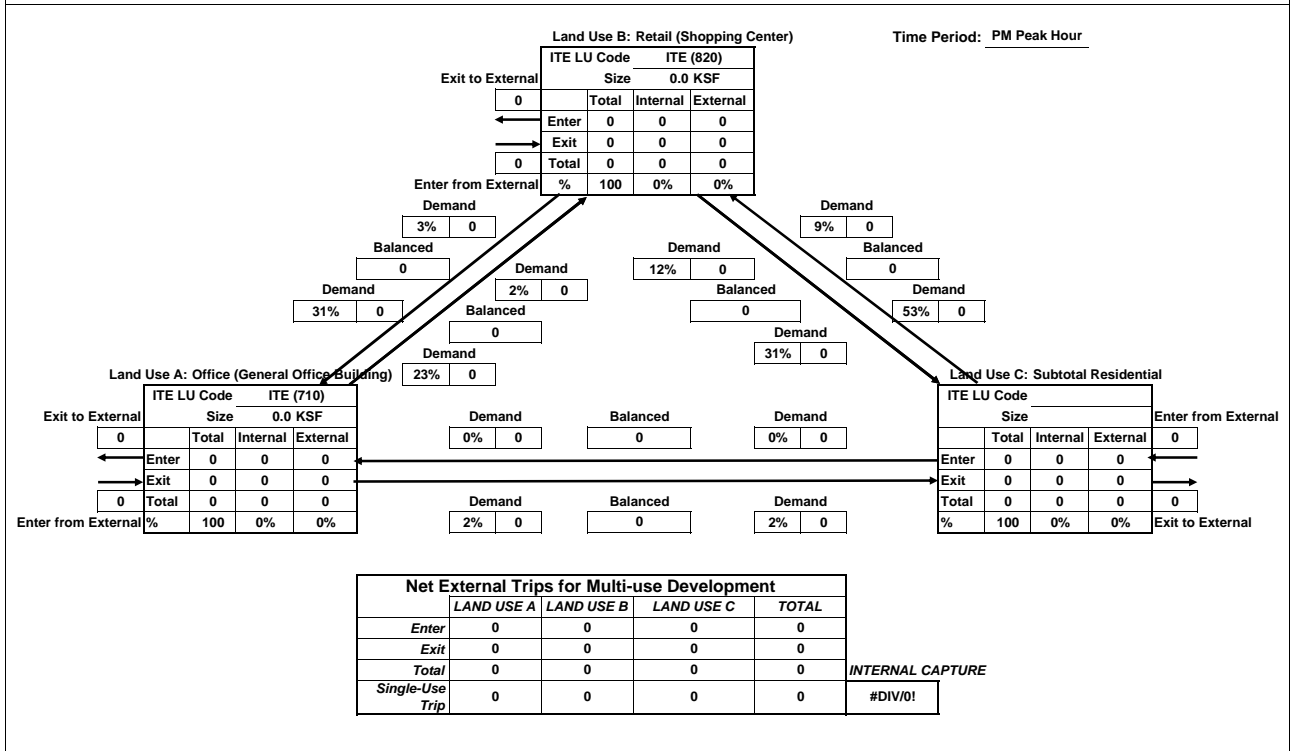
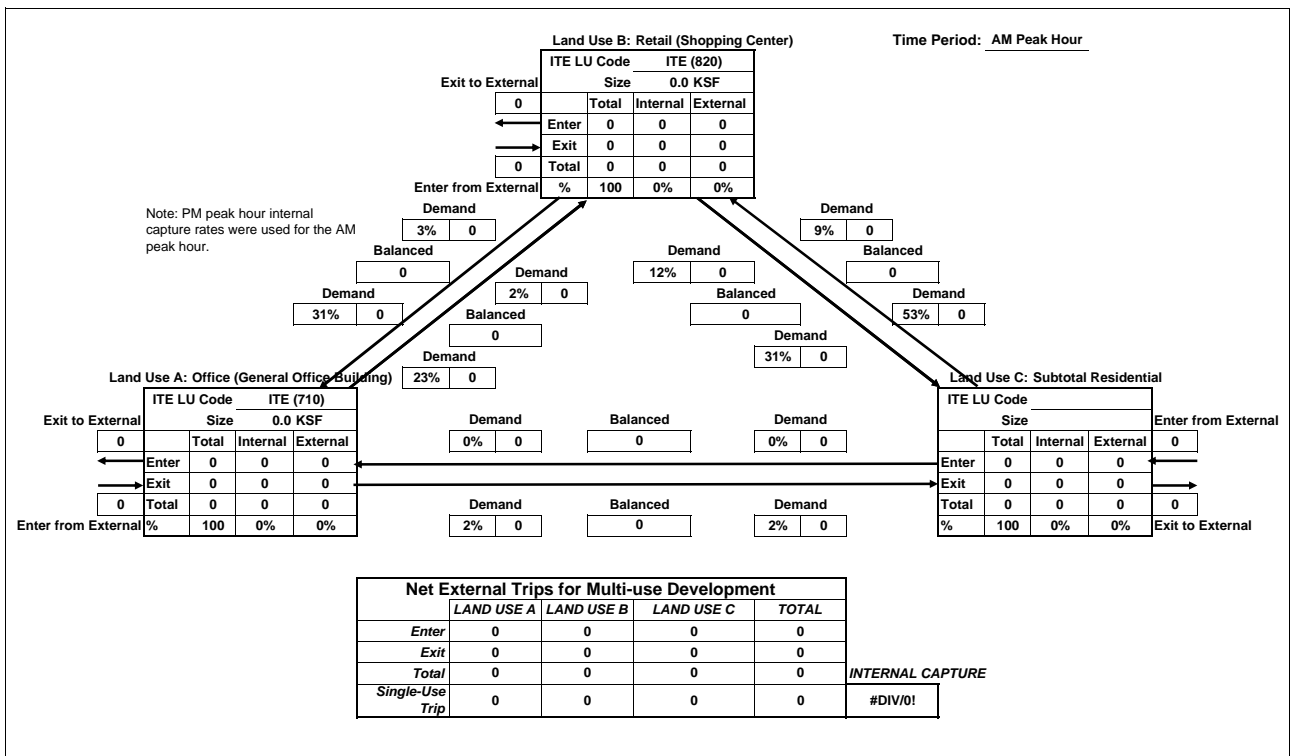


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



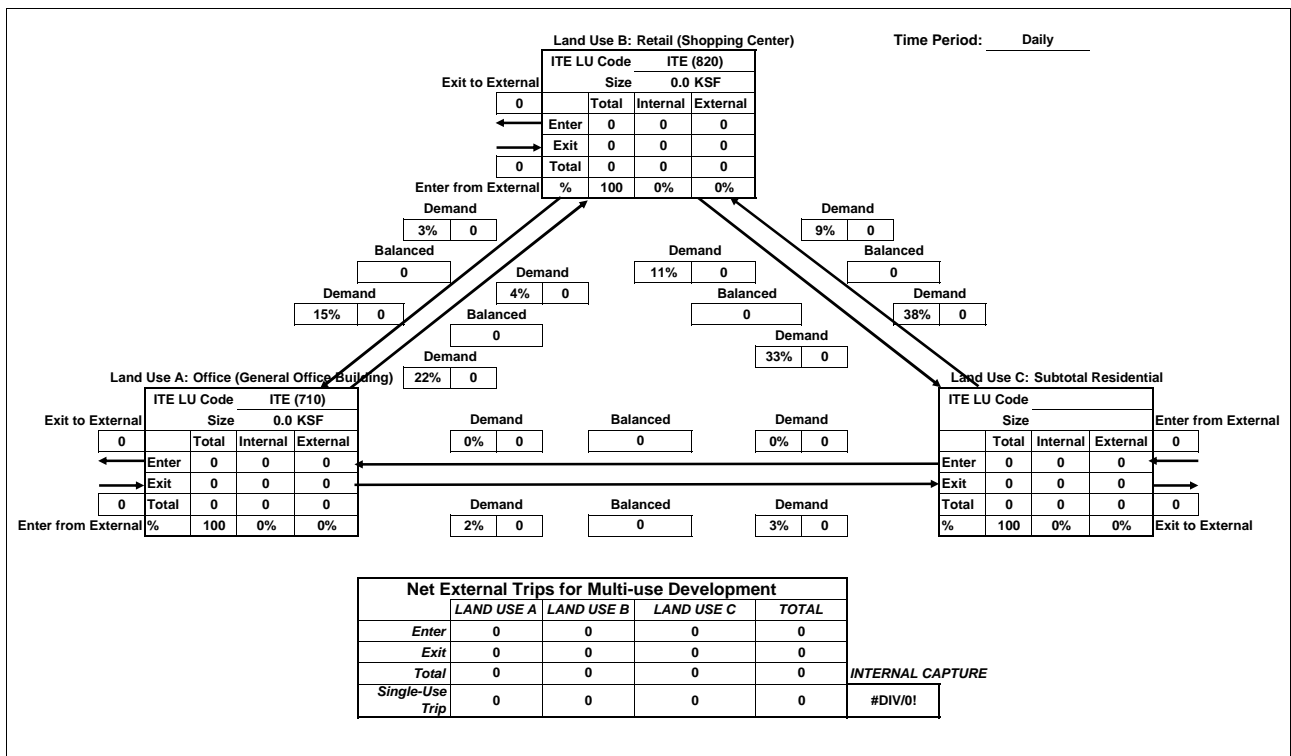
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

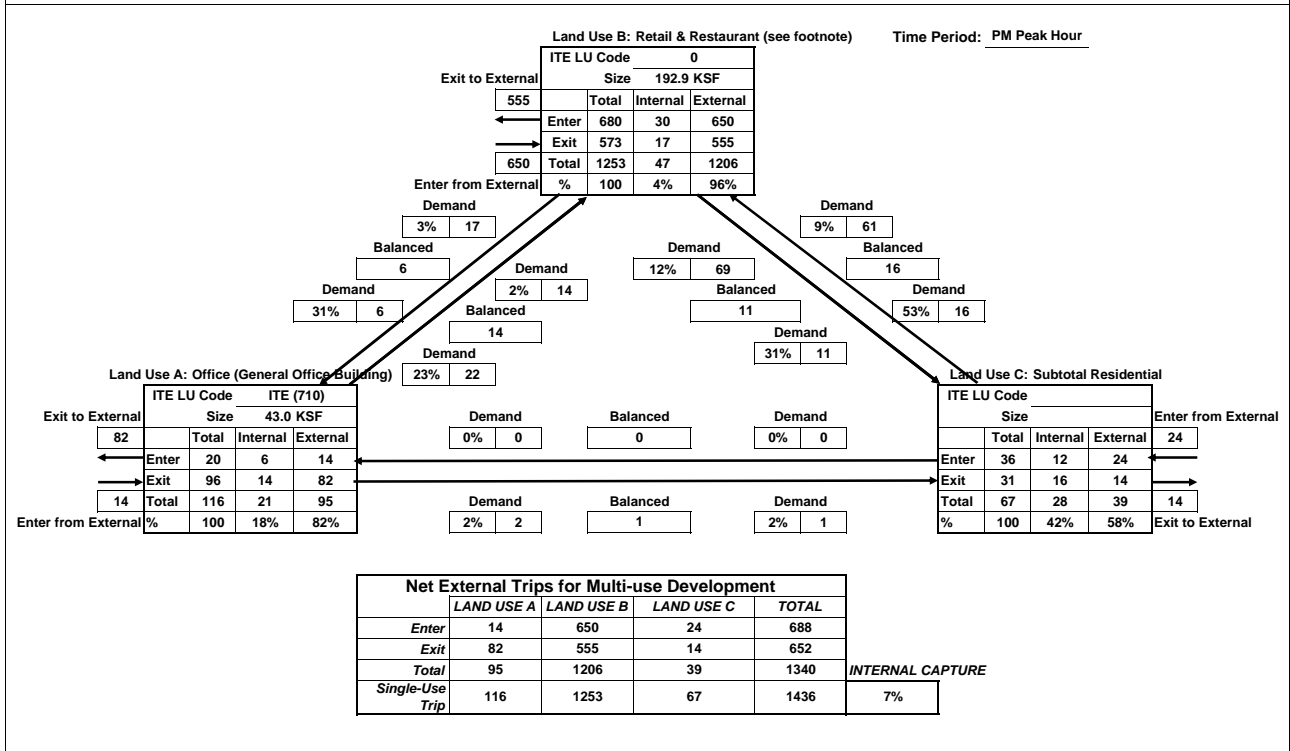
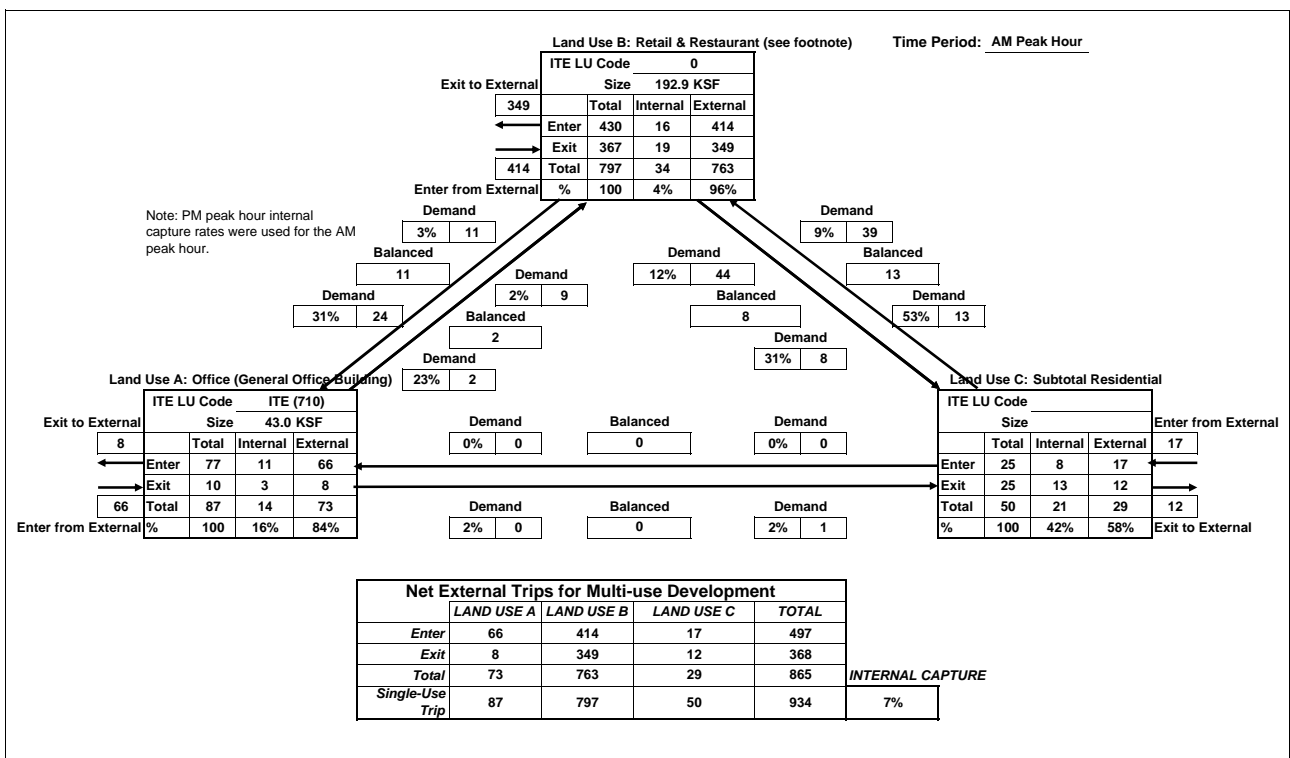
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

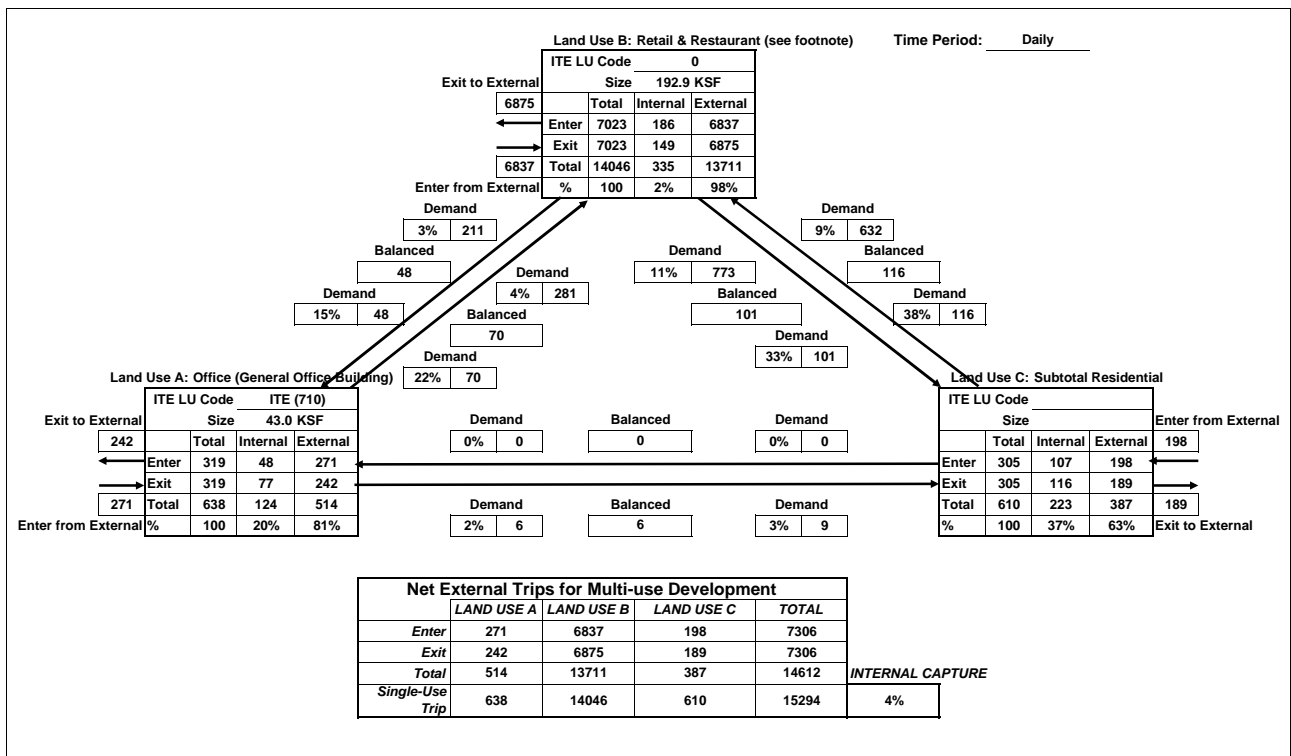


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

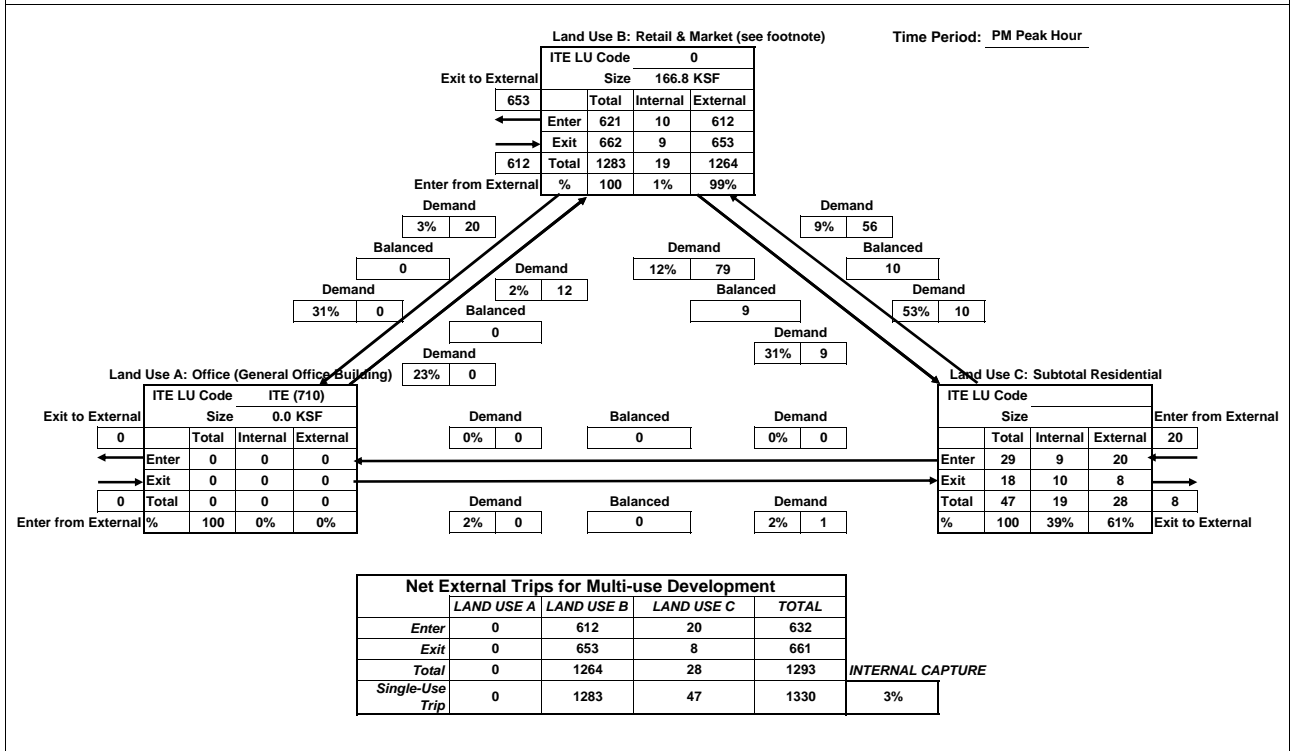
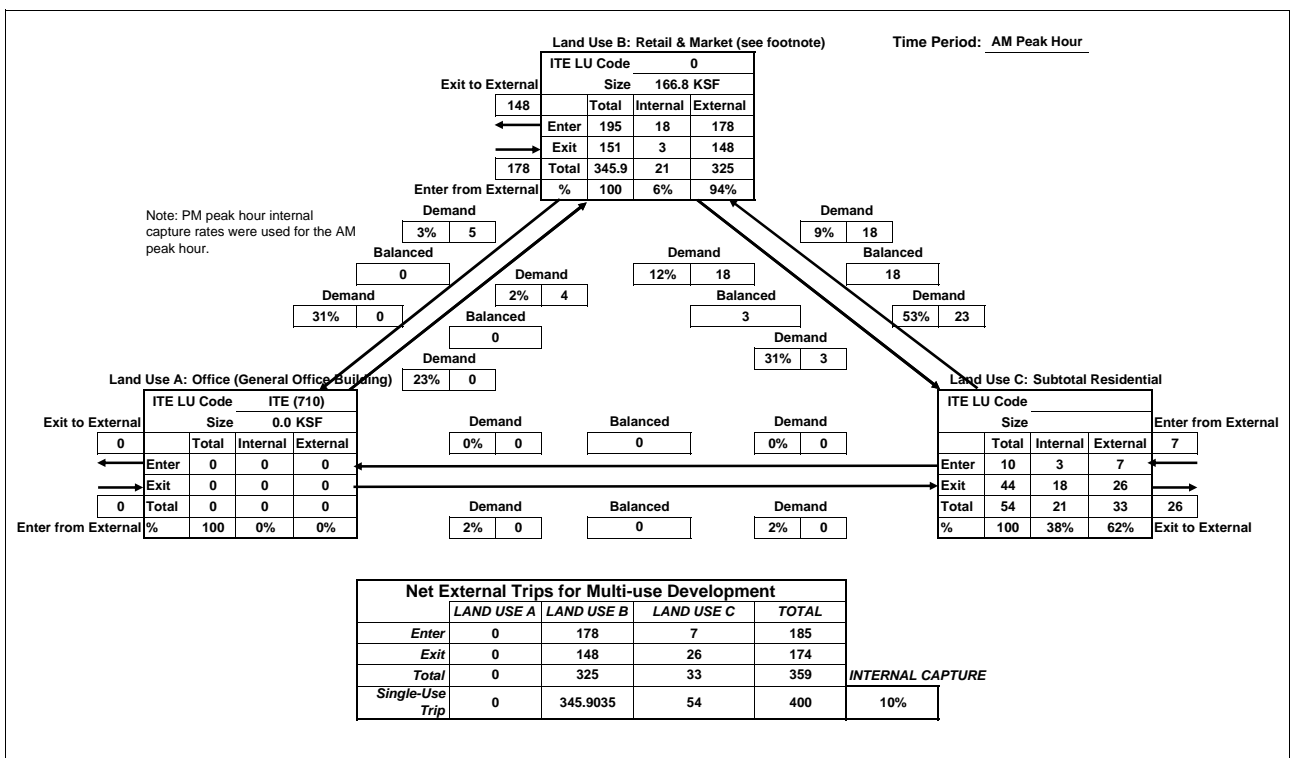
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

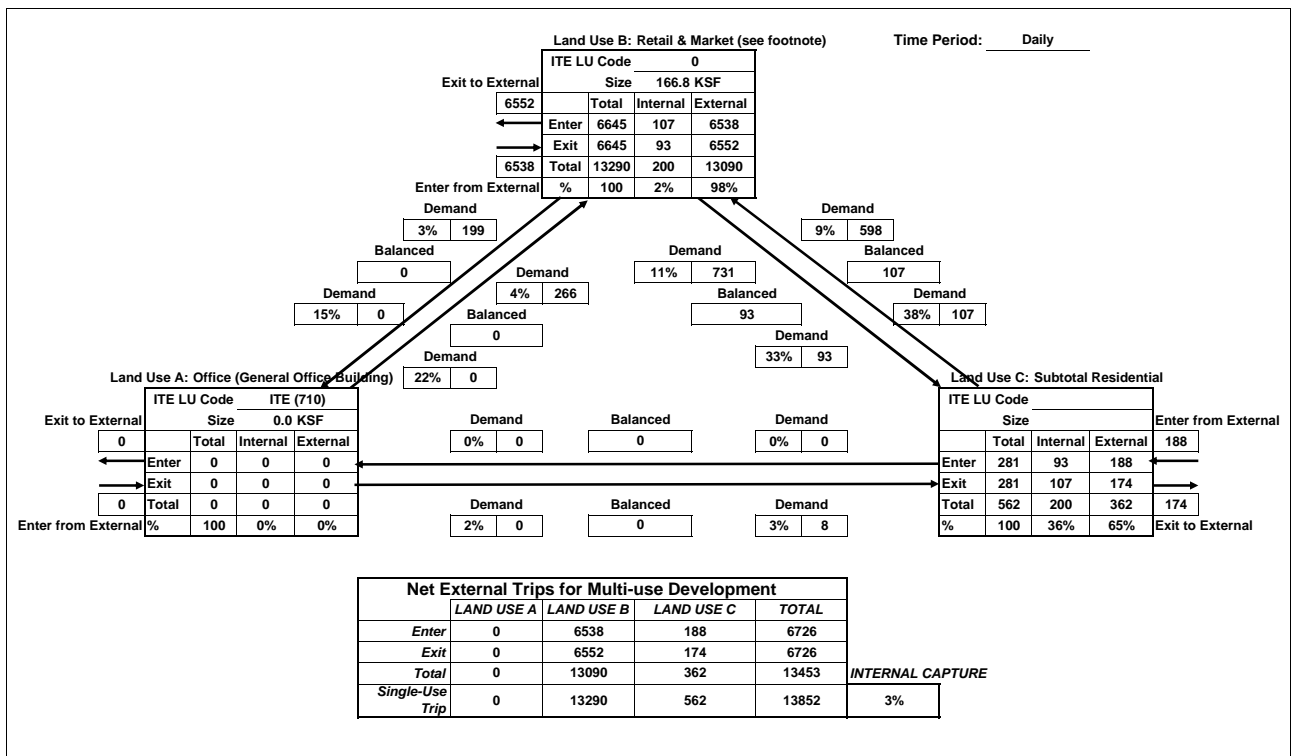


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

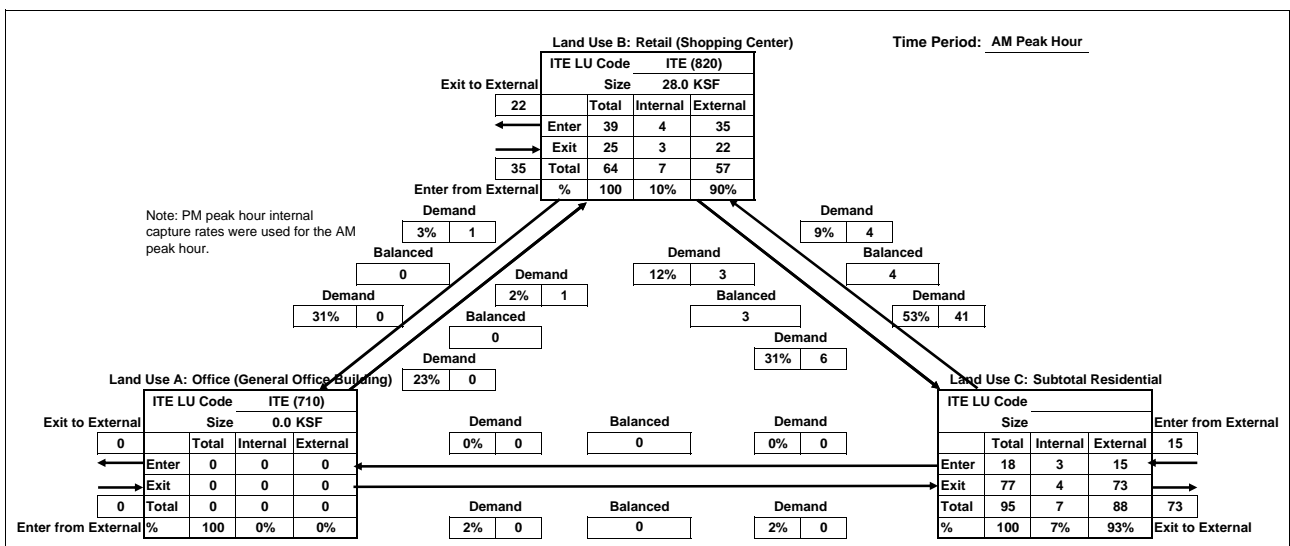


Analyst: Dowling

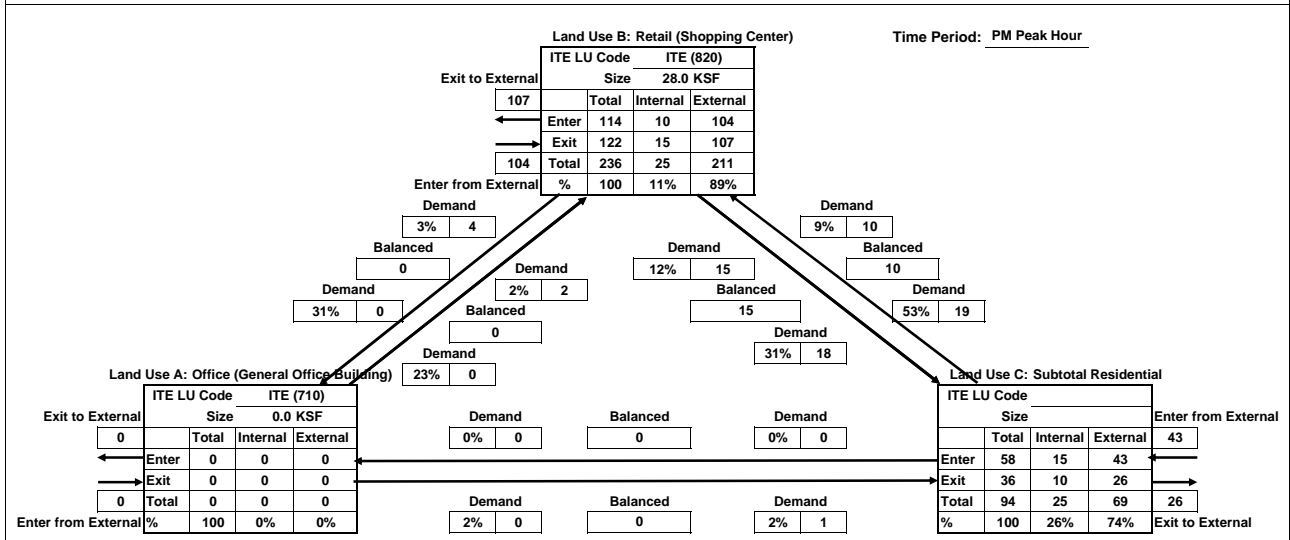
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	35	15	50	
Exit	0	22	73	95	
Total	0	57	88	146	INTERNAL CAPTURE
Single-Use Trip	0	64	95	159	8%



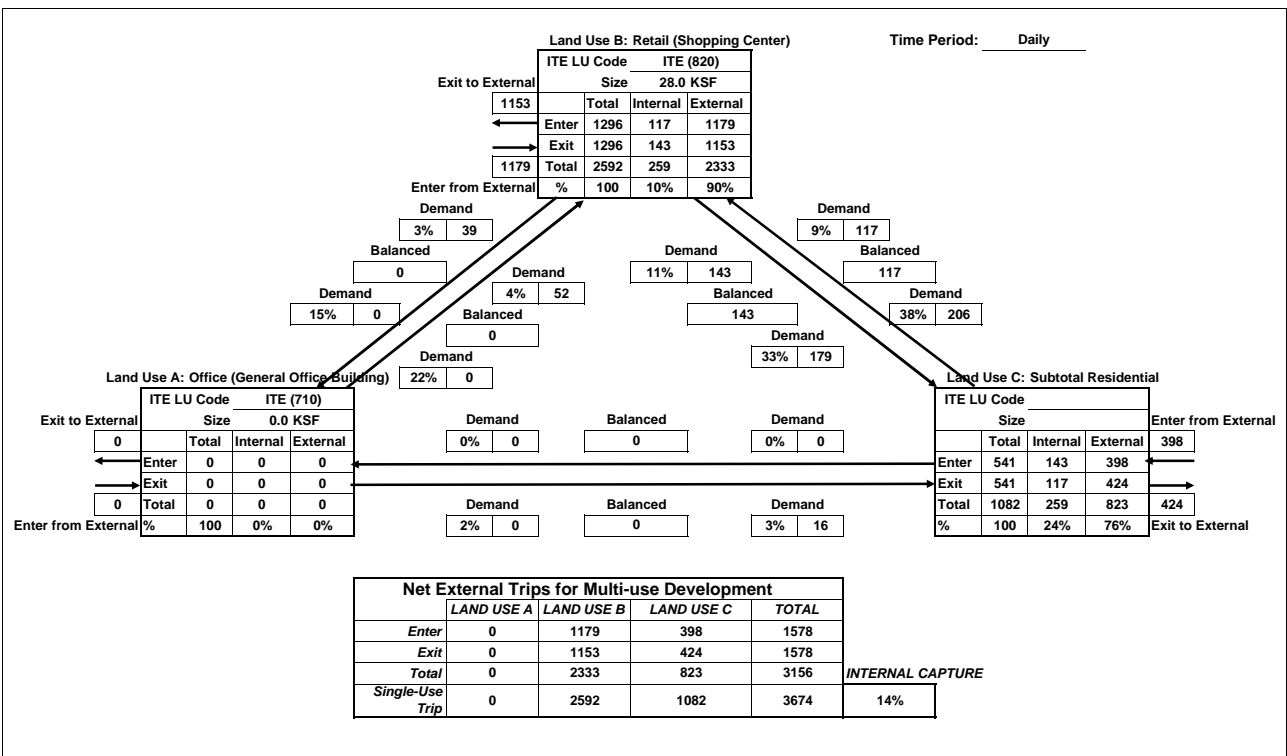
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	104	43	147	
Exit	0	107	26	133	
Total	0	211	69	280	INTERNAL CAPTURE
Single-Use Trip	0	236	94	330	15%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

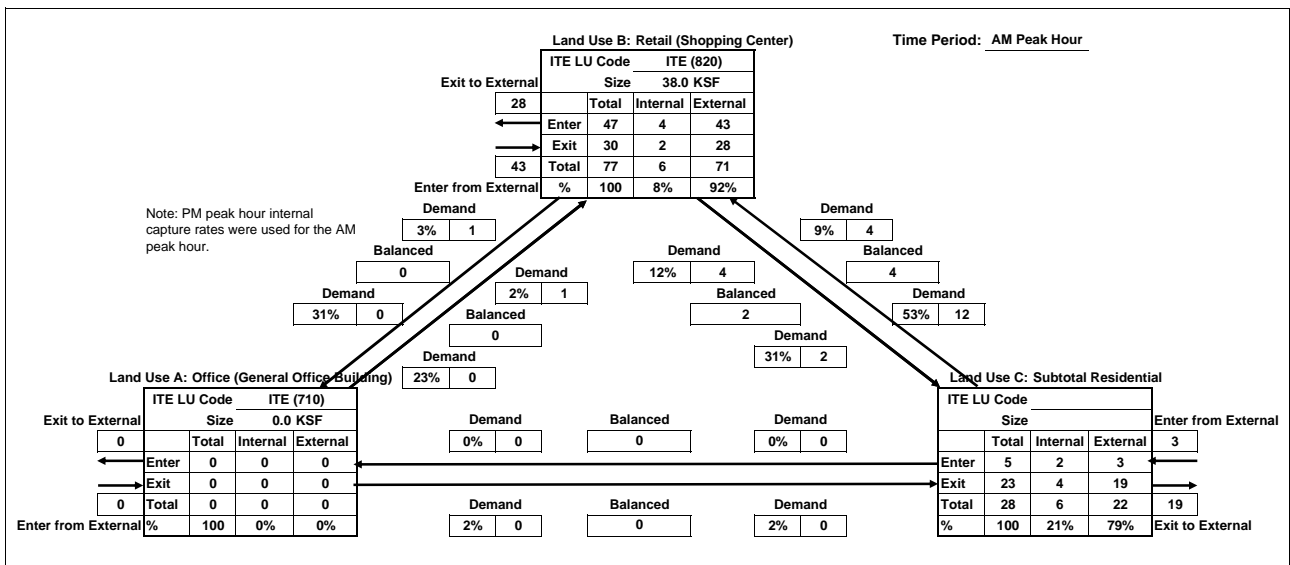
Time Period: Daily



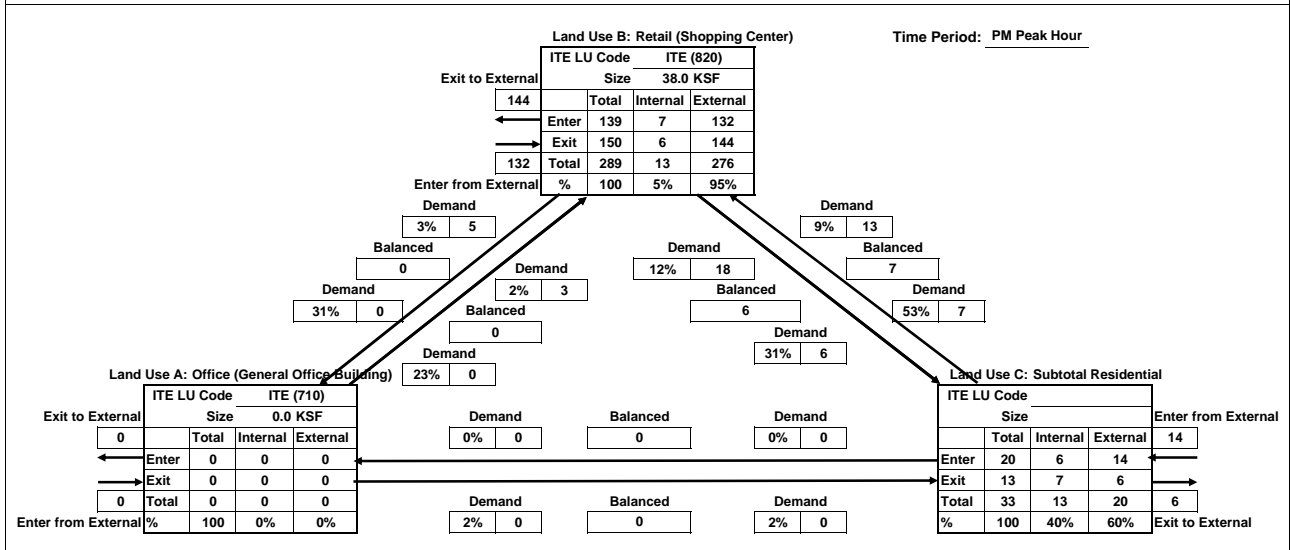
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	43	3	46	
Exit	0	28	19	47	
Total	0	71	22	93	INTERNAL CAPTURE
Single-Use Trip	0	77	28	105	11%



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	132	14	146	
Exit	0	144	6	150	
Total	0	276	20	296	INTERNAL CAPTURE
Single-Use Trip	0	289	33	322	8%

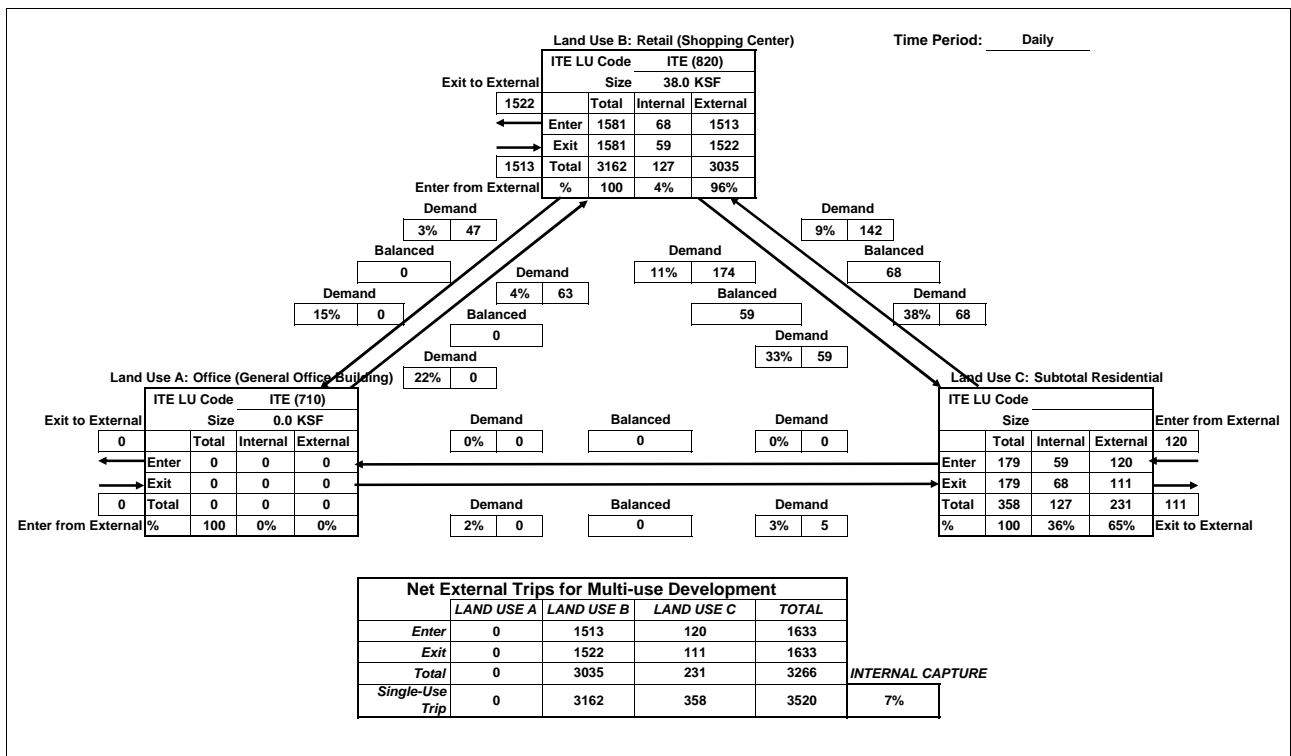
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

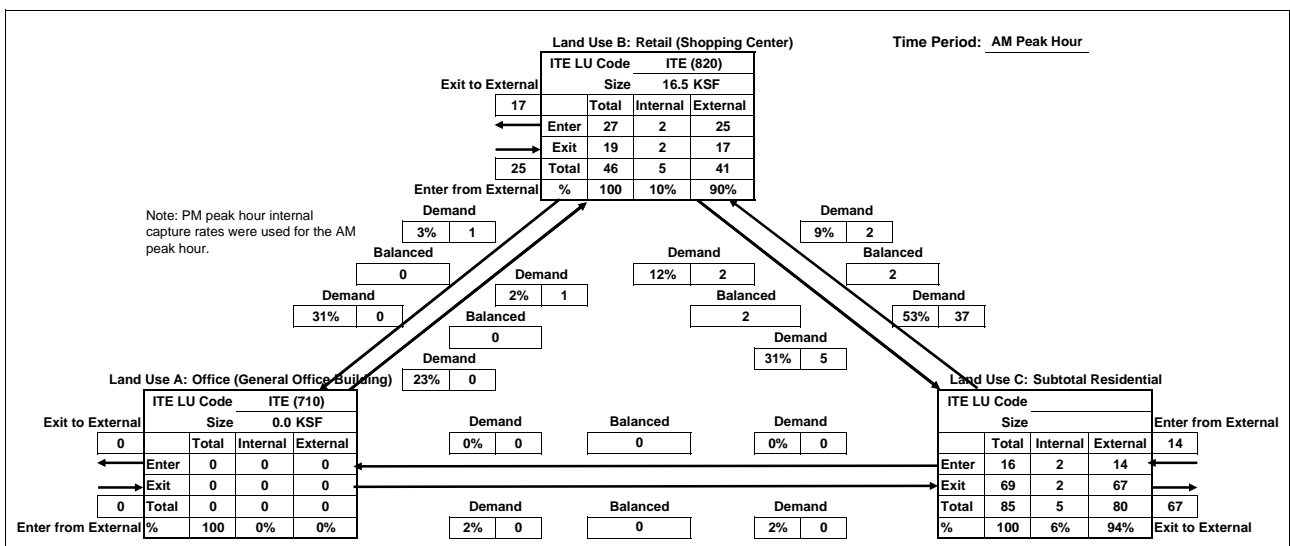


Analyst: Dowling

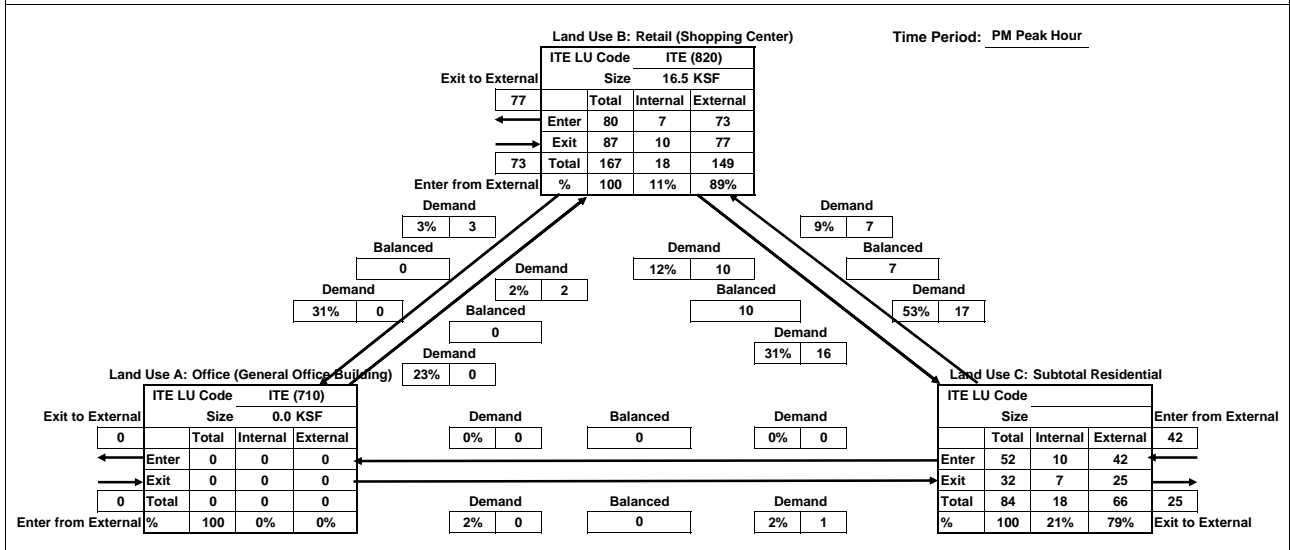
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	25	14	38	
Exit	0	17	67	83	
Total	0	41	80	122	INTERNAL CAPTURE
Single-Use Trip	0	46	85	131	7%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	73	42	114	
Exit	0	77	25	101	
Total	0	149	66	216	INTERNAL CAPTURE
Single-Use Trip	0	167	84	251	14%

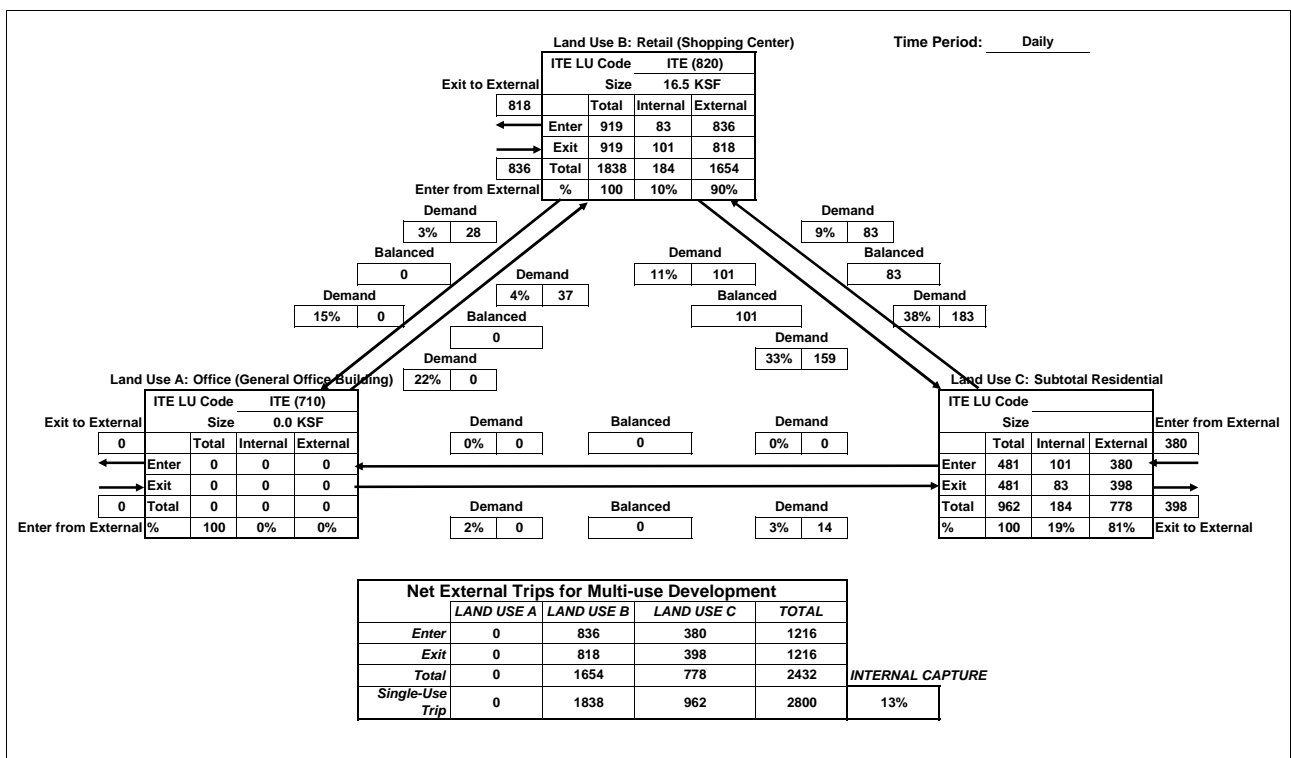
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

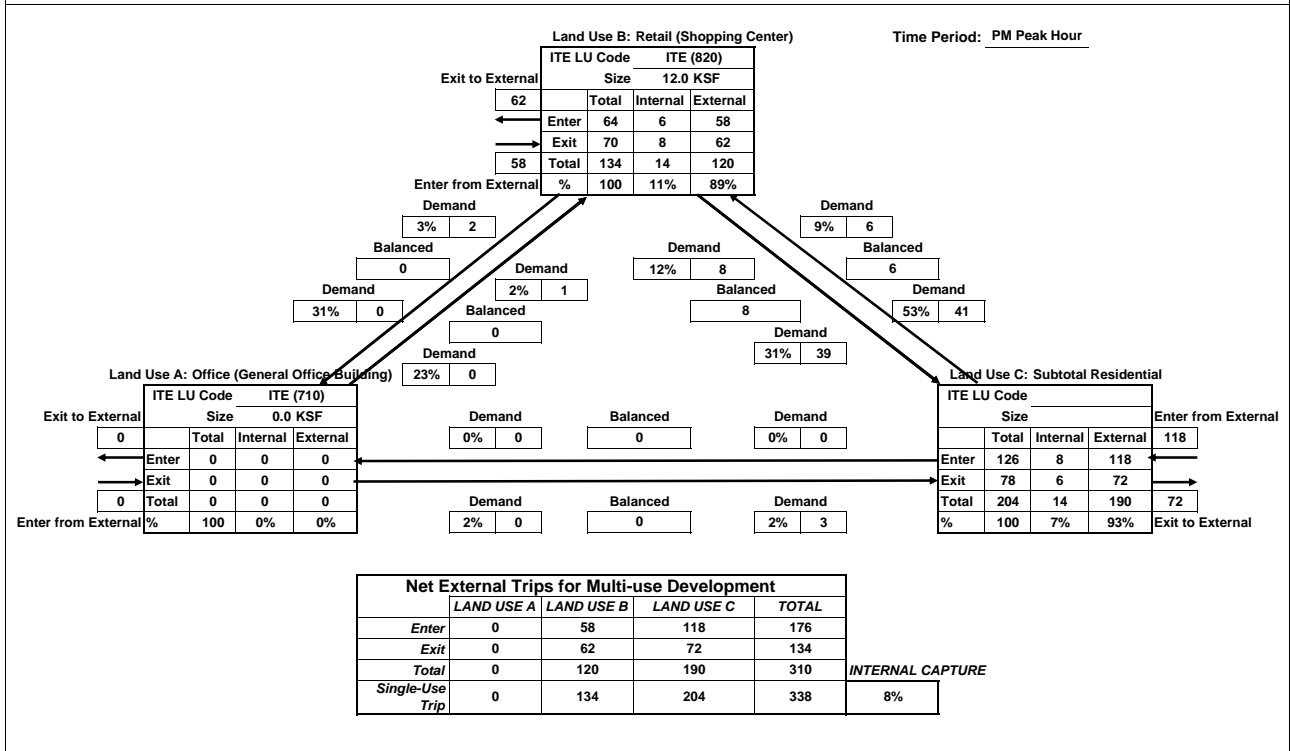
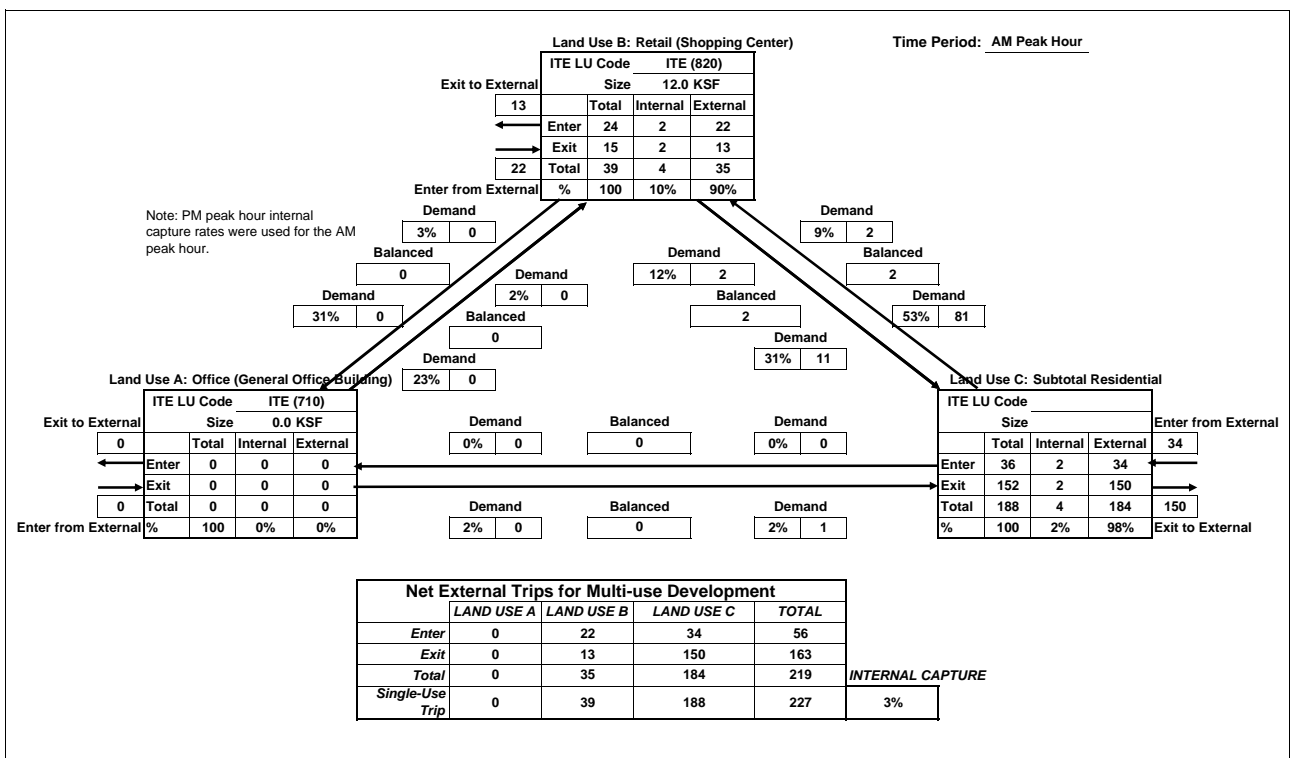


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



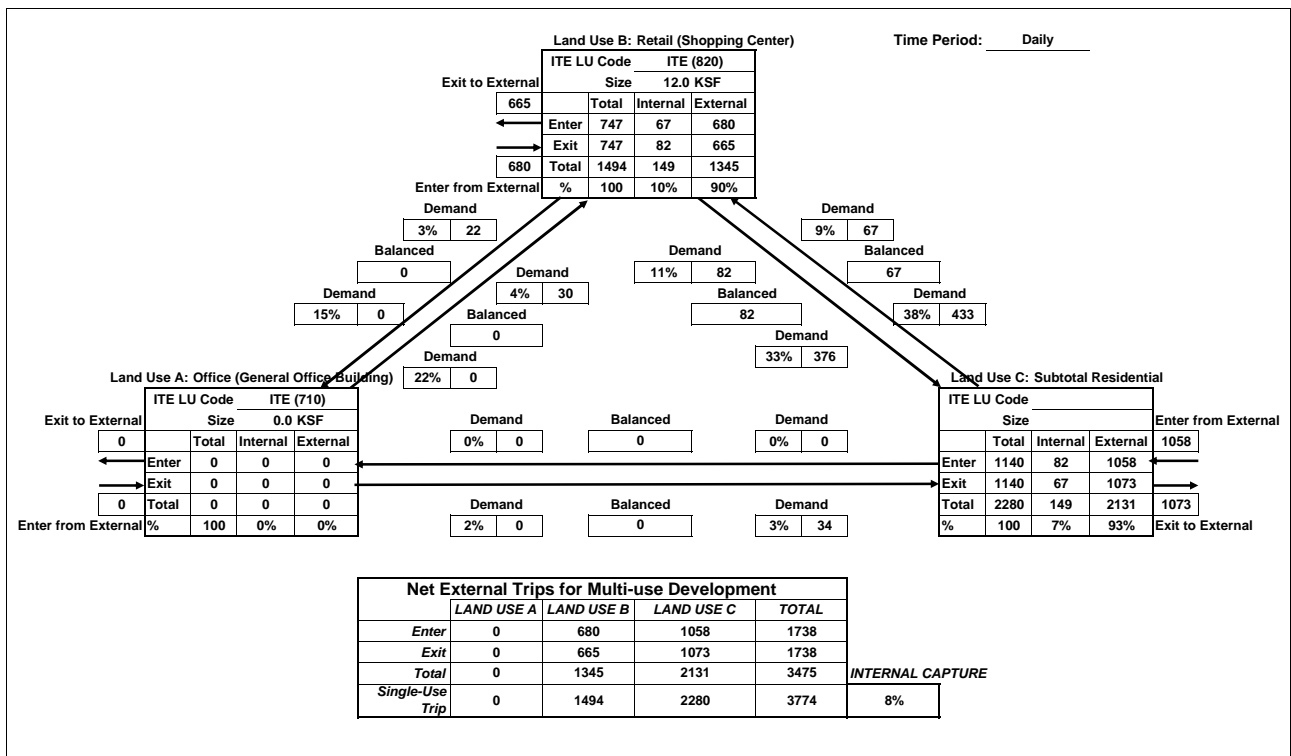
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

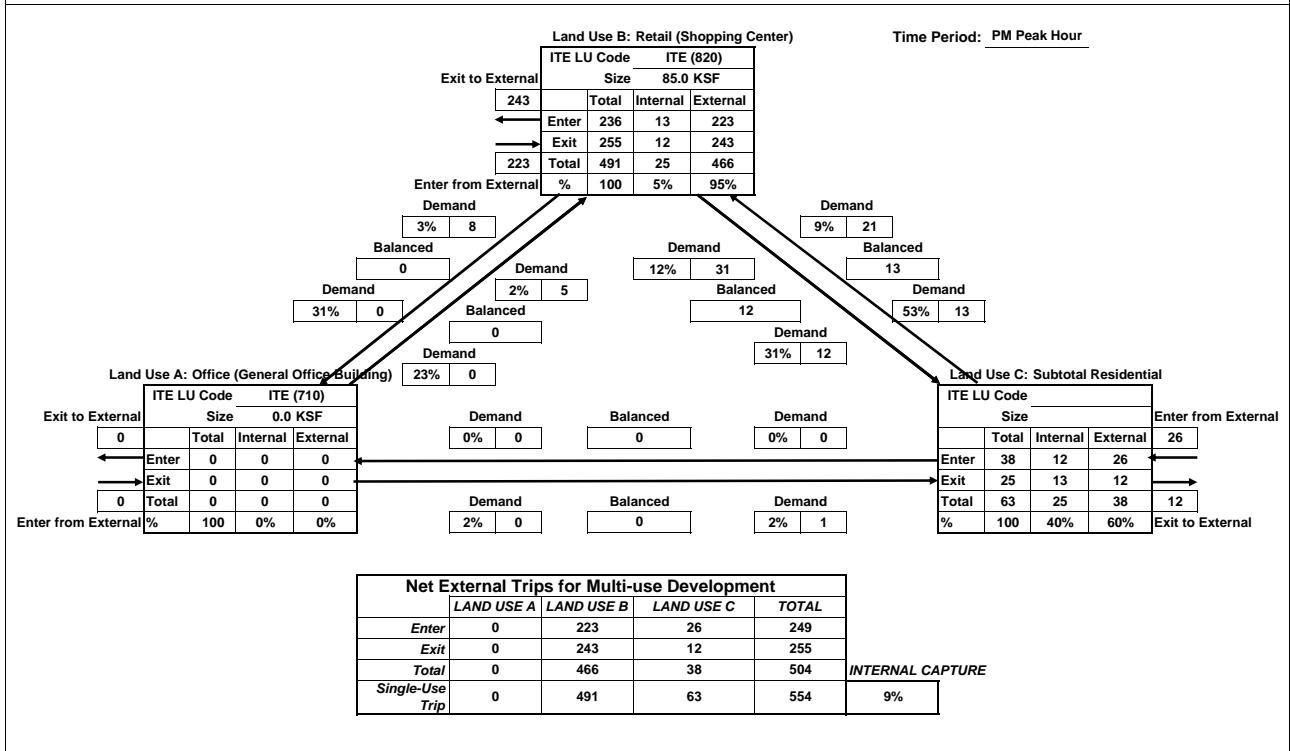
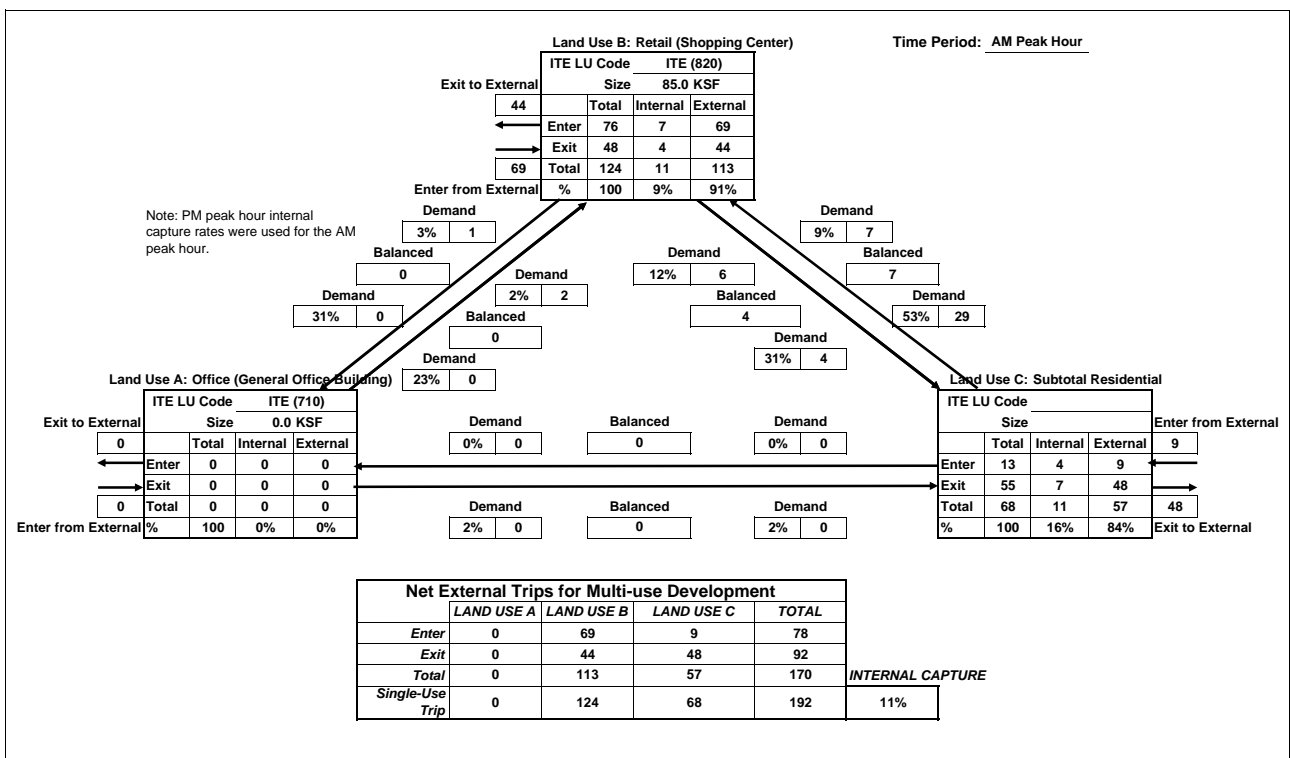


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

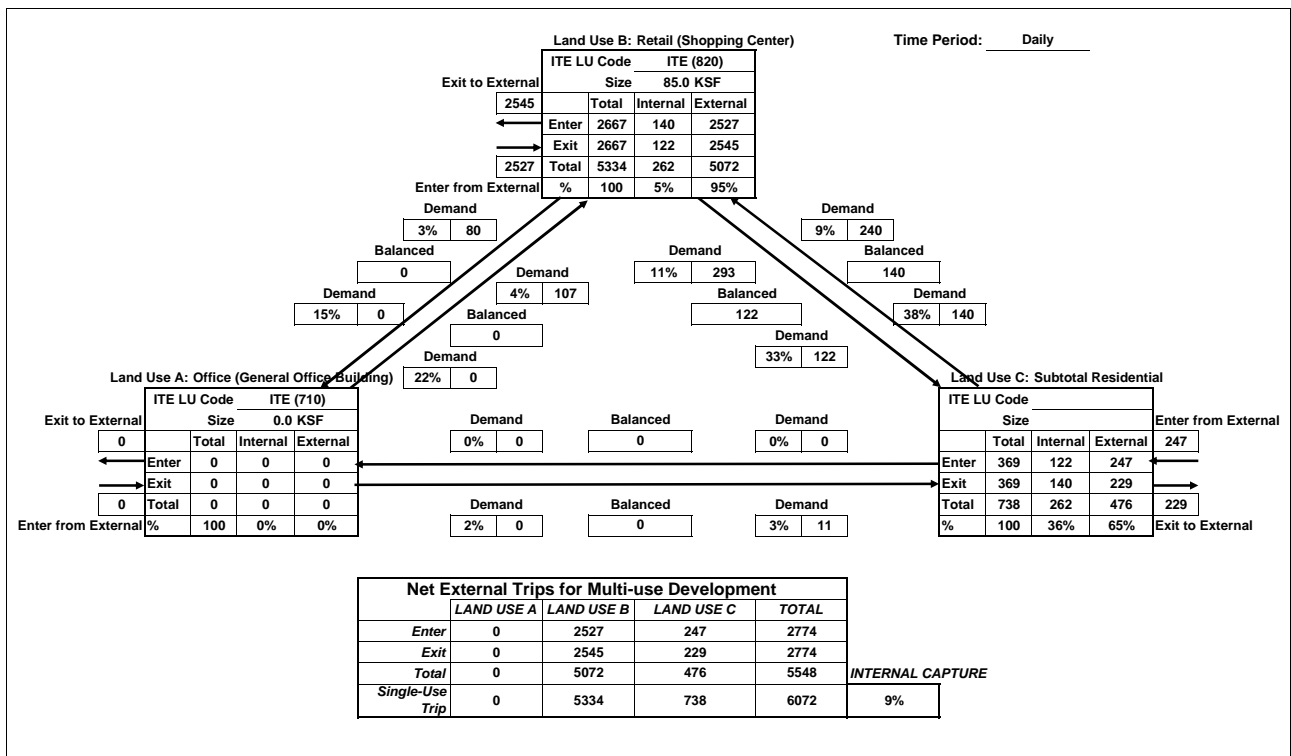


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

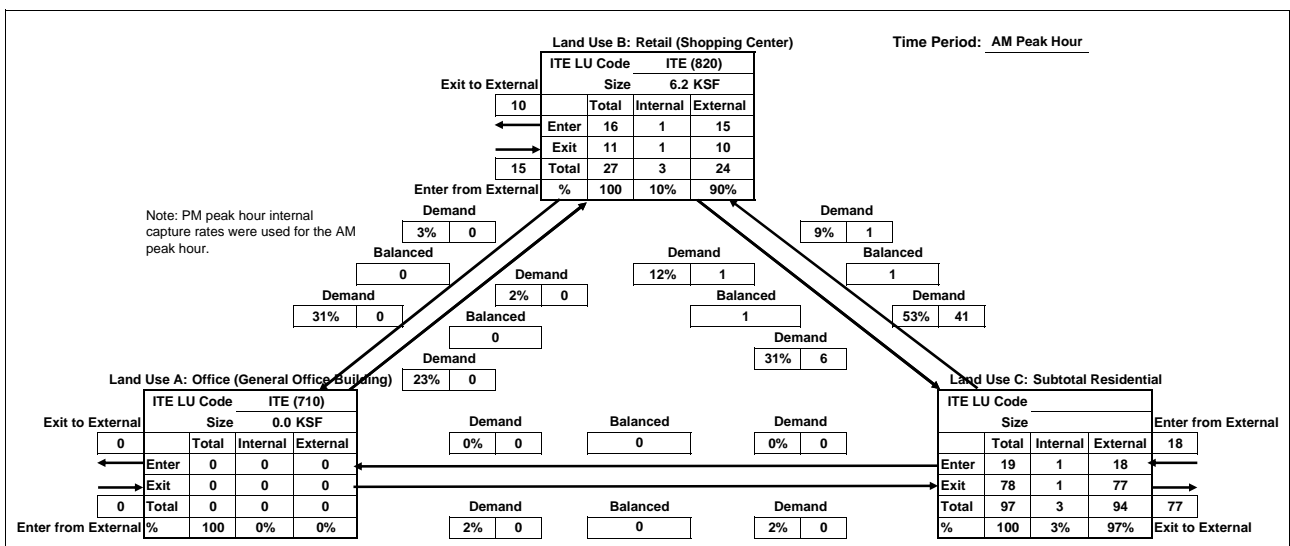


Analyst: Dowling

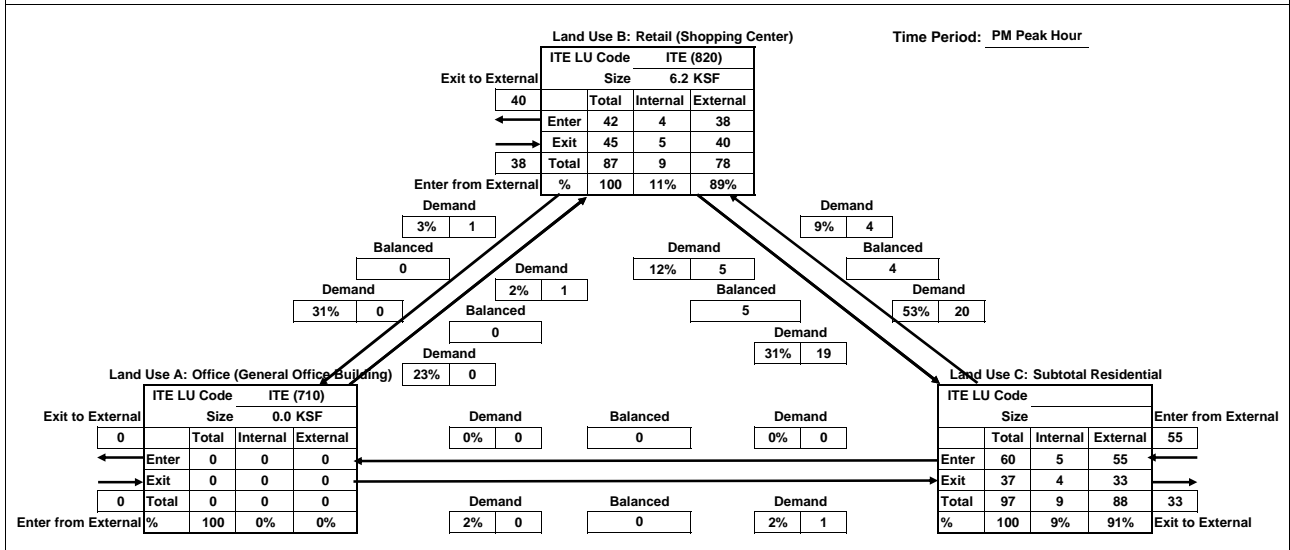
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	15	18	32	
Exit	0	10	77	86	
Total	0	24	94	118	INTERNAL CAPTURE
Single-Use Trip	0	27	97	124	4%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	38	55	93	
Exit	0	40	33	73	
Total	0	78	88	166	INTERNAL CAPTURE
Single-Use Trip	0	87	97	184	10%

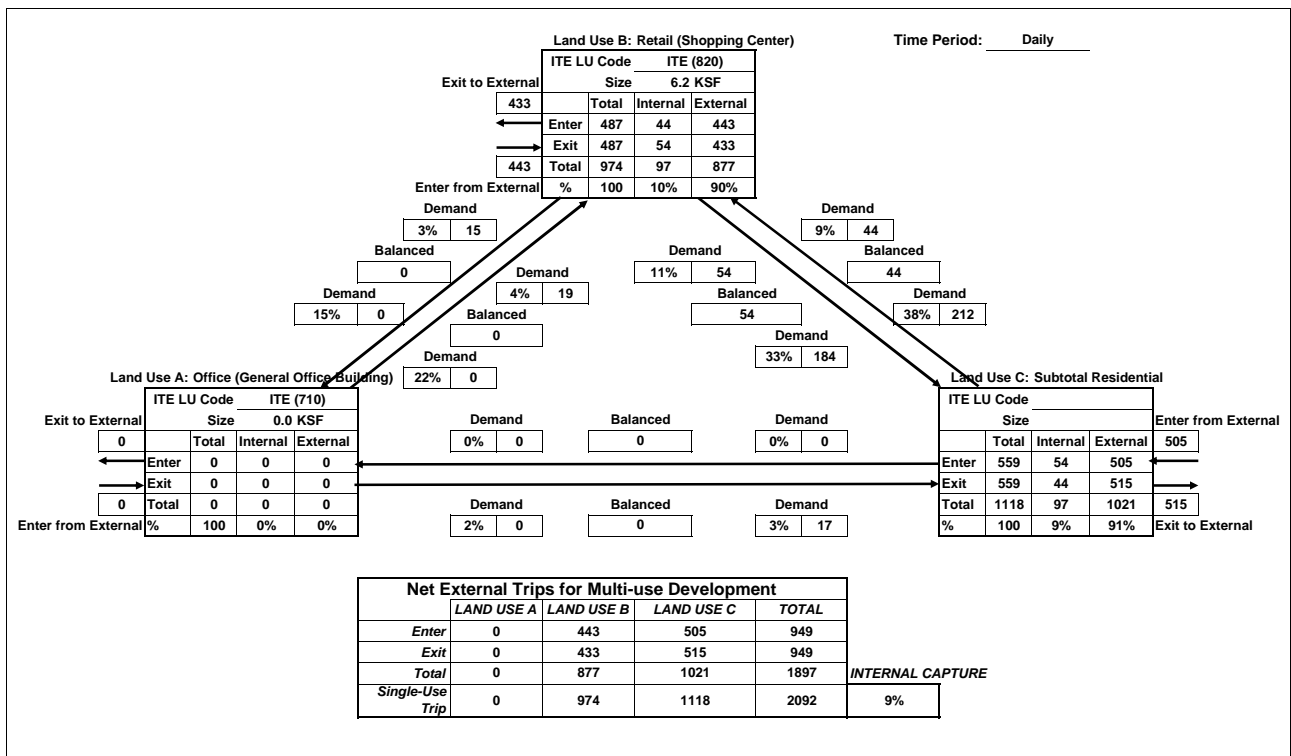
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

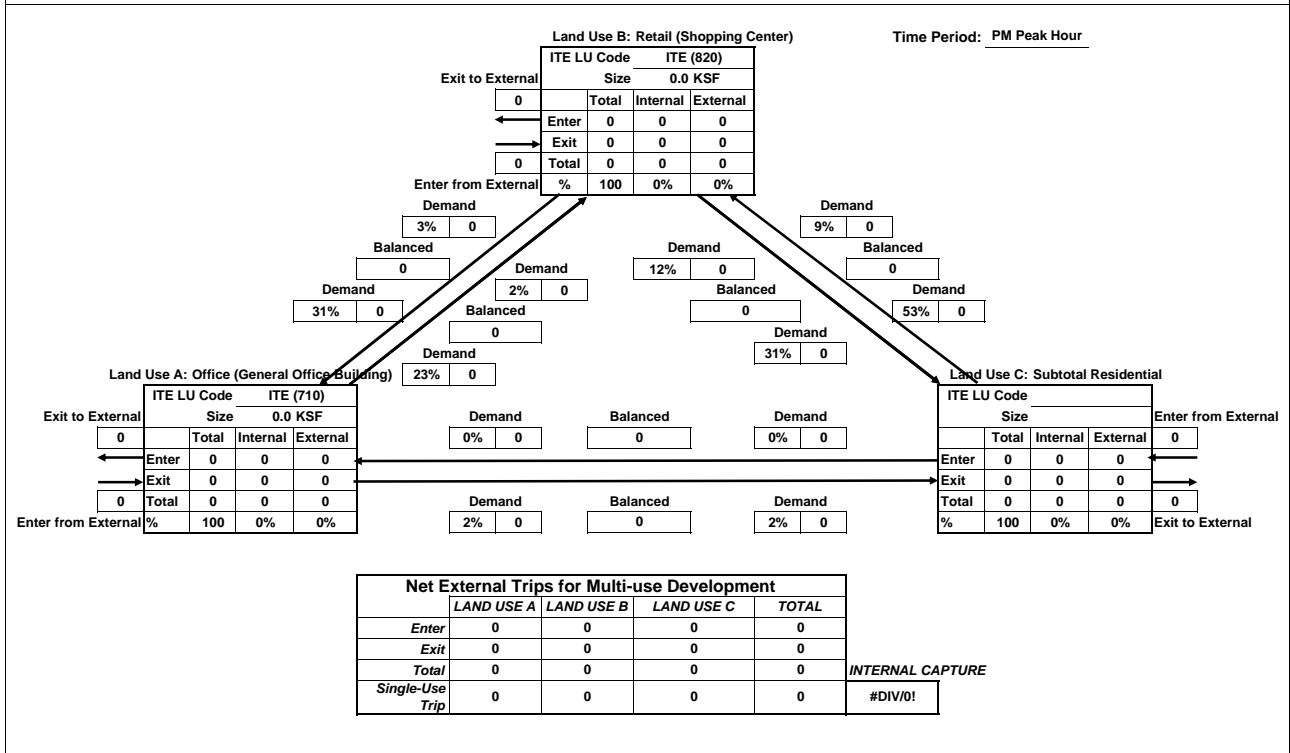
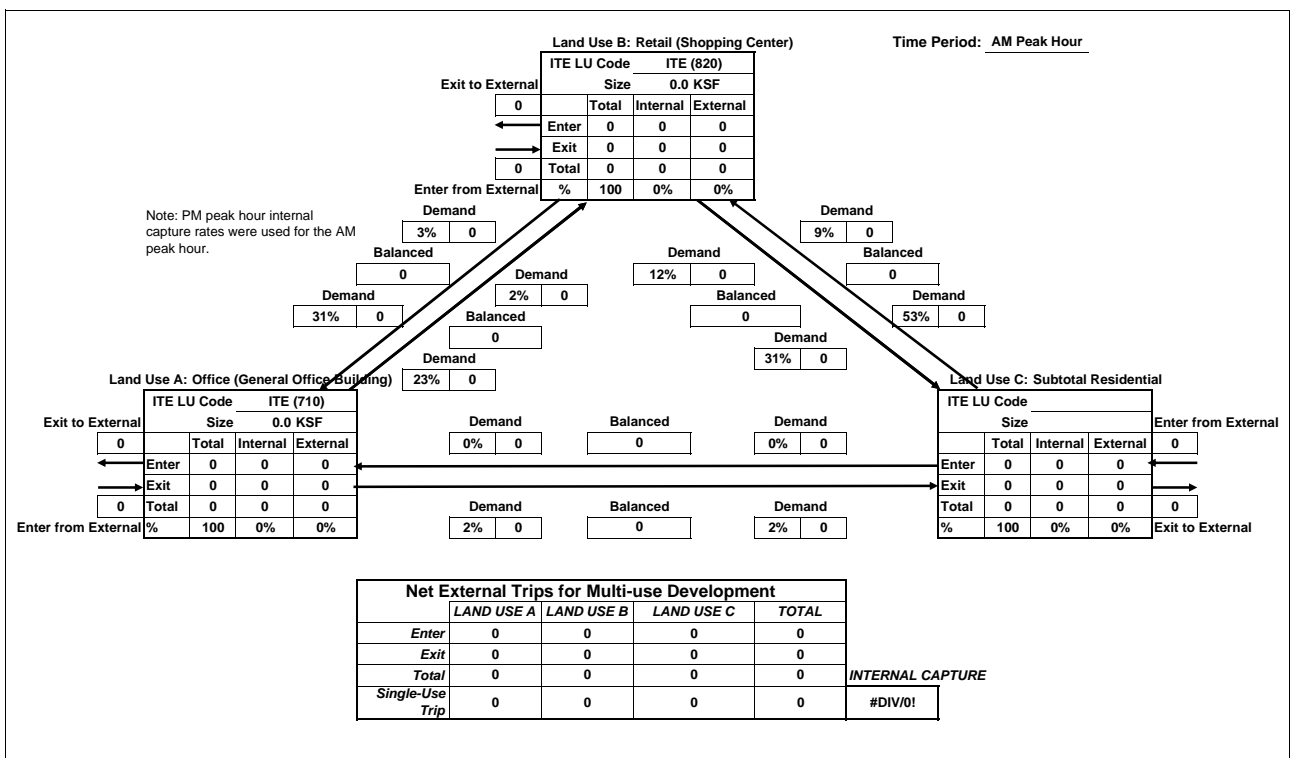


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



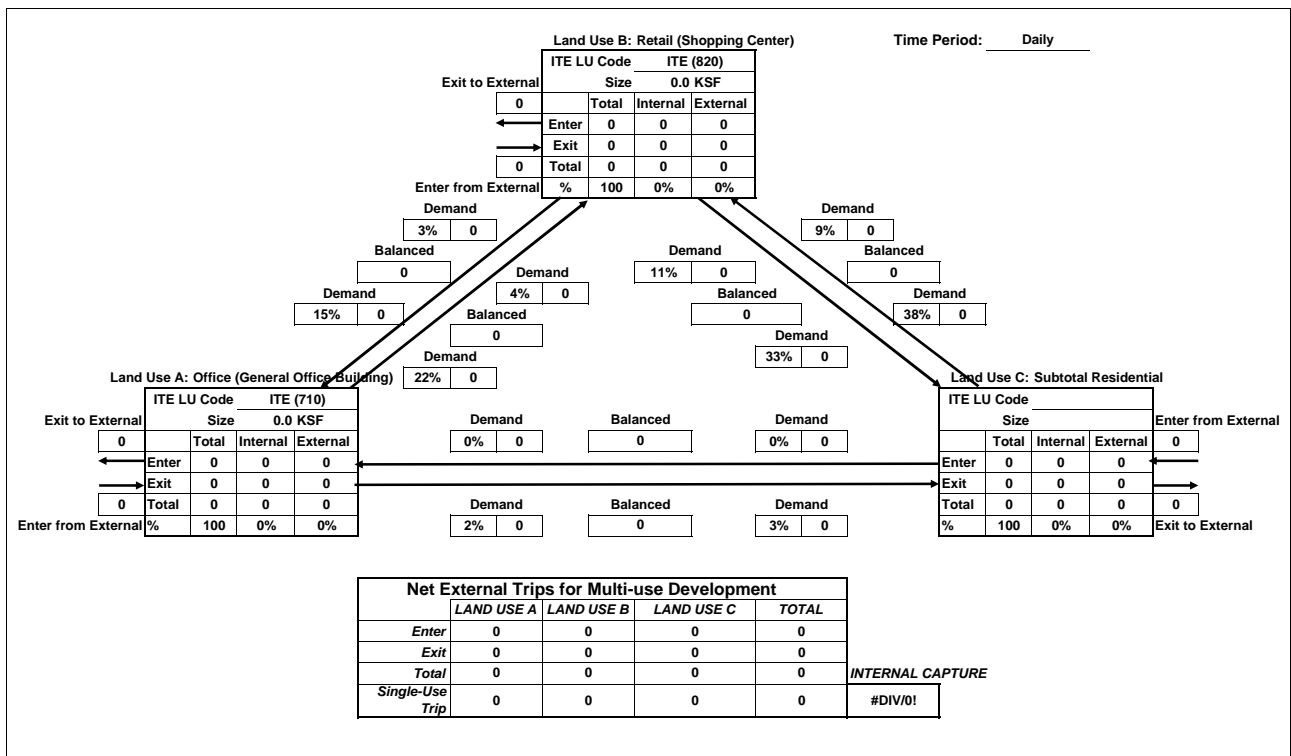
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

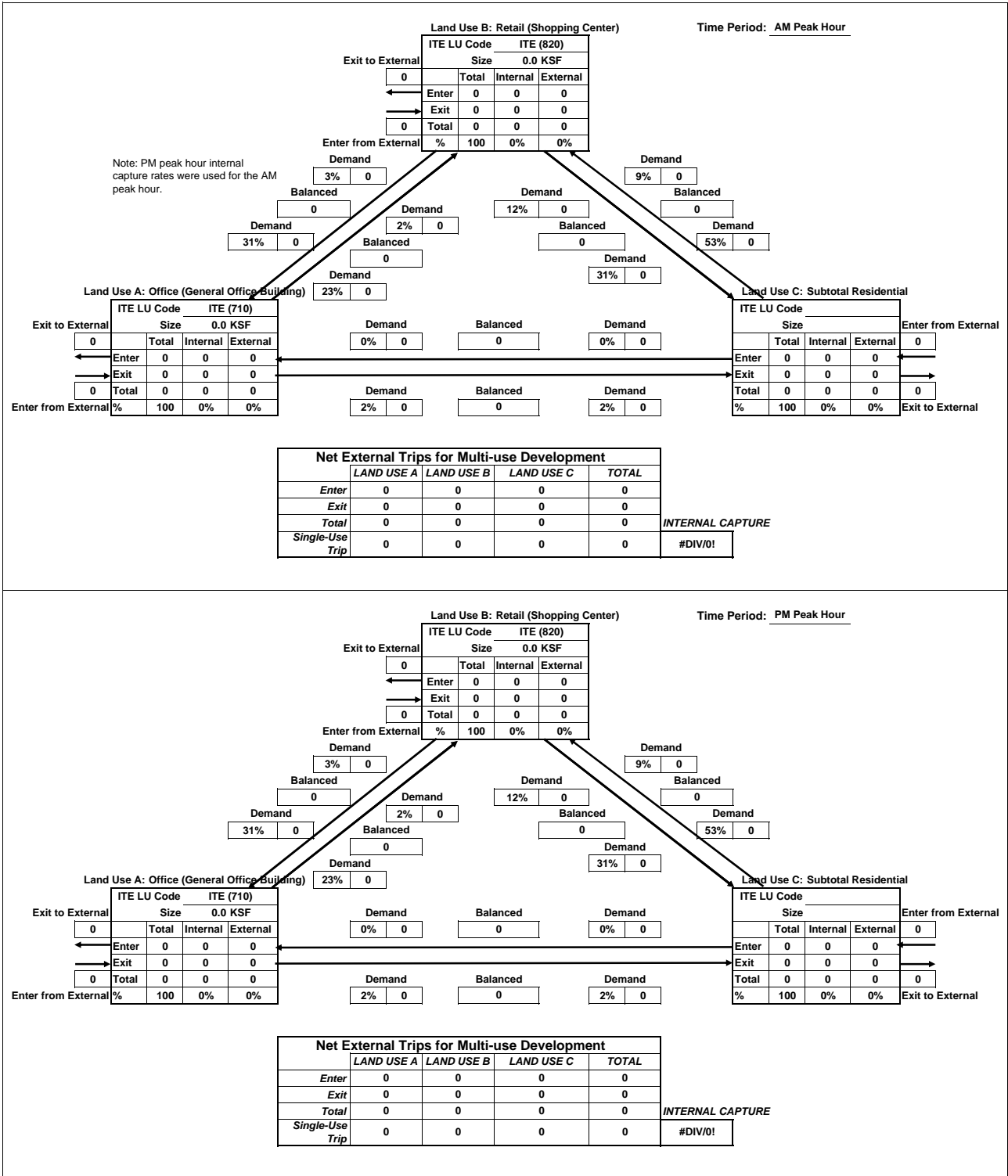
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

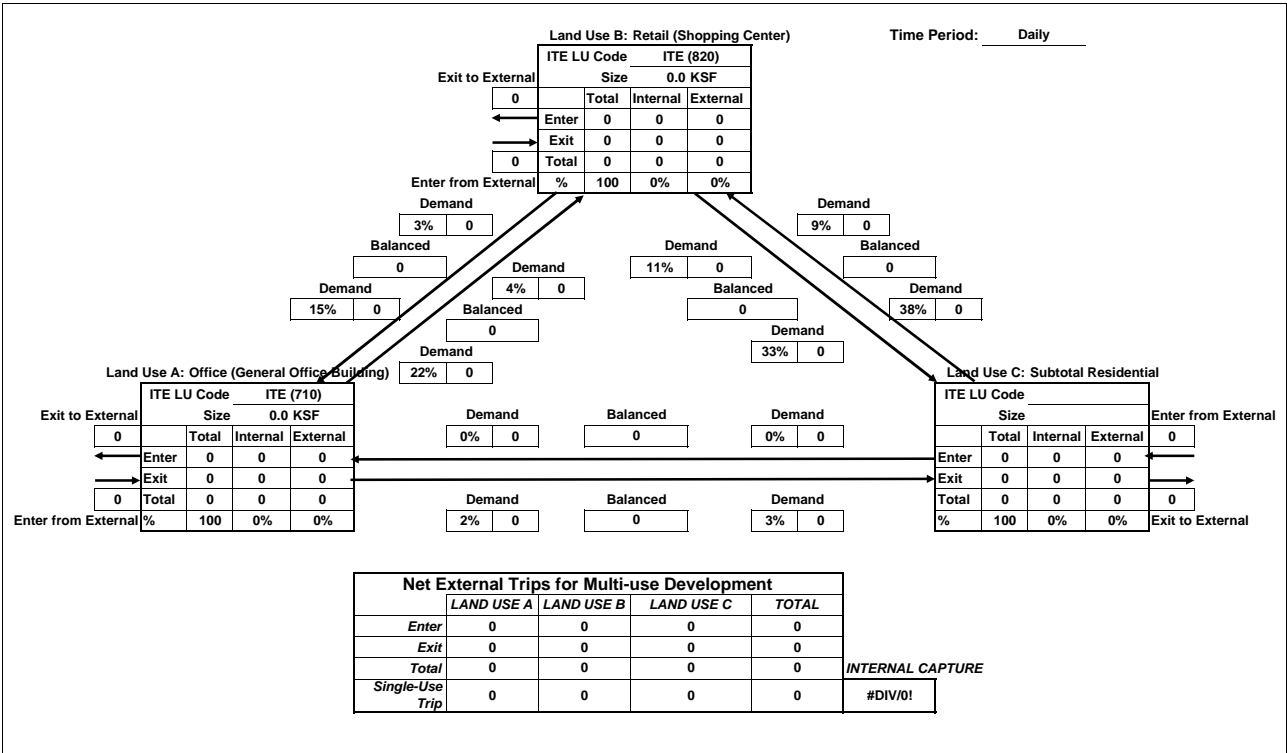


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (Baseline & 2013)
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Time Period: Daily

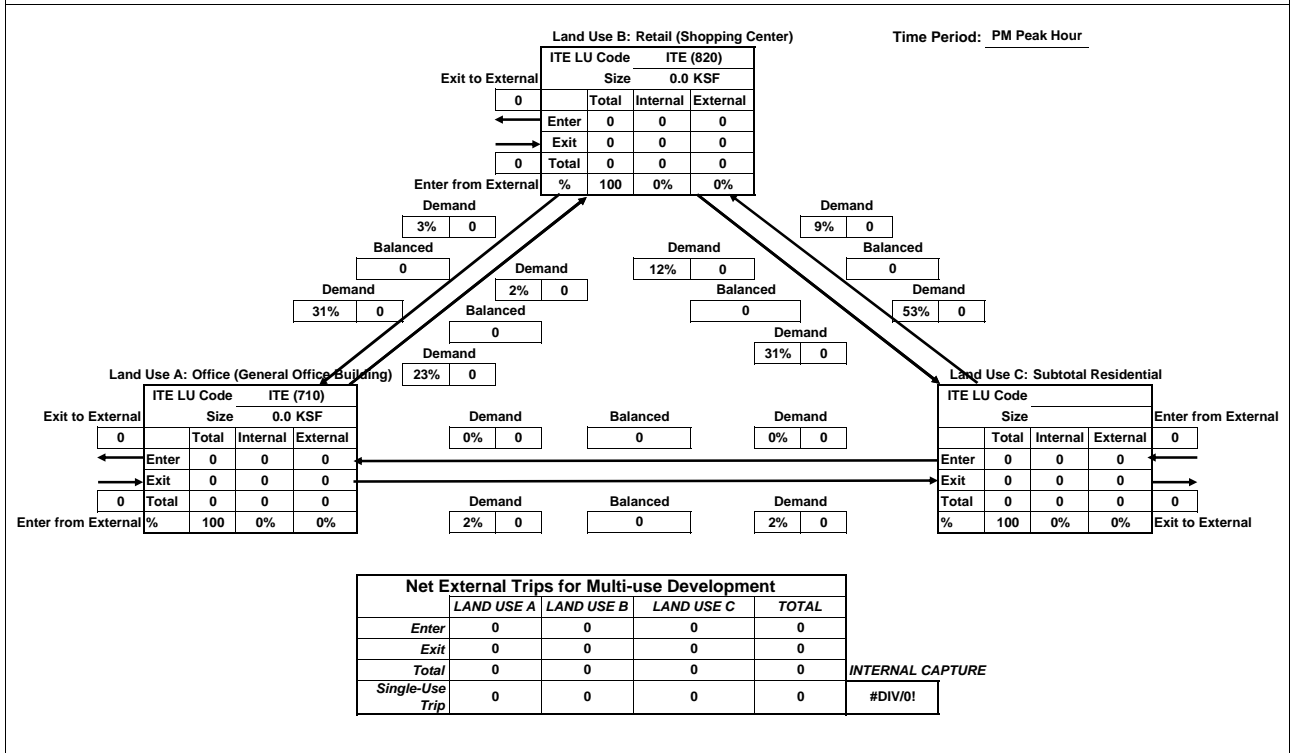
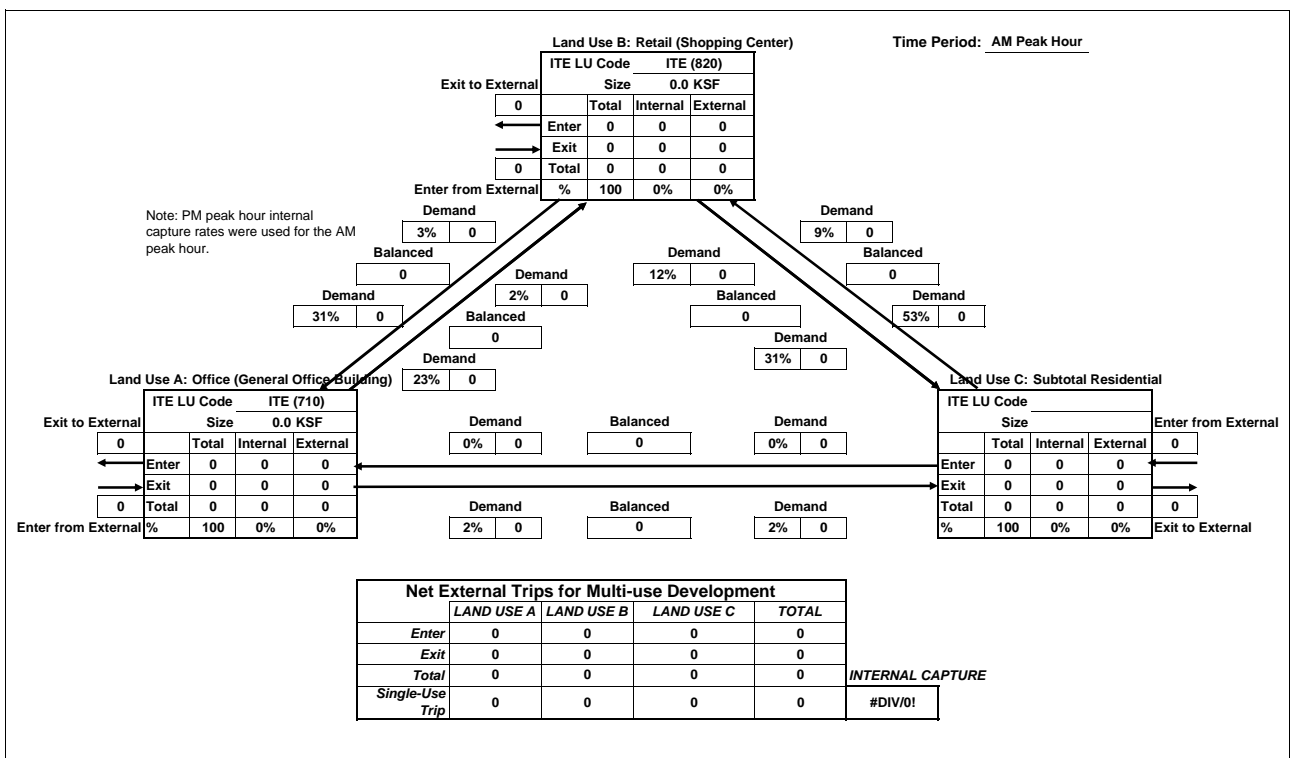


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



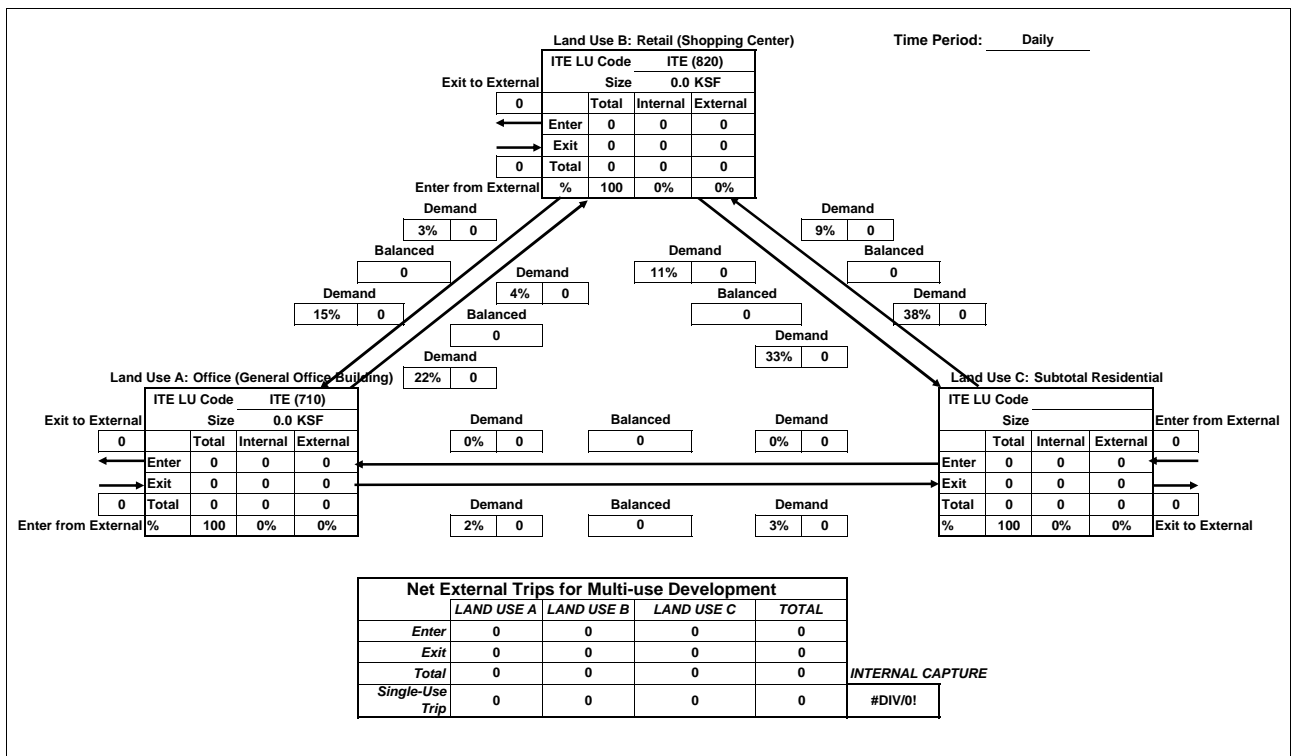
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

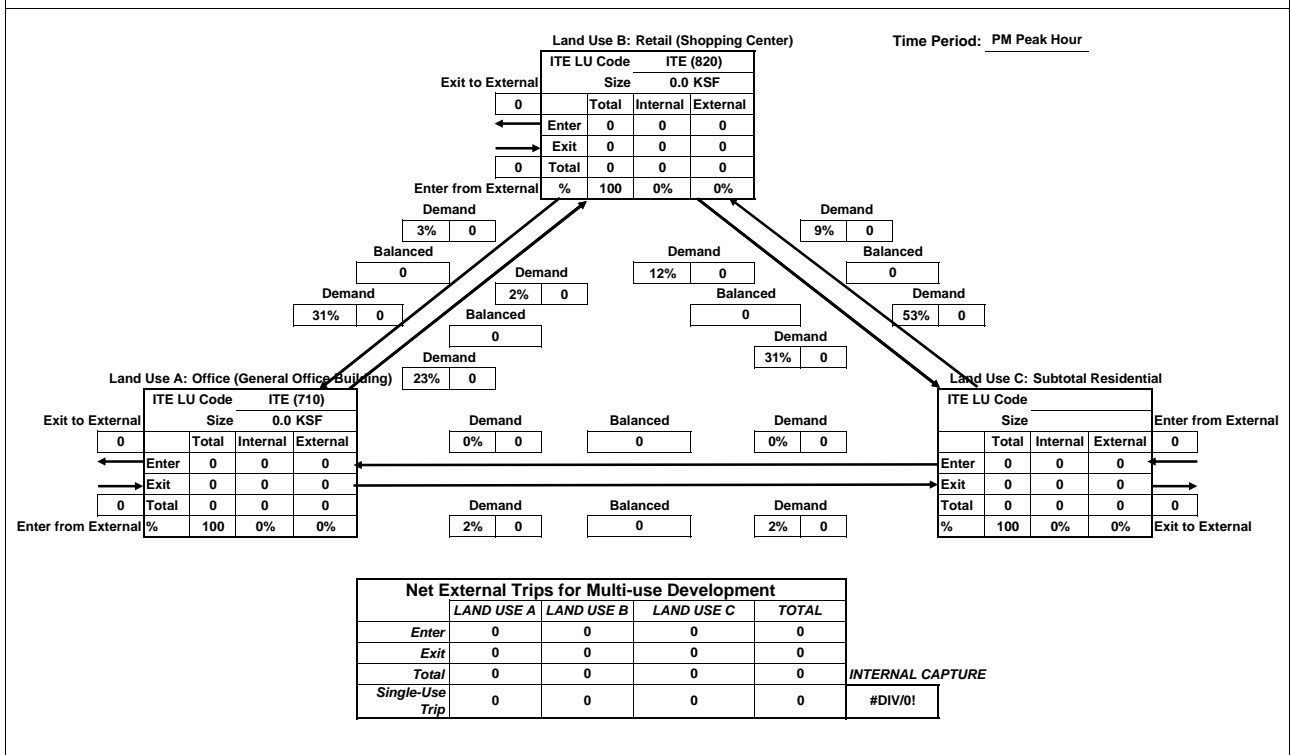
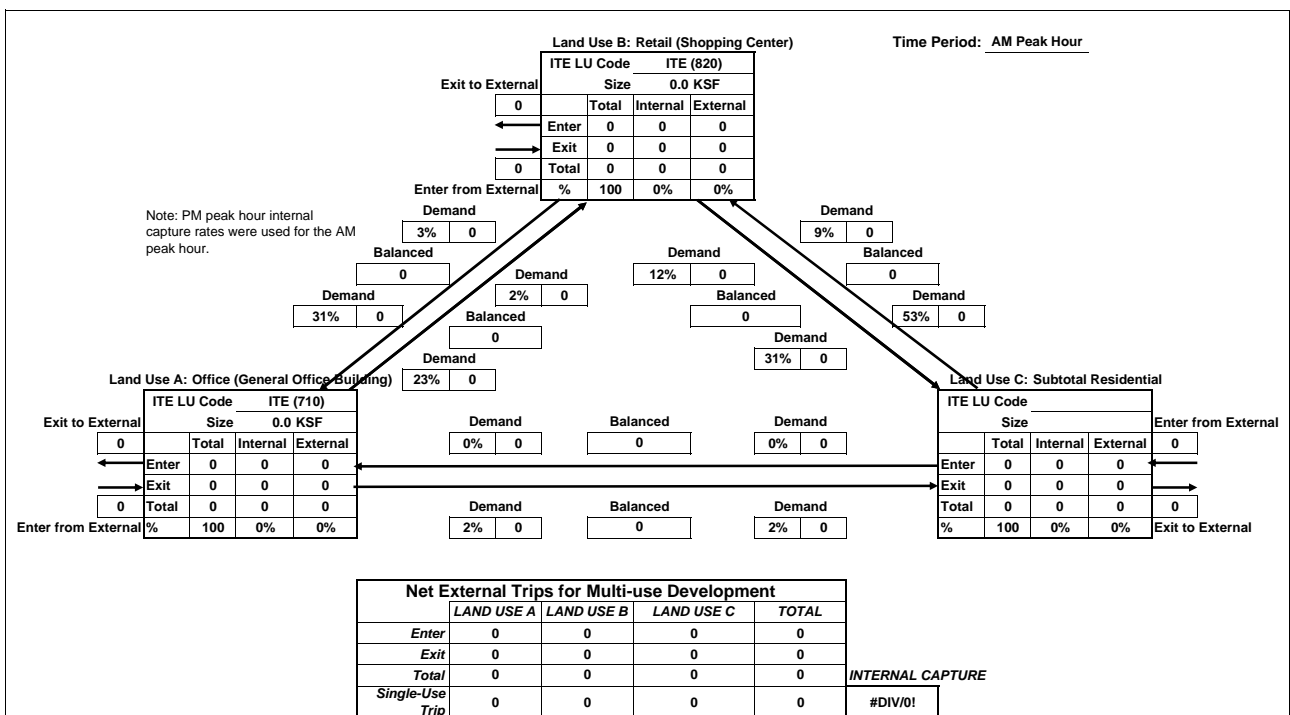


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



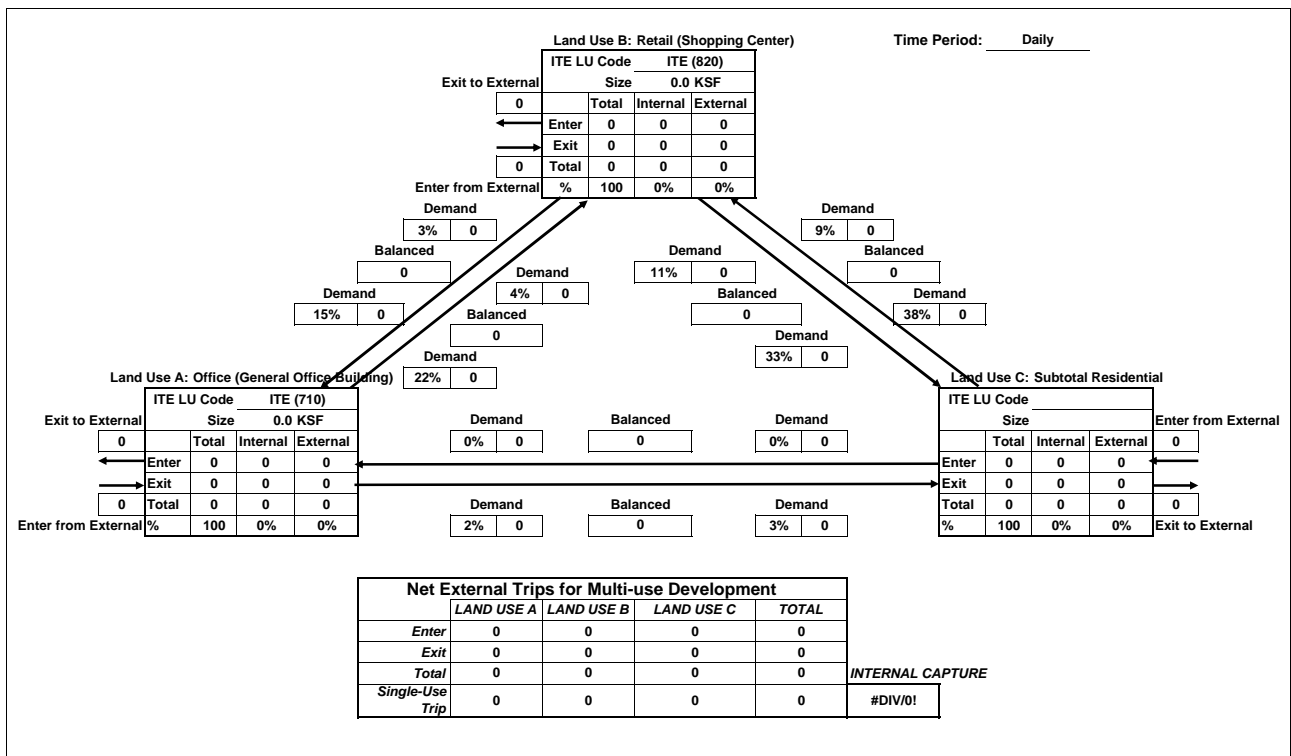
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 20: Bounded by South Park, N. 10th, Railyards, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

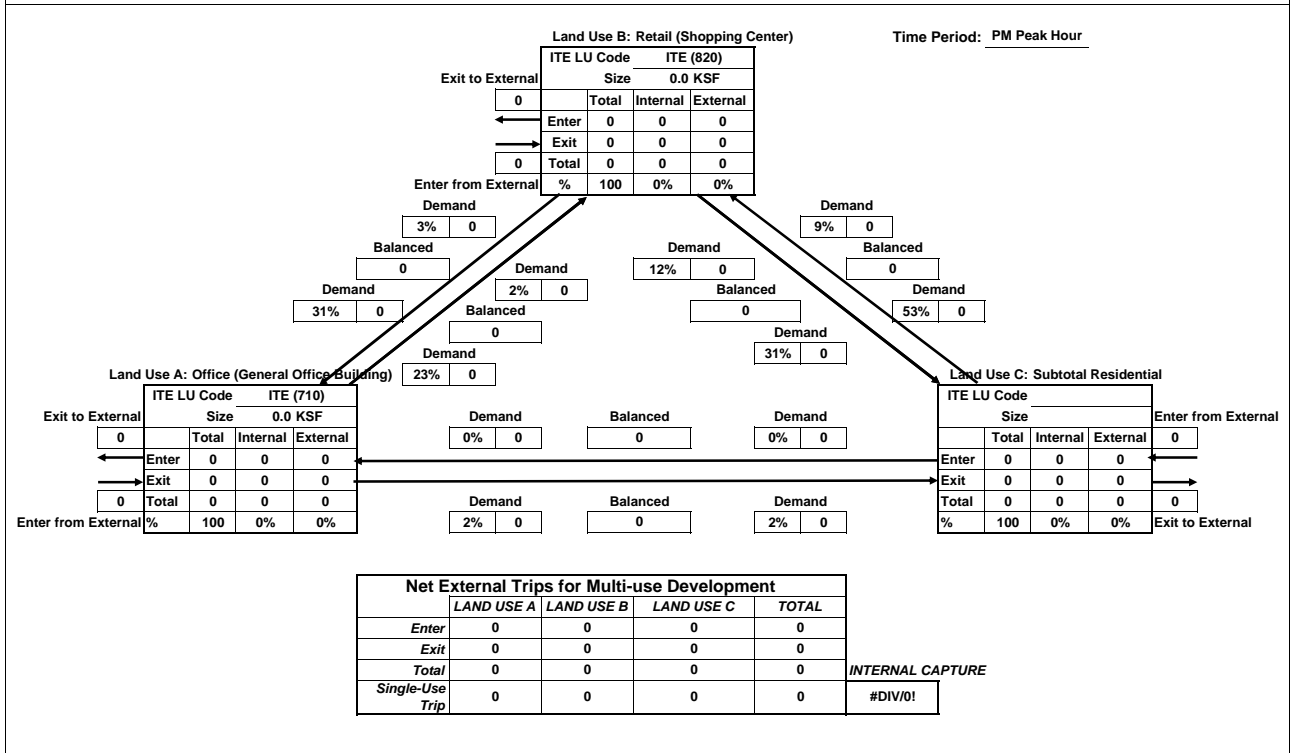
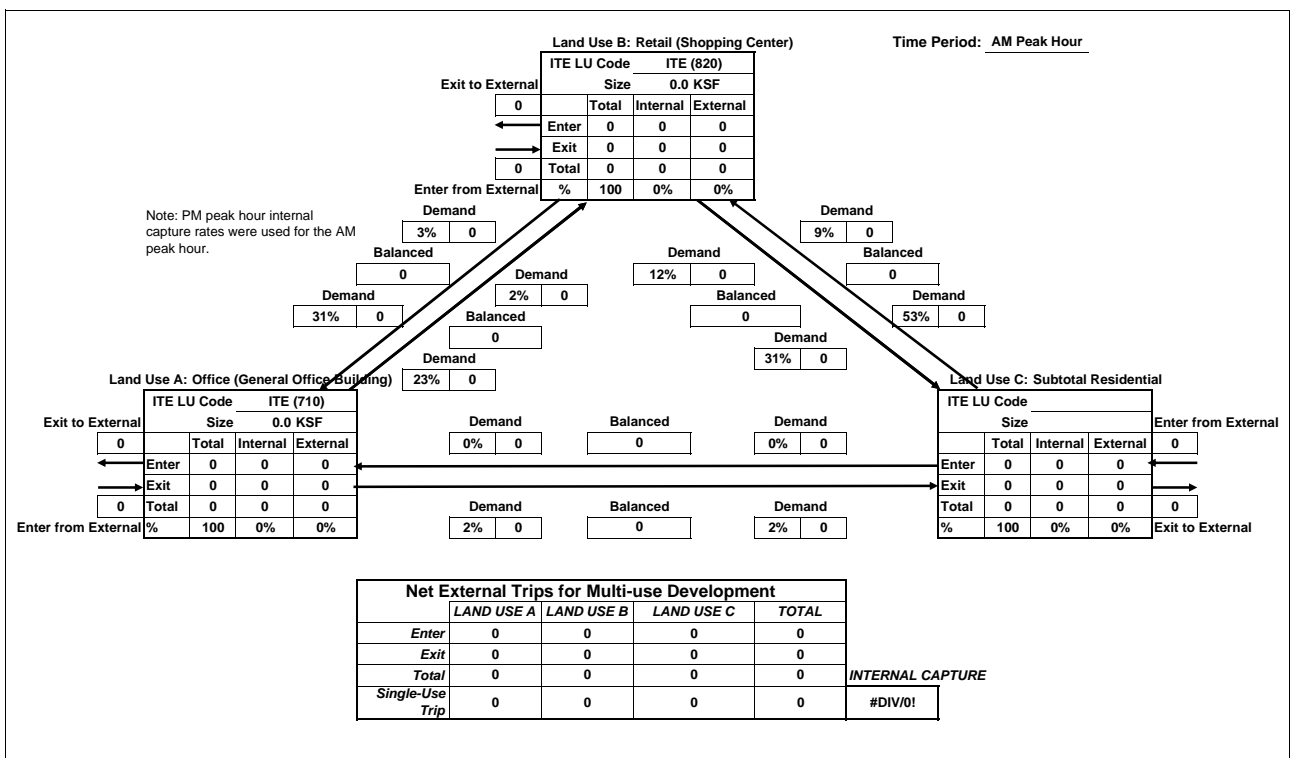


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



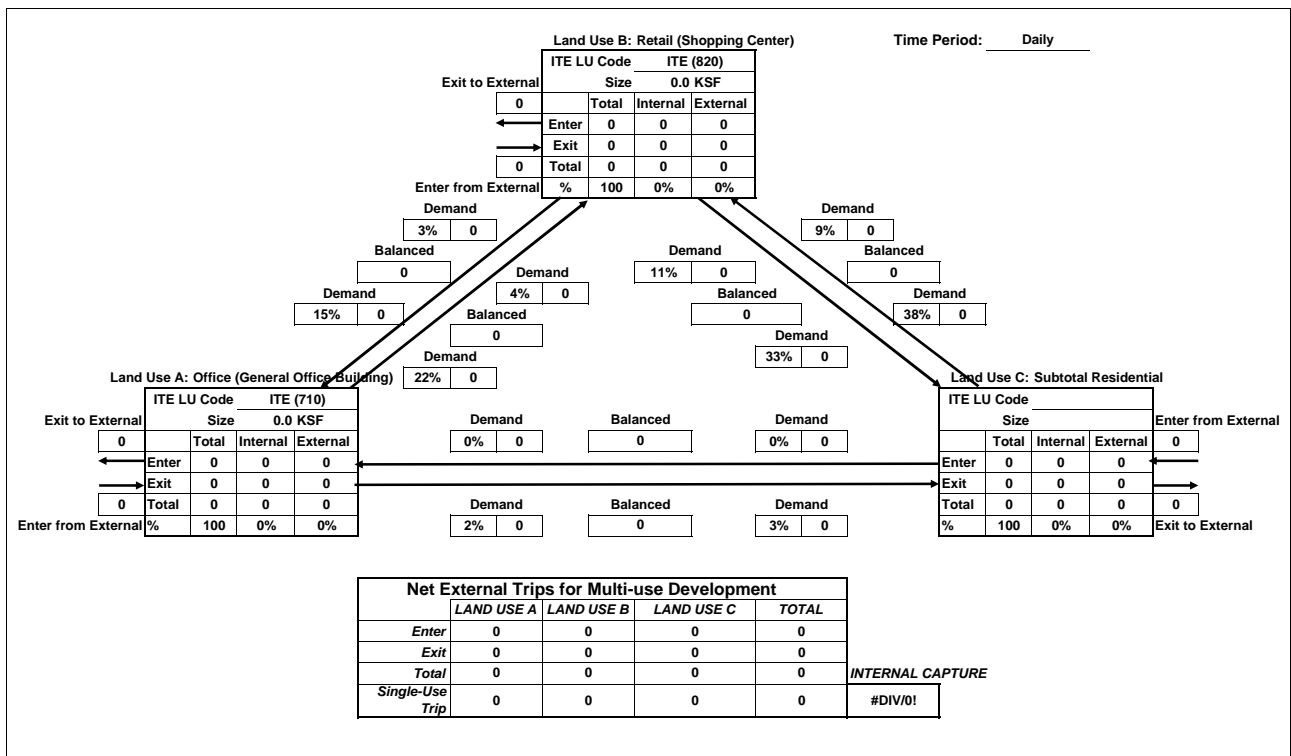
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily



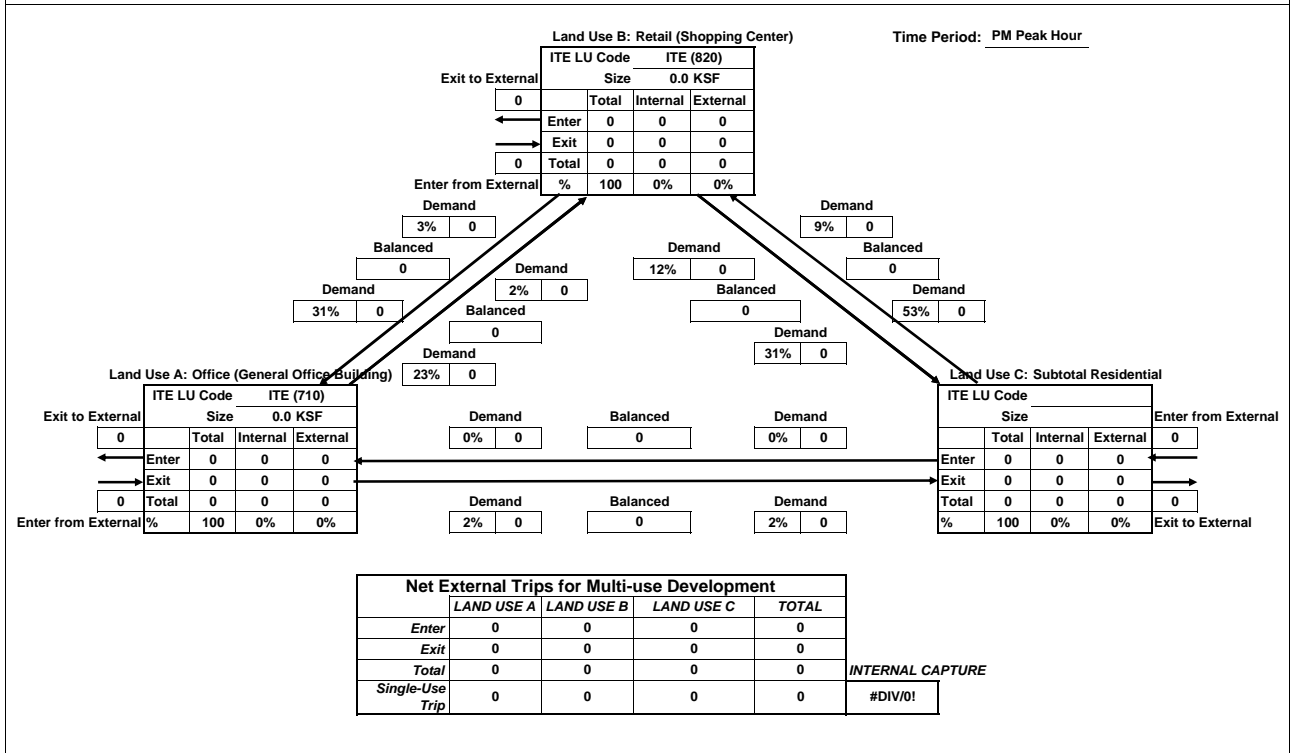
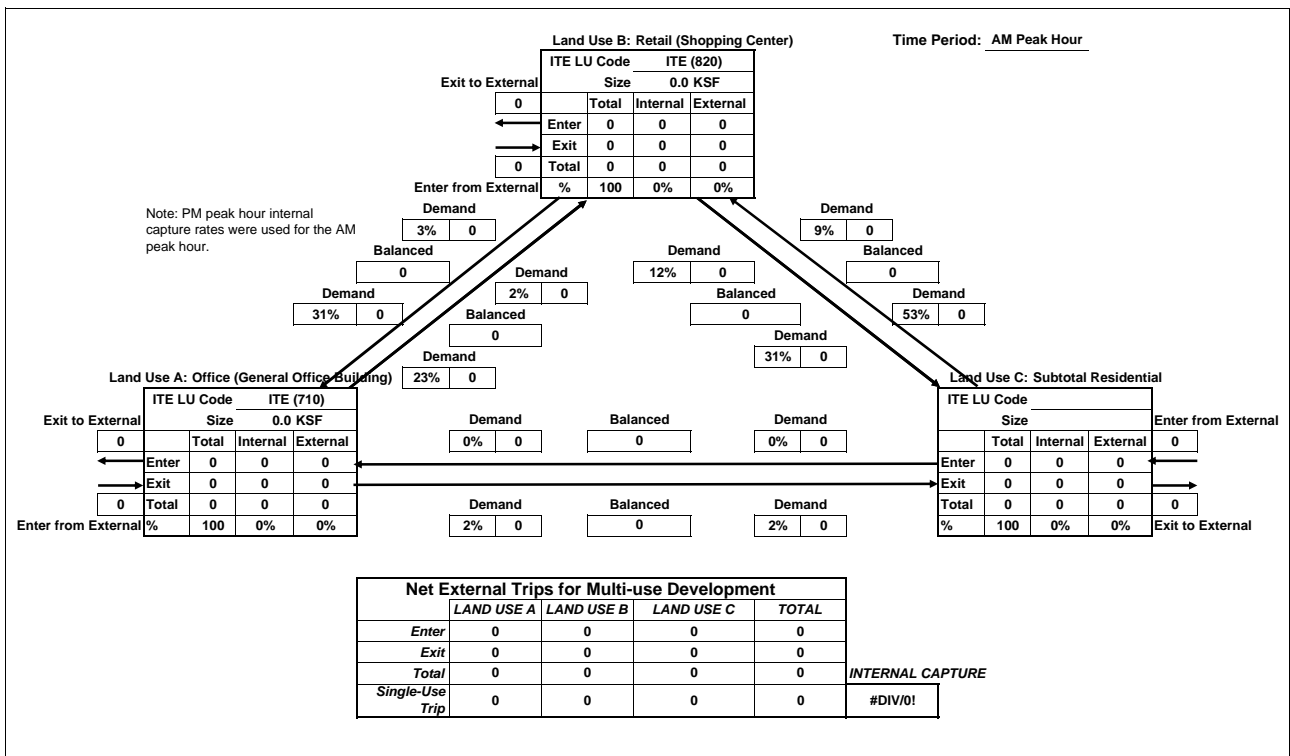
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary



Analyst: Dowling

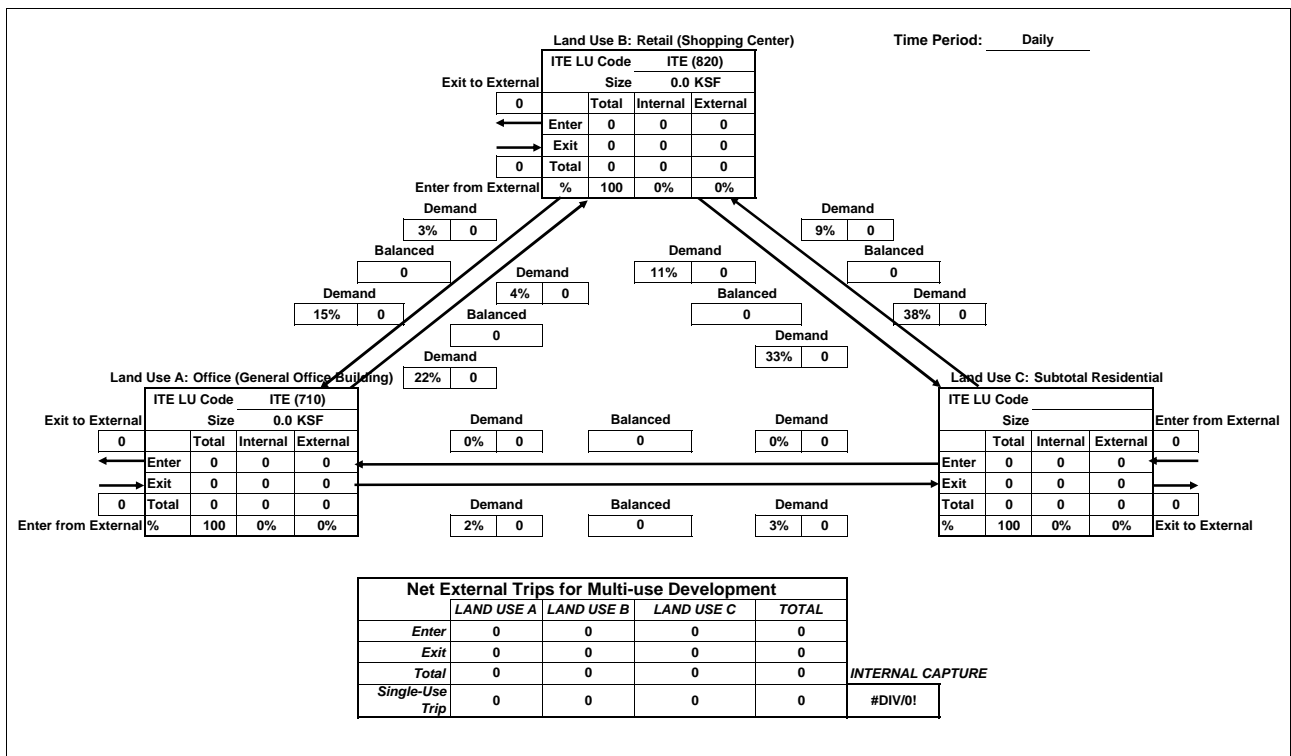
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Time Period: Daily

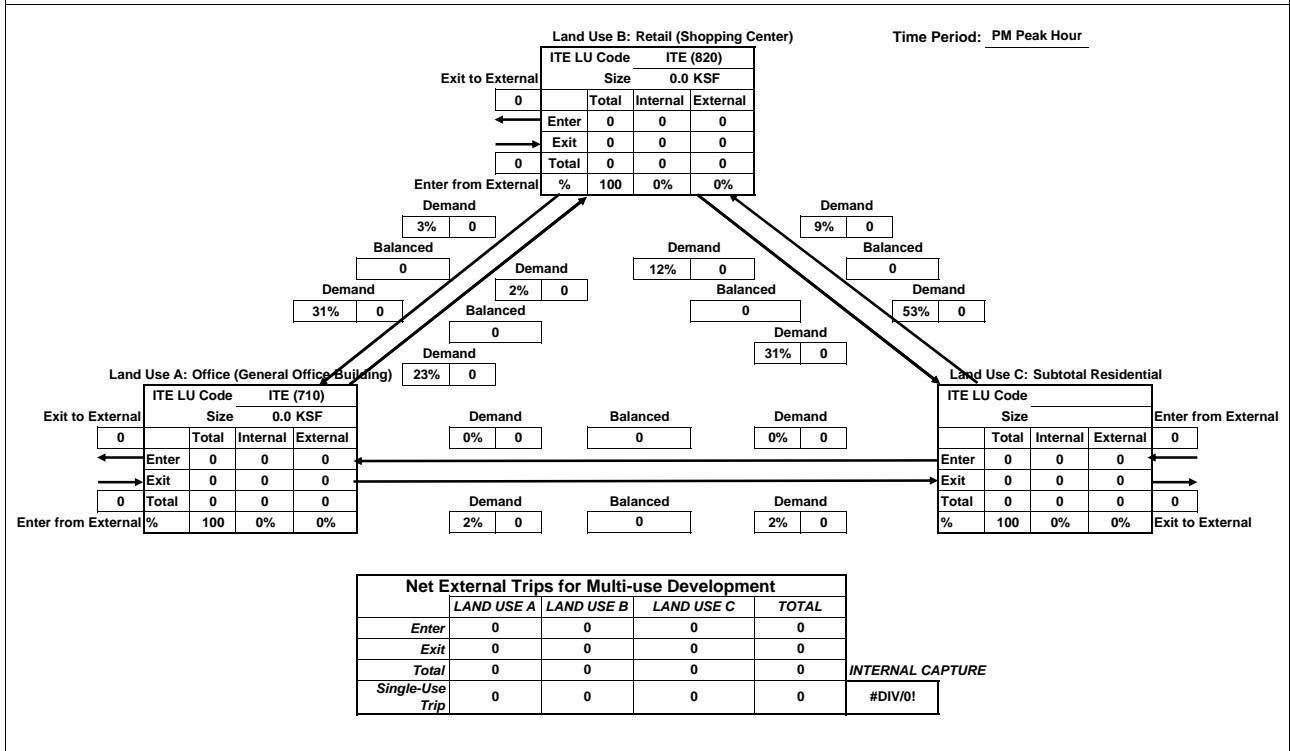
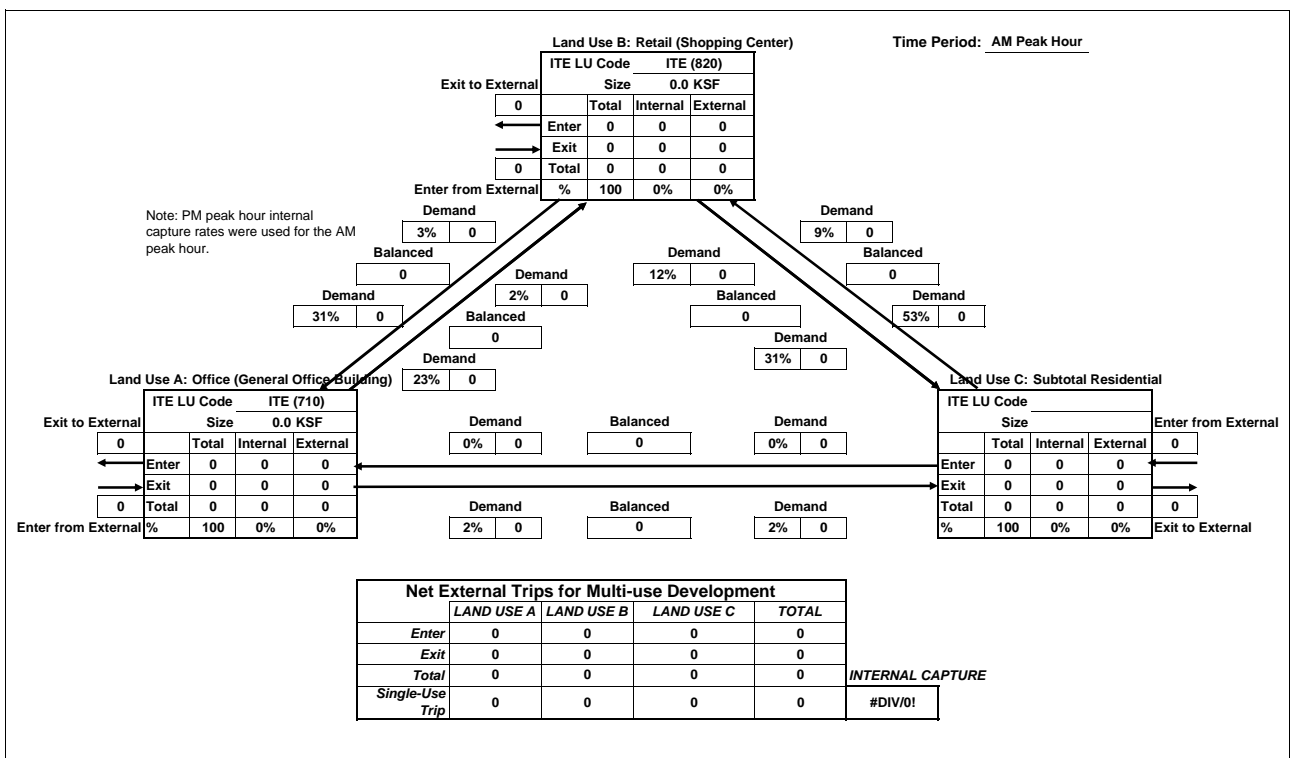


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



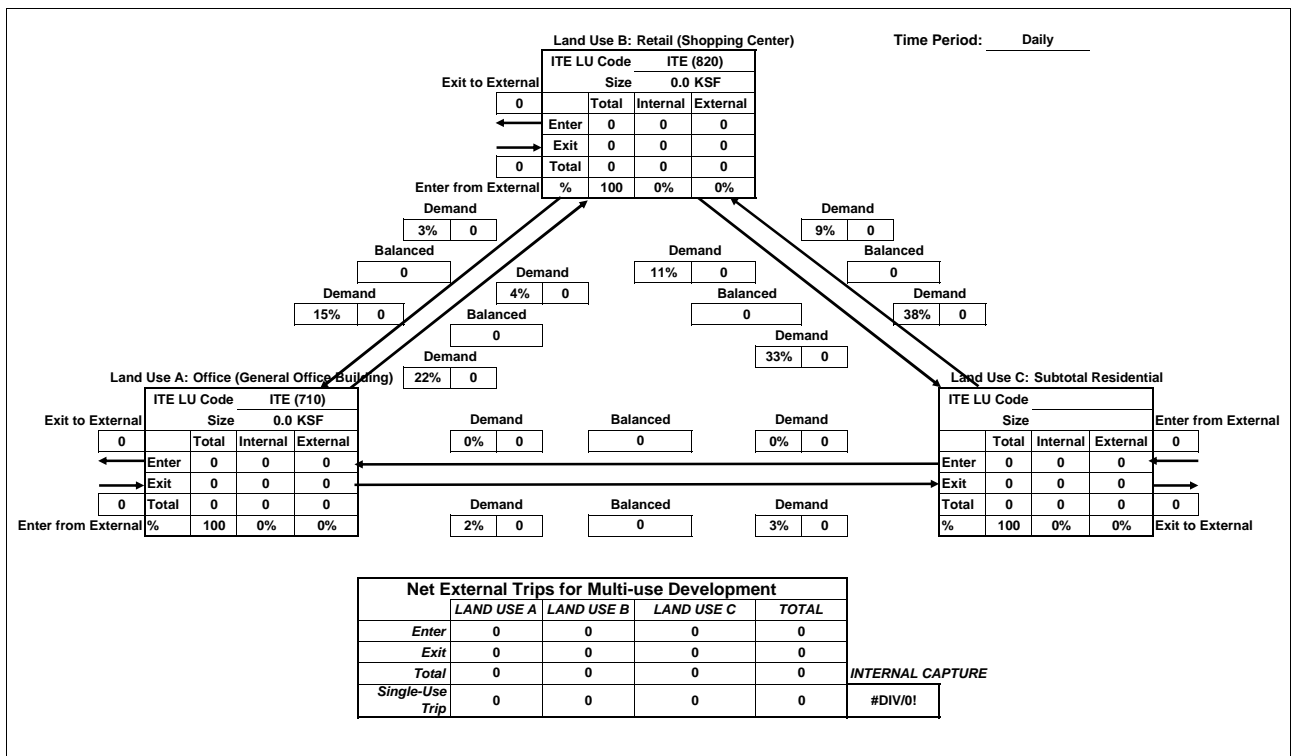
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

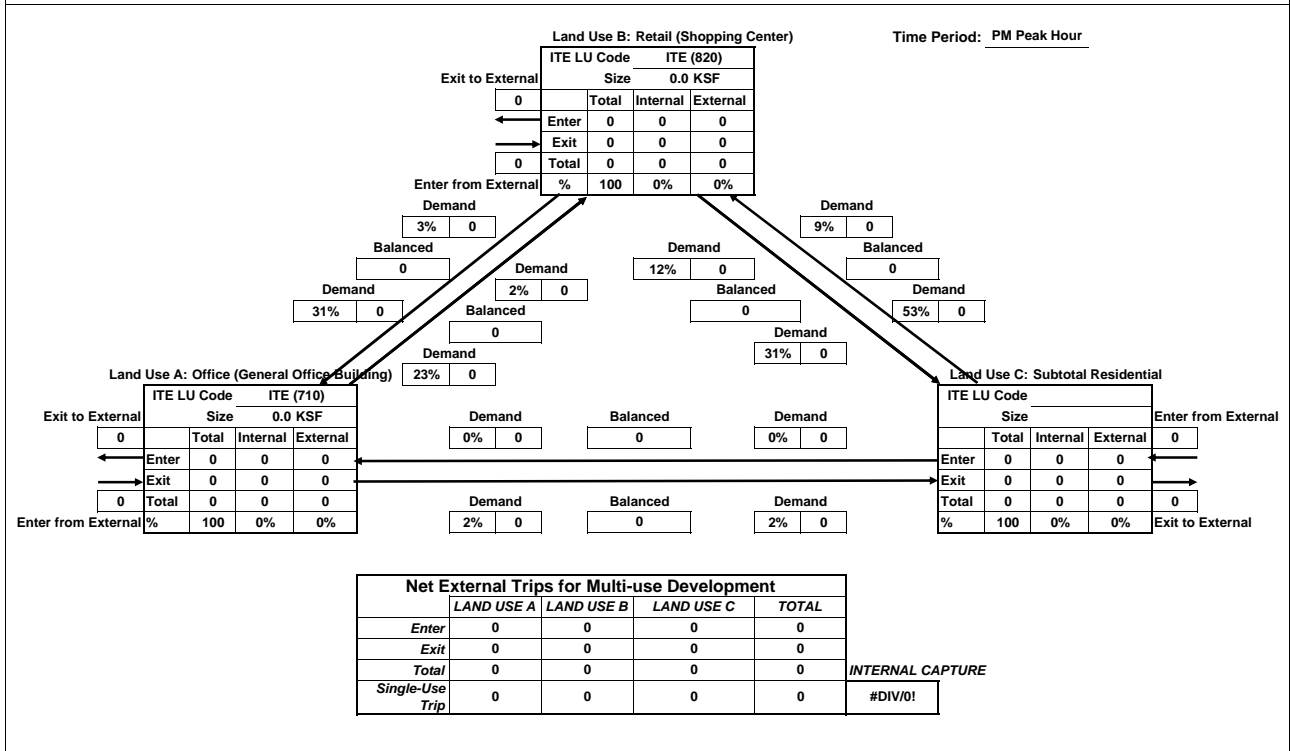
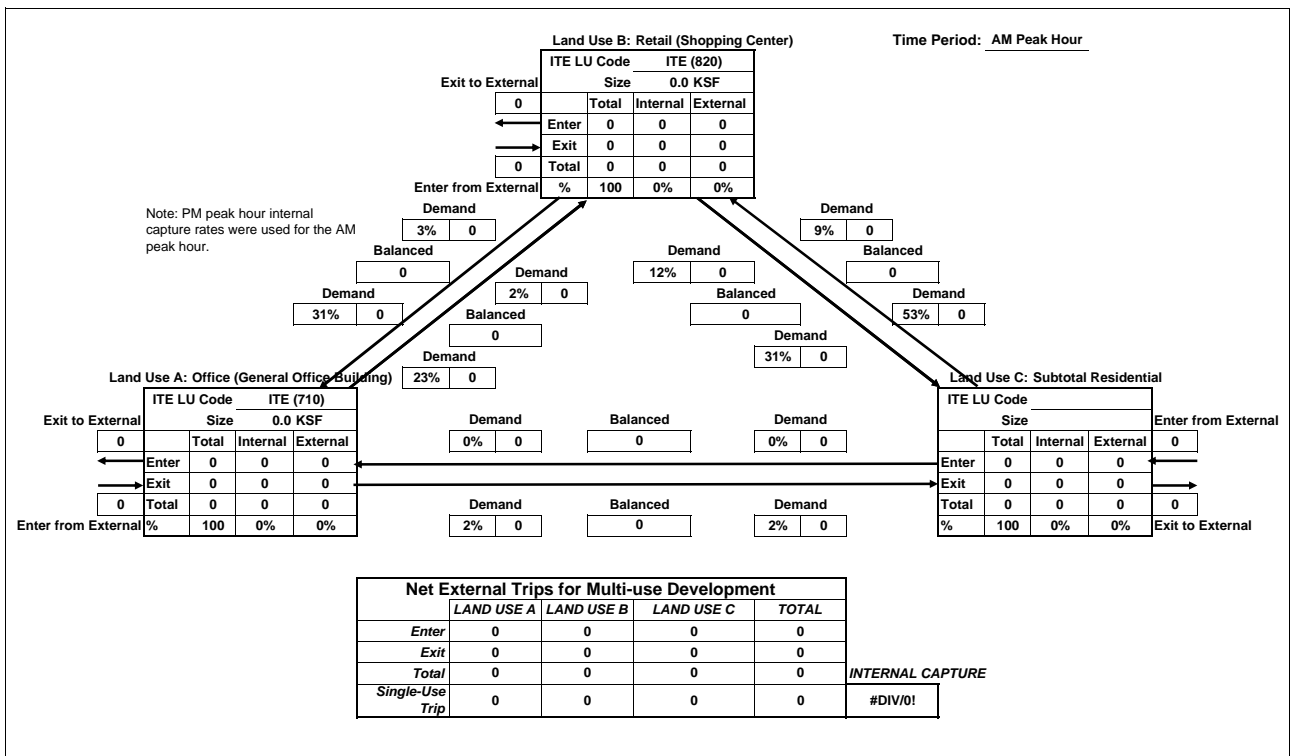


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)



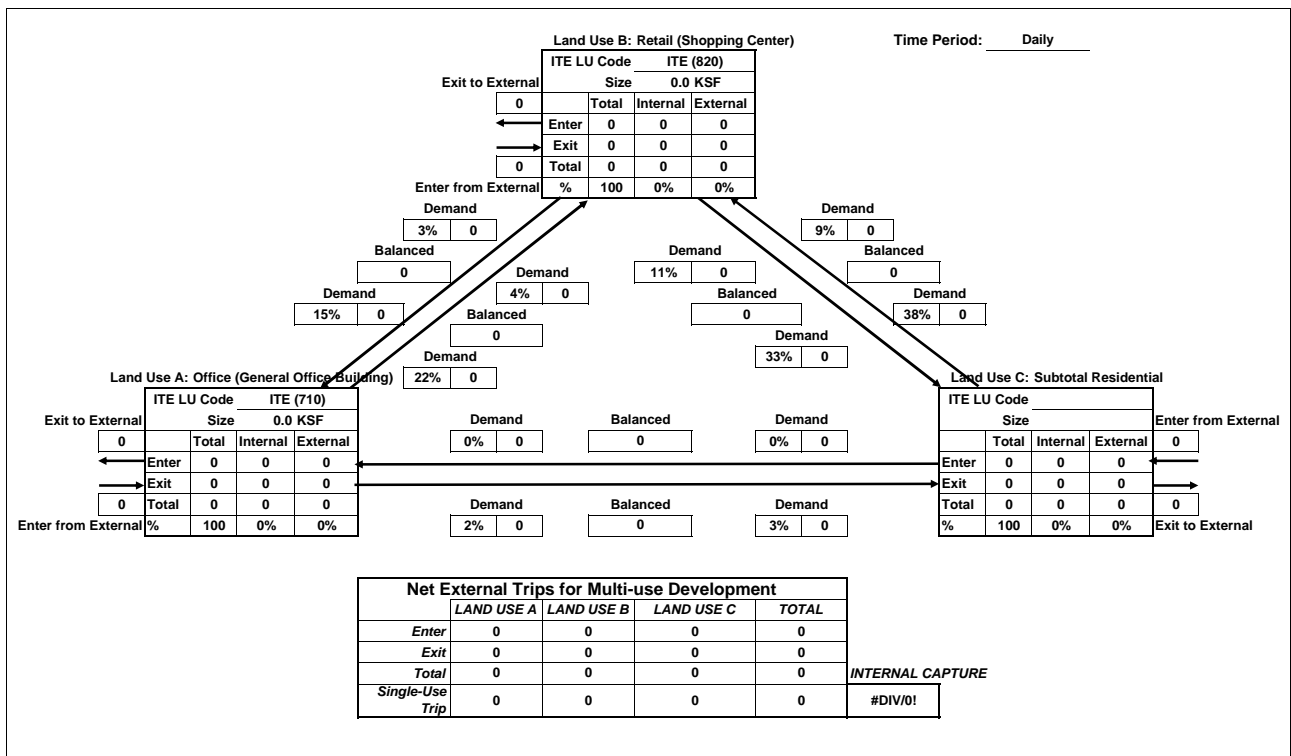
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (Baseline & 2013)

Block 24: Bounded by Property Boundary, Railyards, N. 10th

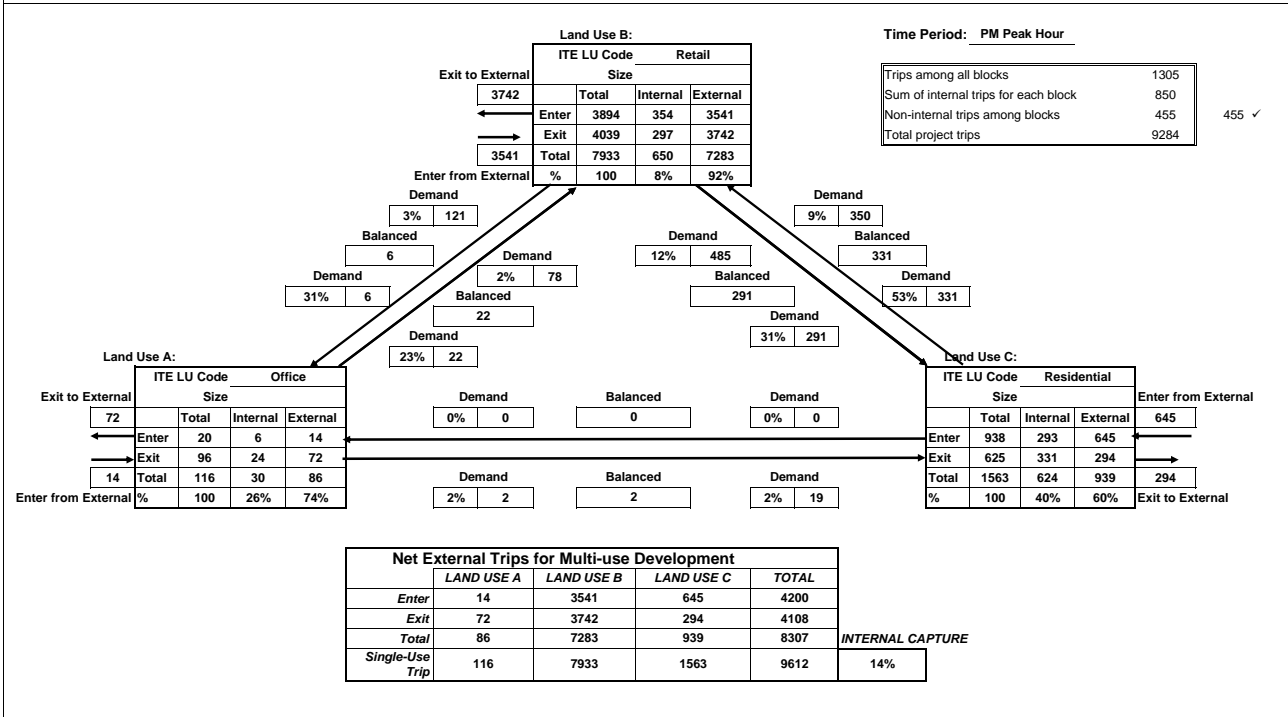
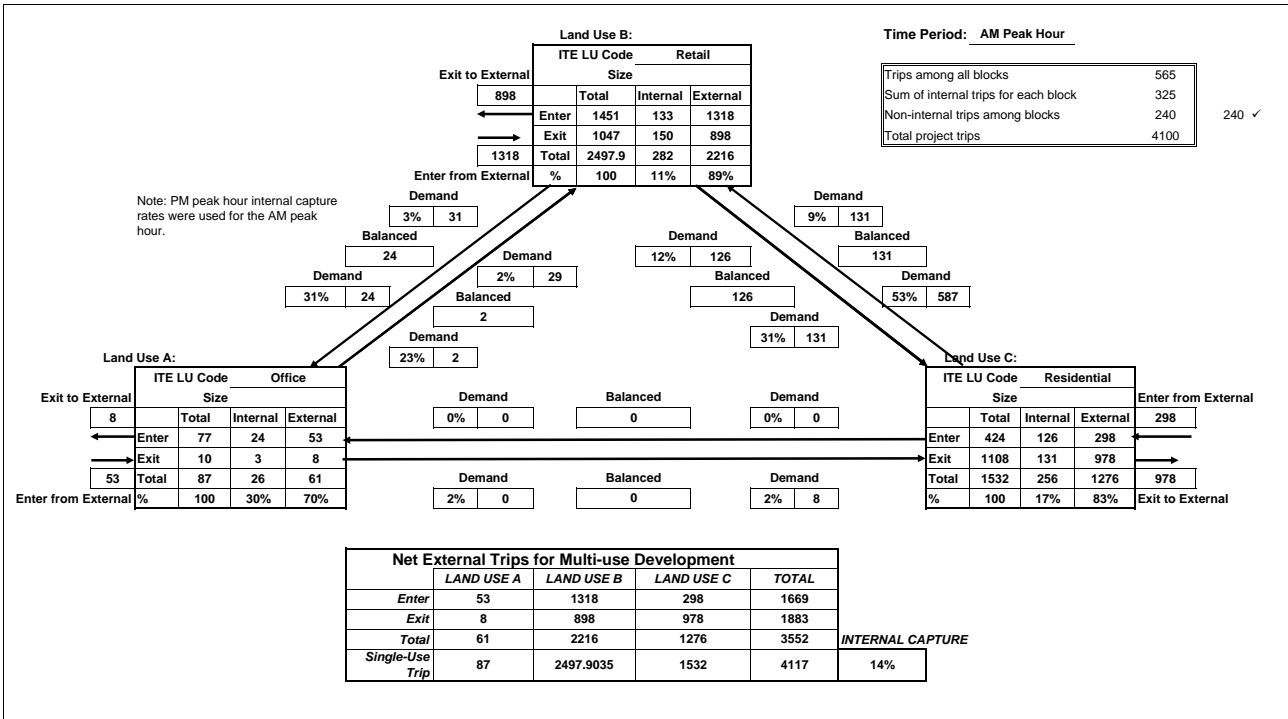


**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling

Name of Development: Downtown Study
Initial Phase with Maximum Residential (Baseline & 2013)

Date: 8/17/2007



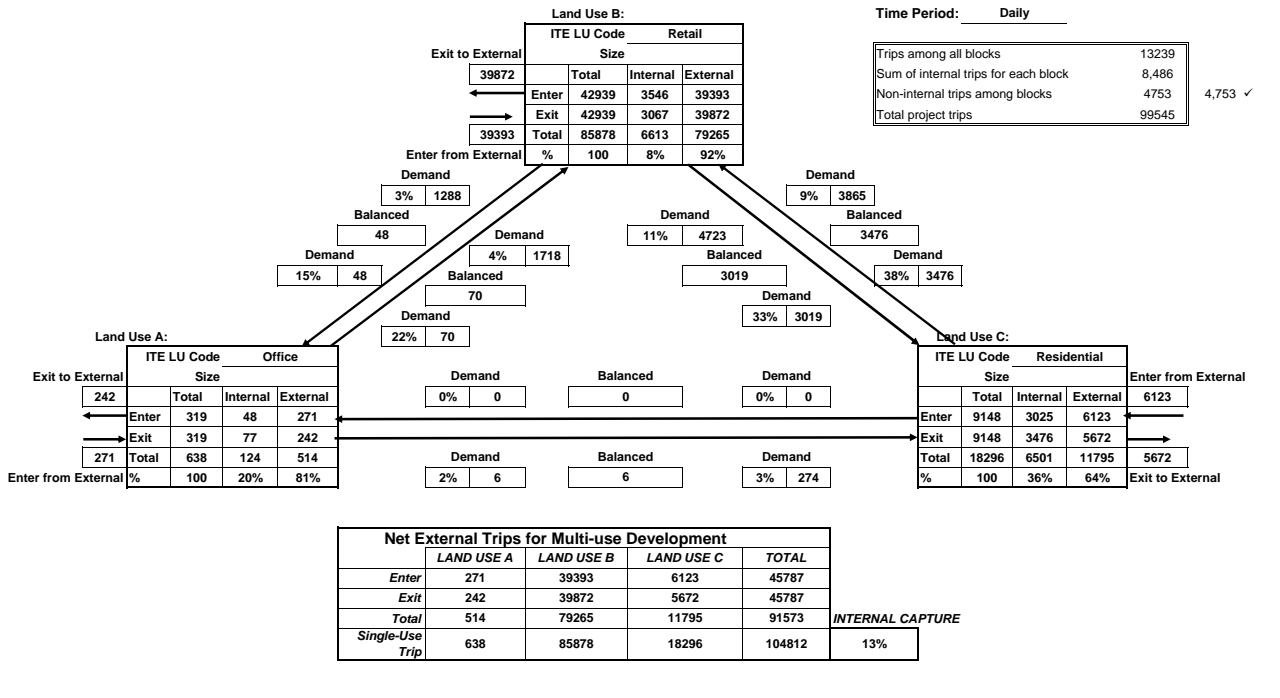
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 TRIPS AMONG ALL BLOCKS**

Name of Development: Downtown Study
 Initial Phase with Maximum Residential (Baseline & 2013)

Time Period: Daily

Trips among all blocks	13239	
Sum of internal trips for each block	8,486	
Non-internal trips among blocks	4753	4,753 ✓
Total project trips	99545	



Initial Phase with Maximum Office (2030)

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	32 KSF	555	66	9	75	20	95	115
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	808 Units	5,487	206	213	419	230	185	415
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,646	429	322	751	768	841	1,609
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.7%)		-1,889	-36	-29	-65	-81	-83	-164
Internal Trips Within This Block (-12.8%)		-2,262	-28	-28	-56	-118	-118	-235
Trips To-From Other Blocks within the Project (-3.5%)		-612	-14	-14	-28	-16	-16	-31
New External Trips (73%) of Total Trips for Block		12,883	351	251	602	554	624	1,179
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	526 Units	2,207	34	147	181	120	74	194
Other	0	0	0	0	0	0	0	0
Total Trips for Block		8,673	244	214	458	386	467	853
Transit Adjustments (-3.4%)		-295	-18	-8	-26	-12	-23	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-867	-16	-17	-33	-39	-40	-79
Internal Trips Within This Block (-14.7%)		-1,272	-14	-14	-28	-58	-58	-116
Trips To-From Other Blocks within the Project (-3.3%)		-283	-8	-8	-17	-8	-8	-16
New External Trips (69%) of Total Trips for Block		5,956	188	167	355	269	338	607
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-4%)		-459	-5	-5	-10	-12	-12	-24
New External Trips (84%) of Total Trips for Block		9,652	131	83	214	439	477	916
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	65 KSF	957	117	16	133	26	126	152
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	106 Units	623	11	49	60	32	20	52
Total Trips for Block		9,059	232	132	364	389	505	894
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-955	-17	-12	-29	-41	-47	-88
Internal Trips Within This Block (-8.4%)		-761	-15	-15	-30	-33	-33	-66
Trips To-From Other Blocks within the Project (-3.7%)		-333	-7	-7	-14	-10	-10	-19
New External Trips (77%) of Total Trips for Block		7,010	193	98	291	305	415	721

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	129 KSF	1,623	202	28	230	38	185	223
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	162 Units	834	14	62	76	44	27	71
Total Trips for Block		10,102	323	158	481	421	579	1,000
Transit Adjustments (-3.7%)		-370	-26	-7	-33	-13	-30	-43
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-1,012	-18	-14	-32	-44	-50	-94
Internal Trips Within This Block (-9.9%)		-1,003	-16	-16	-32	-41	-41	-82
Trips To-From Other Blocks within the Project (-3.5%)		-350	-9	-9	-17	-10	-10	-20
New External Trips (73%) of Total Trips for Block		7,367	255	113	367	313	448	761
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	294 Units	1,332	22	92	114	71	44	115
Total Trips for Block		7,897	234	160	394	341	442	783
Transit Adjustments (-3.5%)		-276	-18	-6	-24	-10	-23	-33
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-794	-15	-13	-28	-35	-38	-73
Internal Trips Within This Block (-14.7%)		-1,159	-14	-14	-29	-51	-51	-101
Trips To-From Other Blocks within the Project (-3.3%)		-257	-7	-7	-14	-7	-7	-15
New External Trips (69%) of Total Trips for Block		5,411	180	120	300	238	323	561
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	86 KSF	1,188	146	20	166	30	145	175
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	100 Units	522	25	16	41	31	28	59
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,676	663	457	1,120	859	998	1,857
Transit Adjustments (-3.6%)		-708	-28	-11	-39	-22	-37	-59
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-2,002	-63	-51	-114	-95	-87	-181
Internal Trips Within This Block (-3.6%)		-718	-30	-30	-60	-44	-44	-87
Trips To-From Other Blocks within the Project (-3.7%)		-737	-20	-20	-40	-20	-20	-39
New External Trips (79%) of Total Trips for Block		15,512	522	345	867	679	810	1,490

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	40 KSF	659	79	11	90	21	103	124
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	72 Units	301	5	20	24	17	10	27
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,543	307	204	510	767	889	1,656
Transit Adjustments (-2.8%)		-456	-14	-6	-20	-19	-30	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-1,823	-29	-22	-51	-85	-92	-176
Internal Trips Within This Block (-2.5%)		-406	-17	-17	-35	-28	-28	-55
Trips To-From Other Blocks within the Project (-3.8%)		-629	-9	-9	-18	-18	-18	-35
New External Trips (80%) of Total Trips for Block		13,230	238	149	387	618	722	1,342
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	30 KSF	528	63	9	72	19	93	112
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	236 Units	1,113	18	79	97	60	36	96
Total Trips for Block		4,610	126	116	242	209	269	478
Transit Adjustments (-3.3%)		-153	-9	-4	-13	-7	-14	-21
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-466	-8	-10	-18	-21	-21	-42
Internal Trips Within This Block (-14.9%)		-689	-8	-8	-16	-32	-32	-63
Trips To-From Other Blocks within the Project (-3.2%)		-150	-4	-4	-9	-5	-5	-9
New External Trips (68%) of Total Trips for Block		3,152	97	90	186	145	198	343
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	115 KSF	1,488	185	25	210	35	173	208
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		5,109	239	59	298	194	345	539
Transit Adjustments (-4.8%)		-245	-21	-4	-25	-7	-23	-30
Walk, Bike & Other Non-Auto Travel Adjustments (-9%)		-462	-11	-5	-16	-19	-25	-44
Internal Trips Within This Block (-4.3%)		-219	-2	-2	-4	-7	-7	-14
Trips To-From Other Blocks within the Project (-3.7%)		-190	-6	-6	-11	-6	-6	-12
New External Trips (78%) of Total Trips for Block		3,994	200	43	242	155	284	439
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	250 KSF	2,701	343	47	390	61	298	359
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		6,096	633	133	766	218	655	873
Transit Adjustments (-8%)		-489	-48	-7	-55	-11	-44	-55
Walk, Bike & Other Non-Auto Travel Adjustments (-5.8%)		-356	-21	-5	-26	-15	-26	-41
Internal Trips Within This Block (-2.1%)		-127	-1	-1	-2	-4	-4	-8
Trips To-From Other Blocks within the Project (-3.8%)		-232	-15	-15	-30	-10	-10	-20
New External Trips (80%) of Total Trips for Block		4,892	548	105	652	178	571	748
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	680 KSF	5,837	765	104	869	143	697	840
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		7,549	792	121	913	217	777	994
Transit Adjustments (-9.1%)		-686	-85	-12	-97	-17	-79	-96
Walk, Bike & Other Non-Auto Travel Adjustments (-4.8%)		-362	-24	-5	-29	-13	-29	-42
Internal Trips Within This Block (-1.4%)		-103	-1	-1	-2	-3	-3	-7
Trips To-From Other Blocks within the Project (-3.8%)		-290	-17	-17	-35	-11	-11	-22
New External Trips (81%) of Total Trips for Block		6,108	665	86	750	173	655	827

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	192 KSF	2,205	278	38	316	50	244	294
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		8,315	365	93	458	320	536	856
Transit Adjustments (-4.6%)		-379	-33	-5	-38	-12	-33	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-9.3%)		-771	-18	-7	-25	-32	-41	-73
Internal Trips Within This Block (-4.4%)		-369	-3	-3	-6	-12	-12	-24
Trips To-From Other Blocks within the Project (-3.7%)		-308	-9	-9	-17	-9	-9	-18
New External Trips (78%) of Total Trips for Block		6,488	302	69	372	255	441	695
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	300 KSF	3,109	398	54	452	71	344	415
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		4,223	416	66	482	119	396	515
Transit Adjustments (-8.8%)		-370	-45	-6	-51	-9	-39	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-5.1%)		-216	-13	-3	-16	-8	-16	-24
Internal Trips Within This Block (-1.6%)		-67	-1	-1	-1	-2	-2	-4
Trips To-From Other Blocks within the Project (-3.8%)		-162	-9	-9	-18	-6	-6	-11
New External Trips (81%) of Total Trips for Block		3,408	348	47	395	94	333	427
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th									
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0	
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0	
Subtotal Residential	0 Units	0	0	0	0	0	0	0	
-----		-----		-----		-----		-----	
Total Trips for Block		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Total Project Trips								
Office (General Office Building)	2,071 KSF	23,010	2,908	397	3,305	570	2,775	3,345
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	2,304 Units	12,419	335	678	1,012	606	423	1,029
Other		3,528	258	65	323	102	445	546
Total Project Trips		136,936	5,157	2,334	7,490	5,719	8,251	13,970
Transit Adjustments (-3.2%)		-4,427	-345	-76	-421	-139	-375	-513
Walk, Bike & Other Non-Auto Travel Adjustments (-9.7%)		-13,302	-307	-204	-511	-587	-659	-1,244
Internal Trips Within This Block (-6.7%)		-9,155	-150	-150	-300	-432	-432	-864
Trips To-From Other Blocks within the Project (-3.6%)		-4,992	-139	-139	-278	-146	-146	-292
New External Trips (77%) of Total Project Trips		105,060	4,215	1,765	5,979	4,415	6,639	11,057

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Office (2030) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		76.7%				79.8%			79.1%

Table Xb: Transit Trips for Initial Phase with Maximum Office (2030) (By City Block)							
City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	547	20	13	33	23	34	57
Block 2: Bounded by South Park, 5th, Railyards, Crocker	346	20	9	29	14	27	41
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	297	4	3	7	13	15	28
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	334	17	6	23	13	26	39
Block 6: Bounded by Railyards, 5th, Camille, Crocker	429	30	7	37	16	33	49
Block 7: Bounded by Railyards, 6th, Camille, 5th	321	20	7	27	12	26	38
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	819	32	15	47	27	57	84
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	533	16	6	22	25	36	60
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	179	10	5	15	8	18	25
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	280	24	4	28	8	27	35
Block 13: Bounded by Rail Lines, 6th, G, 5th	554	76	14	90	18	72	90
Block 14: Bounded by Rail Lines, 7th, G, 6th	775	97	13	110	20	89	109
Block 15: Bounded by G, 6th, H, 6th	435	37	7	44	13	39	52
Block 16: Bounded by G, 7th, Property Boundary, 6th	418	51	7	58	10	45	55
Block 17: Bounded by N. B, 7th, South Park, 5th	0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th	0	0	0	0	0	0	0
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	0	0	0	0	0	0	0
Block 21: SITF Site	0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th	0	0	0	0	0	0	0
Total New Transit Trips	6,267	454	116	570	220	544	762

Source: Dowling Associates, Inc. 2006

^b Table A27

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
1 OS	1	1	0.75						
1 RRMU	2	1	4.31		200,000				
1 RRMU	3a	1	2.84						
2 OS	3b	1	0.13						
2 RRMU	3c	1	0.93			500			
2 RRMU	3d	1	0.73	168	28,000		32,000		32,000
2 OS	3e	1	0.67						
2 RRMU	3f	1	0.28	140					
Subtotal				308	228,000	500	32,000	0	32,000
2 RRMU	5a	2	1.14	104					
2 RRMU	5b	2	0.68	80	27,000		29,000		29,000
2 RRMU	6a	2	1.28	242					
2 RRMU	6b	2	1.07	100	43,000		47,000		47,000
2 OS	6c	2	0.15						
Subtotal				526	70,000	0	76,000	0	76,000
1 RRMU	33	3	2.62						
1 RRMU	11a	4	4.42		223,000				
1 OS	11b	4	0.27						
Subtotal				0	223,000	0	0	0	0
1 RRMU	10a	5	3.88	106	116,000		65,000		65,000
1 OS	10b	5	0.57						
Subtotal				106	116,000	0	65,000	0	65,000
1 RRMU	8a	6	0.61	22	27,000		27,000		27,000
1 RRMU	8b	6	1.22	48	33,000		38,000		38,000
1 RRMU	9a	6	0.60	44	26,000		26,000		26,000
1 RRMU	9b	6	1.27	48	34,000		38,000		38,000
Subtotal				162	120,000	0	129,000	0	129,000
2 RRMU	7a	7	2.06	186	18,000		18,000		18,000
2 RRMU	7b	7	1.19	108	54,000		58,000		58,000
2 OS	7c	7	0.03						
Subtotal				294	72,000	0	76,000	0	76,000
3 ORMU	47a	8	2.21						
1 RRMU	47b	8	0.78						

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 ORMU	48	8	2.56						
Subtotal				0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
b T:	1 RRMU	12	9	1.17			71,000	43,000	43,000
	1 RRMU	13a	9	0.11			3,500		
	1 RRMU	13b	9	0.23			8,000		
	1 RRMU	13c	9	0.12			5,600		
	1 OS	13d	9	0.60					
	1 RRMU	14	9	0.62		13,000	100		
	1 RRMU	23	9	0.34				22,500	Restaurant
	1 RRMU	24	9	0.73				42,028	19816 Rest; 11165 Retail; 7730 Office
	1 RRMU	25	9	0.53				38,711	21014 Restaurant; 21014 Office
	1 RRMU	26	9	0.33				28,500	14250 Retail; 14250 Office
	1 RRMU	27	9	0.65				28,043	25000 Exhibit; 3043 Retail
	1 RRMU	28	9	2.24				93,134	Exhibit
	1 RRMU	29	9	1.67				69,696	Exhibit
	1 OS	30a	9	5.07					
	1 OS	30b	9	1.35					
	1 OS	31a	9	2.66					
	1 OS	31b	9	0.32					
	1 TU	38	9	16.78					
	1 OS	45	9	0.33					
	Subtotal				0	101,100	100	43,000	322,612
1 RRMU	15a	10	3.33	72	65,500		40,000	100,000	1,800 40,000
1 OS	15b	10	0.05						
1 OS	18a	10	1.05						
1 RRMU	18b	10	0.25		38,500				
1 RRMU	20	10	1.30					56,278	Market
1 OS	21	10	5.30						
1 RRMU	22	10	0.15					6,500	Retail
Subtotal				72	104,000	0	40,000	162,778	40,000
2 RRMU	16a	11	1.67	236	28,000		30,000		30,000
2 OS	16b	11	0.07						
1 RRMU	17	11	1.48						
Subtotal				236	28,000	0	30,000	0	30,000
2 ORMU	40	12	1.93		38,000		115,200		
2 ORMU	44	13	1.96		16,500		250,000		
2 ORMU	43	14	2.56		12,000		500,000		

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THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
2 ORMU	46	14	2.89				180,000		
Subtotal				0	12,000	0	680,000	0	0
1 ORMU	41	15	2.43		85,000		192,000		
1 ORMU	42	16	1.19		6,200		300,000		
3 OS	60	17	1.12						
3 OS	61	17	0.71						
3 OS	62	17	0.92						
3 RMU	69N	17	1.64						
3 RMU	69S	17	1.21						
3 RMU	70N	17	1.10						
3 RMU	70S	17	0.88						
3 RMU	71N	17	0.77						
3 RMU	71S	17	0.84						
Subtotal				0	0	0	0	0	0
4 OS	63	18	0.97						
4 OS	64	18	0.89						
4 OS	65	18	0.92						
4 RMU	66N	18	0.33						
4 RMU	66S	18	1.07						
4 RMU	67N	18	1.27						
4 RMU	67S	18	1.12						
4 RMU	68N	18	1.48						
4 RMU	68S	18	1.17						
Subtotal				0	0	0	0	0	0
3 OS	57a	19	0.12						
3 RMU	57N	19	1.24						
3 RMU	57S	19	1.38						
3 RMU	58N	19	1.17						
3 RMU	58S	19	1.15						
3 RMU	59N	19	1.27						
3 RMU	59S	19	1.11						
Subtotal				0	0	0	0	0	0
4 RMU	52N	20	0.98						
4 RMU	52S	20	1.30						
4 RMU	53N	20	1.38						

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THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
4 RMU	53S	20	1.49						
4 RMU	54N	20	1.35						
4 RMU	54S	20	1.68						
4 OS	54a	20	0.12						
Subtotal				0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Office (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 TU	39	21	15.34						
3 OS	34	22	1.26						
3 RMU	35	22	4.00						
Subtotal				0	0	0	0	0	0
4 RMU	49a	23	4.87						
1 ORMU	49b	23	0.73						
1 ORMU	49c	23	1.00						
3 OS	50	23	1.26						
Subtotal				0	0	0	0	0	0
4 RMU	51	24	4.70						
3 OS	72	25	10.37						
	Subtotal			0		1,537,200			
	TOTAL Max	180.39	1,704	1,219,800	600	2,028,200	485,390	491,000	
	Min		1,704			491,000			
	Check		2,504	1,401,366		2,193,194			

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips^a	Non-Work Trips^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office¹	10.9%	0.2%		11.1%
Retail²	0.8%	1.4%		2.2%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^{3,c}				
AM Peak Hour	2.5%	0.7%	0.2%	3.4%
PM Peak Hour	2.1%	0.6%	0.4%	3.1%
Daily	1.5%	0.7%	0.4%	2.6%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office¹	1.5%	1.2%		2.8%
Retail²	0.1%	11.4%		11.6%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office¹	12.2%	0.3%		12.5%
Retail²	1.0%	1.7%		2.6%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	3.1%	0.8%	0.3%	4.1%
PM Peak Hour	2.6%	0.7%	0.5%	3.7%
Daily	1.9%	0.8%	0.5%	3.2%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001.
 Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 1: Bounded by South Park, Crocker, Railyards, Bercut													
Office (General Office Building)	32.0 KSF	ITE (710)	555	66	9	75	20	95	115	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%
Residential													
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%
High Rise Residential Condominium	308 Units	ITE (232)	1,385	22	96	118	74	46	120	19%	81%	62%	38%
Subtotal Residential	808 Units		5,487	206	213	419	230	185	415				
Other													
Total Trips for Block			17,646	429	322	751	768	841	1,609				
Transit Adjustments													
Office (-11.1%)													
Retail (-2.2%)													
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)													
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-16	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-527	-16	-17	-33	-20	-16	-36				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,889	-36	-29	-65	-81	-83	-164				
Internal Trips Within This Block			-2,262	-28	-28	-56	-118	-118	-235				
Trips To-From Other Blocks within the Project			-612	-14	-14	-28	-16	-16	-31				
New External Trips													
Office (General Office Building)				59	6	65	13	80	93				
Retail (Shopping Center)				119	71	190	397	420	818				
Subtotal Residential				172	174	347	144	124	268				
Other				0	0	0	0	0	0				
Total				12,883	351	251	602	554	624	1,179			
New External Trips Percent of Total Project Trips				73%	82%	78%	80%	72%	74%	73%			
Transit Trips													
Office (12.5%)				69	8	1	9	2	12	14			
Retail (2.6%)				302	4	3	7	13	15	28			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				176	8	9	17	8	7	15			
Other				0	0	0	0	0	0	0			
Total Transit Trips				547	20	13	33	23	34	57			

^b Table A27

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 2: Bounded by South Park, 5th, Railyards, Crocker													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	526 Units	ITE (232)	2,207	34	147	181	120	74	194	19%	81%	62%	38%
Subtotal Residential	526 Units		2,207	34	147	181	120	74	194				
Other													
Total Trips for Block			8,673	244	214	458	386	467	853				
Transit Adjustments													
Office (-11.1%)			-120	-15	-2	-17	-3	-15	-18				
Retail (-2.2%)			-118	-2	-1	-3	-5	-6	-11				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-57	-1	-5	-6	-4	-2	-6				
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-295	-18	-8	-26	-12	-23	-35				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-212	-3	-11	-14	-11	-6	-17				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-867	-16	-17	-33	-39	-40	-79				
Internal Trips Within This Block			-1,272	-14	-14	-28	-58	-58	-116				
Trips To-From Other Blocks within the Project			-283	-8	-8	-17	-8	-8	-16				
New External Trips													
Office (General Office Building)				108	14	122	17	108	125				
Retail (Shopping Center)				56	34	90	178	183	362				
Subtotal Residential				23	119	143	74	46	120				
Other				0	0	0	0	0	0				
Total				5,956	188	167	355	269	338	607			
New External Trips Percent of Total Project Trips				69%	77%	78%	77%	70%	72%	71%			
Transit Trips													
Office (12.5%)			135	17	2	19	4	17	21				
Retail (2.6%)			140	2	1	3	6	7	13				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			71	1	6	7	4	3	7				
Other			0	0	0	0	0	0	0				
Total Transit Trips			346	20	9	29	14	27	41				

^b Table A27

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-459	-5	-5	-10	-12	-12	-24					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				131	83	214	439	477	916					
Subtotal Residential				0	0	0	0	0	0					
Total				9,652	131	83	214	439	477	916				
New External Trips Percent of Total Project Trips				84%	85%	84%	85%	86%	86%	86%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0	0				
Retail (2.6%)				297	4	3	7	13	15	28				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				0	0	0	0	0	0	0				
Total Transit Trips				297	4	3	7	13	15	28				

^b Table A27

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 5: Bounded by Railyards, Crocker, Camille, Huntington													
Office (General Office Building)	65.0 KSF	ITE (710)	957	117	16	133	26	126	152	88%	12%	17%	83%
Retail (Shopping Center) (90%)	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	106 Units	ITE (232)	623	11	49	60	32	20	52	19%	81%	62%	38%
Subtotal Residential	106 Units		623	11	49	60	32	20	52				
Other													
Total Trips for Block			9,059	232	132	364	389	505	894				
Transit Adjustments													
Office (-11.1%)													
Retail (-2.2%)													
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)													
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-27	-4	0	-4	-1	-3	-4				
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-60	-1	-4	-5	-2	-2	-4				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-955	-17	-12	-29	-41	-47	-88				
Internal Trips Within This Block			-761	-15	-15	-30	-33	-33	-66				
Trips To-From Other Blocks within the Project			-333	-7	-7	-14	-10	-10	-19				
New External Trips													
Office (General Office Building)				108	13	121	17	114	131				
Retail (Shopping Center) (90%)				79	51	130	270	293	563				
Subtotal Residential				6	34	41	19	8	27				
Total			7,010	193	98	291	305	415	721				
New External Trips Percent of Total Project Trips			77%	83%	74%	80%	79%	82%	81%				
Transit Trips													
Office (12.5%)			120	15	2	17	3	16	19				
Retail (2.6%)			194	2	2	4	9	9	18				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			20	0	2	2	1	1	2				
Total Transit Trips			334	17	6	23	13	26	39				

^b Table A27

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 6: Bounded by Railyards, 5th, Camille, Crocker													
Office (General Office Building)	129.0 KSF	ITE (710)	1,623	202	28	230	38	185	223	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	162 Units	ITE (232)	834	14	62	76	44	27	71	19%	81%	62%	38%
Subtotal Residential	162 Units		834	14	62	76	44	27	71				
Other													
Total Trips for Block			10,102	323	158	481	421	579	1,000				
Transit Adjustments													
Office (-11.1%)			-180	-23	-3	-26	-4	-21	-25				
Retail (-2.2%)			-168	-2	-2	-4	-8	-8	-16				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-22	-1	-2	-3	-1	-1	-2				
Other													
Total Transit Adjustments			-370	-26	-7	-33	-13	-30	-43				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-45	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-80	-1	-5	-6	-4	-2	-6				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,012	-18	-14	-32	-44	-50	-94				
Internal Trips Within This Block			-1,003	-16	-16	-32	-41	-41	-82				
Trips To-From Other Blocks within the Project			-350	-9	-9	-17	-10	-10	-20				
New External Trips													
Office (General Office Building)				167	20	187	23	149	172				
Retail (Shopping Center)				80	49	129	265	288	553				
Subtotal Residential				8	43	51	25	11	36				
Total				7,367	255	113	367	313	448				
New External Trips Percent of Total Project Trips				73%	79%	71%	76%	74%	77%				
Transit Trips													
Office (12.5%)				203	26	3	29	5	23				
Retail (2.6%)				199	3	2	5	9	9				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				27	1	2	3	2	1				
Total Transit Trips				429	30	7	37	16	33				

^b Table A27

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 7: Bounded by Railyards, 6th, Camille, 5th													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	294 Units	ITE (232)	1,332	22	92	114	71	44	115	19%	81%	62%	38%
Subtotal Residential	294 Units		1,332	22	92	114	71	44	115				
Other													
Total Trips for Block			7,897	234	160	394	341	442	783				
Transit Adjustments													
Office (-11.1%)			-120	-15	-2	-17	-3	-15	-18				
Retail (-2.2%)			-121	-2	-1	-3	-5	-6	-11				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-35	-1	-3	-4	-2	-2	-4				
Other													
Total Transit Adjustments			-276	-18	-6	-24	-10	-23	-33				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-128	-2	-7	-9	-6	-4	-10				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-794	-15	-13	-28	-35	-38	-73				
Internal Trips Within This Block			-1,159	-14	-14	-29	-51	-51	-101				
Trips To-From Other Blocks within the Project			-257	-7	-7	-14	-7	-7	-15				
New External Trips													
Office (General Office Building)				109	14	122	17	109	126				
Retail (Shopping Center)				58	34	93	181	195	376				
Subtotal Residential				13	72	85	41	18	59				
Total				5,411	180	120	300	238	323	561			
New External Trips Percent of Total Project Trips				69%	77%	75%	76%	70%	73%	72%			
Transit Trips													
Office (12.5%)			135	17	2	19	4	17	21				
Retail (2.6%)			143	2	1	3	6	7	13				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			43	1	4	5	2	2	4				
Total Transit Trips			321	20	7	27	12	26	38				

^b Table A27

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	86.0 KSF	ITE (710)	1,188	146	20	166	30	145	175	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	100 Units		522	25	16	41	31	28	59				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,676	663	457	1,120	859	998	1,857				
Transit Adjustments													
Office (-11.1%)			-132	-16	-2	-18	-3	-16	-19				
Retail (-2.2%)			-354	-11	-9	-20	-17	-15	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-14	-1	0	-1	-1	-1	-2				
Other (Museum Exhibit Space) (-11.1%)			-208	0	0	0	-1	-5	-6				
Total Transit Adjustments			-708	-28	-11	-39	-22	-37	-59				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-33	-4	-1	-5	-1	-4	-5				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-50	-2	-1	-3	-3	-2	-5				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,002	-63	-51	-114	-95	-87	-181				
Internal Trips Within This Block			-718	-30	-30	-60	-44	-44	-87				
Trips To-From Other Blocks within the Project			-737	-20	-20	-40	-20	-20	-39				
New External Trips													
Office (General Office Building)				111	12	123	17	108	125				
Retail & Restaurant (see footnote)				397	327	724	627	533	1,160				
Subtotal Residential				14	6	20	18	11	28				
Other (Museum Exhibit Space)				0	0	0	17	159	177				
Total			15,512	522	345	867	679	810	1,490				
New External Trips Percent of Total Project Trips			79%	79%	75%	77%	79%	81%	80%				
Transit Trips													
Office (12.5%)			149	18	3	21	4	18	22				
Retail (2.6%)			418	13	11	24	20	17	37				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			17	1	1	2	1	1	2				
Other (Museum Exhibit Space) (12.5%)			235	0	0	0	2	21	23				
Total Transit Trips			819	32	15	47	27	57	84				

^b Table A27

Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26													
Office (General Office Building)	40.0 KSF	ITE (710)	659	79	11	90	21	103	124	88%	12%	17%	83%
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469				
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	72 Units	ITE (232)	301	5	20	24	17	10	27	19%	81%	62%	38%
Subtotal Residential	72 Units		301	5	20	24	17	10	27				
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36			50%	50%
Total Trips for Block			16,543	307	204	510	767	889	1,656				
Transit Adjustments													
Office (-11.1%)			-73	-9	-1	-10	-2	-12	-14				
Retail (-2.2%)			-335	-5	-4	-9	-15	-17	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-8	0	-1	-1	-1	0	-1				
Other (Performing Arts) (-11.1%)			-40	0	0	0	-1	-1	-1				
Total Transit Adjustments			-456	-14	-6	-20	-19	-30	-48				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-18	-3	0	-3	-1	-2	-3				
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-29	0	-2	-2	-1	-1	-2				
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,823	-29	-22	-51	-85	-92	-176				
Internal Trips Within This Block			-406	-17	-17	-35	-28	-28	-55				
Trips To-From Other Blocks within the Project			-629	-9	-9	-18	-18	-18	-35				
New External Trips													
Office (General Office Building)				60	7	67	12	74	86				
Retail & Market (see footnote)				174	135	309	580	627	1,207				
Subtotal Residential				3	7	10	10	4	14				
Other (Performing Arts)				0	0	0	16	16	34				
Total			13,230	238	149	387	618	722	1,342				
New External Trips Percent of Total Project Trips			80%	77%	73%	76%	81%	81%	81%				
Transit Trips													
Office (12.5%)			82	10	1	11	3	13	16				
Retail (2.6%)			396	6	4	10	18	20	38				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			10	0	1	1	1	0	1				
Other (Performing Arts) (12.5%)			45	0	0	0	3	3	5				
Total Transit Trips			533	16	6	22	25	36	60				

^b Table A27

Retail & Market													
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 11: Bounded by Camille, 6th, Rail Lines, 5th													
Office (General Office Building)	30.0 KSF	ITE (710)	528	63	9	72	19	93	112	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	236 Units	ITE (232)	1,113	18	79	97	60	36	96	19%	81%	62%	38%
Subtotal Residential	236 Units		1,113	18	79	97	60	36	96				
Other													
Total Trips for Block			4,610	126	116	242	209	269	478				
Transit Adjustments													
Office (-11.1%)			-59	-7	-1	-8	-2	-10	-12				
Retail (-2.2%)			-65	-1	-1	-2	-3	-3	-6				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-29	-1	-2	-3	-2	-1	-3				
Other													
Total Transit Adjustments			-153	-9	-4	-13	-7	-14	-21				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-15	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-107	-1	-7	-8	-5	-3	-8				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-466	-8	-10	-18	-21	-21	-42				
Internal Trips Within This Block			-689	-8	-8	-16	-32	-32	-63				
Trips To-From Other Blocks within the Project			-150	-4	-4	-9	-5	-5	-9				
New External Trips													
Office (General Office Building)				51	7	58	12	76	88				
Retail (Shopping Center)				33	19	53	97	101	197				
Subtotal Residential				12	64	76	36	21	57				
Total				3,152	97	90	186	145	198	343			
New External Trips Percent of Total Project Trips				68%	77%	77%	77%	69%	74%	72%			
Transit Trips													
Office (12.5%)				66	8	1	9	2	12	14			
Retail (2.6%)				77	1	1	2	3	4	7			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				36	1	3	4	3	2	4			
Total Transit Trips				179	10	5	15	8	18	25			

^b Table A27

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 12: Bounded by Rail Lines, 5th, I Street, LRT													
Office (General Office Building)	115.2 KSF	ITE (710)	1,488	185	25	210	35	173	208	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			5,109	239	59	298	194	345	539				
Transit Adjustments													
Office (-11.1%)			-165	-20	-3	-23	-4	-19	-23				
Retail (-2.2%)			-80	-1	-1	-2	-3	-4	-7				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other (-11.1%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-245	-21	-4	-25	-7	-23	-30				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-42	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-462	-11	-5	-16	-19	-25	-44				
Internal Trips Within This Block			-219	-2	-2	-4	-7	-7	-14				
Trips To-From Other Blocks within the Project			-190	-6	-6	-11	-6	-6	-12				
New External Trips													
Office (General Office Building)				155	18	172	25	143	168				
Retail (Shopping Center)				45	25	70	130	141	271				
Subtotal Residential				0	0	0	0	0	0				
Other				0	0	0	0	0	0				
Total			3,994	200	43	242	155	284	439				
New External Trips Percent of Total Project Trips			78%	83%	72%	81%	80%	82%	81%				
Transit Trips													
Office (12.5%)			186	23	3	26	4	22	26				
Retail (2.6%)			94	1	1	2	4	5	9				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Other (12.5%)			0	0	0	0	0	0	0				
Total Transit Trips			280	24	4	28	8	27	35				

^b Table A27

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 13: Bounded by Rail Lines, 6th, G, 5th													
Office (General Office Building)	250.0 KSF	ITE (710)	2,701	343	47	390	61	298	359	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%
Total Trips for Block			6,096	633	133	766	218	655	873				
Transit Adjustments													
Office (-11.1%)			-300	-38	-5	-43	-7	-33	-40				
Retail (-2.2%)			-46	-1	0	-1	-2	-2	-4				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11				
Total Transit Adjustments			-489	-48	-7	-55	-11	-44	-55				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-76	-10	-1	-11	-2	-8	-10				
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-356	-21	-5	-26	-15	-26	-41				
Internal Trips Within This Block			-127	-1	-1	-2	-4	-4	-8				
Trips To-From Other Blocks within the Project			-232	-15	-15	-30	-10	-10	-20				
New External Trips													
Office (General Office Building)				281	30	311	45	248	294				
Retail (Shopping Center)				25	14	39	71	81	152				
Subtotal Residential				0	0	0	0	0	0				
Other (Transit)				242	61	303	61	242	303				
Total				4,892	548	105	652	178	571	748			
New External Trips Percent of Total Project Trips				80%	87%	79%	85%	82%	87%	86%			
Transit Trips													
Office (12.5%)				338	43	6	49	8	37	45			
Retail (2.6%)				55	1	0	1	2	3	5			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				0	0	0	0	0	0	0			
Other (Transit) (12.5%)				161	32	8	40	8	32	40			
Total Transit Trips				554	76	14	90	18	72	90			

^b Table A27

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 14: Bounded by Rail Lines, 7th, G, 6th													
Office (General Office Building)	680.0 KSF	ITE (710)	5,837	765	104	869	143	697	840	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			7,549	792	121	913	217	777	994				
Transit Adjustments													
Office (-11.1%)			-648	-84	-12	-96	-16	-77	-93				
Retail (-2.2%)			-38	-1	0	-1	-1	-2	-3				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-686	-85	-12	-97	-17	-79	-96				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-163	-21	-3	-24	-4	-20	-24				
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-362	-24	-5	-29	-13	-29	-42				
Internal Trips Within This Block			-103	-1	-1	-2	-3	-3	-7				
Trips To-From Other Blocks within the Project			-290	-17	-17	-35	-11	-11	-22				
New External Trips													
Office (General Office Building)				643	74	716	114	589	703				
Retail (Shopping Center)				22	12	34	59	66	125				
Subtotal Residential				0	0	0	0	0	0				
Total			6,108	665	86	750	173	655	827				
New External Trips Percent of Total Project Trips			81%	84%	71%	82%	80%	84%	83%				
Transit Trips													
Office (12.5%)			730	96	13	109	18	87	105				
Retail (2.6%)			45	1	0	1	2	2	4				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			775	97	13	110	20	89	109				

^b Table A27

Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 15: Bounded by G, 6th, H, 6th													
Office (General Office Building)	192.0 KSF	ITE (710)	2,205	278	38	316	50	244	294	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			8,315	365	93	458	320	536	856				
Transit Adjustments													
Office (-11.1%)			-245	-31	-4	-35	-6	-27	-33				
Retail (-2.2%)			-134	-2	-1	-3	-6	-6	-12				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-379	-33	-5	-38	-12	-33	-45				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-62	-8	-1	-9	-1	-7	-8				
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-771	-18	-7	-25	-32	-41	-73				
Internal Trips Within This Block			-369	-3	-3	-6	-12	-12	-24				
Trips To-From Other Blocks within the Project			-308	-9	-9	-17	-9	-9	-18				
New External Trips													
Office (General Office Building)				231	28	259	34	201	235				
Retail (Shopping Center)				71	41	113	221	239	460				
Subtotal Residential				0	0	0	0	0	0				
Total			6,488	302	69	372	255	441	695				
New External Trips Percent of Total Project Trips			78%	83%	75%	81%	80%	82%	81%				
Transit Trips													
Office (12.5%)			276	35	5	40	6	31	37				
Retail (2.6%)			159	2	2	4	7	8	15				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			435	37	7	44	13	39	52				

^b Table A27

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 16: Bounded by G, 7th, Property Boundary, 6th													
Office (General Office Building)	300.0 KSF	ITE (710)	3,109	398	54	452	71	344	415	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			4,223	416	66	482	119	396	515				
Transit Adjustments													
Office (-11.1%)			-345	-44	-6	-50	-8	-38	-46				
Retail (-2.2%)			-25	-1	0	-1	-1	-1	-2				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-370	-45	-6	-51	-9	-39	-48				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-87	-11	-2	-13	-2	-10	-12				
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-216	-13	-3	-16	-8	-16	-24				
Internal Trips Within This Block			-67	-1	-1	-1	-2	-2	-4				
Trips To-From Other Blocks within the Project			-162	-9	-9	-18	-6	-6	-11				
New External Trips													
Office (General Office Building)				334	38	372	56	290	347				
Retail (Shopping Center)				14	9	23	38	43	81				
Subtotal Residential				0	0	0	0	0	0				
Total			3,408	348	47	395	94	333	427				
New External Trips Percent of Total Project Trips			81%	84%	71%	82%	79%	84%	83%				
Transit Trips													
Office (12.5%)			389	50	7	57	9	43	52				
Retail (2.6%)			29	1	0	1	1	2	3				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			418	51	7	58	10	45	55				

^b Table A27

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 21: SITF Site
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 21: SITF Site														
Office (General Office Building)	KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	Units		0	0	0	0	0	0	0	0				
Other (Transit)	Prkng	ITE(093)	0	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other (Transit) (-11.1%)			0	0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			0	0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Other (Transit)														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Other (Transit) (12.5%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Initial Phase with Maximum Office (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Initial Phase with Maximum Office (2030)

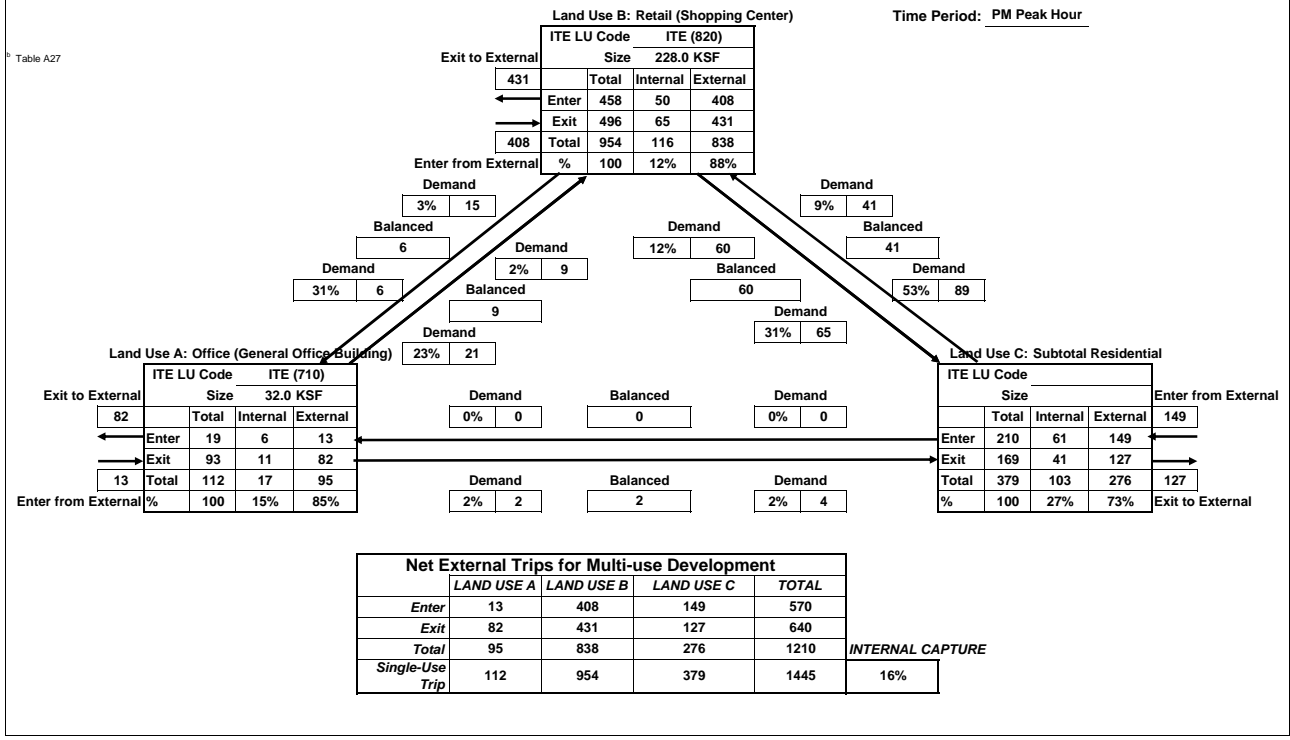
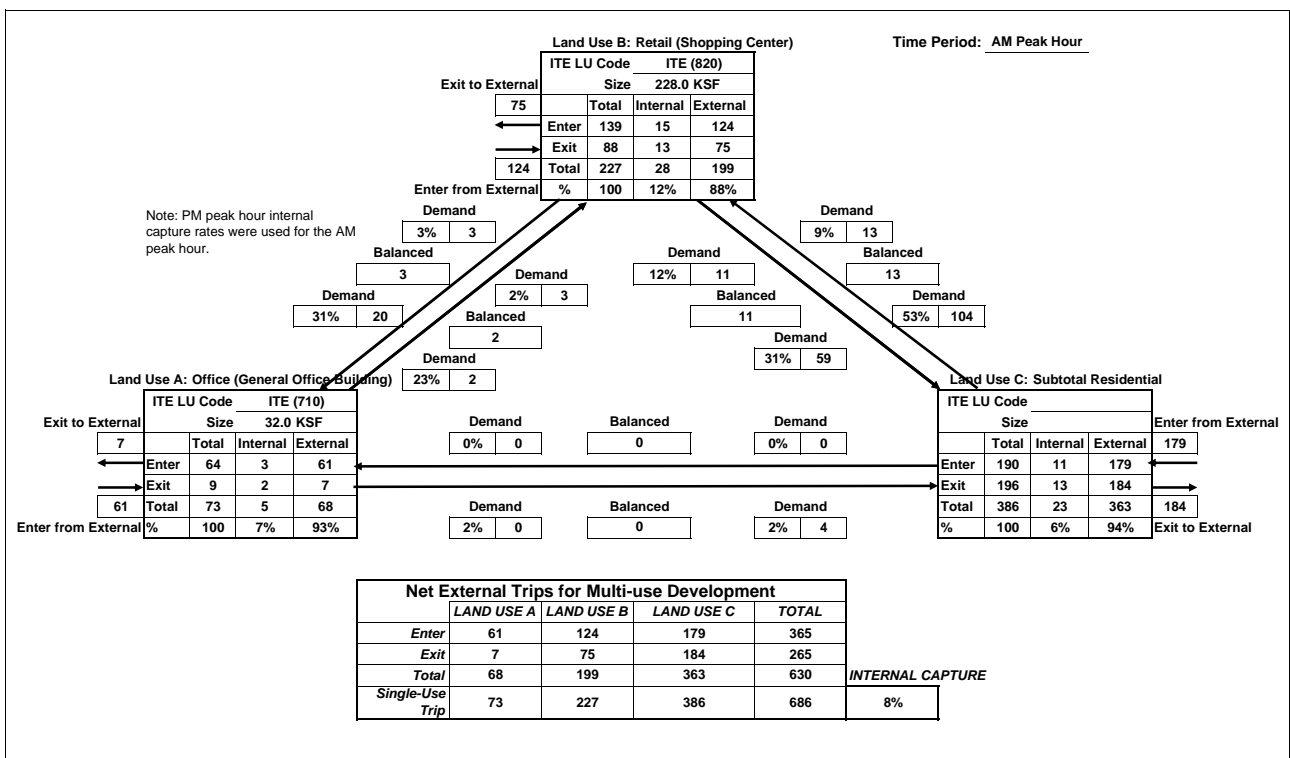
Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 24: Bounded by Property Boundary, Railyards, N. 10th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)														
Retail (Shopping Center)														
Subtotal Residential														
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

^b Table A27

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



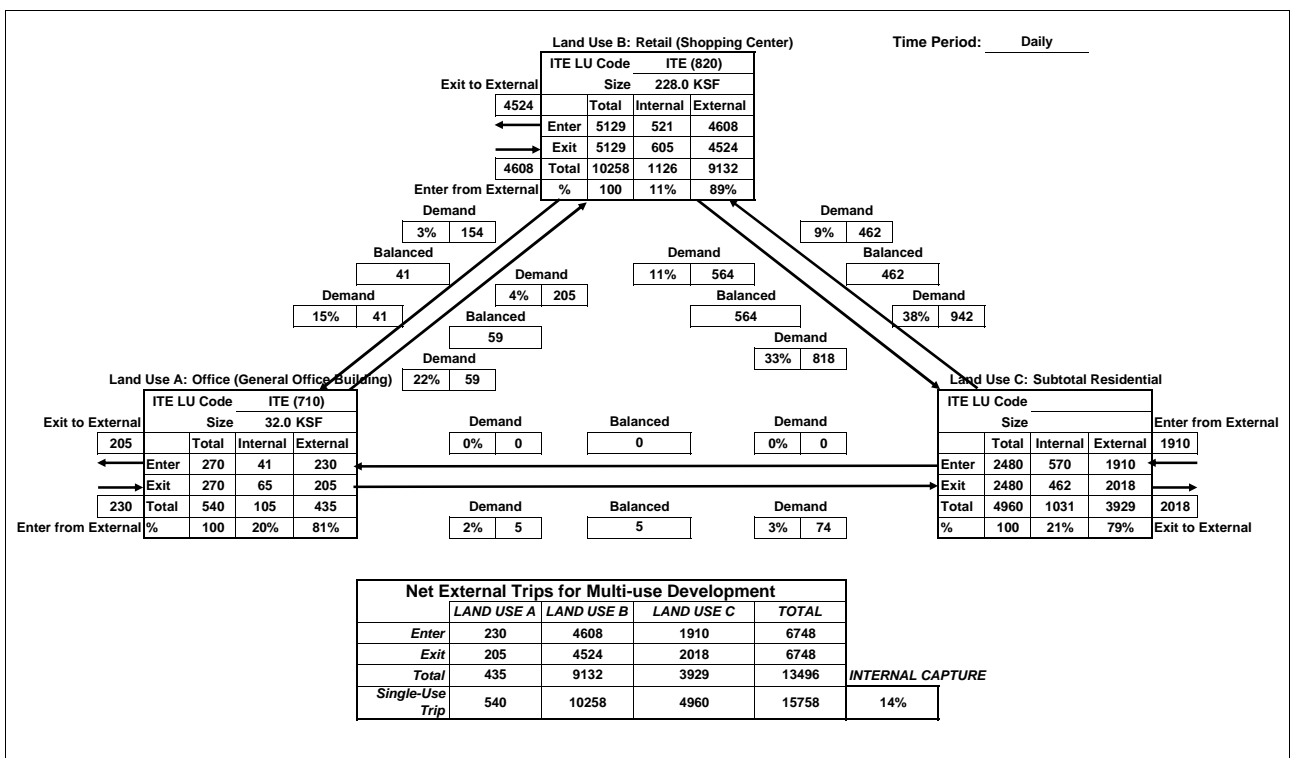
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

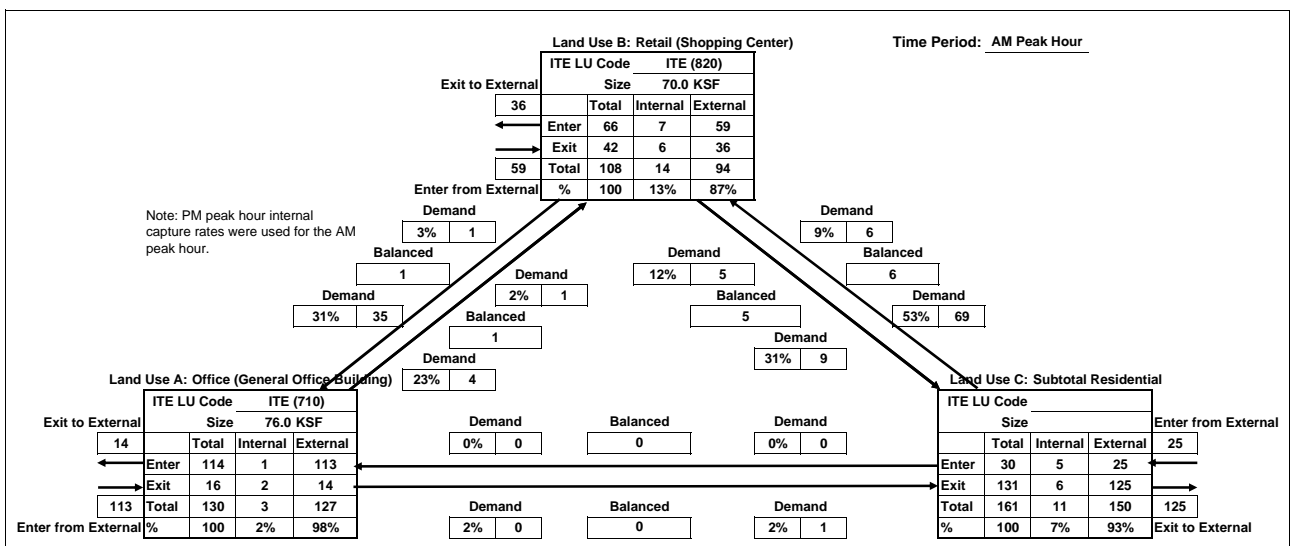
Time Period: Daily



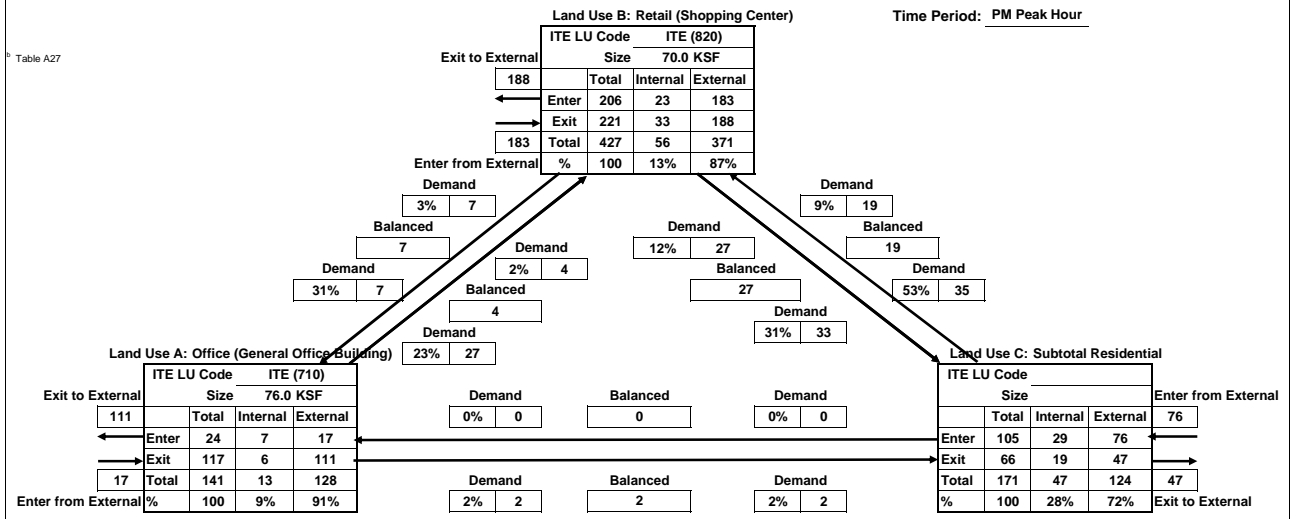
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	113	59	25	196	
Exit	14	36	125	175	
Total	127	94	150	371	INTERNAL CAPTURE
Single-Use Trip	130	108	161	399	7%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	183	76	277	
Exit	111	188	47	346	
Total	128	371	124	623	INTERNAL CAPTURE
Single-Use Trip	141	427	171	739	16%

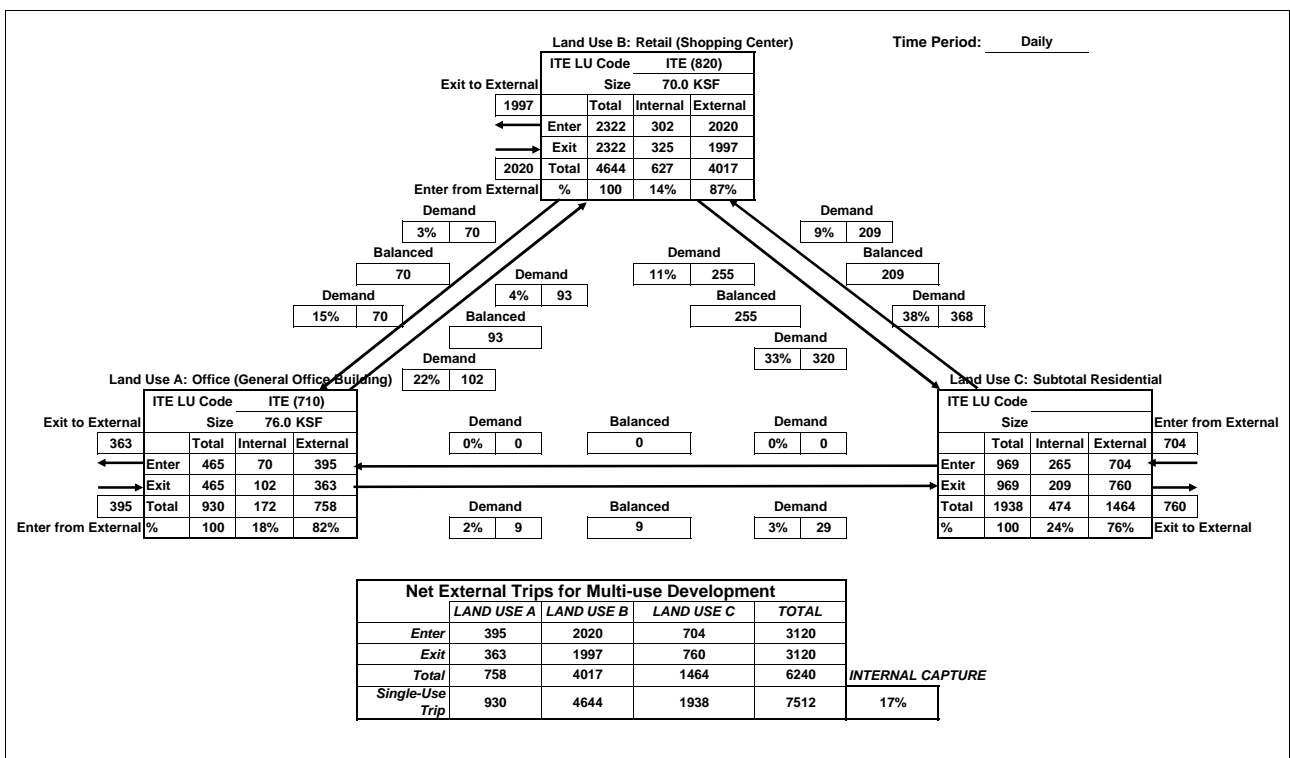
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

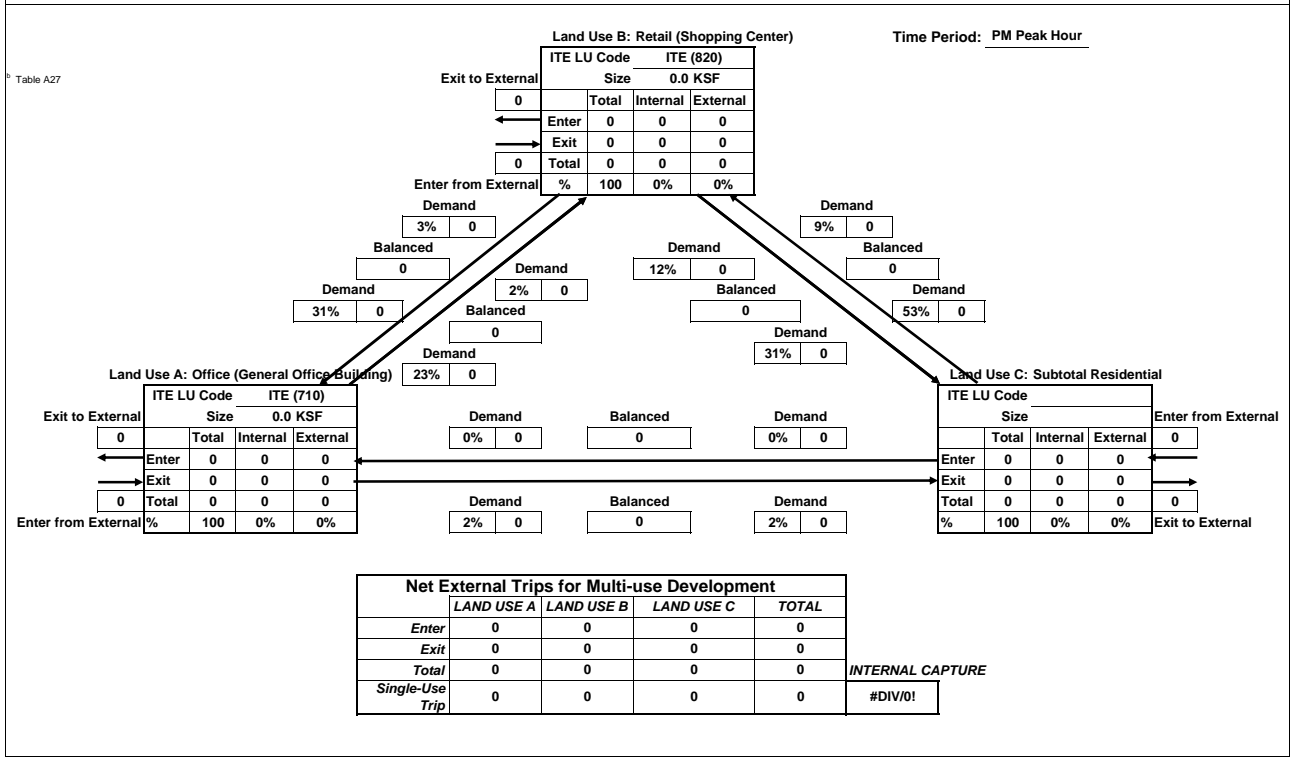
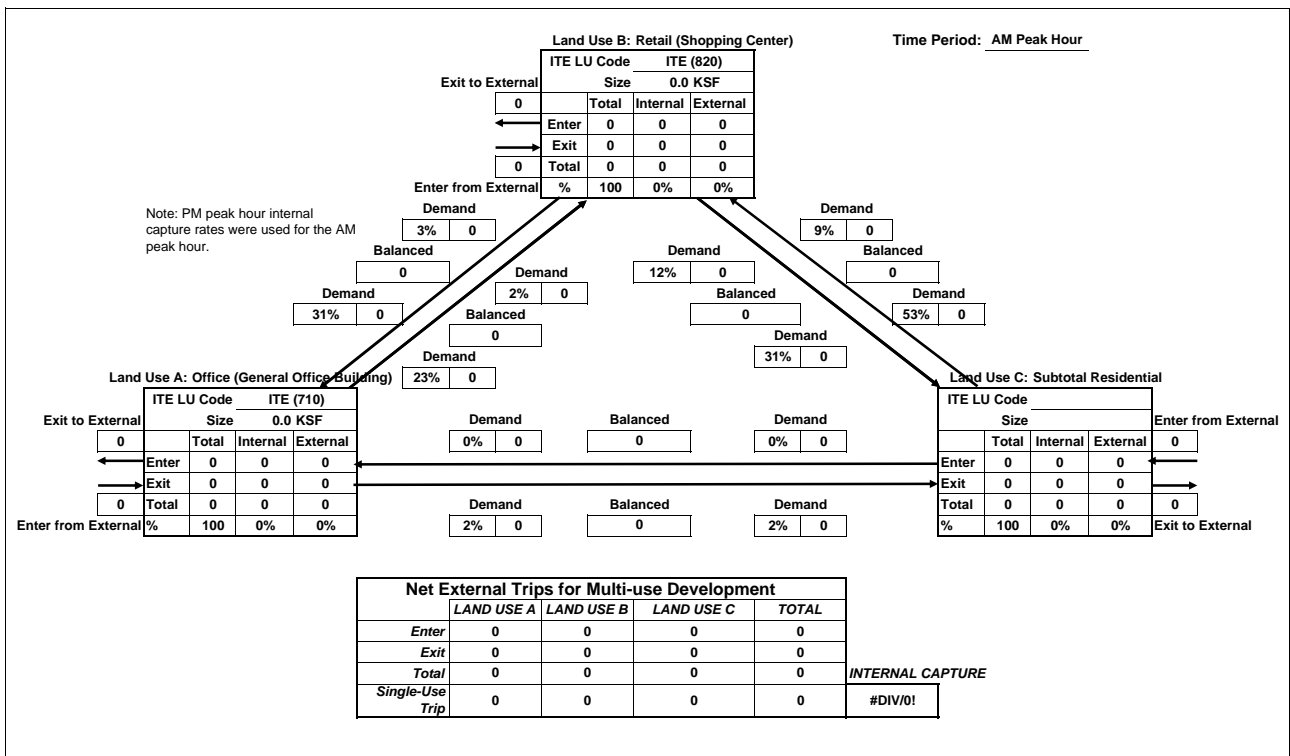
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



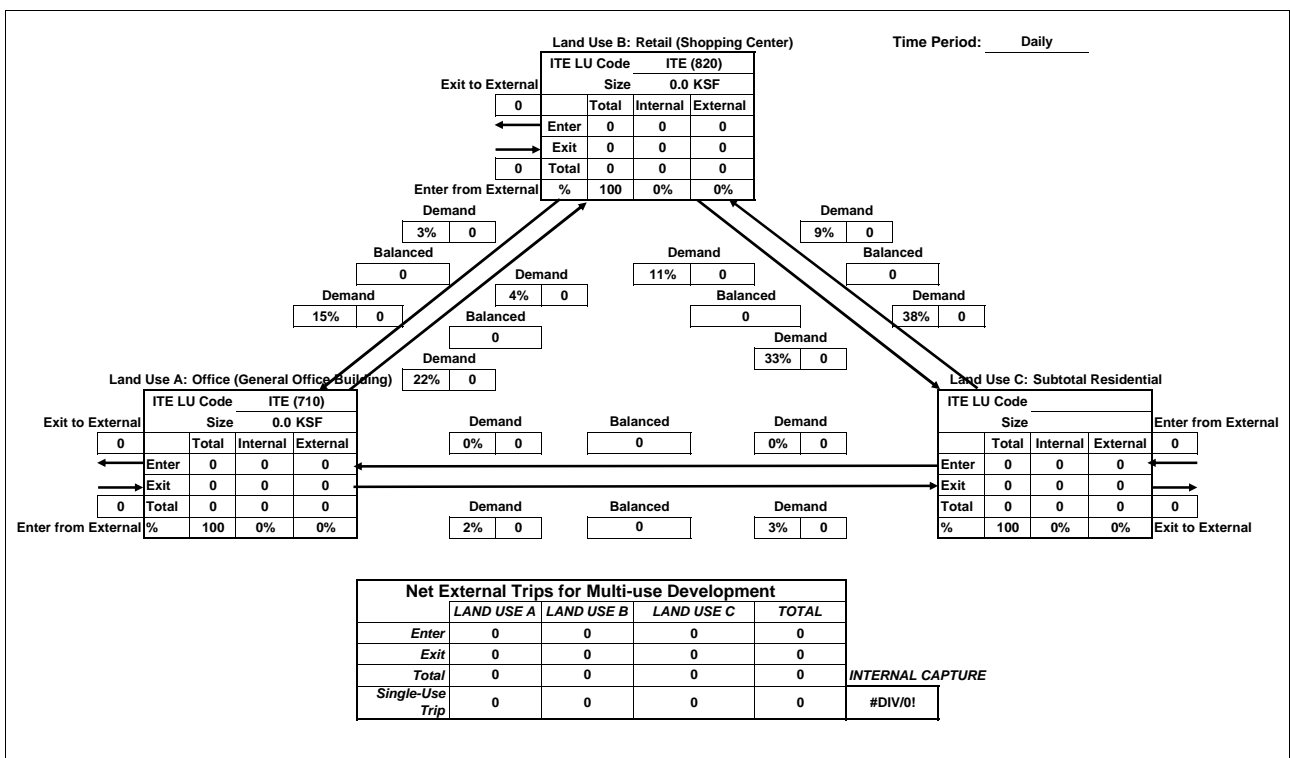
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

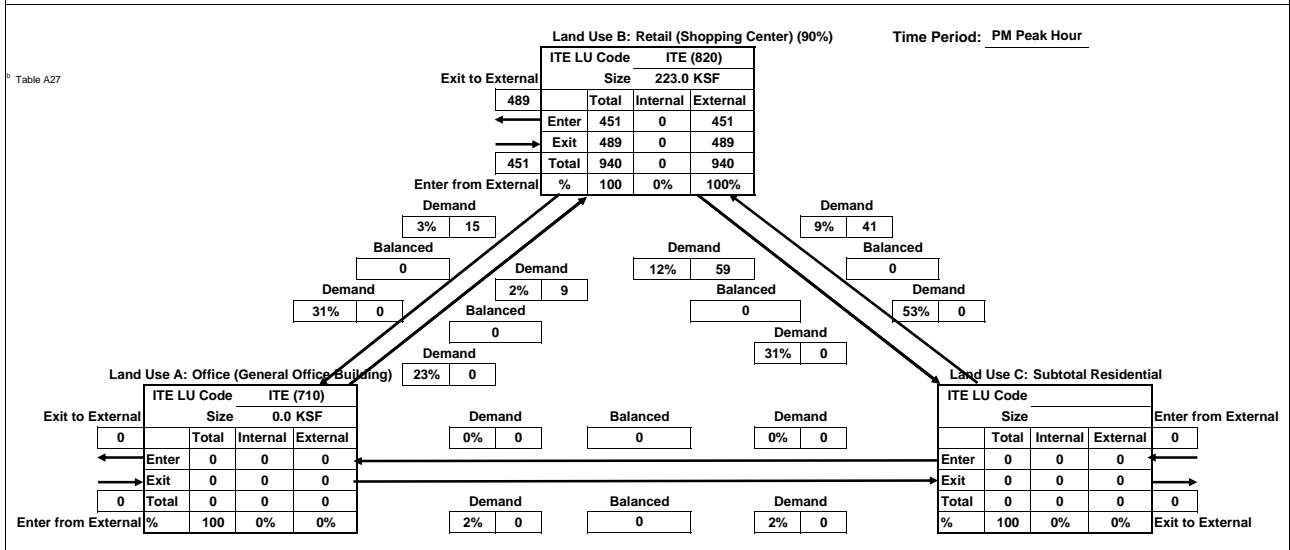
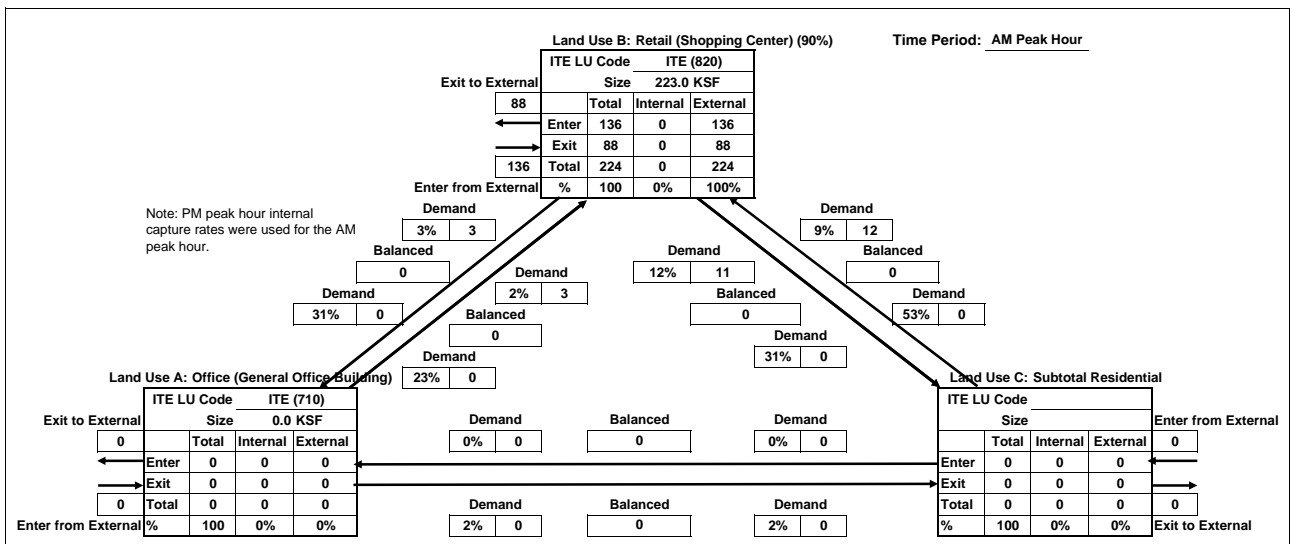
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



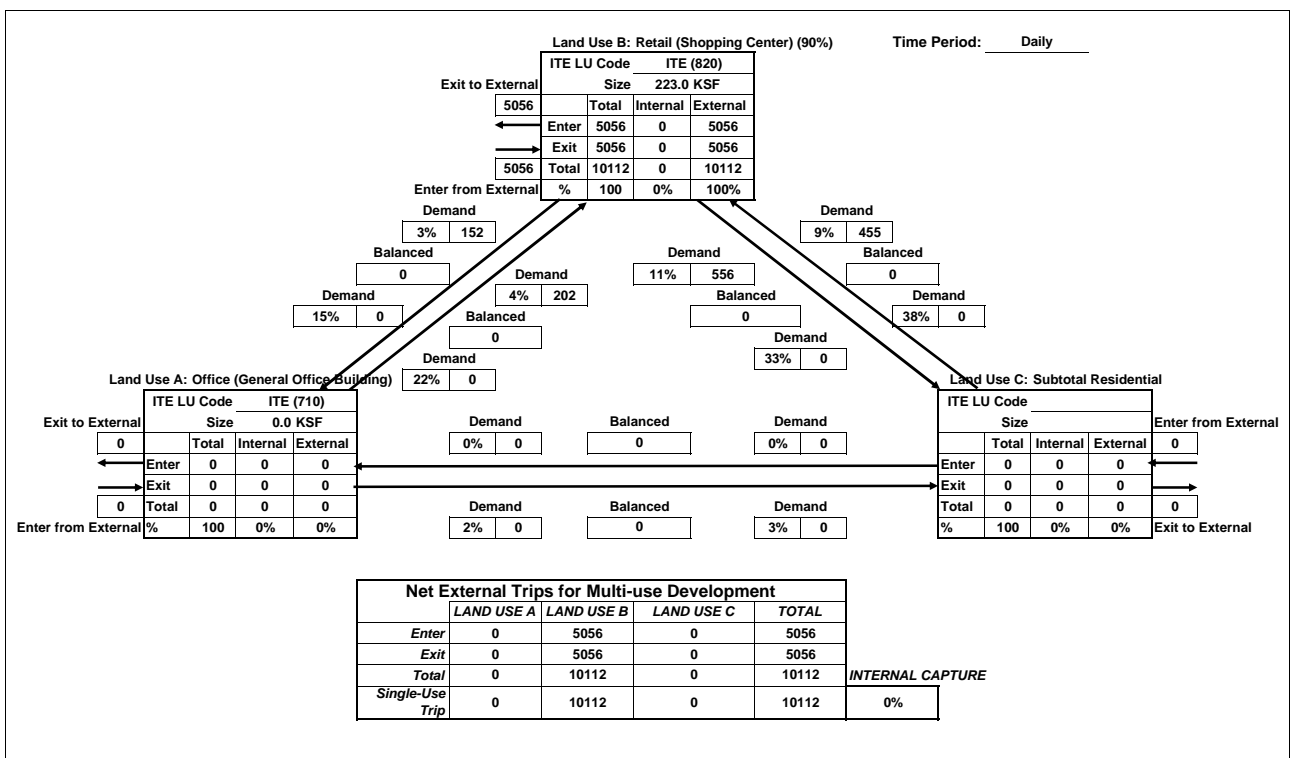
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

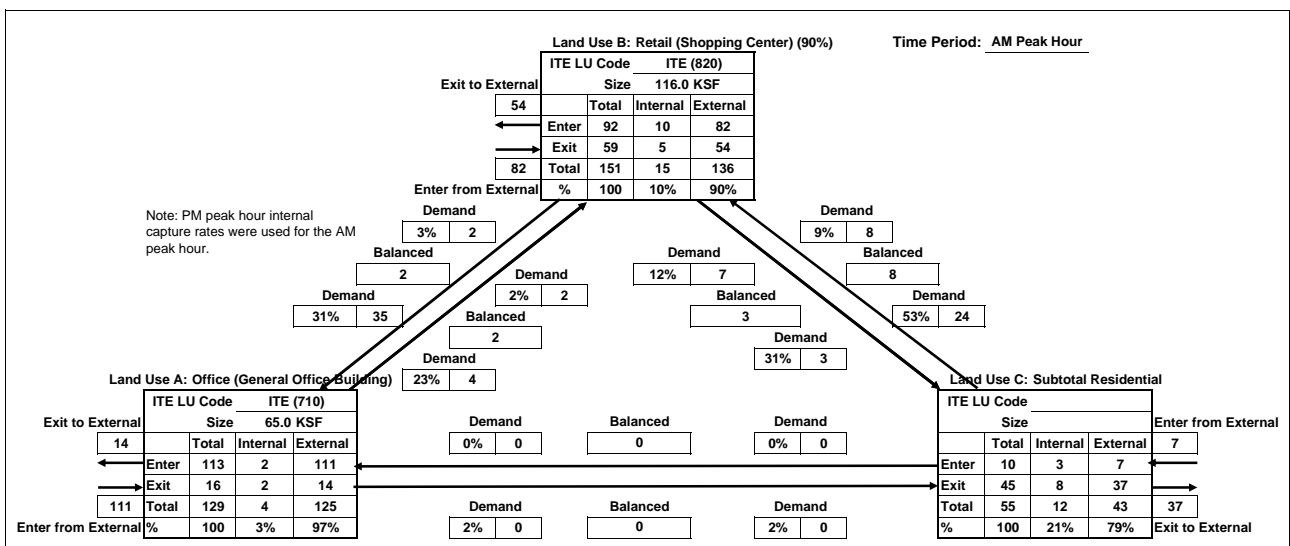
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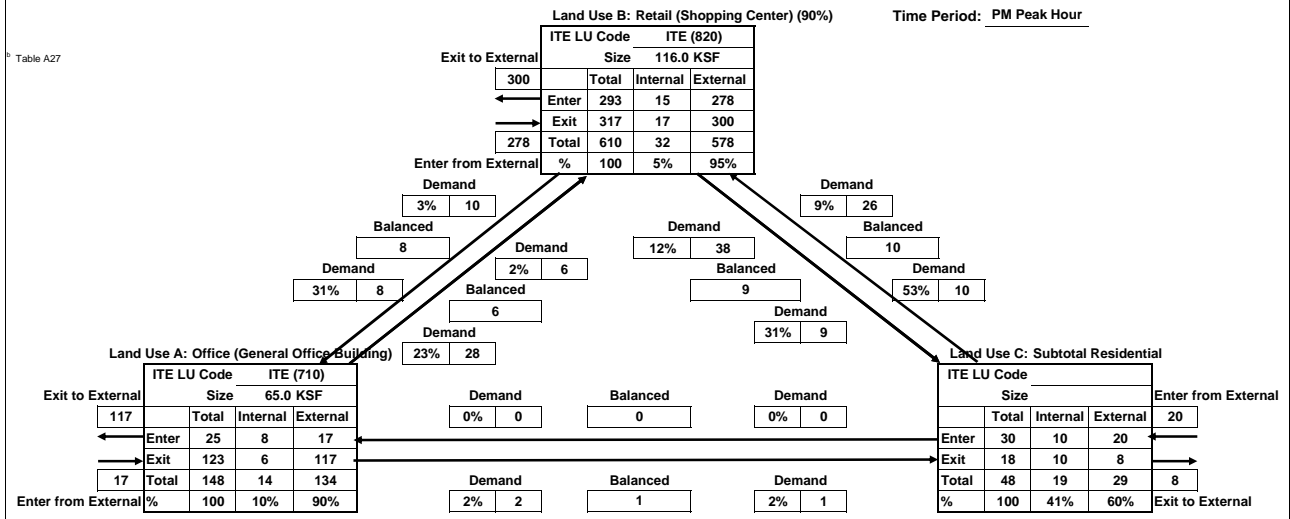
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	111	82	7	200	
Exit	14	54	37	105	
Total	125	136	43	305	INTERNAL CAPTURE
Single-Use Trip	129	151	55	335	9%



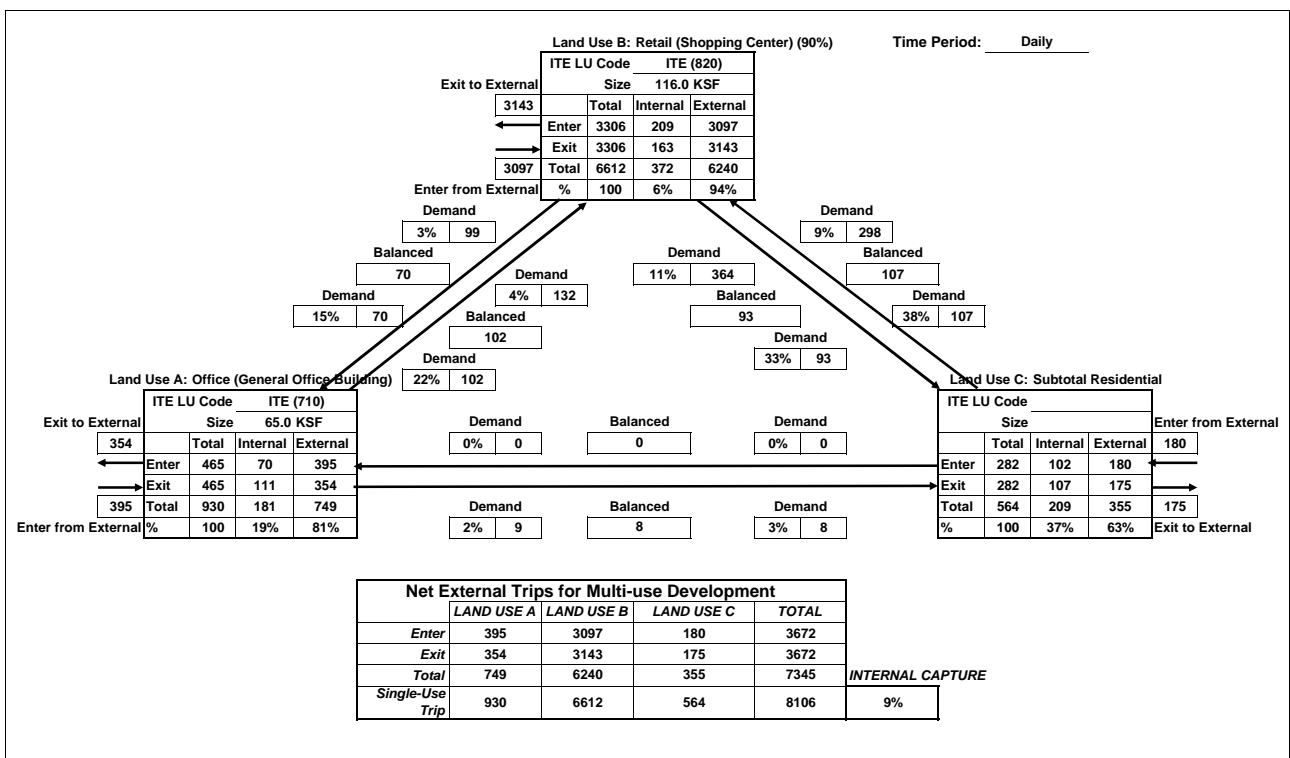
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	278	20	315	
Exit	117	300	8	425	
Total	134	578	29	740	INTERNAL CAPTURE
Single-Use Trip	148	610	48	806	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

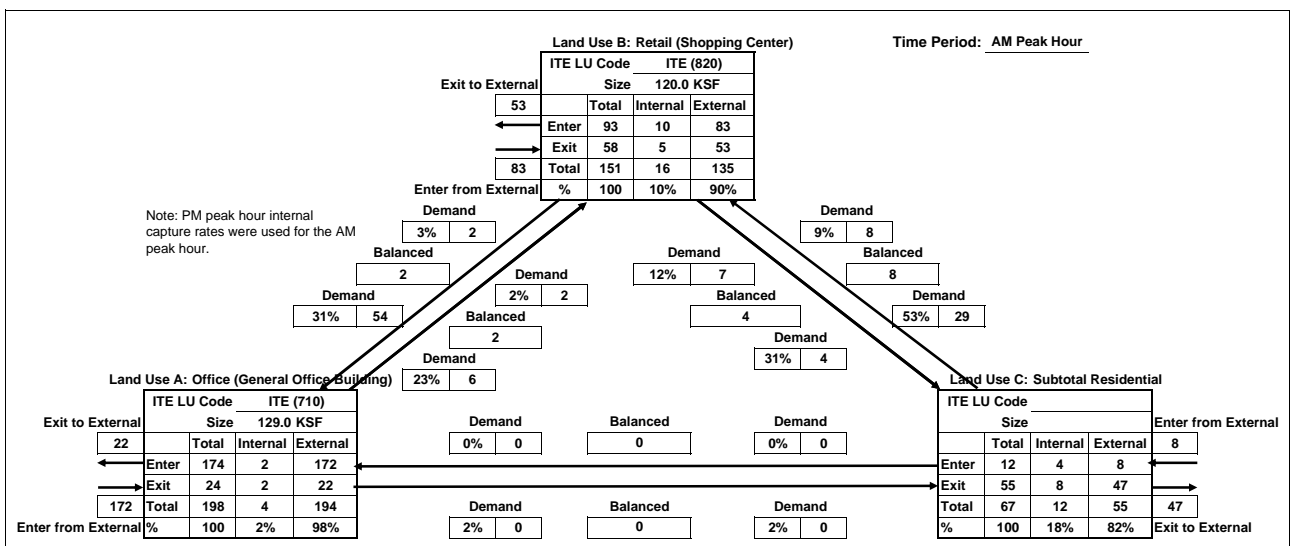
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

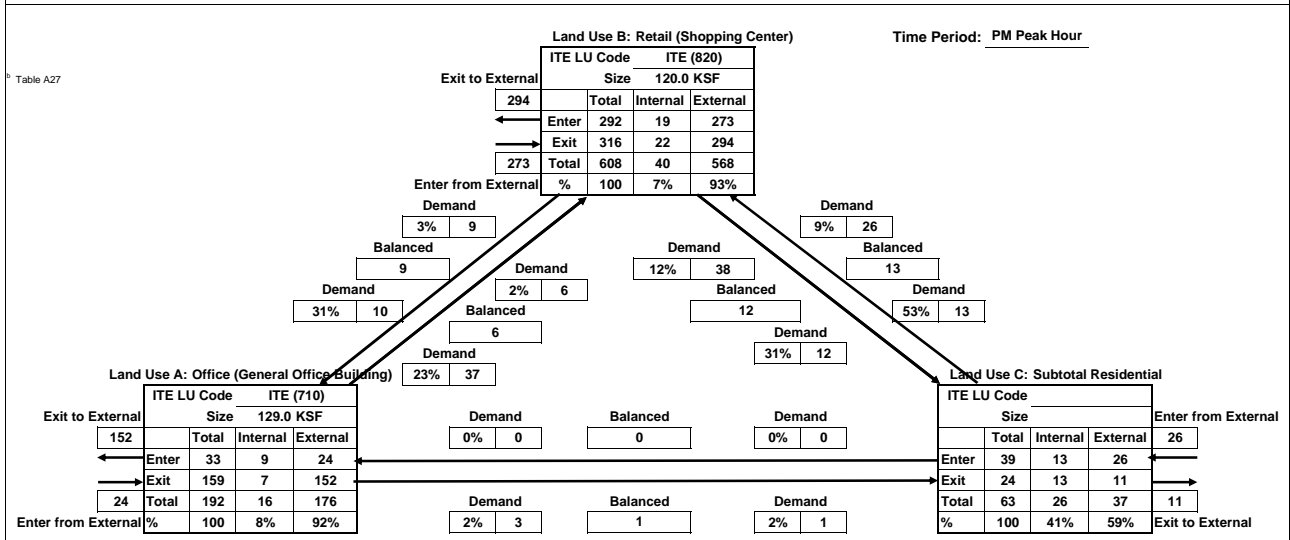
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	172	83	8	263	
Exit	22	53	47	121	
Total	194	135	55	384	INTERNAL CAPTURE
Single-Use Trip	198	151	67	416	8%



Net External Trips for Multi-use Development

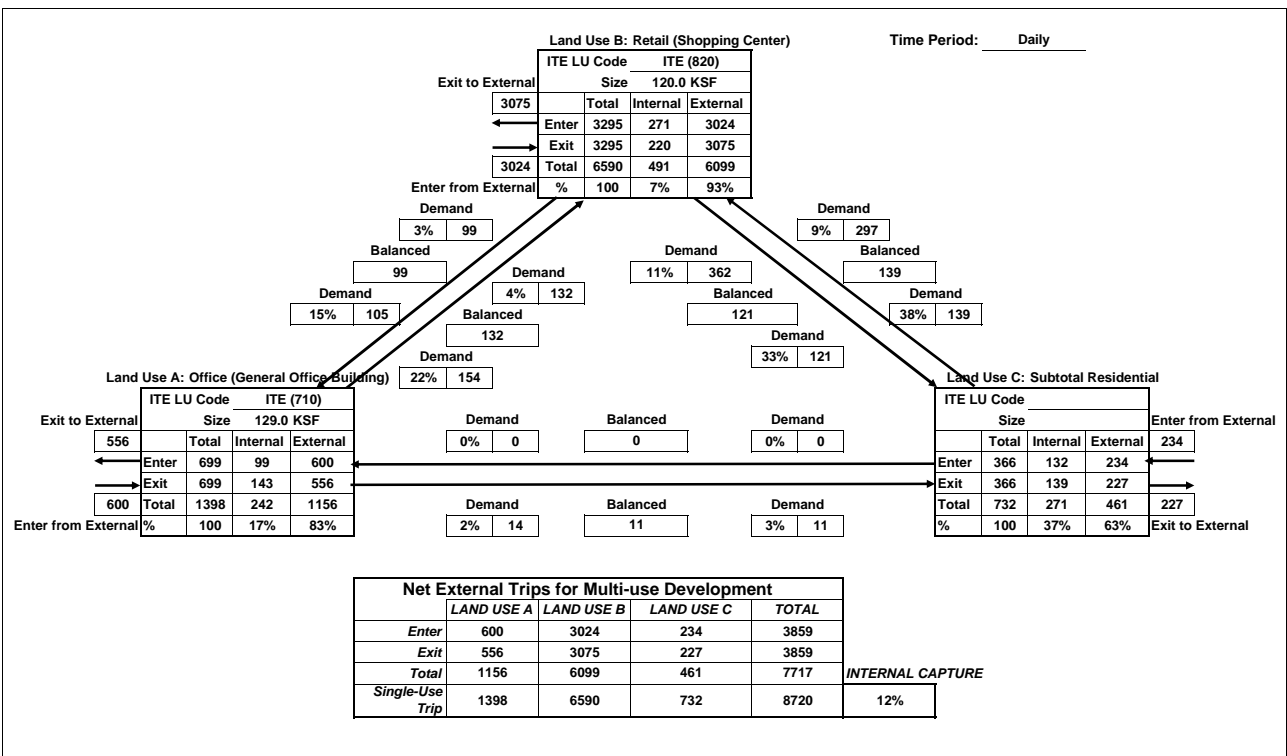
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	24	273	26	323	
Exit	152	294	11	458	
Total	176	568	37	781	INTERNAL CAPTURE
Single-Use Trip	192	608	63	863	9%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

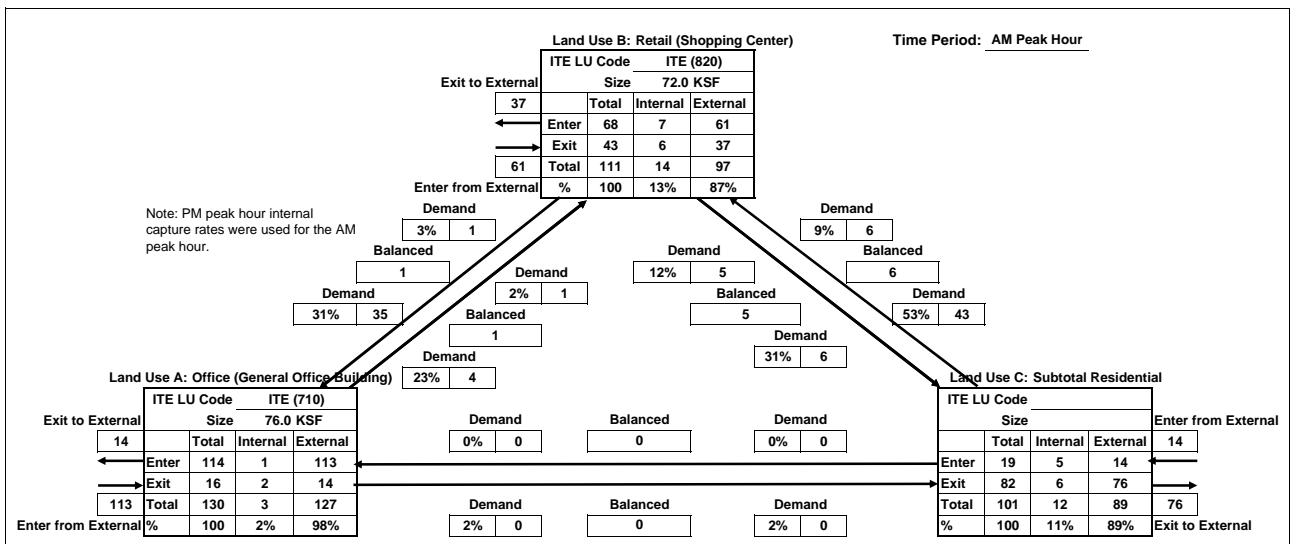
Time Period: Daily



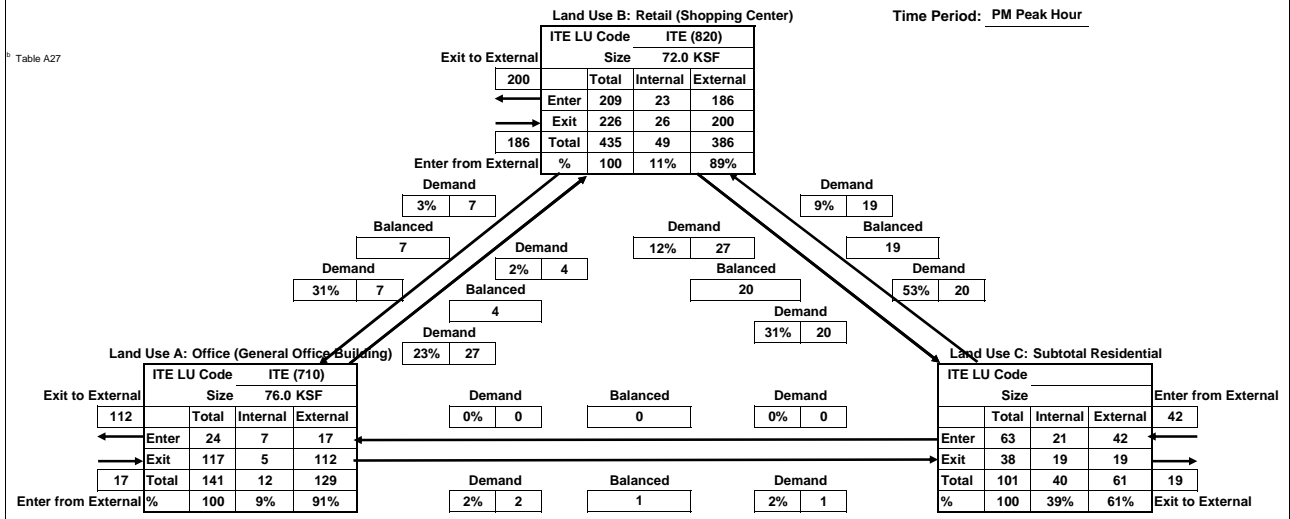
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	113	61	14	187	
Exit	14	37	76	127	
Total	127	97	89	314	INTERNAL CAPTURE
Single-Use Trip	130	111	101	342	8%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	186	42	245	
Exit	112	200	19	330	
Total	129	386	61	576	INTERNAL CAPTURE
Single-Use Trip	141	435	101	677	15%

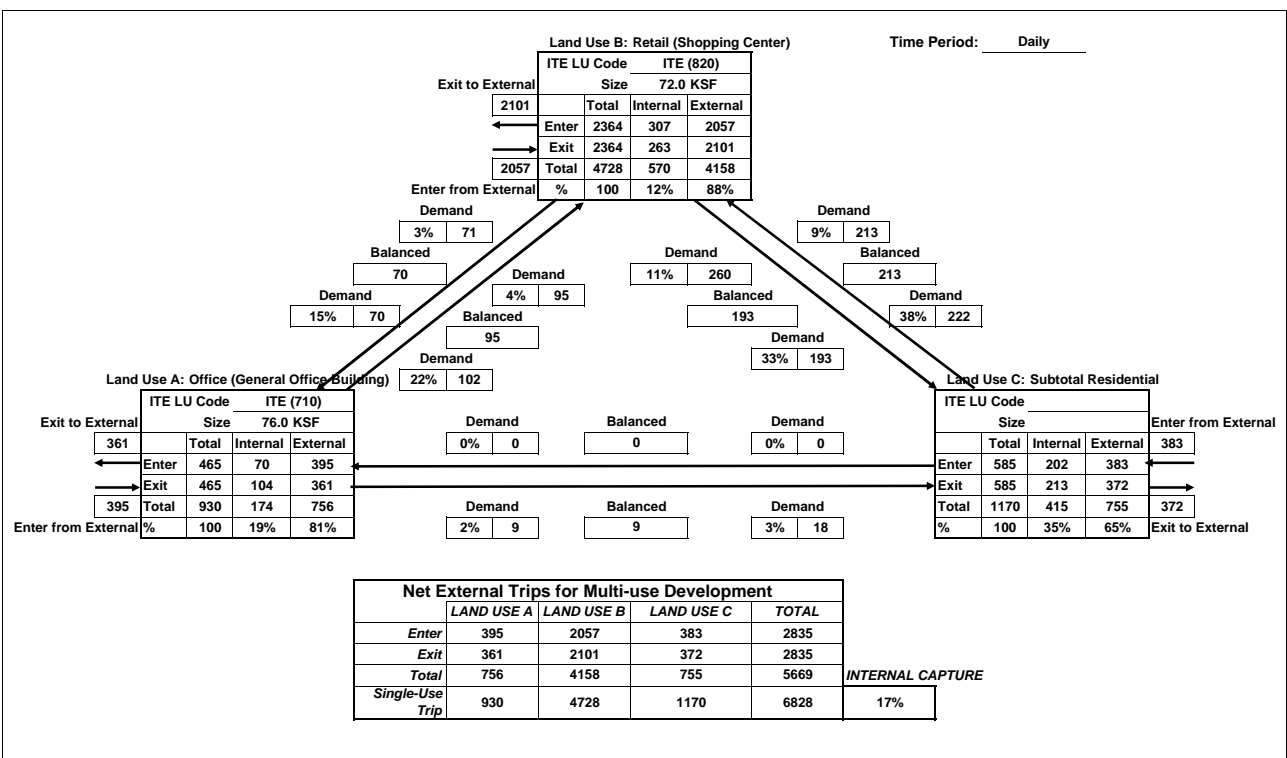
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

Time Period: Daily

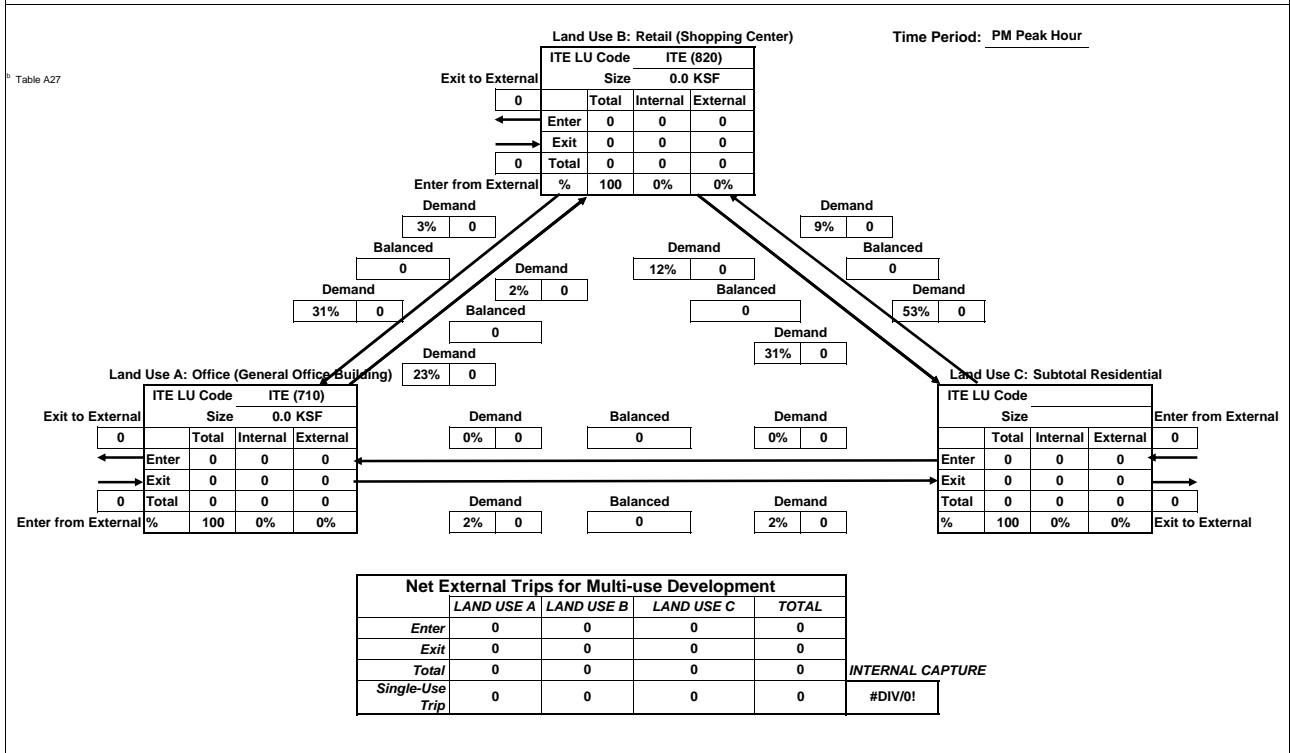
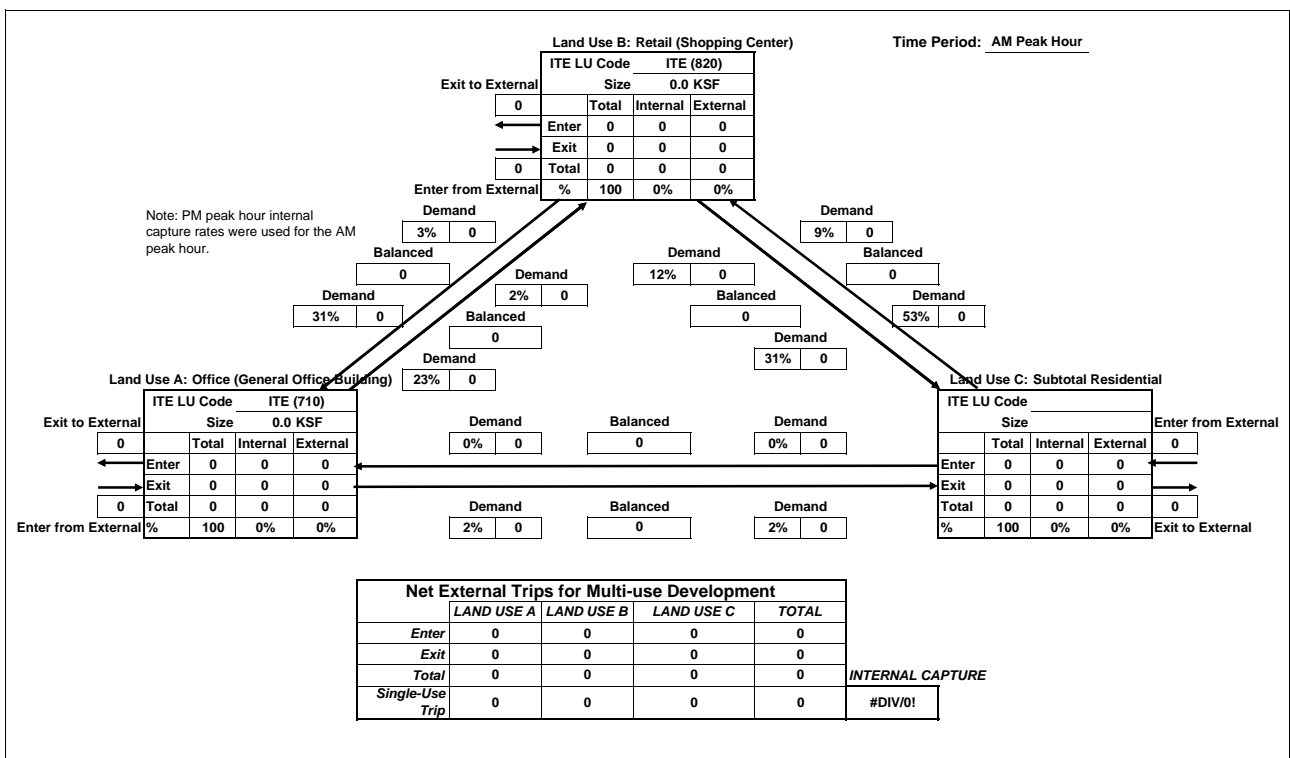


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)



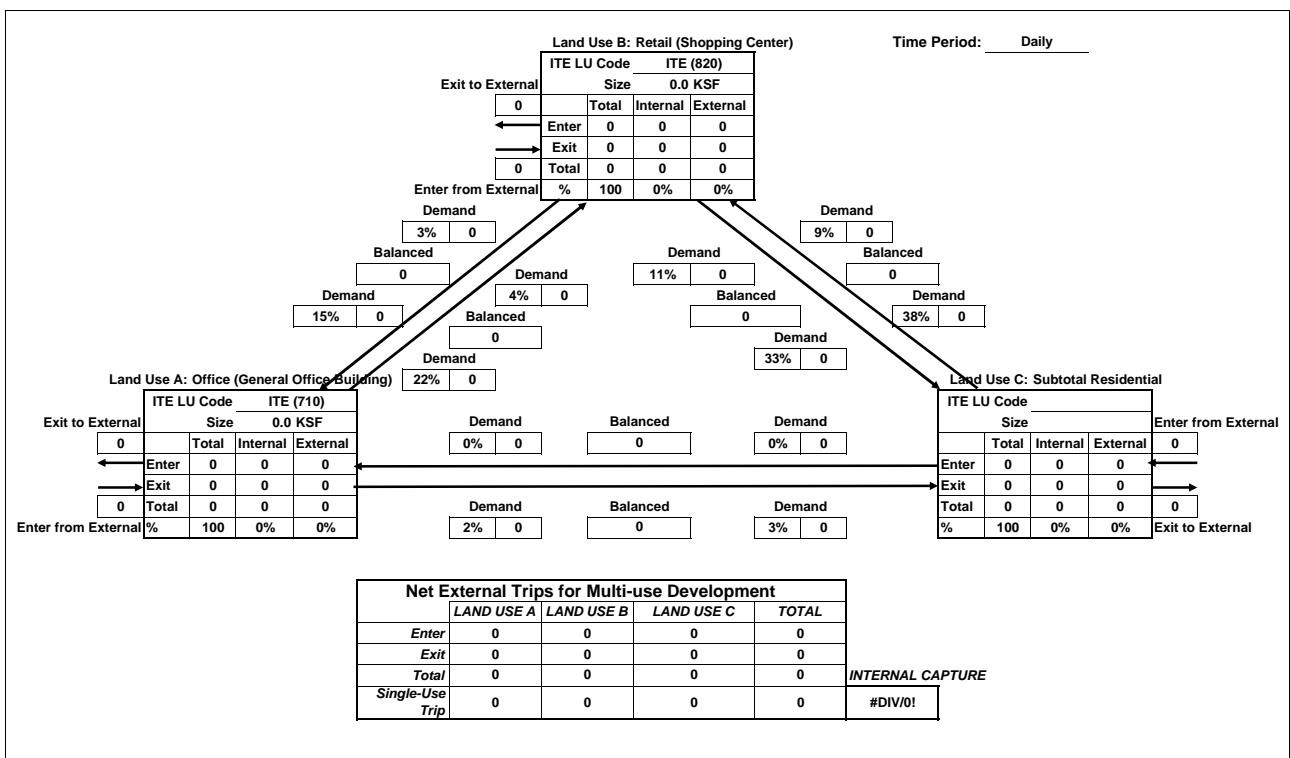
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

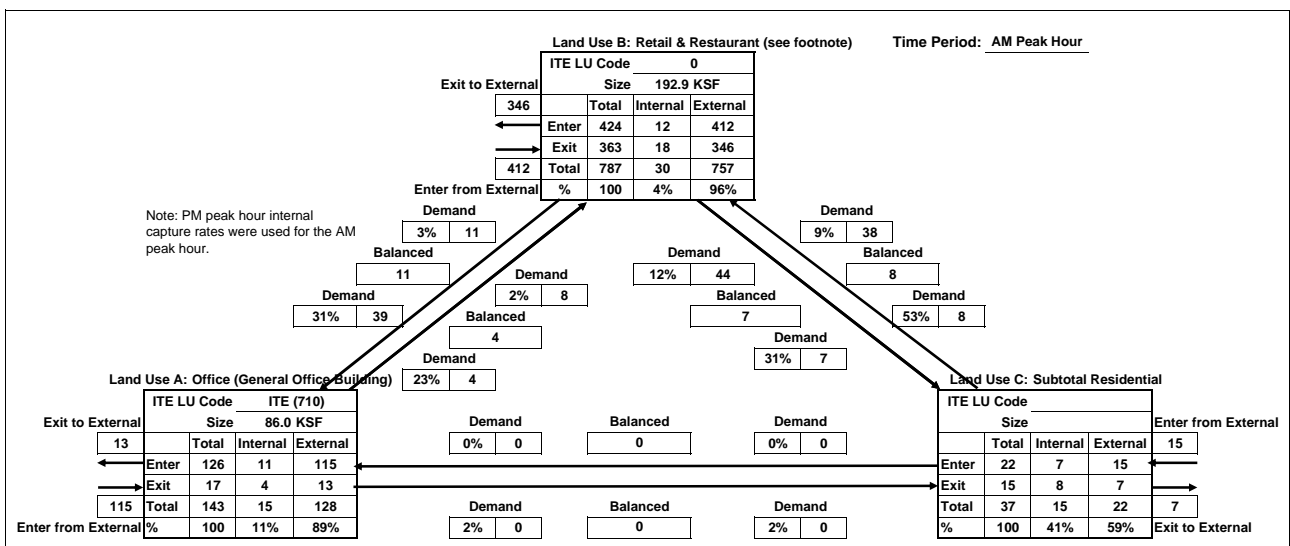
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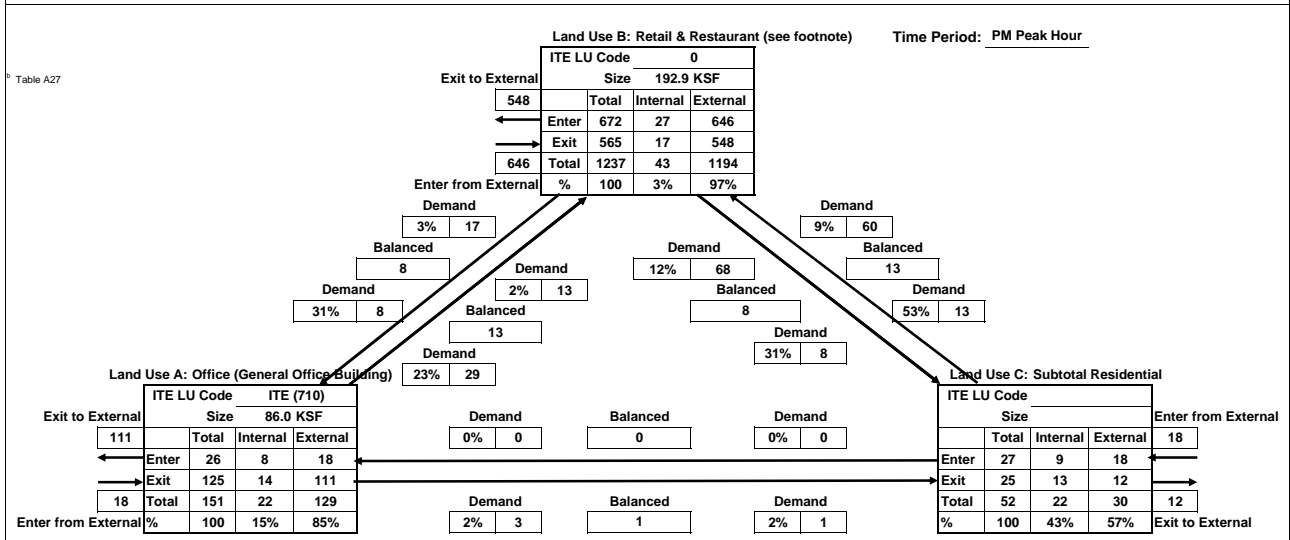
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	115	412	15	542	
Exit	13	346	7	365	
Total	128	757	22	907	INTERNAL CAPTURE
Single-Use Trip	143	787	37	967	6%



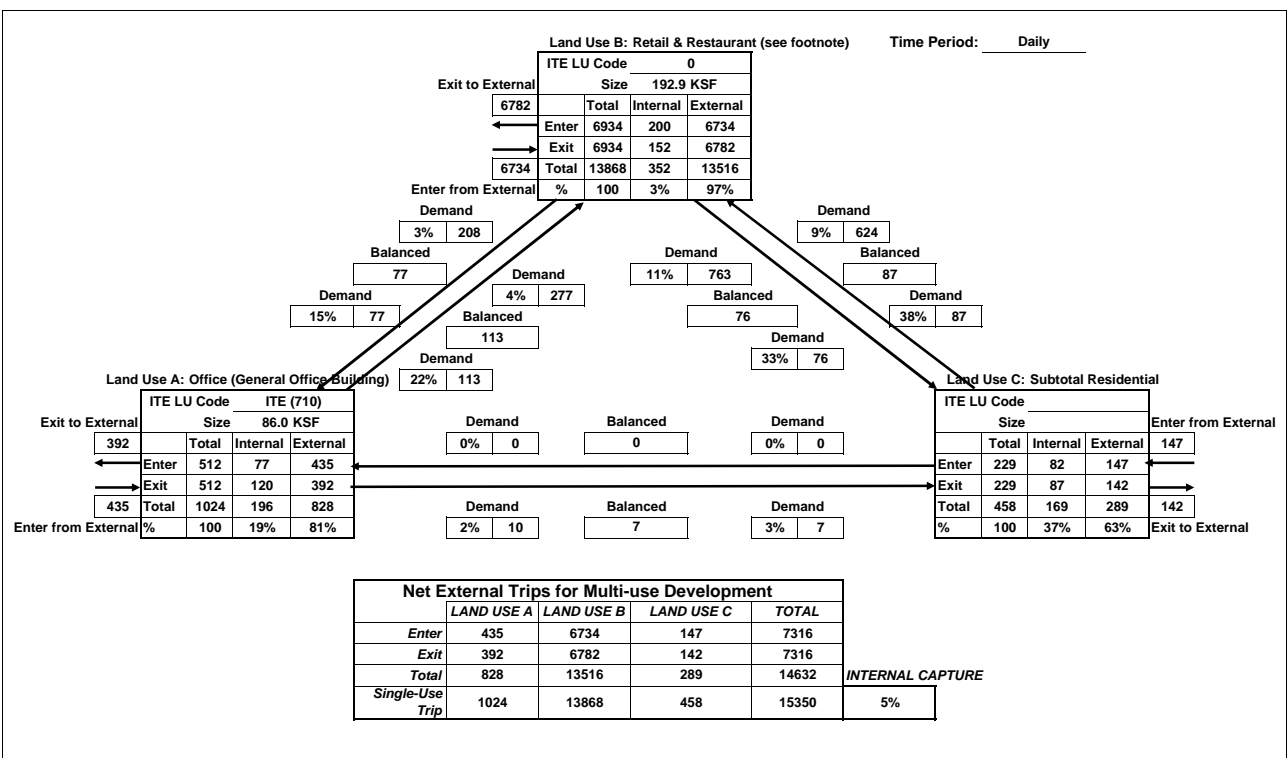
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	18	646	18	682	
Exit	111	548	12	671	
Total	129	1194	30	1353	INTERNAL CAPTURE
Single-Use Trip	151	1237	52	1440	6%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

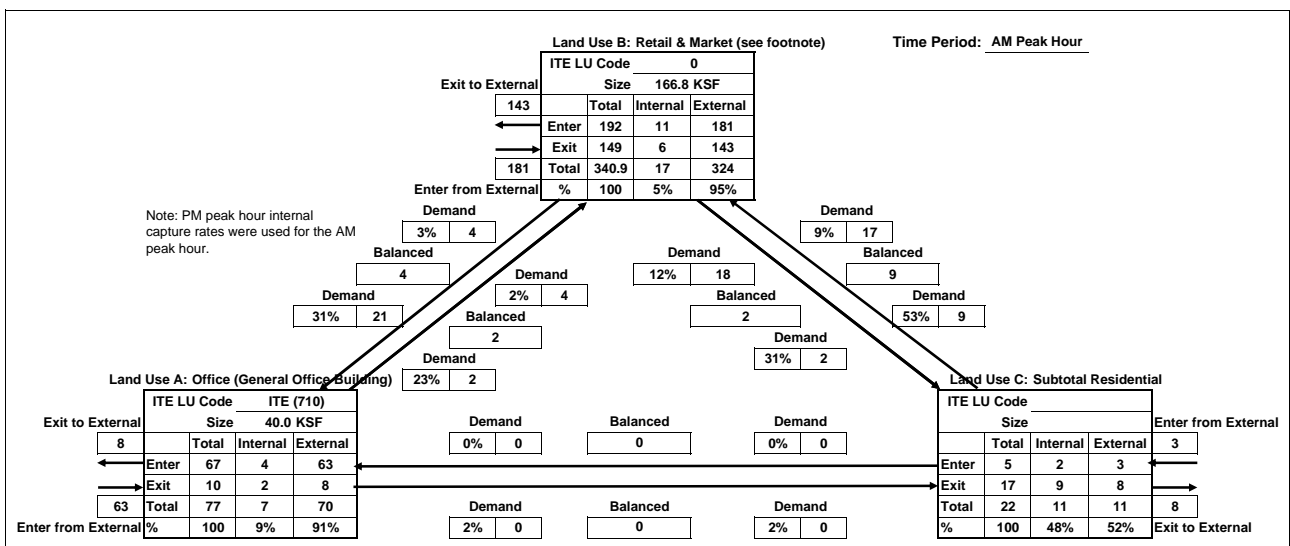
Time Period: Daily



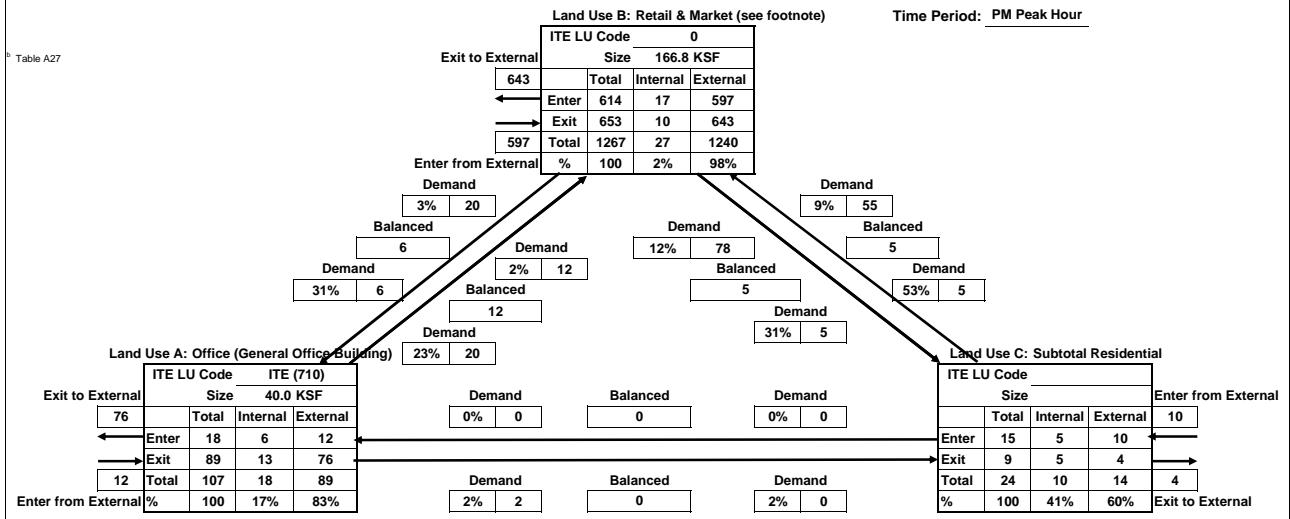
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	63	181	3	247	
Exit	8	143	8	158	
Total	70	324	11	405	INTERNAL CAPTURE
Single-Use Trip	77	340.9035	22	440	8%



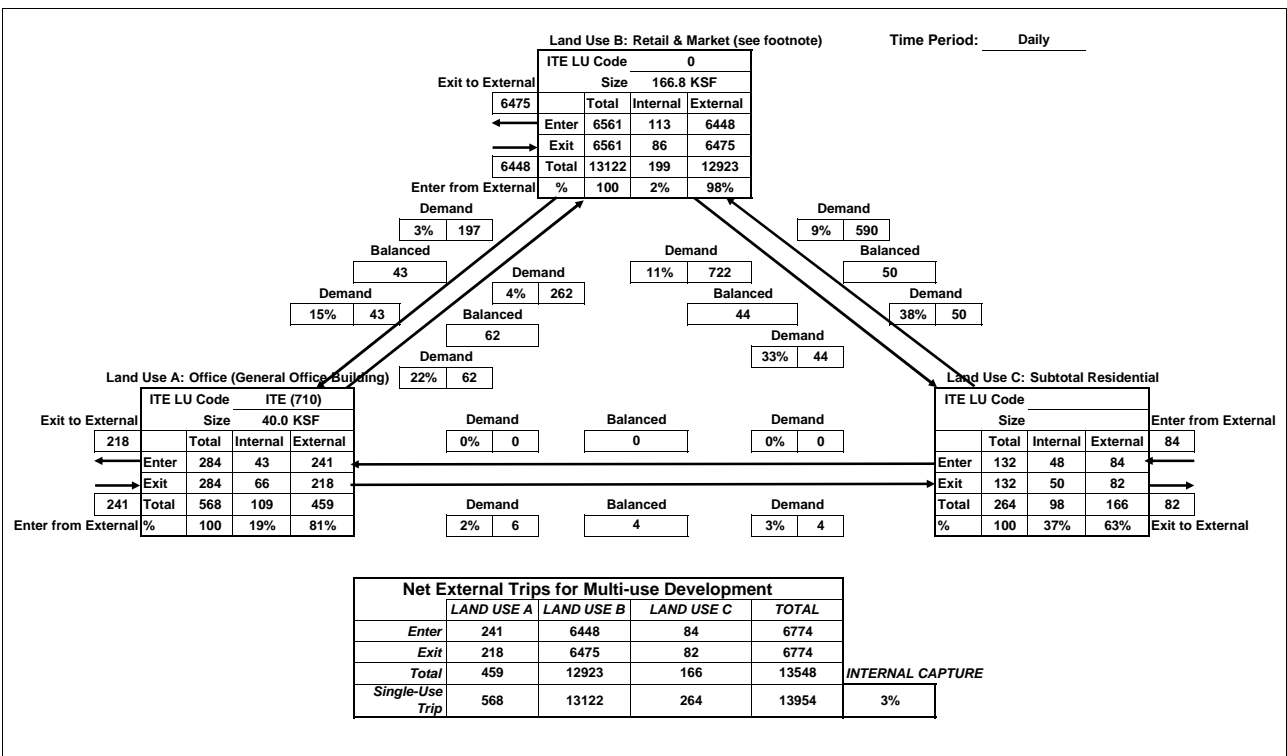
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	12	597	10	619	
Exit	76	643	4	723	
Total	89	1240	14	1343	INTERNAL CAPTURE
Single-Use Trip	107	1267	24	1398	4%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

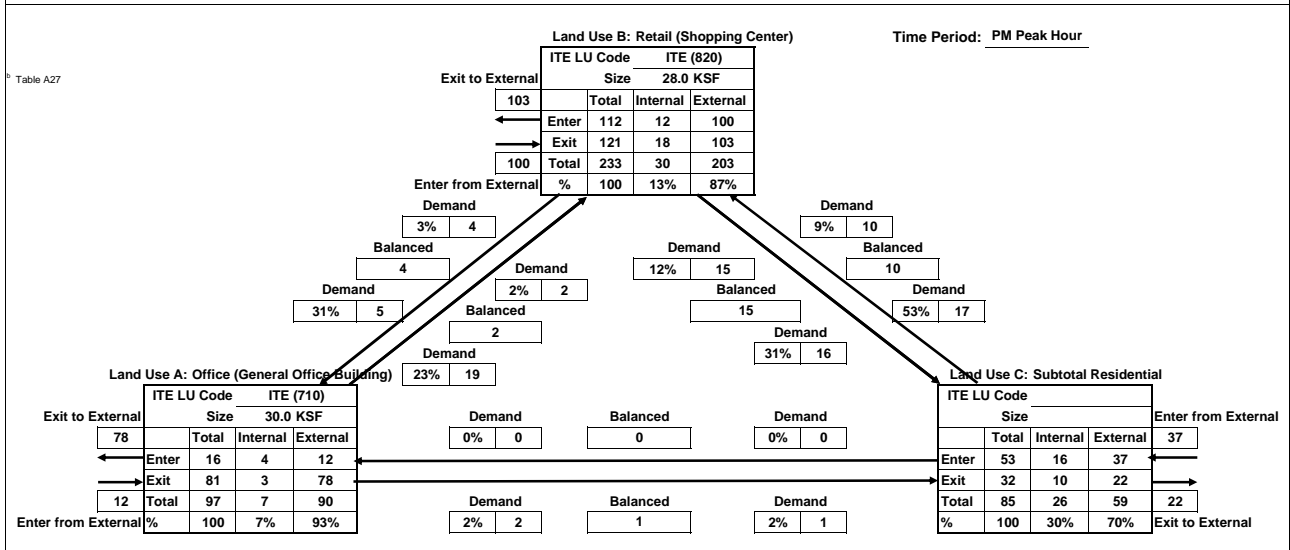
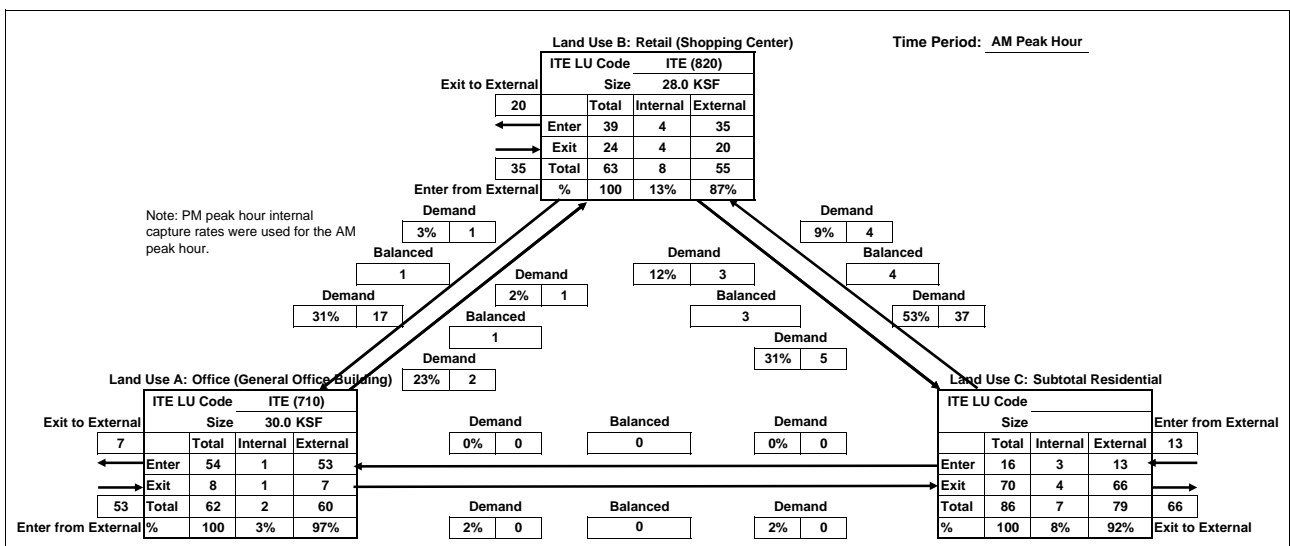
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



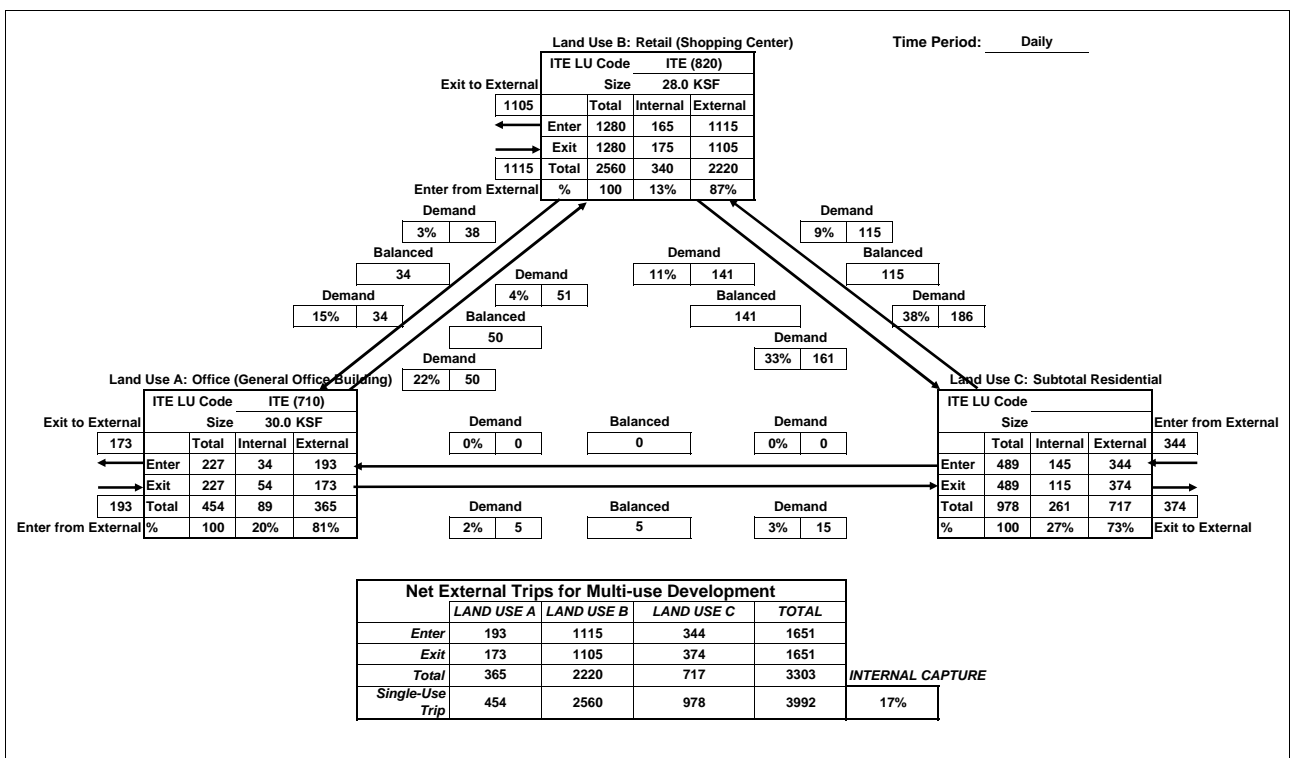
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

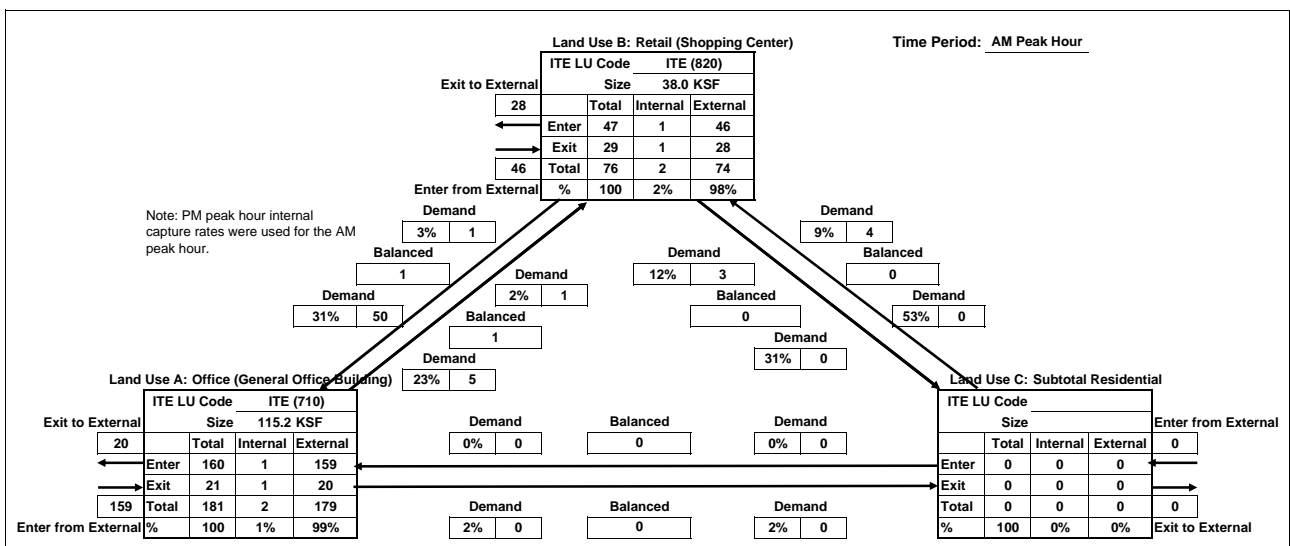
Time Period: Daily



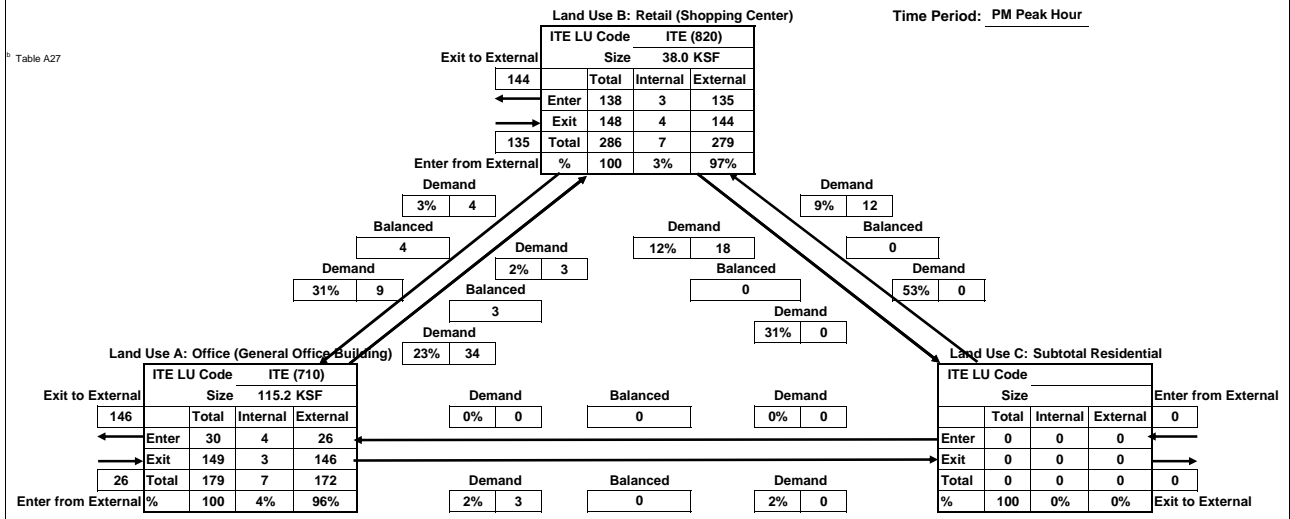
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	159	46	0	205	
Exit	20	28	0	48	
Total	179	74	0	253	INTERNAL CAPTURE
Single-Use Trip	181	76	0	257	1%



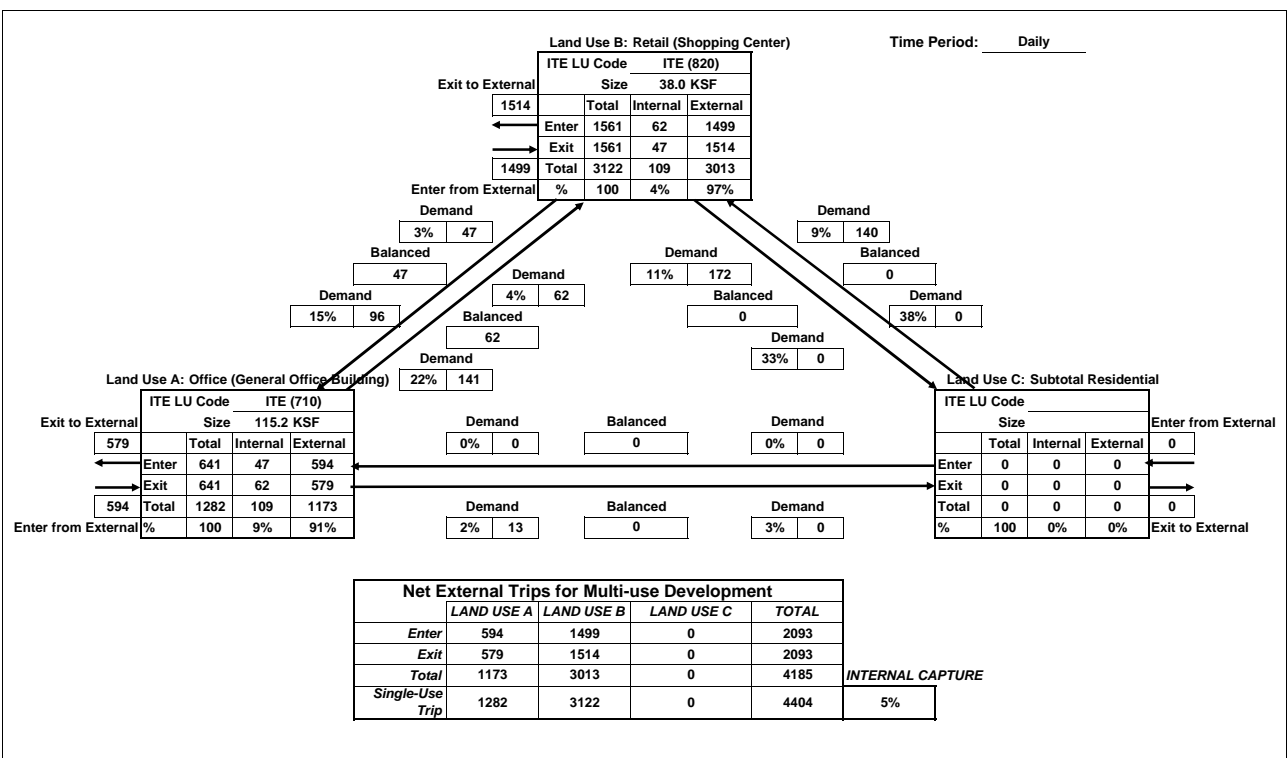
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	26	135	0	161	
Exit	146	144	0	290	
Total	172	279	0	451	INTERNAL CAPTURE
Single-Use Trip	179	286	0	465	3%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

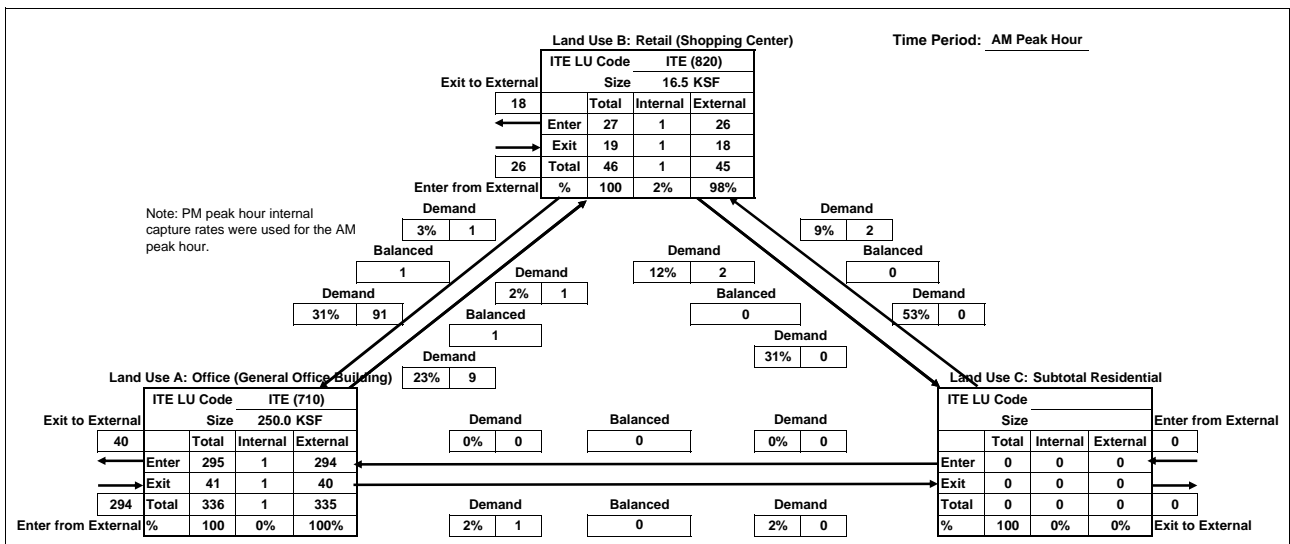
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

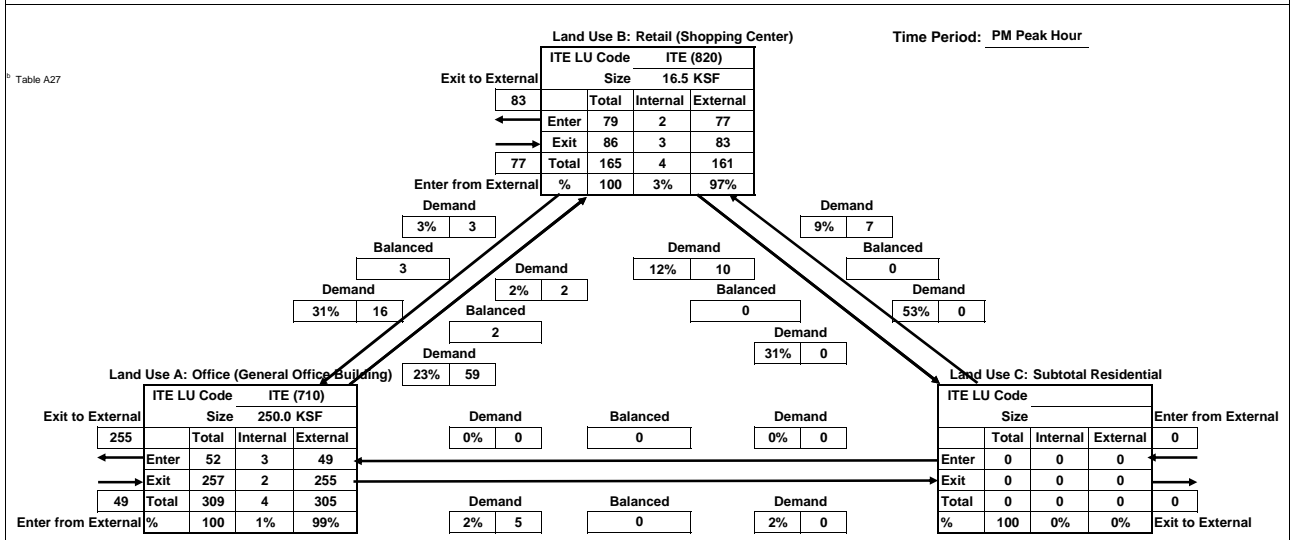
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	294	26	0	321	
Exit	40	18	0	59	
Total	335	45	0	380	INTERNAL CAPTURE
Single-Use Trip	336	46	0	382	1%



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	49	77	0	127	
Exit	255	83	0	339	
Total	305	161	0	466	INTERNAL CAPTURE
Single-Use Trip	309	165	0	474	2%

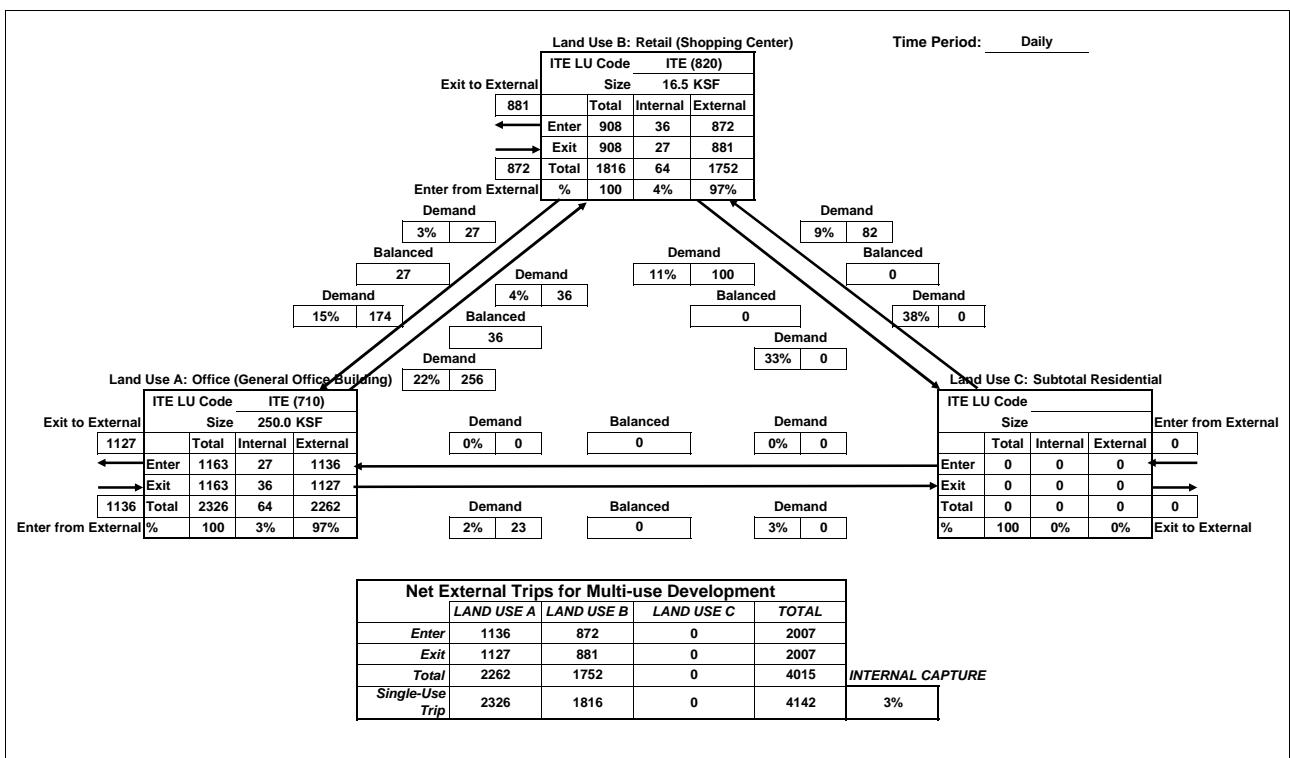
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

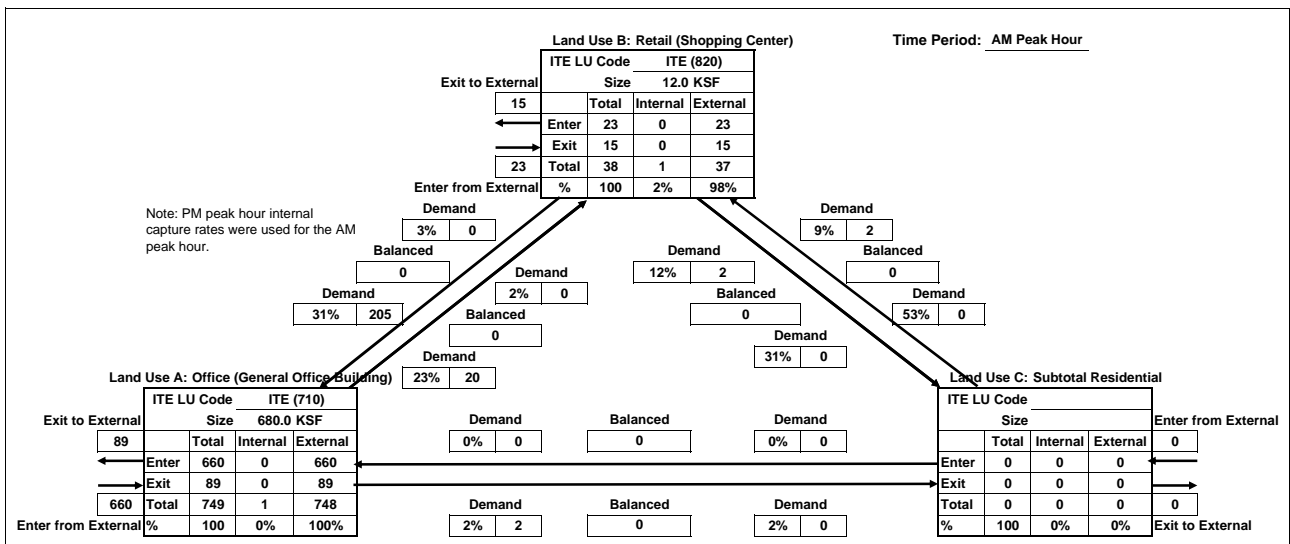
Time Period: Daily



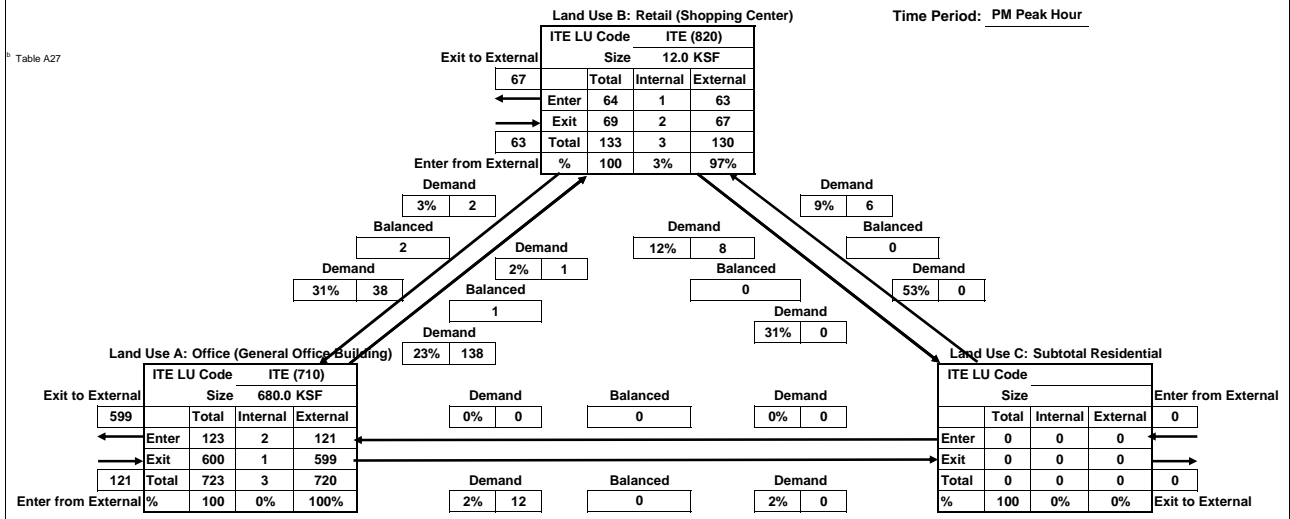
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	660	23	0	682	
Exit	89	15	0	103	
Total	748	37	0	785	INTERNAL CAPTURE
Single-Use Trip	749	38	0	787	0%



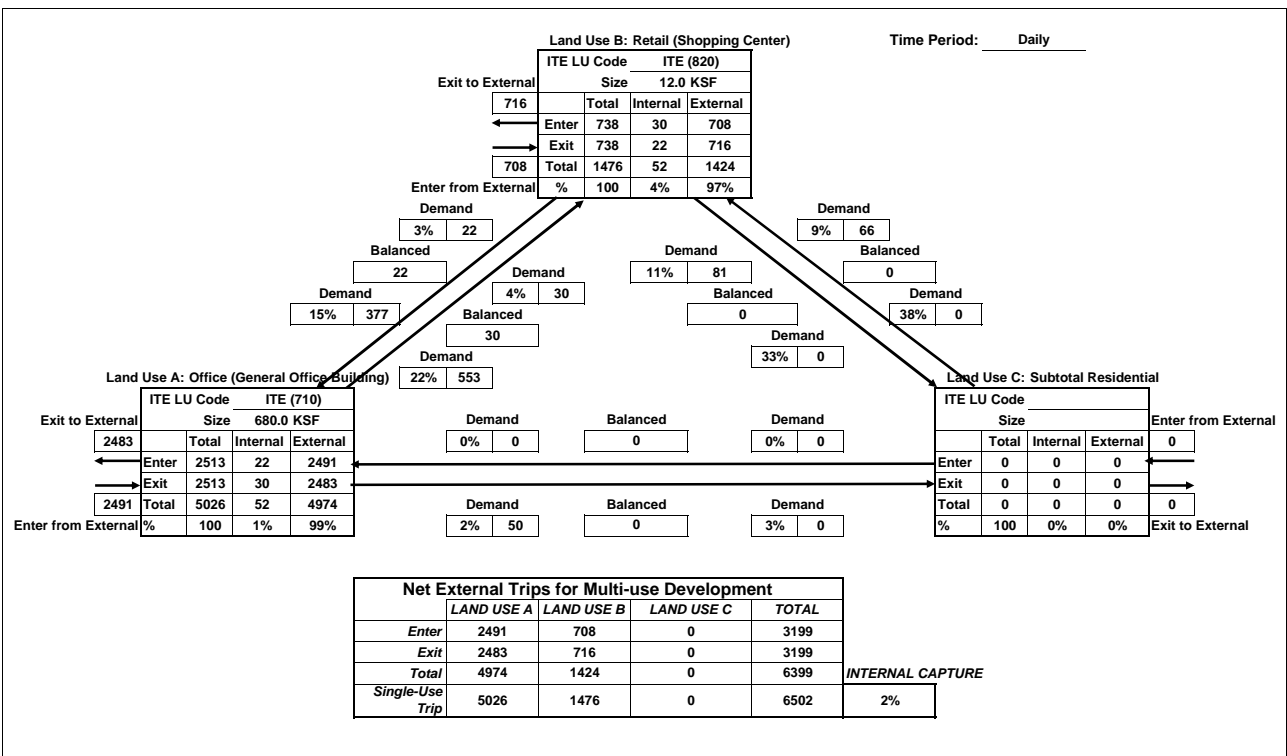
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	121	63	0	184	
Exit	599	67	0	666	
Total	720	130	0	849	INTERNAL CAPTURE
Single-Use Trip	723	133	0	856	1%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

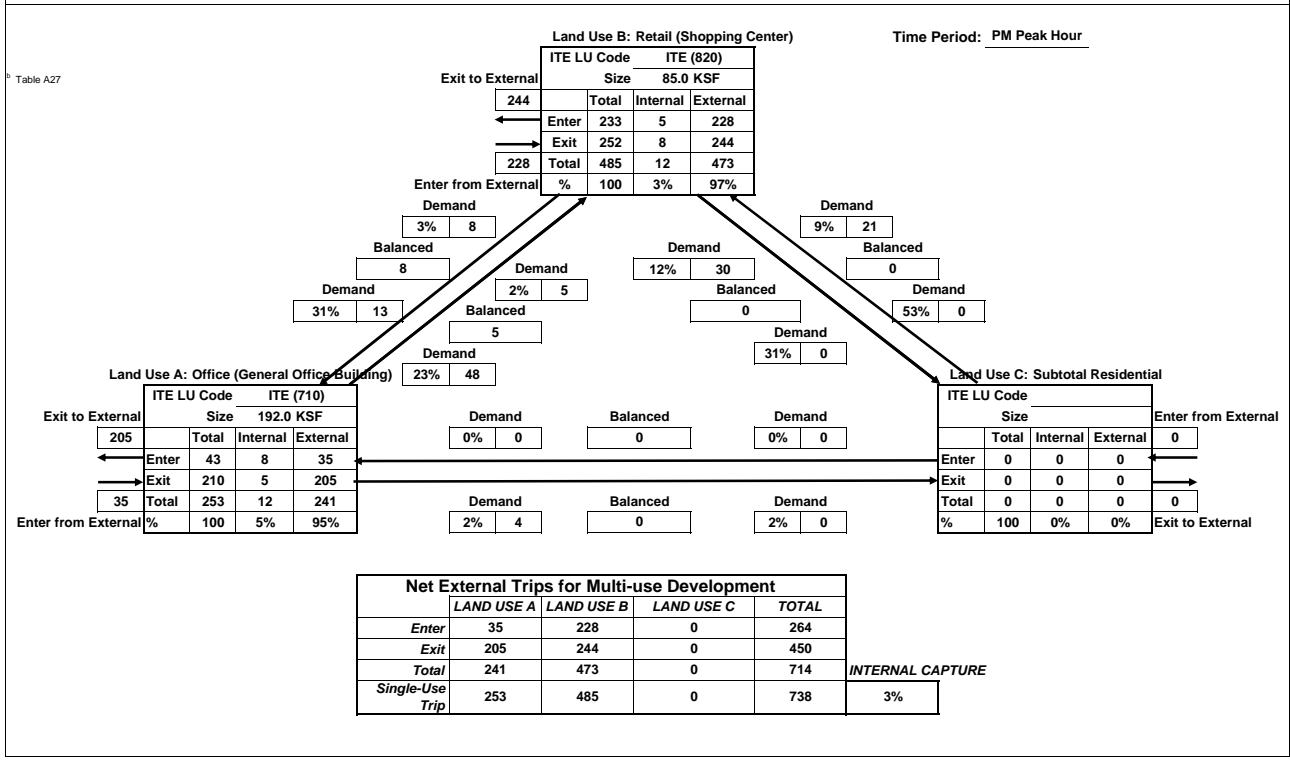
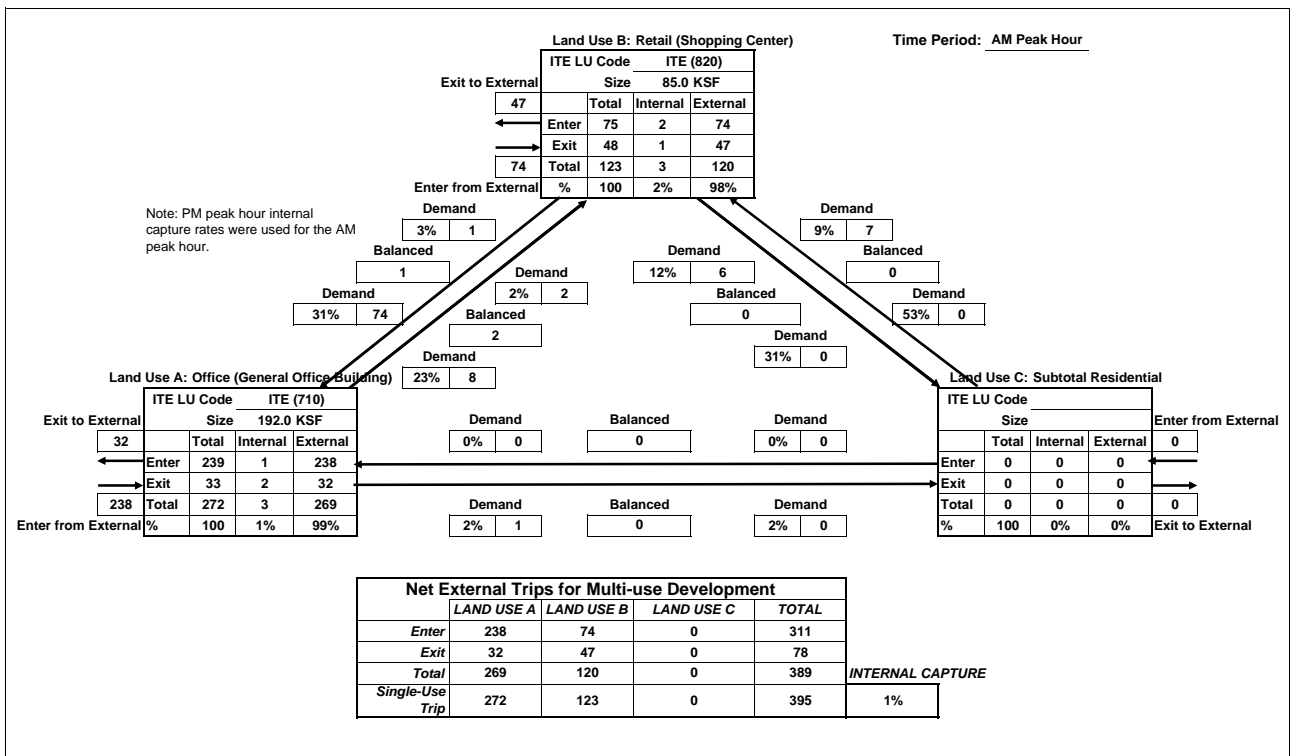
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

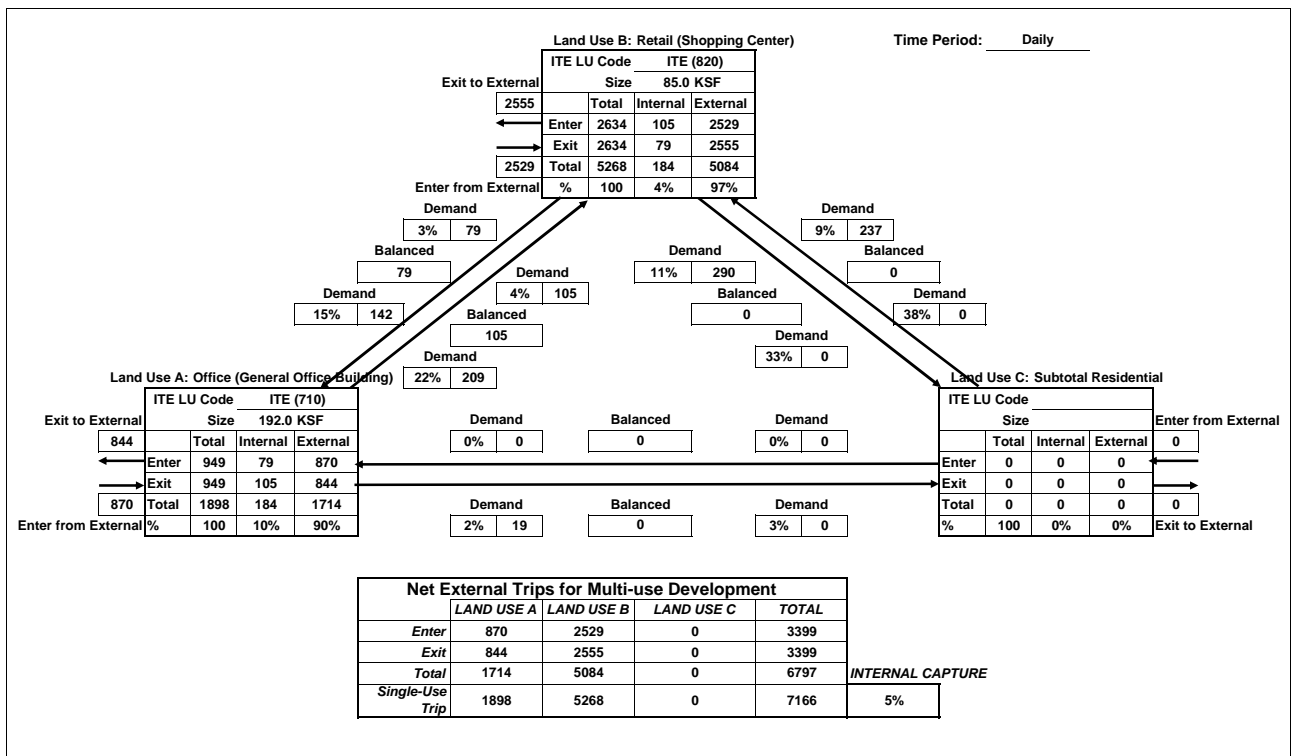


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

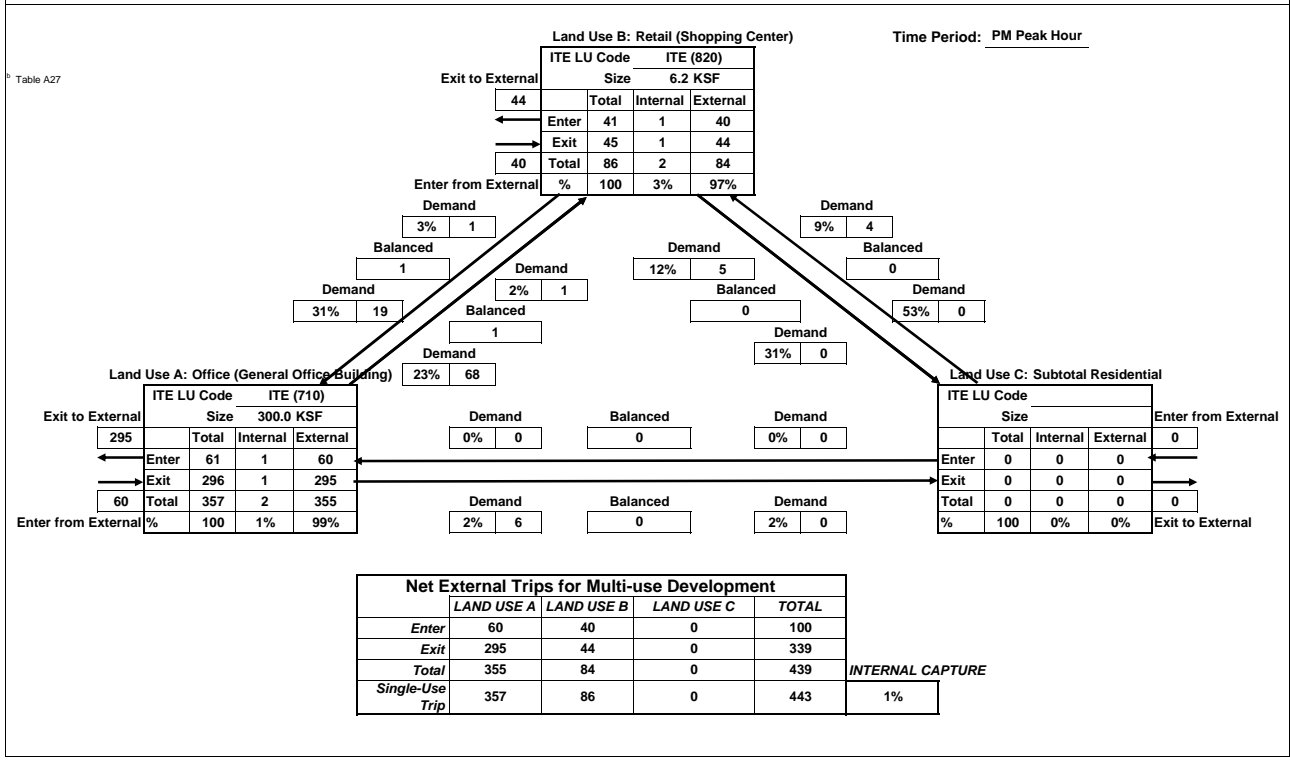
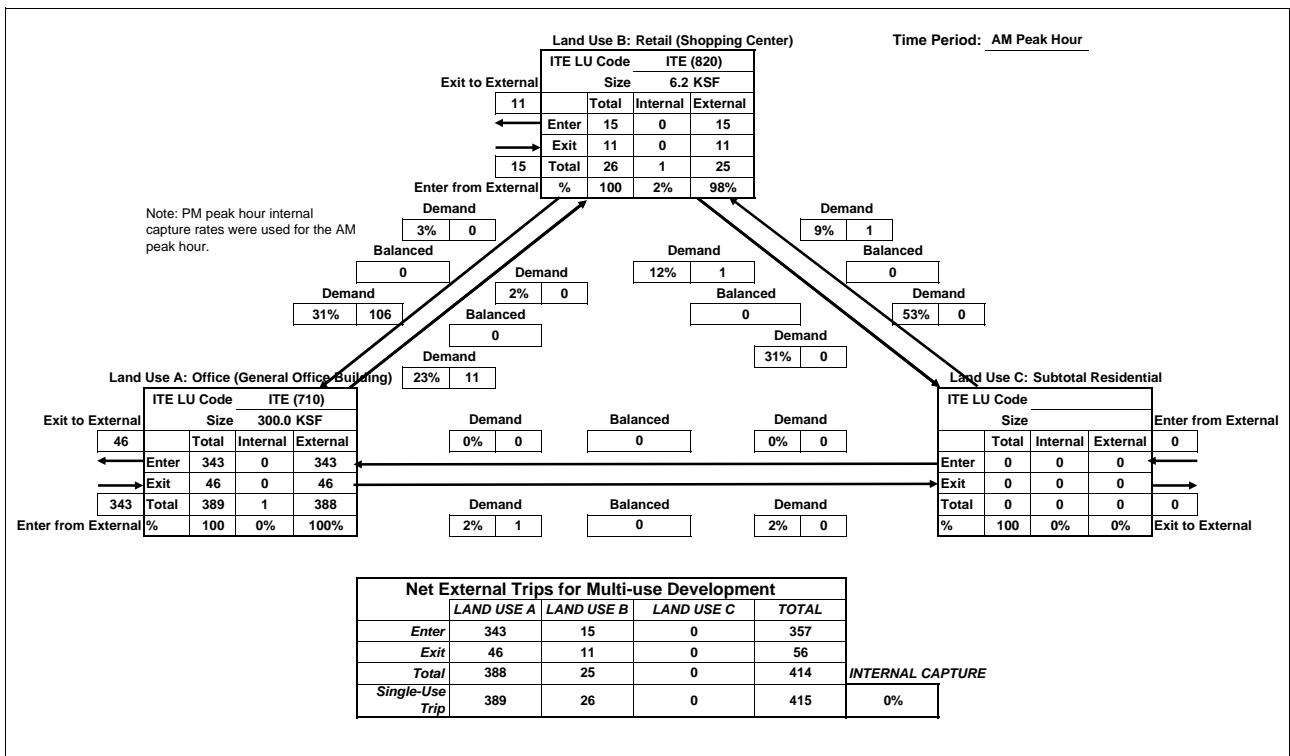
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

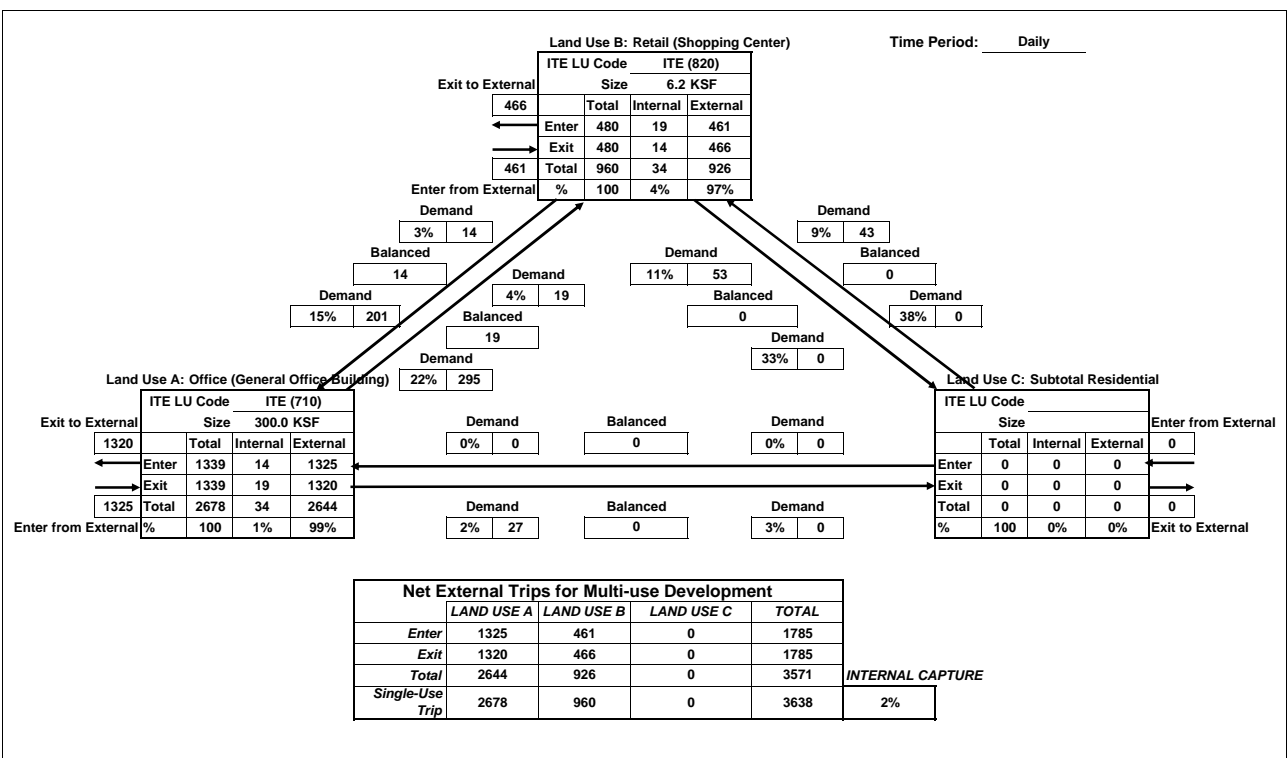


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

Time Period: Daily

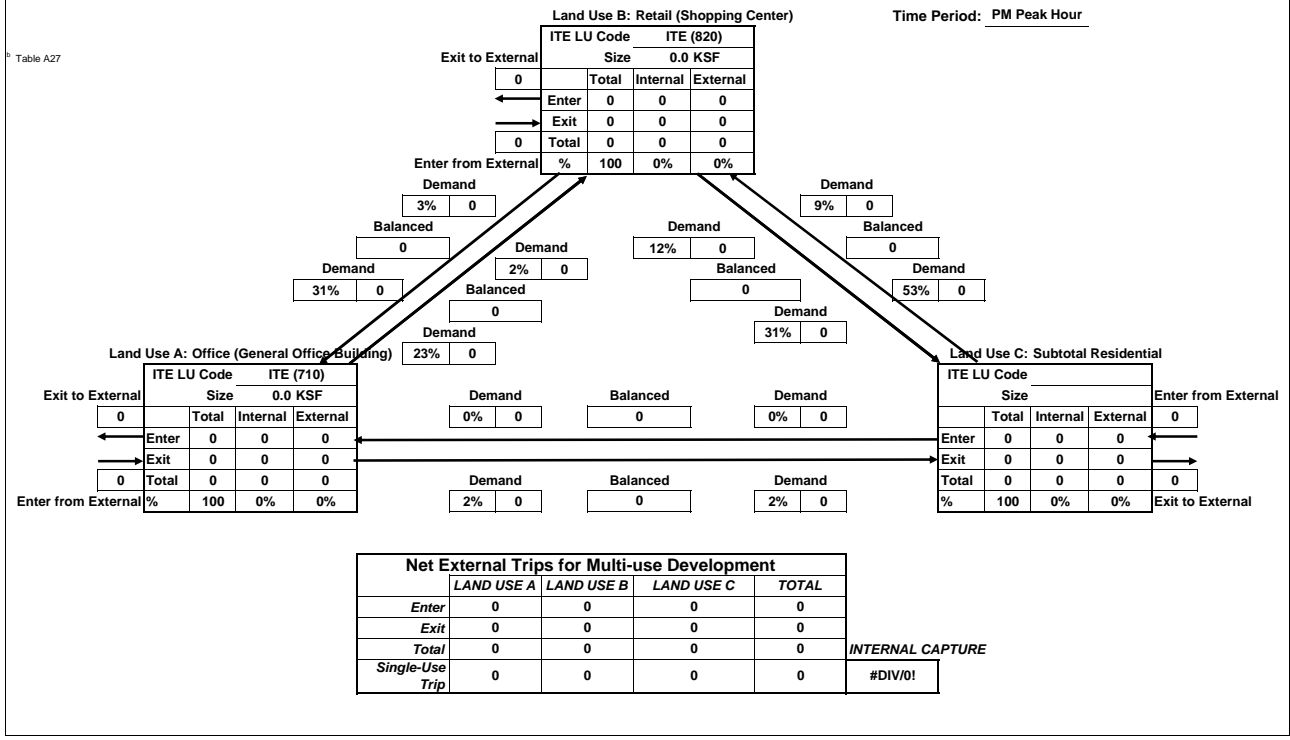
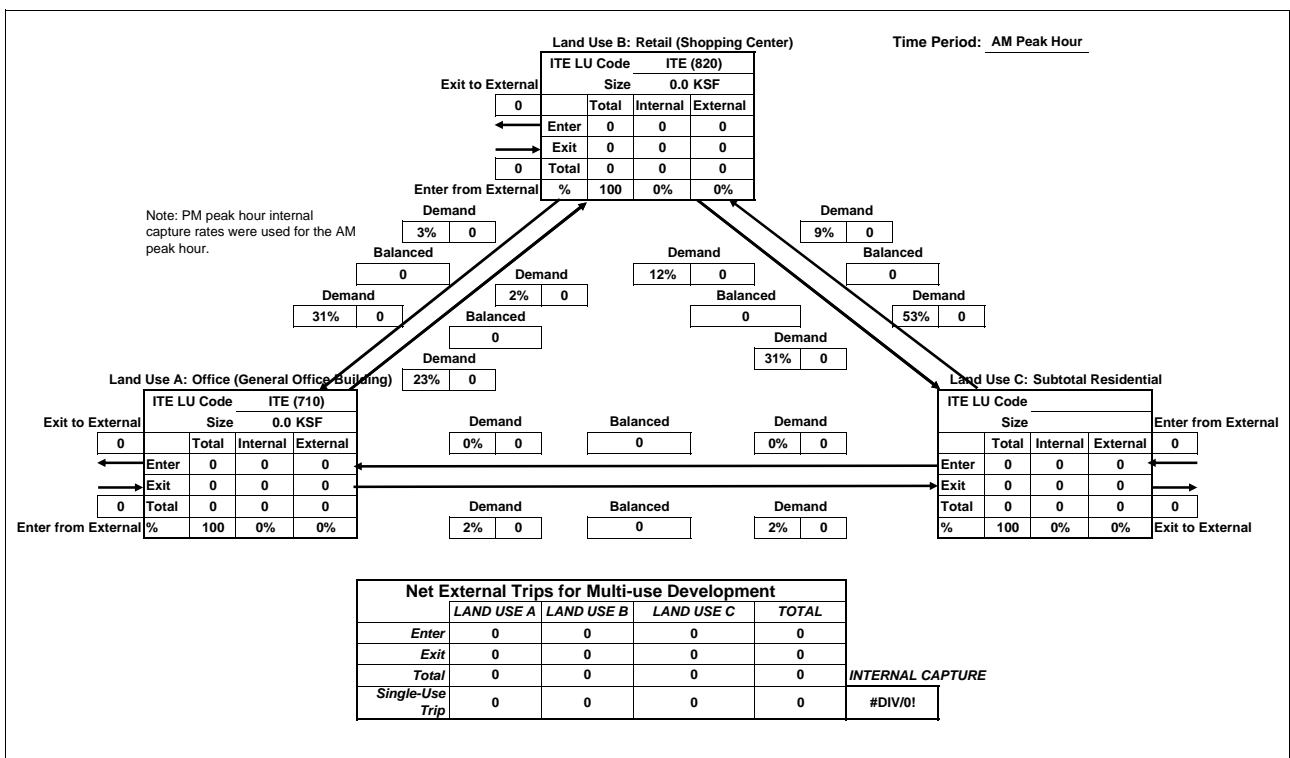


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)



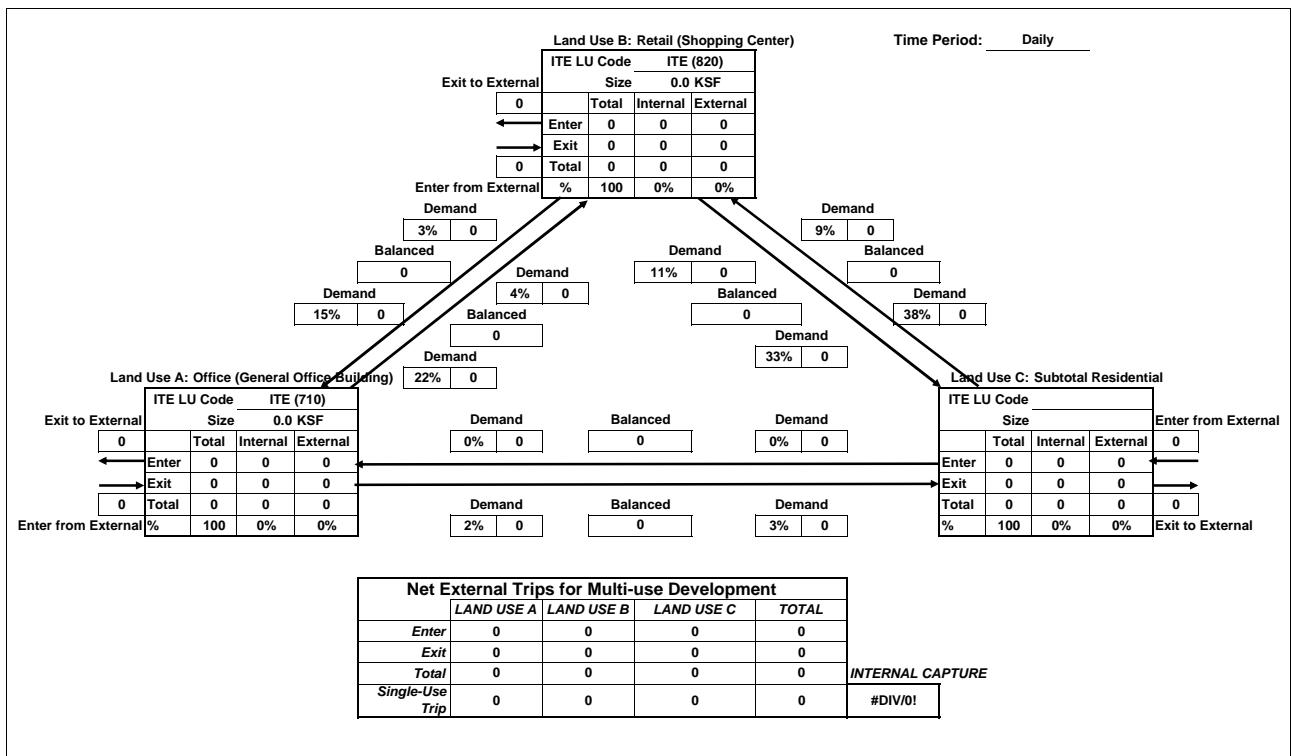
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

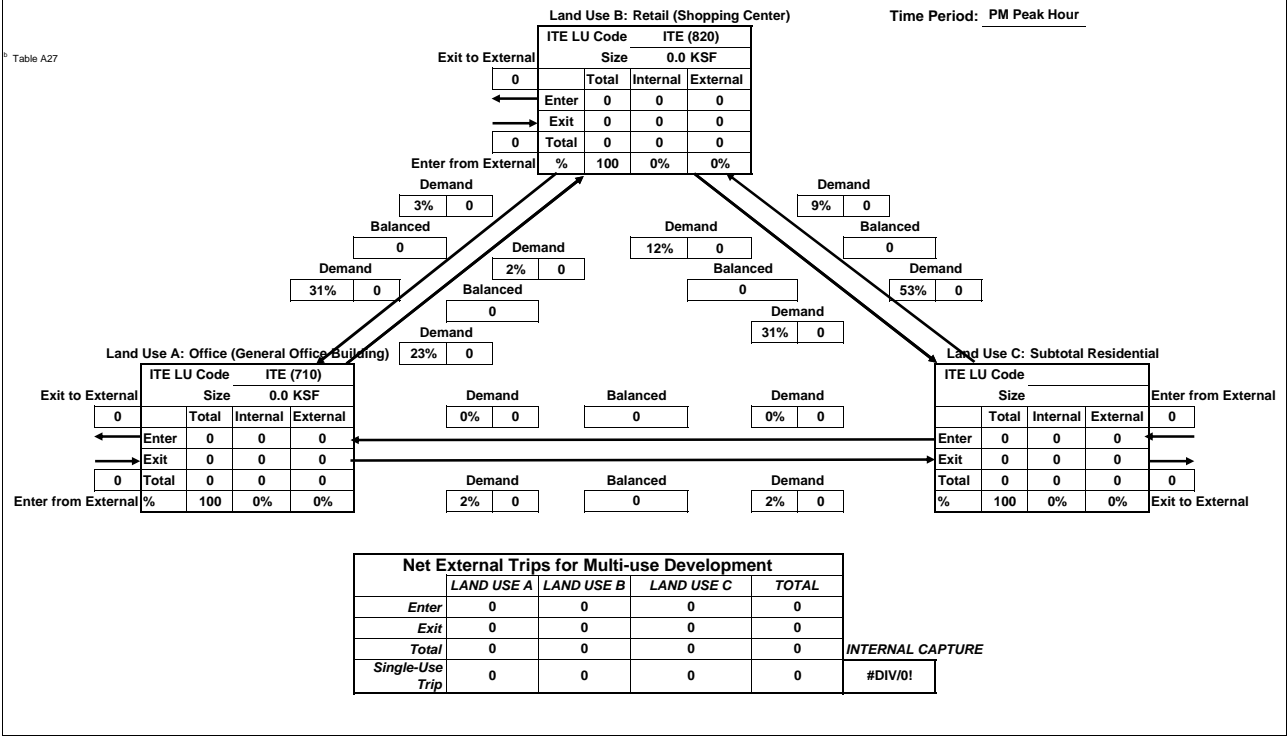
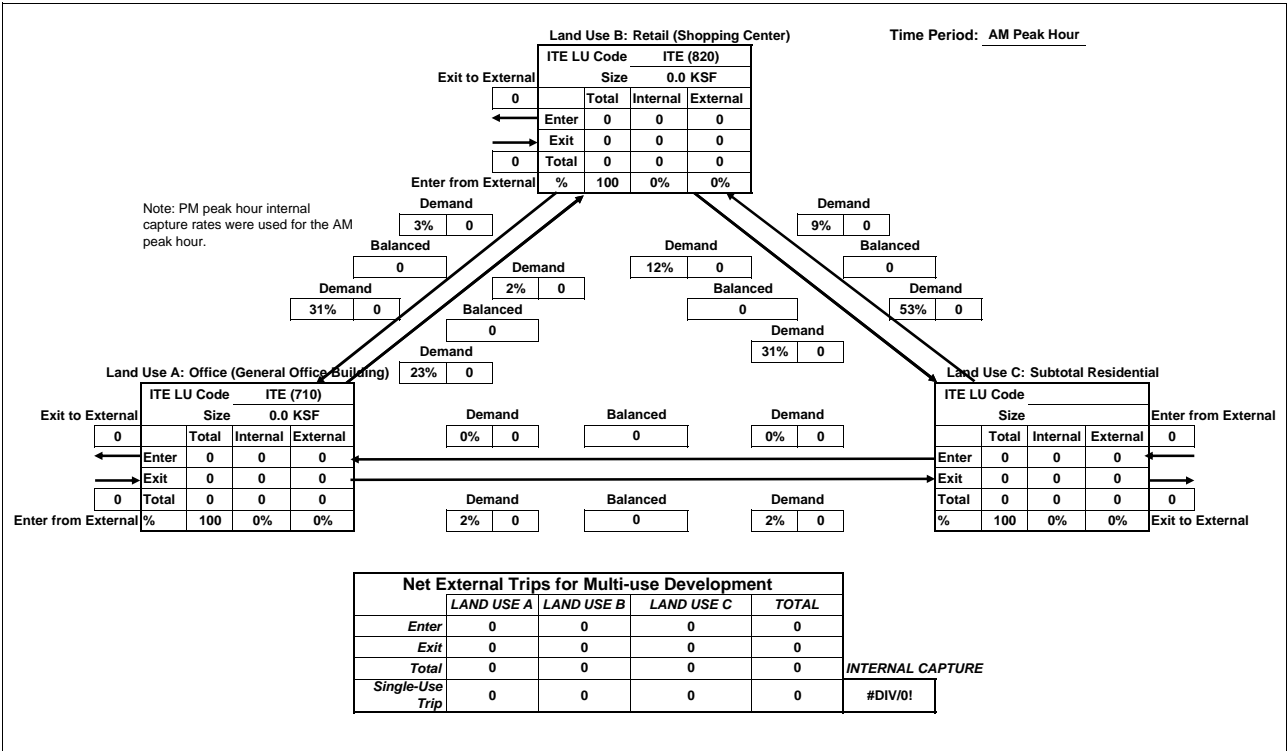
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

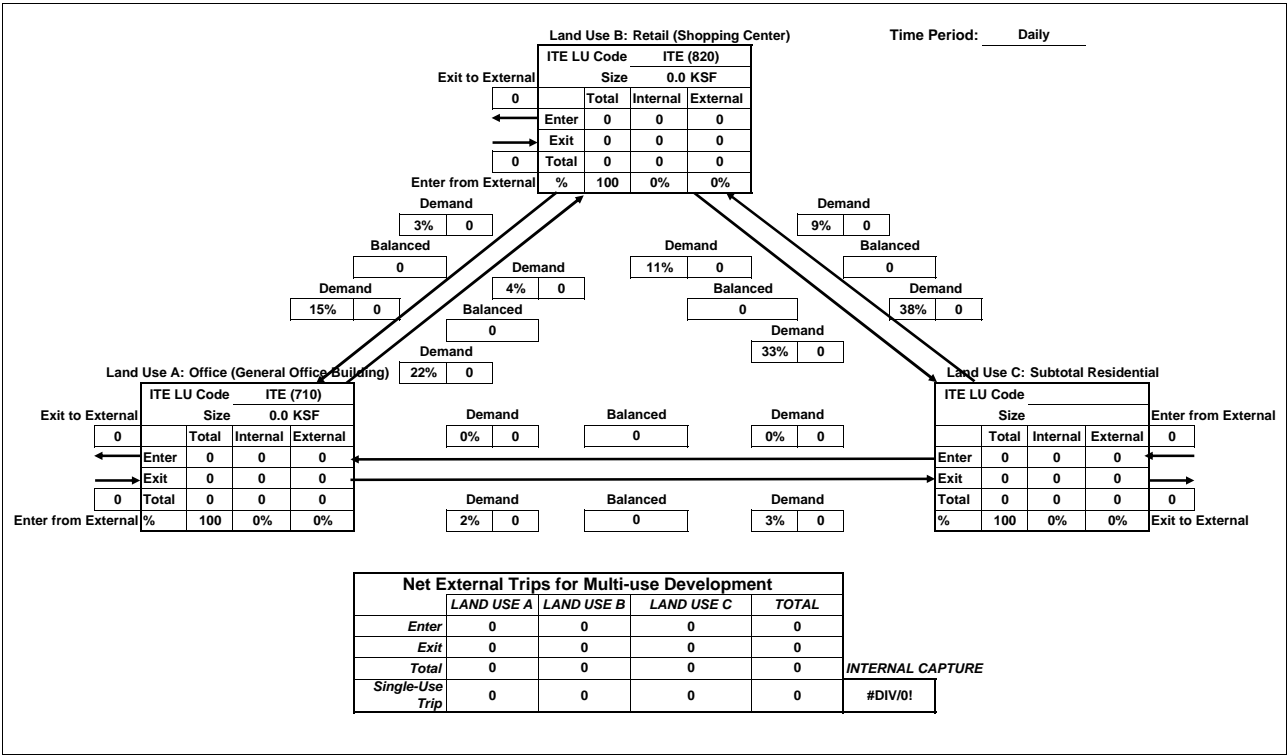


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

Time Period: Daily

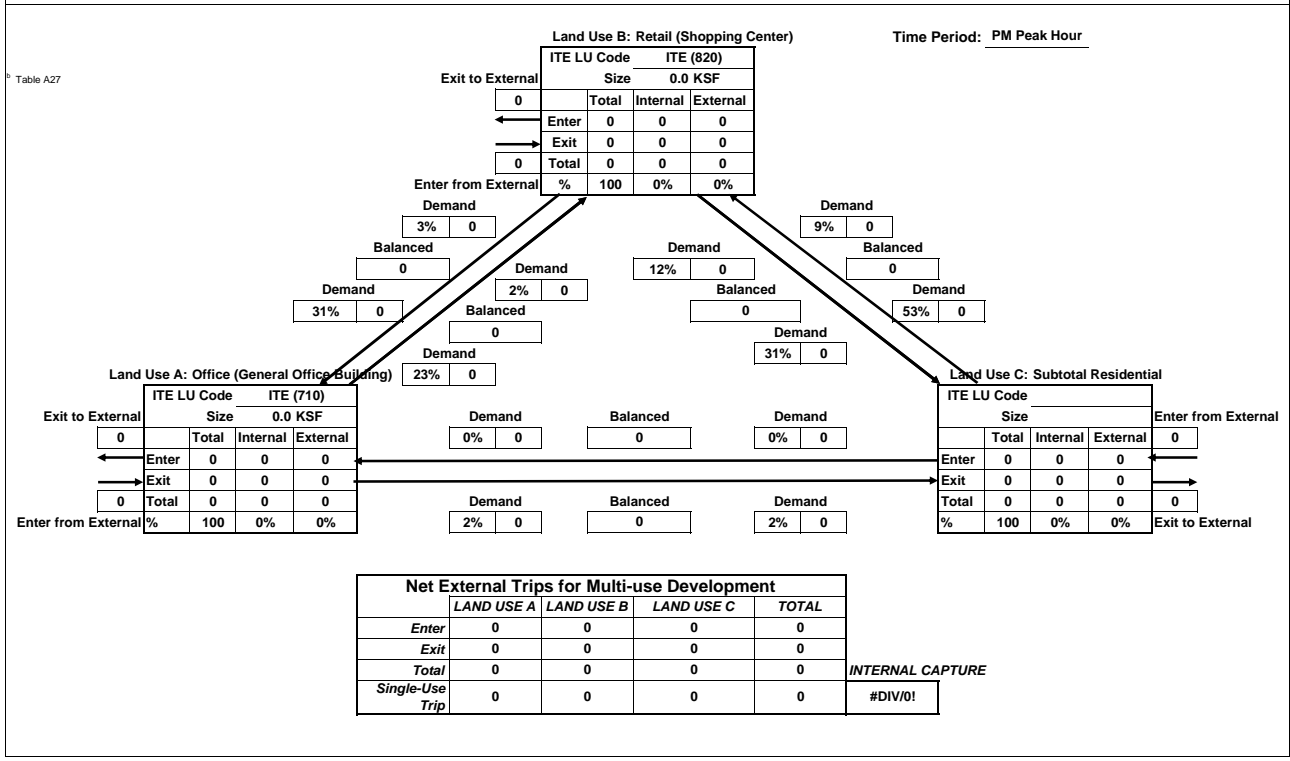
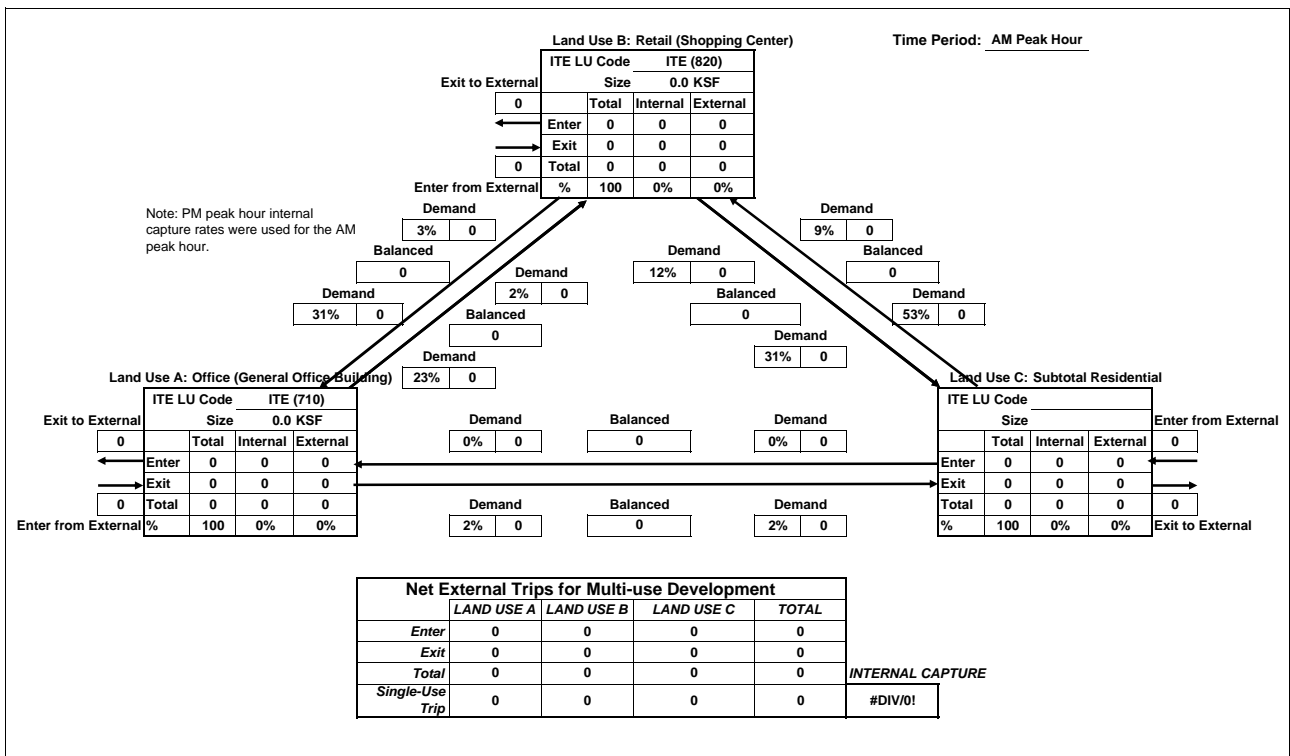


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)



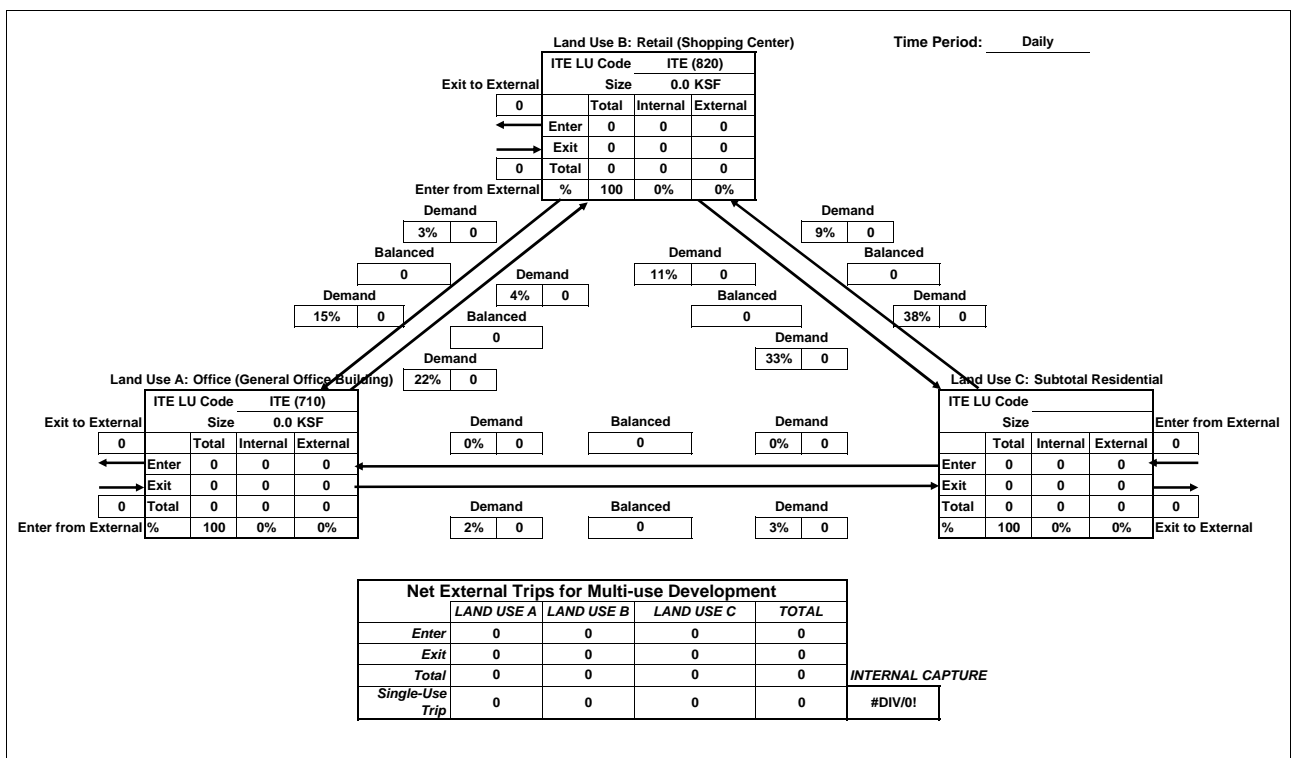
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 19: Bounded by South Park, 7th, Railyards, 5th

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

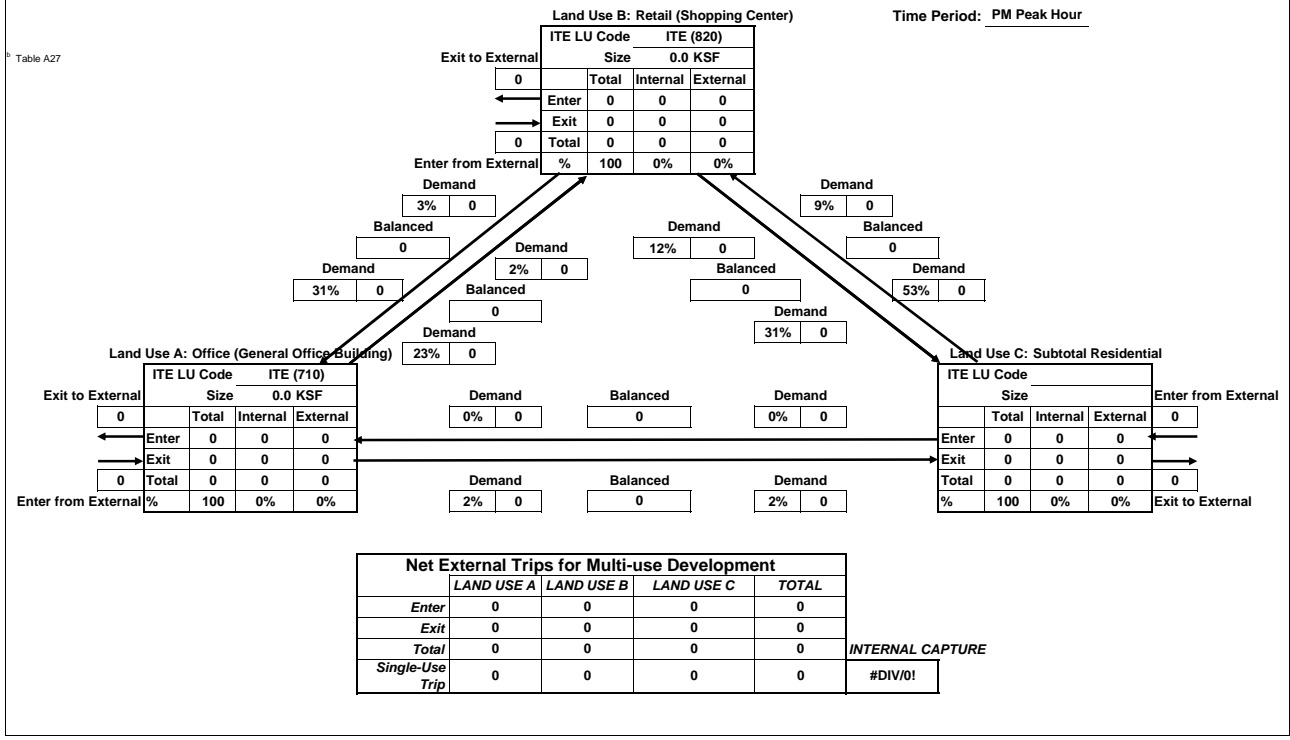
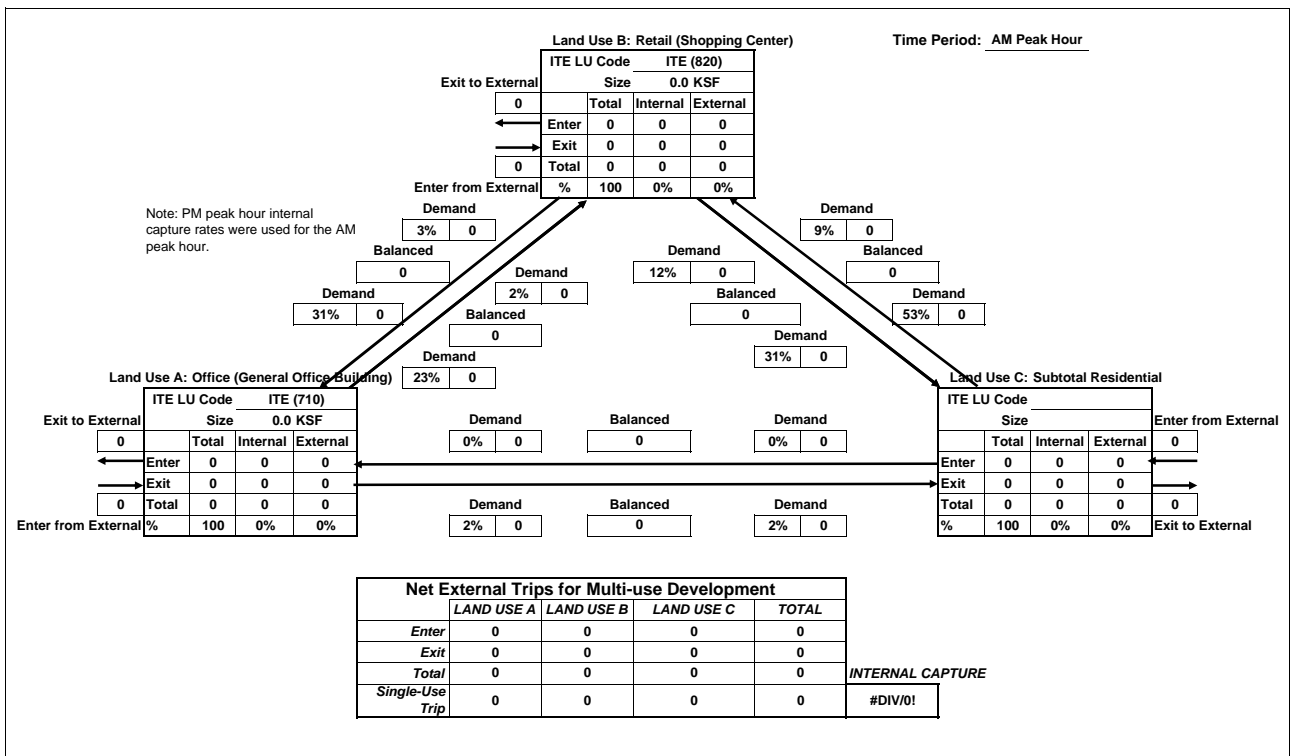
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)



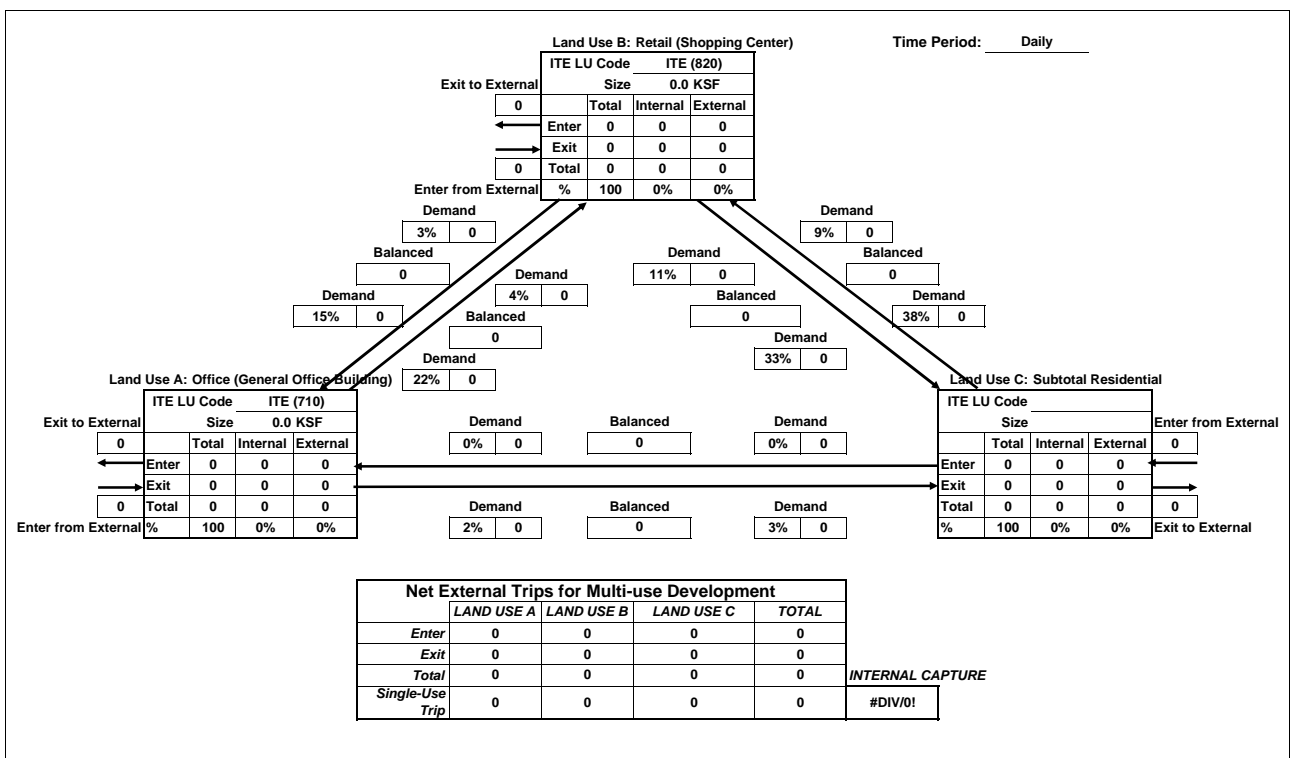
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 20: Bounded by South Park, N. 10th, Railyards, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

Time Period: Daily



Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

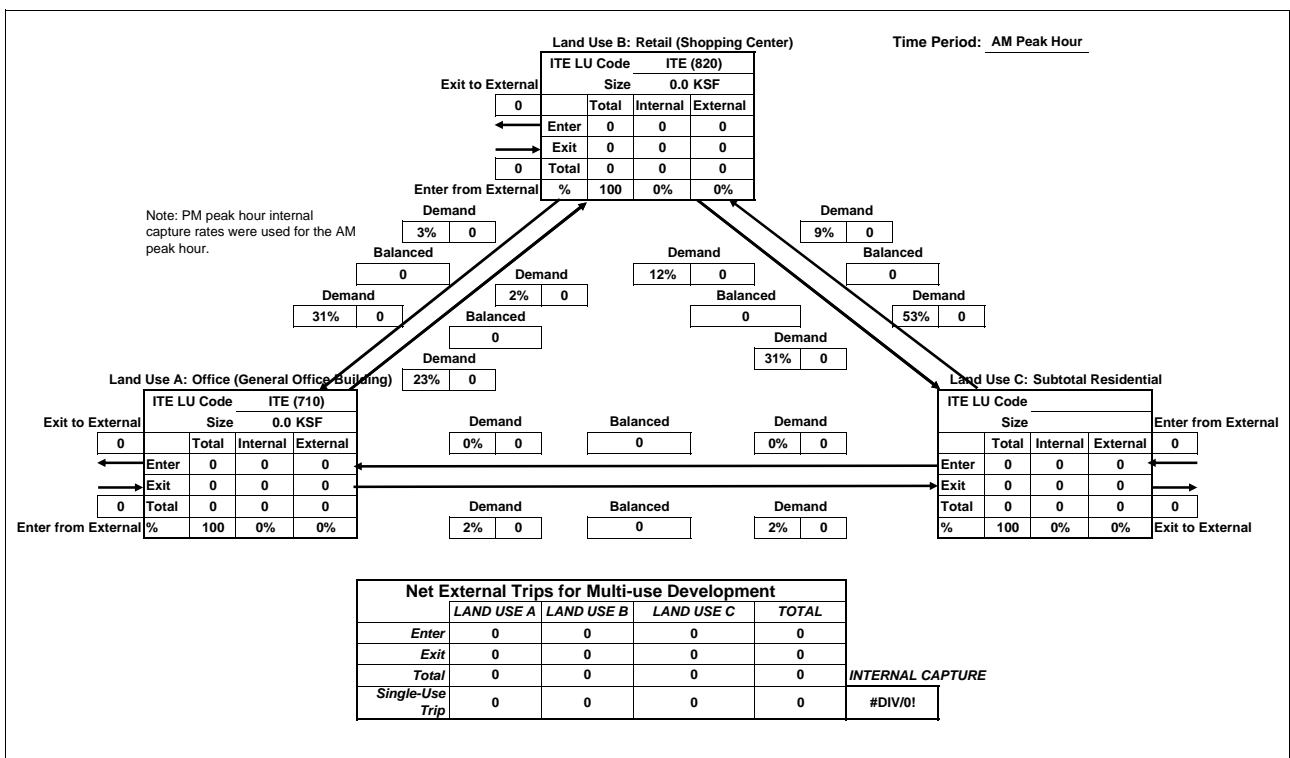
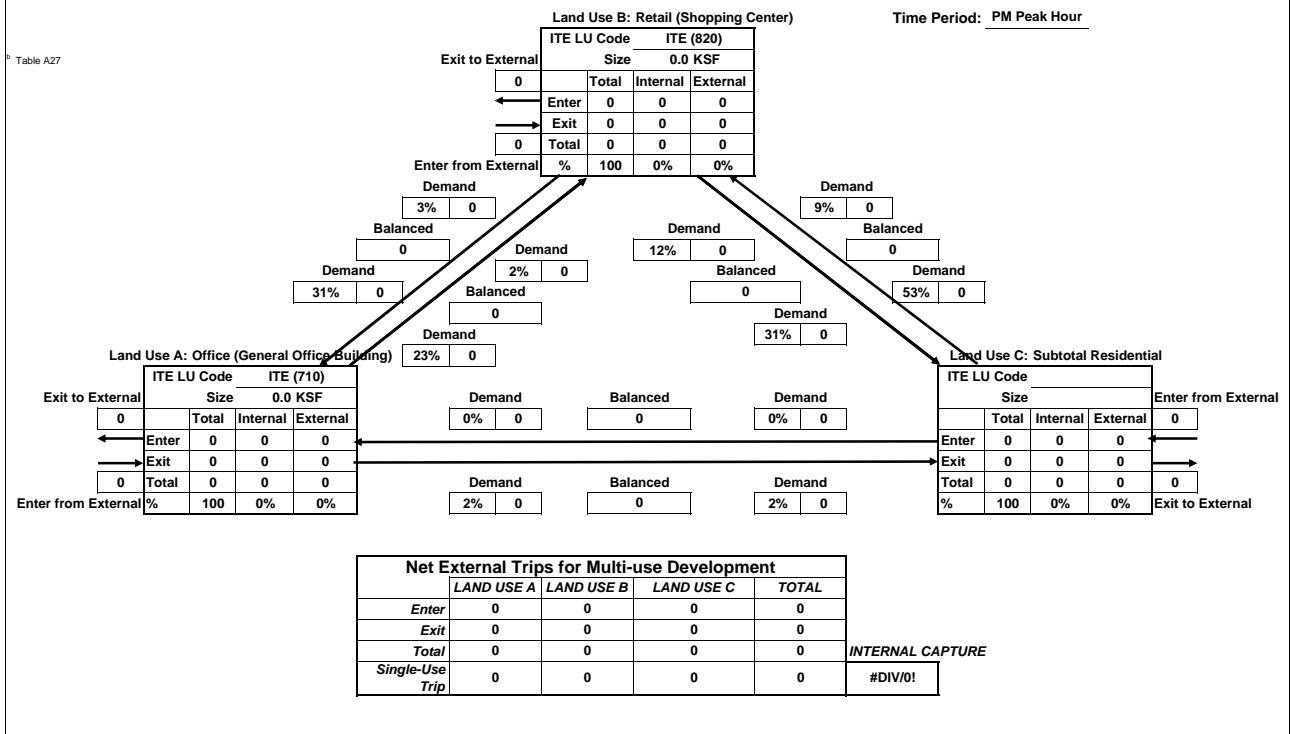


Table A27

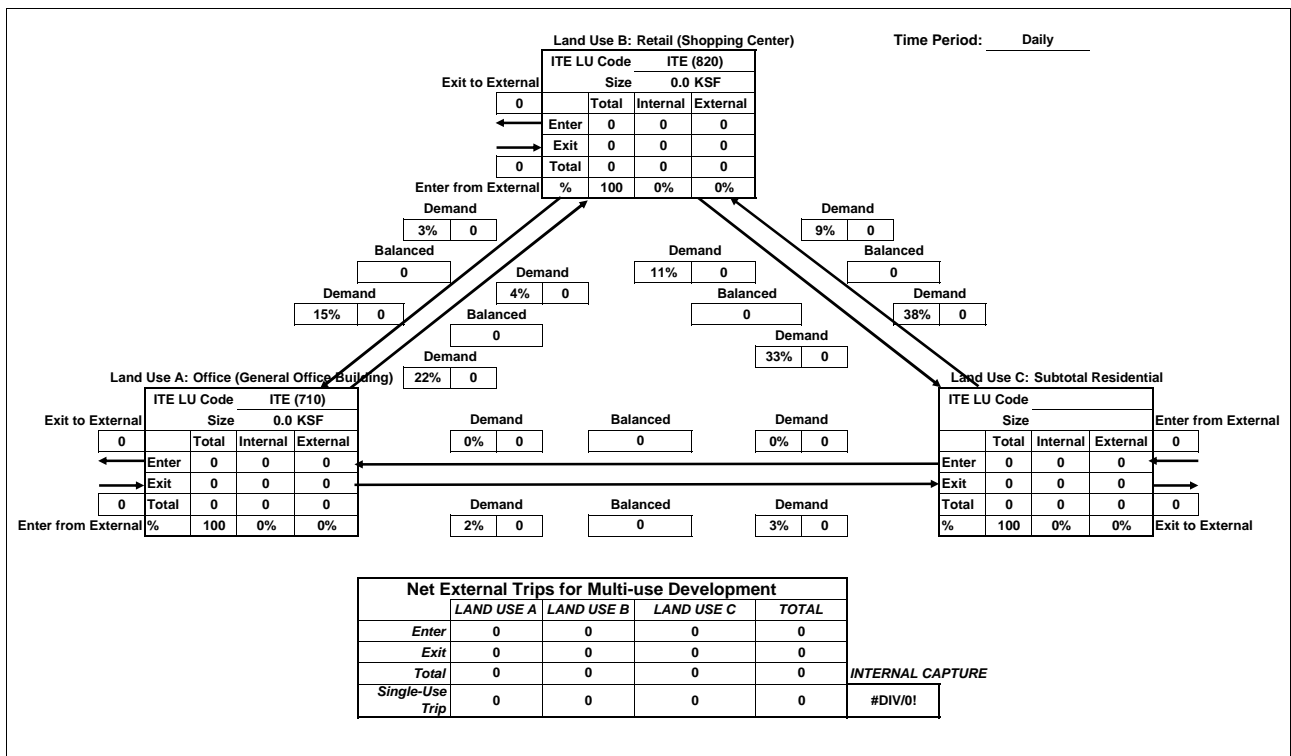


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

Time Period: Daily

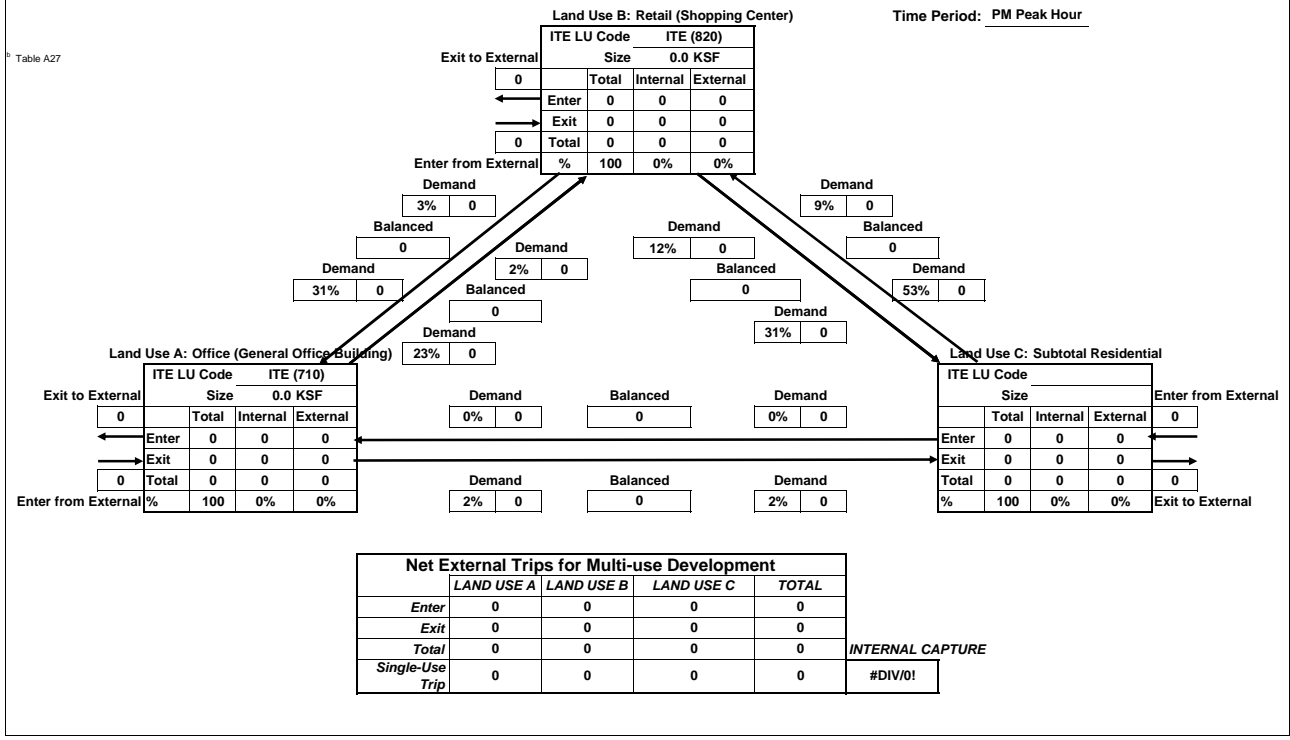
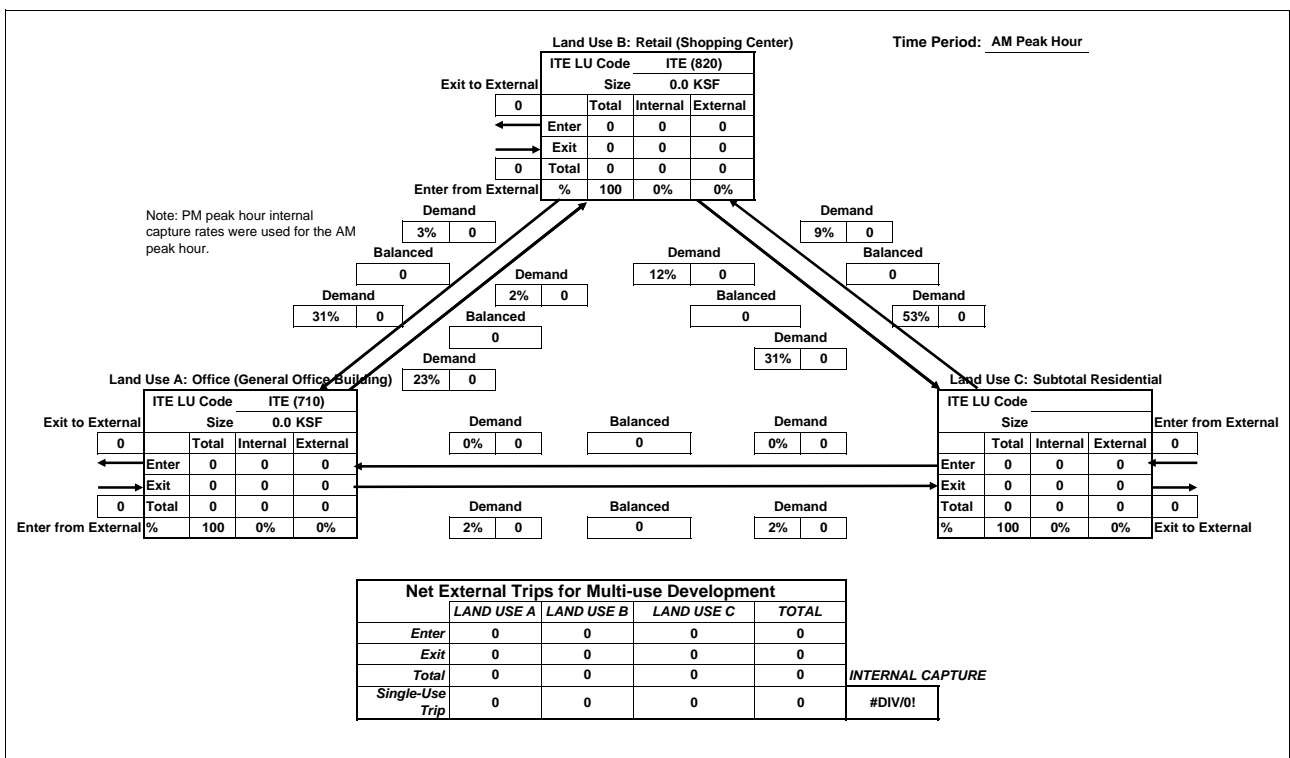


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

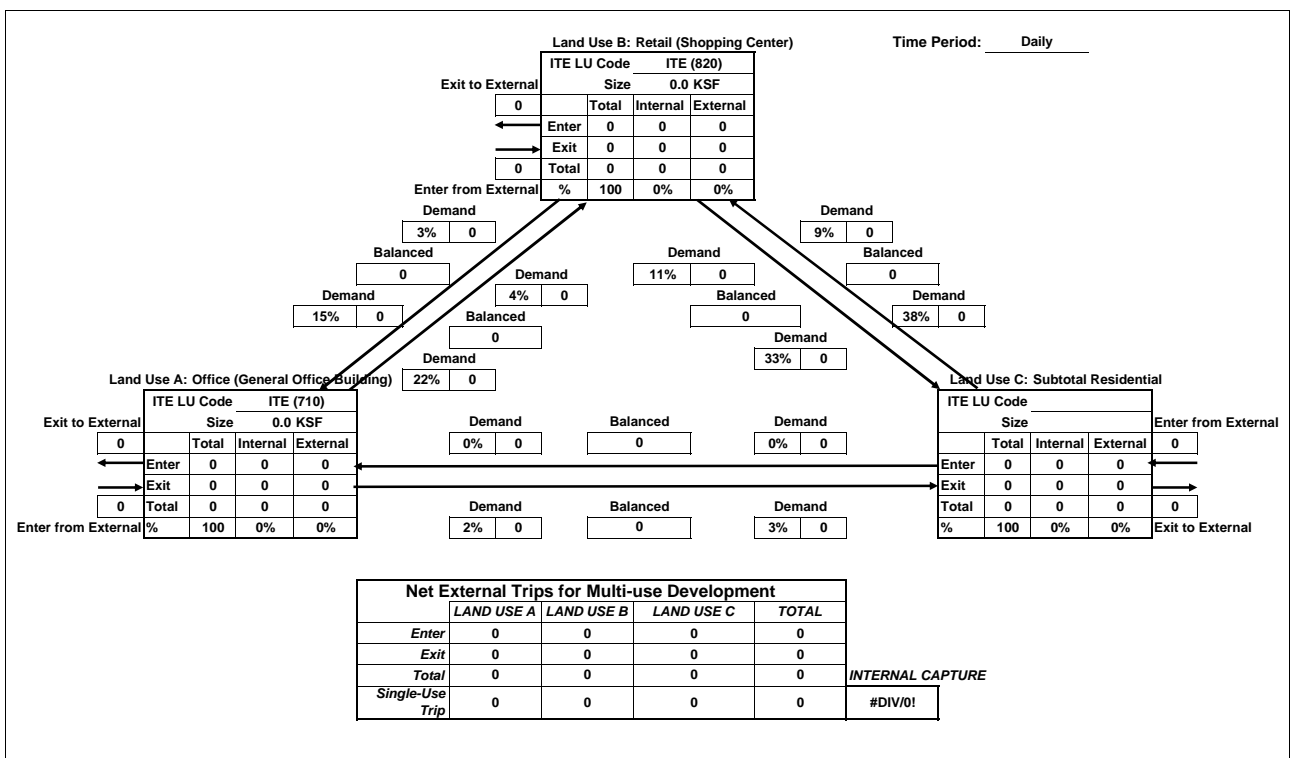


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

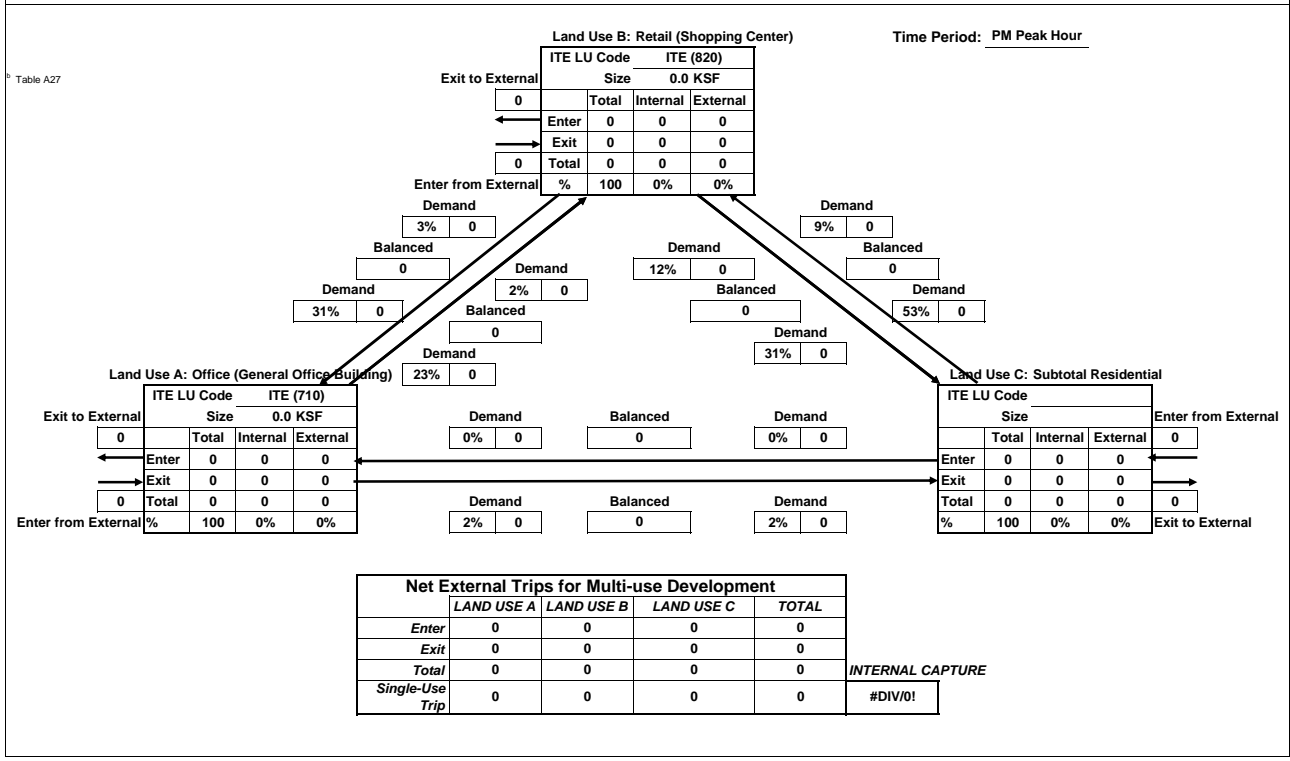
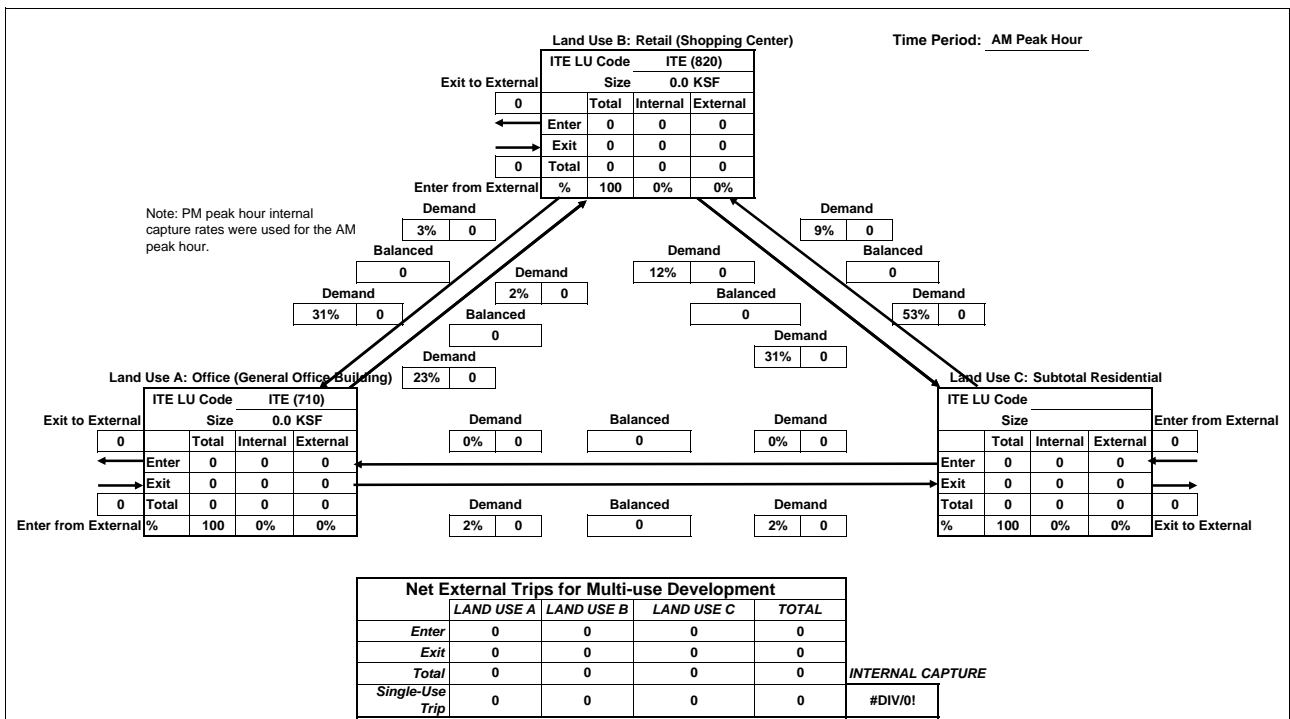
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

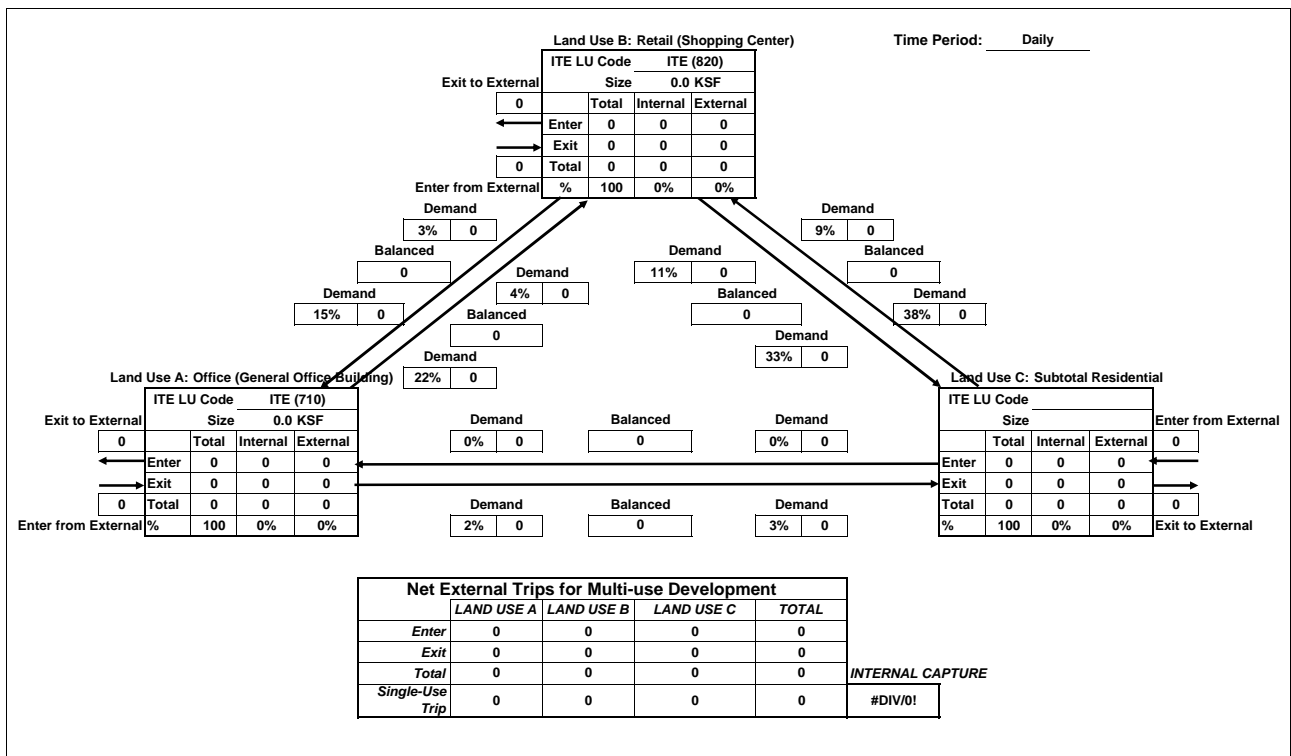


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 23: Bounded by Railyards, 12th, Rail Lines, 7th

Name of Development: Railyards Study
 Initial Phase with Maximum Office (2030)

Time Period: Daily

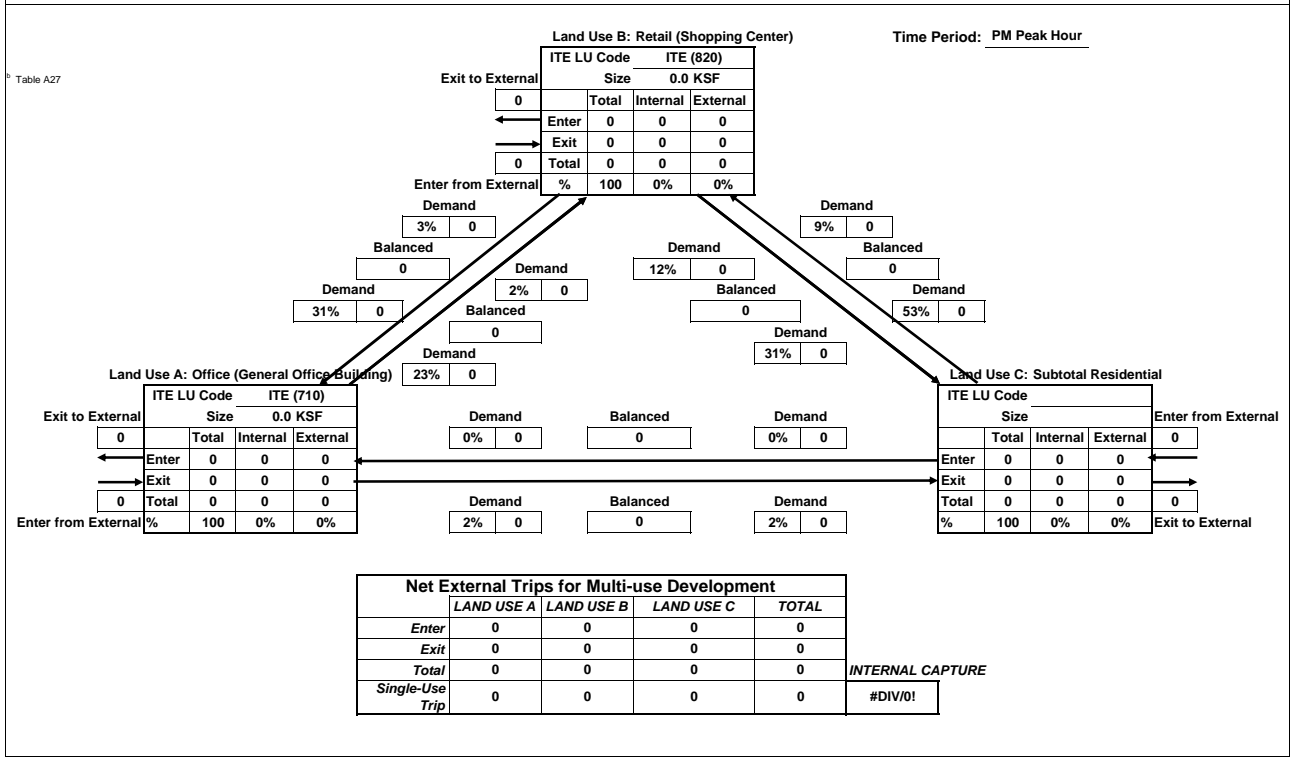
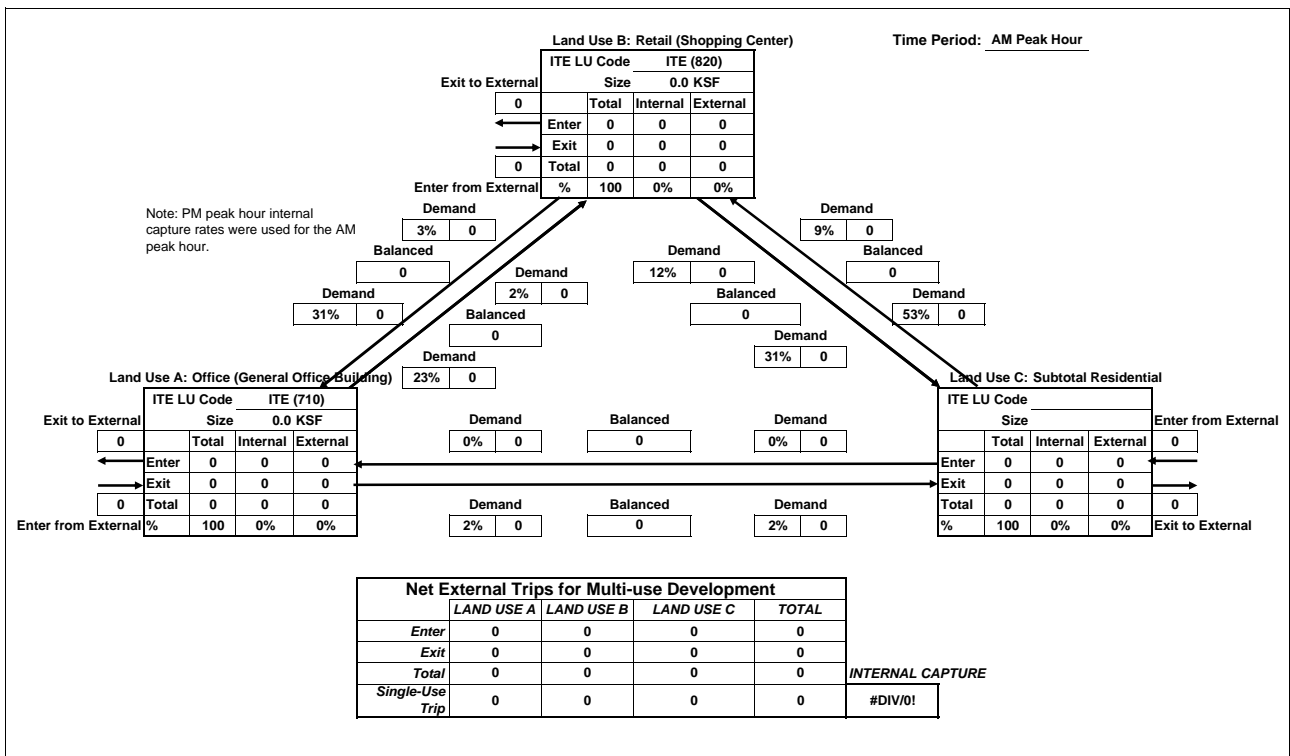


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)



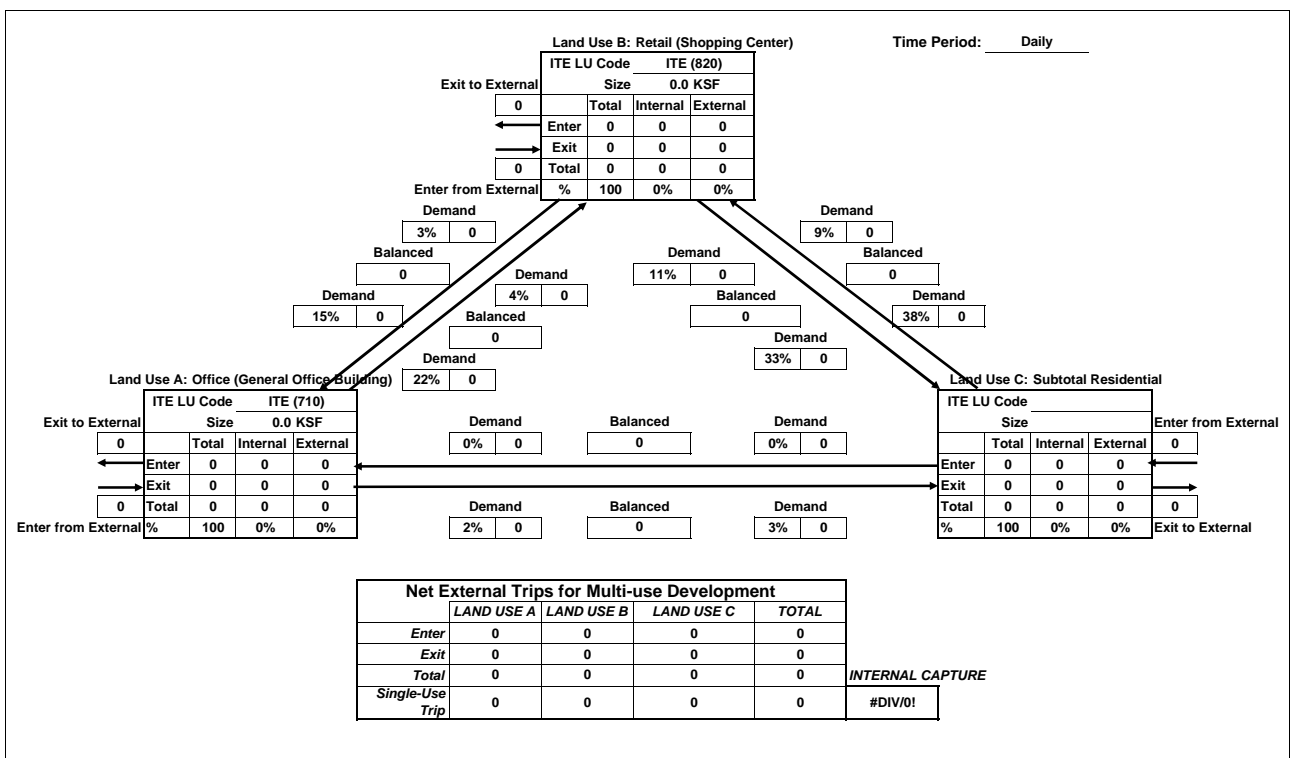
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 24: Bounded by Property Boundary, Railyards, N. 10th

Name of Development: Railyards Study
Initial Phase with Maximum Office (2030)

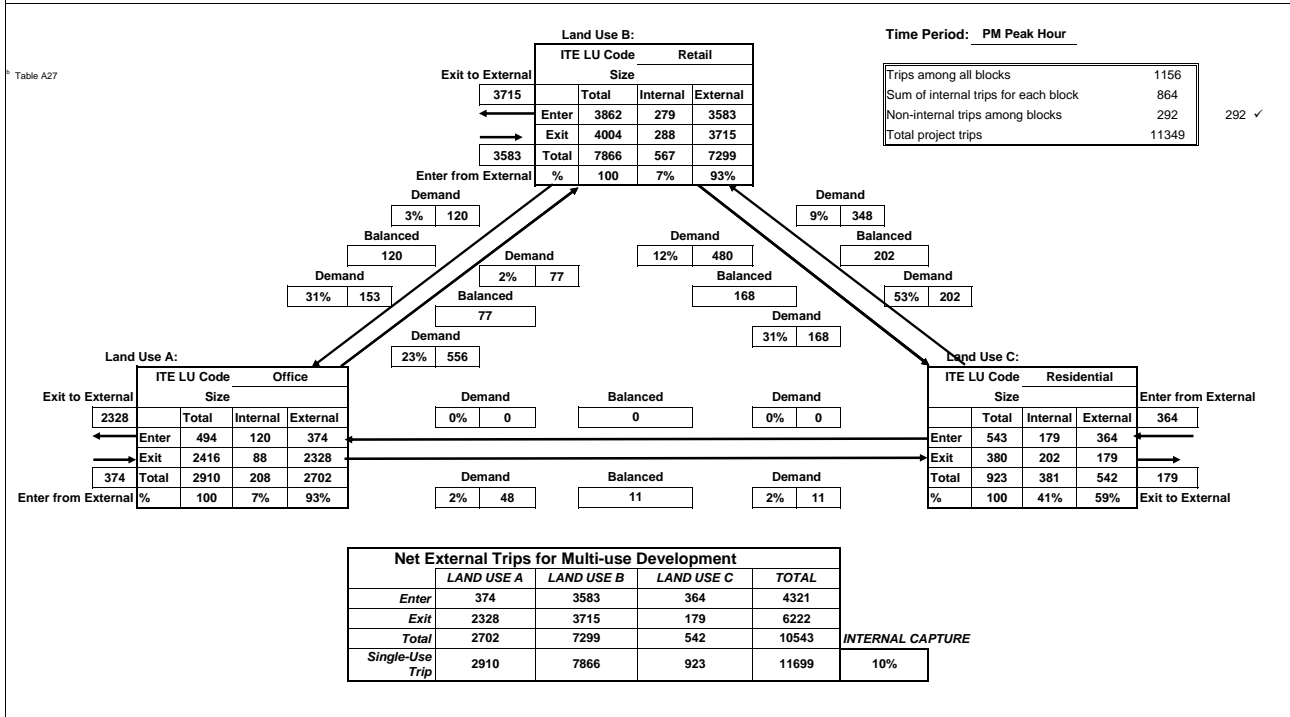
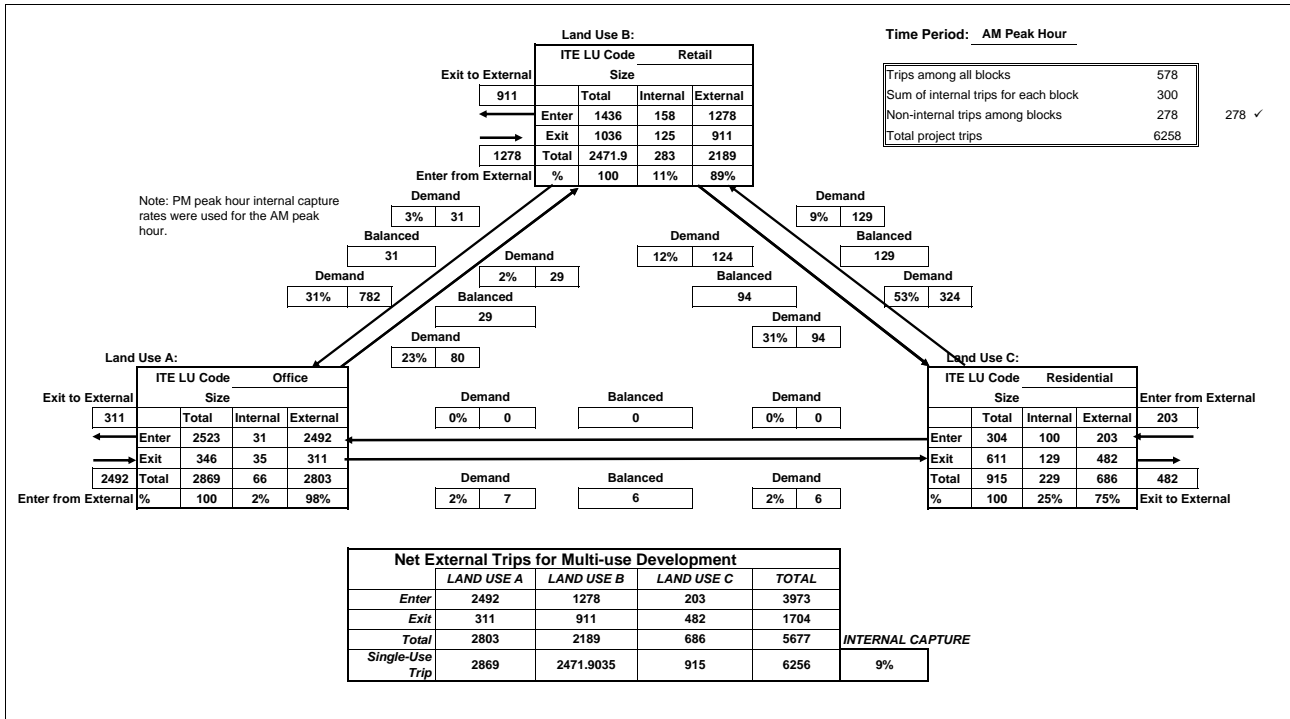
Time Period: Daily



**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling
Date: 8/17/2007

Name of Development: Downtown Study
Initial Phase with Maximum Office (2030)



Analyst: Dowling
 Date: 8/17/2007

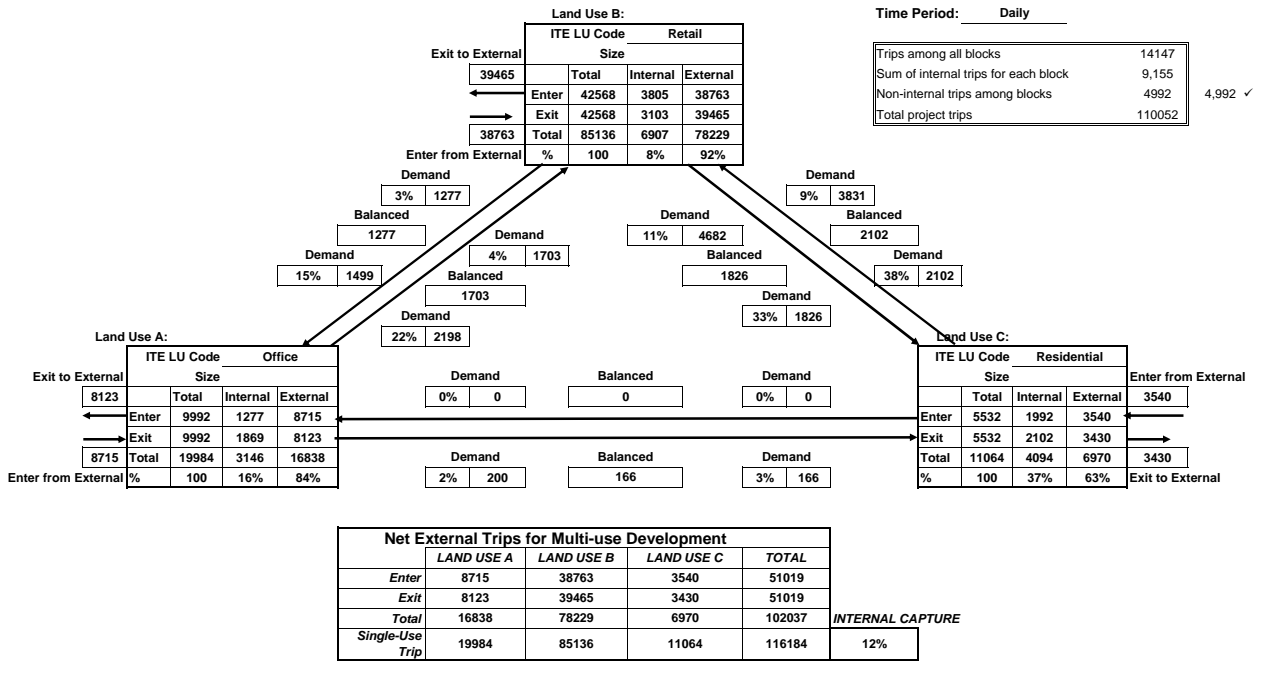
**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 TRIPS AMONG ALL BLOCKS**

Name of Development: Downtown Study
 Initial Phase with Maximum Office (2030)

Time Period: Daily

Trips among all blocks	14147
Sum of internal trips for each block	9,155
Non-internal trips among blocks	4992
Total project trips	110052

4,992 ✓



Initial Phase with Maximum Residential (2030)

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	837 Units	5,596	208	220	428	237	188	425
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,200	365	320	685	755	749	1,504
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-1,883	-34	-30	-64	-81	-81	-162
Internal Trips Within This Block (-11.9%)		-2,052	-23	-23	-46	-101	-101	-201
Trips To-From Other Blocks within the Project (-3.7%)		-633	-17	-17	-34	-28	-28	-55
New External Trips (73%) of Total Trips for Block		12,632	291	251	541	546	539	1,085
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	595 Units	2,467	38	163	201	135	83	218
Other	0	0	0	0	0	0	0	0
Total Trips for Block		7,853	115	212	327	373	340	713
Transit Adjustments (-2.3%)		-182	-3	-7	-10	-9	-9	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-862	-12	-19	-31	-39	-37	-76
Internal Trips Within This Block (-11.8%)		-929	-11	-11	-22	-45	-45	-90
Trips To-From Other Blocks within the Project (-3.6%)		-281	-8	-8	-15	-13	-13	-26
New External Trips (71%) of Total Trips for Block		5,600	81	167	249	267	236	503
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
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#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-4.2%)		-482	-7	-7	-13	-23	-23	-45
New External Trips (84%) of Total Trips for Block		9,629	129	81	211	428	466	895
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	165 Units	846	15	62	77	45	27	72
Total Trips for Block		8,325	119	129	248	376	386	762
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-949	-13	-13	-26	-42	-44	-86
Internal Trips Within This Block (-6.5%)		-544	-13	-13	-25	-26	-26	-52
Trips To-From Other Blocks within the Project (-3.9%)		-326	-6	-6	-11	-15	-15	-30
New External Trips (78%) of Total Trips for Block		6,506	88	98	185	293	301	594

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	281 Units	1,283	21	89	110	69	42	111
Total Trips for Block		8,928	128	157	285	408	409	817
Transit Adjustments (-2.3%)		-201	-3	-5	-8	-10	-9	-19
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,010	-14	-15	-29	-45	-47	-92
Internal Trips Within This Block (-9%)		-801	-14	-14	-28	-39	-39	-77
Trips To-From Other Blocks within the Project (-3.7%)		-330	-6	-6	-13	-15	-15	-30
New External Trips (74%) of Total Trips for Block		6,586	91	117	207	299	299	599
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	363 Units	1,592	25	109	134	86	53	139
Total Trips for Block		7,077	104	159	263	328	315	643
Transit Adjustments (-2.3%)		-162	-3	-5	-8	-7	-8	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-11.1%)		-789	-11	-15	-26	-35	-35	-70
Internal Trips Within This Block (-12.5%)		-887	-11	-11	-23	-43	-43	-85
Trips To-From Other Blocks within the Project (-3.5%)		-250	-6	-6	-12	-11	-11	-23
New External Trips (70%) of Total Trips for Block		4,989	73	122	194	232	218	450
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
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Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	139 Units	685	28	27	54	40	34	74
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,347	604	459	1,062	860	964	1,824
Transit Adjustments (-3.4%)		-657	-22	-11	-33	-21	-33	-54
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-2,004	-62	-51	-113	-95	-87	-181
Internal Trips Within This Block (-3.4%)		-661	-34	-34	-68	-47	-47	-94
Trips To-From Other Blocks within the Project (-4%)		-765	-25	-25	-49	-36	-36	-72
New External Trips (79%) of Total Trips for Block		15,260	461	339	799	661	760	1,422

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	108 Units	631	11	49	60	32	20	52
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,214	234	222	456	761	796	1,557
Transit Adjustments (-2.4%)		-391	-5	-6	-11	-17	-19	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,837	-27	-24	-51	-85	-91	-175
Internal Trips Within This Block (-2.4%)		-393	-20	-20	-41	-18	-18	-36
Trips To-From Other Blocks within the Project (-4%)		-649	-10	-10	-21	-32	-32	-63
New External Trips (80%) of Total Trips for Block		12,944	172	161	332	609	636	1,248
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	263 Units	1,215	20	85	105	65	40	105
Total Trips for Block		4,184	65	113	178	195	180	375
Transit Adjustments (-2.3%)		-97	-2	-4	-6	-5	-4	-9
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-461	-7	-9	-16	-21	-19	-40
Internal Trips Within This Block (-12.2%)		-512	-6	-6	-13	-25	-25	-49
Trips To-From Other Blocks within the Project (-3.6%)		-149	-4	-4	-8	-7	-7	-13
New External Trips (71%) of Total Trips for Block		2,965	45	89	135	138	126	263
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	96 Units	401	6	26	33	23	14	36
Total Trips for Block		4,022	60	60	121	182	186	367
Transit Adjustments (-2.2%)		-90	-1	-2	-3	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-459	-7	-6	-13	-20	-21	-41
Internal Trips Within This Block (-6.2%)		-250	-6	-6	-12	-13	-13	-26
Trips To-From Other Blocks within the Project (-3.8%)		-154	-3	-3	-5	-7	-7	-14
New External Trips (76%) of Total Trips for Block		3,070	44	44	88	138	141	278
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	227 Units	1,079	18	77	95	58	35	93
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		4,474	308	163	471	215	392	607
Transit Adjustments (-4.9%)		-217	-11	-4	-15	-6	-12	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-8.6%)		-384	-13	-10	-23	-18	-21	-39
Internal Trips Within This Block (-8.1%)		-363	-5	-5	-9	-17	-17	-35
Trips To-From Other Blocks within the Project (-3.7%)		-167	-12	-12	-25	-12	-12	-25
New External Trips (75%) of Total Trips for Block		3,342	267	132	398	161	329	490
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	619 Units	2,557	40	168	208	140	86	226
Total Trips for Block		4,269	67	185	252	214	166	380
Transit Adjustments (-2.4%)		-104	-2	-6	-8	-5	-5	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-444	-6	-15	-21	-21	-16	-37
Internal Trips Within This Block (-6.9%)		-295	-4	-4	-8	-14	-14	-28
Trips To-From Other Blocks within the Project (-3.8%)		-163	-6	-6	-13	-7	-7	-15
New External Trips (76%) of Total Trips for Block		3,262	49	154	203	167	124	290

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	160 Units	827	14	61	75	43	27	70
Total Trips for Block		6,937	101	116	217	313	319	632
Transit Adjustments (-2.2%)		-156	-3	-3	-6	-7	-7	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-788	-11	-11	-22	-35	-36	-71
Internal Trips Within This Block (-7.4%)		-515	-10	-10	-21	-25	-25	-49
Trips To-From Other Blocks within the Project (-3.8%)		-261	-5	-5	-10	-12	-12	-24
New External Trips (75%) of Total Trips for Block		5,216	72	87	158	234	239	474
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	273 Units	1,253	21	87	108	67	41	108
Total Trips for Block		2,367	39	99	138	115	93	208
Transit Adjustments (-2.5%)		-58	-2	-3	-5	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-249	-4	-8	-12	-12	-9	-21
Internal Trips Within This Block (-8.1%)		-192	-3	-3	-5	-9	-9	-18
Trips To-From Other Blocks within the Project (-3.8%)		-89	-3	-3	-7	-4	-4	-8
New External Trips (75%) of Total Trips for Block		1,779	27	82	109	87	69	156
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th									
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0	
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0	
Subtotal Residential	0 Units	0	0	0	0	0	0	0	
-----		-----		-----		-----		-----	
Total Trips for Block		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	
#DIV/0!		0	0	0	0	0	0	0	

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	0 Prkng	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Total Project Trips								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail (Shopping Center)	1,374 KSF	97,979	1,656	1,194	2,850	4,441	4,608	9,049
Subtotal Residential	4,126 Units	20,432	465	1,223	1,688	1,041	689	1,729
Other		3,528	258	65	323	102	445	546
Total Project Trips		122,636	2,463	2,493	4,955	5,606	5,847	11,452
Transit Adjustments (-1.9%)		-2,315	-57	-56	-113	-94	-112	-205
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-13,446	-239	-237	-476	-608	-608	-1,214
Internal Trips Within This Block (-6.8%)		-8,395	-160	-160	-320	-421	-421	-842
Trips To-From Other Blocks within the Project (-3.8%)		-4,699	-118	-118	-236	-222	-222	-444
New External Trips (76%) of Total Project Trips		93,781	1,888	1,922	3,810	4,261	4,484	8,747

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Initial Phase with Maximum Residential (2030) (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		76.5%				76.9%			76.4%

Table Xb: Transit Trips for Initial Phase with Maximum Residential (2030) (By City Block)							
City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	481	13	12	25	22	22	44
Block 2: Bounded by South Park, 5th, Railyards, Crocker	219	4	7	11	11	10	21
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	297	4	3	7	13	15	28
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	221	3	4	7	11	10	21
Block 6: Bounded by Railyards, 5th, Camille, Crocker	240	4	6	10	11	11	22
Block 7: Bounded by Railyards, 6th, Camille, 5th	194	3	5	8	9	9	18
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	0	0	0	0	0	0	0
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	762	25	13	38	27	52	79
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	461	6	6	12	22	24	45
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	116	2	4	6	5	6	11
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	107	1	2	3	5	5	10
Block 13: Bounded by Rail Lines, 6th, G, 5th	251	34	11	45	12	36	48
Block 14: Bounded by Rail Lines, 7th, G, 6th	127	3	7	10	7	5	12
Block 15: Bounded by G, 6th, H, 6th	185	3	4	7	9	9	18
Block 16: Bounded by G, 7th, Property Boundary, 6th	69	2	3	5	3	4	7
Block 17: Bounded by N. B, 7th, South Park, 5th	0	0	0	0	0	0	0
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	0	0	0	0	0	0	0
Block 19: Bounded by South Park, 7th, Railyards, 5th	0	0	0	0	0	0	0
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	0	0	0	0	0	0	0
Block 21: SITF Site	0	0	0	0	0	0	0
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	0	0	0	0	0	0	0
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	0	0	0	0	0	0	0
Block 24: Bounded by Property Boundary, Railyards, N. 10th	0	0	0	0	0	0	0
Total New Transit Trips	3,730	107	87	194	167	218	384

Source: Dowling Associates, Inc. 2006

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 OS	1	1	0.75							
1 RRMU	2	1	4.31		200,000					
1 RRMU	3a	1	2.84							
2 OS	3b	1	0.13							
2 RRMU	3c	1	0.93			500				
2 RRMU	3d	1	0.73	197	28,000				32,000	29
2 OS	3e	1	0.67							
2 RRMU	3f	1	0.28	140						
Subtotal				337	228,000	500	0	0	32,000	29
2 RRMU	5a	2	1.14	104						
2 RRMU	5b	2	0.68	106	27,000				29,000	26
2 RRMU	6a	2	1.28	242						
2 RRMU	6b	2	1.07	143	43,000				47,000	43
2 OS	6c	2	0.15							
Subtotal				595	70,000	0	0	0	76,000	69
1 RRMU	33	3	2.62							
1 RRMU	11a	4	4.42		223,000					
1 OS	11b	4	0.27							
Subtotal				0	223,000	0	0	0	0	0
1 RRMU	10a	5	3.88	165	116,000				65,000	59
1 OS	10b	5	0.57							
Subtotal				165	116,000	0	0	0	65,000	59
1 RRMU	8a	6	0.61	47	27,000				27,000	25
1 RRMU	8b	6	1.22	83	33,000				38,000	35
1 RRMU	9a	6	0.60	68	26,000				26,000	24
1 RRMU	9b	6	1.27	83	34,000				38,000	35
Subtotal				281	120,000	0	0	0	129,000	119
2 RRMU	7a	7	2.06	202	18,000				18,000	16
2 RRMU	7b	7	1.19	161	54,000				58,000	53
2 OS	7c	7	0.03							
Subtotal				363	72,000	0	0	0	76,000	69
3 ORMU	47a	8	2.21							
1 RRMU	47b	8	0.78							
1 ORMU	48	8	2.56							

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				0	0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 RRMU	12	9	1.17	39	71,000				43,000	39
1 RRMU	13a	9	0.11		3,500					
1 RRMU	13b	9	0.23		8,000					
1 RRMU	13c	9	0.12		5,600					
1 OS	13d	9	0.60							
1 RRMU	14	9	0.62		13,000	100				
1 RRMU	23	9	0.34					22,500 Restaurant		
1 RRMU	24	9	0.73					42,028 19816 Rest; 11165 Retail; 7730 Office		
1 RRMU	25	9	0.53					38,711 21014 Restaurant; 21014 Office		
1 RRMU	26	9	0.33					28,500 14250 Retail; 14250 Office		
1 RRMU	27	9	0.65					28,043 25000 Exhibit; 3043 Retail		
1 RRMU	28	9	2.24					93,134 Exhibit		
1 RRMU	29	9	1.67					69,696 Exhibit		
1 OS	30a	9	5.07							
1 OS	30b	9	1.35							
1 OS	31a	9	2.66							
1 OS	31b	9	0.32							
1 TU	38	9	16.78							
1 OS	45	9	0.33							
Subtotal				39	101,100	100	0	322,612	43,000	39
1 RRMU	15a	10	3.33	108	65,500			100,000 1,8	40,000	36
1 OS	15b	10	0.05							
1 OS	18a	10	1.05							
1 RRMU	18b	10	0.25		38,500					
1 RRMU	20	10	1.30					56,278 Market		
1 OS	21	10	5.30							
1 RRMU	22	10	0.15					6,500 Retail		
Subtotal				108	104,000	0	0	162,778	40,000	36
2 RRMU	16a	11	1.67	263	28,000				30,000	27
2 OS	16b	11	0.07							
1 RRMU	17	11	1.48							
Subtotal				263	28,000	0	0	0	30,000	27
2 ORMU	40	12	1.93	96	38,000					
2 ORMU	44	13	1.96	227	16,500					
2 ORMU	43	14	2.56	455	12,000					
2 ORMU	46	14	2.89	164						

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				619	12,000	0	0	0	0	0
1 ORMU	41	15	2.43	160	85,000					
1 ORMU	42	16	1.19	273	6,200					
3 OS	60	17	1.12							
3 OS	61	17	0.71							
3 OS	62	17	0.92							
3 RMU	69N	17	1.64							
3 RMU	69S	17	1.21							
3 RMU	70N	17	1.10							
3 RMU	70S	17	0.88							
3 RMU	71N	17	0.77							
3 RMU	71S	17	0.84							
Subtotal				0	0	0	0	0	0	0
4 OS	63	18	0.97							
4 OS	64	18	0.89							
4 OS	65	18	0.92							
4 RMU	66N	18	0.33							
4 RMU	66S	18	1.07							
4 RMU	67N	18	1.27							
4 RMU	67S	18	1.12							
4 RMU	68N	18	1.48							
4 RMU	68S	18	1.17							
Subtotal				0	0	0	0	0	0	0
3 OS	57a	19	0.12							
3 RMU	57N	19	1.24							
3 RMU	57S	19	1.38							
3 RMU	58N	19	1.17							
3 RMU	58S	19	1.15							
3 RMU	59N	19	1.27							
3 RMU	59S	19	1.11							
Subtotal				0	0	0	0	0	0	0
4 RMU	52N	20	0.98							
4 RMU	52S	20	1.30							
4 RMU	53N	20	1.38							
4 RMU	53S	20	1.49							
4 RMU	54N	20	1.35							

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THE RAILYARDS

Land Use Distribution and Densities

Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
4 RMU	54S	20	1.68							
4 OS	54a	20	0.12							
Subtotal				0	0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Initial Phase with Maximum Residential (2030)

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
3 TU	39	21	15.34							
3 OS	34	22	1.26							
3 RMU	35	22	4.00							
Subtotal				0	0	0	0	0	0	0
4 RMU	49a	23	4.87							
1 ORMU	49b	23	0.73							
1 ORMU	49c	23	1.00							
3 OS	50	23	1.26							
Subtotal				0	0	0	0	0	0	0
4 RMU	51	24	4.70							
3 OS	72	25	10.37							
Subtotal				1,375			0			
TOTAL Max		180.39	3,526	1,219,800	600	0	485,390		491,000	447
Min			2,151				0			
Check			4,326	1,401,366		164,994				

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips^a	Non-Work Trips^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office¹	10.9%	0.2%		11.1%
Retail²	0.8%	1.4%		2.2%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^{3,c}				
AM Peak Hour	2.5%	0.7%	0.2%	3.4%
PM Peak Hour	2.1%	0.6%	0.4%	3.1%
Daily	1.5%	0.7%	0.4%	2.6%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office¹	1.5%	1.2%		2.8%
Retail²	0.1%	11.4%		11.6%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office¹	12.2%	0.3%		12.5%
Retail²	1.0%	1.7%		2.6%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	3.1%	0.8%	0.3%	4.1%
PM Peak Hour	2.6%	0.7%	0.5%	3.7%
Daily	1.9%	0.8%	0.5%	3.2%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001.
 Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 1: Bounded by South Park, Crocker, Railyards, Bercut														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%	
Residential														
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%	
High Rise Residential Condominium	337 Units	ITE (232)	1,494	24	103	127	81	49	130	19%	81%	62%	38%	
Subtotal Residential	837 Units		5,596	208	220	428	237	188	425					
Other														
Total Trips for Block			17,200	365	320	685	755	749	1,504					

Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			0	0	0	0	0	0	0					

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-537	-16	-18	-34	-21	-16	-37					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,883	-34	-30	-64	-81	-81	-162					
Internal Trips Within This Block			-2,052	-23	-23	-46	-101	-101	-201					
Trips To-From Other Blocks within the Project			-633	-17	-17	-34	-28	-28	-55					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				119	72	192	398	416	814					
Subtotal Residential				171	178	350	148	123	271					
Other				0	0	0	0	0	0					
Total				12,632	291	251	541	546	539	1,085				
New External Trips Percent of Total Project Trips				73%	80%	78%	79%	72%	72%	72%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				302	4	3	7	13	15	28				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				179	9	9	18	9	7	16				
Other				0	0	0	0	0	0	0				
Total Transit Trips				481	13	12	25	22	22	44				

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 2: Bounded by South Park, 5th, Railyards, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	595 Units	ITE (232)	2,467	38	163	201	135	83	218	19%	81%	62%	38%	
Subtotal Residential	595 Units		2,467	38	163	201	135	83	218					
Other														
Total Trips for Block			7,853	115	212	327	373	340	713					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-118	-2	-1	-3	-5	-6	-11					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-64	-1	-6	-7	-4	-3	-7					
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-182	-3	-7	-10	-9	-9	-18					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-237	-3	-13	-16	-12	-7	-19					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-862	-12	-19	-31	-39	-37	-76					
Internal Trips Within This Block			-929	-11	-11	-22	-45	-45	-90					
Trips To-From Other Blocks within the Project			-281	-8	-8	-15	-13	-13	-26					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				55	35	90	179	185	364					
Subtotal Residential				26	132	158	88	51	139					
Other				0	0	0	0	0	0					
Total				5,600	81	167	249	267	236	503				
New External Trips Percent of Total Project Trips				71%	71%	79%	76%	72%	69%	71%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				140	2	1	3	6	7	13				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				79	2	6	8	5	3	8				
Other				0	0	0	0	0	0	0				
Total Transit Trips				219	4	7	11	11	10	21				

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				

Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				

Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-482	-7	-7	-13	-23	-23	-45					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				129	81	211	428	466	895					
Subtotal Residential				0	0	0	0	0	0					
Total			9,629	129	81	211	428	466	895					
New External Trips Percent of Total Project Trips			84%	84%	82%	83%	84%	84%	84%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			297	4	3	7	13	15	28					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0					
Total Transit Trips			297	4	3	7	13	15	28					

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 5: Bounded by Railyards, Crocker, Camille, Huntington														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	165 Units	ITE (232)	846	15	62	77	45	27	72	19%	81%	62%	38%	
Subtotal Residential	165 Units		846	15	62	77	45	27	72					
Other														
Total Trips for Block			8,325	119	129	248	376	386	762					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-81	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-949	-13	-13	-26	-42	-44	-86					
Internal Trips Within This Block			-544	-13	-13	-25	-26	-26	-52					
Trips To-From Other Blocks within the Project			-326	-6	-6	-11	-15	-15	-30					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				79	52	130	267	290	557					
Subtotal Residential				9	46	55	26	11	37					
Total			6,506	88	98	185	293	301	594					
New External Trips Percent of Total Project Trips			78%	74%	76%	75%	78%	78%	78%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			194	2	2	4	9	9	18					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			27	1	2	3	2	1	3					
Total Transit Trips			221	3	4	7	11	10	21					

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 6: Bounded by Railyards, 5th, Camille, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	281 Units	ITE (232)	1,283	21	89	110	69	42	111	19%	81%	62%	38%	
Subtotal Residential	281 Units		1,283	21	89	110	69	42	111					
Other														
Total Trips for Block			8,928	128	157	285	408	409	817					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-168	-2	-2	-4	-8	-8	-16					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-33	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-201	-3	-5	-8	-10	-9	-19					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-123	-2	-7	-9	-6	-4	-10					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,010	-14	-15	-29	-45	-47	-92					
Internal Trips Within This Block			-801	-14	-14	-28	-39	-39	-77					
Trips To-From Other Blocks within the Project			-330	-6	-6	-13	-15	-15	-30					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				79	50	129	260	283	543					
Subtotal Residential				11	67	78	39	16	55					
Total				6,586	91	117	207	299	299	599				
New External Trips Percent of Total Project Trips				74%	71%	74%	73%	73%	73%	73%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				199	3	2	5	9	9	18				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				41	1	4	5	2	2	4				
Total Transit Trips				240	4	6	10	11	11	22				

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 7: Bounded by Railyards, 6th, Camille, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	363 Units	ITE (232)	1,592	25	109	134	86	53	139	19%	81%	62%	38%	
Subtotal Residential	363 Units		1,592	25	109	134	86	53	139					
Other														
Total Trips for Block			7,077	104	159	263	328	315	643					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-121	-2	-1	-3	-5	-6	-11					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-41	-1	-4	-5	-2	-2	-4					
Other														
Total Transit Adjustments			-162	-3	-5	-8	-7	-8	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-153	-2	-9	-11	-7	-5	-12					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-789	-11	-15	-26	-35	-35	-70					
Internal Trips Within This Block			-887	-11	-11	-23	-43	-43	-85					
Trips To-From Other Blocks within the Project			-250	-6	-6	-12	-11	-11	-23					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				57	36	93	182	193	374					
Subtotal Residential				15	86	101	50	25	75					
Total			4,989	73	122	194	232	218	450					
New External Trips Percent of Total Project Trips			70%	70%	77%	74%	71%	69%	70%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			143	2	1	3	6	7	13					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			51	1	4	5	3	2	5					
Total Transit Trips			194	3	5	8	9	9	18					

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	43.0 KSF	ITE (710)	696	84	11	95	22	105	127	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	39 Units	ITE (232)	163	3	11	13	9	6	15	19%	81%	62%	38%
Subtotal Residential	139 Units		685	28	27	54	40	34	74				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,347	604	459	1,062	860	964	1,824				
Transit Adjustments													
Office (-11.1%)			-77	-10	-1	-11	-2	-12	-14				
Retail (-2.2%)			-354	-11	-9	-20	-17	-15	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-18	-1	-1	-2	-1	-1	-2				
Other (Museum Exhibit Space) (-11.1%)			-208	0	0	0	-1	-5	-6				
Total Transit Adjustments			-657	-22	-11	-33	-21	-33	-54				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-19	-3	0	-3	-1	-3	-4				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-66	-2	-2	-4	-3	-3	-6				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,004	-62	-51	-113	-95	-87	-181				
Internal Trips Within This Block			-661	-34	-34	-68	-47	-47	-94				
Trips To-From Other Blocks within the Project			-765	-25	-25	-49	-36	-36	-72				
New External Trips													
Office (General Office Building)				57	7	64	12	71	83				
Retail & Restaurant (see footnote)				388	322	711	610	518	1,127				
Subtotal Residential				16	10	26	22	12	35				
Other (Museum Exhibit Space)				0	0	0	17	159	177				
Total			15,260	461	339	799	661	760	1,422				
New External Trips Percent of Total Project Trips			79%	76%	74%	75%	77%	79%	78%				
Transit Trips													
Office (12.5%)			87	11	1	12	3	13	16				
Retail (2.6%)			418	13	11	24	20	17	37				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			22	1	1	2	2	1	3				
Other (Museum Exhibit Space) (12.5%)			235	0	0	0	2	21	23				
Total Transit Trips			762	25	13	38	27	52	79				

Footnote:

Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469					
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	108 Units	ITE (232)	631	11	49	60	32	20	52	19%	81%	62%	38%	
Subtotal Residential	108 Units		631	11	49	60	32	20	52					
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36				50%	50%
Total Trips for Block			16,214	234	222	456	761	796	1,557					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-335	-5	-4	-9	-15	-17	-32					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-16	0	-2	-2	-1	-1	-2					
Other (Performing Arts) (-11.1%)			-40	0	0	0	-1	-1	-1					
Total Transit Adjustments			-391	-5	-6	-11	-17	-19	-35					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-61	-1	-4	-5	-2	-2	-4					
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,837	-27	-24	-51	-85	-91	-175					
Internal Trips Within This Block			-393	-20	-20	-41	-18	-18	-36					
Trips To-From Other Blocks within the Project			-649	-10	-10	-21	-32	-32	-63					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail & Market (see footnote)			165	138	303	575	613	1,188						
Subtotal Residential			6	23	30	19	7	26						
Other (Performing Arts)			0	0	0	16	16	34						
Total			12,944	172	161	332	609	636	1,248					
New External Trips Percent of Total Project Trips			80%	73%	73%	73%	80%	80%	80%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			396	6	4	10	18	20	38					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			20	0	2	2	1	1	2					
Other (Performing Arts) (12.5%)			45	0	0	0	3	3	5					
Total Transit Trips			461	6	6	12	22	24	45					

Footnote:

Retail & Market														
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%	
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%	
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%	

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 11: Bounded by Camille, 6th, Rail Lines, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	263 Units	ITE (232)	1,215	20	85	105	65	40	105	19%	81%	62%	38%	
Subtotal Residential	263 Units		1,215	20	85	105	65	40	105					
Other														
Total Trips for Block			4,184	65	113	178	195	180	375					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-65	-1	-1	-2	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-32	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-97	-2	-4	-6	-5	-4	-9					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-117	-2	-6	-8	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-461	-7	-9	-16	-21	-19	-40					
Internal Trips Within This Block			-512	-6	-6	-13	-25	-25	-49					
Trips To-From Other Blocks within the Project			-149	-4	-4	-8	-7	-7	-13					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				33	20	53	97	101	199					
Subtotal Residential				13	69	82	40	24	65					
Total			2,965	45	89	135	138	126	263					
New External Trips Percent of Total Project Trips			71%	70%	79%	76%	71%	70%	70%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			77	1	1	2	3	4	7					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			39	1	3	4	2	2	4					
Total Transit Trips			116	2	4	6	5	6	11					

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 12: Bounded by Rail Lines, 5th, I Street, LRT														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	96 Units	ITE (232)	401	6	26	33	23	14	36	19%	81%	62%	38%	
Subtotal Residential	96 Units		401	6	26	33	23	14	36					
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%	
Total Trips for Block			4,022	60	60	121	182	186	367					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-80	-1	-1	-2	-3	-4	-7					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-10	0	-1	-1	-1	0	-1					
Other (-11.1%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-90	-1	-2	-3	-4	-4	-8					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-39	-1	-2	-3	-2	-1	-3					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-459	-7	-6	-13	-20	-21	-41					
Internal Trips Within This Block			-250	-6	-6	-12	-13	-13	-26					
Trips To-From Other Blocks within the Project			-154	-3	-3	-5	-7	-7	-14					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				40	26	66	125	135	260					
Subtotal Residential				3	18	21	13	6	18					
Other				0	0	0	0	0	0					
Total				3,070	44	44	88	138	141	278				
New External Trips Percent of Total Project Trips				76%	73%	73%	73%	76%	76%	76%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				94	1	1	2	4	5	9				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				13	0	1	1	1	0	1				
Other (12.5%)				0	0	0	0	0	0	0				
Total Transit Trips				107	1	2	3	5	5	10				

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 13: Bounded by Rail Lines, 6th, G, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	227 Units	ITE (232)	1,079	18	77	95	58	35	93	19%	81%	62%	38%	
Subtotal Residential	227 Units		1,079	18	77	95	58	35	93					
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%	
Total Trips for Block			4,474	308	163	471	215	392	607					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-46	-1	0	-1	-2	-2	-4					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-28	-1	-2	-3	-2	-1	-3					
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11					
Total Transit Adjustments			-217	-11	-4	-15	-6	-12	-18					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-104	-2	-6	-8	-5	-3	-8					
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-384	-13	-10	-23	-18	-21	-39					
Internal Trips Within This Block			-363	-5	-5	-9	-17	-17	-35					
Trips To-From Other Blocks within the Project			-167	-12	-12	-25	-12	-12	-25					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				17	14	31	64	67	131					
Subtotal Residential				8	57	65	36	21	56					
Other (Transit)				242	61	303	61	242	303					
Total				3,342	267	132	398	161	329	490				
New External Trips Percent of Total Project Trips				75%	87%	81%	85%	75%	84%	81%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				55	1	0	1	2	3	5				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				35	1	3	4	2	1	3				
Other (Transit) (12.5%)				161	32	8	40	8	32	40				
Total Transit Trips				251	34	11	45	12	36	48				

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 14: Bounded by Rail Lines, 7th, G, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	619 Units	ITE (232)	2,557	40	168	208	140	86	226	19%	81%	62%	38%	
Subtotal Residential	619 Units		2,557	40	168	208	140	86	226					
Other														
Total Trips for Block			4,269	67	185	252	214	166	380					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-38	-1	0	-1	-1	-2	-3					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-66	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-104	-2	-6	-8	-5	-5	-10					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-245	-3	-13	-16	-12	-7	-19					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-444	-6	-15	-21	-21	-16	-37					
Internal Trips Within This Block			-295	-4	-4	-8	-14	-14	-28					
Trips To-From Other Blocks within the Project			-163	-6	-6	-13	-7	-7	-15					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				18	13	31	56	57	113					
Subtotal Residential				30	141	172	111	66	177					
Total				3,262	49	154	203	167	124	290				
New External Trips Percent of Total Project Trips				76%	73%	83%	80%	78%	74%	76%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				45	1	0	1	2	2	4				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				82	2	7	9	5	3	8				
Total Transit Trips				127	3	7	10	7	5	12				

Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 15: Bounded by G, 6th, H, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	160 Units	ITE (232)	827	14	61	75	43	27	70	19%	81%	62%	38%	
Subtotal Residential	160 Units		827	14	61	75	43	27	70					
Other														
Total Trips for Block			6,937	101	116	217	313	319	632					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-134	-2	-1	-3	-6	-6	-12					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-22	-1	-2	-3	-1	-1	-2					
Other														
Total Transit Adjustments			-156	-3	-3	-6	-7	-7	-14					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-79	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-788	-11	-11	-22	-35	-36	-71					
Internal Trips Within This Block			-515	-10	-10	-21	-25	-25	-49					
Trips To-From Other Blocks within the Project			-261	-5	-5	-10	-12	-12	-24					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				64	42	106	210	229	439					
Subtotal Residential				8	45	52	25	10	35					
Total				5,216	72	87	158	234	239	474				
New External Trips Percent of Total Project Trips				75%	71%	75%	73%	75%	75%	75%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				159	2	2	4	7	8	15				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				26	1	2	3	2	1	3				
Total Transit Trips				185	3	4	7	9	9	18				

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 16: Bounded by G, 7th, Property Boundary, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	273 Units	ITE (232)	1,253	21	87	108	67	41	108	19%	81%	62%	38%	
Subtotal Residential	273 Units		1,253	21	87	108	67	41	108					
Other														
Total Trips for Block			2,367	39	99	138	115	93	208					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-25	-1	0	-1	-1	-1	-2					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-33	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-58	-2	-3	-5	-3	-2	-5					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-120	-2	-7	-9	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-249	-4	-8	-12	-12	-9	-21					
Internal Trips Within This Block			-192	-3	-3	-5	-9	-9	-18					
Trips To-From Other Blocks within the Project			-89	-3	-3	-7	-4	-4	-8					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				12	9	21	36	37	73					
Subtotal Residential				15	73	88	51	32	83					
Total				1,779	27	82	109	87	69	156				
New External Trips Percent of Total Project Trips				75%	69%	83%	79%	76%	74%	75%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				29	1	0	1	1	2	3				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				40	1	3	4	2	2	4				
Total Transit Trips				69	2	3	5	3	4	7				

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-11.1%)			0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####				
Transit Trips													
Office (12.5%)			0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)				#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)				#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential				#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)				#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)				#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential				#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 21: SITF Site
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 21: SITF Site														
Office (General Office Building)	KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	Units		0	0	0	0	0	0	0	0				
Other (Transit)	Prkng	ITE(093)	0	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other (Transit) (-11.1%)			0	0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			0	0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####				
Other (Transit)			0	0	0	0	0	0	0	0				
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####				
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Other (Transit) (12.5%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-11.1%)			0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential				#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips													
Office (12.5%)			0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0	0				
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0	0				
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

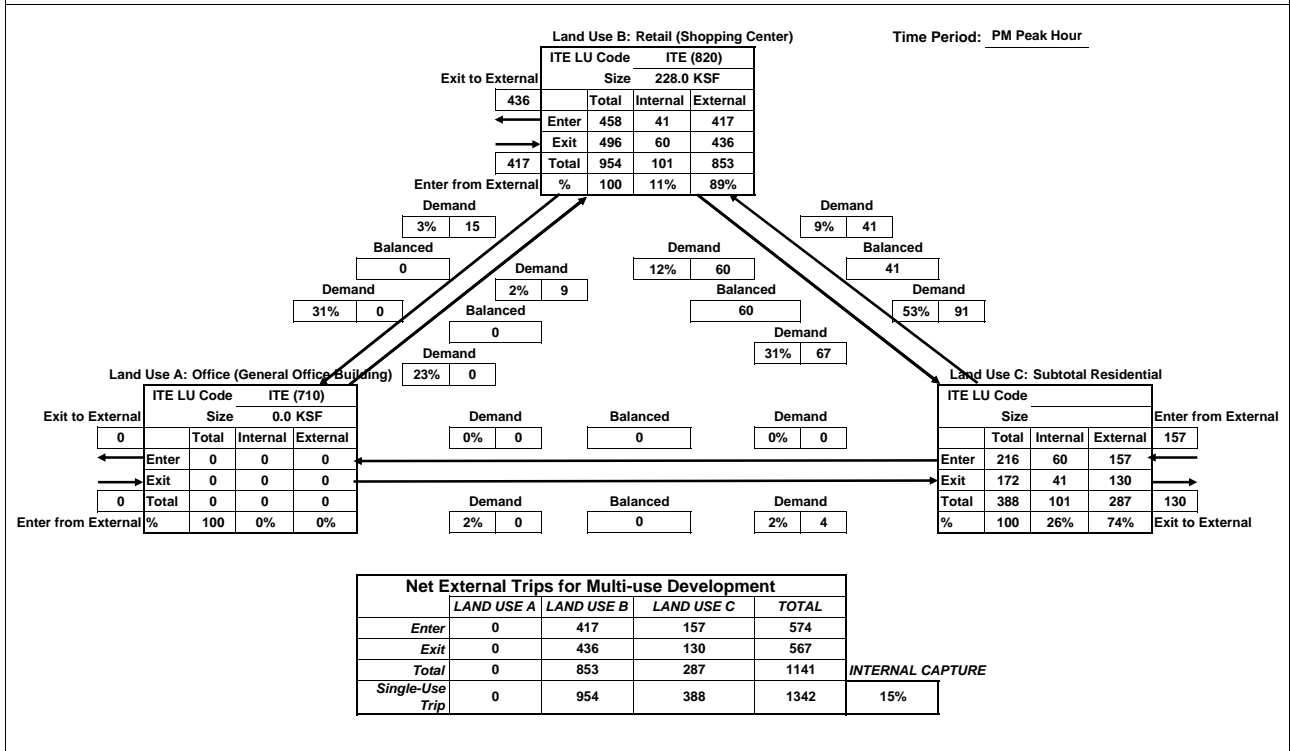
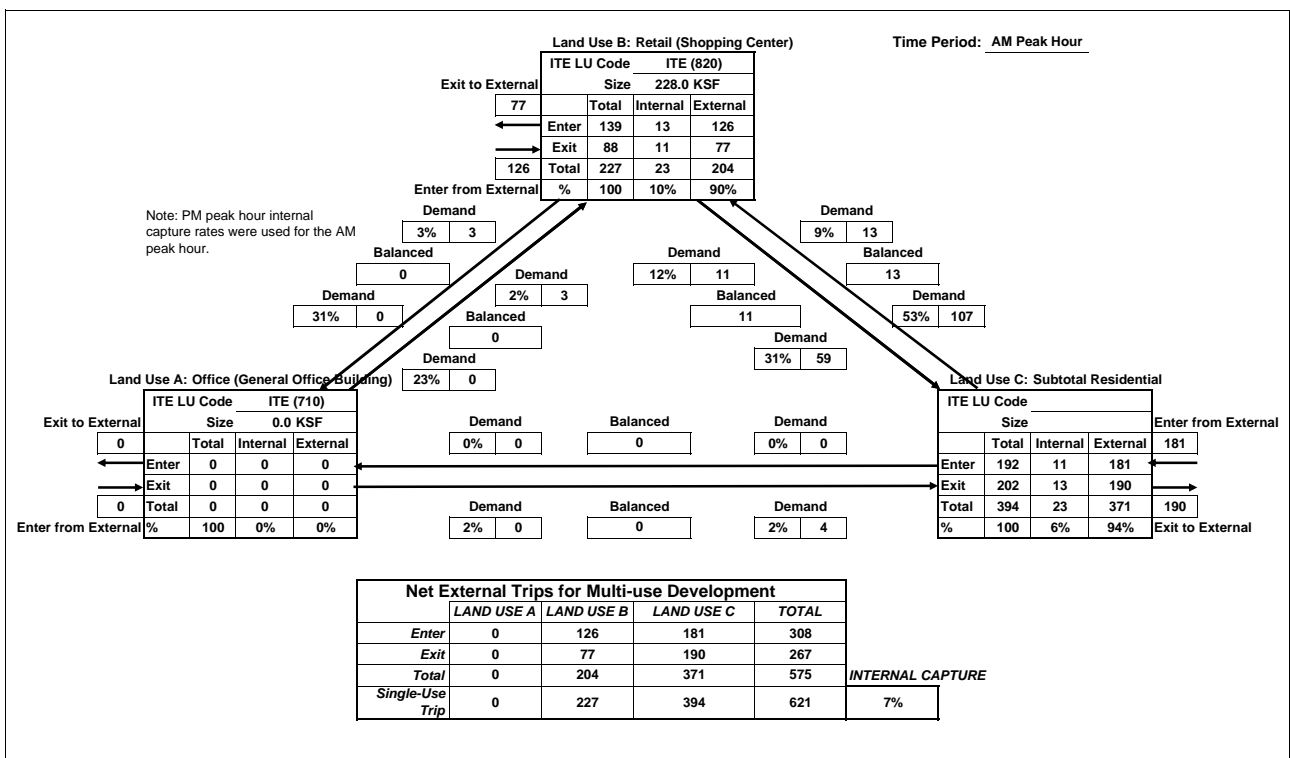
Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Initial Phase with Maximum Residential (2030)

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 24: Bounded by Property Boundary, Railyards, N. 10th													
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			0	0	0	0	0	0	0				
Transit Adjustments													
Office (-11.1%)			0	0	0	0	0	0	0				
Retail (-2.2%)			0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			0	0	0	0	0	0	0				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0				
New External Trips													
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####				
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####				
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####				
Total			0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####				
Transit Trips													
Office (12.5%)			0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0				

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



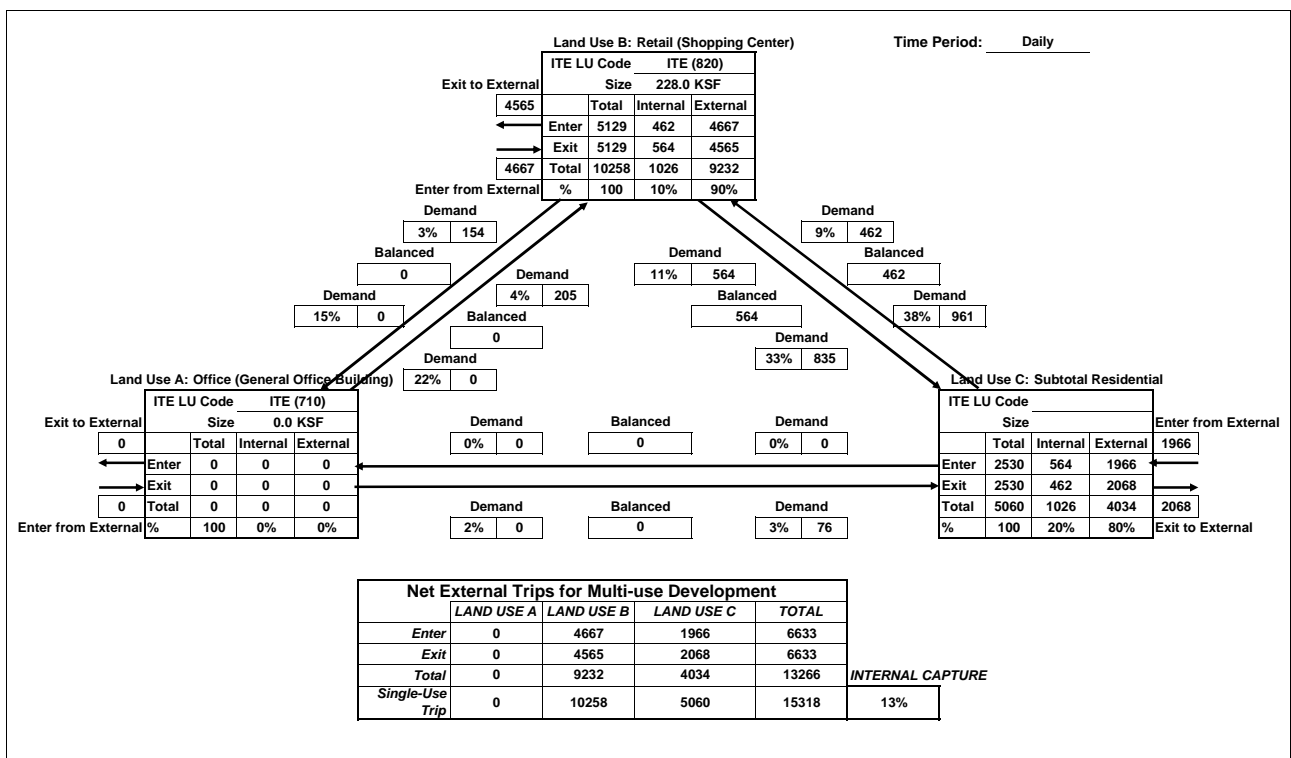
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

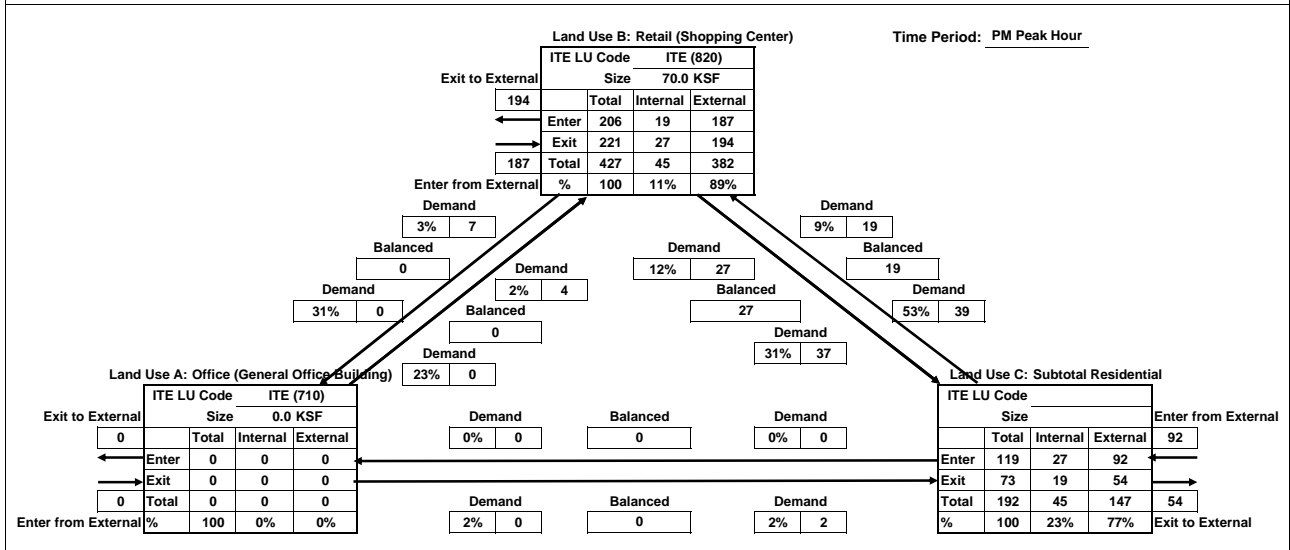
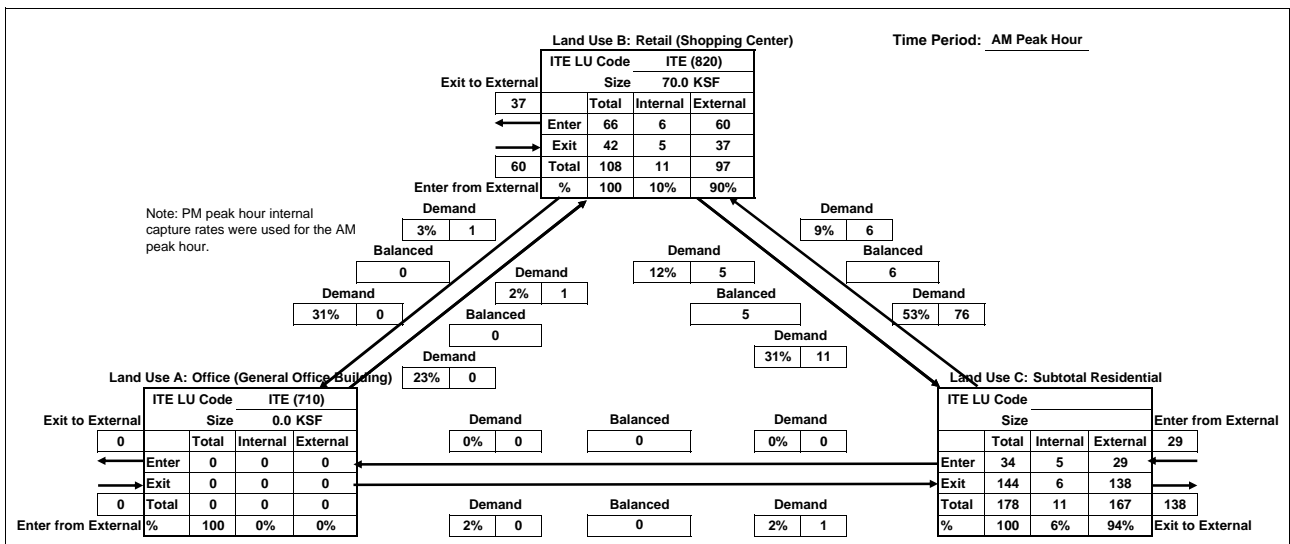
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



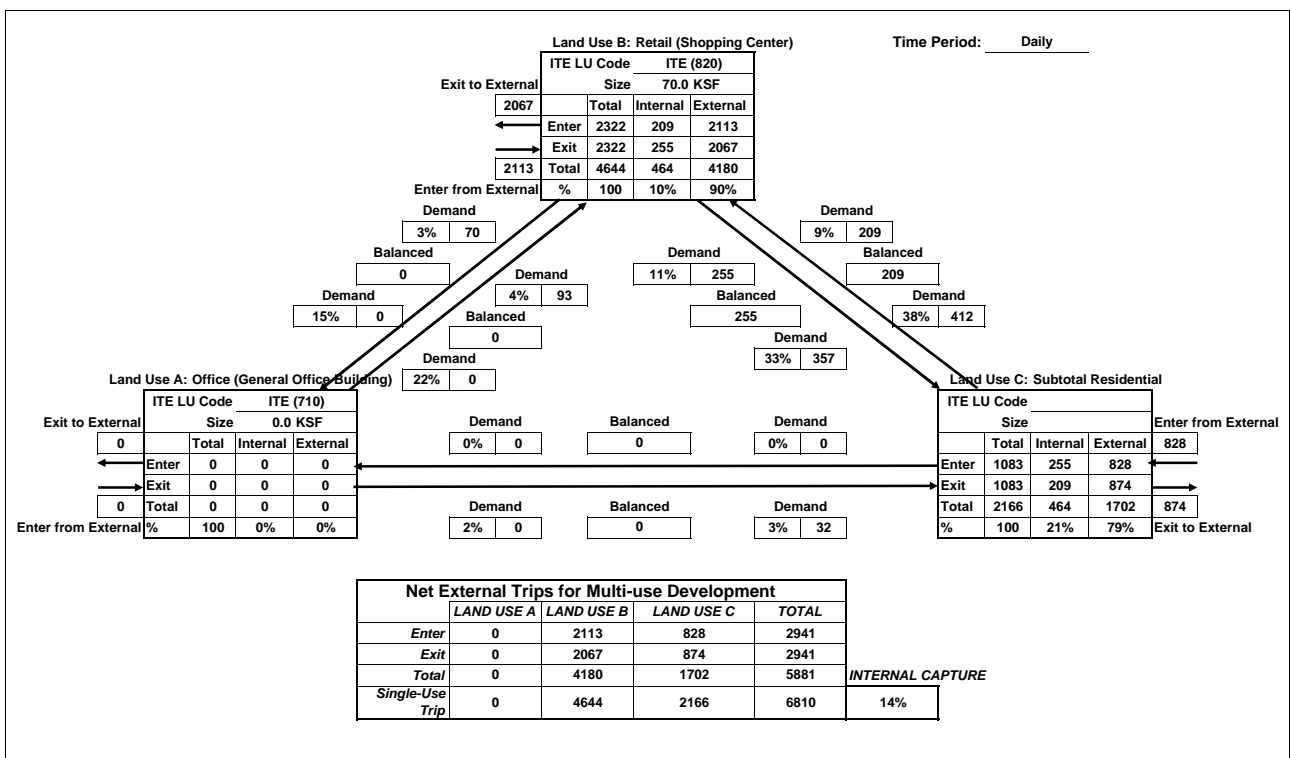
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

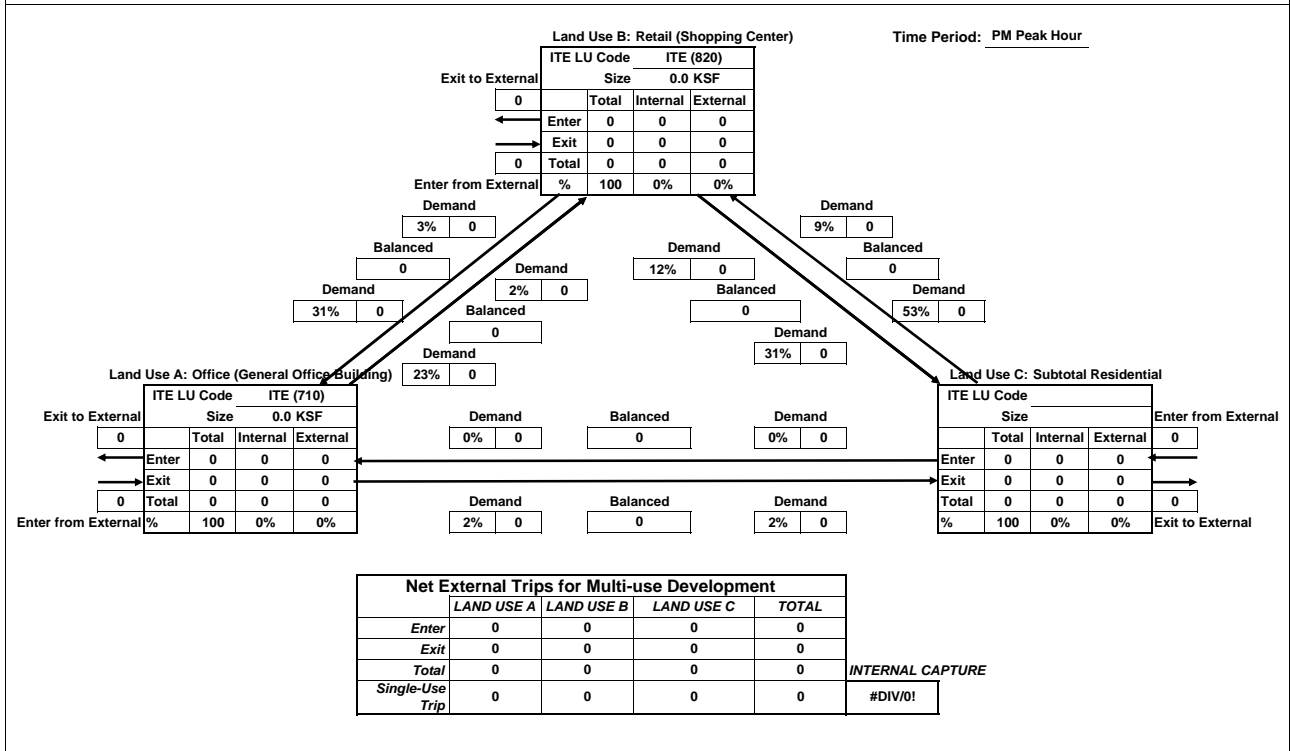
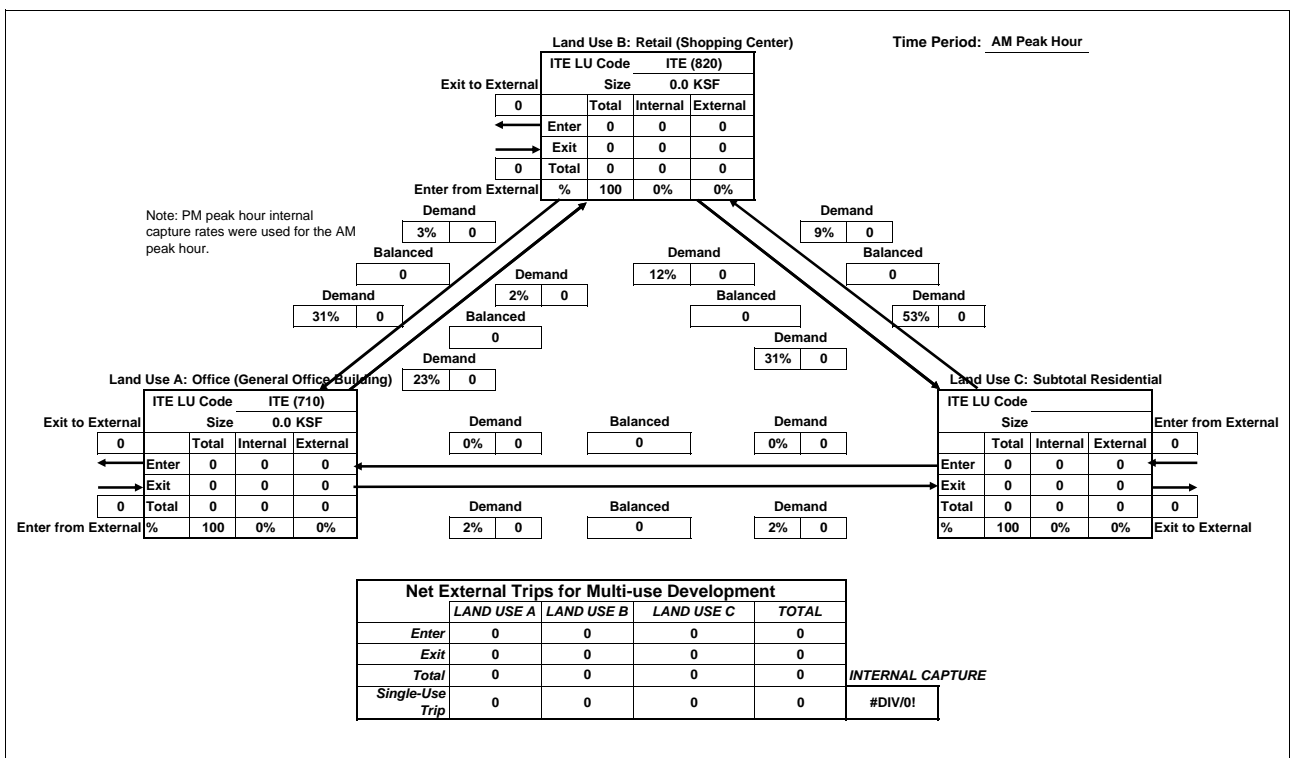


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



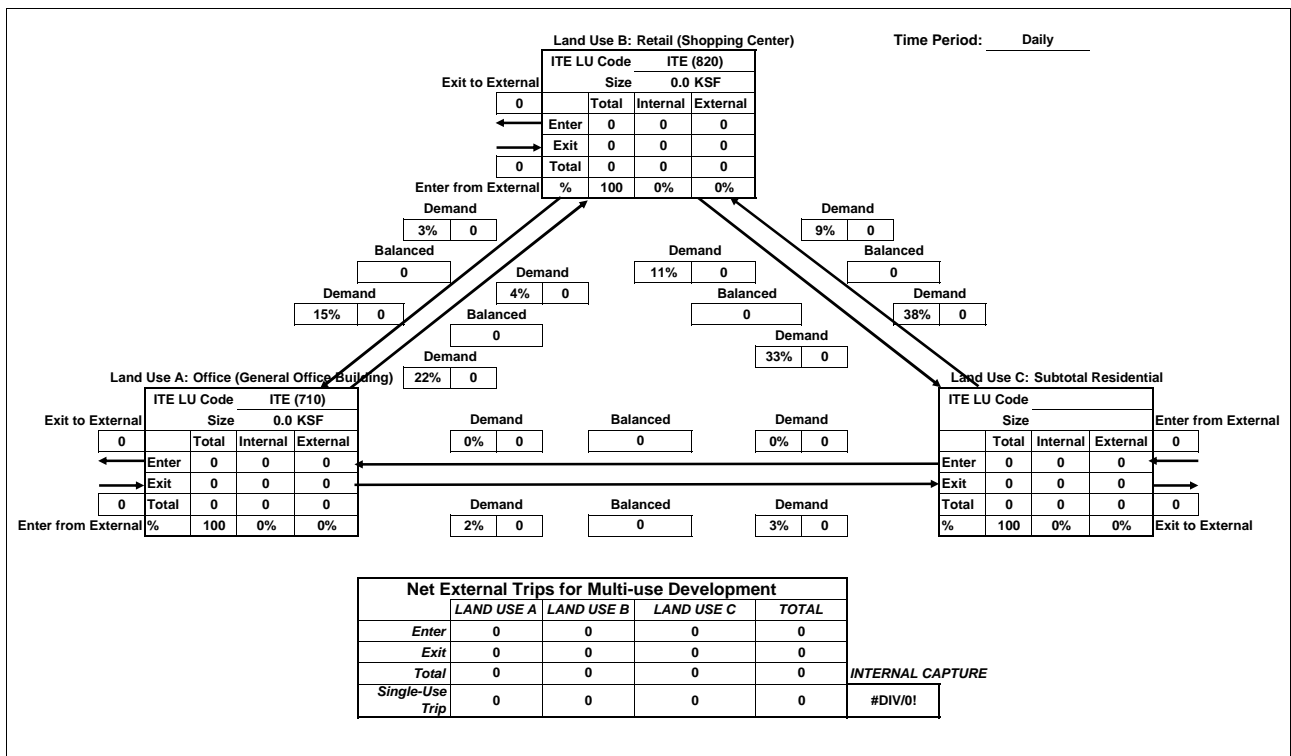
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

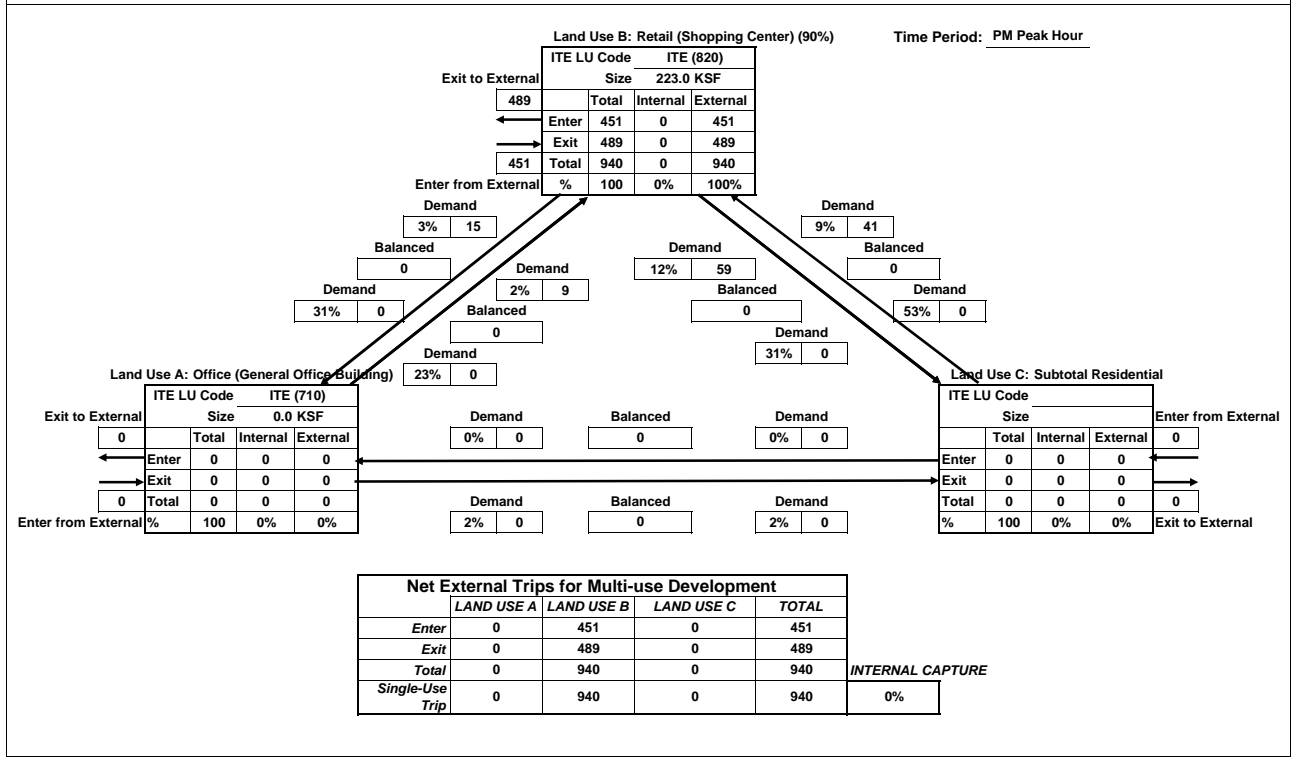
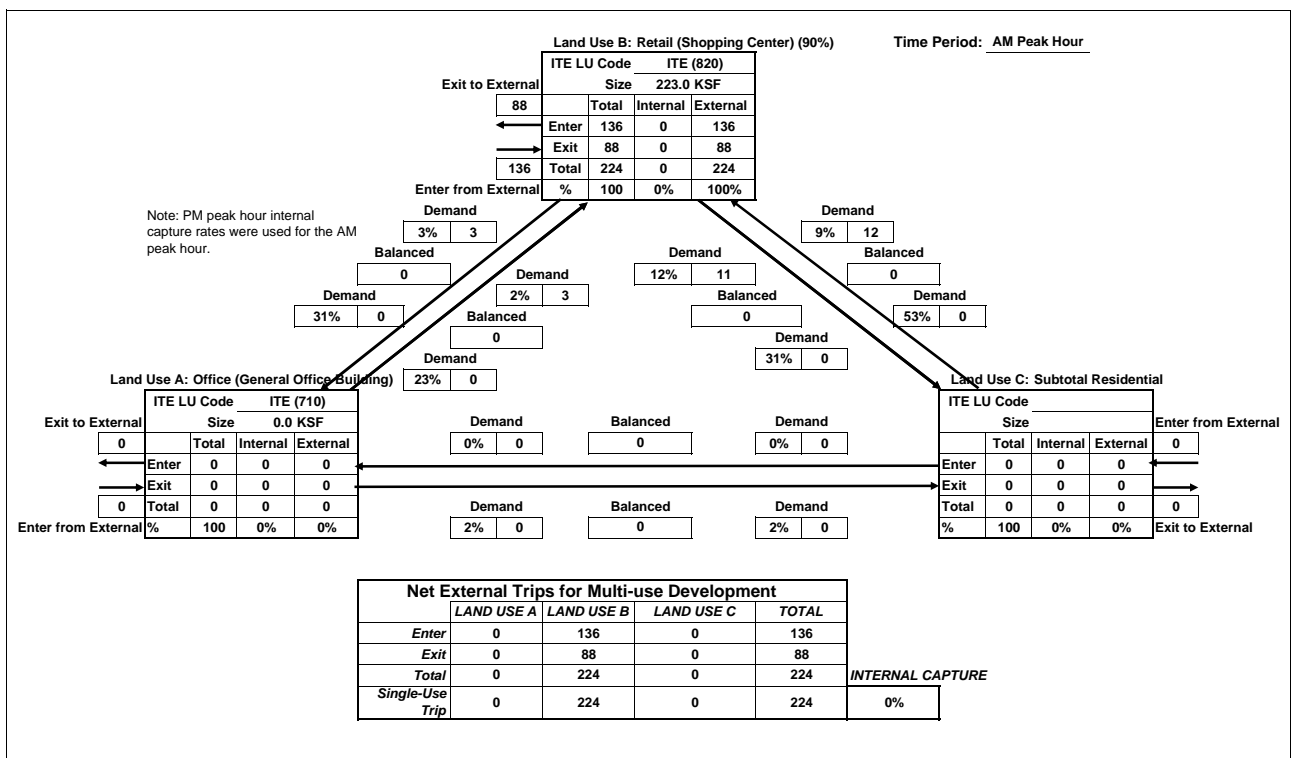
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



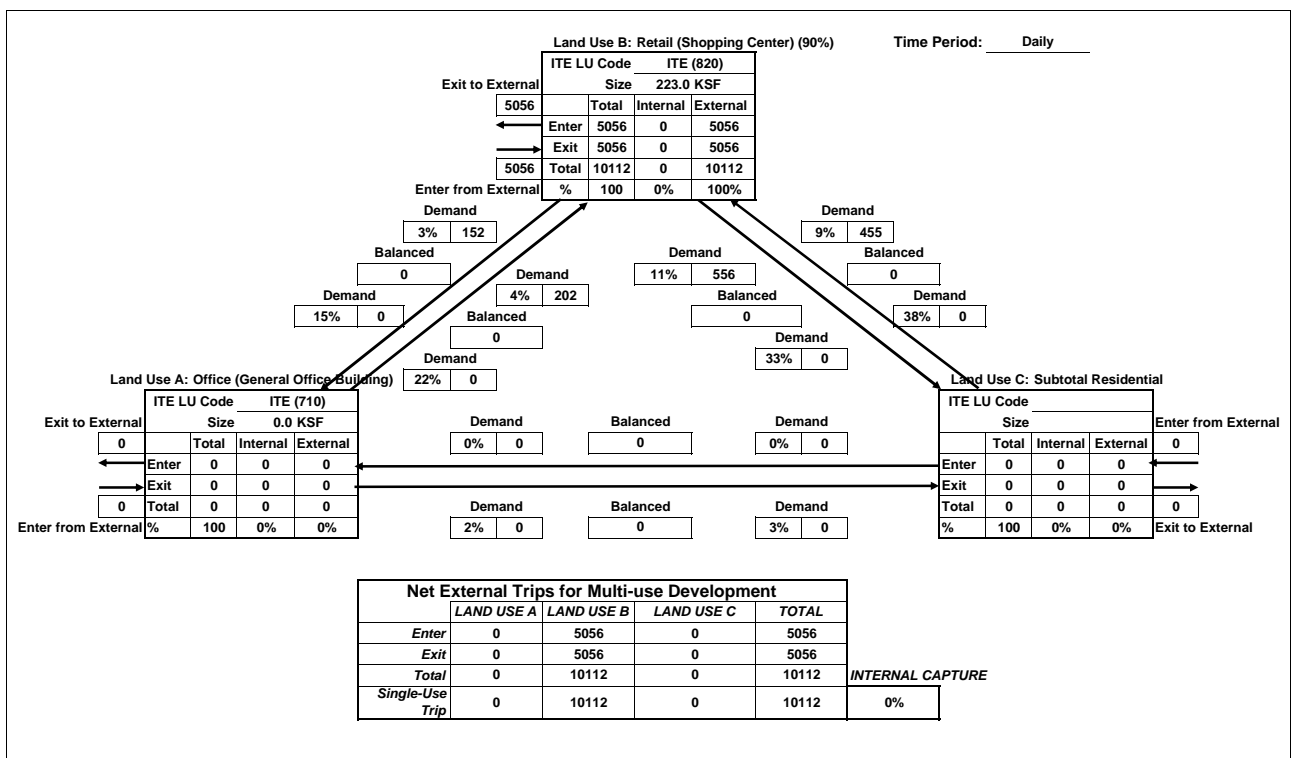
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

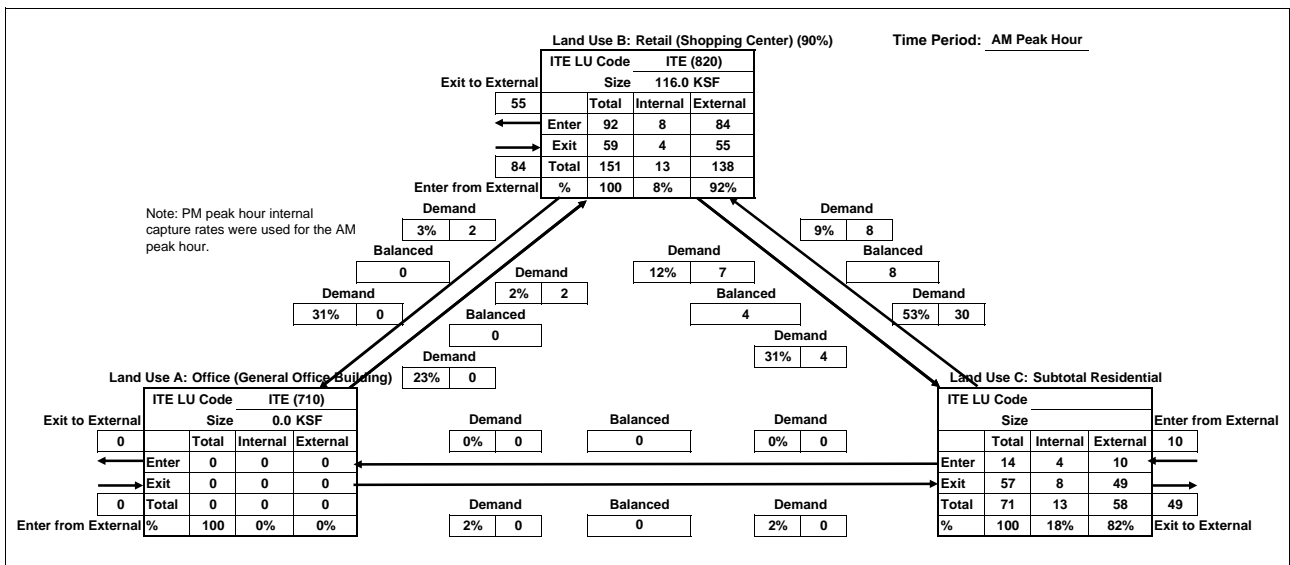
Time Period: Daily



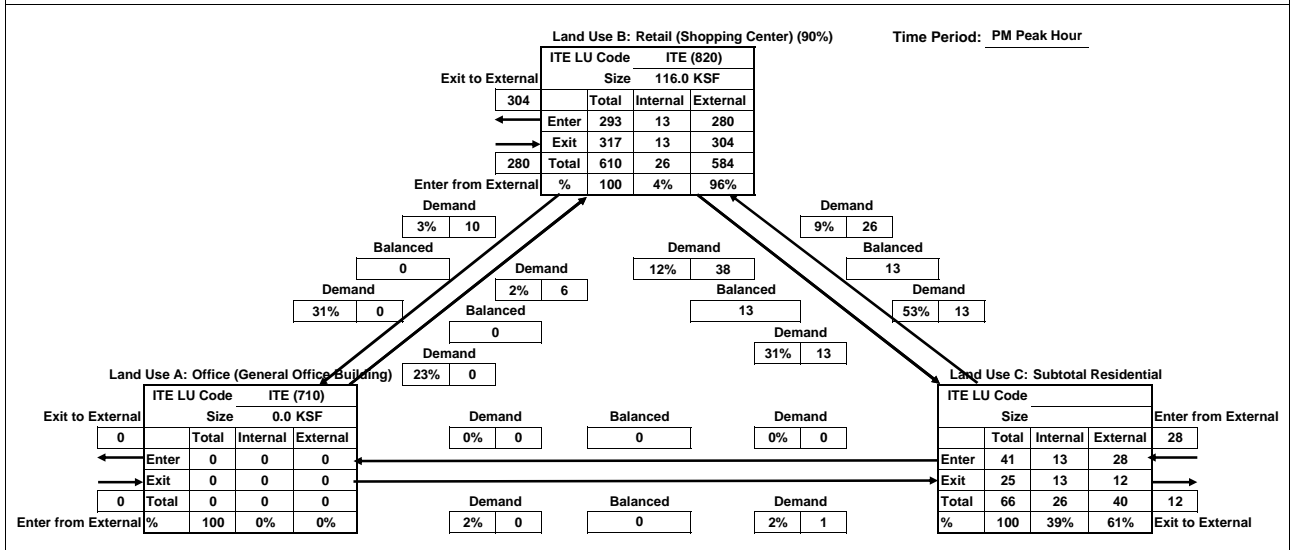
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	84	10	93	
Exit	0	55	49	103	
Total	0	138	58	197	INTERNAL CAPTURE
Single-Use Trip	0	151	71	222	11%



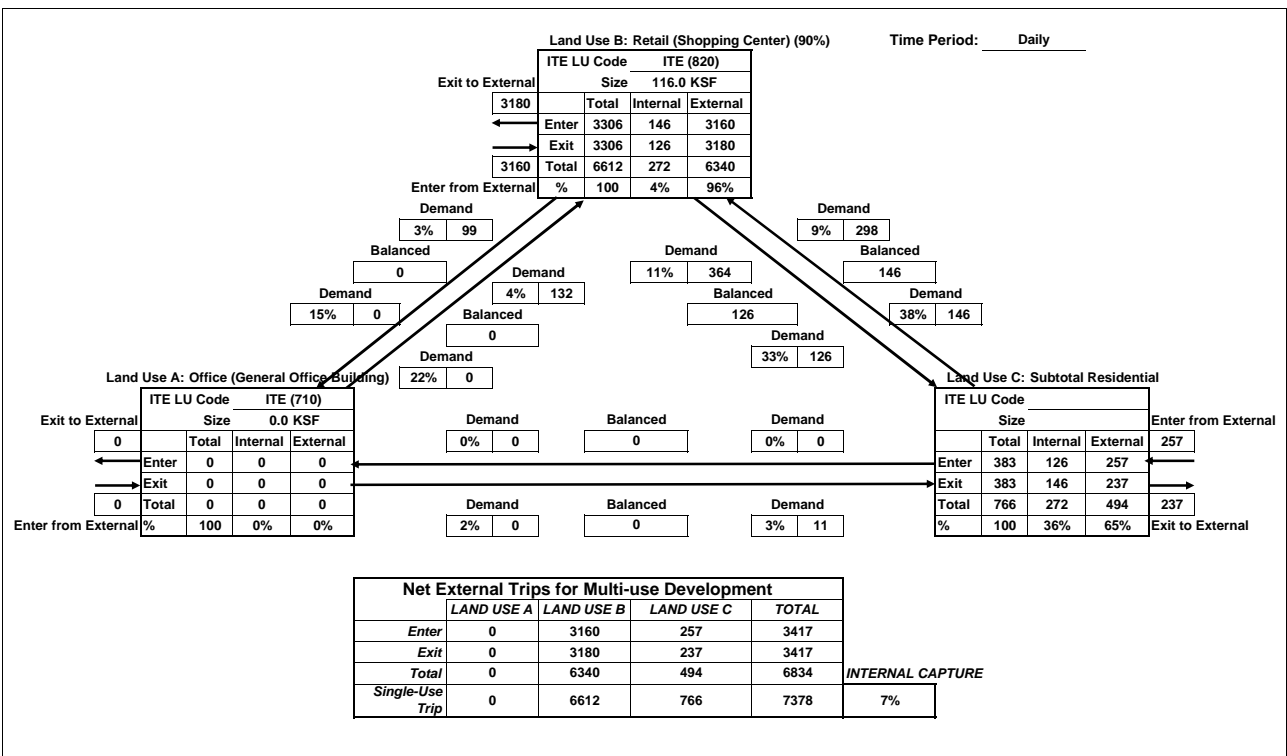
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	280	28	308	
Exit	0	304	12	316	
Total	0	584	40	624	INTERNAL CAPTURE
Single-Use Trip	0	610	66	676	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

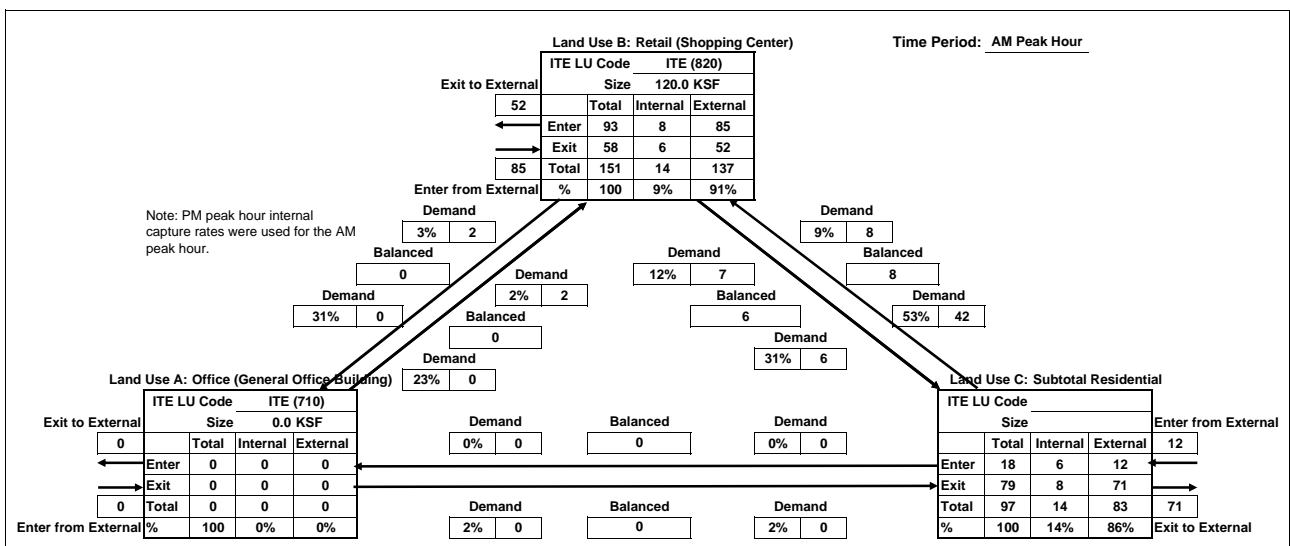


Analyst: Dowling

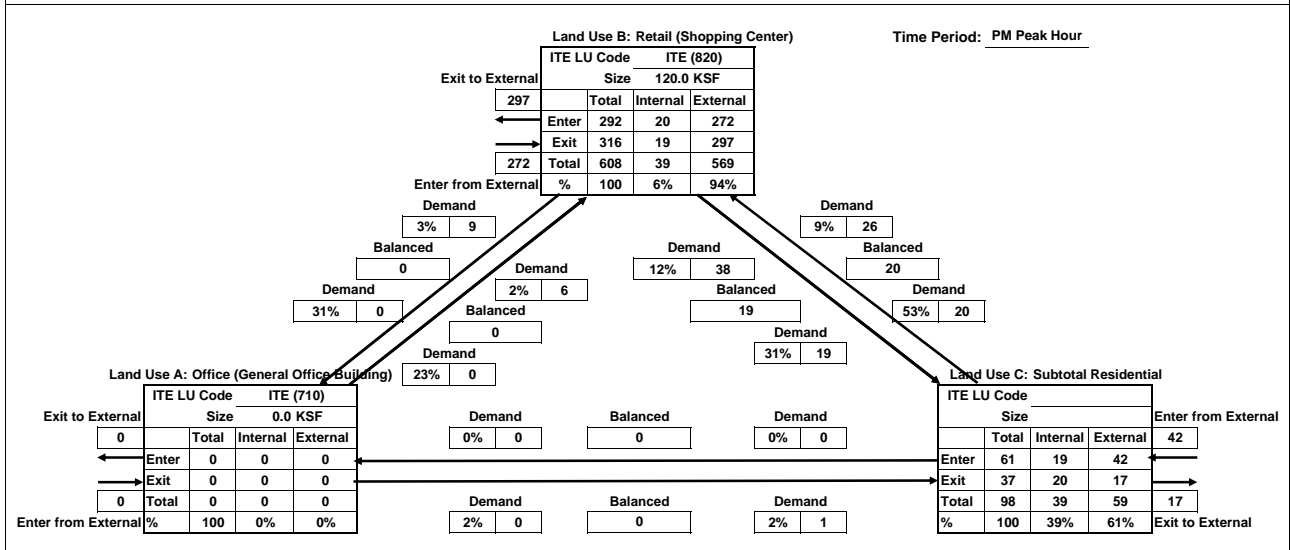
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	85	12	97	
Exit	0	52	71	123	
Total	0	137	83	220	INTERNAL CAPTURE
Single-Use Trip	0	151	97	248	11%



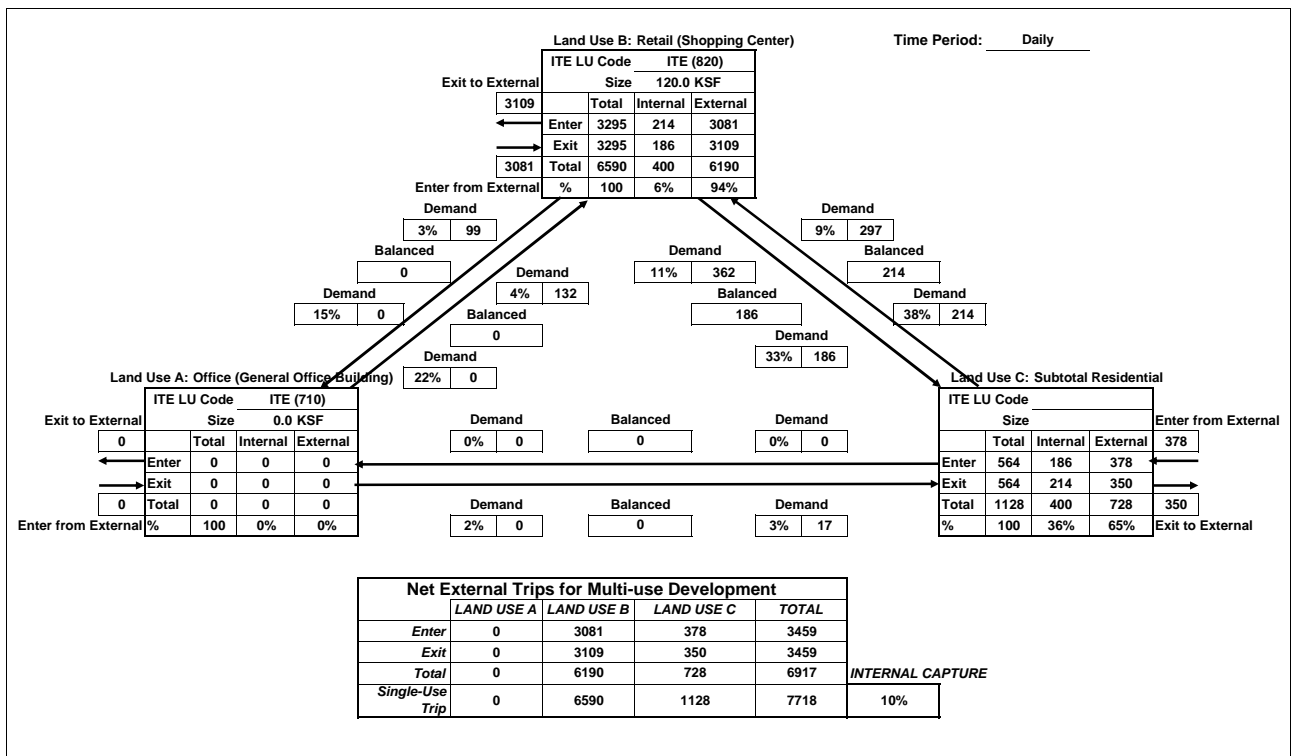
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	272	42	314	
Exit	0	297	17	314	
Total	0	569	59	629	INTERNAL CAPTURE
Single-Use Trip	0	608	98	706	11%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

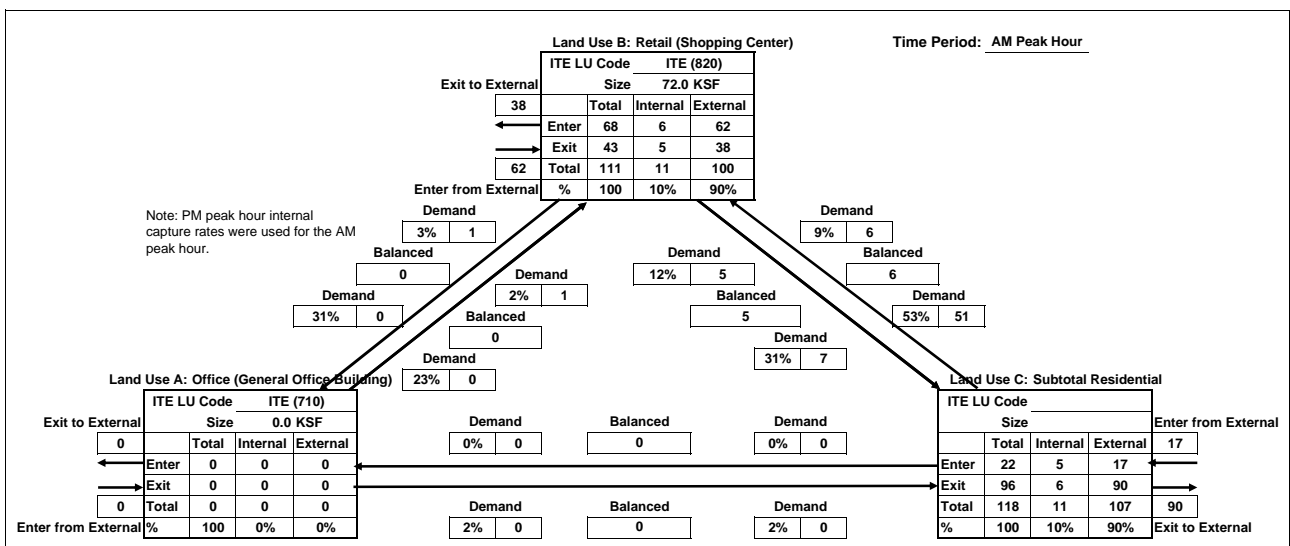


Analyst: Dowling

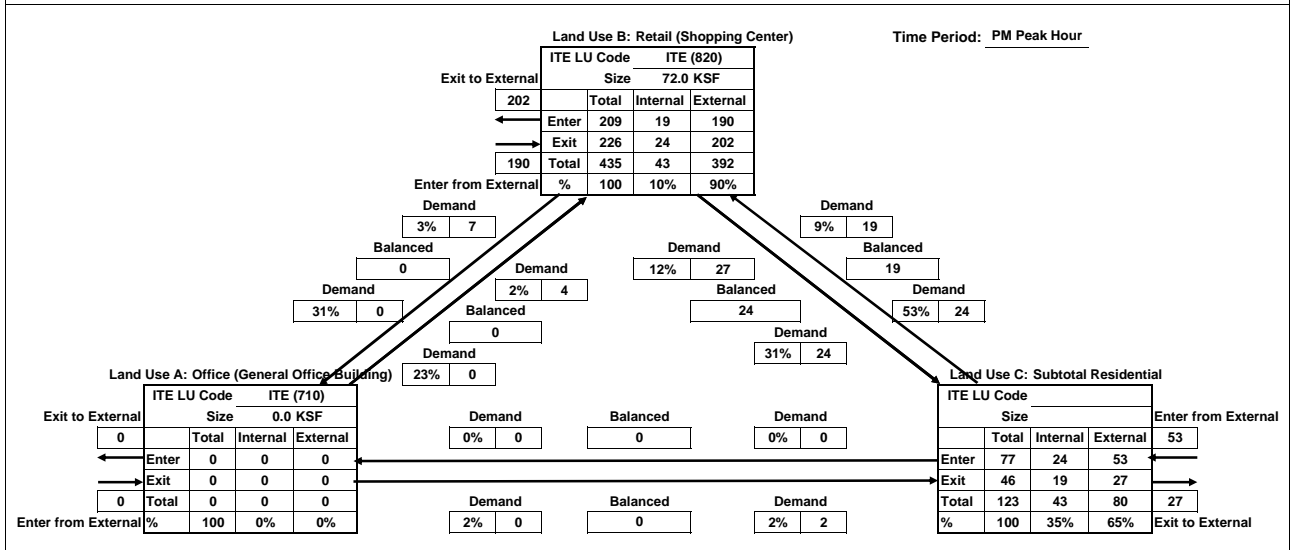
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	62	17	79	
Exit	0	38	90	128	
Total	0	100	107	206	INTERNAL CAPTURE
Single-Use Trip	0	111	118	229	10%



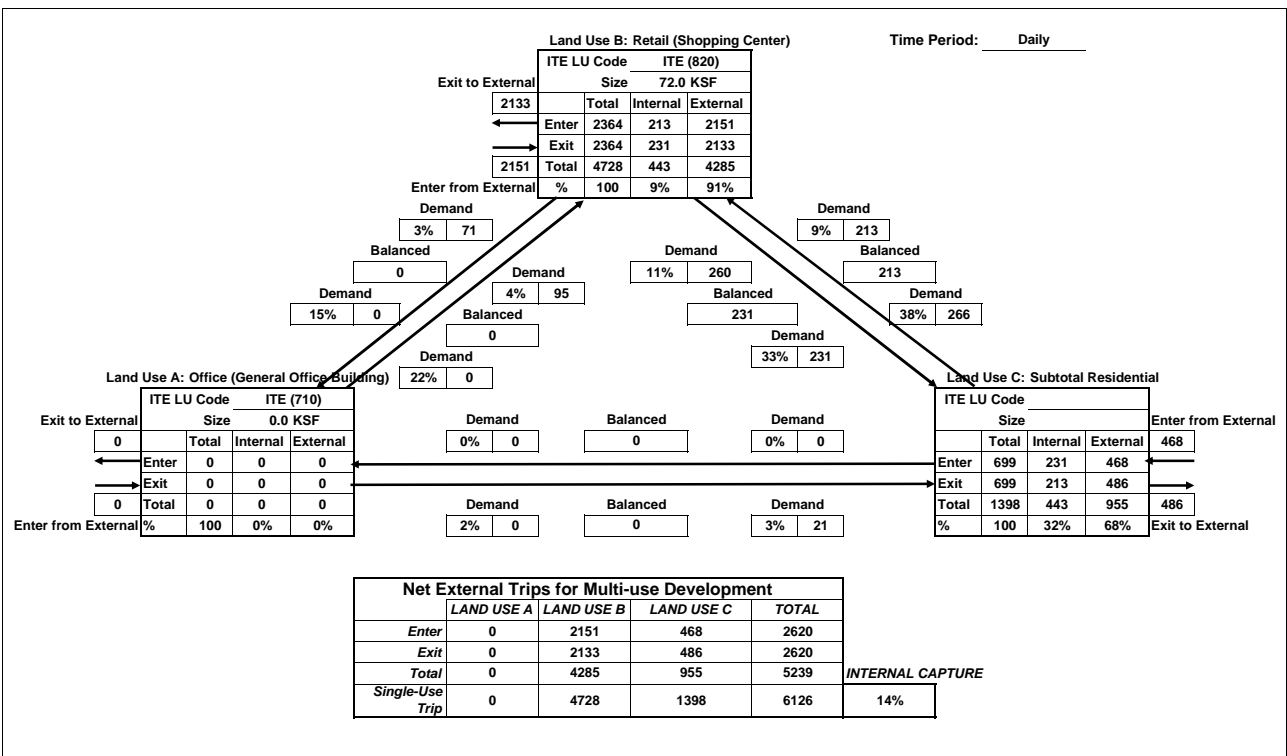
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	190	53	243	
Exit	0	202	27	229	
Total	0	392	80	473	INTERNAL CAPTURE
Single-Use Trip	0	435	123	558	15%

Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

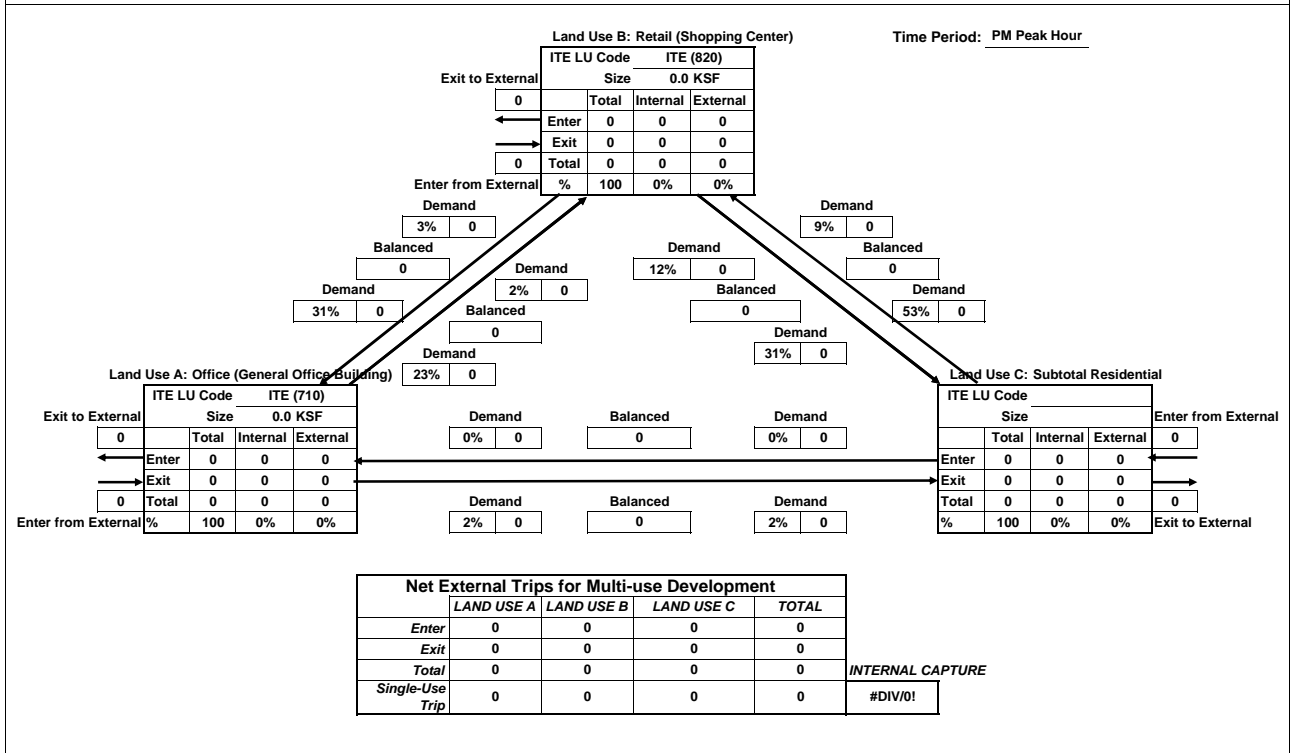
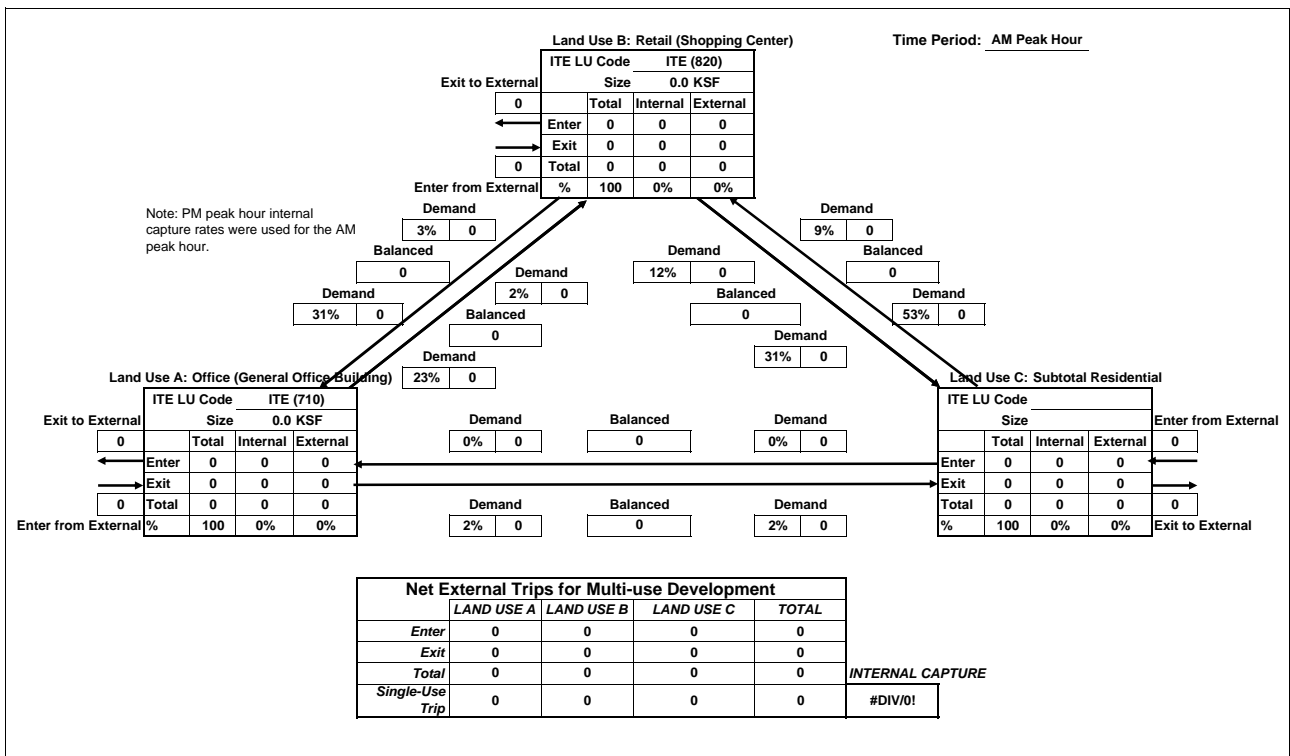


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



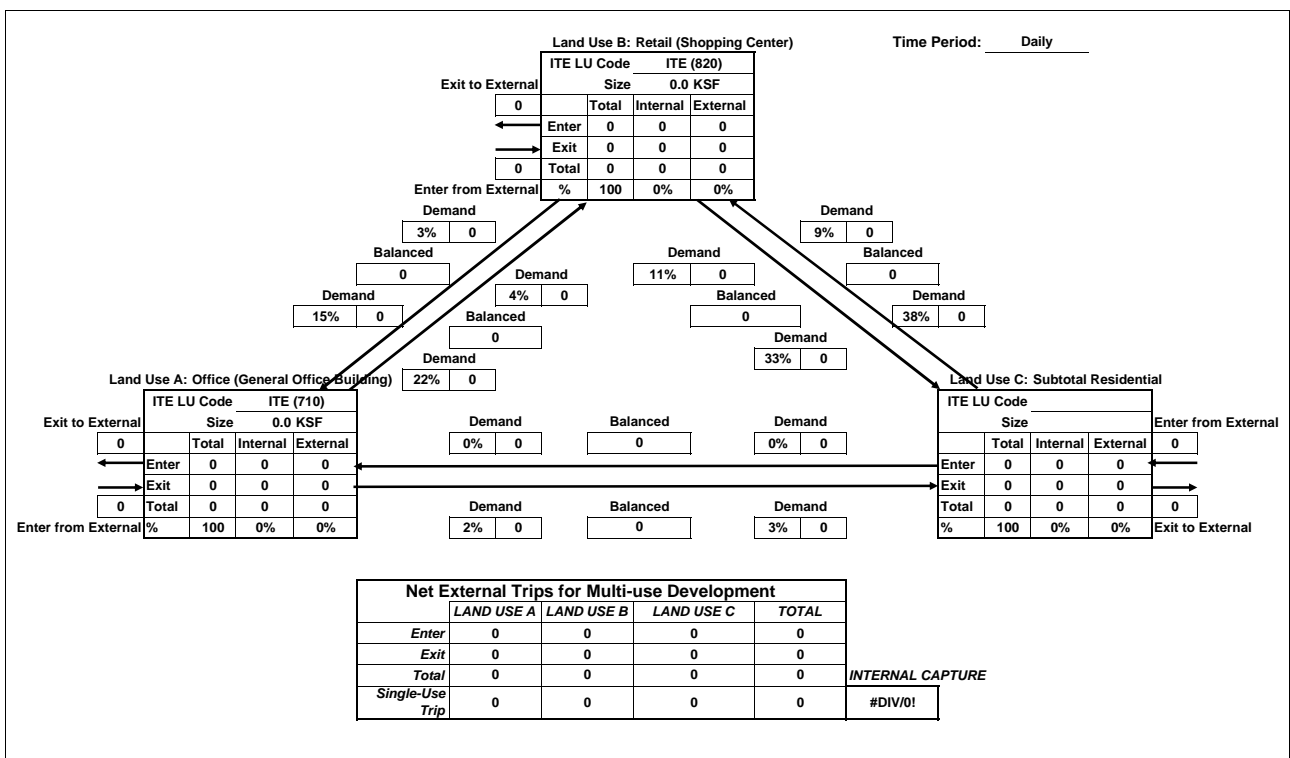
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

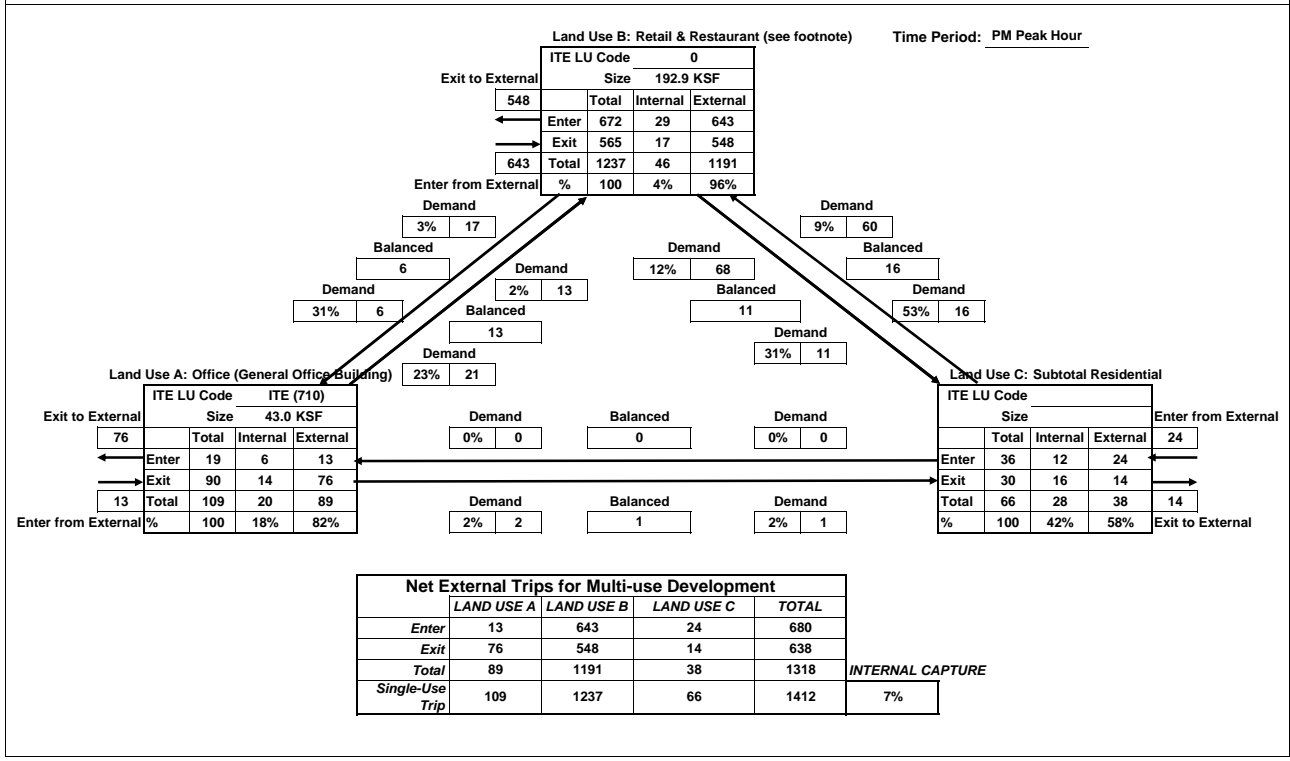
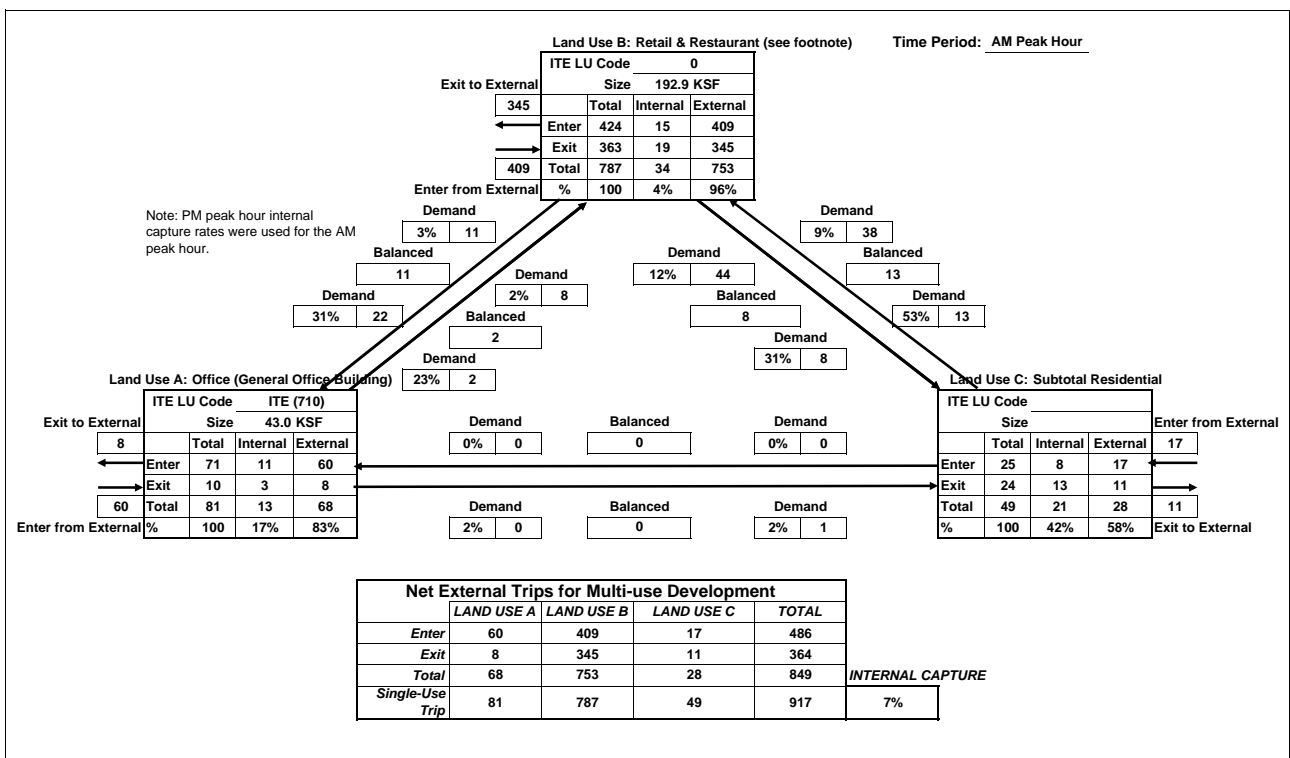
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



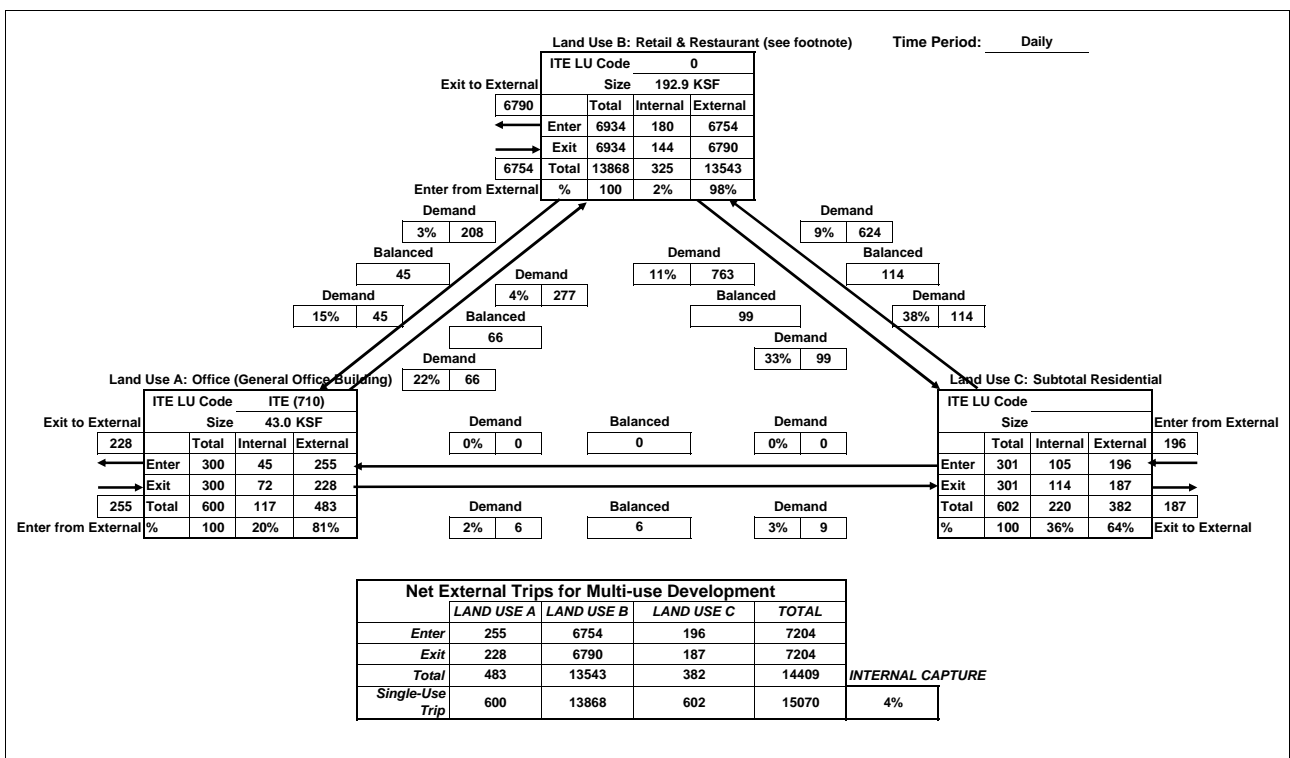
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

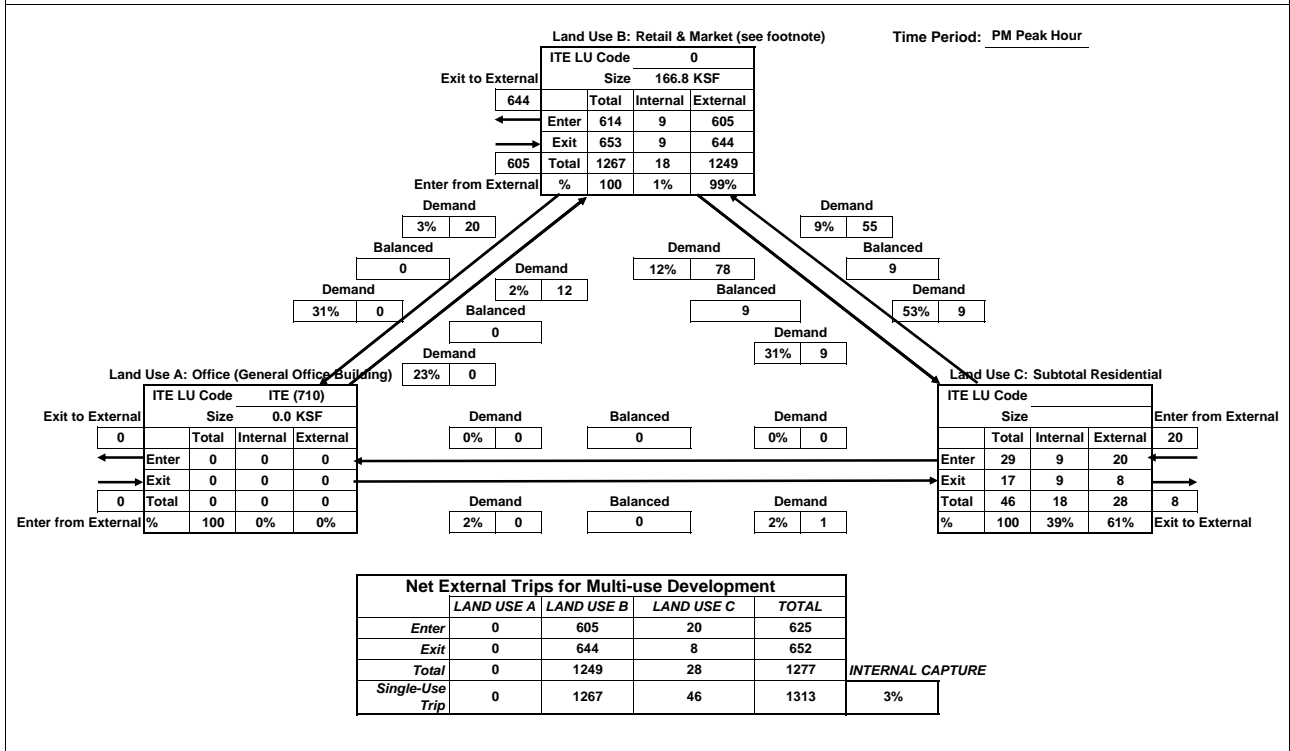
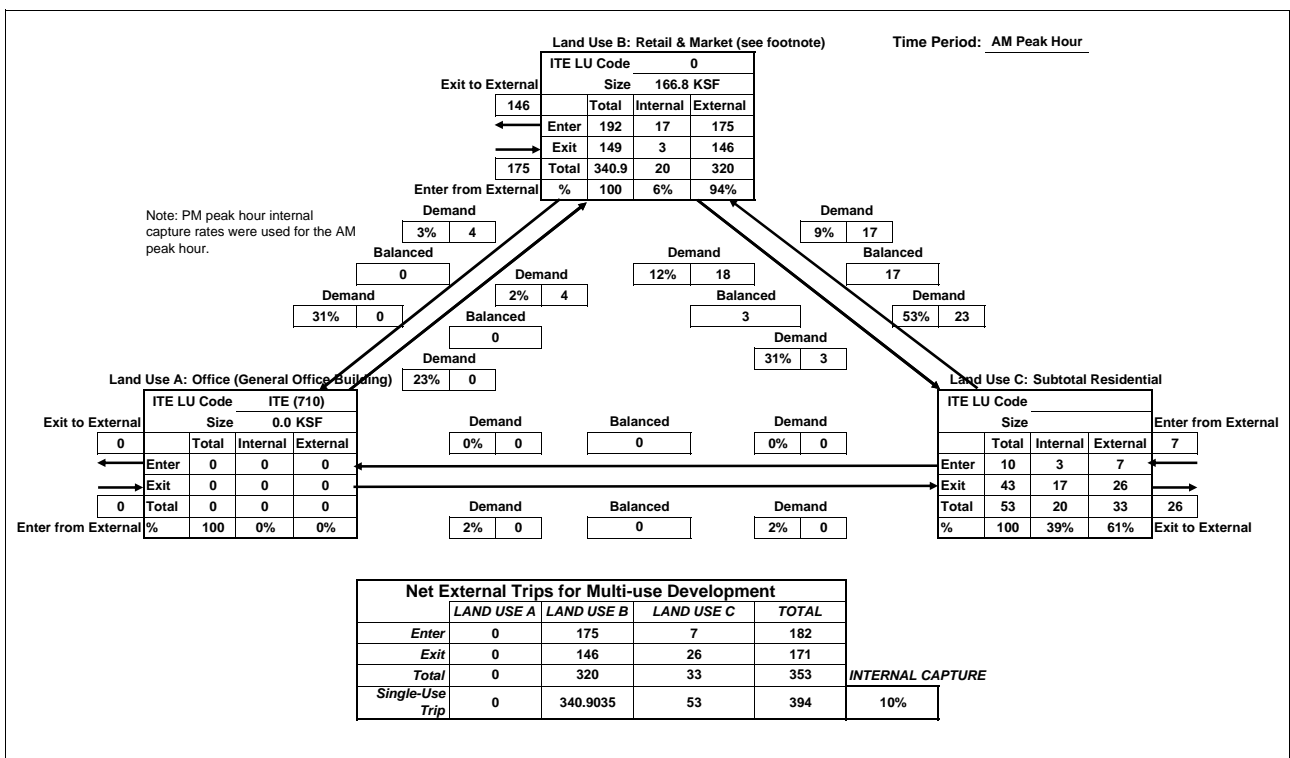
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)



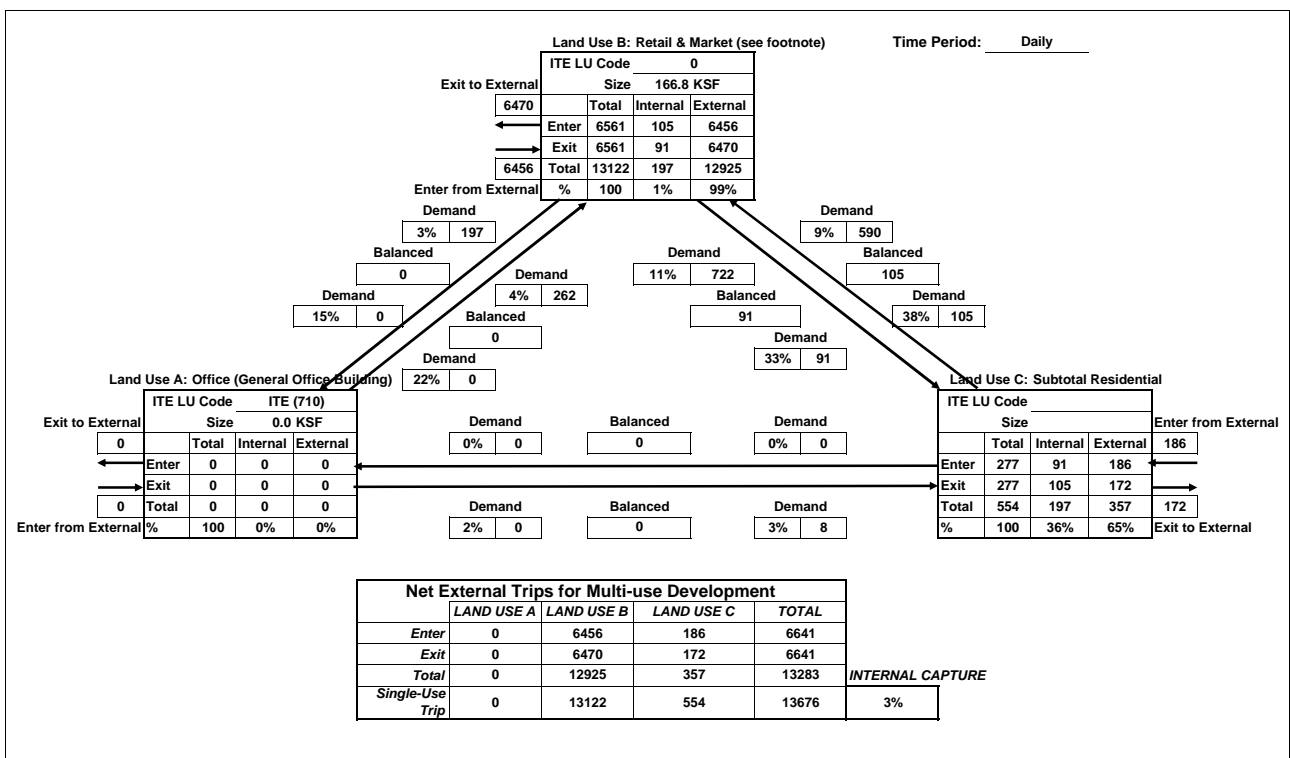
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

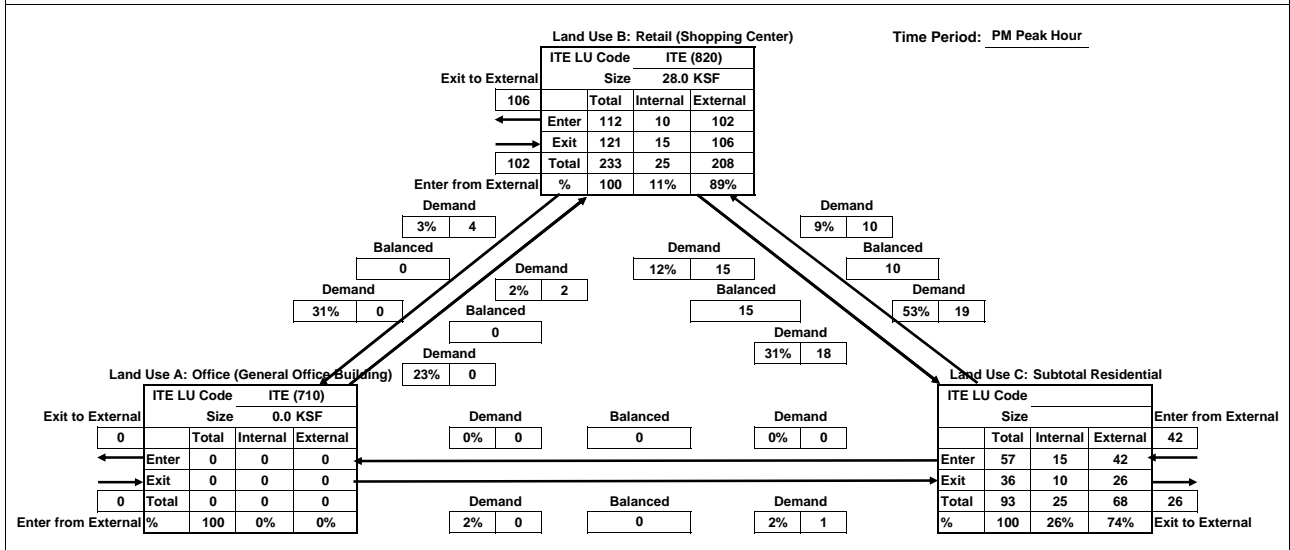
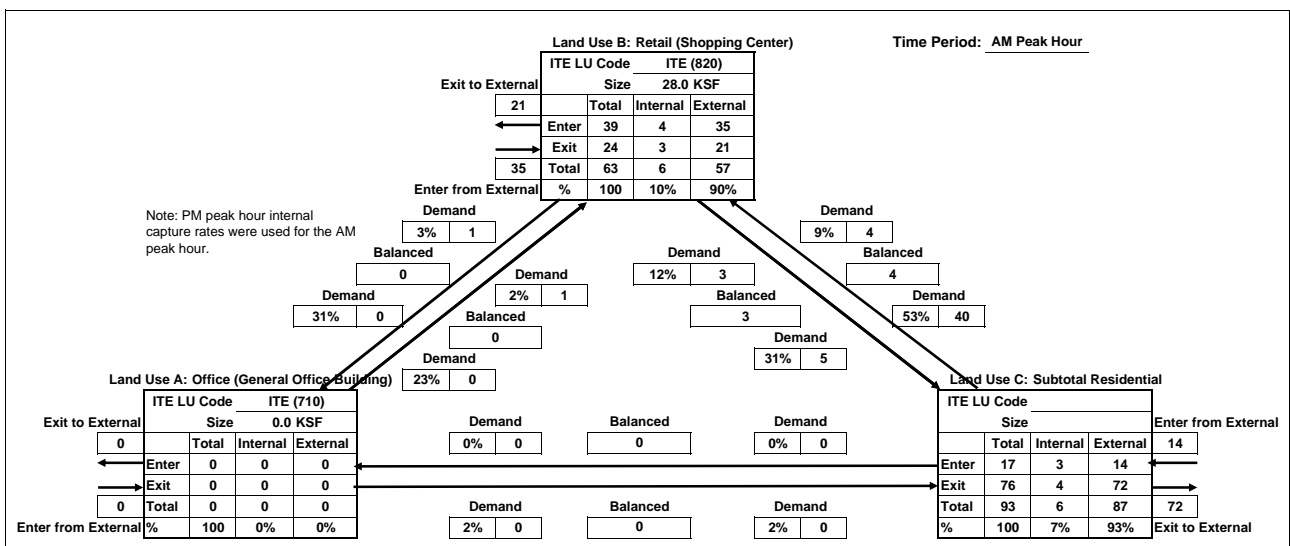


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



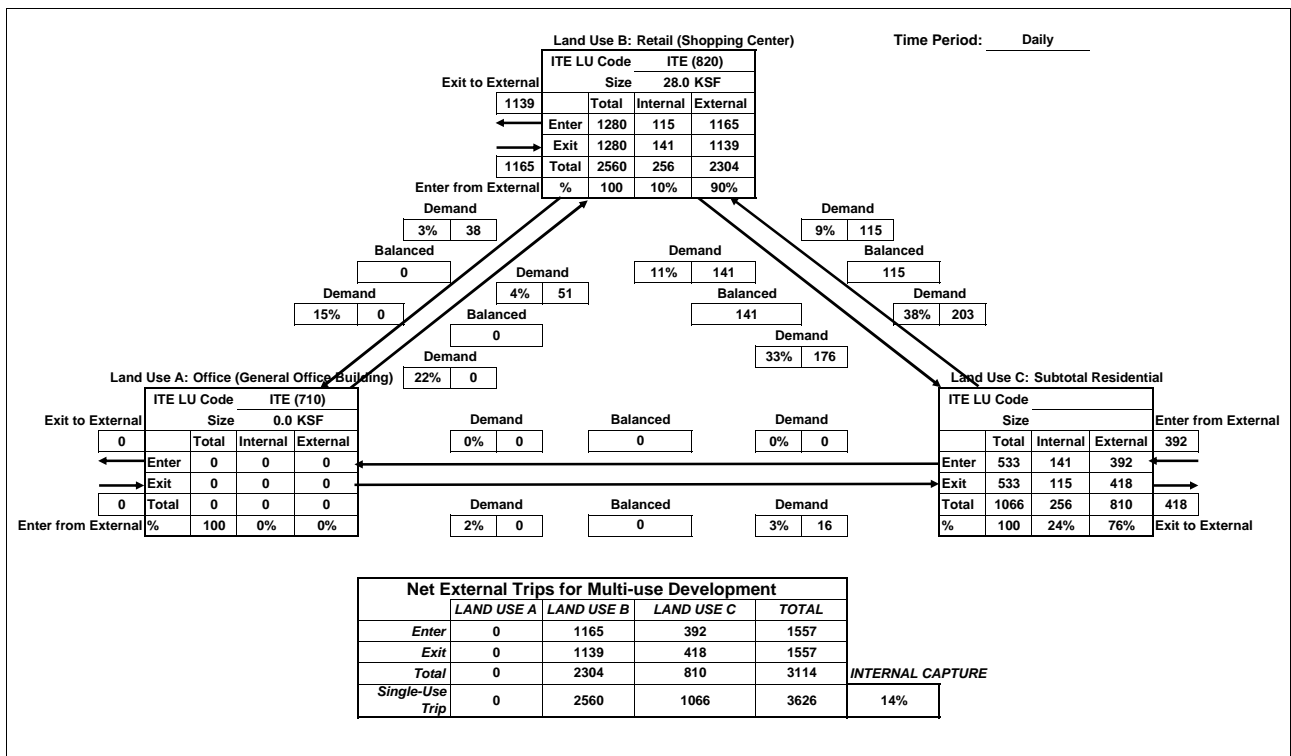
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

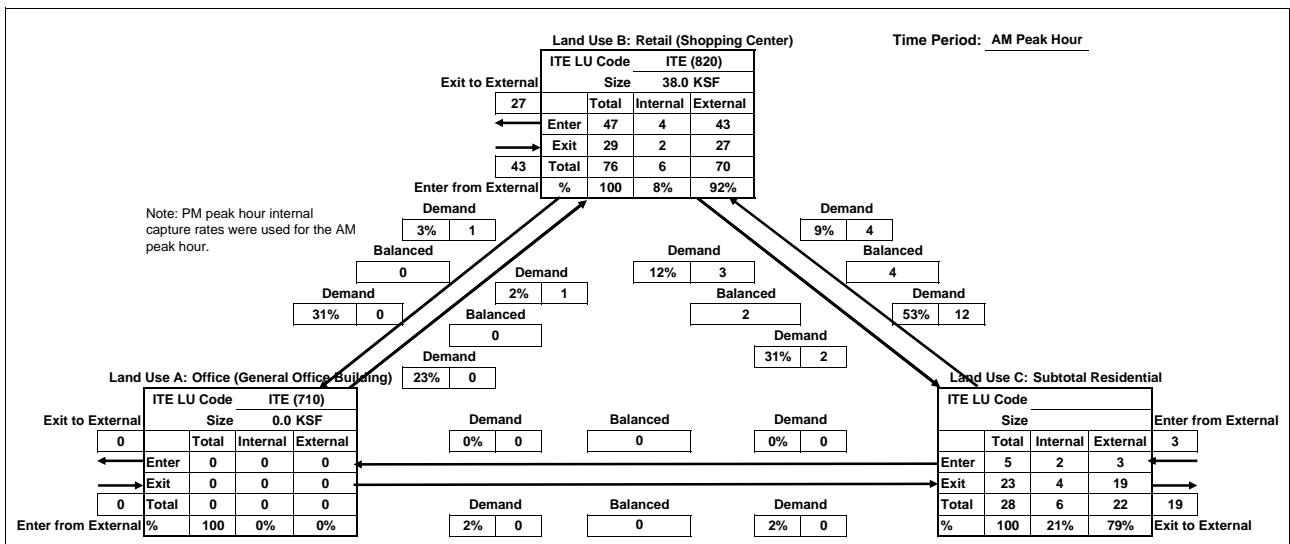


Analyst: Dowling

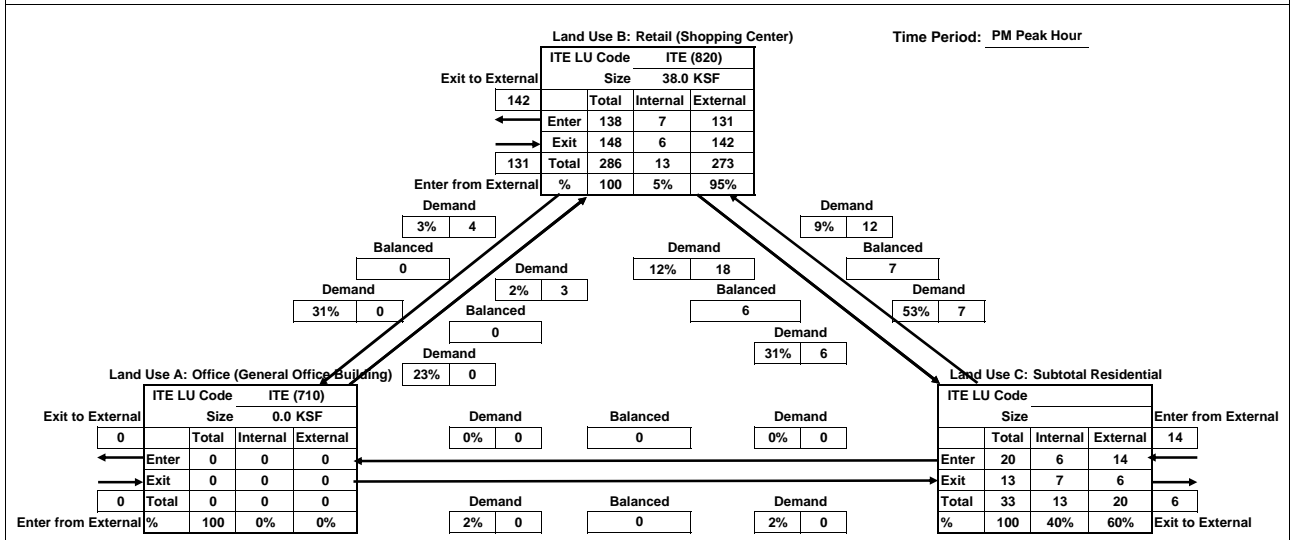
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	43	3	46	
Exit	0	27	19	46	
Total	0	70	22	92	INTERNAL CAPTURE
Single-Use Trip	0	76	28	104	11%



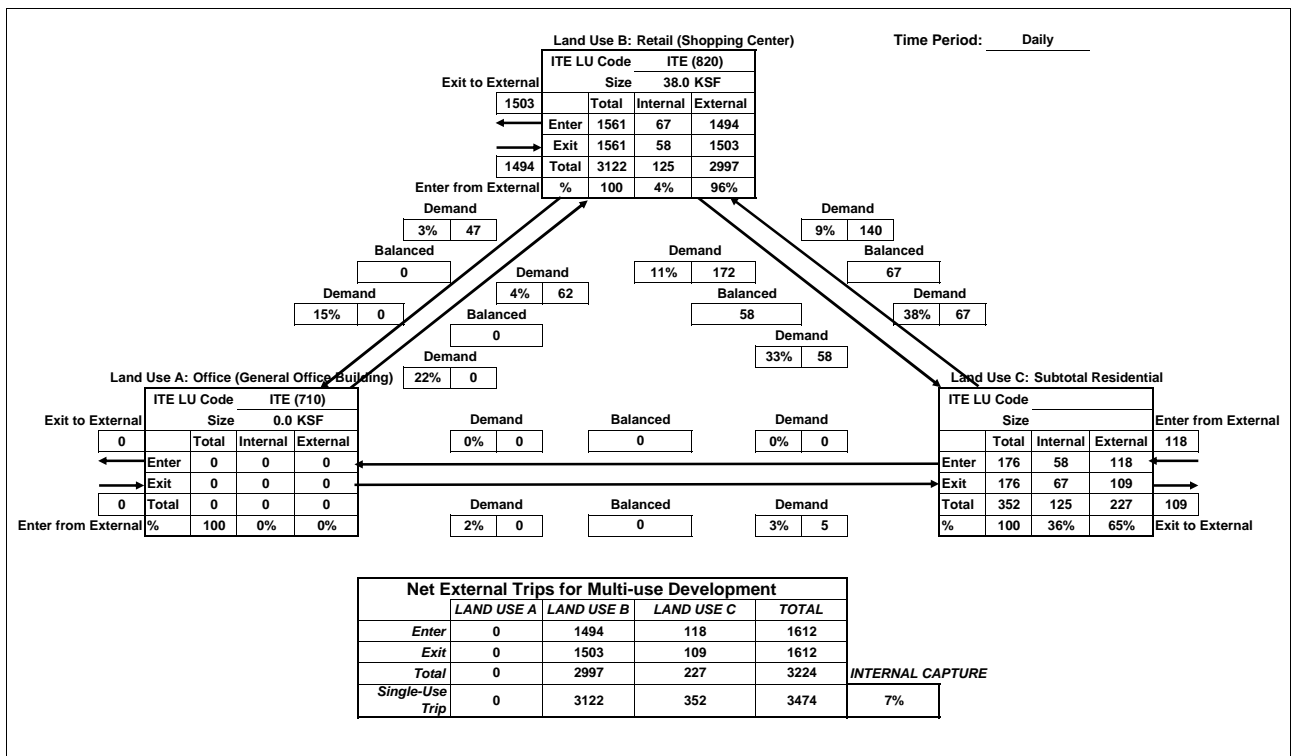
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	131	14	145	
Exit	0	142	6	148	
Total	0	273	20	293	INTERNAL CAPTURE
Single-Use Trip	0	286	33	319	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

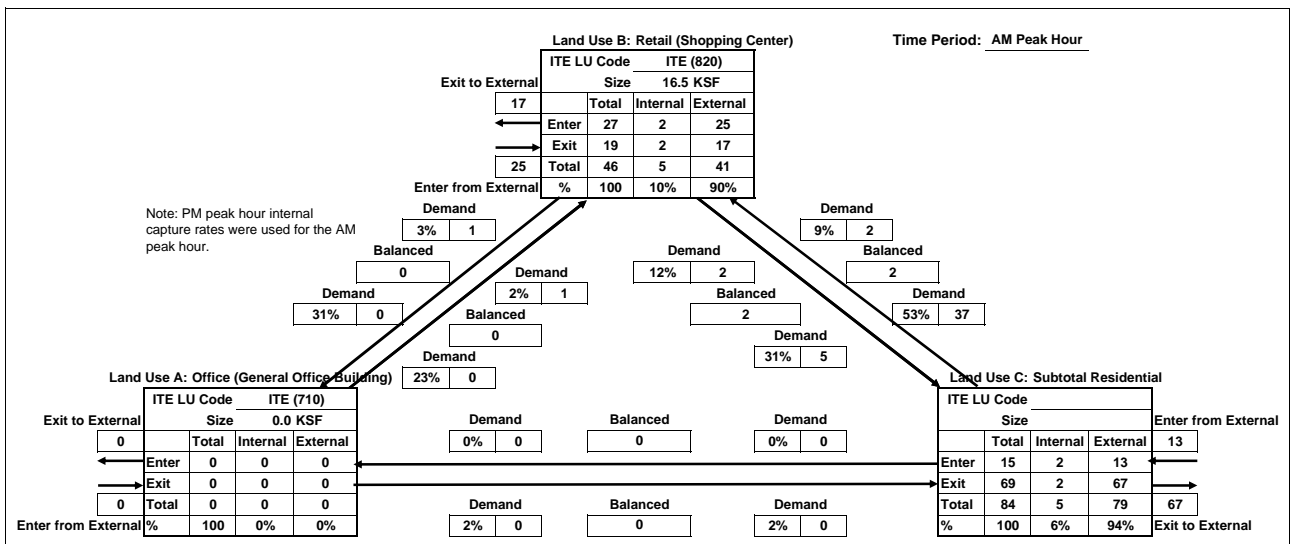
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

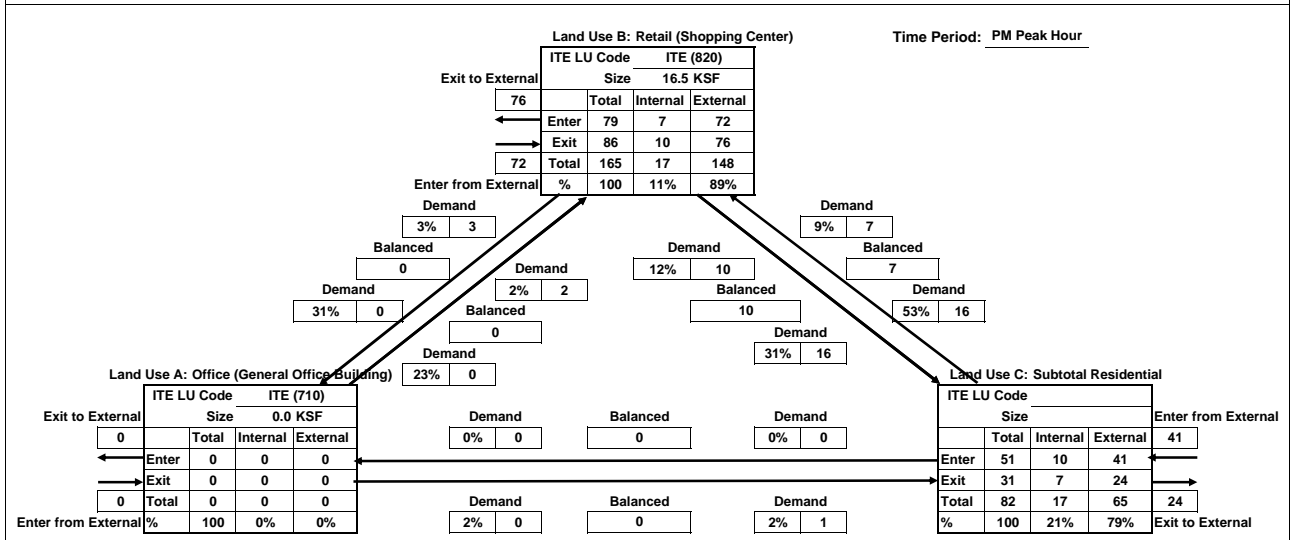
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	25	13	37	
Exit	0	17	67	83	
Total	0	41	79	121	INTERNAL CAPTURE
Single-Use Trip	0	46	84	130	7%



Net External Trips for Multi-use Development

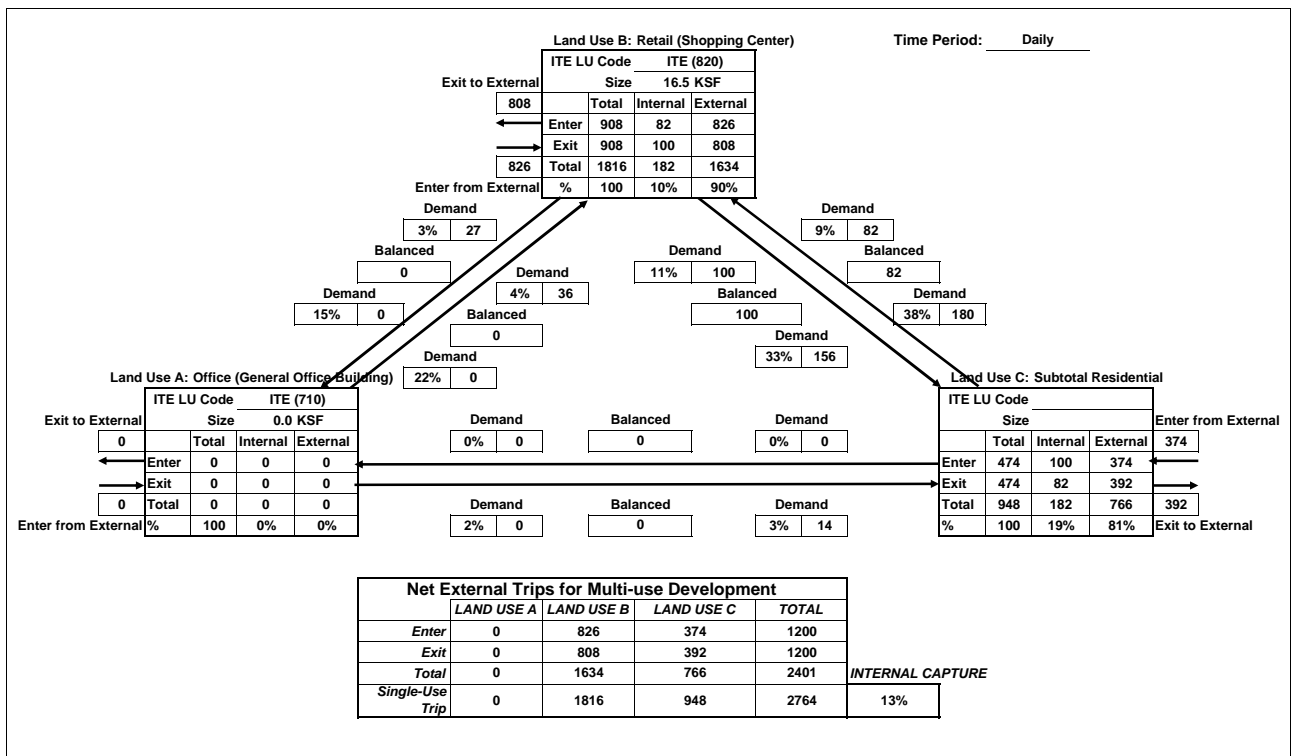
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	72	41	113	
Exit	0	76	24	100	
Total	0	148	65	212	INTERNAL CAPTURE
Single-Use Trip	0	165	82	247	14%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

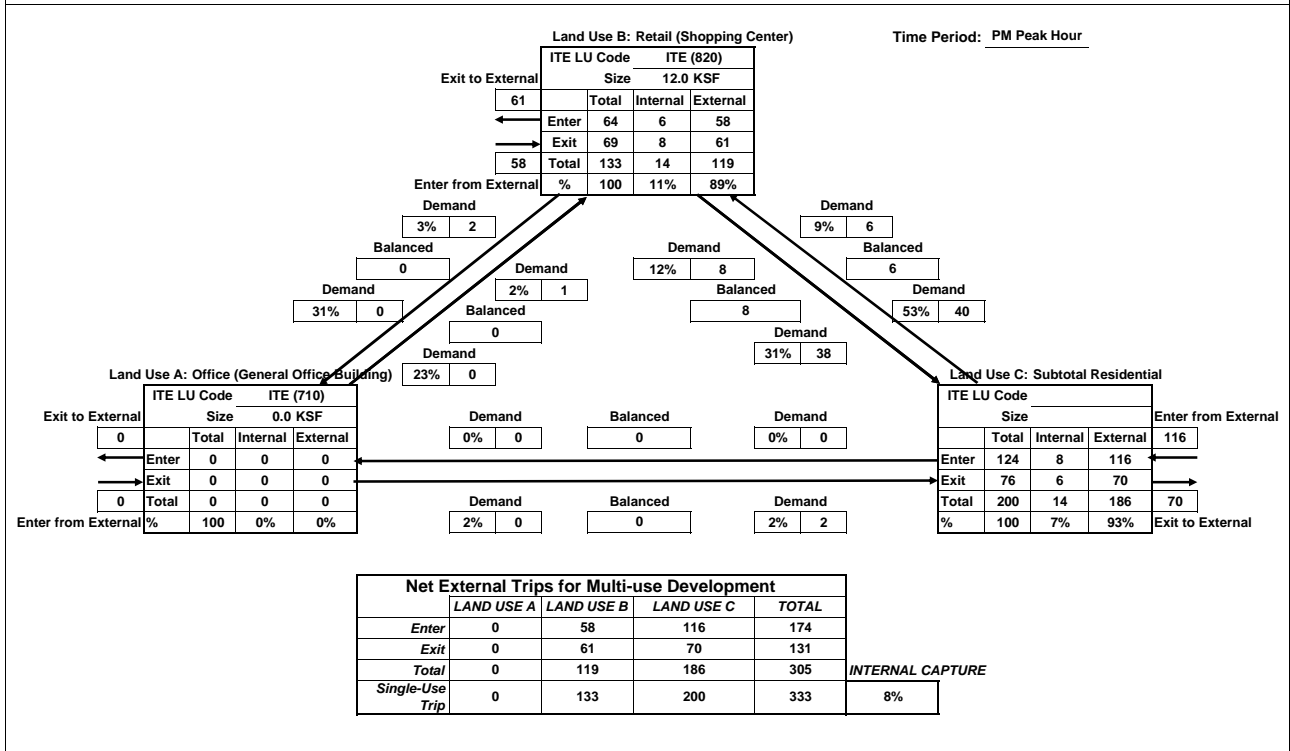
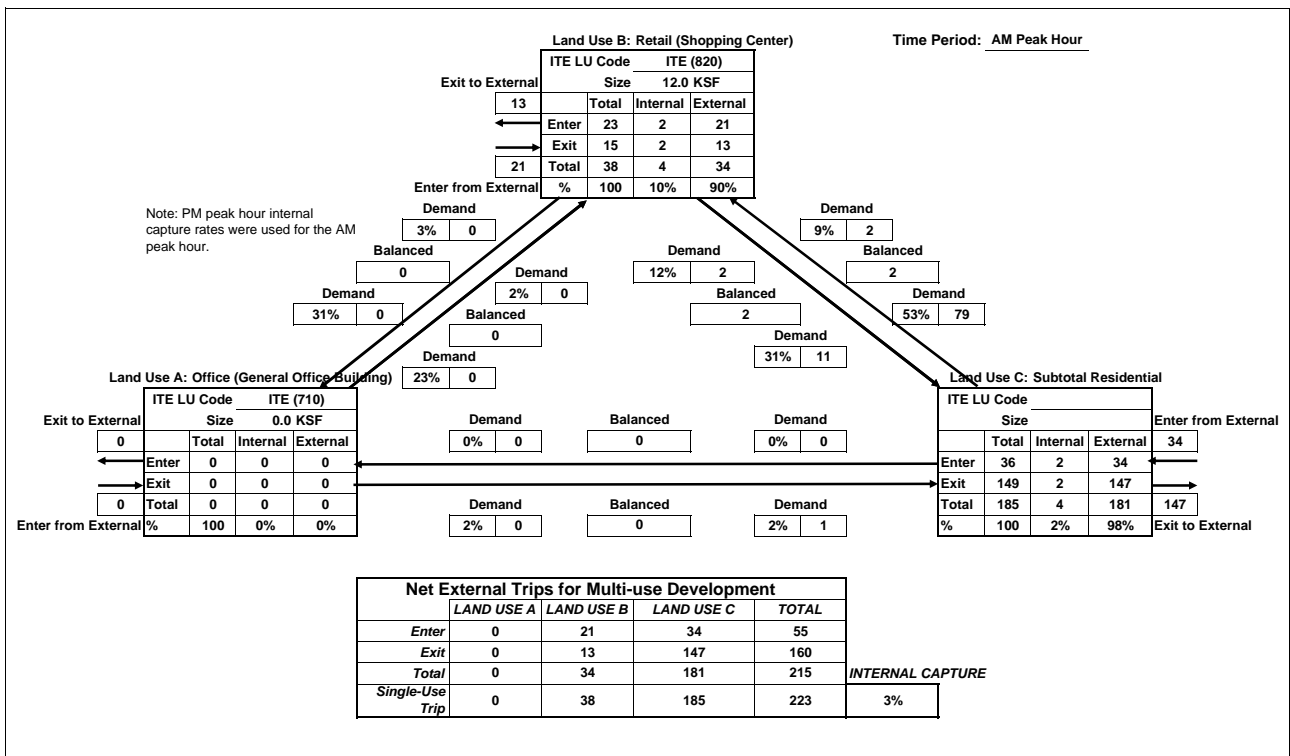


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



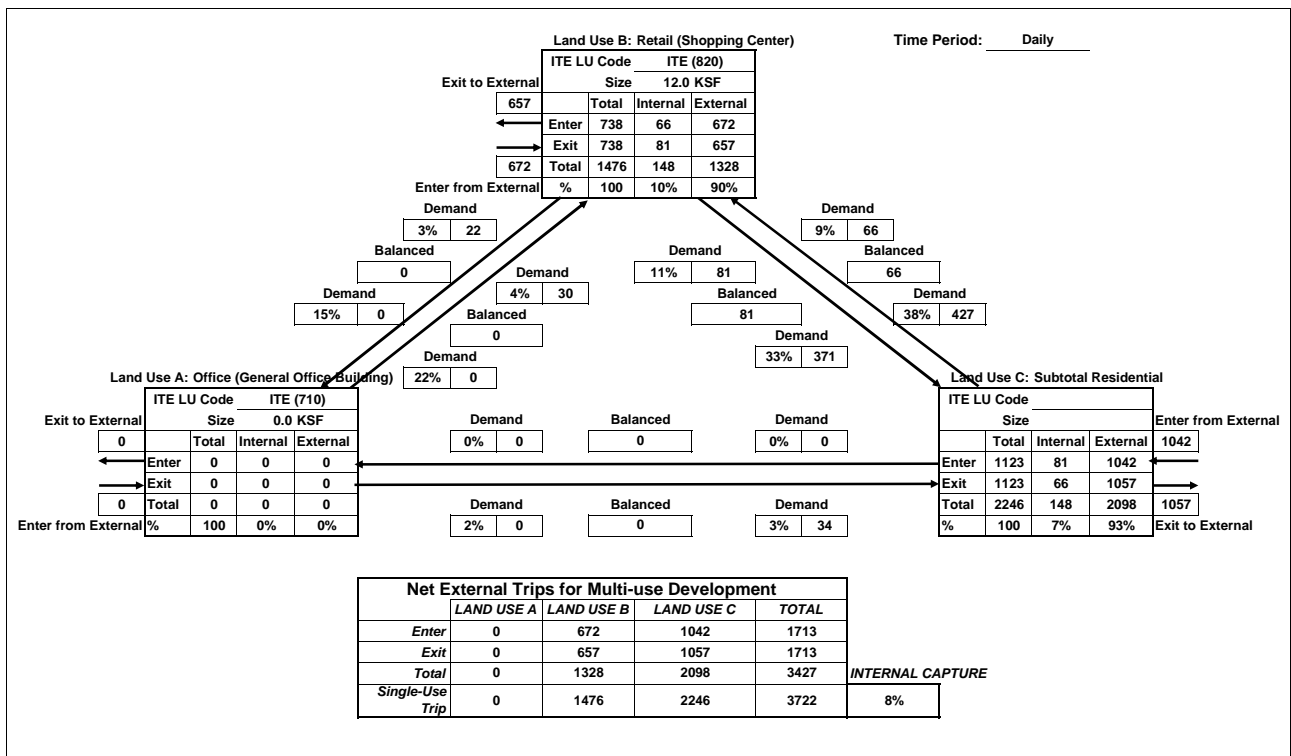
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

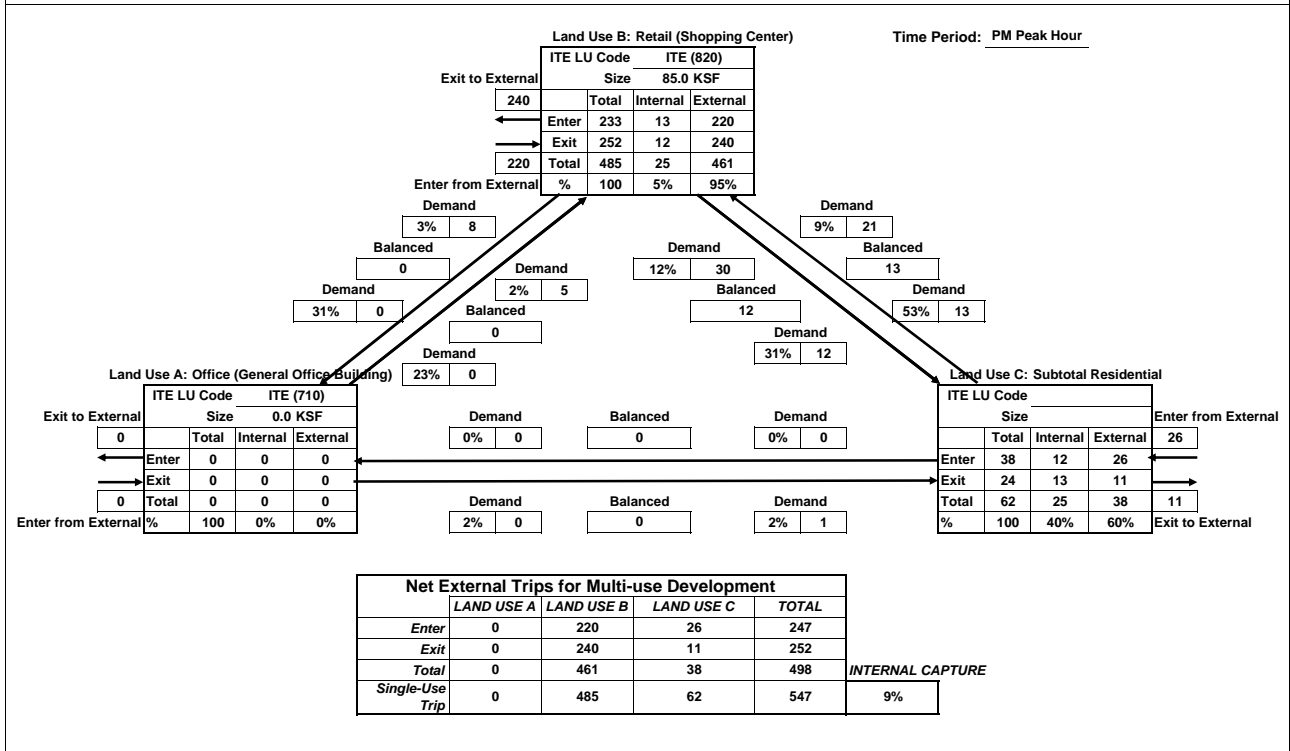
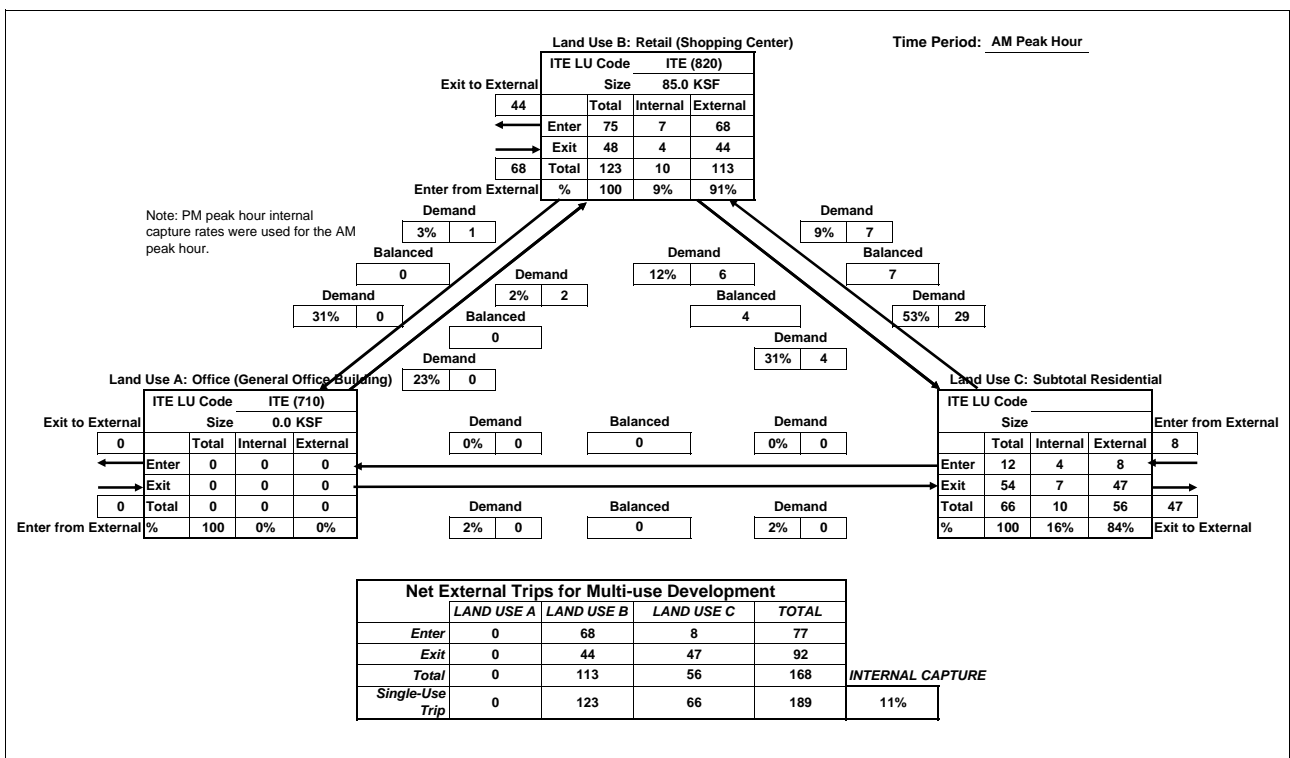


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

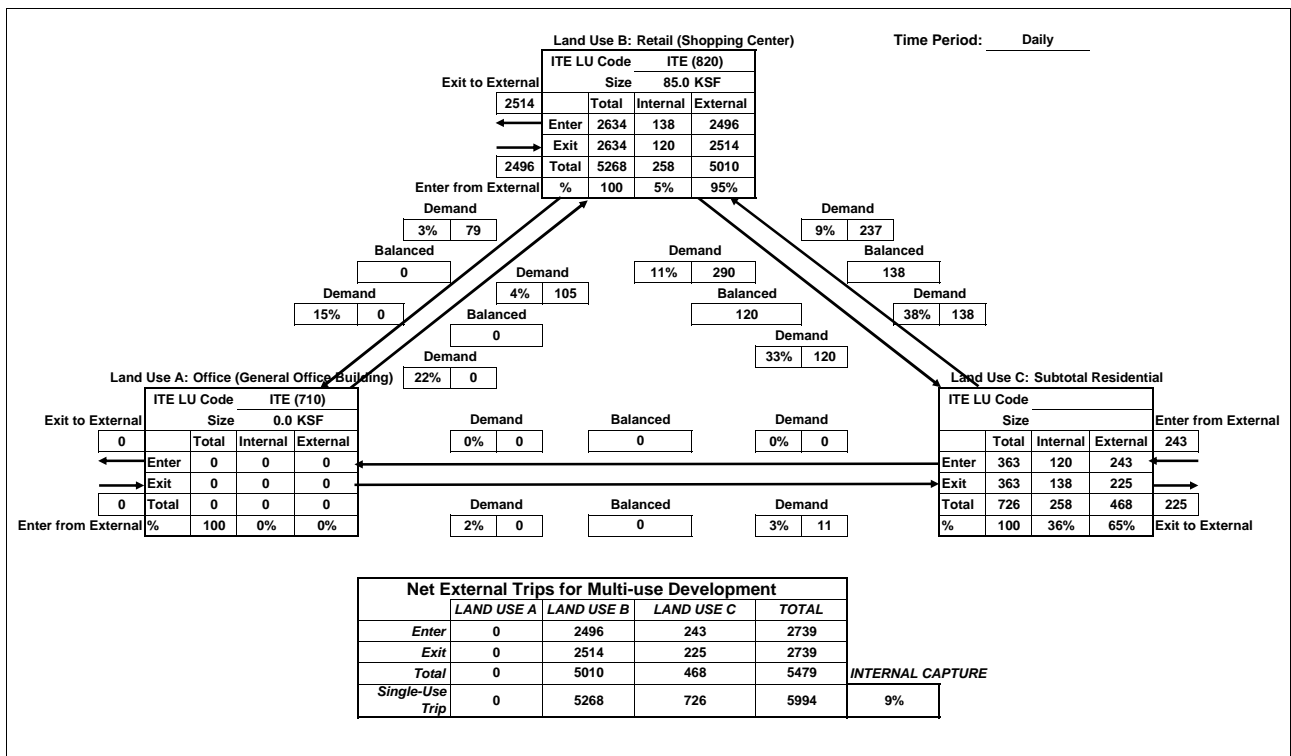


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

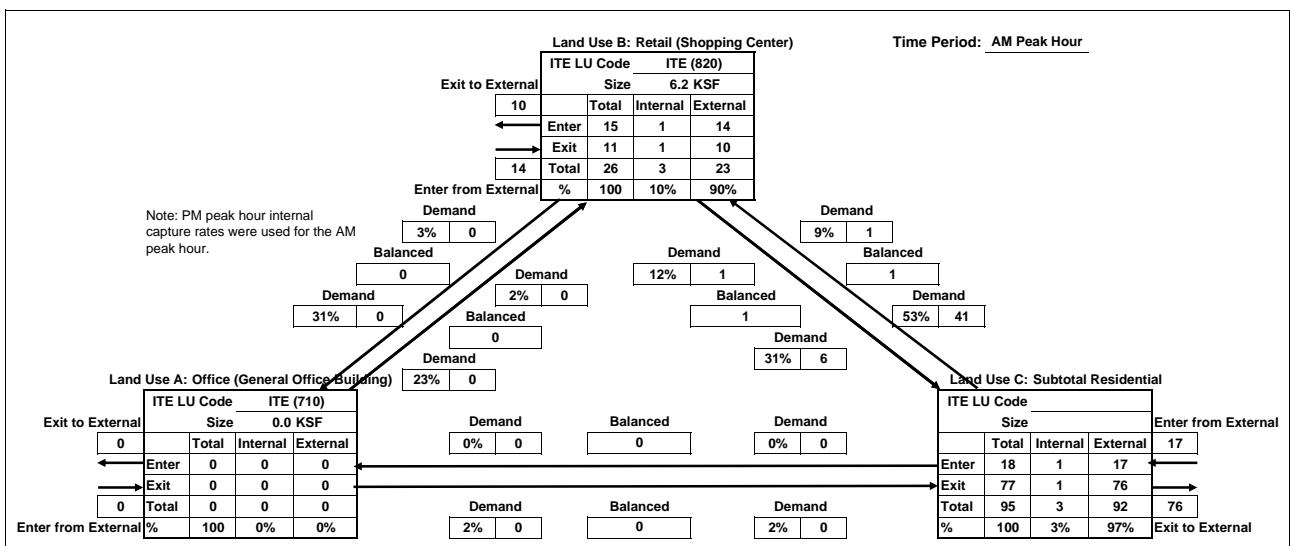


Analyst: Dowling

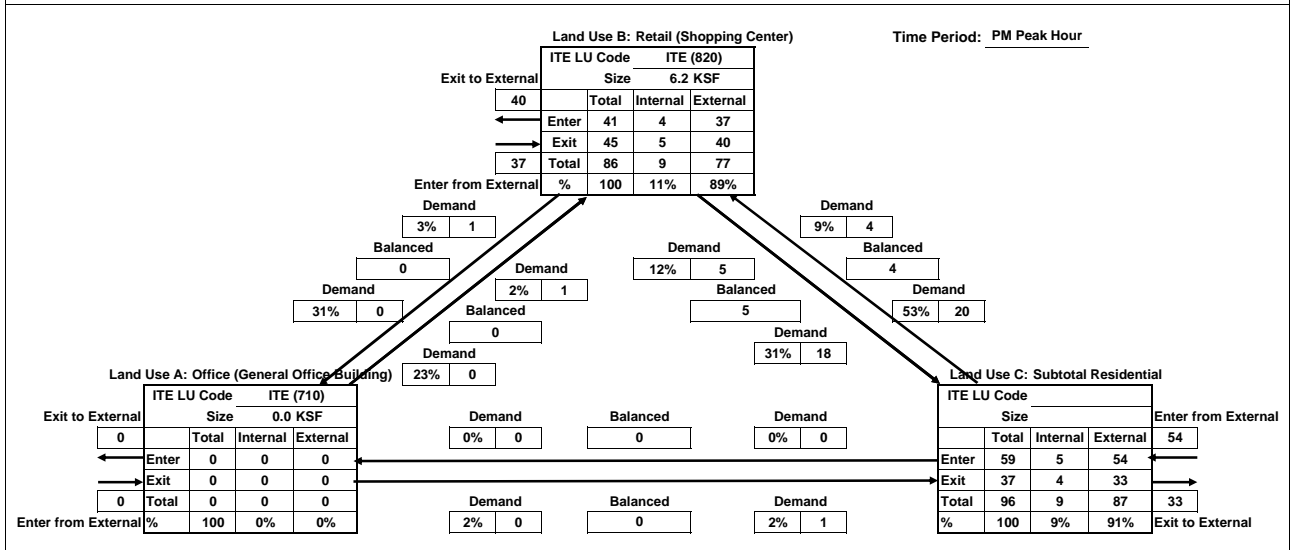
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	14	17	30	
Exit	0	10	76	85	
Total	0	23	92	116	INTERNAL CAPTURE
Single-Use Trip	0	26	95	121	4%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	37	54	91	
Exit	0	40	33	73	
Total	0	77	87	164	INTERNAL CAPTURE
Single-Use Trip	0	86	96	182	10%

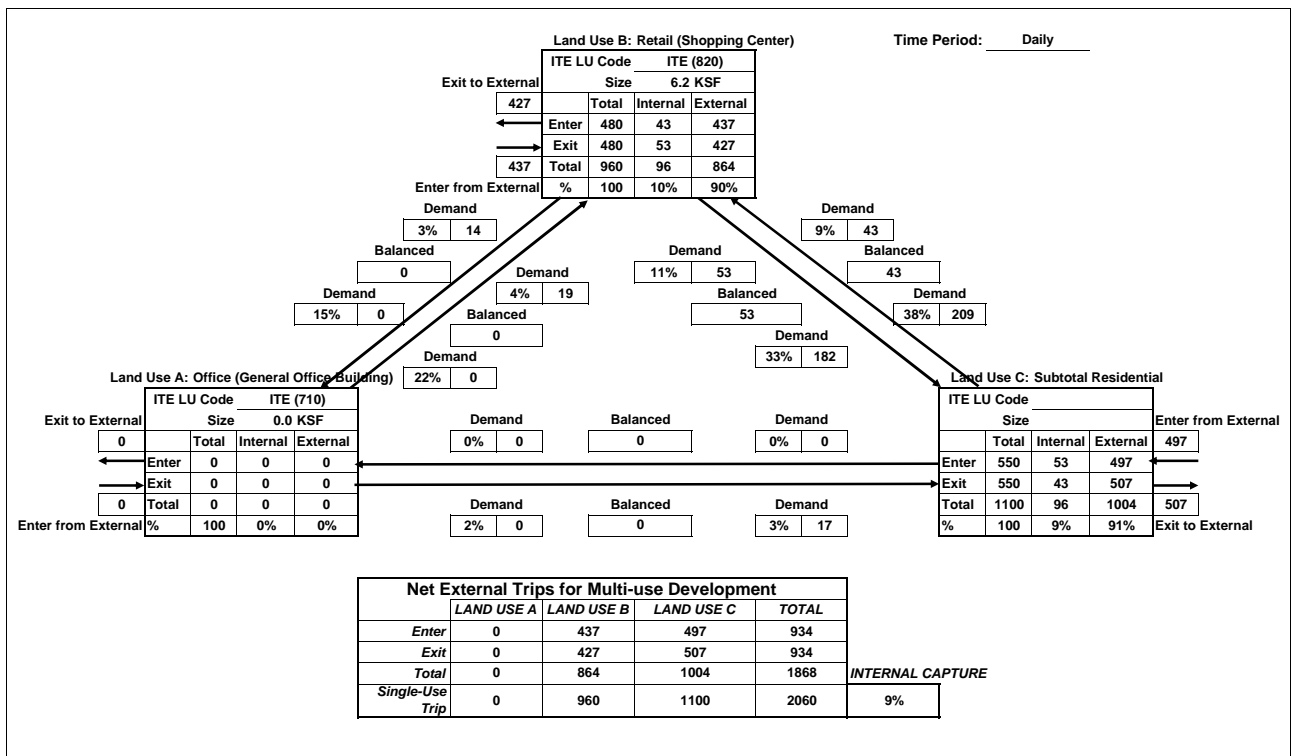
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

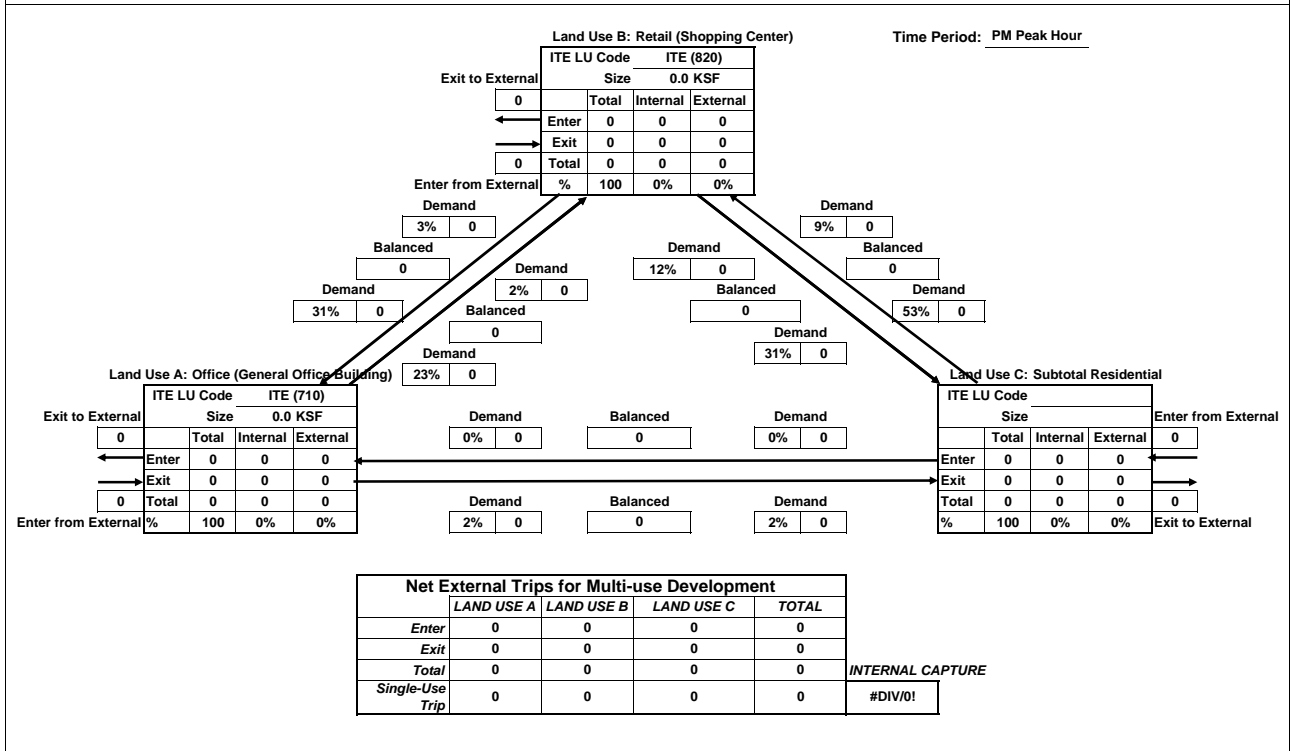
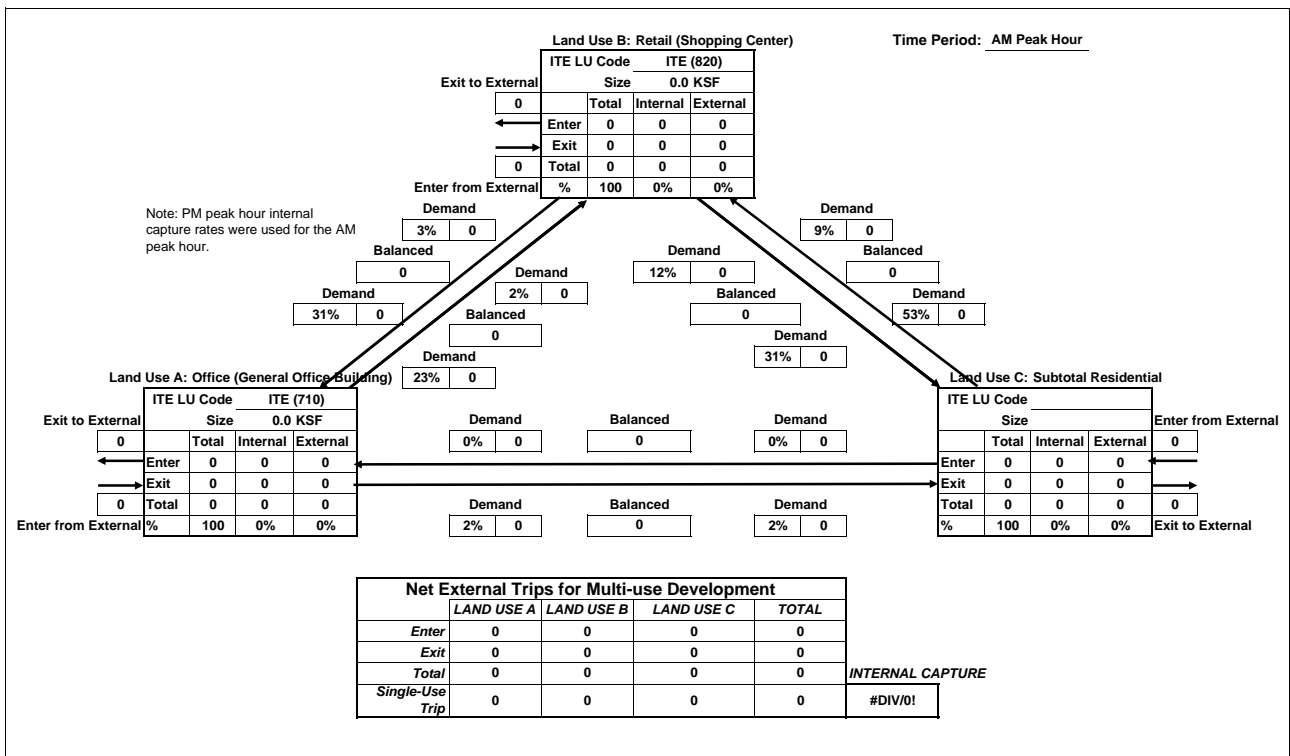


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



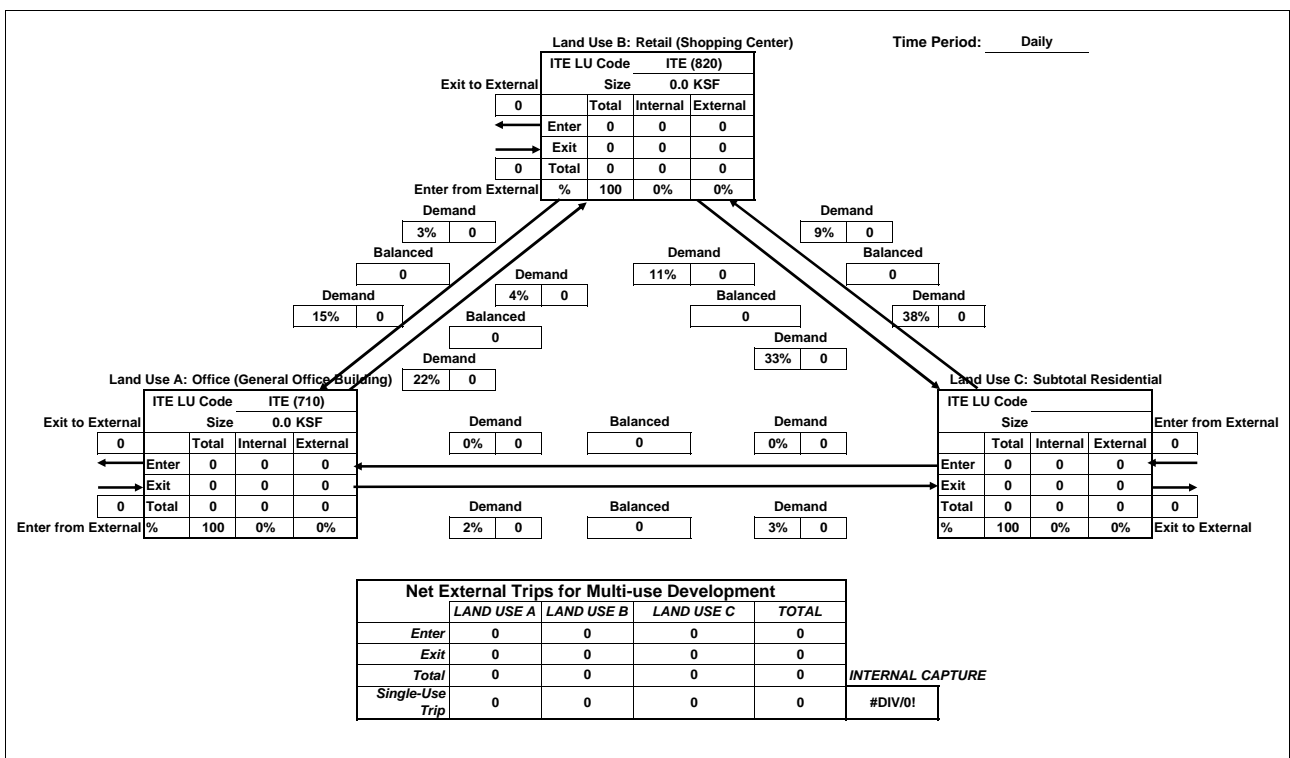
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

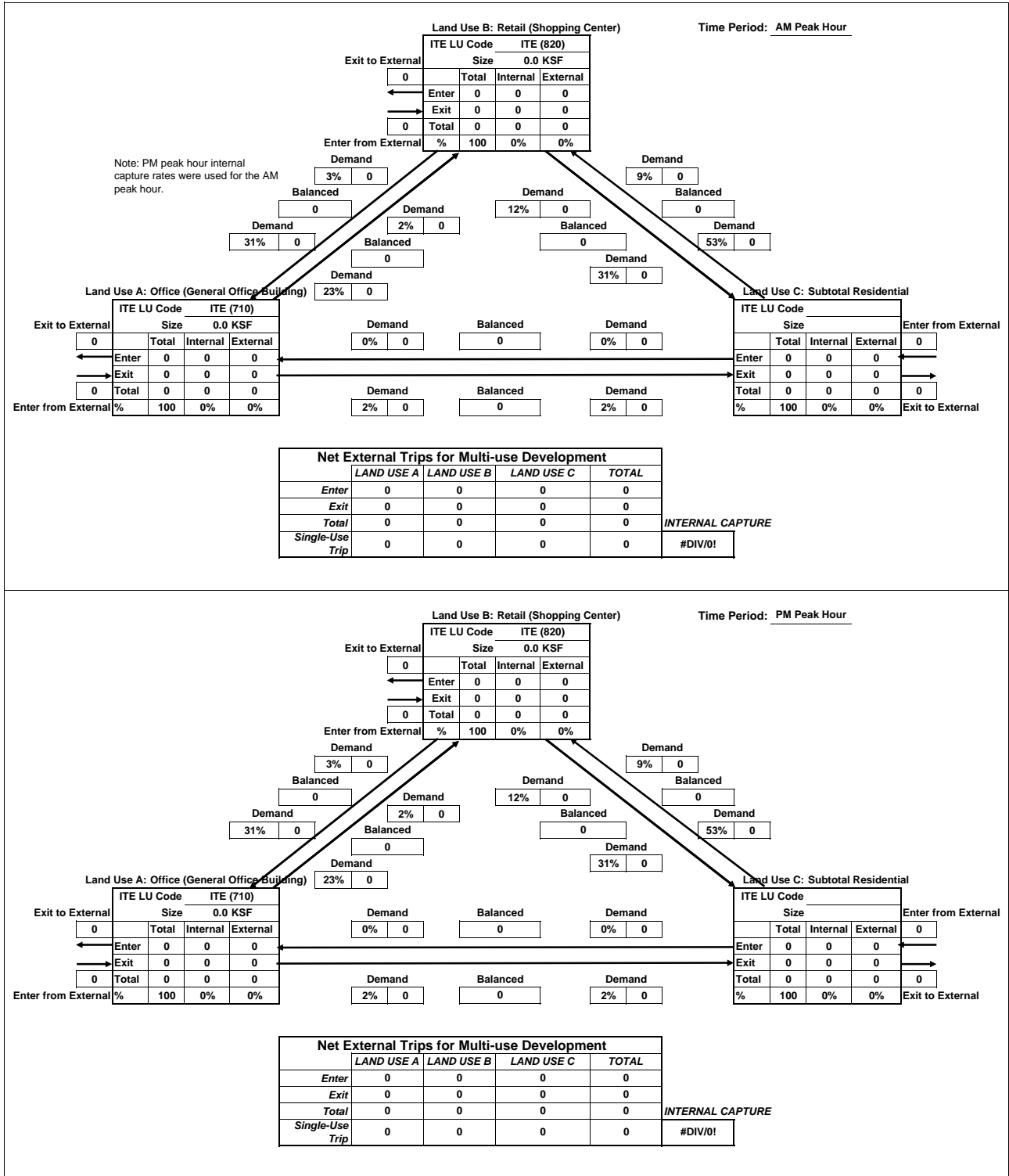
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

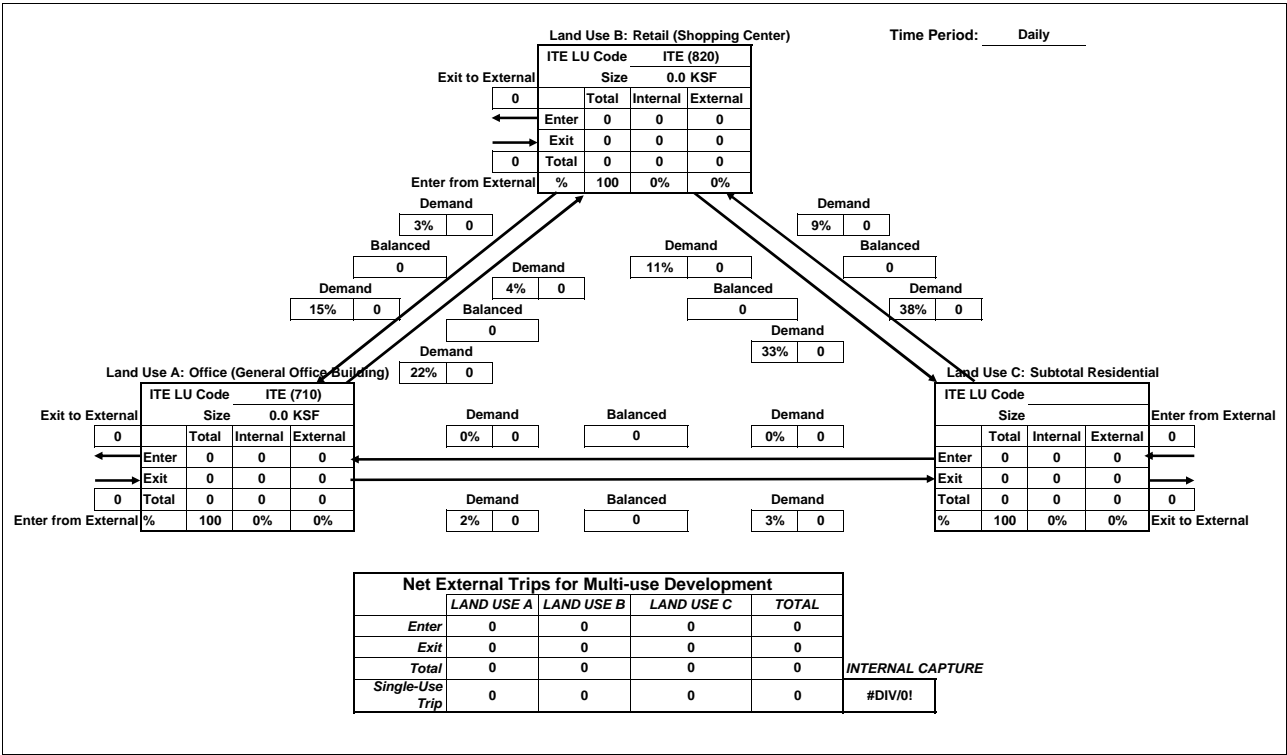


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

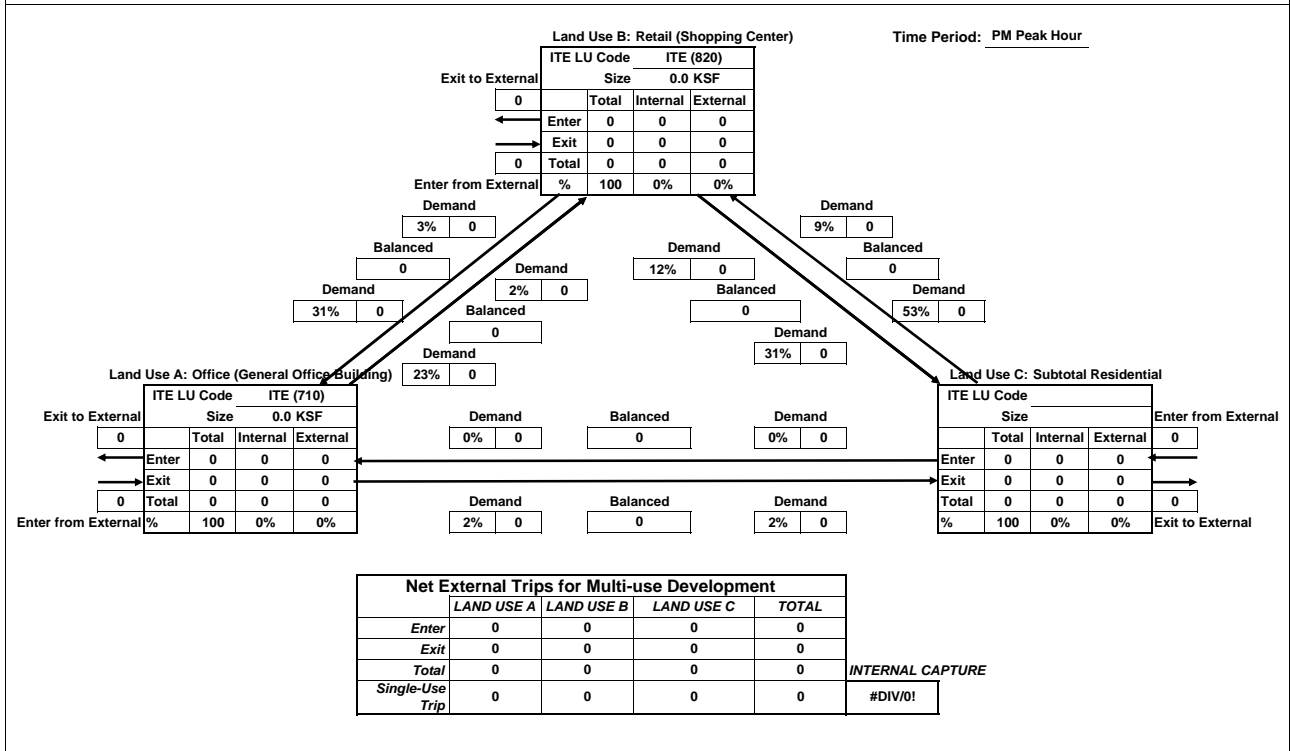
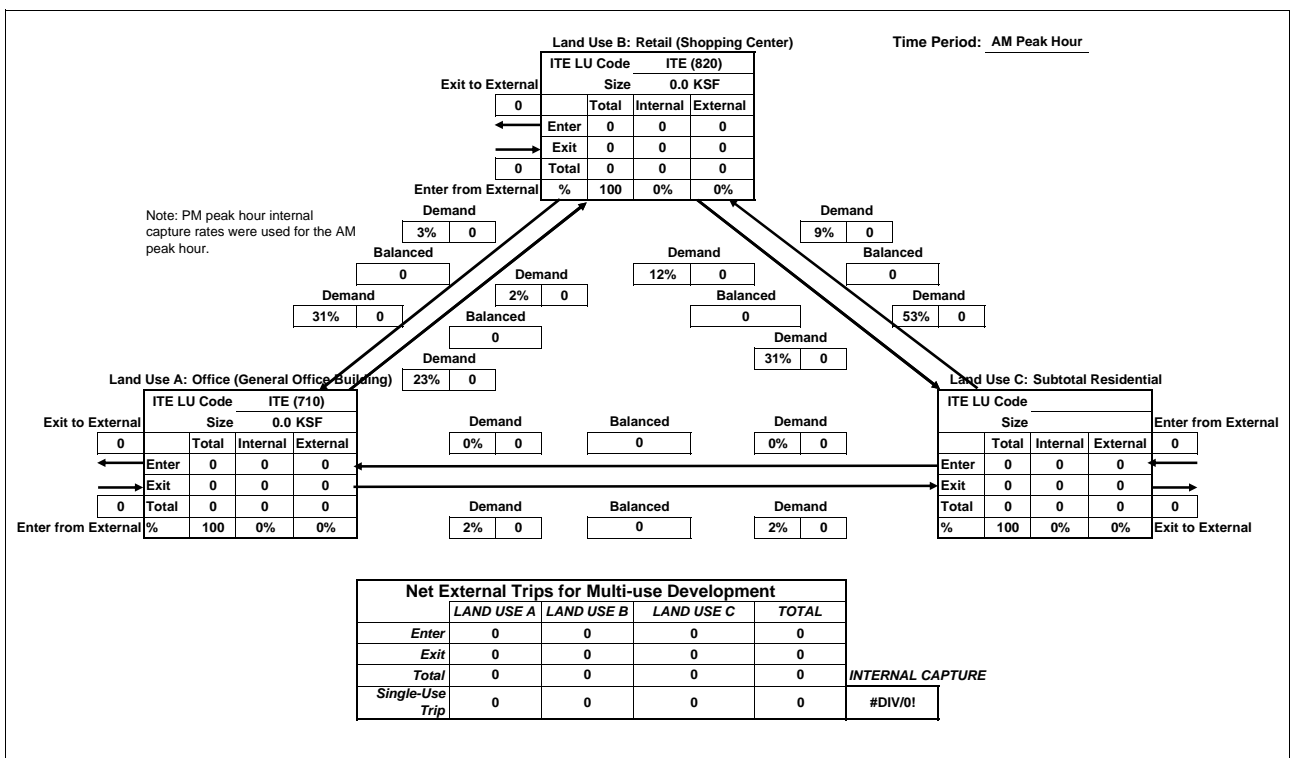


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



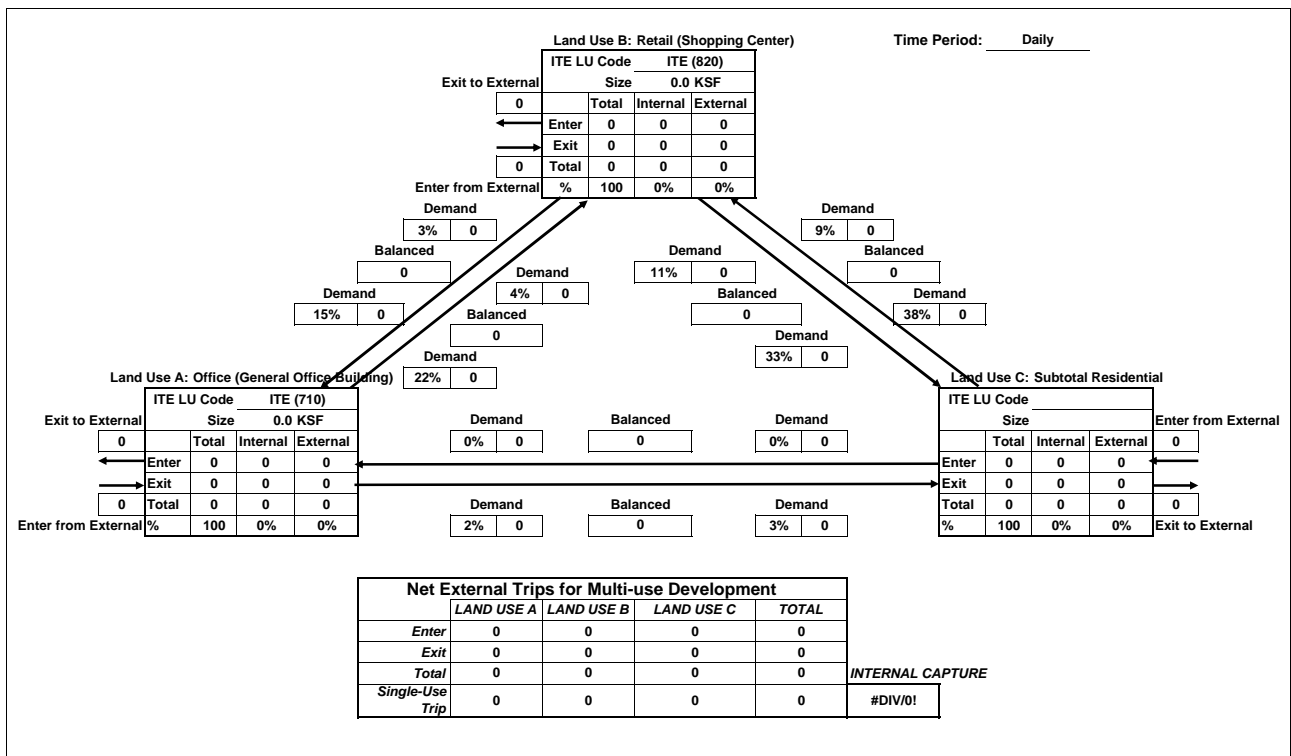
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

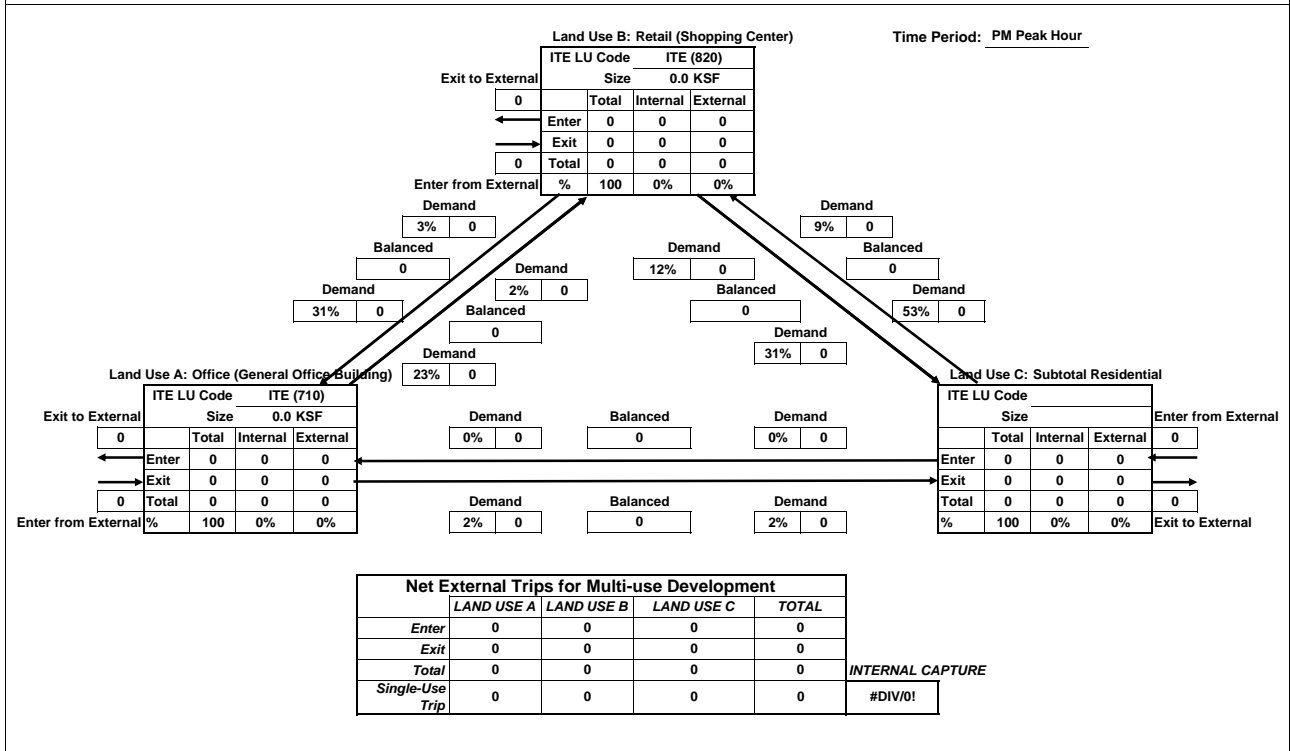
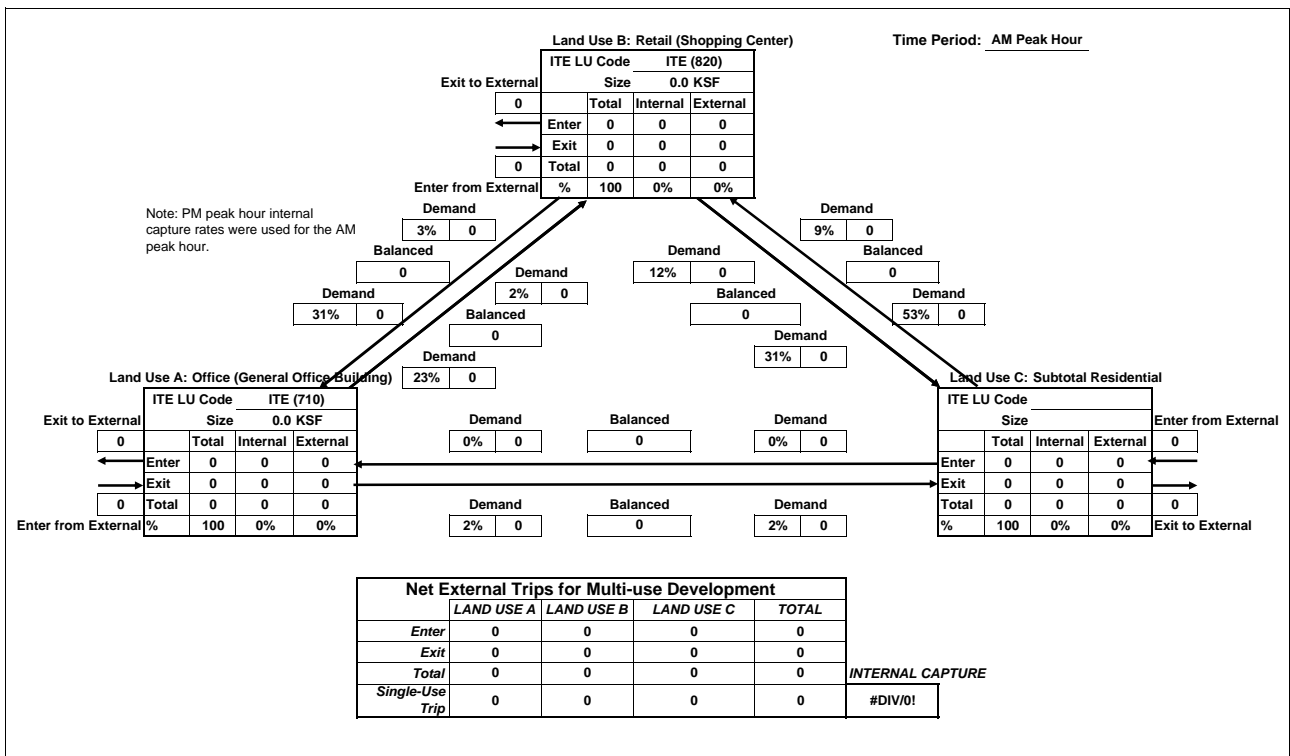


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



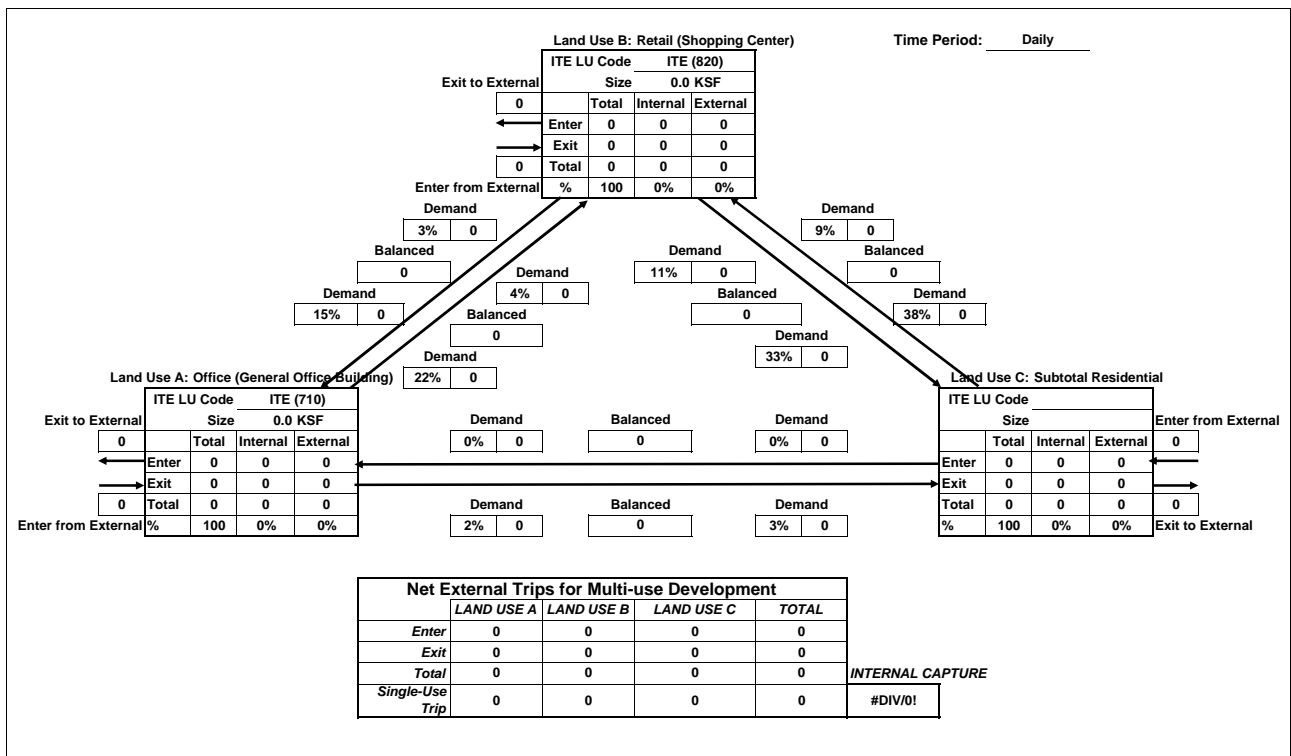
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 20: Bounded by South Park, N. 10th, Railyards, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

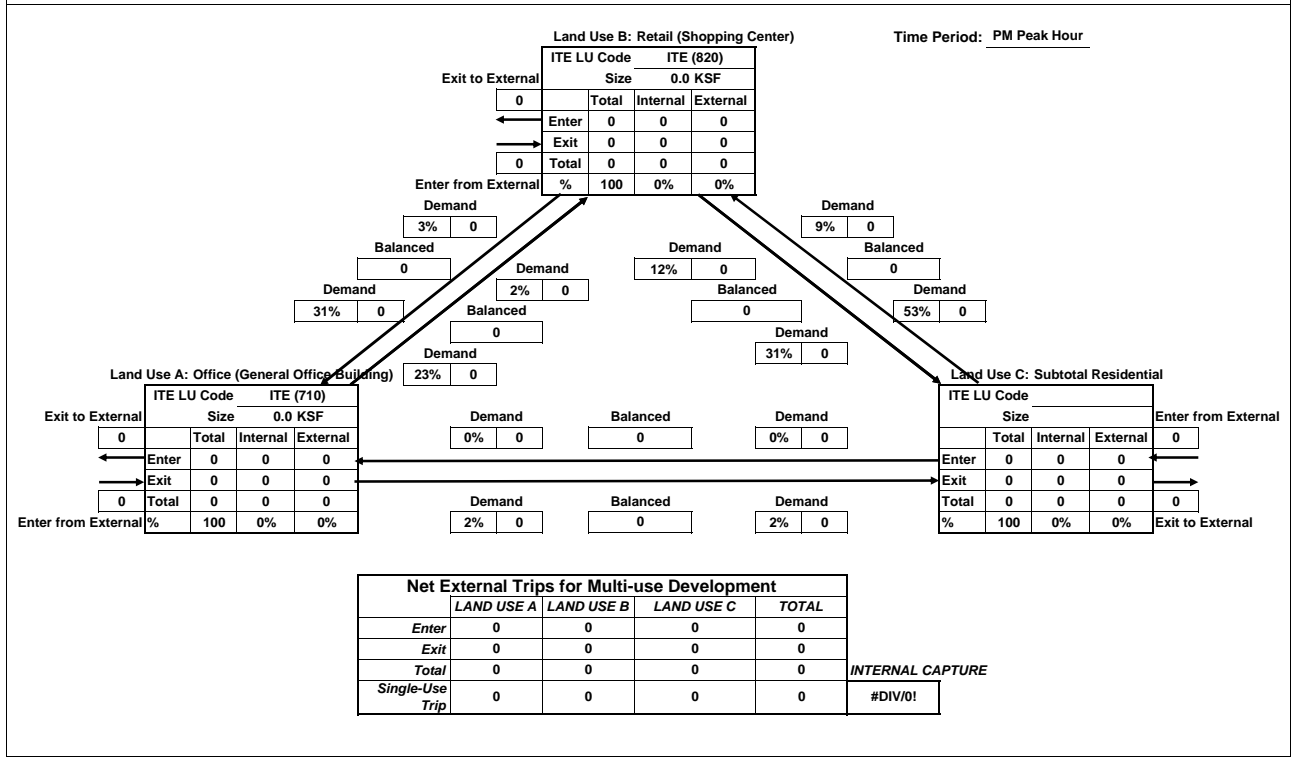
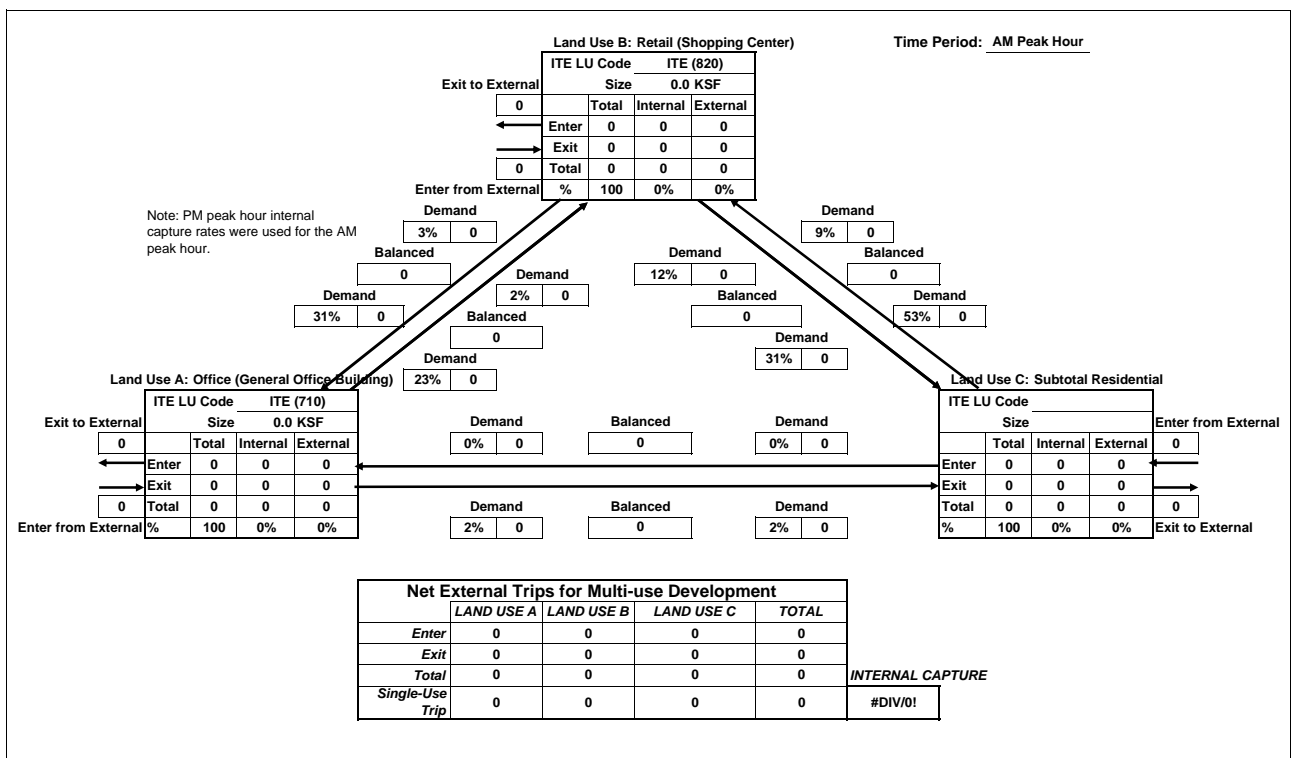
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

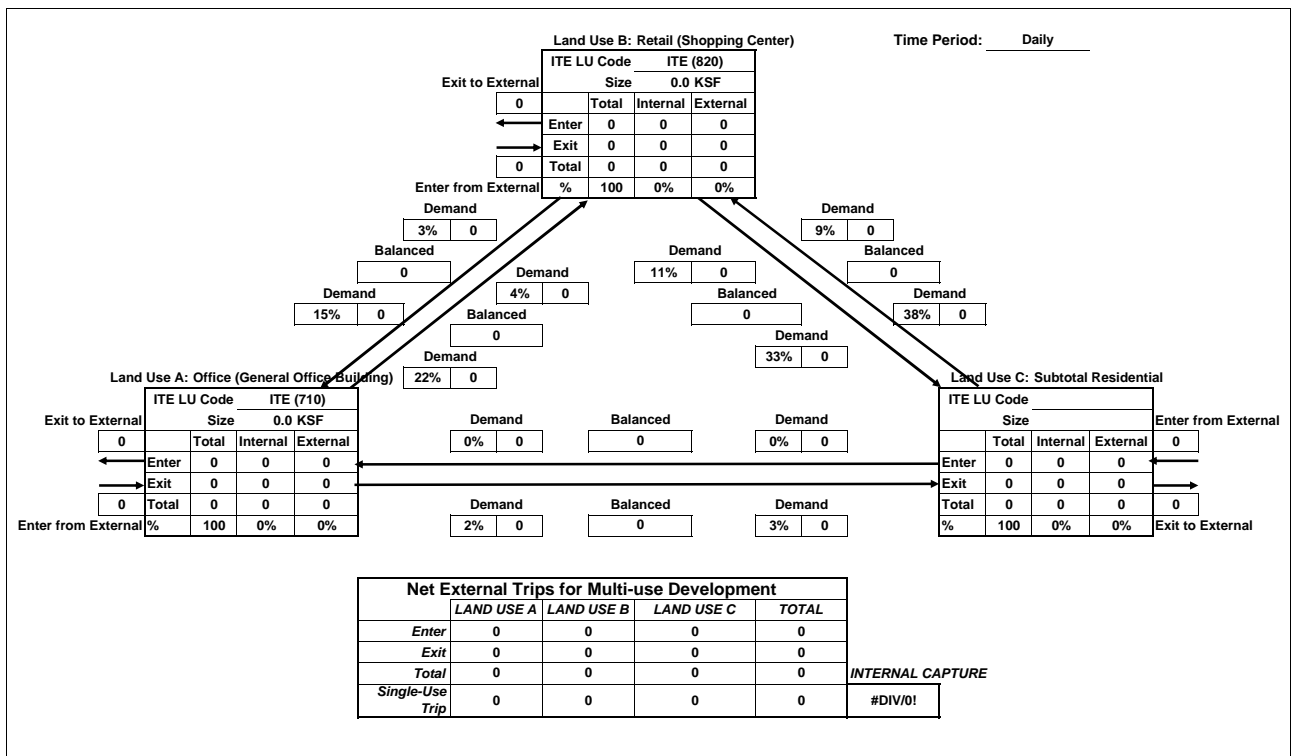


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Initial Phase with Maximum Residential (2030)

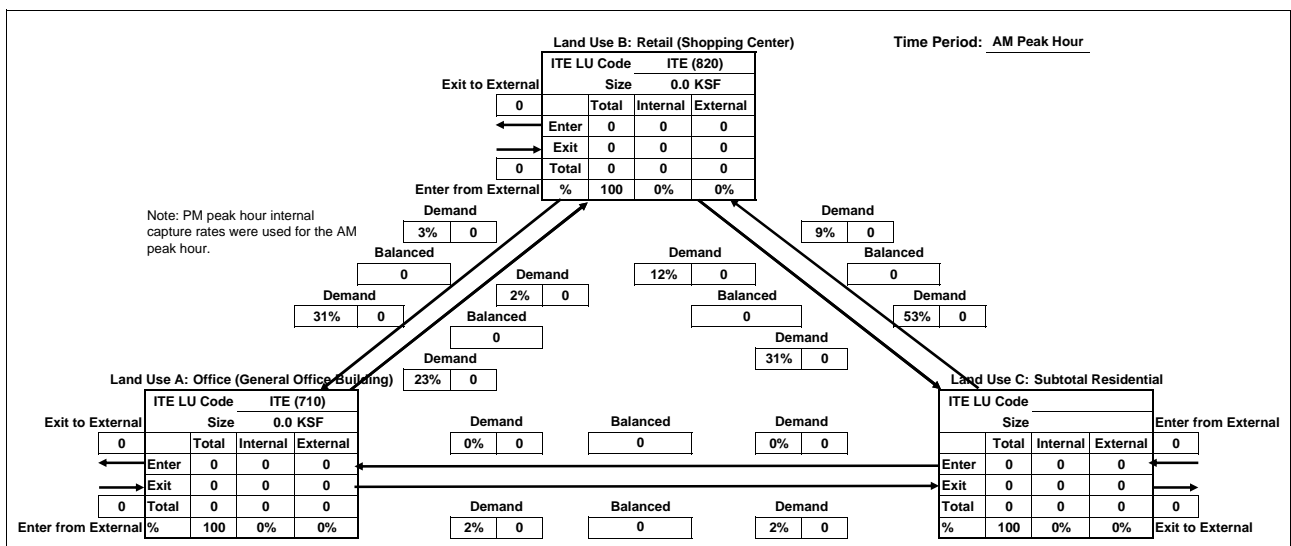
Time Period: Daily



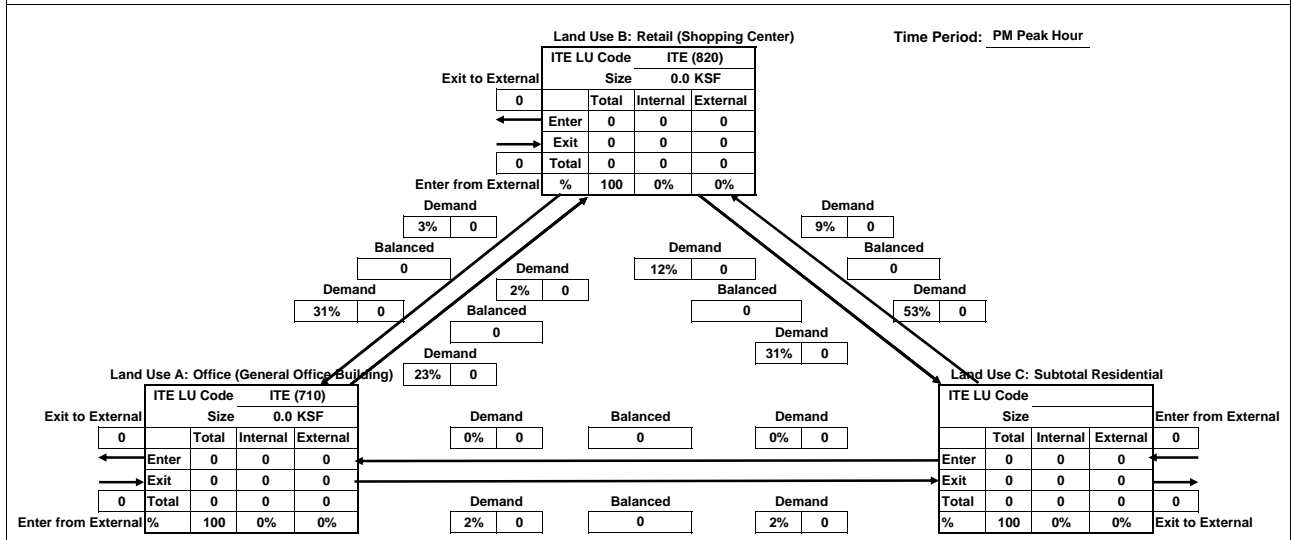
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	0	0	
Exit	0	0	0	0	
Total	0	0	0	0	INTERNAL CAPTURE
Single-Use Trip	0	0	0	0	#DIV/0!



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	0	0	
Exit	0	0	0	0	
Total	0	0	0	0	INTERNAL CAPTURE
Single-Use Trip	0	0	0	0	#DIV/0!

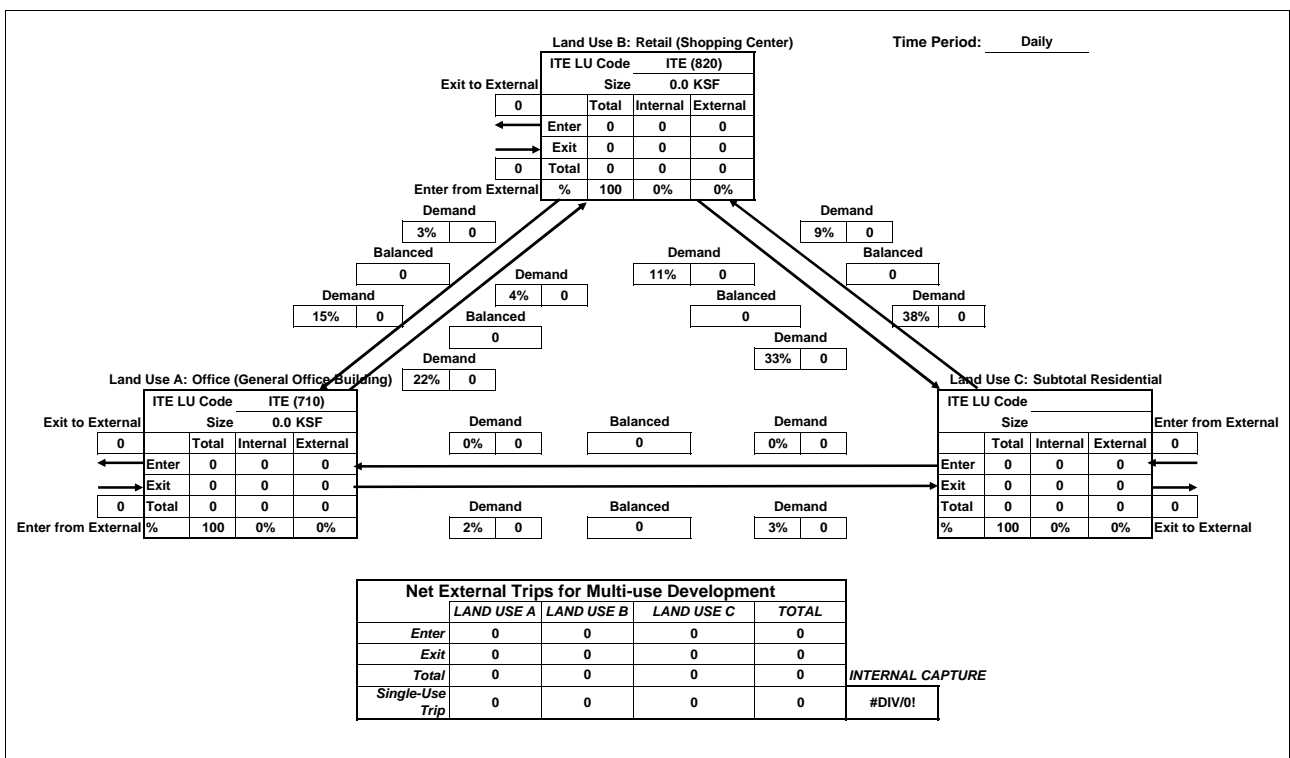
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

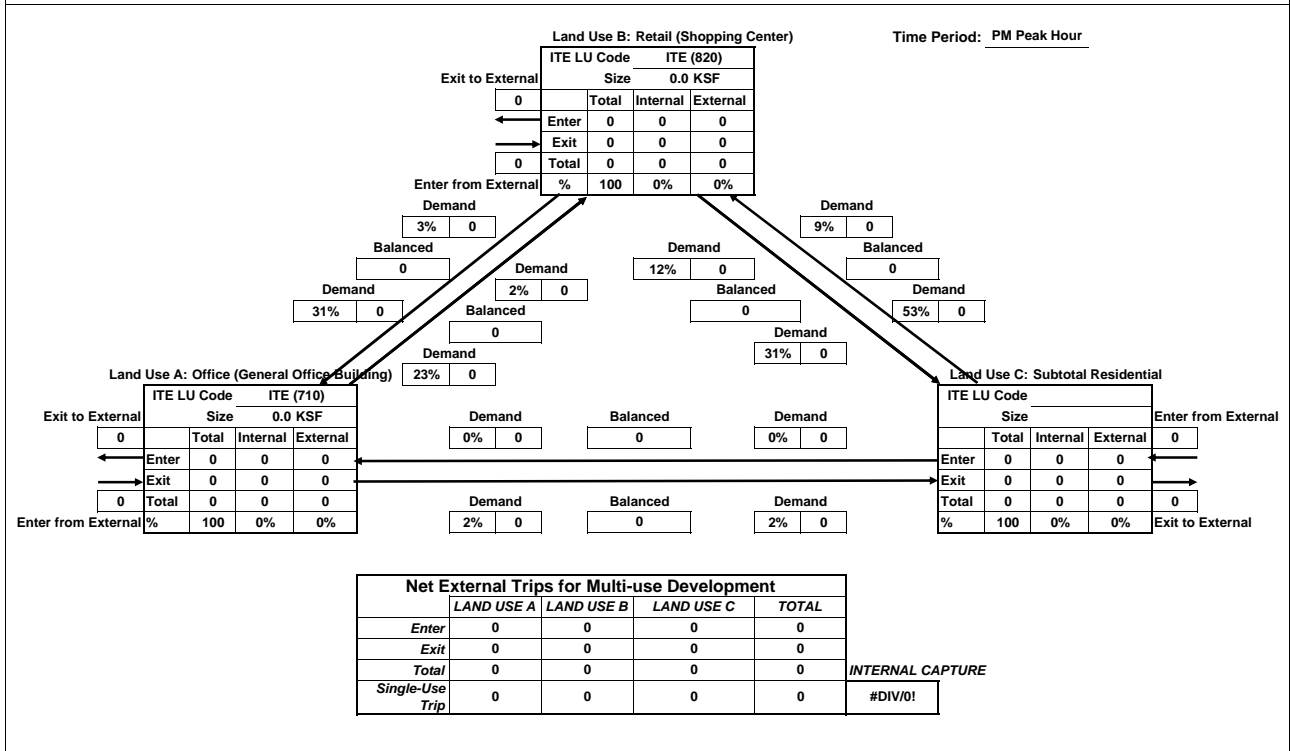
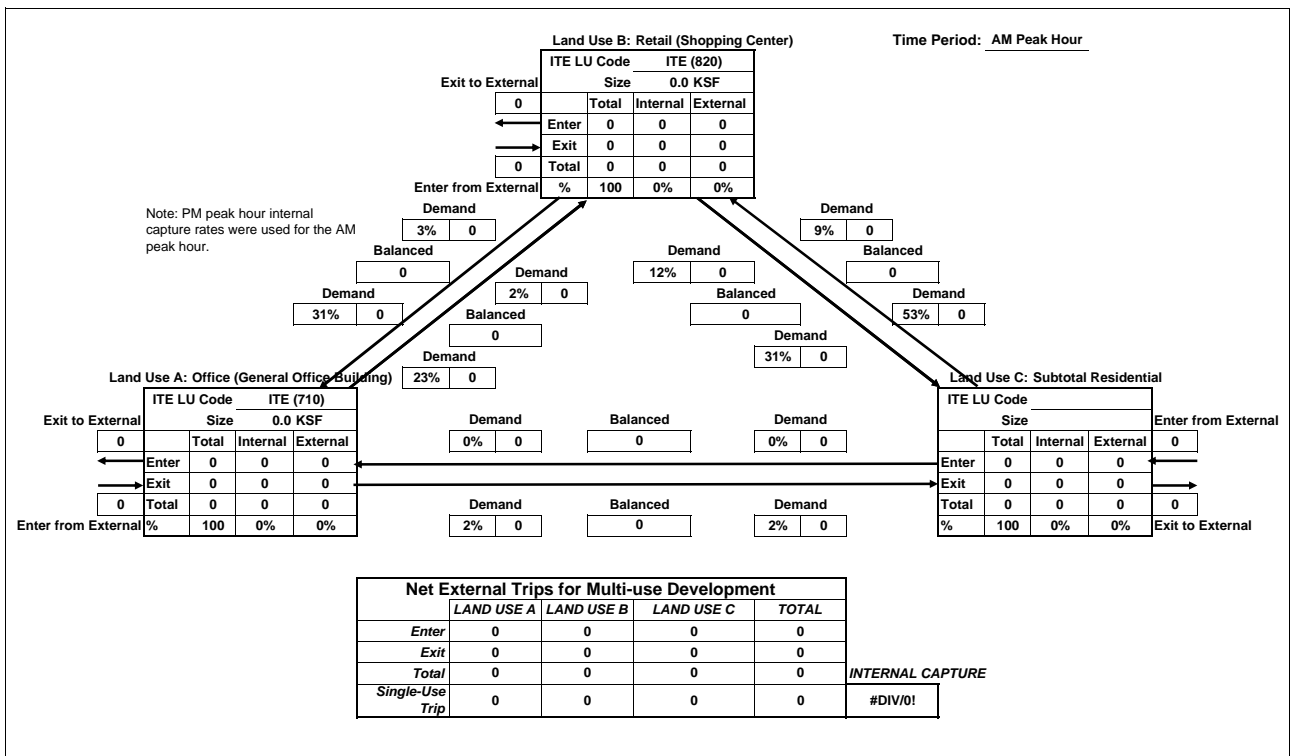


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



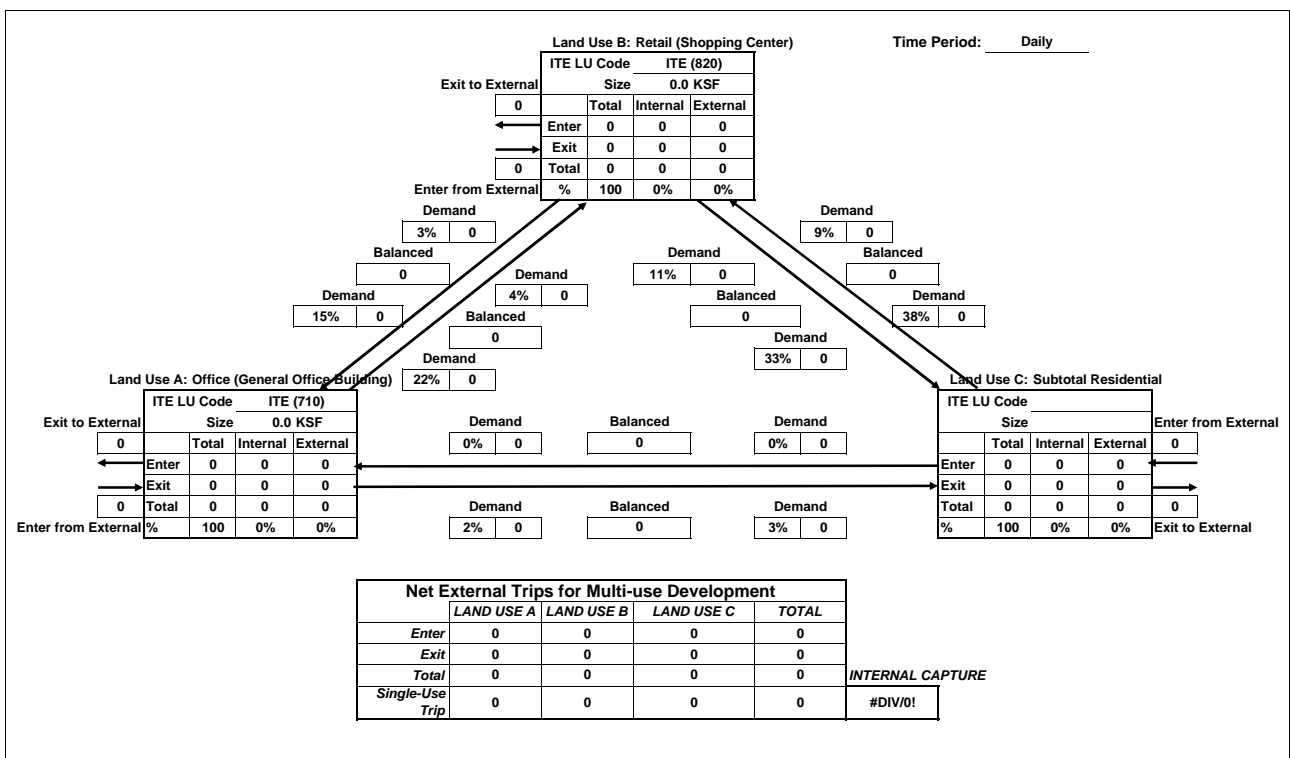
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

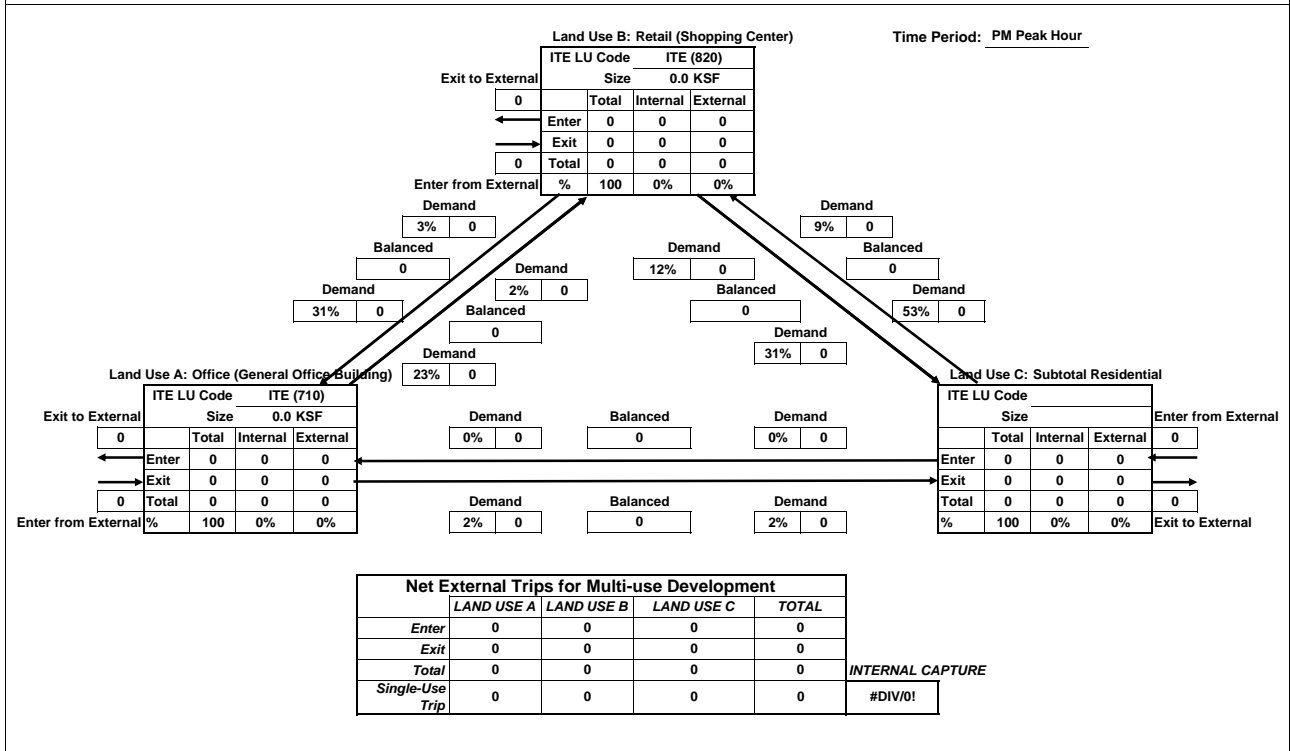
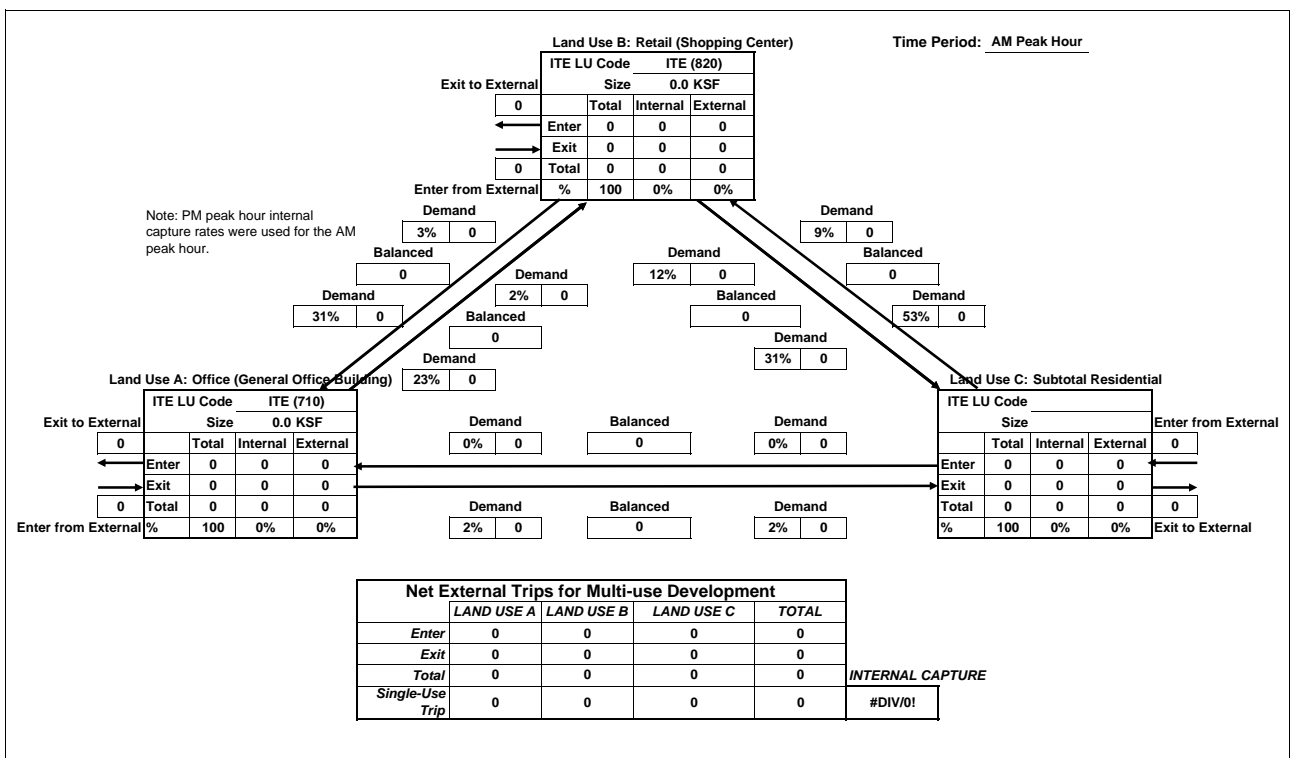


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)



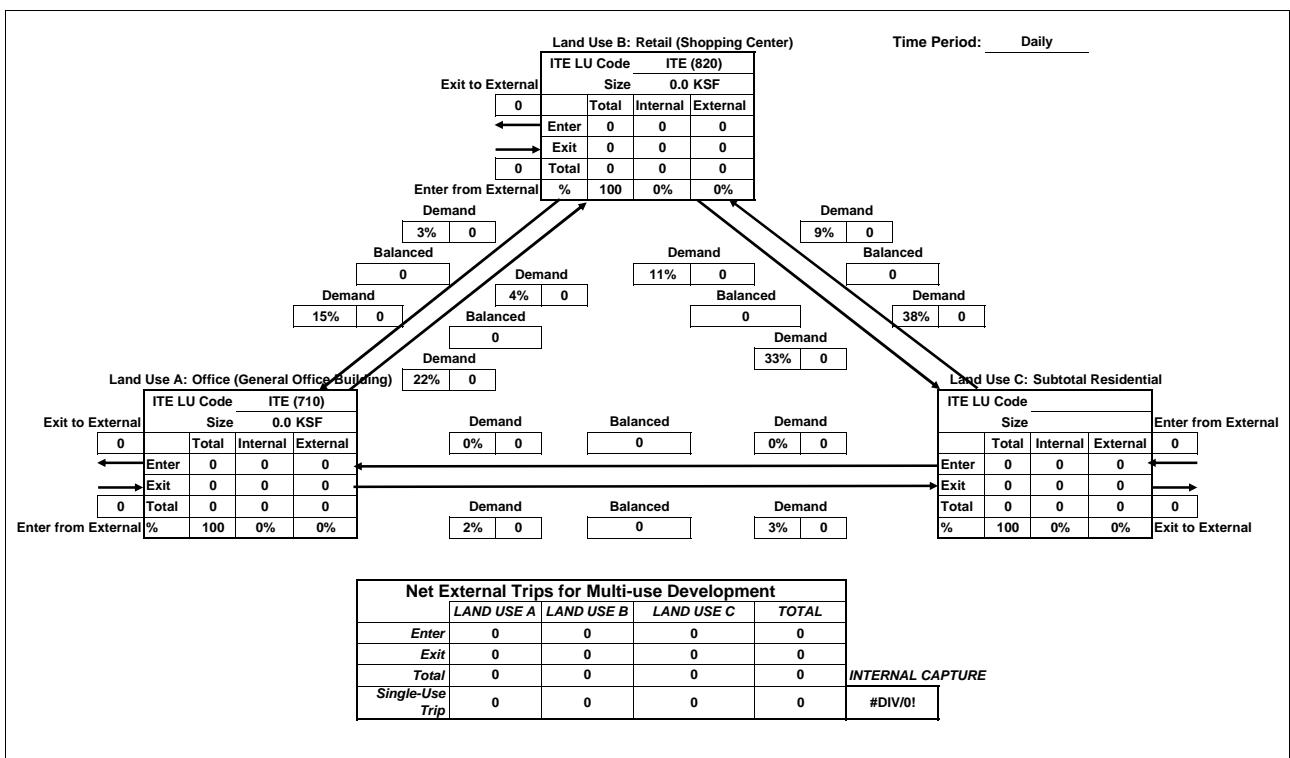
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 24: Bounded by Property Boundary, Railyards, N. 10th

Name of Development: Railyards Study
Initial Phase with Maximum Residential (2030)

Time Period: Daily

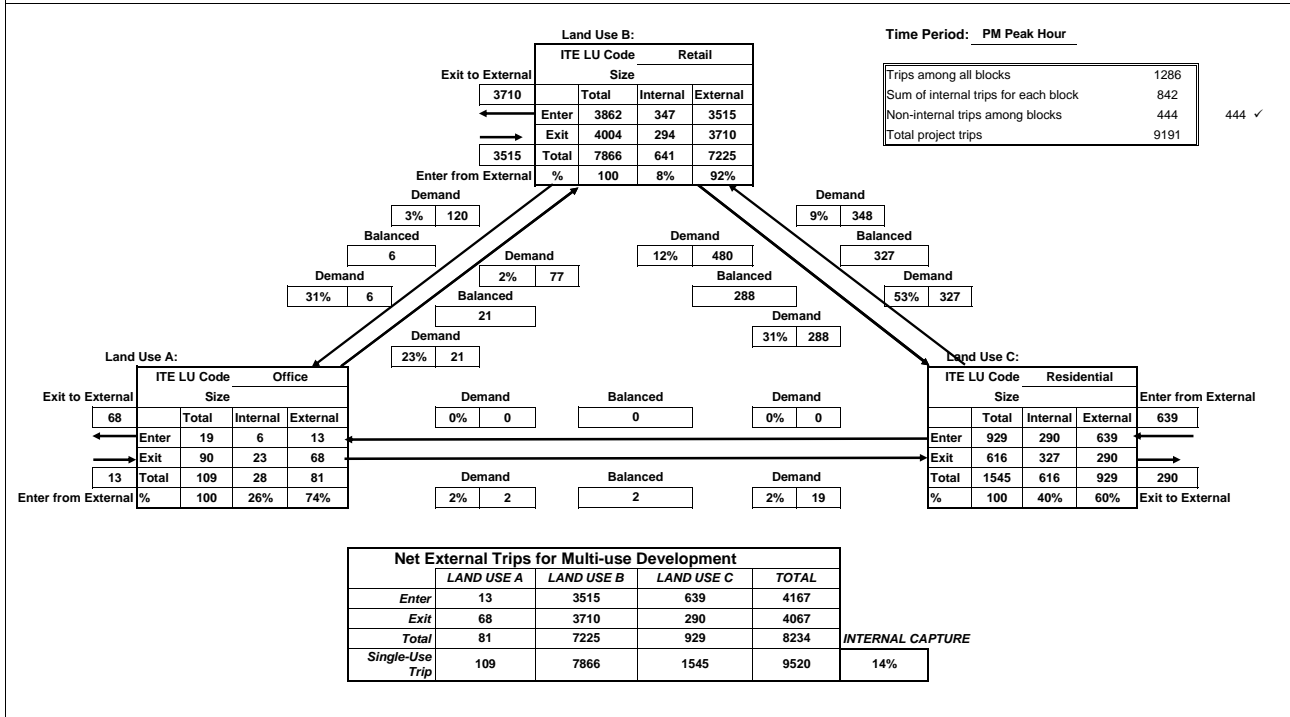
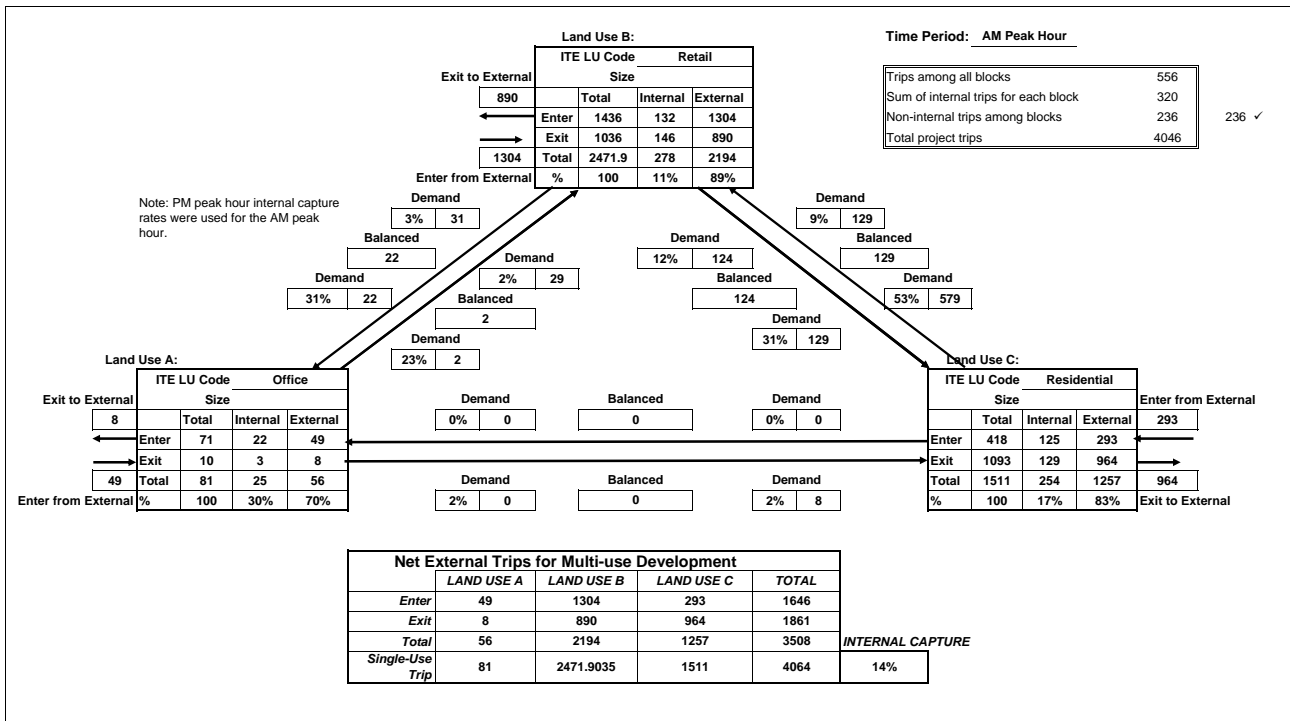


**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling

Name of Development: Downtown Study
Initial Phase with Maximum Residential (2030)

Date: 8/17/2007



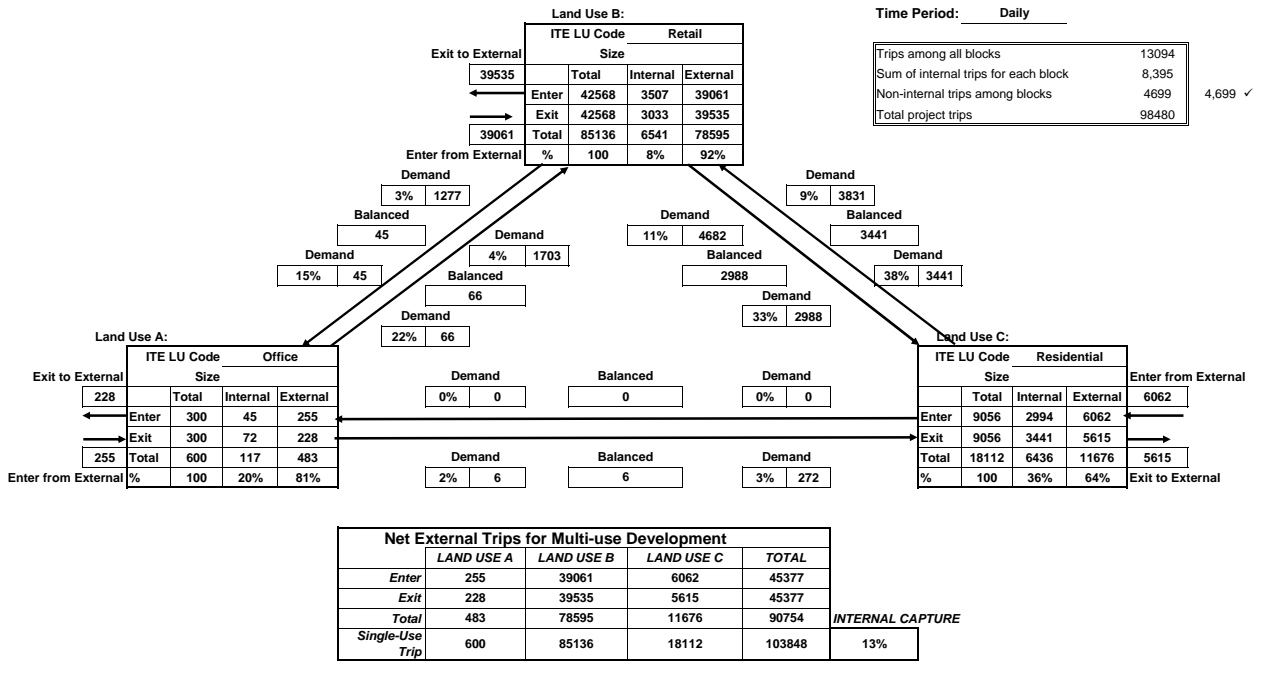
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 TRIPS AMONG ALL BLOCKS**

Name of Development: Downtown Study
 Initial Phase with Maximum Residential (2030)

Time Period: Daily

Trips among all blocks	13094	
Sum of internal trips for each block	8,395	
Non-internal trips among blocks	4699	4,699 ✓
Total project trips	98480	



Full Project with Maximum Office

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	32 KSF	555	66	9	75	20	95	115
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	808 Units	5,487	206	213	419	230	185	415
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,646	429	322	751	768	841	1,609
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.7%)		-1,889	-36	-29	-65	-81	-83	-164
Internal Trips Within This Block (-12.8%)		-2,262	-28	-28	-56	-118	-118	-235
Trips To-From Other Blocks within the Project (-7.1%)		-1,254	-11	-11	-21	-48	-48	-97
New External Trips (69%) of Total Trips for Block		12,240	354	255	609	521	592	1,113
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	526 Units	2,207	34	147	181	120	74	194
Other	0	0	0	0	0	0	0	0
Total Trips for Block		8,673	244	214	458	386	467	853
Transit Adjustments (-3.4%)		-295	-18	-8	-26	-12	-23	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-867	-16	-17	-33	-39	-40	-79
Internal Trips Within This Block (-14.7%)		-1,272	-14	-14	-28	-58	-58	-116
Trips To-From Other Blocks within the Project (-6.7%)		-580	-6	-6	-13	-25	-25	-50
New External Trips (65%) of Total Trips for Block		5,659	190	169	359	252	321	573
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8.2%)		-940	-4	-4	-8	-38	-38	-75
New External Trips (80%) of Total Trips for Block		9,171	132	84	216	413	451	865
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	65 KSF	957	117	16	133	26	126	152
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	106 Units	623	11	49	60	32	20	52
Total Trips for Block		9,059	232	132	364	389	505	894
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-955	-17	-12	-29	-41	-47	-88
Internal Trips Within This Block (-8.4%)		-761	-15	-15	-30	-33	-33	-66
Trips To-From Other Blocks within the Project (-7.5%)		-683	-5	-5	-10	-30	-30	-59
New External Trips (74%) of Total Trips for Block		6,660	195	100	294	285	395	681

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	129 KSF	1,623	202	28	230	38	185	223
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	162 Units	834	14	62	76	44	27	71
Total Trips for Block		10,102	323	158	481	421	579	1,000
Transit Adjustments (-3.7%)		-370	-26	-7	-33	-13	-30	-43
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-1,012	-18	-14	-32	-44	-50	-94
Internal Trips Within This Block (-9.9%)		-1,003	-16	-16	-32	-41	-41	-82
Trips To-From Other Blocks within the Project (-7.1%)		-717	-7	-7	-13	-31	-31	-62
New External Trips (69%) of Total Trips for Block		7,000	257	115	371	292	427	719
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	76 KSF	1,080	133	18	151	28	136	164
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	294 Units	1,332	22	92	114	71	44	115
Total Trips for Block		7,897	234	160	394	341	442	783
Transit Adjustments (-3.5%)		-276	-18	-6	-24	-10	-23	-33
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-794	-15	-13	-28	-35	-38	-73
Internal Trips Within This Block (-14.7%)		-1,159	-14	-14	-29	-51	-51	-101
Trips To-From Other Blocks within the Project (-6.7%)		-527	-5	-5	-11	-23	-23	-46
New External Trips (65%) of Total Trips for Block		5,141	181	121	303	222	307	530
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	800 KSF	6,615	871	119	990	166	809	975
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		6,615	871	119	990	166	809	975
Transit Adjustments (-11.1%)		-734	-97	-13	-110	-18	-90	-108
Walk, Bike & Other Non-Auto Travel Adjustments (-2.8%)		-185	-25	-3	-28	-5	-22	-27
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8%)		-529	-15	-15	-29	-34	-34	-67
New External Trips (78%) of Total Trips for Block		5,167	734	88	823	109	663	773
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	86 KSF	1,188	146	20	166	30	145	175
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	100 Units	522	25	16	41	31	28	59
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,676	663	457	1,120	859	998	1,857
Transit Adjustments (-3.6%)		-708	-28	-11	-39	-22	-37	-59
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-2,002	-63	-51	-114	-95	-87	-181
Internal Trips Within This Block (-3.6%)		-718	-30	-30	-60	-44	-44	-87
Trips To-From Other Blocks within the Project (-7.7%)		-1,510	-15	-15	-31	-61	-61	-122
New External Trips (75%) of Total Trips for Block		14,738	526	350	876	638	769	1,407

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	40 KSF	659	79	11	90	21	103	124
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	72 Units	301	5	20	24	17	10	27
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,543	307	204	510	767	889	1,656
Transit Adjustments (-2.8%)		-456	-14	-6	-20	-19	-30	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-1,823	-29	-22	-51	-85	-92	-176
Internal Trips Within This Block (-2.5%)		-406	-17	-17	-35	-28	-28	-55
Trips To-From Other Blocks within the Project (-7.8%)		-1,288	-7	-7	-14	-55	-55	-110
New External Trips (76%) of Total Trips for Block		12,570	240	151	391	580	684	1,267
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	30 KSF	528	63	9	72	19	93	112
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	236 Units	1,113	18	79	97	60	36	96
Total Trips for Block		4,610	126	116	242	209	269	478
Transit Adjustments (-3.3%)		-153	-9	-4	-13	-7	-14	-21
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-466	-8	-10	-18	-21	-21	-42
Internal Trips Within This Block (-14.9%)		-689	-8	-8	-16	-32	-32	-63
Trips To-From Other Blocks within the Project (-6.7%)		-307	-3	-3	-7	-14	-14	-28
New External Trips (65%) of Total Trips for Block		2,995	98	91	188	135	188	324
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	115 KSF	1,488	185	25	210	35	173	208
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		5,109	239	59	298	194	345	539
Transit Adjustments (-4.8%)		-245	-21	-4	-25	-7	-23	-30
Walk, Bike & Other Non-Auto Travel Adjustments (-9%)		-462	-11	-5	-16	-19	-25	-44
Internal Trips Within This Block (-4.3%)		-219	-2	-2	-4	-7	-7	-14
Trips To-From Other Blocks within the Project (-7.6%)		-389	-4	-4	-9	-18	-18	-36
New External Trips (74%) of Total Trips for Block		3,795	201	44	245	143	272	415
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	250 KSF	2,701	343	47	390	61	298	359
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		6,096	633	133	766	218	655	873
Transit Adjustments (-8%)		-489	-48	-7	-55	-11	-44	-55
Walk, Bike & Other Non-Auto Travel Adjustments (-5.8%)		-356	-21	-5	-26	-15	-26	-41
Internal Trips Within This Block (-2.1%)		-127	-1	-1	-2	-4	-4	-8
Trips To-From Other Blocks within the Project (-7.8%)		-476	-12	-12	-23	-31	-31	-61
New External Trips (76%) of Total Trips for Block		4,648	551	108	659	157	550	707
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	680 KSF	5,837	765	104	869	143	697	840
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		7,549	792	121	913	217	777	994
Transit Adjustments (-9.1%)		-686	-85	-12	-97	-17	-79	-96
Walk, Bike & Other Non-Auto Travel Adjustments (-4.8%)		-362	-24	-5	-29	-13	-29	-42
Internal Trips Within This Block (-1.4%)		-103	-1	-1	-2	-3	-3	-7
Trips To-From Other Blocks within the Project (-7.9%)		-595	-13	-13	-27	-34	-34	-68
New External Trips (77%) of Total Trips for Block		5,803	669	90	758	150	632	781

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	192 KSF	2,205	278	38	316	50	244	294
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		8,315	365	93	458	320	536	856
Transit Adjustments (-4.6%)		-379	-33	-5	-38	-12	-33	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-9.3%)		-771	-18	-7	-25	-32	-41	-73
Internal Trips Within This Block (-4.4%)		-369	-3	-3	-6	-12	-12	-24
Trips To-From Other Blocks within the Project (-7.6%)		-632	-7	-7	-13	-29	-29	-57
New External Trips (74%) of Total Trips for Block		6,164	304	71	376	235	421	657
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	300 KSF	3,109	398	54	452	71	344	415
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		4,223	416	66	482	119	396	515
Transit Adjustments (-8.8%)		-370	-45	-6	-51	-9	-39	-48
Walk, Bike & Other Non-Auto Travel Adjustments (-5.1%)		-216	-13	-3	-16	-8	-16	-24
Internal Trips Within This Block (-1.6%)		-67	-1	-1	-1	-2	-2	-4
Trips To-From Other Blocks within the Project (-7.9%)		-332	-7	-7	-14	-18	-18	-35
New External Trips (77%) of Total Trips for Block		3,238	350	49	400	82	321	404
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,355 Units	5,332	80	342	422	295	181	476
Total Trips for Block		5,332	80	342	422	295	181	476
Transit Adjustments (-2.6%)		-139	-3	-11	-14	-9	-6	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-512	-6	-27	-33	-25	-16	-41
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8.2%)		-435	-6	-6	-13	-17	-17	-34
New External Trips (80%) of Total Trips for Block		4,246	65	298	362	244	142	386
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,273 Units	5,023	76	322	398	278	170	448
Total Trips for Block		5,023	76	322	398	278	170	448
Transit Adjustments (-2.6%)		-131	-3	-11	-14	-9	-5	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-482	-6	-25	-31	-24	-15	-39
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-8.2%)		-410	-6	-6	-12	-16	-16	-32
New External Trips (80%) of Total Trips for Block		4,000	61	280	341	229	134	363
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,603 Units	6,267	94	400	494	347	213	560
Total Trips for Block		9,025	135	427	562	467	344	811
Transit Adjustments (-2.5%)		-224	-4	-14	-18	-14	-9	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-922	-12	-35	-47	-44	-33	-77
Internal Trips Within This Block (-5.3%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-7.6%)		-688	-8	-8	-17	-27	-27	-53
New External Trips (74%) of Total Trips for Block		6,715	105	364	468	360	253	612

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 20: Bounded by South Park, N. 10th, Railyards, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,865 Units	7,255	108	462	570	403	247	650
----- Total Trips for Block		10,013	149	489	638	523	378	901
Transit Adjustments (-2.5%)		-250	-5	-15	-20	-15	-11	-26
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-1,016	-14	-39	-53	-49	-36	-85
Internal Trips Within This Block (-4.7%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-7.7%)		-769	-9	-9	-19	-30	-30	-60
New External Trips (75%) of Total Trips for Block		7,503	115	420	534	406	278	685

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	122 KSF	1,550	193	26	219	37	178	215
Retail (Shopping Center)	27 KSF	2,900	43	28	71	127	137	264
Subtotal Residential	200 Units	1,417	59	38	97	63	55	118
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		7,157	553	157	710	292	628	920
Transit Adjustments (-5.8%)		-416	-33	-7	-40	-11	-34	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-7.7%)		-551	-22	-9	-31	-23	-33	-56
Internal Trips Within This Block (-9.8%)		-702	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-7.1%)		-510	-11	-11	-21	-30	-30	-61
New External Trips (70%) of Total Trips for Block		4,978	479	122	601	196	500	696
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	15 KSF	1,979	31	20	50	86	93	179
Subtotal Residential	1,400 Units	7,719	239	352	591	355	261	616
Total Trips for Block		9,698	270	372	641	441	354	795
Transit Adjustments (-2.5%)		-245	-9	-12	-21	-13	-10	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-971	-23	-30	-53	-41	-33	-74
Internal Trips Within This Block (-3.5%)		-341	-5	-5	-9	-16	-16	-33
Trips To-From Other Blocks within the Project (-7.8%)		-757	-10	-10	-19	-27	-27	-53
New External Trips (76%) of Total Trips for Block		7,384	224	316	539	344	268	612
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	60 KSF	4,872	70	45	115	215	232	447
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		7,546	111	221	332	361	322	683
Transit Adjustments (-2.3%)		-177	-3	-7	-10	-9	-8	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-822	-11	-19	-30	-37	-35	-72
Internal Trips Within This Block (-11.1%)		-840	-10	-10	-20	-41	-41	-81
Trips To-From Other Blocks within the Project (-7%)		-531	-5	-5	-9	-20	-20	-41
New External Trips (69%) of Total Trips for Block		5,176	82	180	263	254	218	472
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	40 KSF	3,743	55	35	90	164	178	342
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		6,417	96	211	307	310	268	578
Transit Adjustments (-2.4%)		-152	-2	-7	-9	-8	-7	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-10.8%)		-691	-9	-18	-27	-31	-29	-60
Internal Trips Within This Block (-10.1%)		-646	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-7.1%)		-458	-4	-4	-9	-18	-18	-35
New External Trips (70%) of Total Trips for Block		4,470	73	174	246	222	183	406
Total Project Trips								
Office (General Office Building)	2,993 KSF	31,175	3,972	542	4,514	773	3,762	4,535
Retail (Shopping Center)	1,566 KSF	116,989	1,937	1,376	3,312	5,273	5,510	10,783
Subtotal Residential	11,300 Units	50,780	1,072	2,947	4,018	2,639	1,730	4,369
Other		4,819	516	130	645	167	703	869
Total Project Trips		203,762	7,497	4,995	12,489	8,852	11,705	20,556
Transit Adjustments (-3.4%)		-6,895	-504	-173	-677	-245	-555	-799
Walk, Bike & Other Non-Auto Travel Adjustments (-9.5%)		-19,454	-435	-409	-844	-866	-911	-1,775
Internal Trips Within This Block (-6.2%)		-12,635	-193	-193	-385	-596	-596	-1,193
Trips To-From Other Blocks within the Project (-7.5%)		-15,317	-180	-180	-361	-671	-671	-1,342
New External Trips (73%) of Total Project Trips		149,461	6,185	4,039	10,222	6,473	8,972	15,447

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Full Project with Maximum Office (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
		73.4%			81.8%			75.1%

Table Xb: Transit Trips for Full Project with Maximum Office (By City Block)

City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	547	20	13	33	23	34	57
Block 2: Bounded by South Park, 5th, Railyards, Crocker	346	20	9	29	14	27	41
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	297	4	3	7	13	15	28
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	334	17	6	23	13	26	39
Block 6: Bounded by Railyards, 5th, Camille, Crocker	429	30	7	37	16	33	49
Block 7: Bounded by Railyards, 6th, Camille, 5th	321	20	7	27	12	26	38
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	827	109	15	124	21	101	122
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	819	32	15	47	27	57	84
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	533	16	6	22	25	36	60
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	179	10	5	15	8	18	25
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	280	24	4	28	8	27	35
Block 13: Bounded by Rail Lines, 6th, G, 5th	554	76	14	90	18	72	90
Block 14: Bounded by Rail Lines, 7th, G, 6th	775	97	13	110	20	89	109
Block 15: Bounded by G, 6th, H, 6th	435	37	7	44	13	39	52
Block 16: Bounded by G, 7th, Property Boundary, 6th	418	51	7	58	10	45	55
Block 17: Bounded by N. B, 7th, South Park, 5th	171	3	14	17	11	7	18
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	161	3	13	16	11	6	17
Block 19: Bounded by South Park, 7th, Railyards, 5th	273	5	17	22	16	12	28
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	304	5	20	25	18	13	31
Block 21: SITF Site	475	59	14	73	18	60	78
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	298	11	14	25	15	13	28
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	213	4	8	12	12	9	21
Block 24: Bounded by Property Boundary, Railyards, N. 10th	183	3	8	11	10	8	18
Total New Transit Trips	9,172	656	239	895	352	773	1,123

Source: Dowling Associates, Inc. 2006

THE RAILYARDS
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Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
1 OS	1	1	0.75						
1 RRMU	2	1	4.31		200,000				
1 RRMU	3a	1	2.84						
2 OS	3b	1	0.13						
2 RRMU	3c	1	0.93			500			
2 RRMU	3d	1	0.73	168	28,000		32,000		32,000
2 OS	3e	1	0.67						
2 RRMU	3f	1	0.28	140					
Subtotal				308	228,000	500	32,000	0	32,000
2 RRMU	5a	2	1.14	104					
2 RRMU	5b	2	0.68	80	27,000		29,000		29,000
2 RRMU	6a	2	1.28	242					
2 RRMU	6b	2	1.07	100	43,000		47,000		47,000
2 OS	6c	2	0.15						
Subtotal				526	70,000	0	76,000	0	76,000
1 RRMU	33	3	2.62						
1 RRMU	11a	4	4.42		223,000				
1 OS	11b	4	0.27						
Subtotal				0	223,000	0	0	0	0
1 RRMU	10a	5	3.88	106	116,000		65,000		65,000
1 OS	10b	5	0.57						
Subtotal				106	116,000	0	65,000	0	65,000
1 RRMU	8a	6	0.61	22	27,000		27,000		27,000
1 RRMU	8b	6	1.22	48	33,000		38,000		38,000
1 RRMU	9a	6	0.60	44	26,000		26,000		26,000
1 RRMU	9b	6	1.27	48	34,000		38,000		38,000
Subtotal				162	120,000	0	129,000	0	129,000
2 RRMU	7a	7	2.06	186	18,000		18,000		18,000
2 RRMU	7b	7	1.19	108	54,000		58,000		58,000
2 OS	7c	7	0.03						
Subtotal				294	72,000	0	76,000	0	76,000
3 ORMU	47a	8	2.21				300,000		
1 RRMU	47b	8	0.78						

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Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 ORMU	48	8	2.56				500,000		
Subtotal				0	0	0	800,000	0	0

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Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
1 RRMU	12	9	1.17		71,000		43,000		43,000
1 RRMU	13a	9	0.11		3,500				
1 RRMU	13b	9	0.23		8,000				
1 RRMU	13c	9	0.12		5,600				
1 OS	13d	9	0.60						
1 RRMU	14	9	0.62		13,000	100			
1 RRMU	23	9	0.34				22,500	Restaurant	
1 RRMU	24	9	0.73				42,028	19816 Rest; 11165 Retail; 7730 Office	
1 RRMU	25	9	0.53				38,711	21014 Restaurant; 21014 Office	
1 RRMU	26	9	0.33				28,500	14250 Retail; 14250 Office	
1 RRMU	27	9	0.65				28,043	25000 Exhibit; 3043 Retail	
1 RRMU	28	9	2.24				93,134	Exhibit	
1 RRMU	29	9	1.67				69,696	Exhibit	
1 OS	30a	9	5.07						
1 OS	30b	9	1.35						
1 OS	31a	9	2.66						
1 OS	31b	9	0.32						
1 TU	38	9	16.78						
1 OS	45	9	0.33						
Subtotal				0	101,100	100	43,000	322,612	43,000
1 RRMU	15a	10	3.33	72	65,500		40,000	100,000	1,800
1 OS	15b	10	0.05						
1 OS	18a	10	1.05						
1 RRMU	18b	10	0.25		38,500				
1 RRMU	20	10	1.30				56,278	Market	
1 OS	21	10	5.30						
1 RRMU	22	10	0.15				6,500	Retail	
Subtotal				72	104,000	0	40,000	162,778	40,000
2 RRMU	16a	11	1.67	236	28,000		30,000		30,000
2 OS	16b	11	0.07						
1 RRMU	17	11	1.48						
Subtotal				236	28,000	0	30,000	0	30,000
2 ORMU	40	12	1.93		38,000		115,200		
2 ORMU	44	13	1.96		16,500		250,000		
2 ORMU	43	14	2.56		12,000		500,000		

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Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
2 ORMU	46	14	2.89				180,000		
Subtotal				0	12,000	0	680,000	0	0
1 ORMU	41	15	2.43		85,000		192,000		
1 ORMU	42	16	1.19		6,200		300,000		
3 OS	60	17	1.12						
3 OS	61	17	0.71						
3 OS	62	17	0.92						
3 RMU	69N	17	1.64	480					
3 RMU	69S	17	1.21	135					
3 RMU	70N	17	1.10	330					
3 RMU	70S	17	0.88	110					
3 RMU	71N	17	0.77	200					
3 RMU	71S	17	0.84	100					
Subtotal				1,355	0	0	0	0	0
4 OS	63	18	0.97						
4 OS	64	18	0.89						
4 OS	65	18	0.92						
4 RMU	66N	18	0.33	35					
4 RMU	66S	18	1.07	115					
4 RMU	67N	18	1.27	385					
4 RMU	67S	18	1.12	178					
4 RMU	68N	18	1.48	430					
4 RMU	68S	18	1.17	130					
Subtotal				1,273	0	0	0	0	0
3 OS	57a	19	0.12						
3 RMU	57N	19	1.24	250	15,000				
3 RMU	57S	19	1.38	415	10,000				
3 RMU	58N	19	1.17	125					
3 RMU	58S	19	1.15	345					
3 RMU	59N	19	1.27	135					
3 RMU	59S	19	1.11	333					
Subtotal				1,603	25,000	0	0	0	0
4 RMU	52N	20	0.98	105					
4 RMU	52S	20	1.30	390					
4 RMU	53N	20	1.38	150					

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Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
4 RMU	53S	20	1.49	445					
4 RMU	54N	20	1.35	275	15,000				
4 RMU	54S	20	1.68	500	10,000				
4 OS	54a	20	0.12						
Subtotal				1,865	25,000	0	0	0	0

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Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use
3 TU	39	21	15.34						
3 OS	34	22	1.26						
3 RMU	35	22	4.00	900	15,000	500			
Subtotal				900	15,000	500	0	0	0
4 RMU	49a	23	4.87	650	60,000				
1 ORMU	49b	23	0.73						
1 ORMU	49c	23	1.00						
3 OS	50	23	1.26						
Subtotal				650	60,000	0	0	0	0
4 RMU	51	24	4.70	650	40,000				
3 OS	72	25	10.37						
Subtotal				0		2,337,200			
TOTAL Max			180.39	10,000	1,384,800	1,100	2,828,200	485,390	491,000
Min				10,000			491,000		
Check				11,300	1,566,366		2,993,194		

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips^a	Non-Work Trips^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office¹	10.9%	0.2%	11.1%	
Retail²	0.8%	1.4%	2.2%	
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^{3,c}				
AM Peak Hour	2.5%	0.7%	0.2%	3.4%
PM Peak Hour	2.1%	0.6%	0.4%	3.1%
Daily	1.5%	0.7%	0.4%	2.6%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office¹	1.5%	1.2%	2.8%	
Retail²	0.1%	11.4%	11.6%	
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office¹	12.2%	0.3%	12.5%	
Retail²	1.0%	1.7%	2.6%	
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	3.1%	0.8%	0.3%	4.1%
PM Peak Hour	2.6%	0.7%	0.5%	3.7%
Daily	1.9%	0.8%	0.5%	3.2%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001.
 Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 1: Bounded by South Park, Crocker, Railyards, Bercut													
Office (General Office Building)	32.0 KSF	ITE (710)	555	66	9	75	20	95	115	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%
Residential													
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%
High Rise Residential Condominium	308 Units	ITE (232)	1,385	22	96	118	74	46	120	19%	81%	62%	38%
Subtotal Residential	808 Units		5,487	206	213	419	230	185	415				
Other													
Total Trips for Block			17,646	429	322	751	768	841	1,609				
Transit Adjustments													
Office (-11.1%)													
Retail (-2.2%)													
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)													
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-16	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-527	-16	-17	-33	-20	-16	-36				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,889	-36	-29	-65	-81	-83	-164				
Internal Trips Within This Block			-2,262	-28	-28	-56	-118	-118	-235				
Trips To-From Other Blocks within the Project			-1,254	-11	-11	-21	-48	-48	-97				
New External Trips													
Office (General Office Building)				60	6	66	12	76	88				
Retail (Shopping Center)				121	72	192	375	399	774				
Subtotal Residential				174	177	350	134	117	251				
Other				0	0	0	0	0	0				
Total				12,240	354	255	609	521	592	1,113			
New External Trips Percent of Total Project Trips				69%	83%	79%	81%	68%	70%	69%			
Transit Trips													
Office (12.5%)				69	8	1	9	2	12	14			
Retail (2.6%)				302	4	3	7	13	15	28			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				176	8	9	17	8	7	15			
Other				0	0	0	0	0	0	0			
Total Transit Trips				547	20	13	33	23	34	57			

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 2: Bounded by South Park, 5th, Railyards, Crocker													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	526 Units	ITE (232)	2,207	34	147	181	120	74	194	19%	81%	62%	38%
Subtotal Residential	526 Units		2,207	34	147	181	120	74	194				
Other													
Total Trips for Block			8,673	244	214	458	386	467	853				
Transit Adjustments													
Office (-11.1%)			-120	-15	-2	-17	-3	-15	-18				
Retail (-2.2%)			-118	-2	-1	-3	-5	-6	-11				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-57	-1	-5	-6	-4	-2	-6				
Other (-13%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-295	-18	-8	-26	-12	-23	-35				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-212	-3	-11	-14	-11	-6	-17				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-867	-16	-17	-33	-39	-40	-79				
Internal Trips Within This Block			-1,272	-14	-14	-28	-58	-58	-116				
Trips To-From Other Blocks within the Project			-580	-6	-6	-13	-25	-25	-50				
New External Trips													
Office (General Office Building)				109	14	123	16	104	119				
Retail (Shopping Center)				57	34	91	168	174	342				
Subtotal Residential				24	121	144	69	43	112				
Other				0	0	0	0	0	0				
Total				5,659	190	169	359	252	321	573			
New External Trips Percent of Total Project Trips				65%	78%	79%	78%	65%	69%	67%			
Transit Trips													
Office (12.5%)				135	17	2	19	4	17	21			
Retail (2.6%)				140	2	1	3	6	7	13			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				71	1	6	7	4	3	7			
Other				0	0	0	0	0	0	0			
Total Transit Trips				346	20	9	29	14	27	41			

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-940	-4	-4	-8	-38	-38	-75					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				132	84	216	413	451	865					
Subtotal Residential				0	0	0	0	0	0					
Total				9,171	132	84	216	413	451	865				
New External Trips Percent of Total Project Trips				80%	86%	85%	86%	81%	82%	81%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0	0				
Retail (2.6%)				297	4	3	7	13	15	28				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				0	0	0	0	0	0	0				
Total Transit Trips				297	4	3	7	13	15	28				

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 5: Bounded by Railyards, Crocker, Camille, Huntington													
Office (General Office Building)	65.0 KSF	ITE (710)	957	117	16	133	26	126	152	88%	12%	17%	83%
Retail (Shopping Center) (90%)	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	106 Units	ITE (232)	623	11	49	60	32	20	52	19%	81%	62%	38%
Subtotal Residential	106 Units		623	11	49	60	32	20	52				
Other													
Total Trips for Block			9,059	232	132	364	389	505	894				
Transit Adjustments													
Office (-11.1%)													
Retail (-2.2%)													
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)													
Other													
Total Transit Adjustments			0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-27	-4	0	-4	-1	-3	-4				
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-60	-1	-4	-5	-2	-2	-4				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-955	-17	-12	-29	-41	-47	-88				
Internal Trips Within This Block			-761	-15	-15	-30	-33	-33	-66				
Trips To-From Other Blocks within the Project			-683	-5	-5	-10	-30	-30	-59				
New External Trips													
Office (General Office Building)				108	13	122	15	109	124				
Retail (Shopping Center) (90%)				80	52	131	253	279	532				
Subtotal Residential				6	35	41	18	7	25				
Total			6,660	195	100	294	285	395	681				
New External Trips Percent of Total Project Trips			74%	84%	75%	81%	73%	78%	76%				
Transit Trips													
Office (12.5%)			120	15	2	17	3	16	19				
Retail (2.6%)			194	2	2	4	9	9	18				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			20	0	2	2	1	1	2				
Total Transit Trips			334	17	6	23	13	26	39				

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 6: Bounded by Railyards, 5th, Camille, Crocker													
Office (General Office Building)	129.0 KSF	ITE (710)	1,623	202	28	230	38	185	223	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	162 Units	ITE (232)	834	14	62	76	44	27	71	19%	81%	62%	38%
Subtotal Residential	162 Units		834	14	62	76	44	27	71				
Other													
Total Trips for Block			10,102	323	158	481	421	579	1,000				
Transit Adjustments													
Office (-11.1%)			-180	-23	-3	-26	-4	-21	-25				
Retail (-2.2%)			-168	-2	-2	-4	-8	-8	-16				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-22	-1	-2	-3	-1	-1	-2				
Other													
Total Transit Adjustments			-370	-26	-7	-33	-13	-30	-43				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-45	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-80	-1	-5	-6	-4	-2	-6				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,012	-18	-14	-32	-44	-50	-94				
Internal Trips Within This Block			-1,003	-16	-16	-32	-41	-41	-82				
Trips To-From Other Blocks within the Project			-717	-7	-7	-13	-31	-31	-62				
New External Trips													
Office (General Office Building)				168	21	189	21	142	163				
Retail (Shopping Center)				81	50	130	248	275	523				
Subtotal Residential				8	44	52	23	10	33				
Total				7,000	257	115	371	292	427	719			
New External Trips Percent of Total Project Trips				69%	79%	72%	77%	69%	74%	72%			
Transit Trips													
Office (12.5%)				203	26	3	29	5	23	28			
Retail (2.6%)				199	3	2	5	9	9	18			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				27	1	2	3	2	1	3			
Total Transit Trips				429	30	7	37	16	33	49			

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 7: Bounded by Railyards, 6th, Camille, 5th													
Office (General Office Building)	76.0 KSF	ITE (710)	1,080	133	18	151	28	136	164	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	294 Units	ITE (232)	1,332	22	92	114	71	44	115	19%	81%	62%	38%
Subtotal Residential	294 Units		1,332	22	92	114	71	44	115				
Other													
Total Trips for Block			7,897	234	160	394	341	442	783				
Transit Adjustments													
Office (-11.1%)			-120	-15	-2	-17	-3	-15	-18				
Retail (-2.2%)			-121	-2	-1	-3	-5	-6	-11				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-35	-1	-3	-4	-2	-2	-4				
Other													
Total Transit Adjustments			-276	-18	-6	-24	-10	-23	-33				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-30	-4	0	-4	-1	-4	-5				
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-128	-2	-7	-9	-6	-4	-10				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-794	-15	-13	-28	-35	-38	-73				
Internal Trips Within This Block			-1,159	-14	-14	-29	-51	-51	-101				
Trips To-From Other Blocks within the Project			-527	-5	-5	-11	-23	-23	-46				
New External Trips													
Office (General Office Building)				110	14	123	15	104	120				
Retail (Shopping Center)				59	35	94	170	186	356				
Subtotal Residential				13	73	86	37	17	54				
Total				5,141	181	121	303	222	307	530			
New External Trips Percent of Total Project Trips				65%	78%	76%	77%	65%	70%	68%			
Transit Trips													
Office (12.5%)				135	17	2	19	4	17	21			
Retail (2.6%)				143	2	1	3	6	7	13			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				43	1	4	5	2	2	4			
Total Transit Trips				321	20	7	27	12	26	38			

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th													
Office (General Office Building)	800.0 KSF	ITE (710)	6,615	871	119	990	166	809	975	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			6,615	871	119	990	166	809	975				
Transit Adjustments													
Office (-11.1%)			-734	-97	-13	-110	-18	-90	-108				
Retail (-2.2%)			0	0	0	0	0	0	0				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-734	-97	-13	-110	-18	-90	-108				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-185	-25	-3	-28	-5	-22	-27				
Retail (-11.6%)			0	0	0	0	0	0	0				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-185	-25	-3	-28	-5	-22	-27				
Internal Trips Within This Block			0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			-529	-15	-15	-29	-34	-34	-67				
New External Trips													
Office (General Office Building)				734	88	823	109	663	773				
Retail (Shopping Center)				0	0	0	0	0	0				
Subtotal Residential				0	0	0	0	0	0				
Total			5,167	734	88	823	109	663	773				
New External Trips Percent of Total Project Trips			78%	84%	74%	83%	66%	82%	79%				
Transit Trips													
Office (12.5%)			827	109	15	124	21	101	122				
Retail (2.6%)			0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			827	109	15	124	21	101	122				

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	86.0 KSF	ITE (710)	1,188	146	20	166	30	145	175	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	100 Units		522	25	16	41	31	28	59				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,676	663	457	1,120	859	998	1,857				
Transit Adjustments													
Office (-11.1%)			-132	-16	-2	-18	-3	-16	-19				
Retail (-2.2%)			-354	-11	-9	-20	-17	-15	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-14	-1	0	-1	-1	-1	-2				
Other (Museum Exhibit Space) (-11.1%)			-208	0	0	0	-1	-5	-6				
Total Transit Adjustments			-708	-28	-11	-39	-22	-37	-59				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-33	-4	-1	-5	-1	-4	-5				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-50	-2	-1	-3	-3	-2	-5				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,002	-63	-51	-114	-95	-87	-181				
Internal Trips Within This Block			-718	-30	-30	-60	-44	-44	-87				
Trips To-From Other Blocks within the Project			-1,510	-15	-15	-31	-61	-61	-122				
New External Trips													
Office (General Office Building)				112	12	124	16	100	116				
Retail & Restaurant (see footnote)				400	331	732	589	500	1,089				
Subtotal Residential				14	6	21	16	10	25				
Other (Museum Exhibit Space)				0	0	0	17	159	177				
Total			14,738	526	350	876	638	769	1,407				
New External Trips Percent of Total Project Trips			75%	79%	77%	78%	74%	77%	76%				
Transit Trips													
Office (12.5%)			149	18	3	21	4	18	22				
Retail (2.6%)			418	13	11	24	20	17	37				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			17	1	1	2	1	1	2				
Other (Museum Exhibit Space) (12.5%)			235	0	0	0	2	21	23				
Total Transit Trips			819	32	15	47	27	57	84				

Footnote:

Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26													
Office (General Office Building)	40.0 KSF	ITE (710)	659	79	11	90	21	103	124	88%	12%	17%	83%
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469				
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	72 Units	ITE (232)	301	5	20	24	17	10	27	19%	81%	62%	38%
Subtotal Residential	72 Units		301	5	20	24	17	10	27				
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36			50%	50%
Total Trips for Block			16,543	307	204	510	767	889	1,656				
Transit Adjustments													
Office (-11.1%)			-73	-9	-1	-10	-2	-12	-14				
Retail (-2.2%)			-335	-5	-4	-9	-15	-17	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-8	0	-1	-1	-1	0	-1				
Other (Performing Arts) (-11.1%)			-40	0	0	0	-1	-1	-1				
Total Transit Adjustments			-456	-14	-6	-20	-19	-30	-48				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-18	-3	0	-3	-1	-2	-3				
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-29	0	-2	-2	-1	-1	-2				
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,823	-29	-22	-51	-85	-92	-176				
Internal Trips Within This Block			-406	-17	-17	-35	-28	-28	-55				
Trips To-From Other Blocks within the Project			-1,288	-7	-7	-14	-55	-55	-110				
New External Trips													
Office (General Office Building)				61	7	68	11	70	81				
Retail & Market (see footnote)				176	137	313	545	595	1,140				
Subtotal Residential				3	7	11	9	4	12				
Other (Performing Arts)				0	0	0	16	16	34				
Total			12,570	240	151	391	580	684	1,267				
New External Trips Percent of Total Project Trips			76%	78%	74%	77%	76%	77%	76%				
Transit Trips													
Office (12.5%)			82	10	1	11	3	13	16				
Retail (2.6%)			396	6	4	10	18	20	38				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			10	0	1	1	1	0	1				
Other (Performing Arts) (12.5%)			45	0	0	0	3	3	5				
Total Transit Trips			533	16	6	22	25	36	60				

Footnote:

Retail & Market													
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 11: Bounded by Camille, 6th, Rail Lines, 5th													
Office (General Office Building)	30.0 KSF	ITE (710)	528	63	9	72	19	93	112	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	236 Units	ITE (232)	1,113	18	79	97	60	36	96	19%	81%	62%	38%
Subtotal Residential	236 Units		1,113	18	79	97	60	36	96				
Other													
Total Trips for Block			4,610	126	116	242	209	269	478				
Transit Adjustments													
Office (-11.1%)			-59	-7	-1	-8	-2	-10	-12				
Retail (-2.2%)			-65	-1	-1	-2	-3	-3	-6				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-29	-1	-2	-3	-2	-1	-3				
Other													
Total Transit Adjustments			-153	-9	-4	-13	-7	-14	-21				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-15	-2	0	-2	-1	-2	-3				
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-107	-1	-7	-8	-5	-3	-8				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-466	-8	-10	-18	-21	-21	-42				
Internal Trips Within This Block			-689	-8	-8	-16	-32	-32	-63				
Trips To-From Other Blocks within the Project			-307	-3	-3	-7	-14	-14	-28				
New External Trips													
Office (General Office Building)				52	7	58	11	73	84				
Retail (Shopping Center)				34	20	53	91	96	187				
Subtotal Residential				12	64	77	33	20	53				
Total			2,995	98	91	188	135	188	324				
New External Trips Percent of Total Project Trips			65%	77%	78%	78%	65%	70%	68%				
Transit Trips													
Office (12.5%)			66	8	1	9	2	12	14				
Retail (2.6%)			77	1	1	2	3	4	7				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			36	1	3	4	3	2	4				
Total Transit Trips			179	10	5	15	8	18	25				

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 12: Bounded by Rail Lines, 5th, I Street, LRT													
Office (General Office Building)	115.2 KSF	ITE (710)	1,488	185	25	210	35	173	208	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%
Total Trips for Block			5,109	239	59	298	194	345	539				
Transit Adjustments													
Office (-11.1%)			-165	-20	-3	-23	-4	-19	-23				
Retail (-2.2%)			-80	-1	-1	-2	-3	-4	-7				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other (-11.1%)			0	0	0	0	0	0	0				
Total Transit Adjustments			-245	-21	-4	-25	-7	-23	-30				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-42	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (-2.8%)			0	0	0	0	0	0	0				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-462	-11	-5	-16	-19	-25	-44				
Internal Trips Within This Block			-219	-2	-2	-4	-7	-7	-14				
Trips To-From Other Blocks within the Project			-389	-4	-4	-9	-18	-18	-36				
New External Trips													
Office (General Office Building)				156	18	174	22	137	160				
Retail (Shopping Center)				45	26	71	120	135	255				
Subtotal Residential				0	0	0	0	0	0				
Other				0	0	0	0	0	0				
Total				3,795	201	44	245	143	272	415			
New External Trips Percent of Total Project Trips				74%	84%	74%	82%	74%	79%	77%			
Transit Trips													
Office (12.5%)				186	23	3	26	4	22	26			
Retail (2.6%)				94	1	1	2	4	5	9			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				0	0	0	0	0	0	0			
Other (12.5%)				0	0	0	0	0	0	0			
Total Transit Trips				280	24	4	28	8	27	35			

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 13: Bounded by Rail Lines, 6th, G, 5th													
Office (General Office Building)	250.0 KSF	ITE (710)	2,701	343	47	390	61	298	359	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other (Transit)	514	Prkng ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%
Total Trips for Block			6,096	633	133	766	218	655	873				
Transit Adjustments													
Office (-11.1%)			-300	-38	-5	-43	-7	-33	-40				
Retail (-2.2%)			-46	-1	0	-1	-2	-2	-4				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11				
Total Transit Adjustments			-489	-48	-7	-55	-11	-44	-55				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-76	-10	-1	-11	-2	-8	-10				
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-356	-21	-5	-26	-15	-26	-41				
Internal Trips Within This Block			-127	-1	-1	-2	-4	-4	-8				
Trips To-From Other Blocks within the Project			-476	-12	-12	-23	-31	-31	-61				
New External Trips													
Office (General Office Building)				284	33	316	37	232	270				
Retail (Shopping Center)				25	15	40	59	76	135				
Subtotal Residential				0	0	0	0	0	0				
Other (Transit)				242	61	303	61	242	303				
Total			4,648	551	108	659	157	550	707				
New External Trips Percent of Total Project Trips			76%	87%	81%	86%	72%	84%	81%				
Transit Trips													
Office (12.5%)			338	43	6	49	8	37	45				
Retail (2.6%)			55	1	0	1	2	3	5				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Other (Transit) (12.5%)			161	32	8	40	8	32	40				
Total Transit Trips			554	76	14	90	18	72	90				

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 14: Bounded by Rail Lines, 7th, G, 6th													
Office (General Office Building)	680.0 KSF	ITE (710)	5,837	765	104	869	143	697	840	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			7,549	792	121	913	217	777	994				
Transit Adjustments													
Office (-11.1%)			-648	-84	-12	-96	-16	-77	-93				
Retail (-2.2%)			-38	-1	0	-1	-1	-2	-3				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-686	-85	-12	-97	-17	-79	-96				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-163	-21	-3	-24	-4	-20	-24				
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-362	-24	-5	-29	-13	-29	-42				
Internal Trips Within This Block			-103	-1	-1	-2	-3	-3	-7				
Trips To-From Other Blocks within the Project			-595	-13	-13	-27	-34	-34	-68				
New External Trips													
Office (General Office Building)				647	77	724	99	568	667				
Retail (Shopping Center)				22	13	35	51	63	115				
Subtotal Residential				0	0	0	0	0	0				
Total			5,803	669	90	758	150	632	781				
New External Trips Percent of Total Project Trips			77%	84%	74%	83%	69%	81%	79%				
Transit Trips													
Office (12.5%)			730	96	13	109	18	87	105				
Retail (2.6%)			45	1	0	1	2	2	4				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			775	97	13	110	20	89	109				

Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 15: Bounded by G, 6th, H, 6th													
Office (General Office Building)	192.0 KSF	ITE (710)	2,205	278	38	316	50	244	294	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			8,315	365	93	458	320	536	856				
Transit Adjustments													
Office (-11.1%)			-245	-31	-4	-35	-6	-27	-33				
Retail (-2.2%)			-134	-2	-1	-3	-6	-6	-12				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-379	-33	-5	-38	-12	-33	-45				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-62	-8	-1	-9	-1	-7	-8				
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-771	-18	-7	-25	-32	-41	-73				
Internal Trips Within This Block			-369	-3	-3	-6	-12	-12	-24				
Trips To-From Other Blocks within the Project			-632	-7	-7	-13	-29	-29	-57				
New External Trips													
Office (General Office Building)				233	29	261	31	192	223				
Retail (Shopping Center)				72	43	115	204	229	433				
Subtotal Residential				0	0	0	0	0	0				
Total			6,164	304	71	376	235	421	657				
New External Trips Percent of Total Project Trips			74%	83%	77%	82%	74%	79%	77%				
Transit Trips													
Office (12.5%)			276	35	5	40	6	31	37				
Retail (2.6%)			159	2	2	4	7	8	15				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			435	37	7	44	13	39	52				

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 16: Bounded by G, 7th, Property Boundary, 6th													
Office (General Office Building)	300.0 KSF	ITE (710)	3,109	398	54	452	71	344	415	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%
Residential													
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0				
Other													
Total Trips for Block			4,223	416	66	482	119	396	515				
Transit Adjustments													
Office (-11.1%)			-345	-44	-6	-50	-8	-38	-46				
Retail (-2.2%)			-25	-1	0	-1	-1	-1	-2				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			0	0	0	0	0	0	0				
Other													
Total Transit Adjustments			-370	-45	-6	-51	-9	-39	-48				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-87	-11	-2	-13	-2	-10	-12				
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0				
Other													
Total Walk, Bike & Other Non-Auto Travel Adjustments			-216	-13	-3	-16	-8	-16	-24				
Internal Trips Within This Block			-67	-1	-1	-1	-2	-2	-4				
Trips To-From Other Blocks within the Project			-332	-7	-7	-14	-18	-18	-35				
New External Trips													
Office (General Office Building)				336	40	376	49	280	329				
Retail (Shopping Center)				14	9	24	33	41	74				
Subtotal Residential				0	0	0	0	0	0				
Total			3,238	350	49	400	82	321	404				
New External Trips Percent of Total Project Trips			77%	84%	75%	83%	69%	81%	78%				
Transit Trips													
Office (12.5%)			389	50	7	57	9	43	52				
Retail (2.6%)			29	1	0	1	1	2	3				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0				
Total Transit Trips			418	51	7	58	10	45	55				

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	1,355 Units	ITE (232)	5,332	80	342	422	295	181	476	19%	81%	62%	38%	
Subtotal Residential	1,355 Units		5,332	80	342	422	295	181	476					
Other														
Total Trips for Block			5,332	80	342	422	295	181	476					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			0	0	0	0	0	0	0					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-139	-3	-11	-14	-9	-6	-15					
Other														
Total Transit Adjustments			-139	-3	-11	-14	-9	-6	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			0	0	0	0	0	0	0					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-512	-6	-27	-33	-25	-16	-41					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-512	-6	-27	-33	-25	-16	-41					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-435	-6	-6	-13	-17	-17	-34					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail (Shopping Center)			0	0	0	0	0	0	0					
Subtotal Residential			65	298	362	244	142	386						
Total			4,246	65	298	362	244	142	386					
New External Trips Percent of Total Project Trips			80%	81%	87%	86%	83%	79%	81%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			0	0	0	0	0	0	0					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			171	3	14	17	11	7	18					
Total Transit Trips			171	3	14	17	11	7	18					

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	1,273 Units	ITE (232)	5,023	76	322	398	278	170	448	19%	81%	62%	38%	
Subtotal Residential	1,273 Units		5,023	76	322	398	278	170	448					
Other														
Total Trips for Block			5,023	76	322	398	278	170	448					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			0	0	0	0	0	0	0					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-131	-3	-11	-14	-9	-5	-14					
Other														
Total Transit Adjustments			-131	-3	-11	-14	-9	-5	-14					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			0	0	0	0	0	0	0					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-482	-6	-25	-31	-24	-15	-39					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-482	-6	-25	-31	-24	-15	-39					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-410	-6	-6	-12	-16	-16	-32					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail (Shopping Center)			0	0	0	0	0	0	0					
Subtotal Residential			61	280	341	229	134	363						
Total			4,000	61	280	341	229	134	363					
New External Trips Percent of Total Project Trips			80%	80%	87%	86%	82%	79%	81%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			0	0	0	0	0	0	0					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			161	3	13	16	11	6	17					
Total Transit Trips			161	3	13	16	11	6	17					

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	25.0 KSF	ITE (820)	2,758	41	27	68	120	131	251	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	1,603 Units	ITE (232)	6,267	94	400	494	347	213	560	19%	81%	62%	38%	
Subtotal Residential	1,603 Units		6,267	94	400	494	347	213	560					
Other														
Total Trips for Block			9,025	135	427	562	467	344	811					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-61	-1	0	-1	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-163	-3	-14	-17	-11	-6	-17					
Other														
Total Transit Adjustments			-224	-4	-14	-18	-14	-9	-23					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-320	-5	-3	-8	-14	-15	-29					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-602	-7	-32	-39	-30	-18	-48					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-922	-12	-35	-47	-44	-33	-77					
Internal Trips Within This Block			-476	-6	-6	-12	-23	-23	-46					
Trips To-From Other Blocks within the Project			-688	-8	-8	-17	-27	-27	-53					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail (Shopping Center)			29	21	50	87	89	177						
Subtotal Residential			75	343	418	273	163	436						
Total			6,715	105	364	468	360	253	612					
New External Trips Percent of Total Project Trips			74%	78%	85%	83%	77%	73%	75%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			72	1	1	2	3	4	7					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			201	4	16	20	13	8	21					
Total Transit Trips			273	5	17	22	16	12	28					

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	25.0 KSF	ITE (820)	2,758	41	27	68	120	131	251	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	1,865 Units	ITE (232)	7,255	108	462	570	403	247	650	19%	81%	62%	38%	
Subtotal Residential	1,865 Units		7,255	108	462	570	403	247	650					
Other														
Total Trips for Block			10,013	149	489	638	523	378	901					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-61	-1	0	-1	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-189	-4	-15	-19	-12	-8	-20					
Other														
Total Transit Adjustments			-250	-5	-15	-20	-15	-11	-26					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-320	-5	-3	-8	-14	-15	-29					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-696	-9	-36	-45	-35	-21	-56					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,016	-14	-39	-53	-49	-36	-85					
Internal Trips Within This Block			-476	-6	-6	-12	-23	-23	-46					
Trips To-From Other Blocks within the Project			-769	-9	-9	-19	-30	-30	-60					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				29	21	50	87	89	176					
Subtotal Residential				85	399	484	319	189	509					
Total				7,503	115	420	534	406	278	685				
New External Trips Percent of Total Project Trips				75%	77%	86%	84%	78%	74%	76%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				72	1	1	2	3	4	7				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				232	4	19	23	15	9	24				
Total Transit Trips				304	5	20	25	18	13	31				

Sacramento Railyards Traffic Study
Block 21: SITF Site
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 21: SITF Site													
Office (General Office Building)	121.5 KSF	ITE (710)	1,550	193	26	219	37	178	215	88%	12%	17%	83%
Retail (Shopping Center)	27.0 KSF	ITE (820)	2,900	43	28	71	127	137	264	61%	39%	48%	52%
Residential													
Hotel	200 rooms	ITE (310)	1,417	59	38	97	63	55	118	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	200 Units		1,417	59	38	97	63	55	118				
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%
Total Trips for Block			7,157	553	157	710	292	628	920				
Transit Adjustments													
Office (-11.1%)			-172	-21	-3	-24	-4	-20	-24				
Retail (-2.2%)			-64	-1	-1	-2	-3	-3	-6				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-37	-2	-1	-3	-2	-2	-4				
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11				
Total Transit Adjustments			-416	-33	-7	-40	-11	-34	-45				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-43	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-336	-5	-3	-8	-15	-16	-31				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-136	-5	-3	-8	-5	-5	-10				
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-551	-22	-9	-31	-23	-33	-56				
Internal Trips Within This Block			-702	-8	-8	-16	-31	-31	-62				
Trips To-From Other Blocks within the Project			-510	-11	-11	-21	-30	-30	-61				
New External Trips													
Office (General Office Building)				159	18	177	24	135	159				
Retail (Shopping Center)				31	17	49	80	89	169				
Subtotal Residential				47	26	73	32	34	66				
Other (Transit)				242	61	303	61	242	303				
Total			4,978	479	122	601	196	500	696				
New External Trips Percent of Total Project Trips			70%	87%	78%	85%	67%	80%	76%				
Transit Trips													
Office (12.5%)			194	24	3	27	5	22	27				
Retail (2.6%)			75	1	1	2	3	4	7				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			45	2	2	4	2	2	4				
Other (Transit) (12.5%)			161	32	8	40	8	32	40				
Total Transit Trips			475	59	14	73	18	60	78				

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	15.0 KSF	ITE (820)	1,979	31	20	50	86	93	179	61%	39%	48%	52%	
Residential														
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%	
High Rise Residential Condominium	900 Units	ITE (232)	3,617	55	235	290	199	122	321	19%	81%	62%	38%	
Subtotal Residential	1,400 Units		7,719	239	352	591	355	261	616					
Other														
Total Trips for Block			9,698	270	372	641	441	354	795					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-44	-1	0	-1	-2	-2	-4					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-201	-8	-12	-20	-11	-8	-19					
Other														
Total Transit Adjustments			-245	-9	-12	-21	-13	-10	-23					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-230	-4	-2	-6	-10	-11	-21					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-741	-19	-28	-47	-31	-22	-53					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-971	-23	-30	-53	-41	-33	-74					
Internal Trips Within This Block			-341	-5	-5	-9	-16	-16	-33					
Trips To-From Other Blocks within the Project			-757	-10	-10	-19	-27	-27	-53					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				23	15	38	62	64	126					
Subtotal Residential				201	301	502	282	204	486					
Total			7,384	224	316	539	344	268	612					
New External Trips Percent of Total Project Trips			76%	83%	85%	84%	78%	76%	77%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			51	1	0	1	2	3	5					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			247	10	14	24	13	10	23					
Total Transit Trips			298	11	14	25	15	13	28					

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	60.0 KSF	ITE (820)	4,872	70	45	115	215	232	447	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	650 Units	ITE (232)	2,674	41	176	217	146	90	236	19%	81%	62%	38%	
Subtotal Residential	650 Units		2,674	41	176	217	146	90	236					
Other														
Total Trips for Block			7,546	111	221	332	361	322	683					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-107	-2	-1	-3	-5	-5	-10					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-70	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-177	-3	-7	-10	-9	-8	-17					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-565	-8	-5	-13	-25	-27	-52					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-257	-3	-14	-17	-12	-8	-20					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-822	-11	-19	-30	-37	-35	-72					
Internal Trips Within This Block			-840	-10	-10	-20	-41	-41	-81					
Trips To-From Other Blocks within the Project			-531	-5	-5	-9	-20	-20	-41					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				52	33	85	156	161	318					
Subtotal Residential				31	147	177	98	57	154					
Total				5,176	82	180	263	254	218	472				
New External Trips Percent of Total Project Trips				69%	74%	82%	79%	70%	68%	69%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				127	2	1	3	6	6	12				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				86	2	7	9	6	3	9				
Total Transit Trips				213	4	8	12	12	9	21				

Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Full Project with Maximum Office

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 24: Bounded by Property Boundary, Railyards, N. 10th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	40.0 KSF	ITE (820)	3,743	55	35	90	164	178	342	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	650 Units	ITE (232)	2,674	41	176	217	146	90	236	19%	81%	62%	38%	
Subtotal Residential	650 Units		2,674	41	176	217	146	90	236					
Other														
Total Trips for Block			6,417	96	211	307	310	268	578					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-82	-1	-1	-2	-4	-4	-8					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-70	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-152	-2	-7	-9	-8	-7	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-434	-6	-4	-10	-19	-21	-40					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-257	-3	-14	-17	-12	-8	-20					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-691	-9	-18	-27	-31	-29	-60					
Internal Trips Within This Block			-646	-8	-8	-16	-31	-31	-62					
Trips To-From Other Blocks within the Project			-458	-4	-4	-9	-18	-18	-35					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				41	26	67	119	123	242					
Subtotal Residential				32	148	180	103	60	163					
Total				4,470	73	174	246	222	183	406				
New External Trips Percent of Total Project Trips				70%	76%	82%	80%	72%	68%	70%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				97	1	1	2	4	5	9				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				86	2	7	9	6	3	9				
Total Transit Trips				183	3	8	11	10	8	18				

Analyst: Dowling

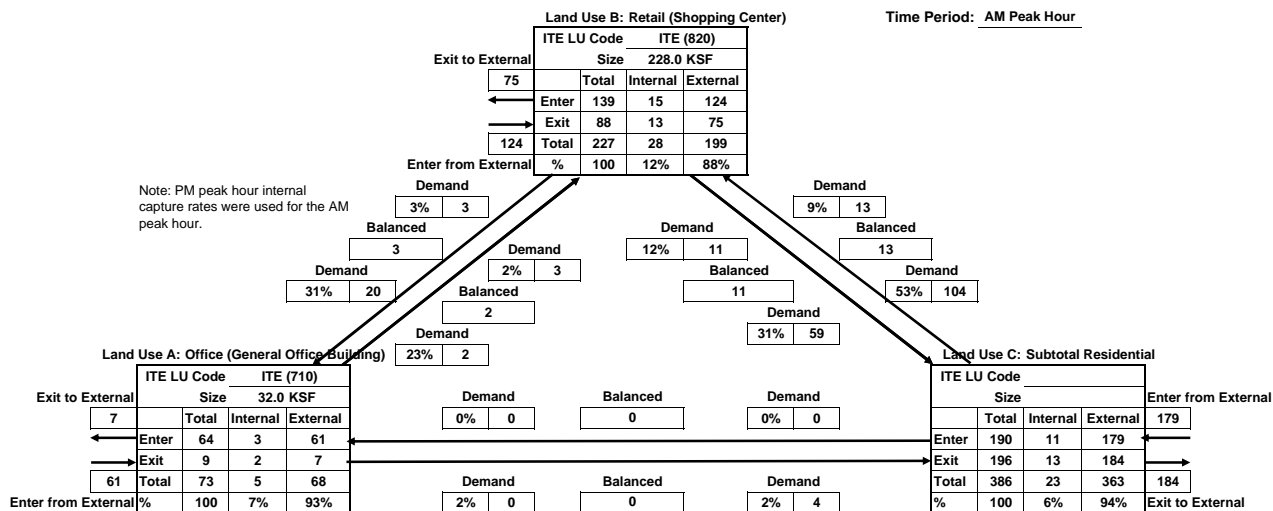
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study

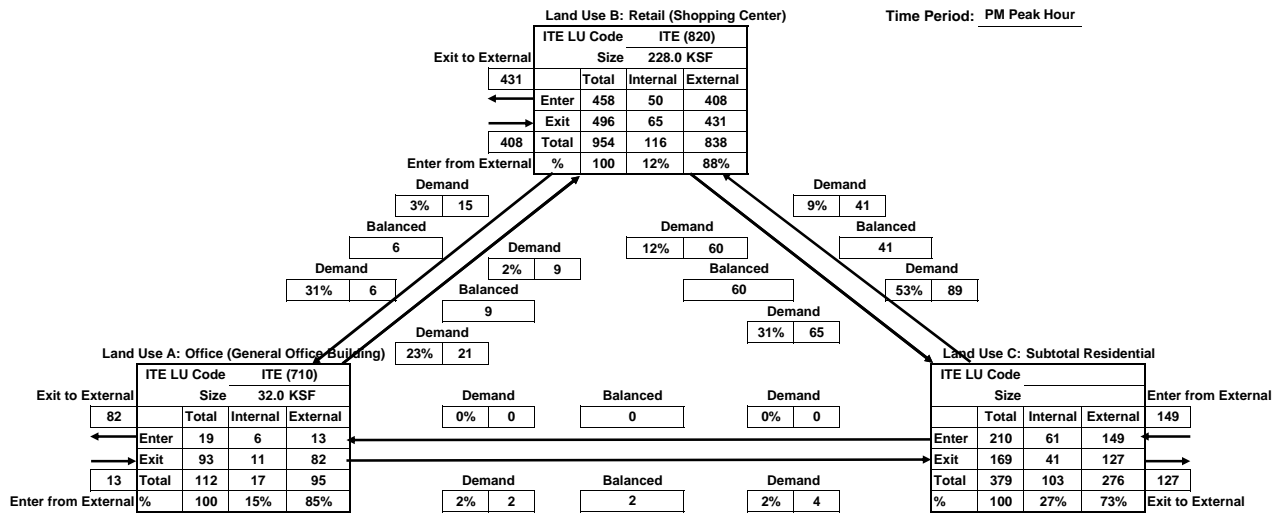
Full Project with Maximum Office

Time Period: AM Peak Hour



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	61	124	179	365	
Exit	7	75	184	265	
Total	68	199	363	630	INTERNAL CAPTURE
Single-Use Trip	73	227	386	686	8%

Time Period: PM Peak Hour



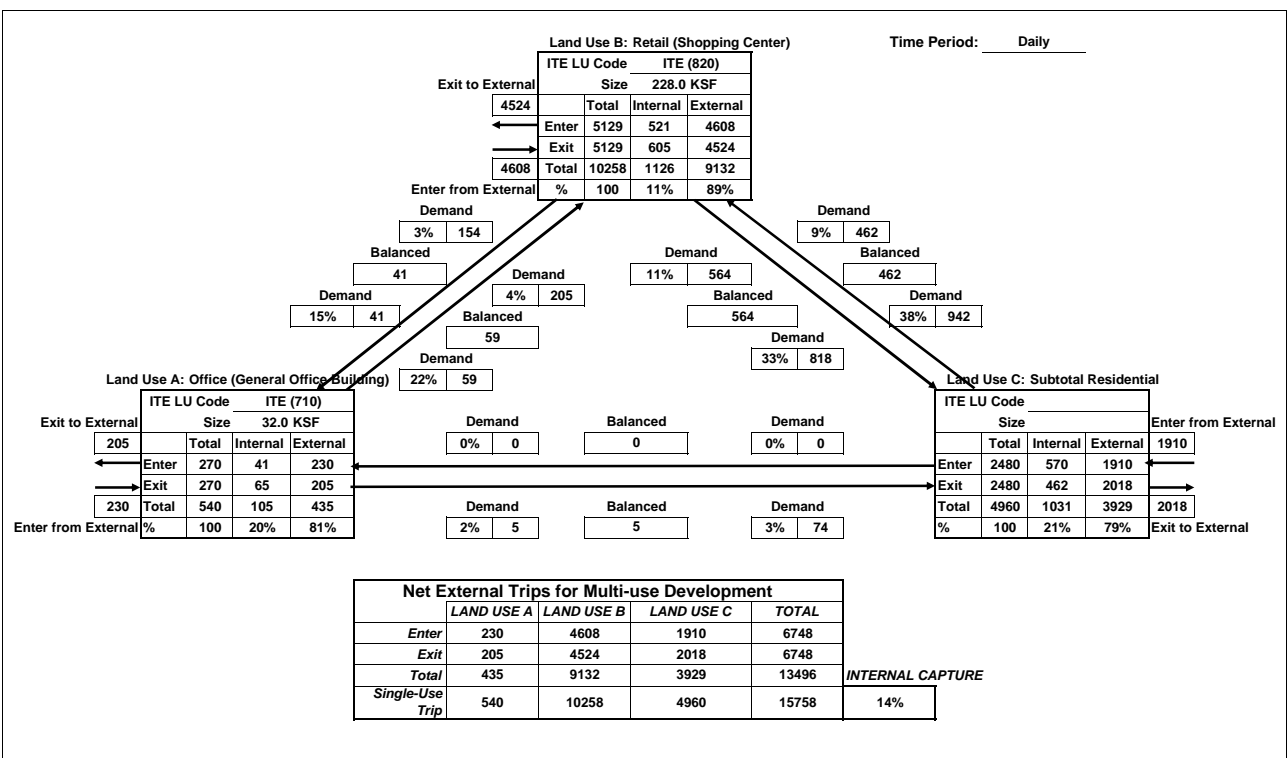
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	13	408	149	570	
Exit	82	431	127	640	
Total	95	838	276	1210	INTERNAL CAPTURE
Single-Use Trip	112	954	379	1445	16%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily



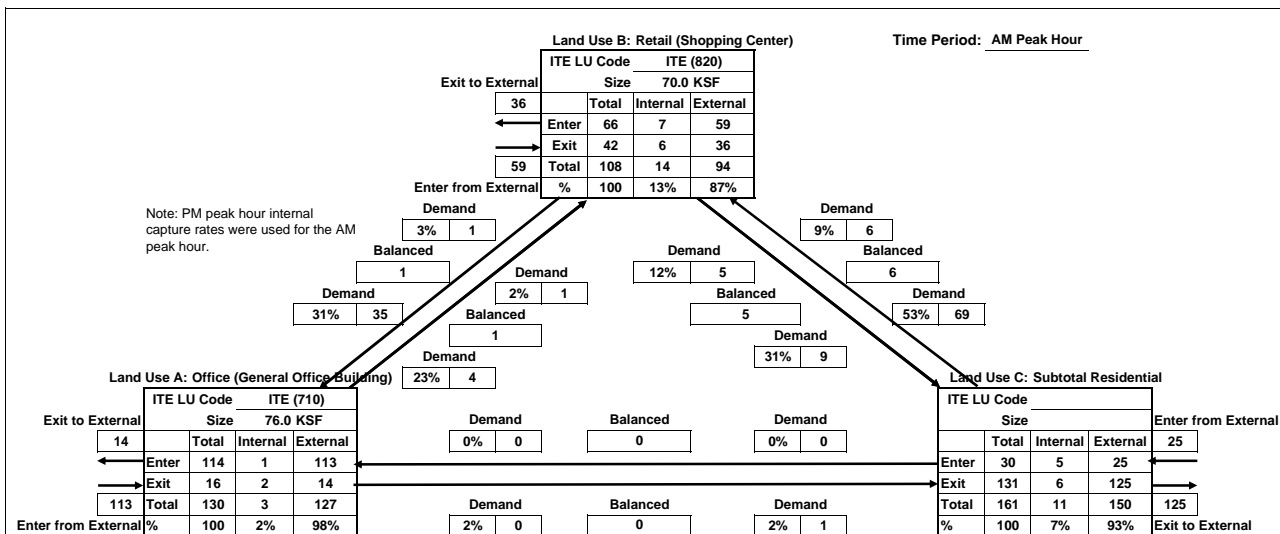
Analyst: Dowling

Date: 8/17/2007

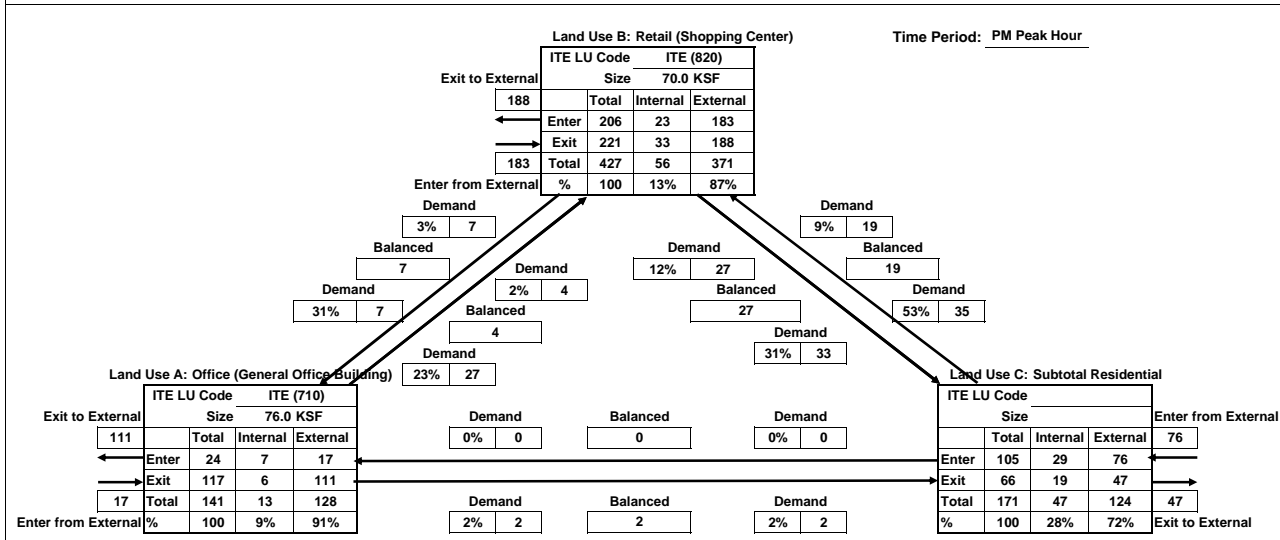
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study

Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	113	59	25	196	
Exit	14	36	125	175	
Total	127	94	150	371	INTERNAL CAPTURE
Single-Use Trip	130	108	161	399	7%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	183	76	277	
Exit	111	188	47	346	
Total	128	371	124	623	INTERNAL CAPTURE
Single-Use Trip	141	427	171	739	16%

Analyst: Dowling

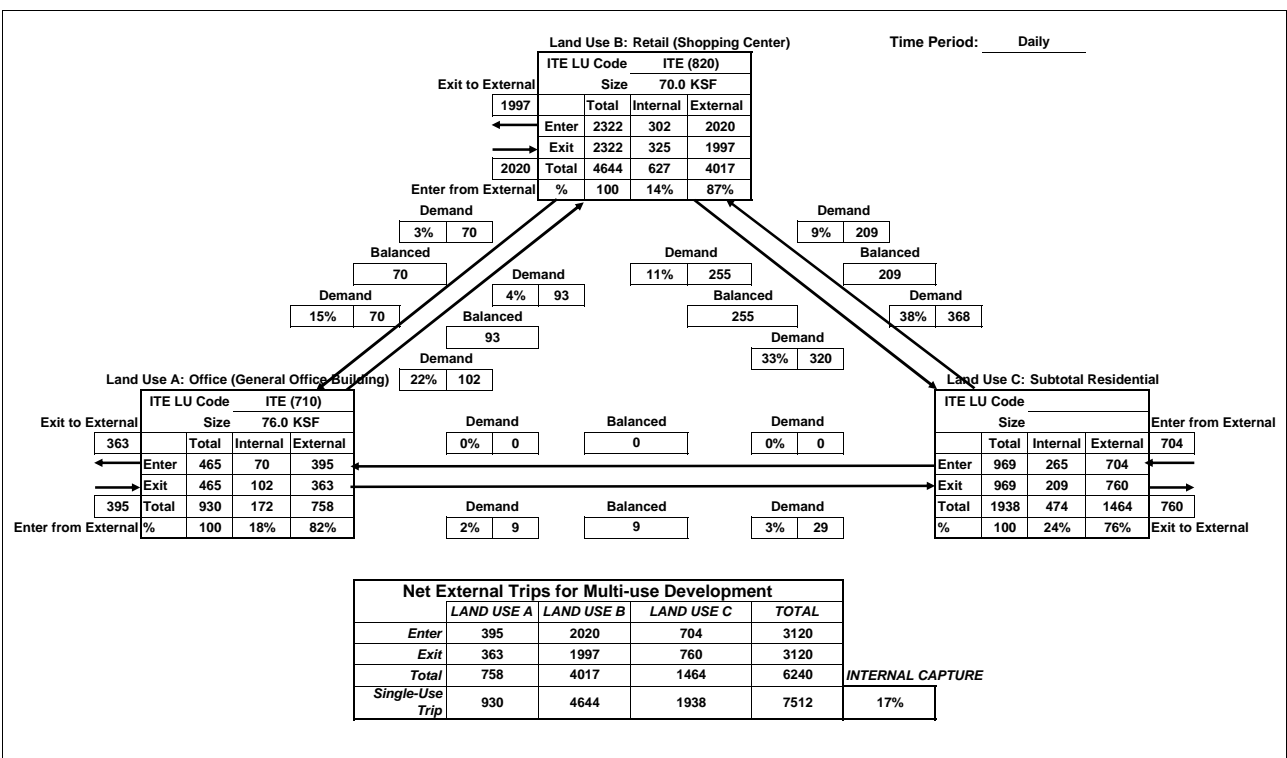
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study

Full Project with Maximum Office

Time Period: Daily



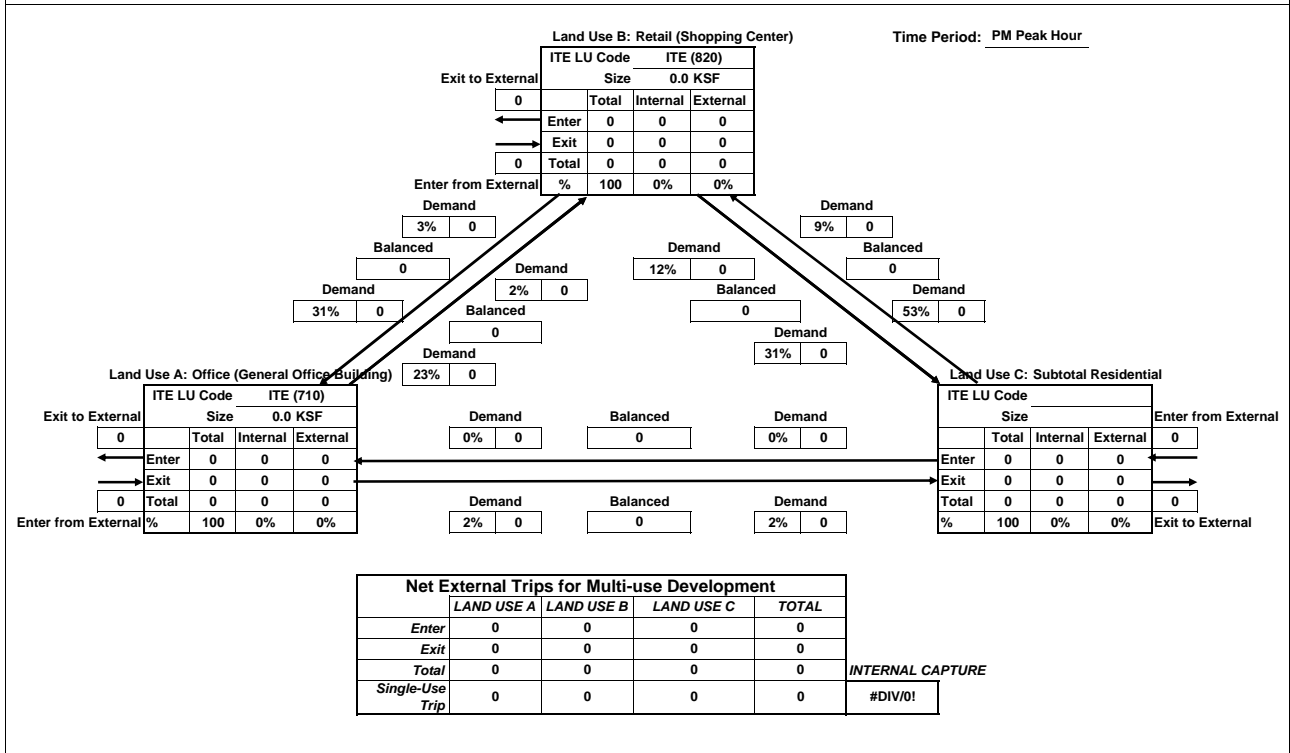
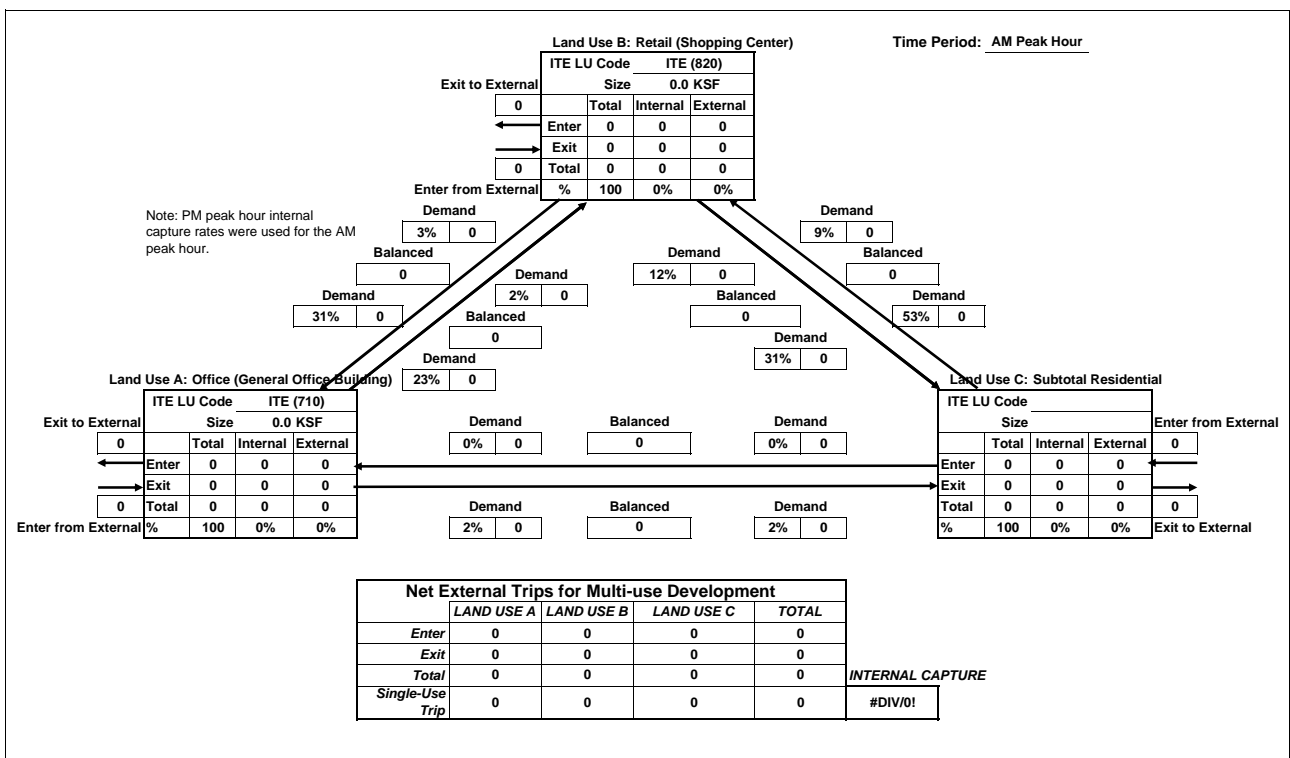
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study

Full Project with Maximum Office



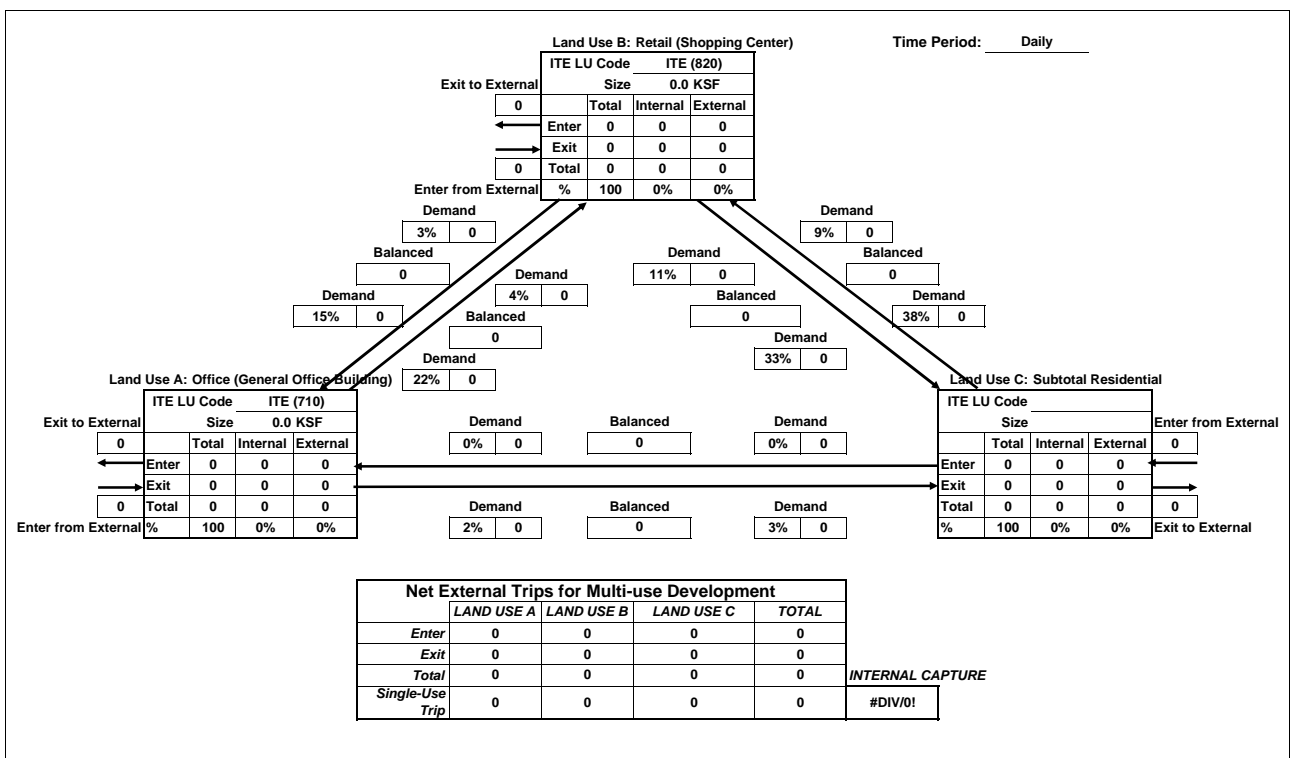
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Full Project with Maximum Office

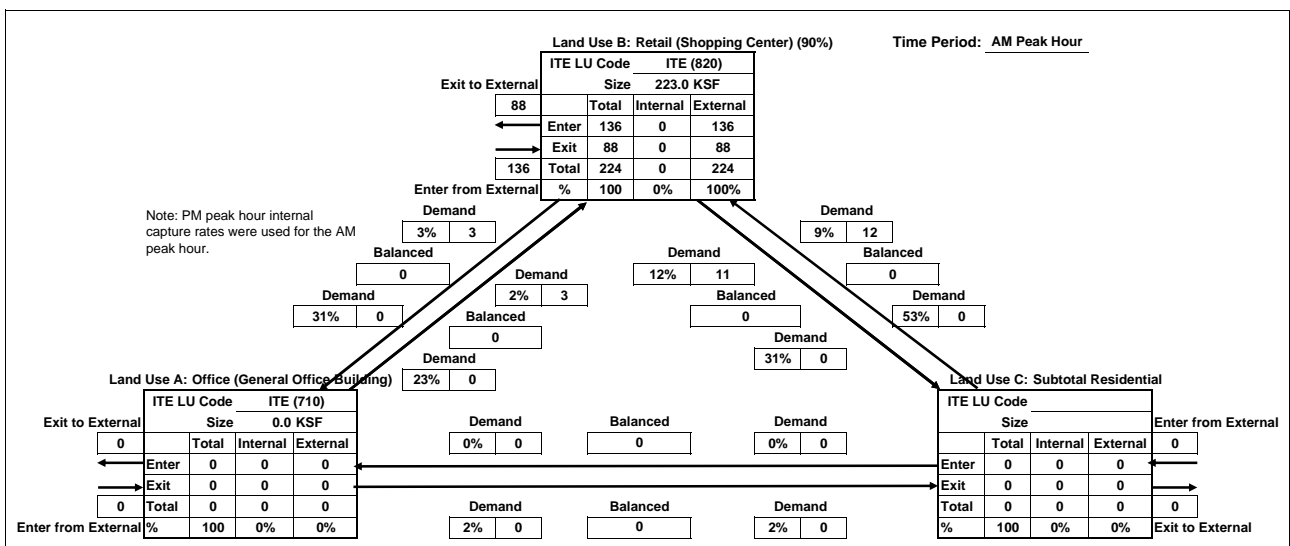
Time Period: Daily



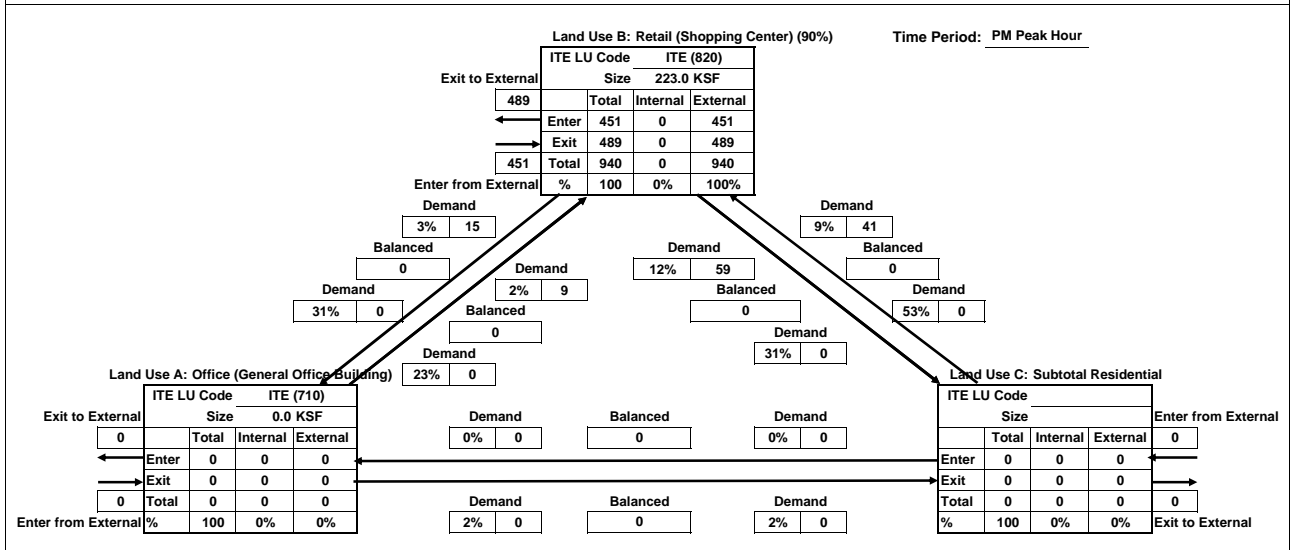
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
 Full Project with Maximum Office



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	136	0	136	
Exit	0	88	0	88	
Total	0	224	0	224	INTERNAL CAPTURE
Single-Use Trip	0	224	0	224	0%



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	451	0	451	
Exit	0	489	0	489	
Total	0	940	0	940	INTERNAL CAPTURE
Single-Use Trip	0	940	0	940	0%

Analyst: Dowling

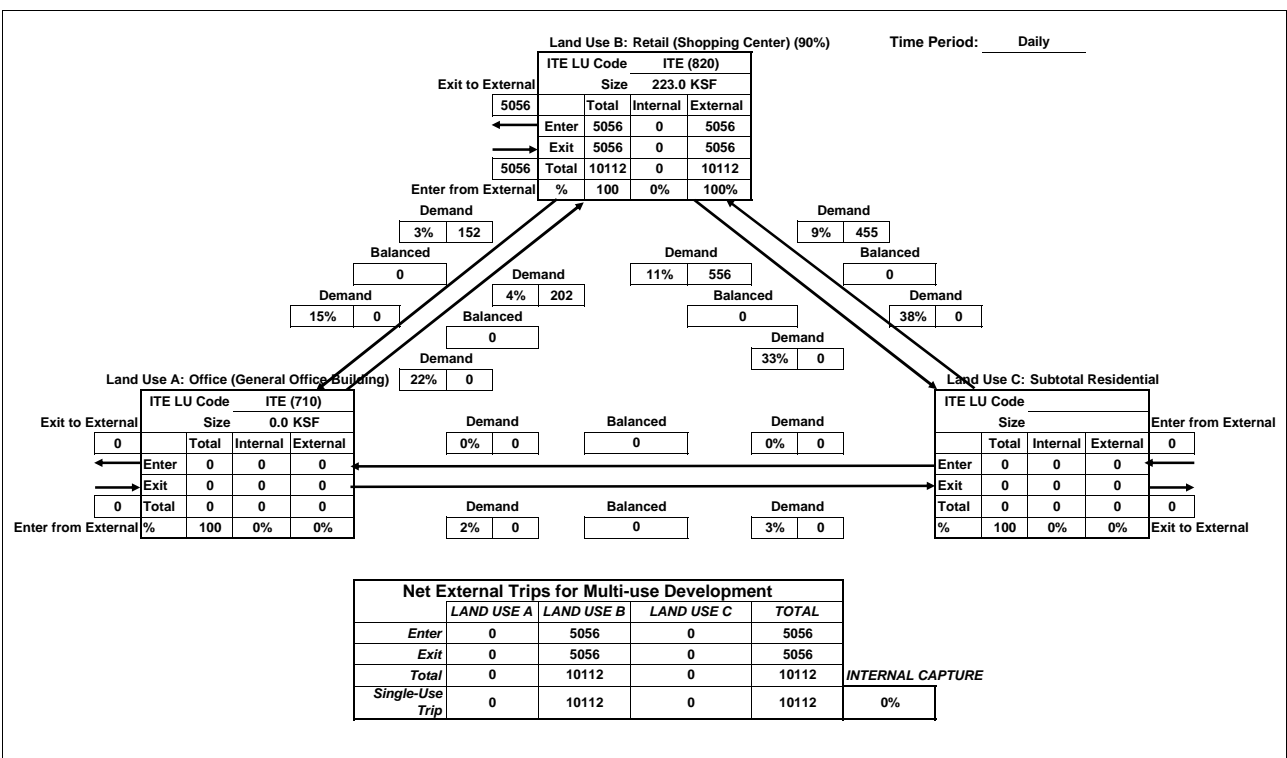
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study

Full Project with Maximum Office

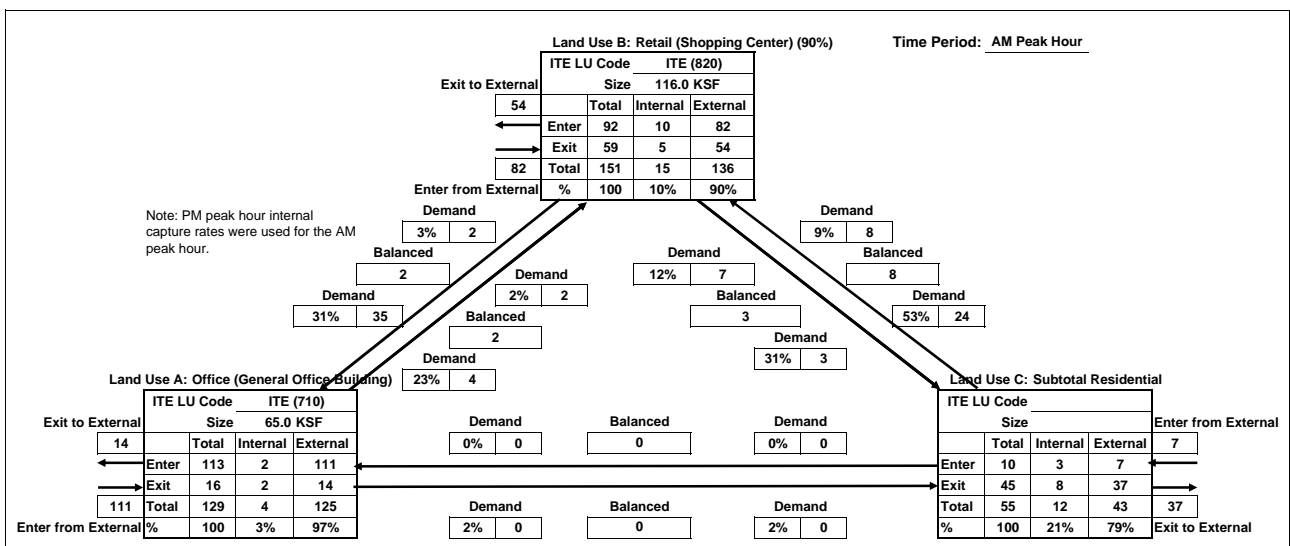
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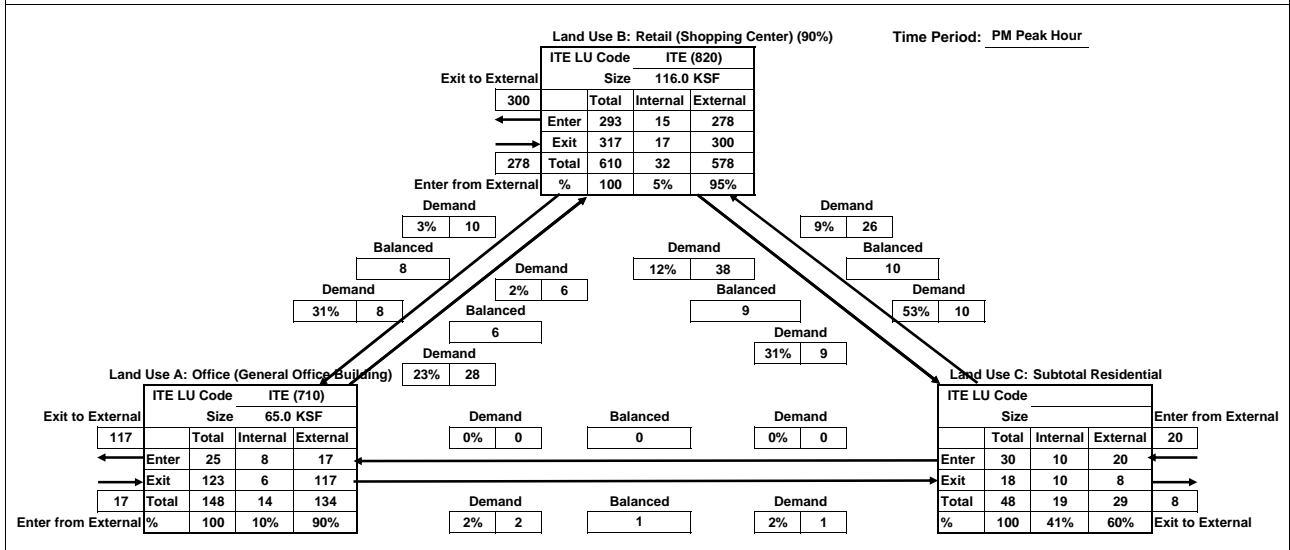
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	111	82	7	200	
Exit	14	54	37	105	
Total	125	136	43	305	INTERNAL CAPTURE
Single-Use Trip	129	151	55	335	9%



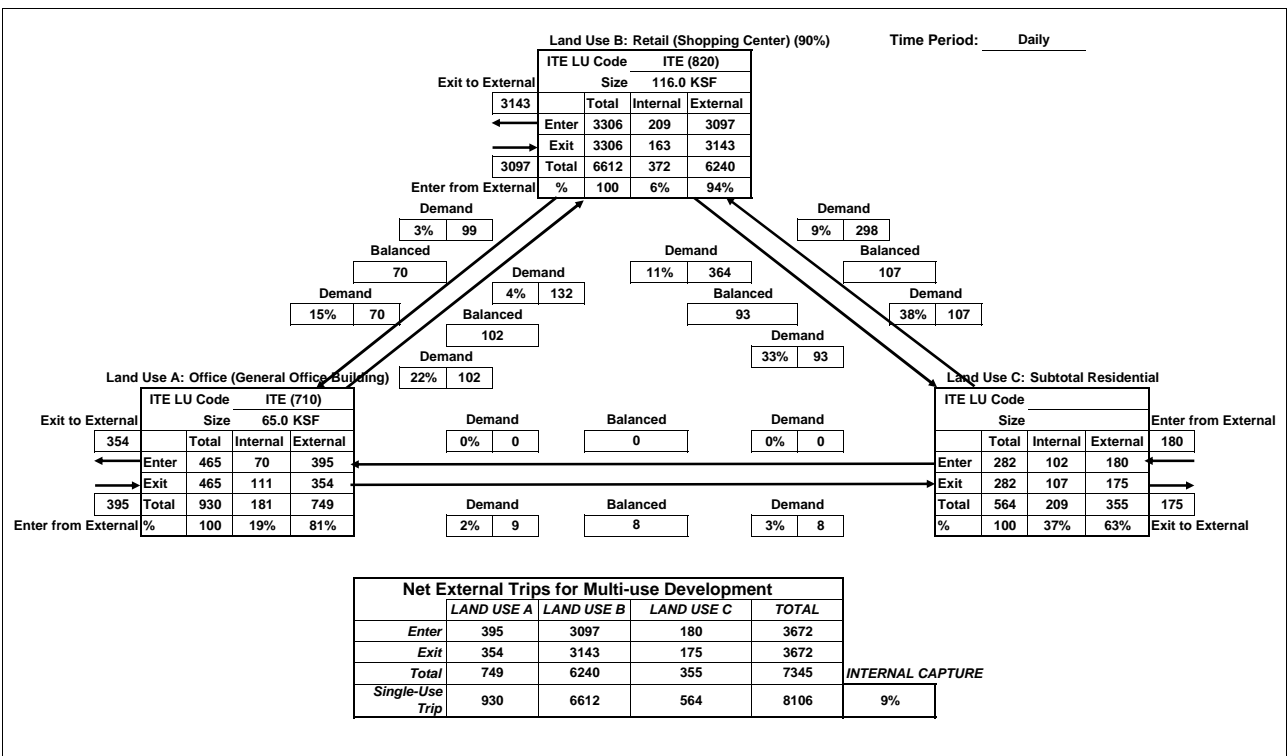
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	17	278	20	315	
Exit	117	300	8	425	
Total	134	578	29	740	INTERNAL CAPTURE
Single-Use Trip	148	610	48	806	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily



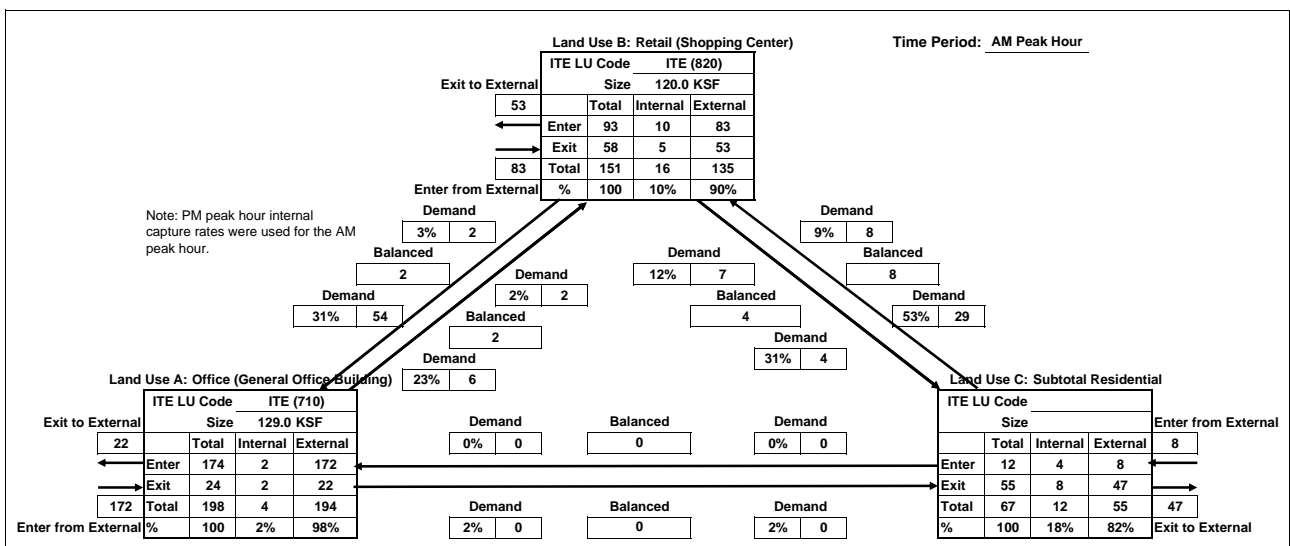
Analyst: Dowling

Date: 8/17/2007

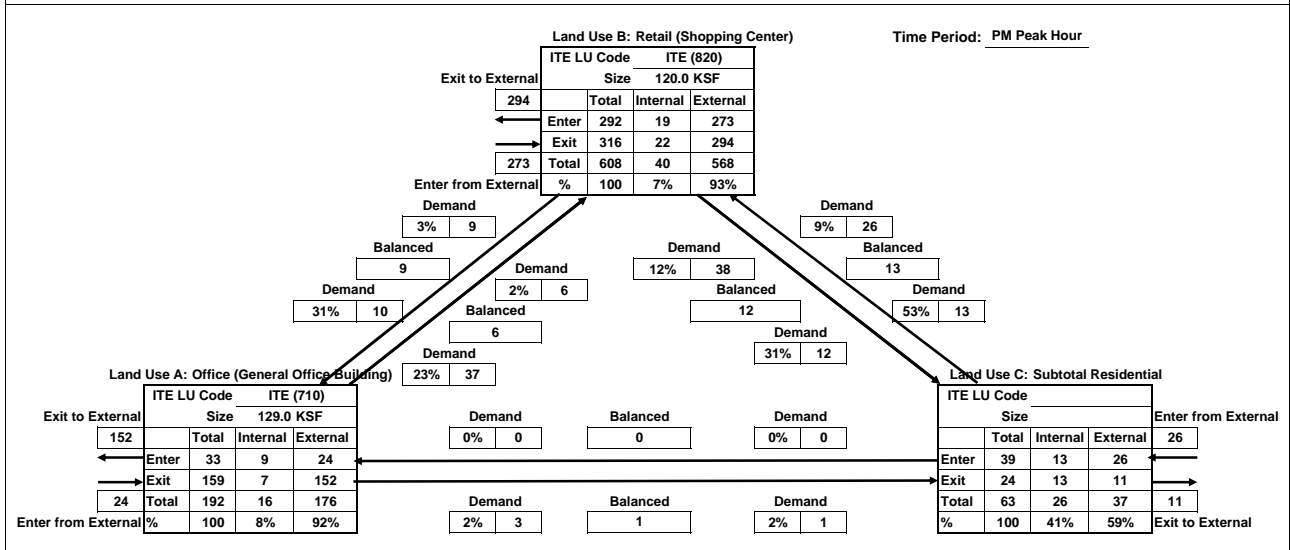
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study

Full Project with Maximum Office



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	172	83	8	263	
Exit	22	53	47	121	
Total	194	135	55	384	INTERNAL CAPTURE
Single-Use Trip	198	151	67	416	8%



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	24	273	26	323	
Exit	152	294	11	458	
Total	176	568	37	781	INTERNAL CAPTURE
Single-Use Trip	192	608	63	863	9%

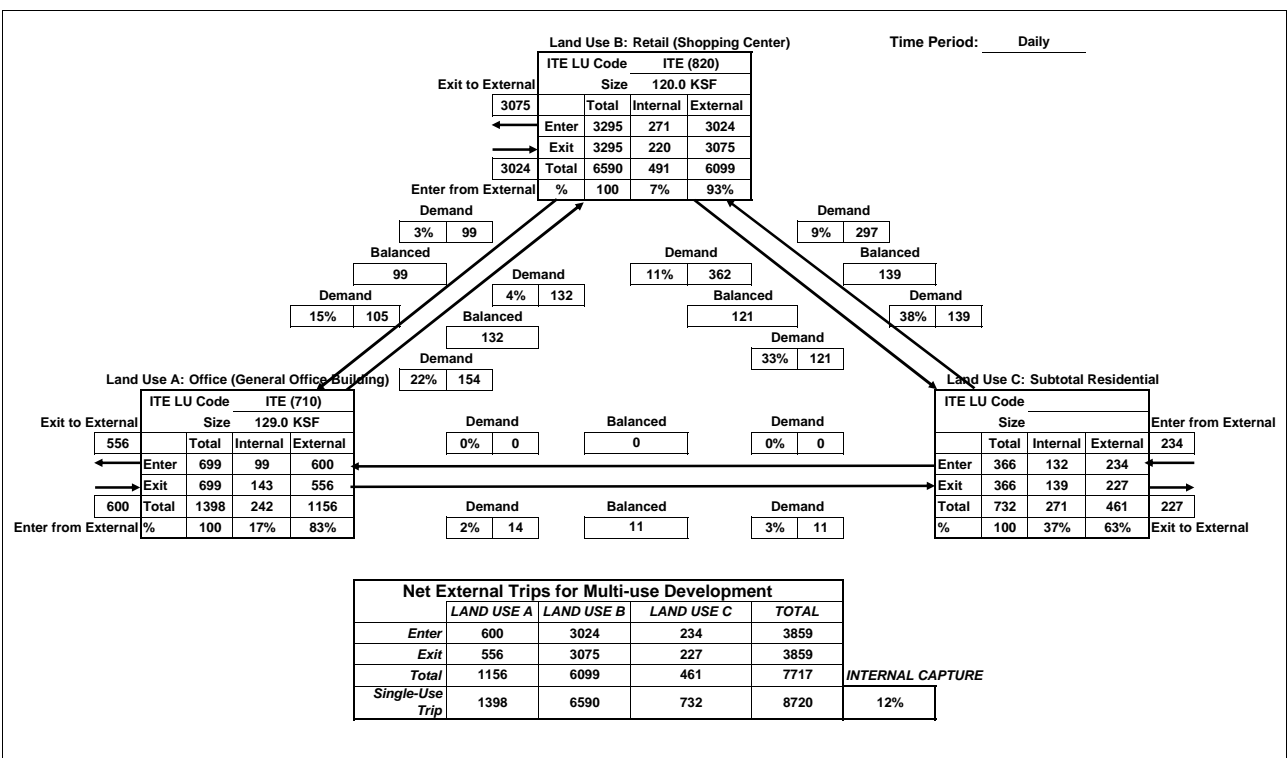
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Full Project with Maximum Office

Time Period: Daily

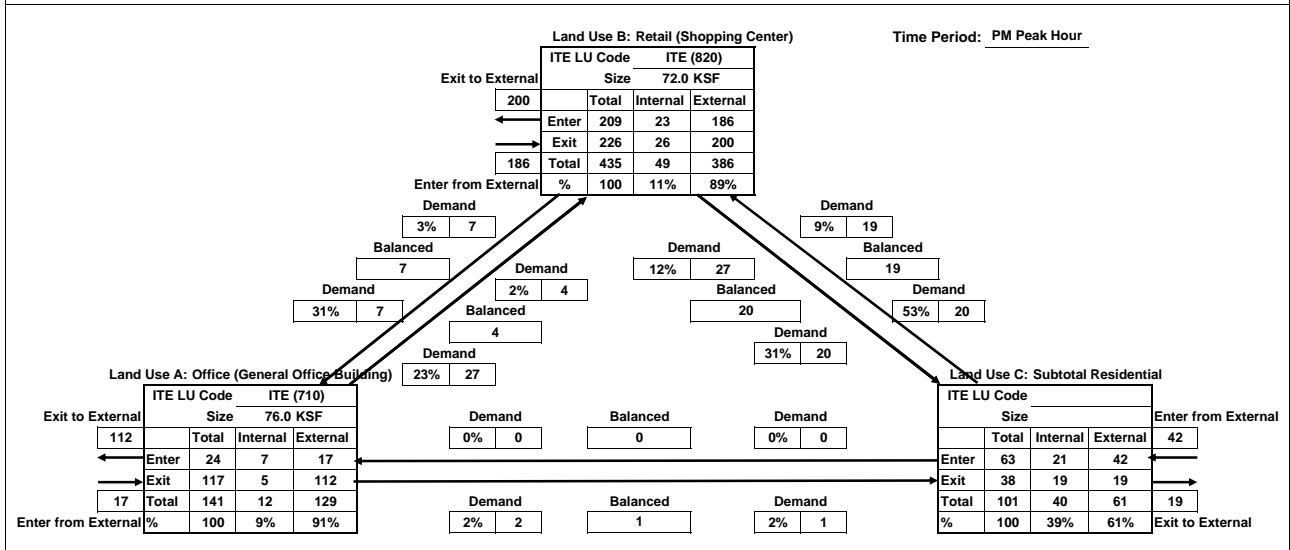
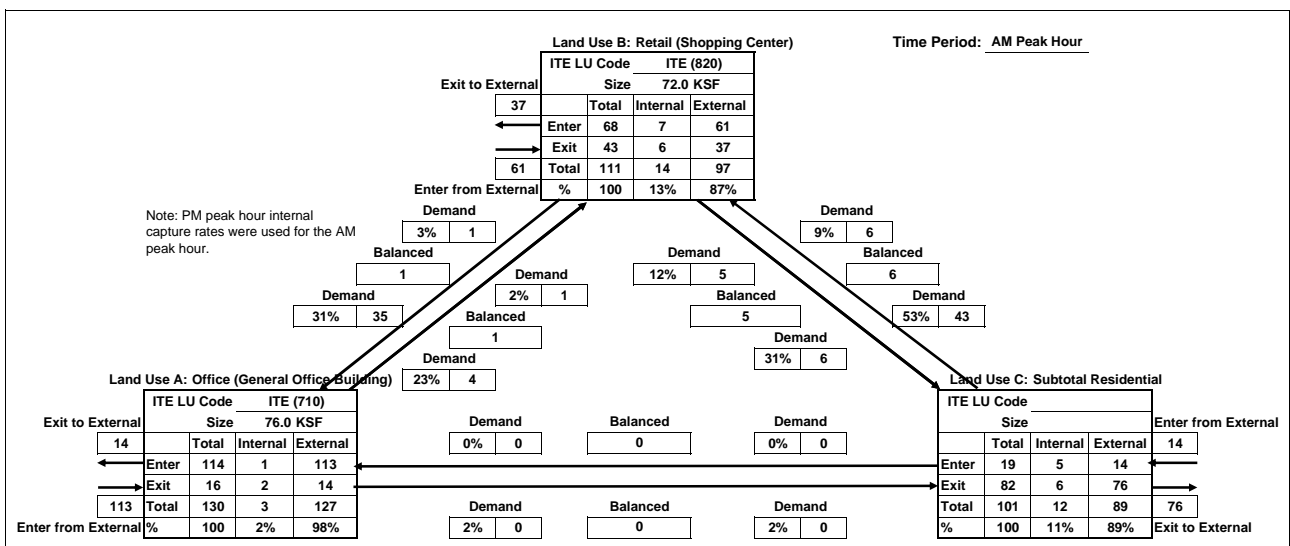


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Full Project with Maximum Office



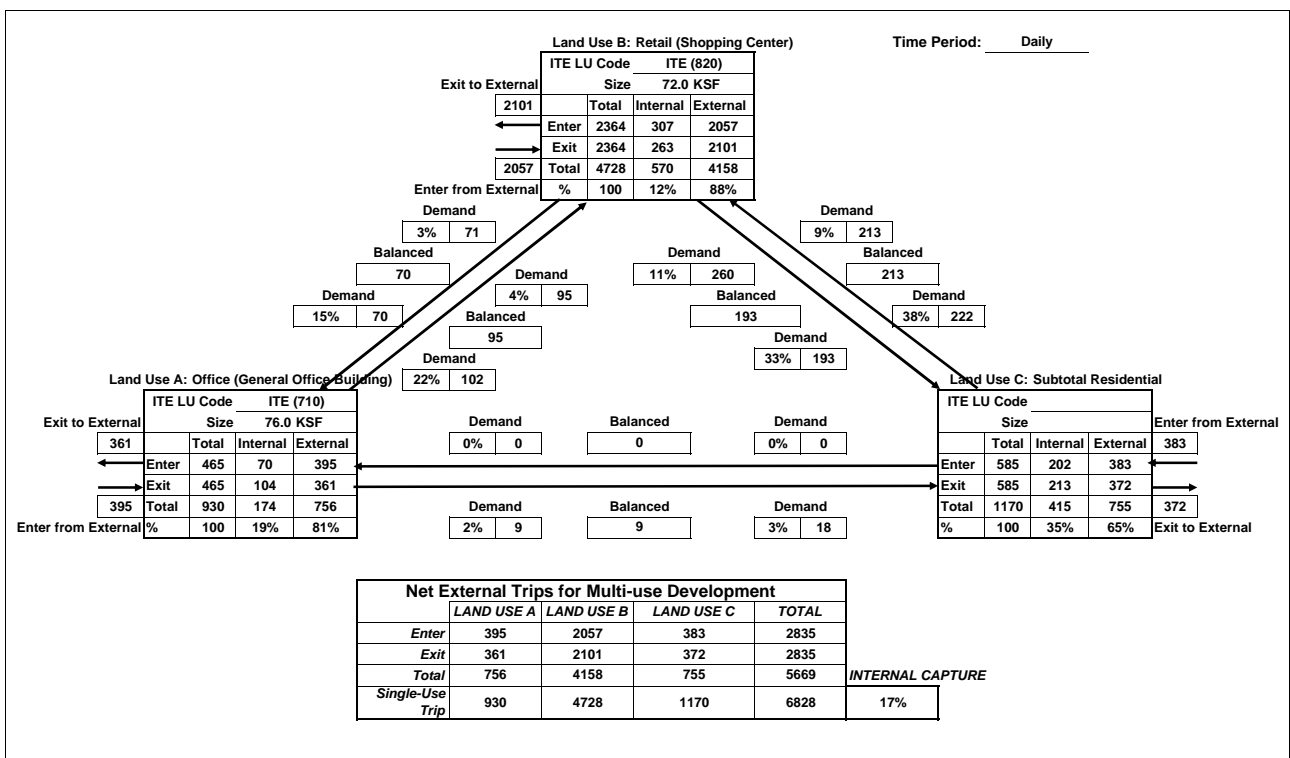
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Full Project with Maximum Office

Time Period: Daily

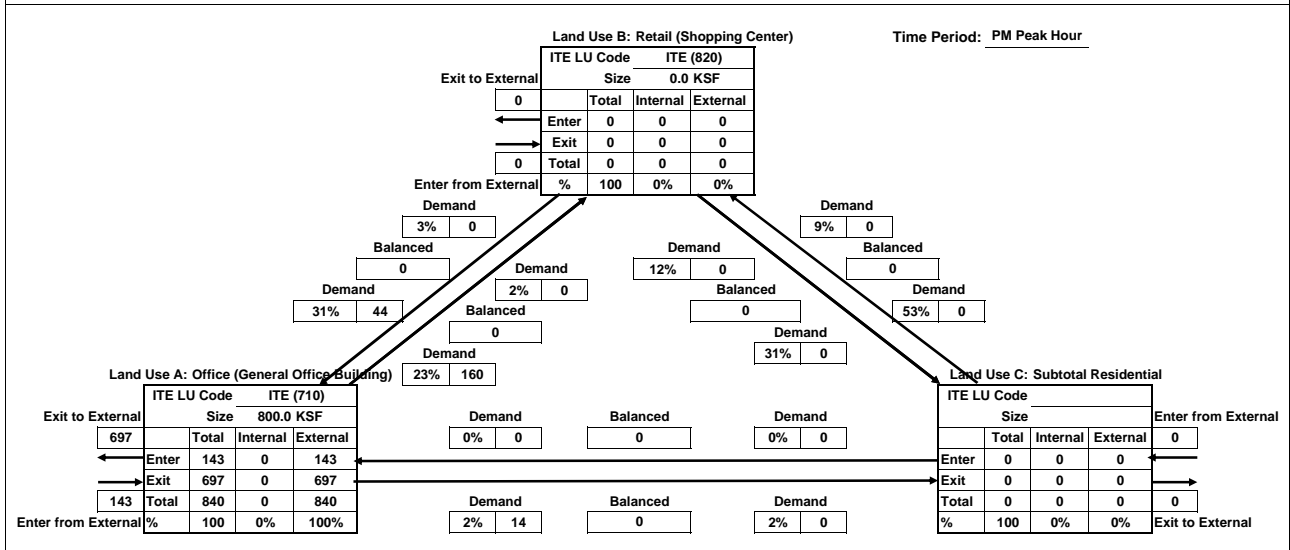
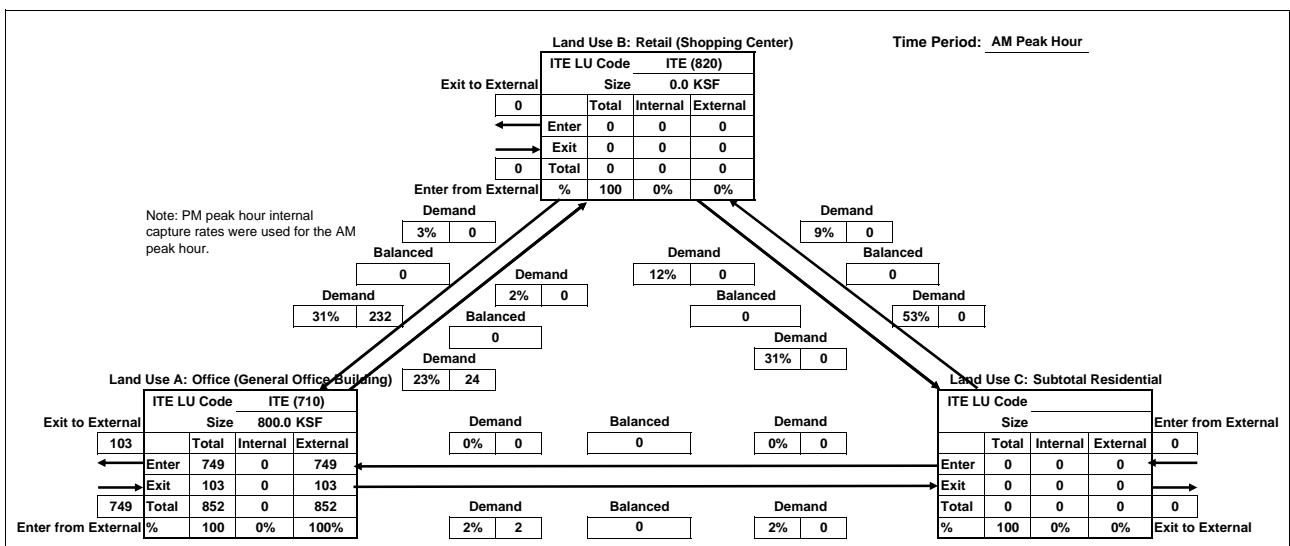


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
Full Project with Maximum Office

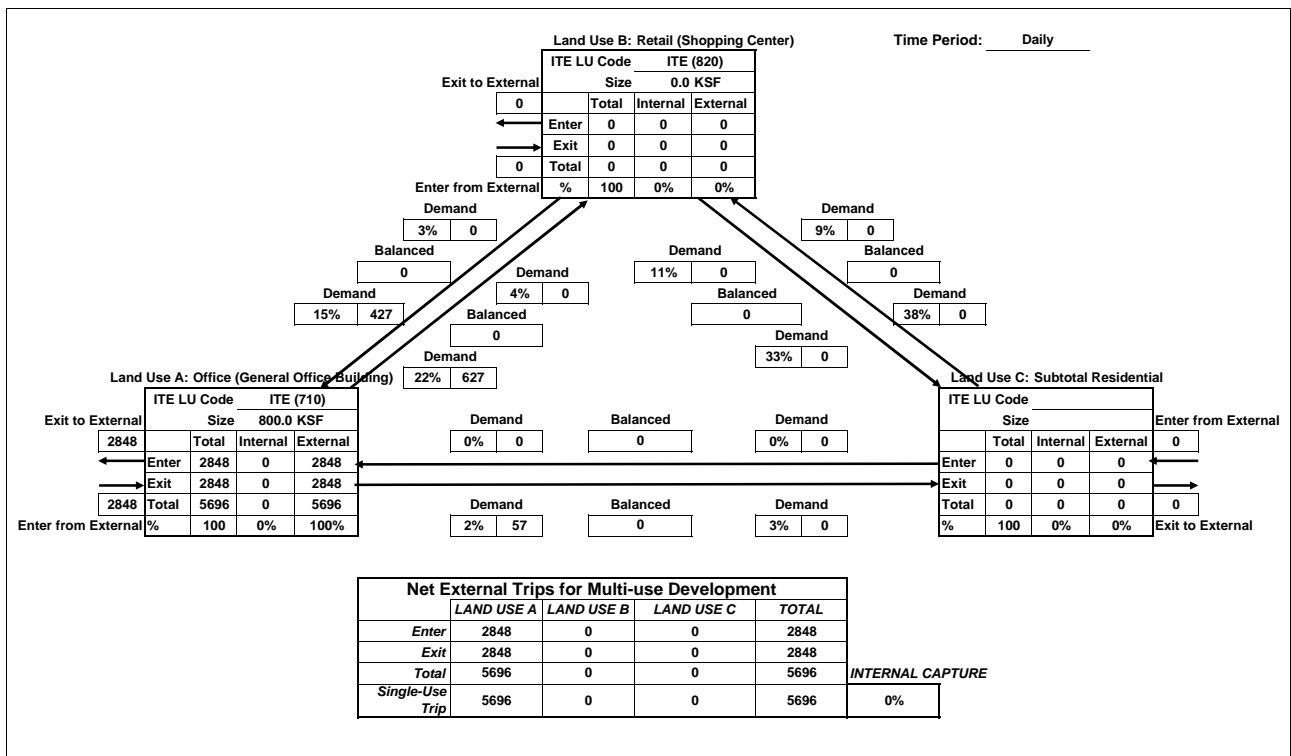


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Office

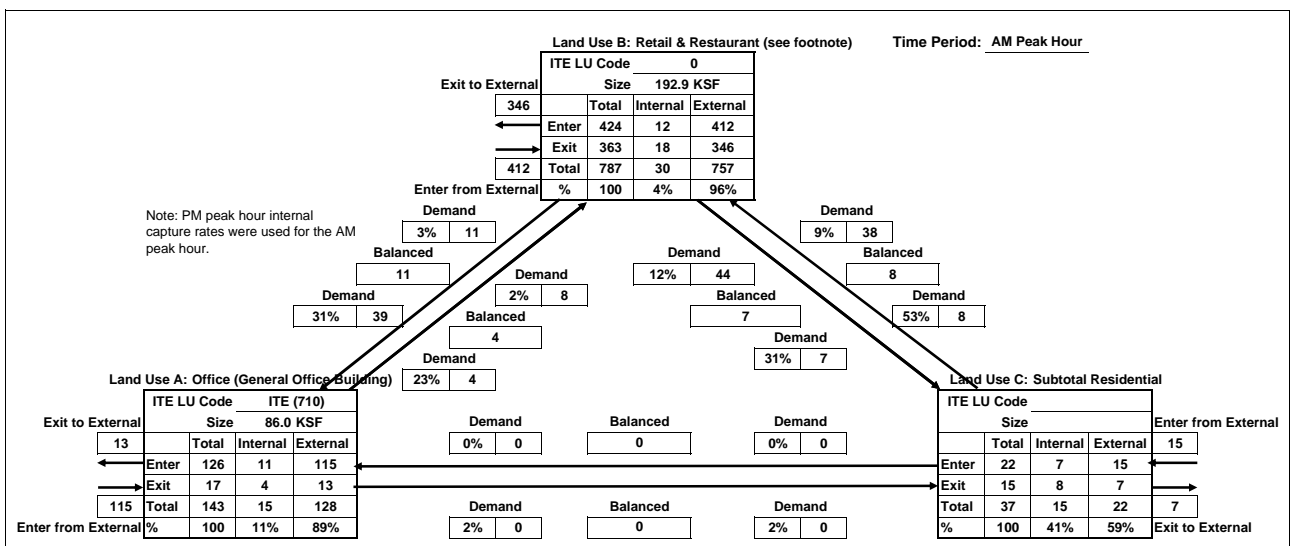
Time Period: Daily



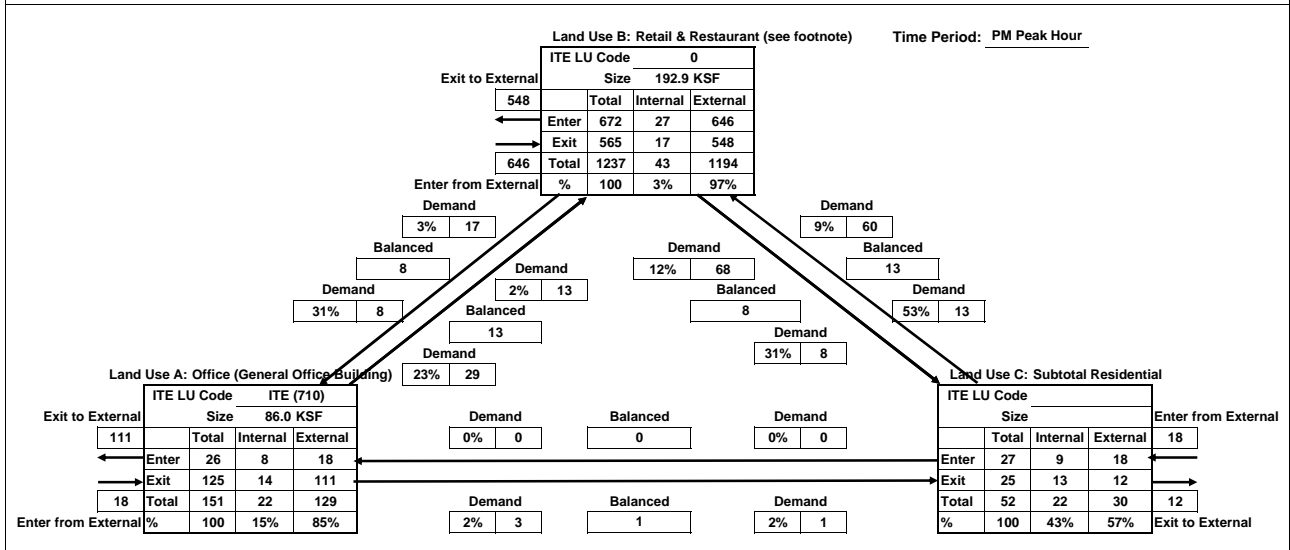
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5

Name of Development: Railyards Study
 Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	115	412	15	542	
Exit	13	346	7	365	
Total	128	757	22	907	INTERNAL CAPTURE
Single-Use Trip	143	787	37	967	6%



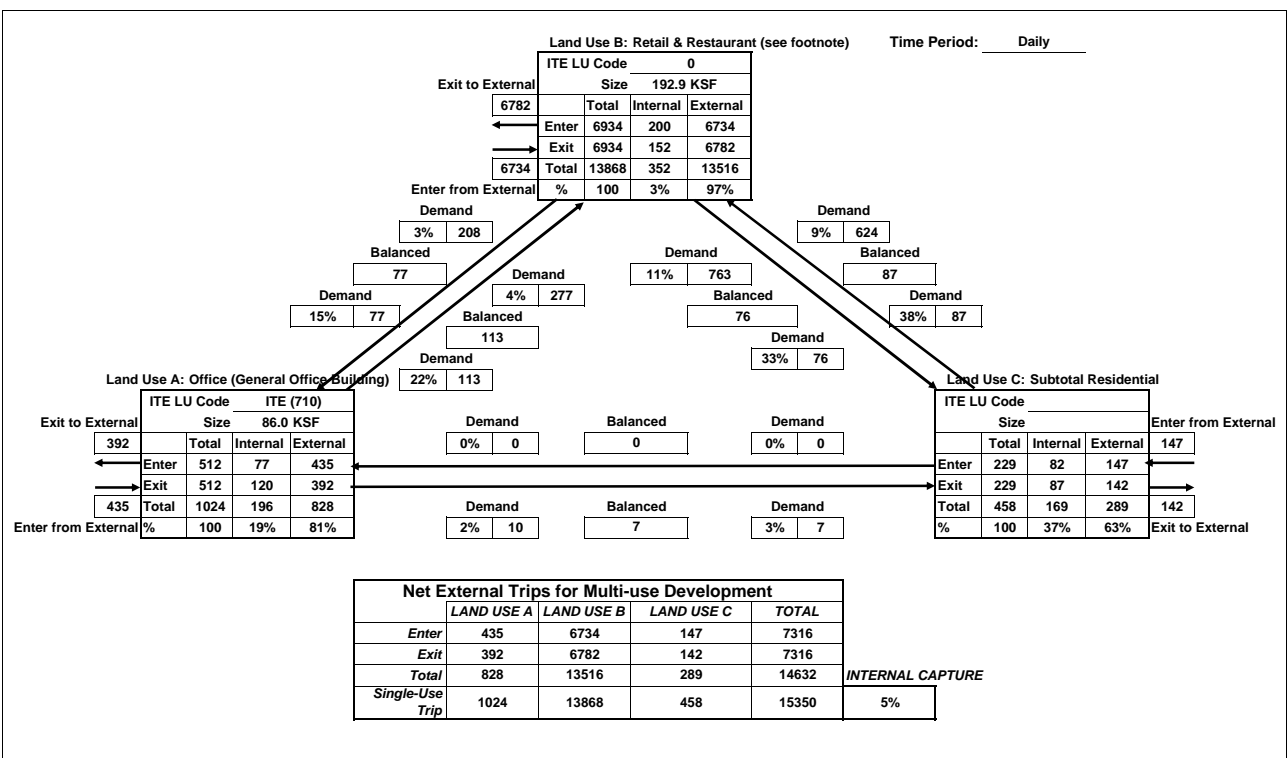
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	18	646	18	682	
Exit	111	548	12	671	
Total	129	1194	30	1353	INTERNAL CAPTURE
Single-Use Trip	151	1237	52	1440	6%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5

Name of Development: Railyards Study
 Full Project with Maximum Office

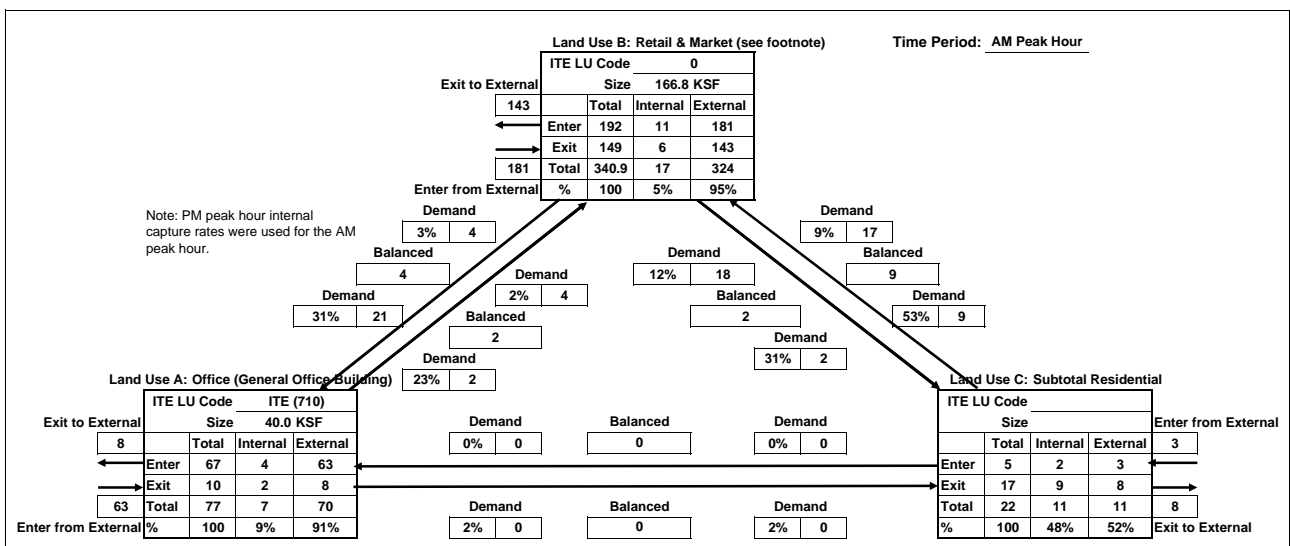
Time Period: Daily



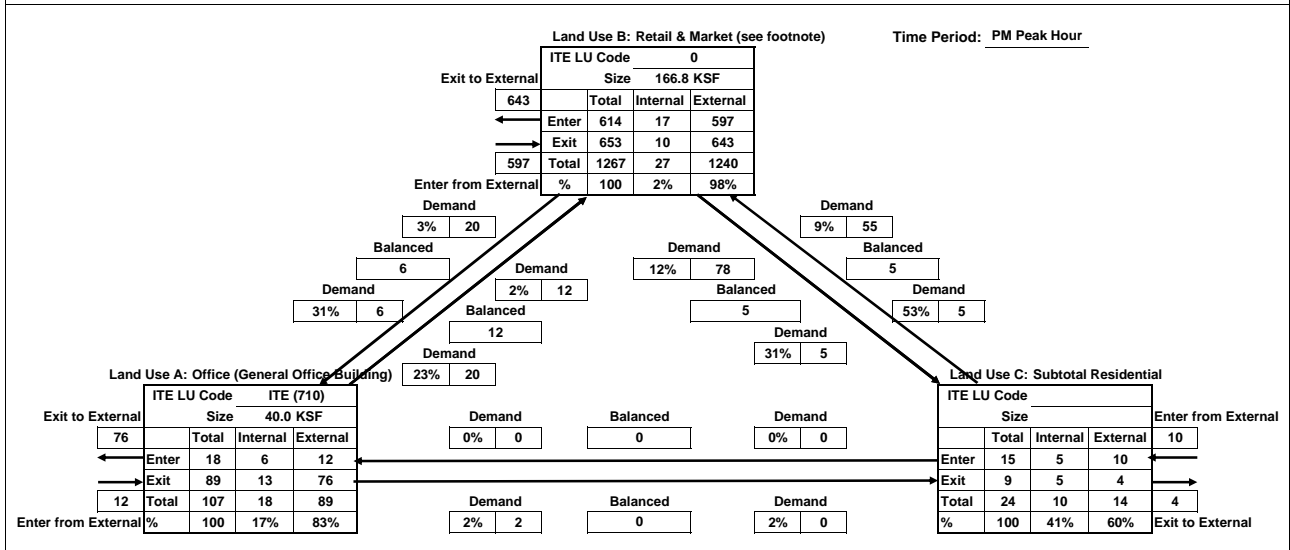
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	63	181	3	247	
Exit	8	143	8	158	
Total	70	324	11	405	INTERNAL CAPTURE
Single-Use Trip	77	340.9035	22	440	8%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	12	597	10	619	
Exit	76	643	4	723	
Total	89	1240	14	1343	INTERNAL CAPTURE
Single-Use Trip	107	1267	24	1398	4%

Analyst: Dowling

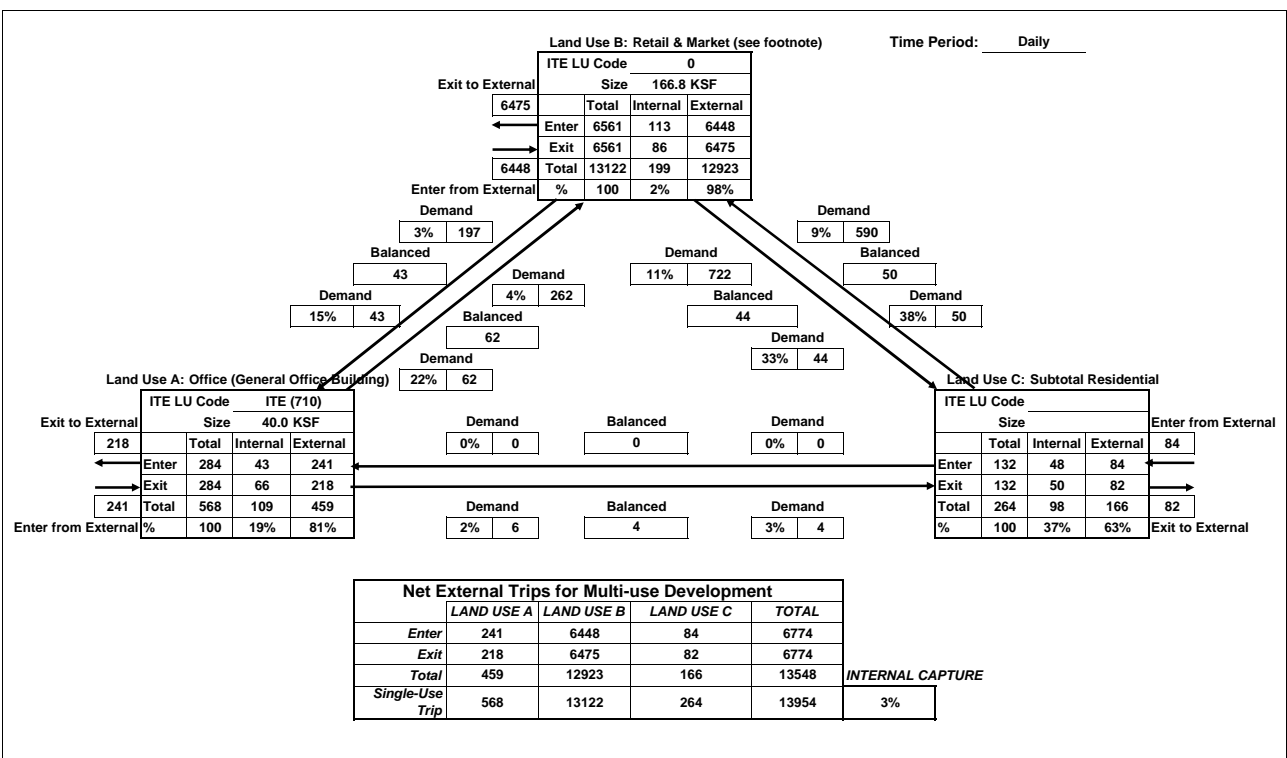
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study

Full Project with Maximum Office

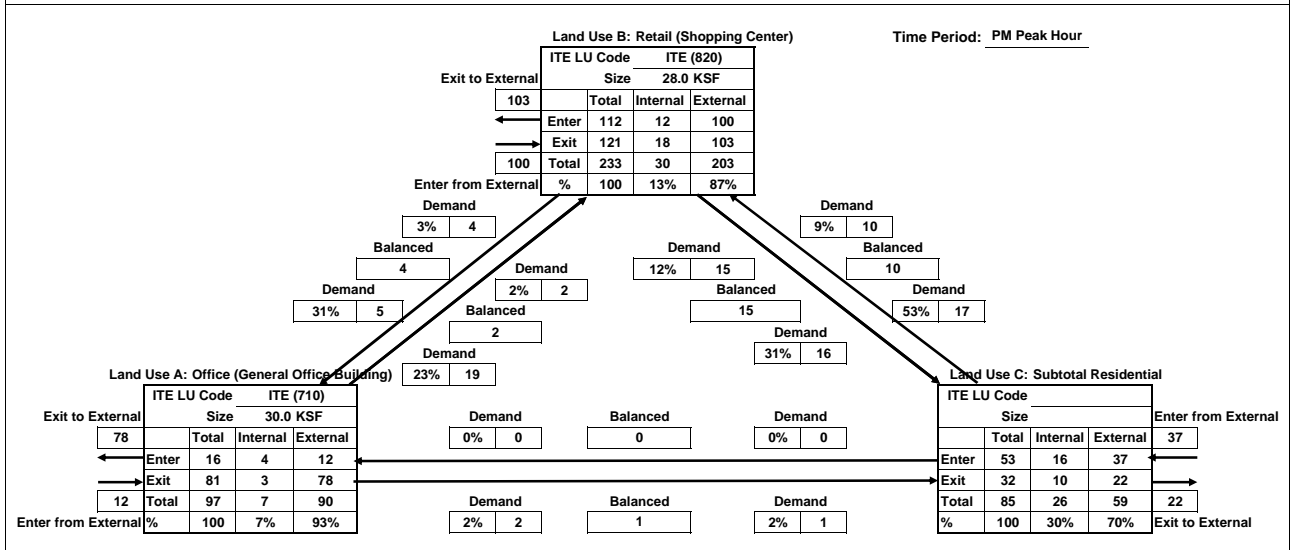
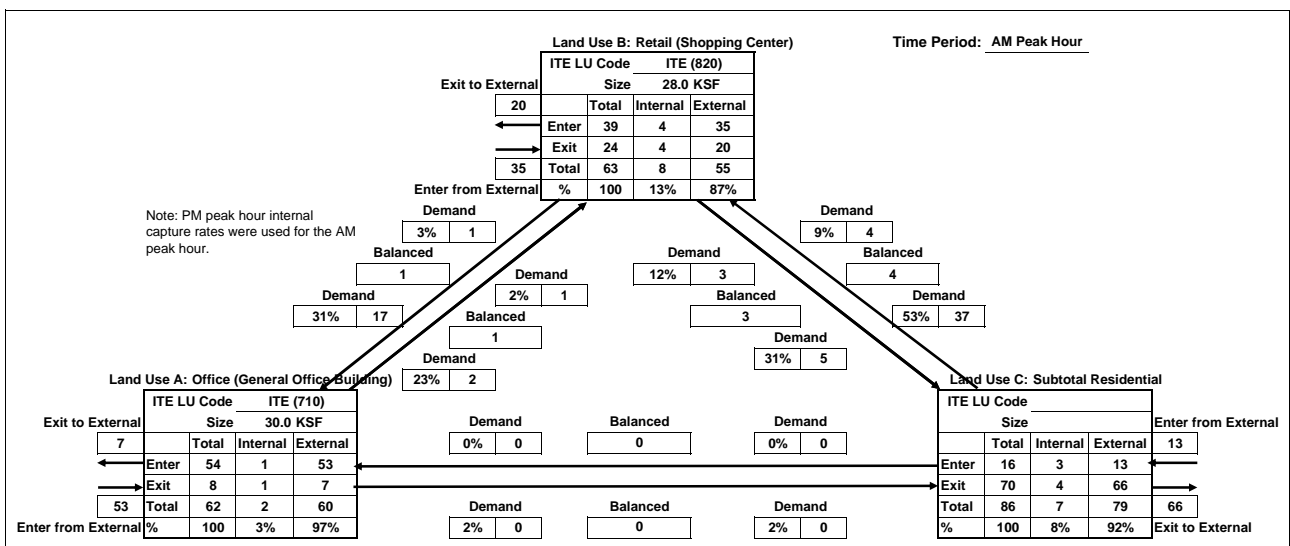
Time Period: Daily



Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Full Project with Maximum Office

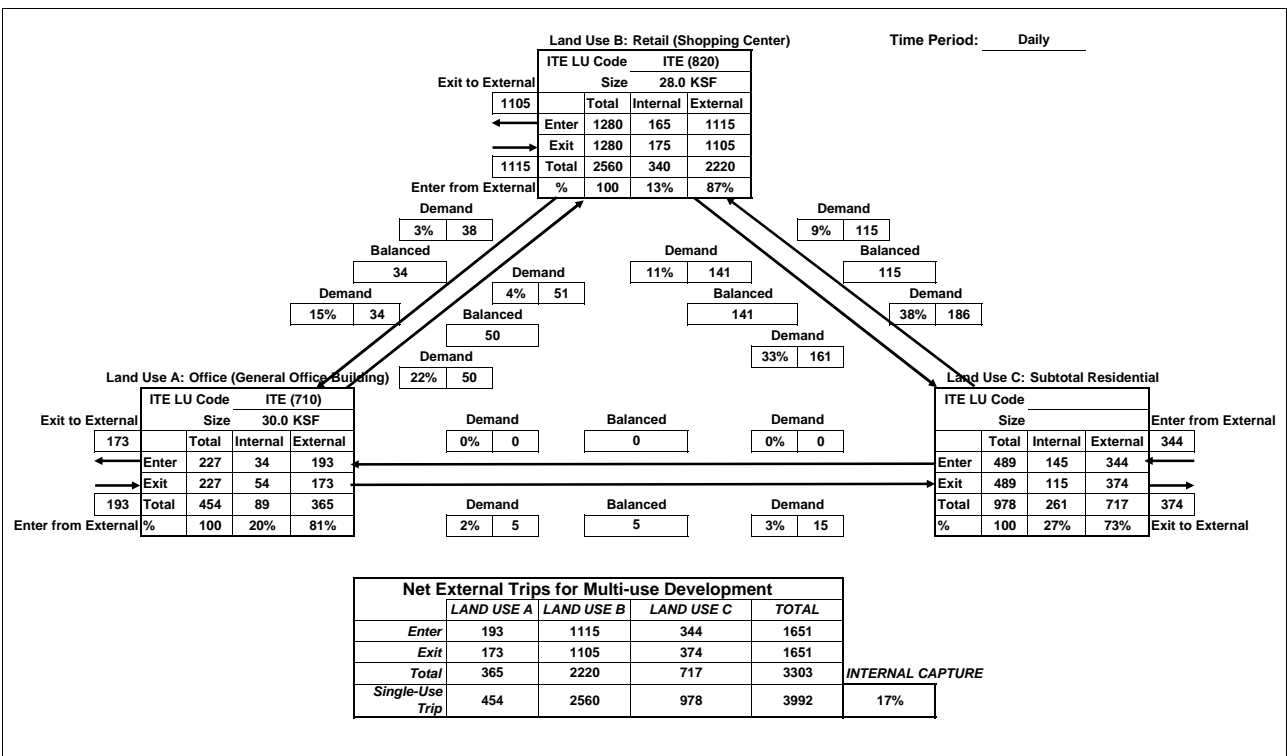


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Office

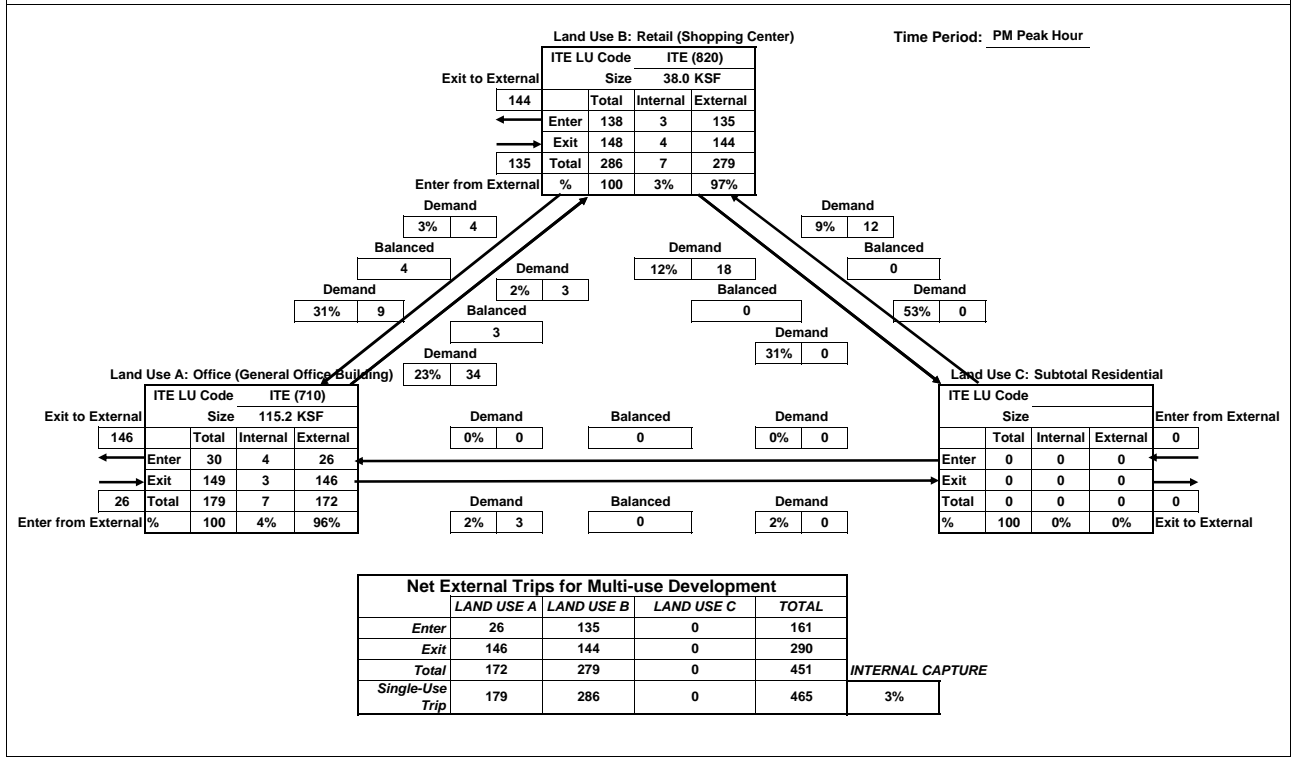
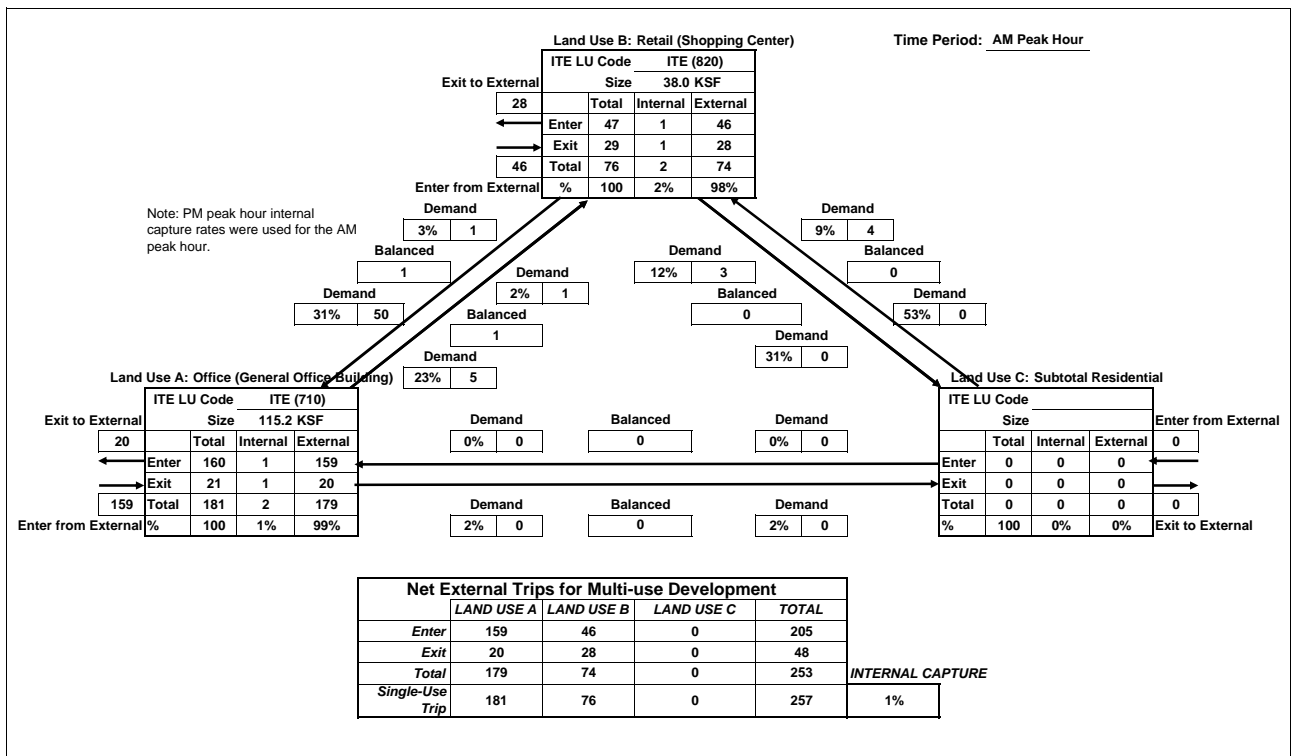
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT

Name of Development: Railyards Study
 Full Project with Maximum Office

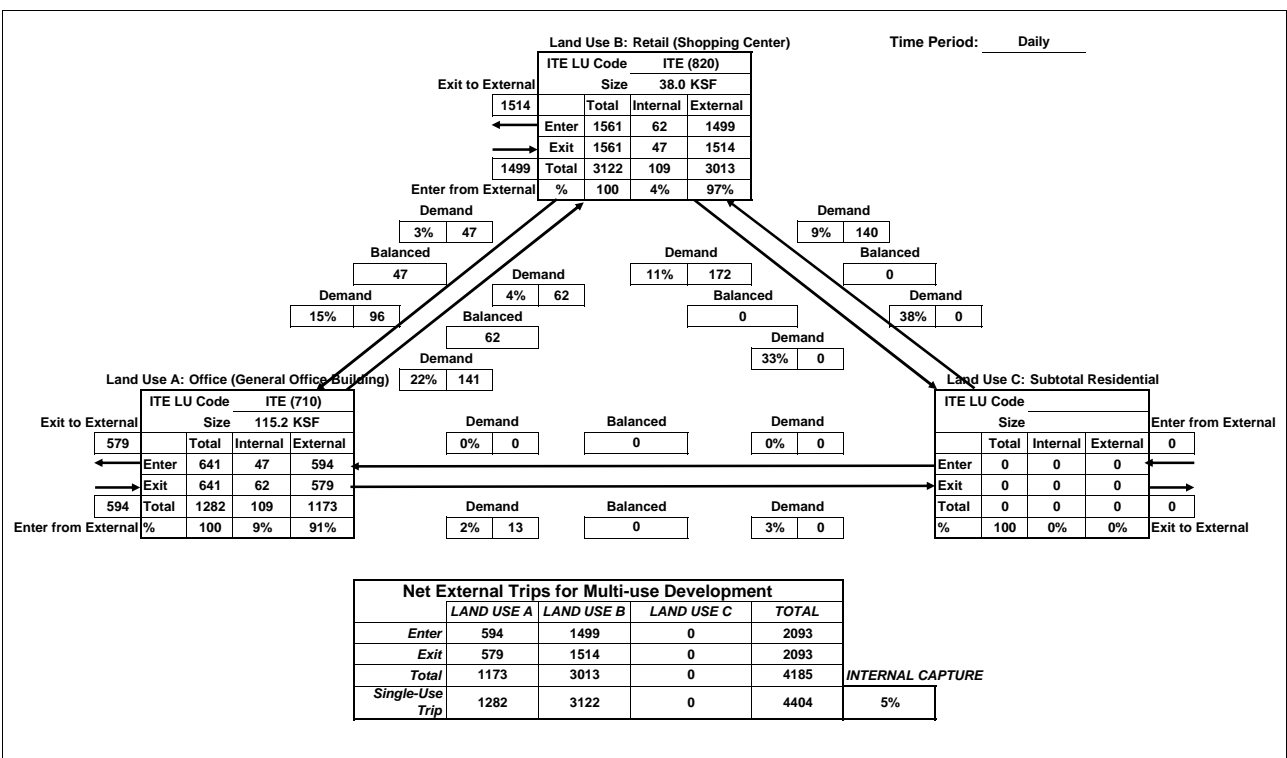


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily

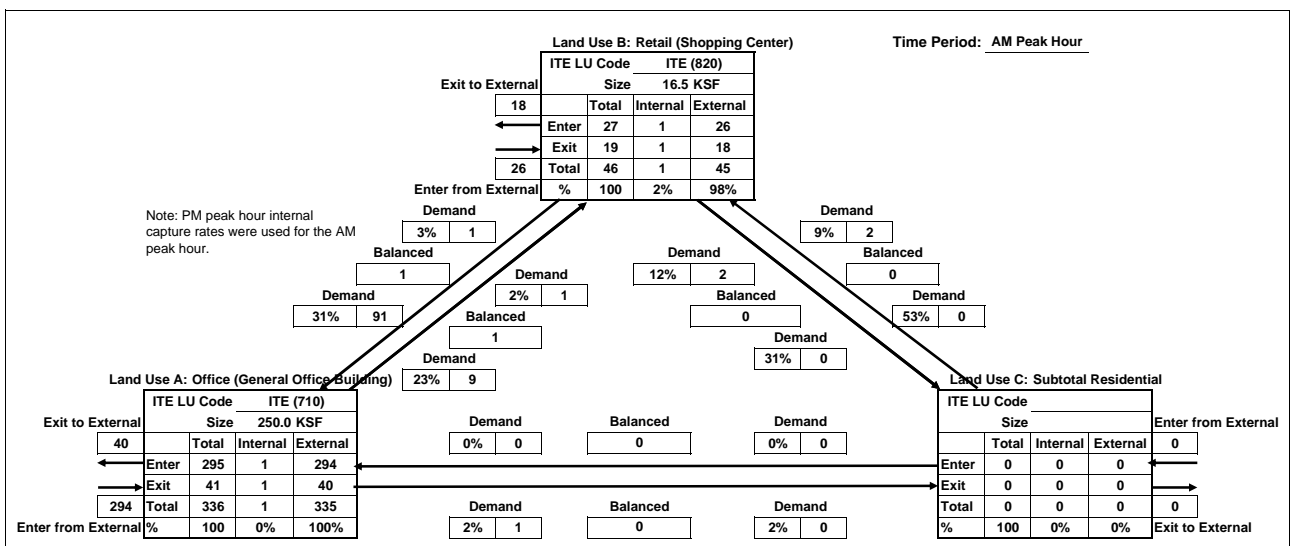


Analyst: Dowling

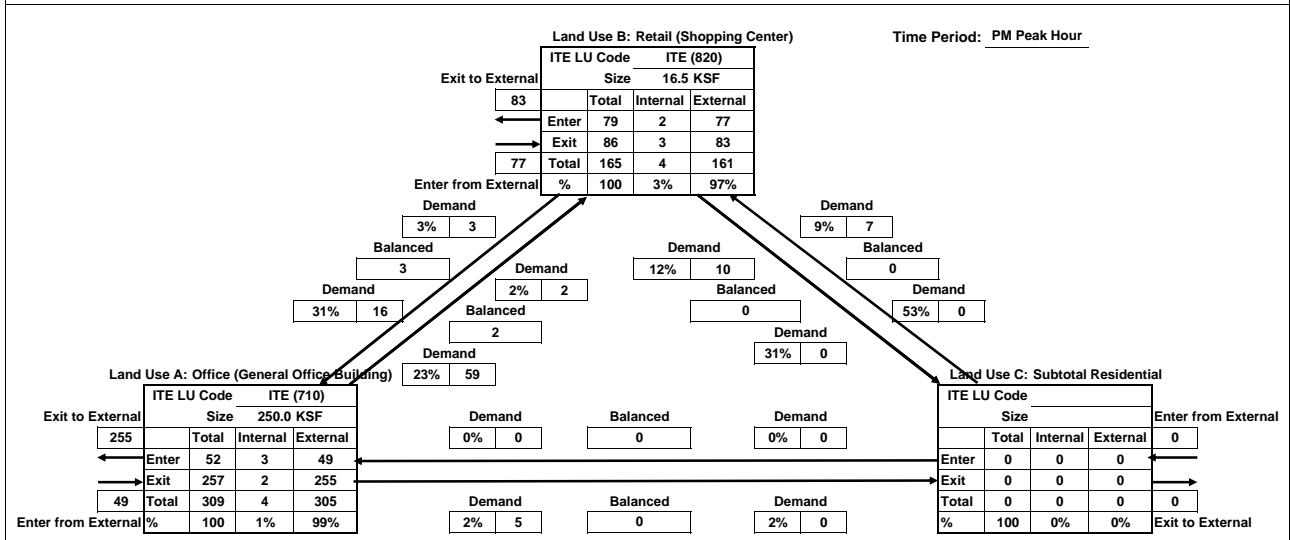
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	294	26	0	321	
Exit	40	18	0	59	
Total	335	45	0	380	INTERNAL CAPTURE
Single-Use Trip	336	46	0	382	1%



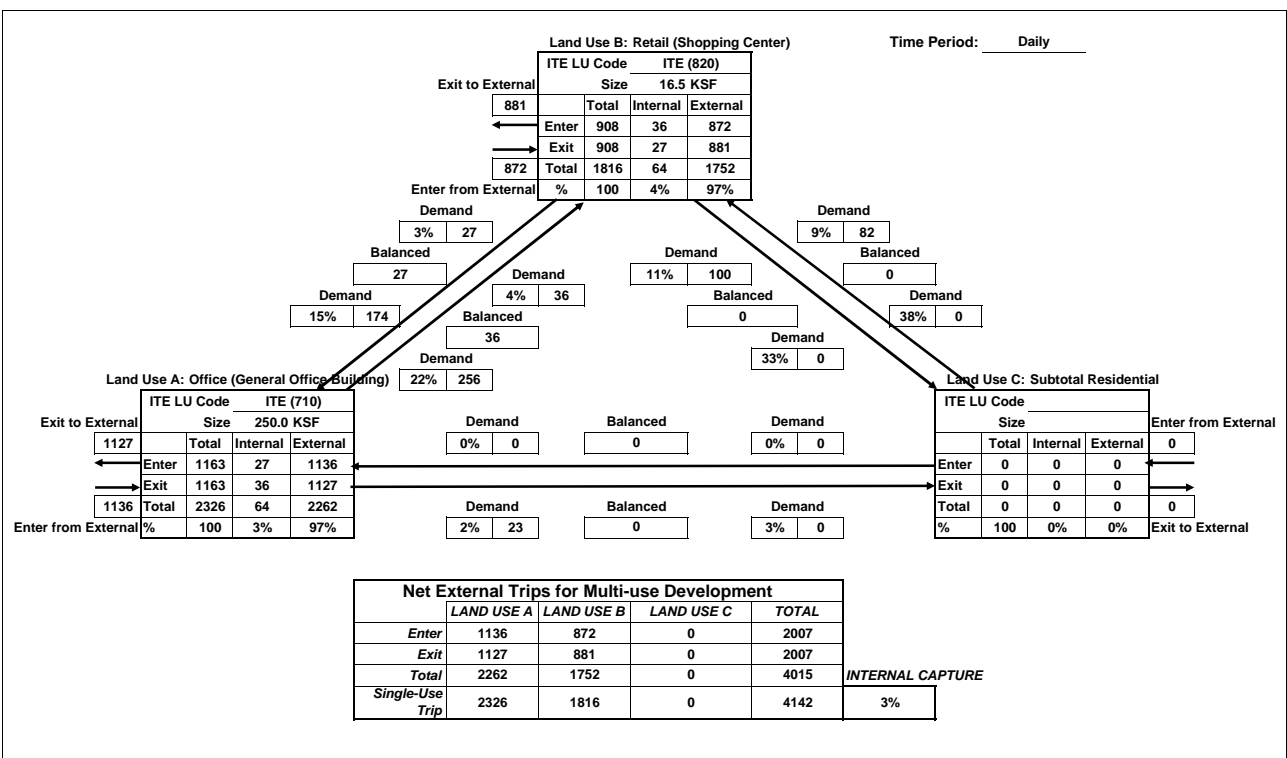
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	49	77	0	127	
Exit	255	83	0	339	
Total	305	161	0	466	INTERNAL CAPTURE
Single-Use Trip	309	165	0	474	2%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily



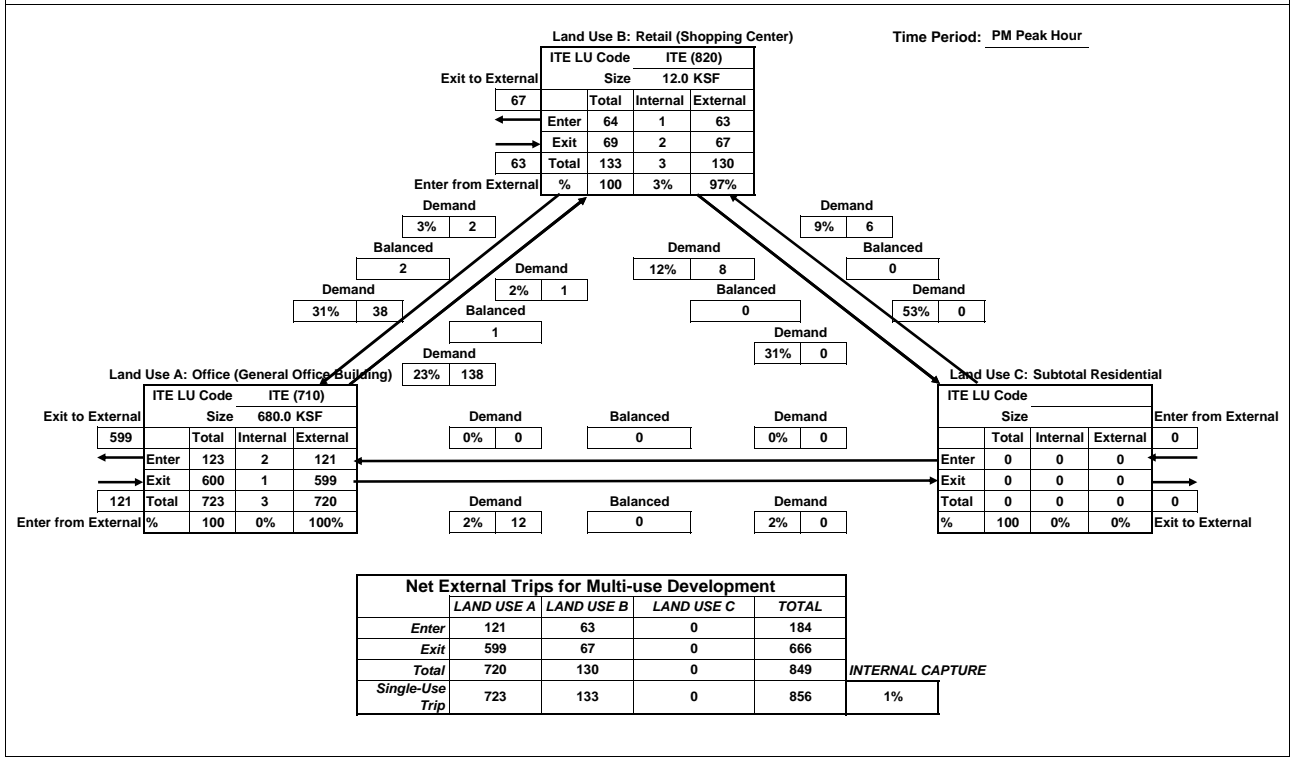
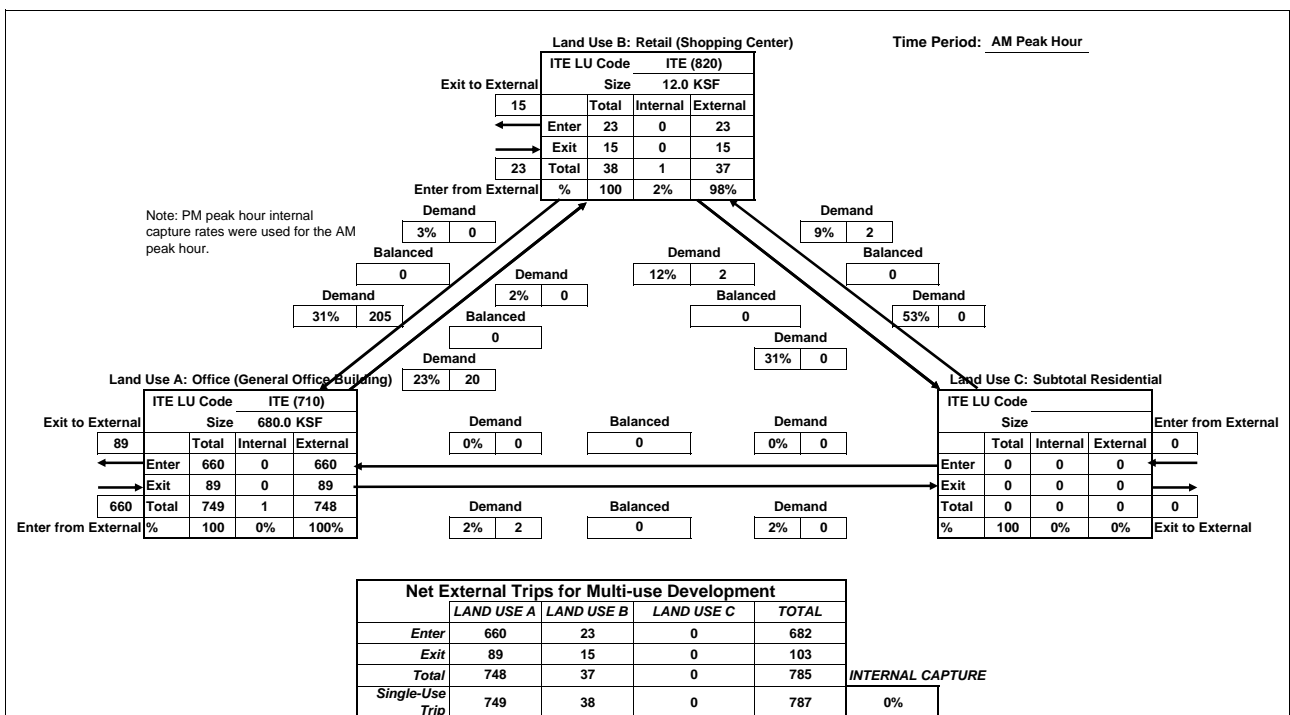
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study

Full Project with Maximum Office

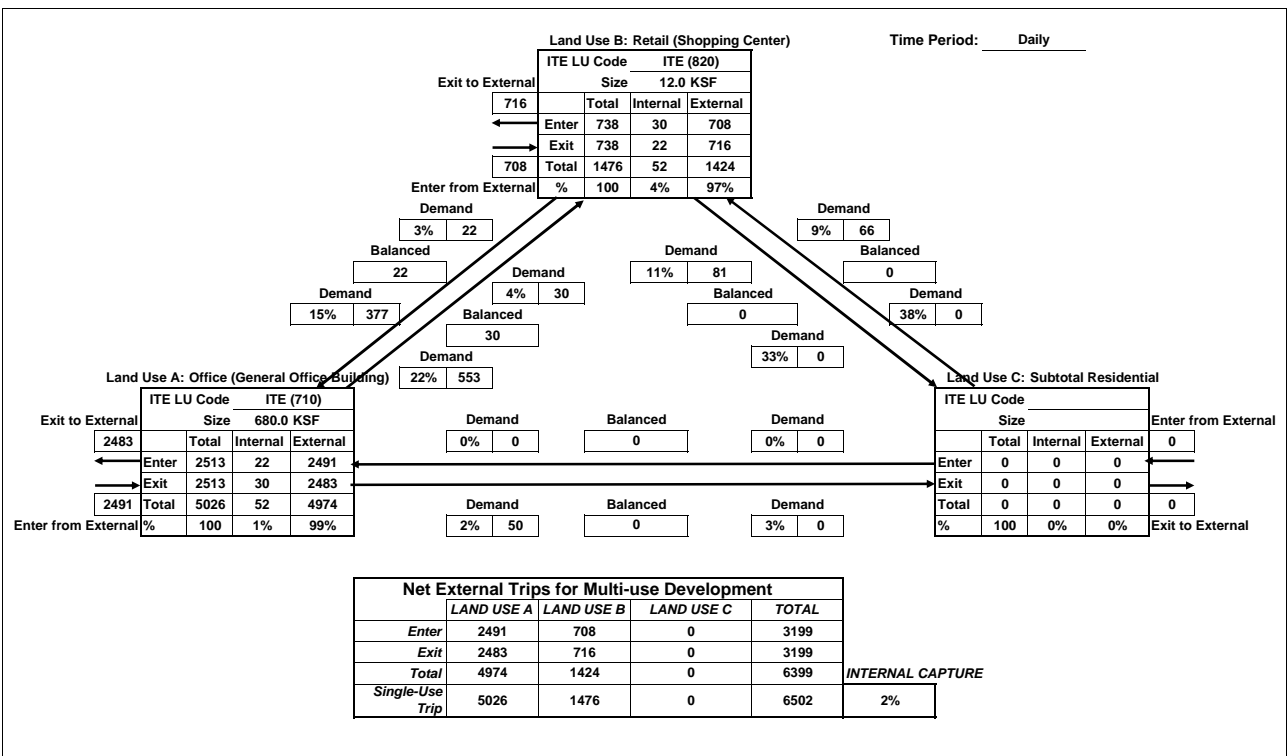


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily

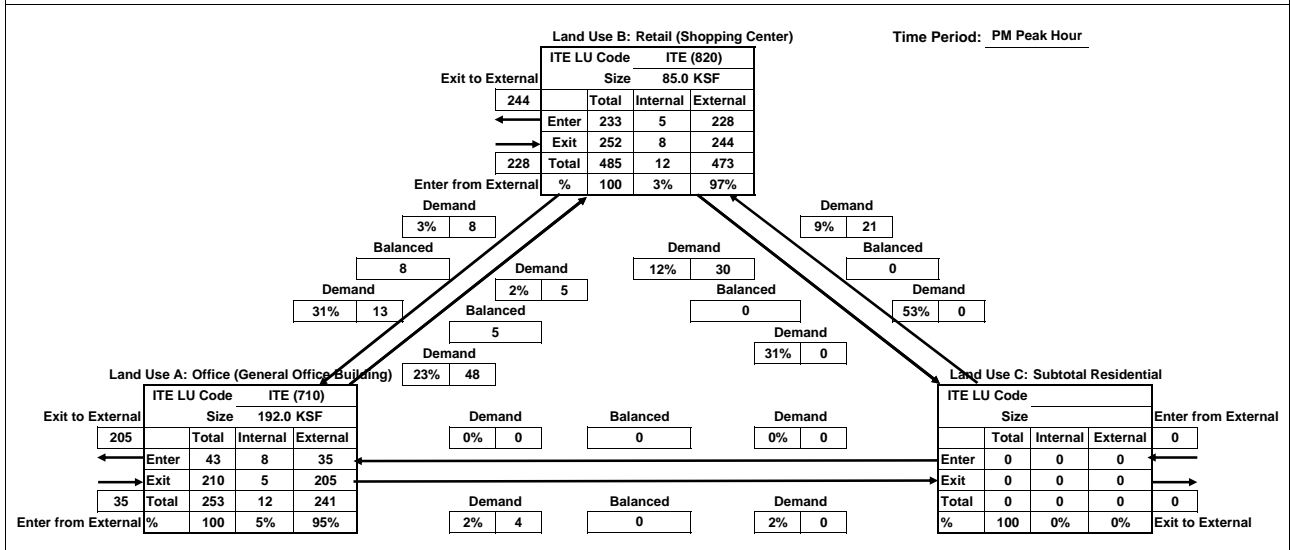
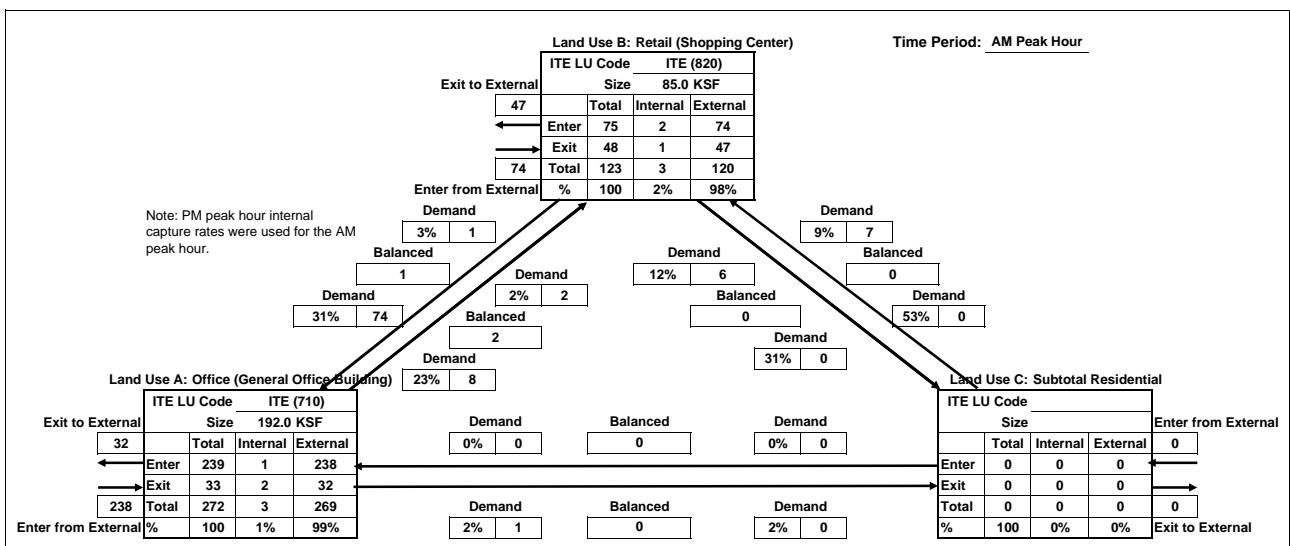


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Full Project with Maximum Office



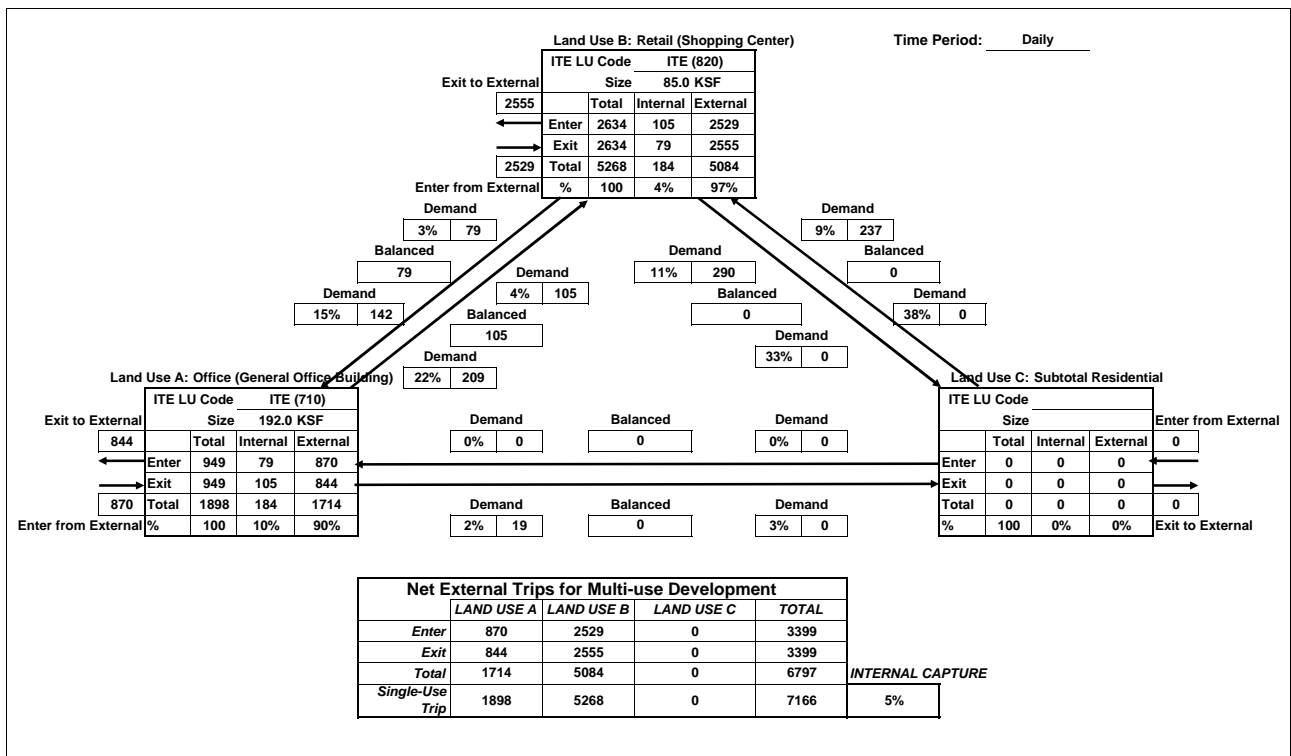
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Full Project with Maximum Office

Time Period: Daily



Analyst: Dowling

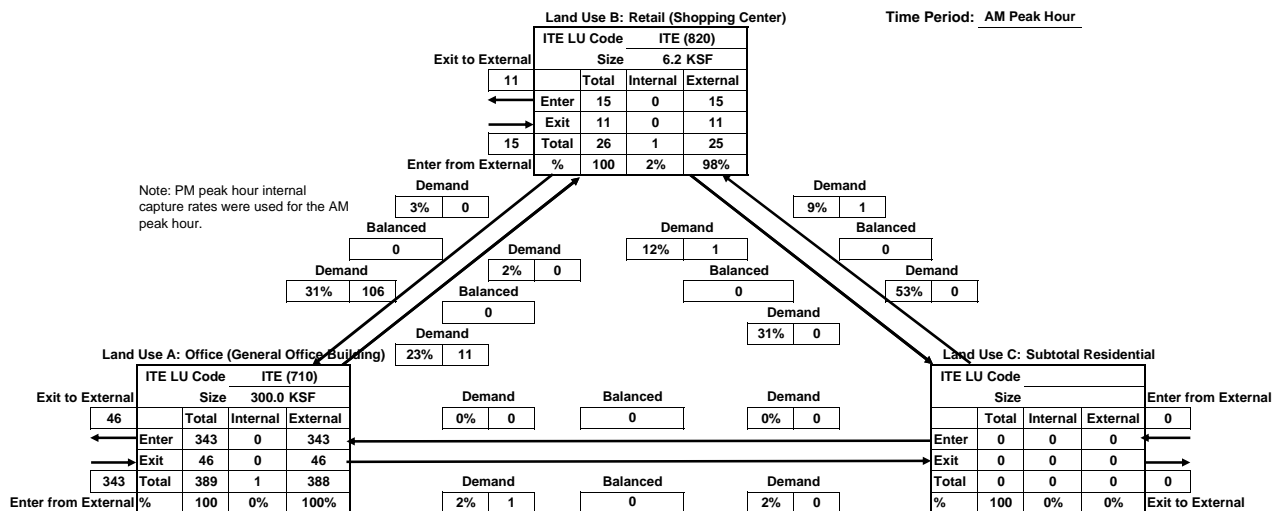
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study

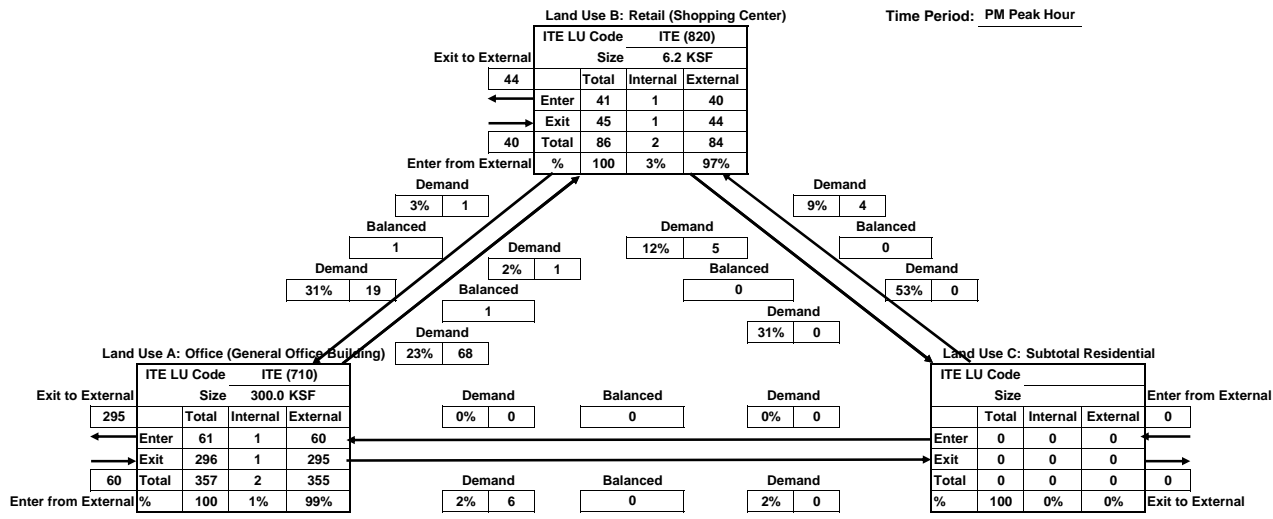
Full Project with Maximum Office

Time Period: AM Peak Hour



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	343	15	0	357	
Exit	46	11	0	56	
Total	388	25	0	414	INTERNAL CAPTURE
Single-Use Trip	389	26	0	415	0%

Time Period: PM Peak Hour



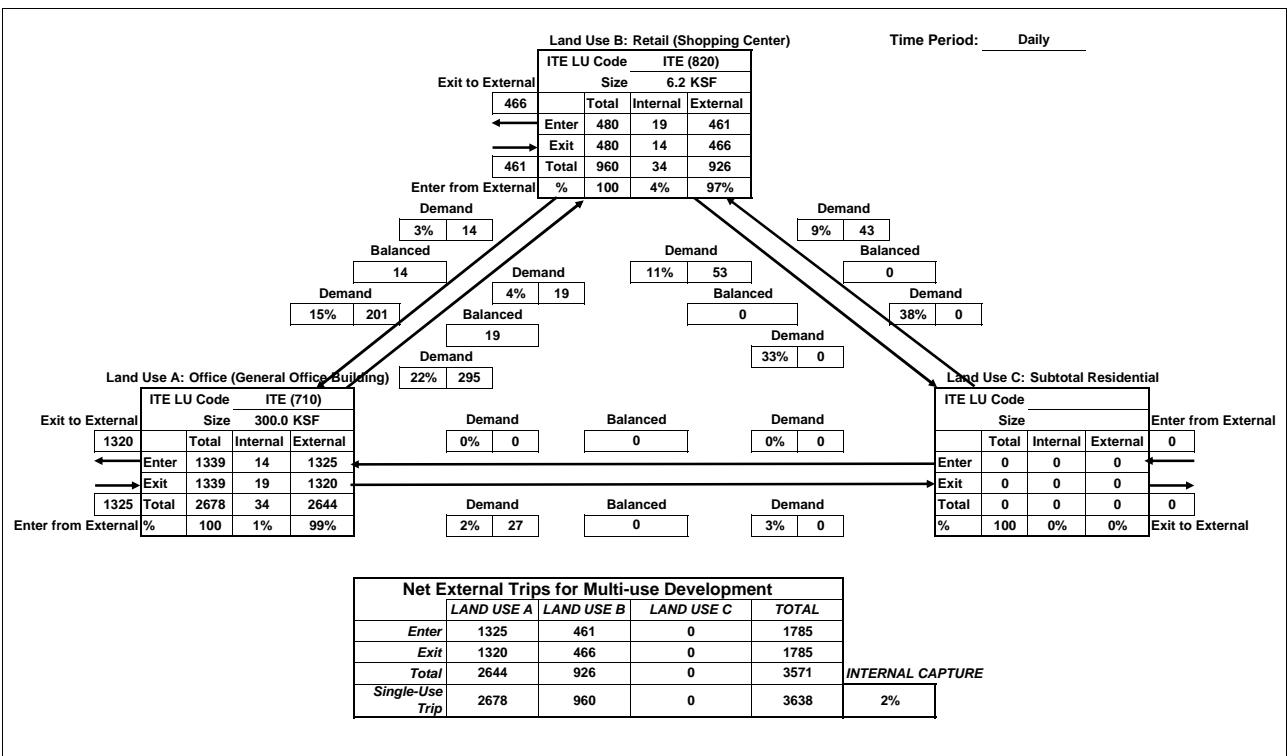
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	60	40	0	100	
Exit	295	44	0	339	
Total	355	84	0	439	INTERNAL CAPTURE
Single-Use Trip	357	86	0	443	1%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily

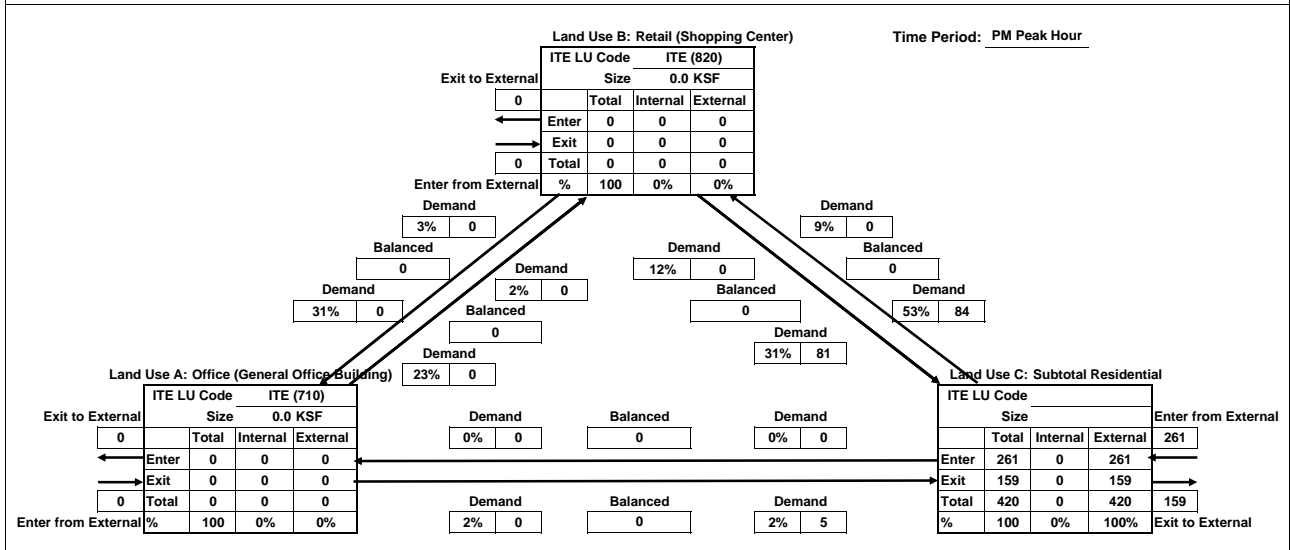
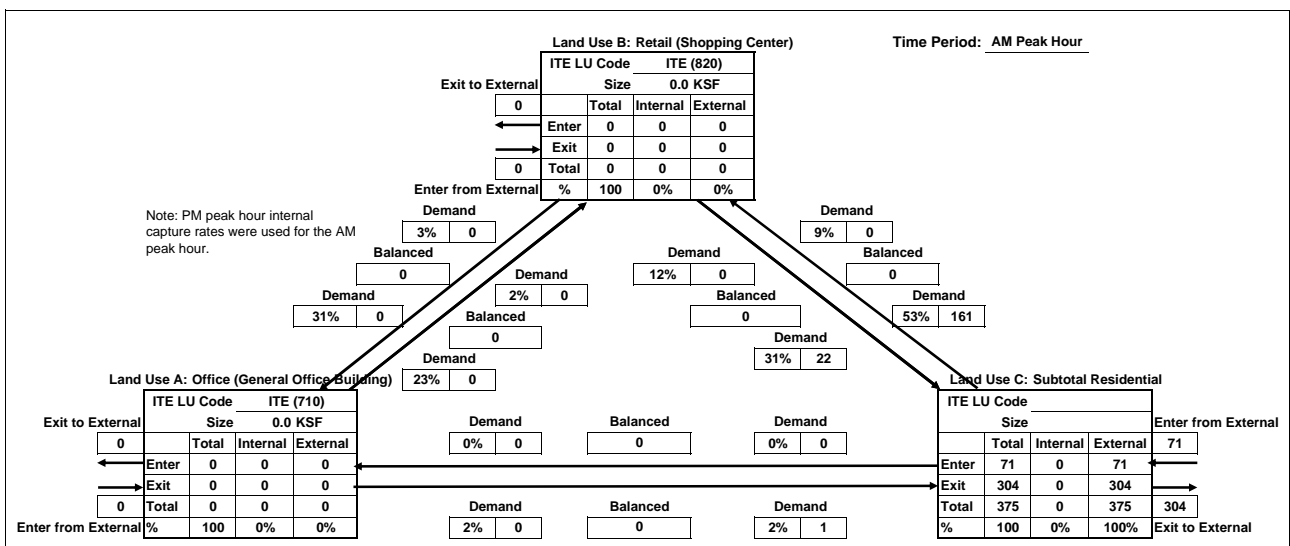


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
Full Project with Maximum Office

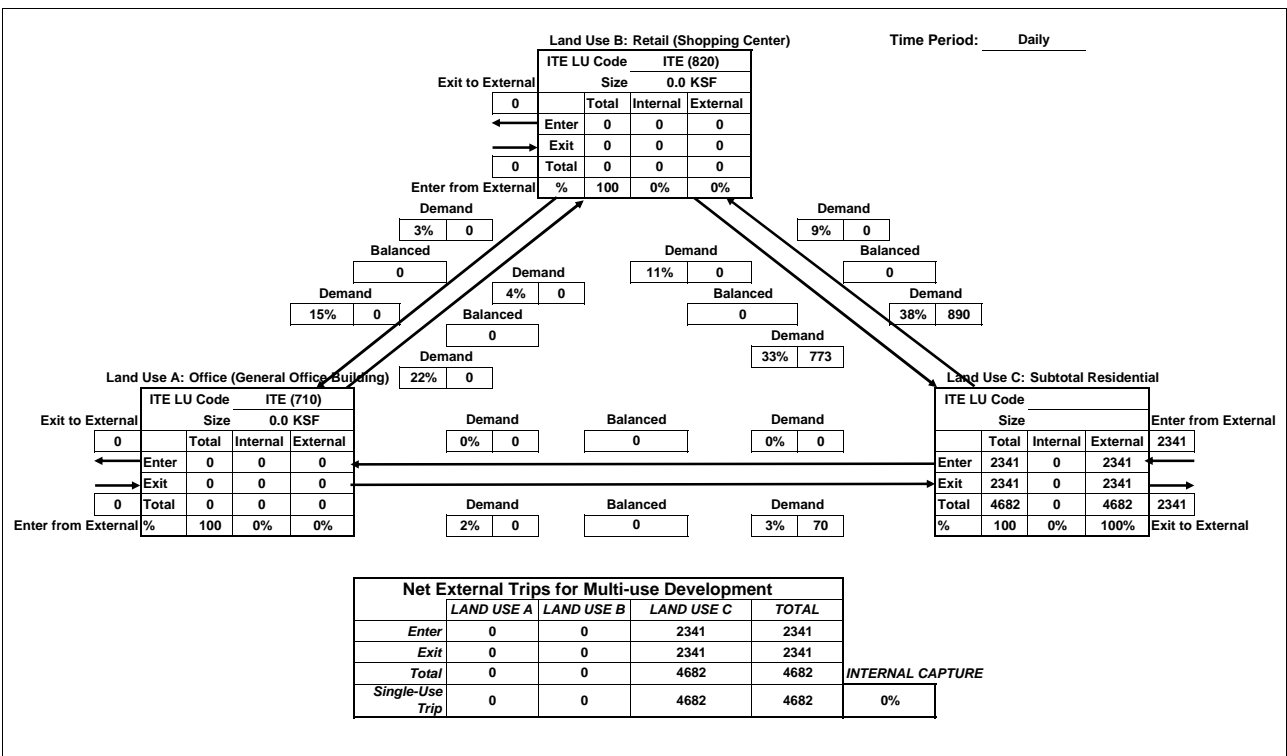


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Office

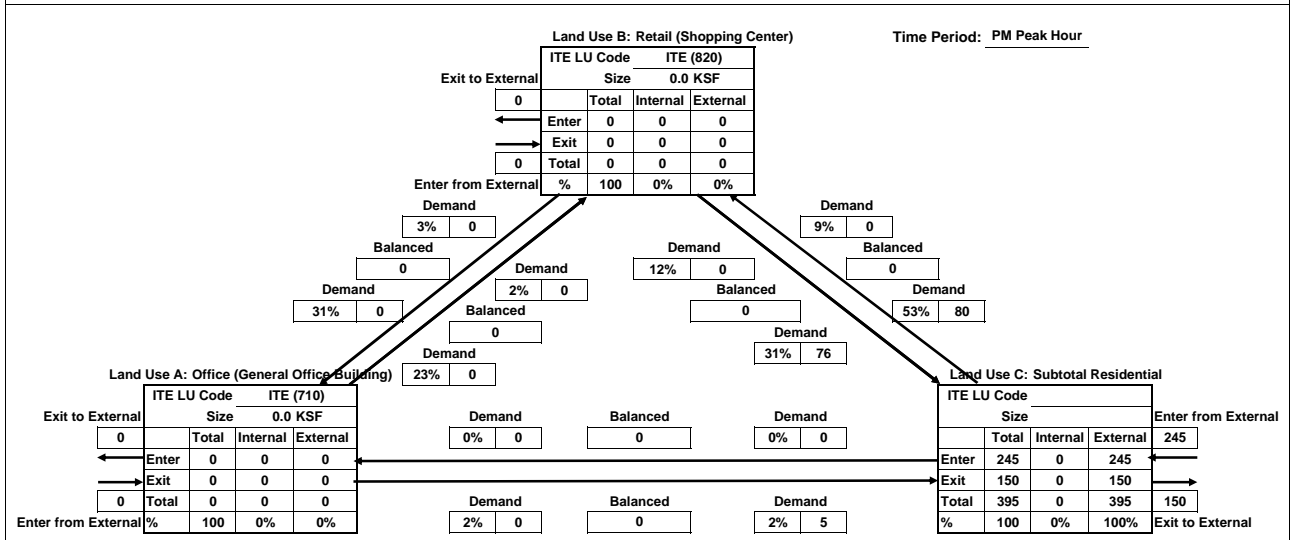
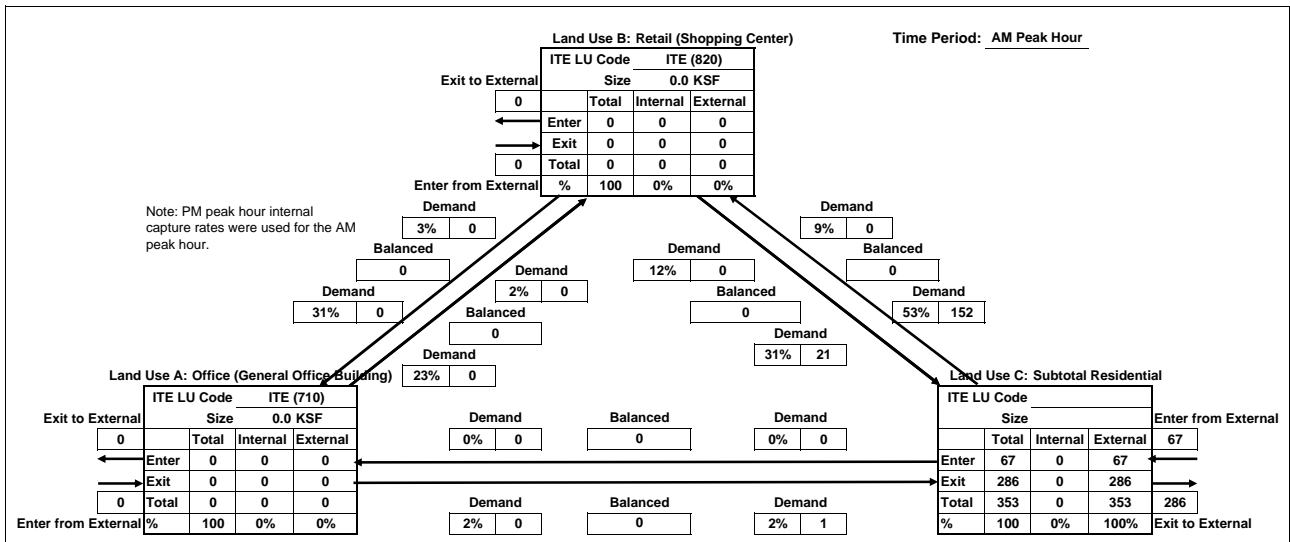
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
 Full Project with Maximum Office

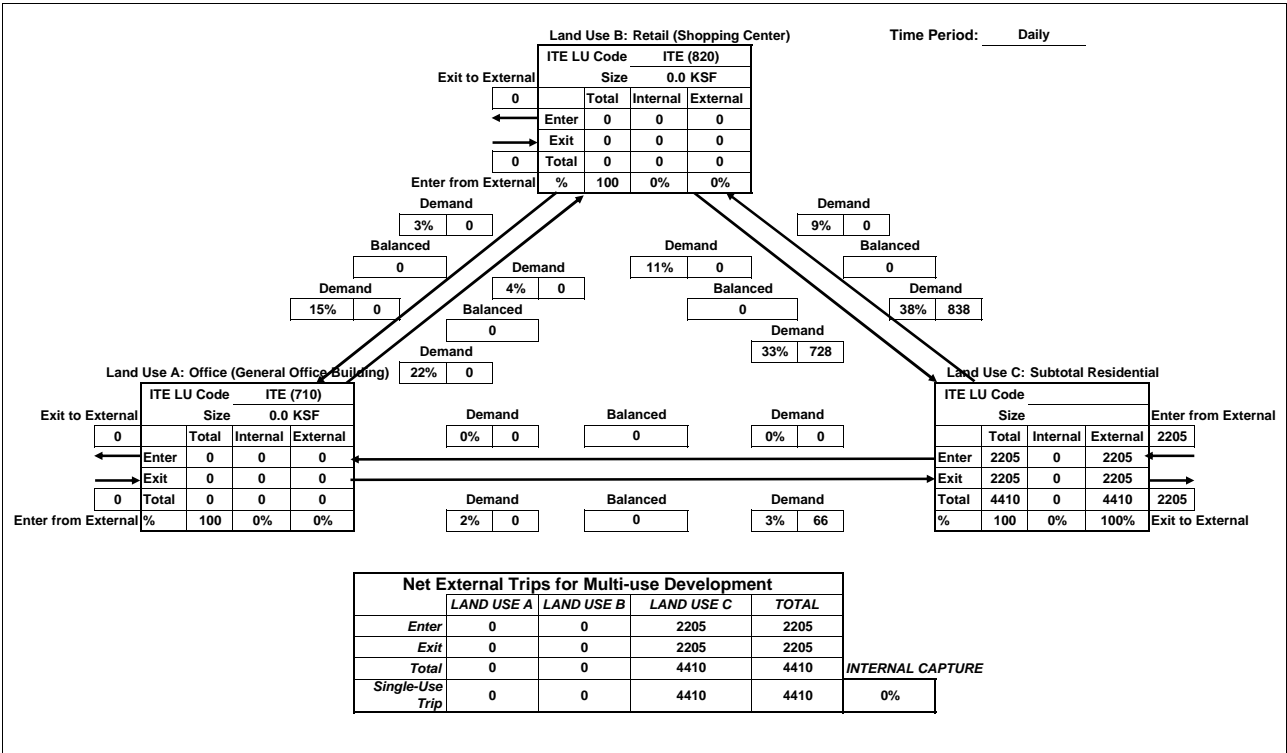


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily



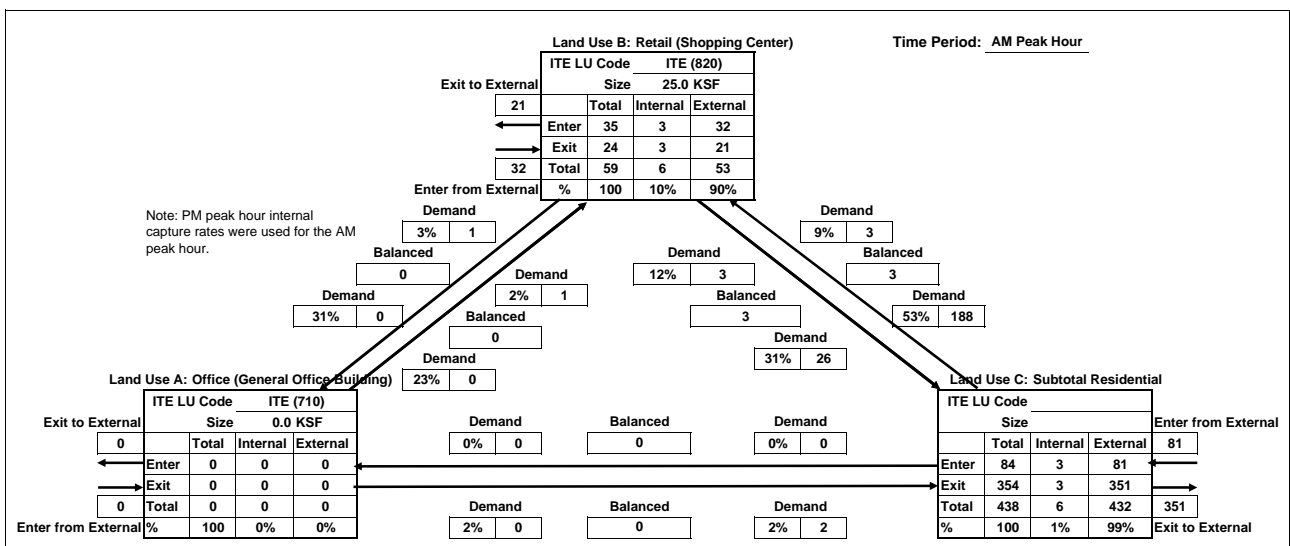
Analyst: Dowling

Date: 8/17/2007

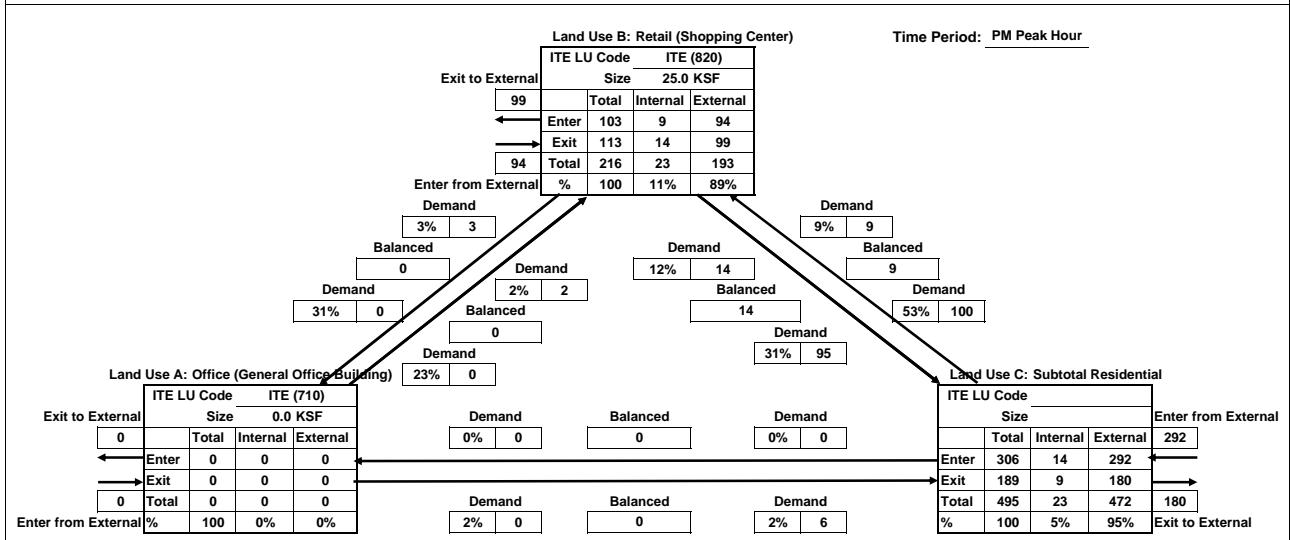
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study

Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	32	81	113	
Exit	0	21	351	372	
Total	0	53	432	485	INTERNAL CAPTURE
Single-Use Trip	0	59	438	497	2%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	94	292	386	
Exit	0	99	180	279	
Total	0	193	472	665	INTERNAL CAPTURE
Single-Use Trip	0	216	495	711	6%

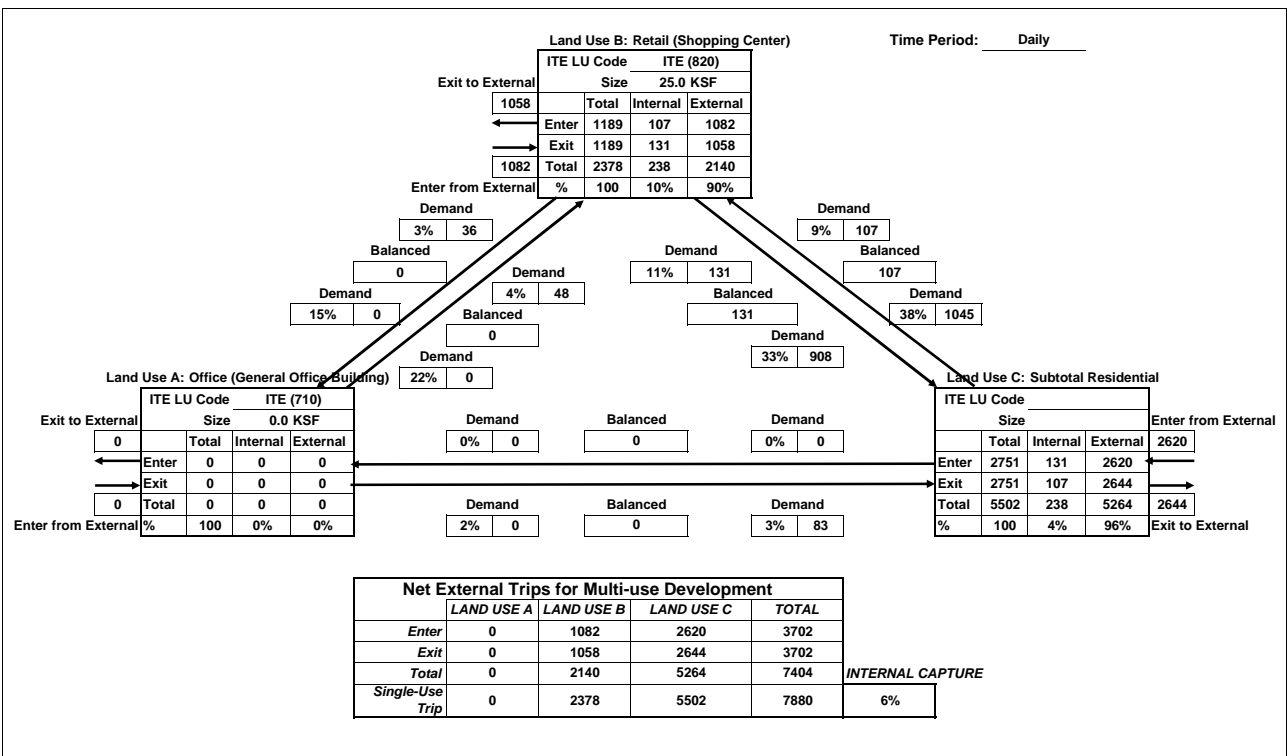
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Full Project with Maximum Office

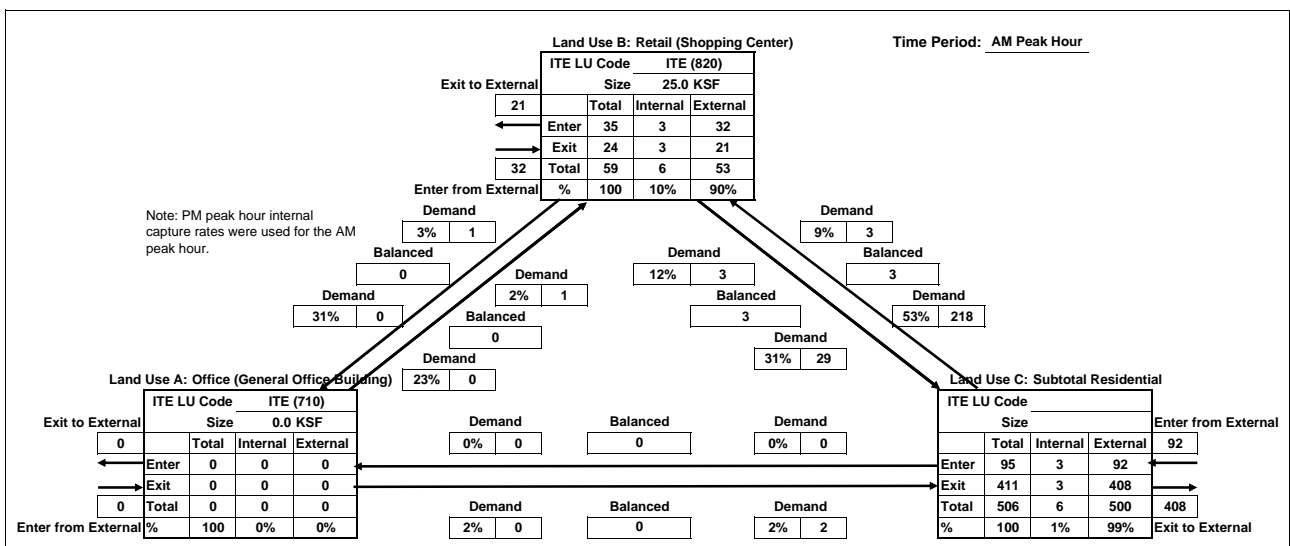
Time Period: Daily



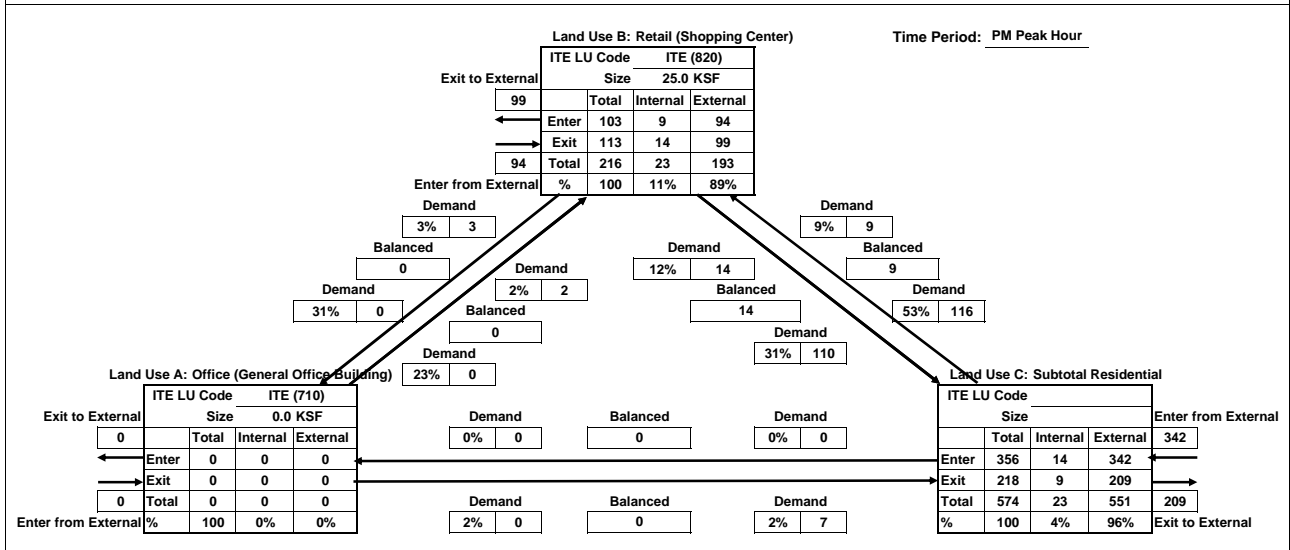
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study
 Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	32	92	124	
Exit	0	21	408	429	
Total	0	53	500	553	INTERNAL CAPTURE
Single-Use Trip	0	59	506	565	2%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	94	342	436	
Exit	0	99	209	308	
Total	0	193	551	744	INTERNAL CAPTURE
Single-Use Trip	0	216	574	790	6%

Analyst: Dowling

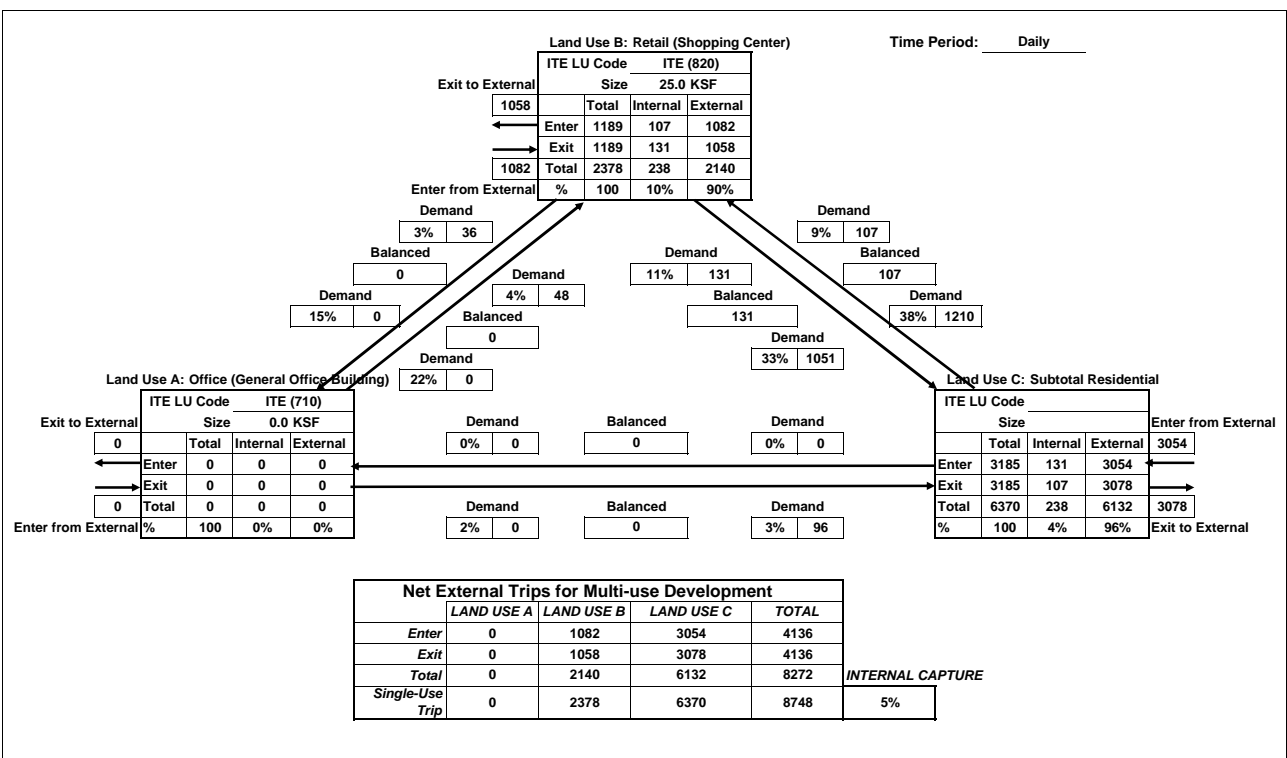
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study

Full Project with Maximum Office

Time Period: Daily

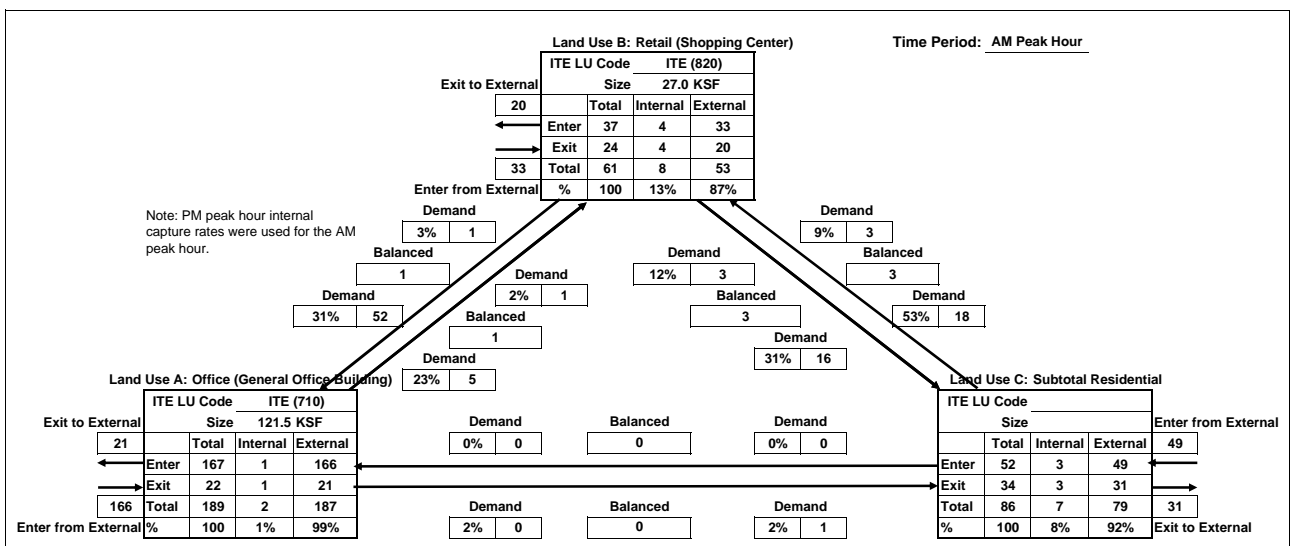


Analyst: Dowling

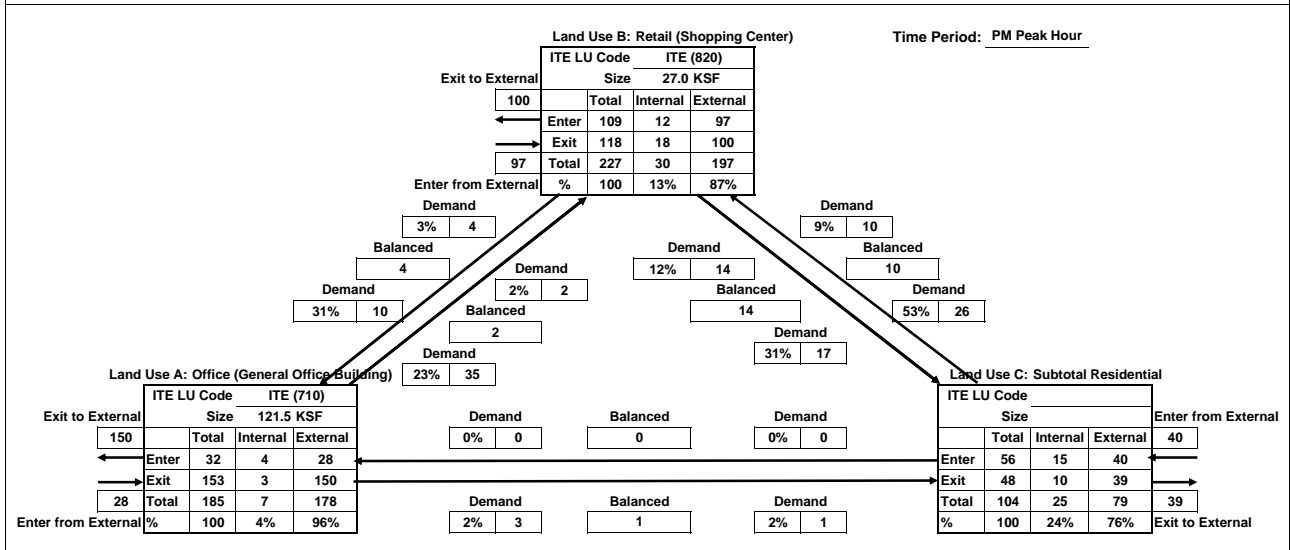
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	166	33	49	248	
Exit	21	20	31	72	
Total	187	53	79	320	INTERNAL CAPTURE
Single-Use Trip	189	61	86	336	5%



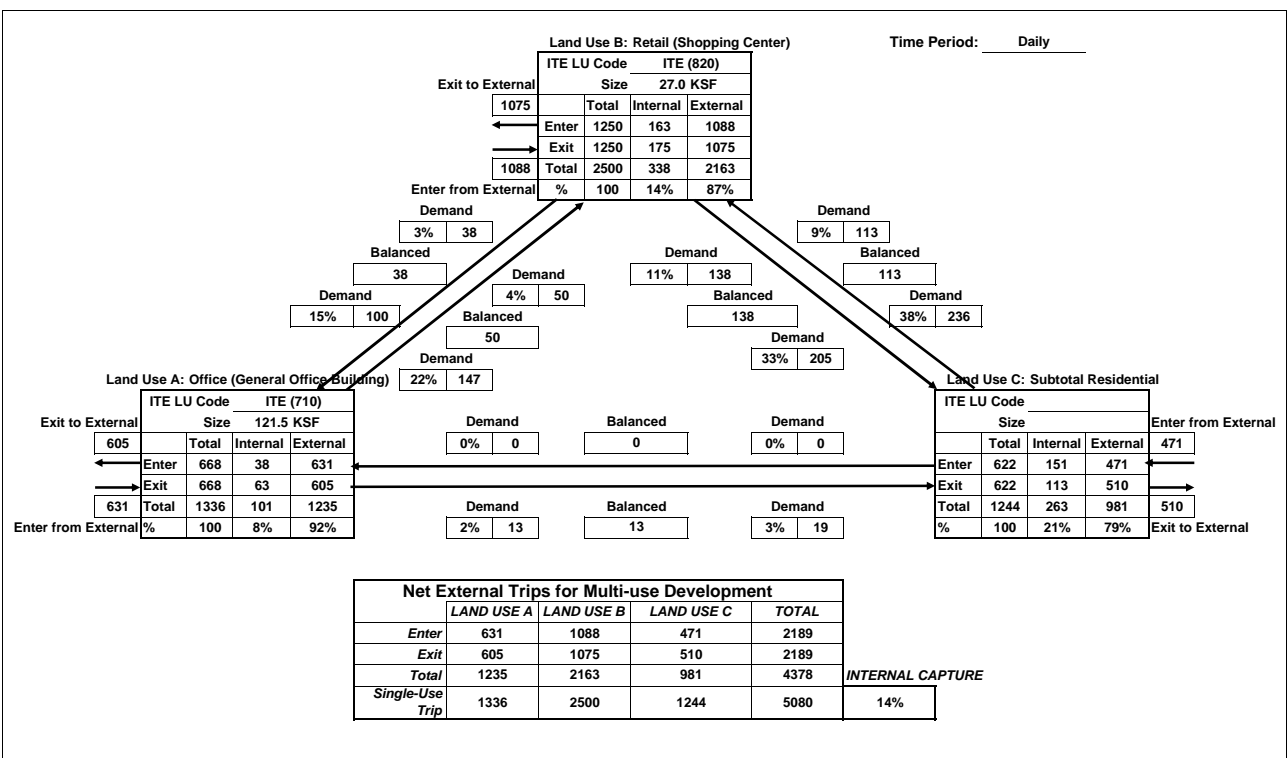
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	28	97	40	166	
Exit	150	100	39	289	
Total	178	197	79	454	INTERNAL CAPTURE
Single-Use Trip	185	227	104	516	12%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Full Project with Maximum Office

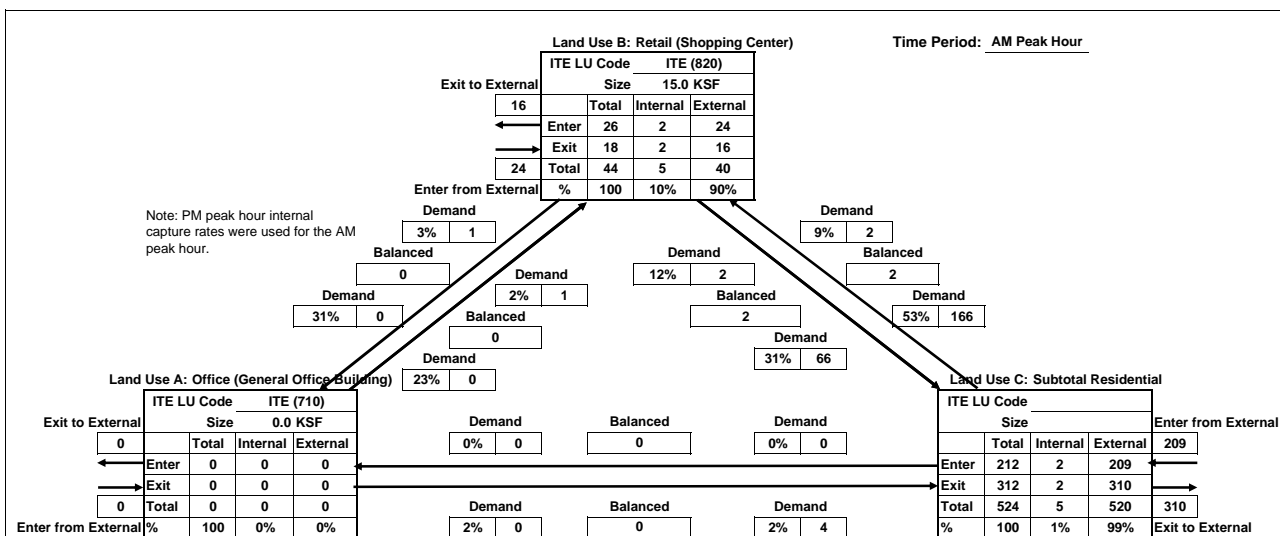
Time Period: Daily



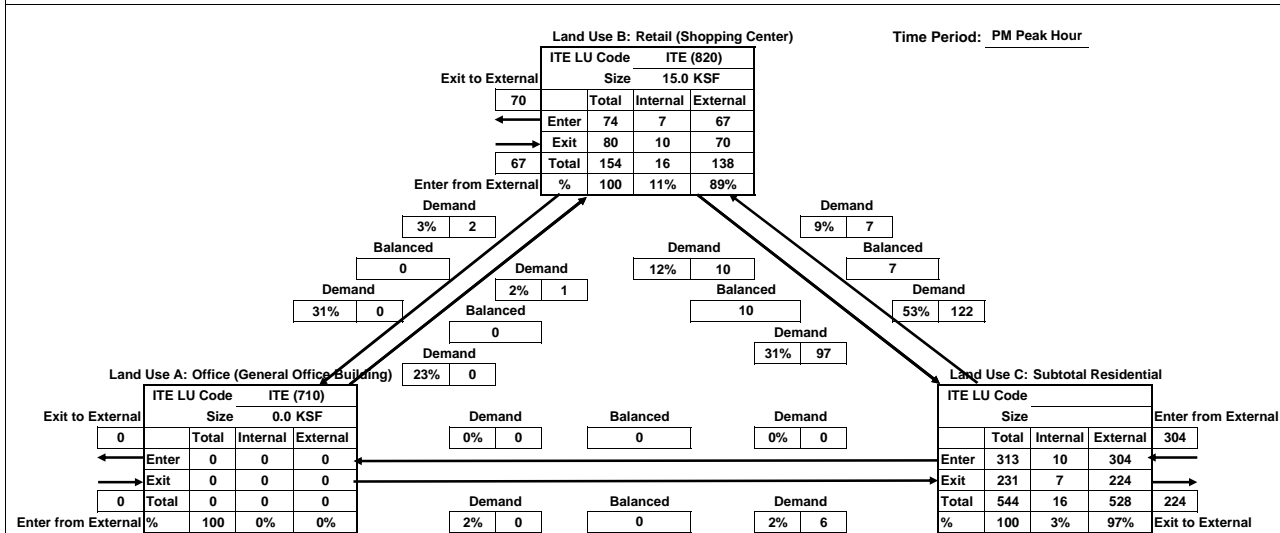
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary**

Name of Development: Railyards Study
Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	24	209	233	
Exit	0	16	310	326	
Total	0	40	520	559	INTERNAL CAPTURE
Single-Use Trip	0	44	524	568	2%



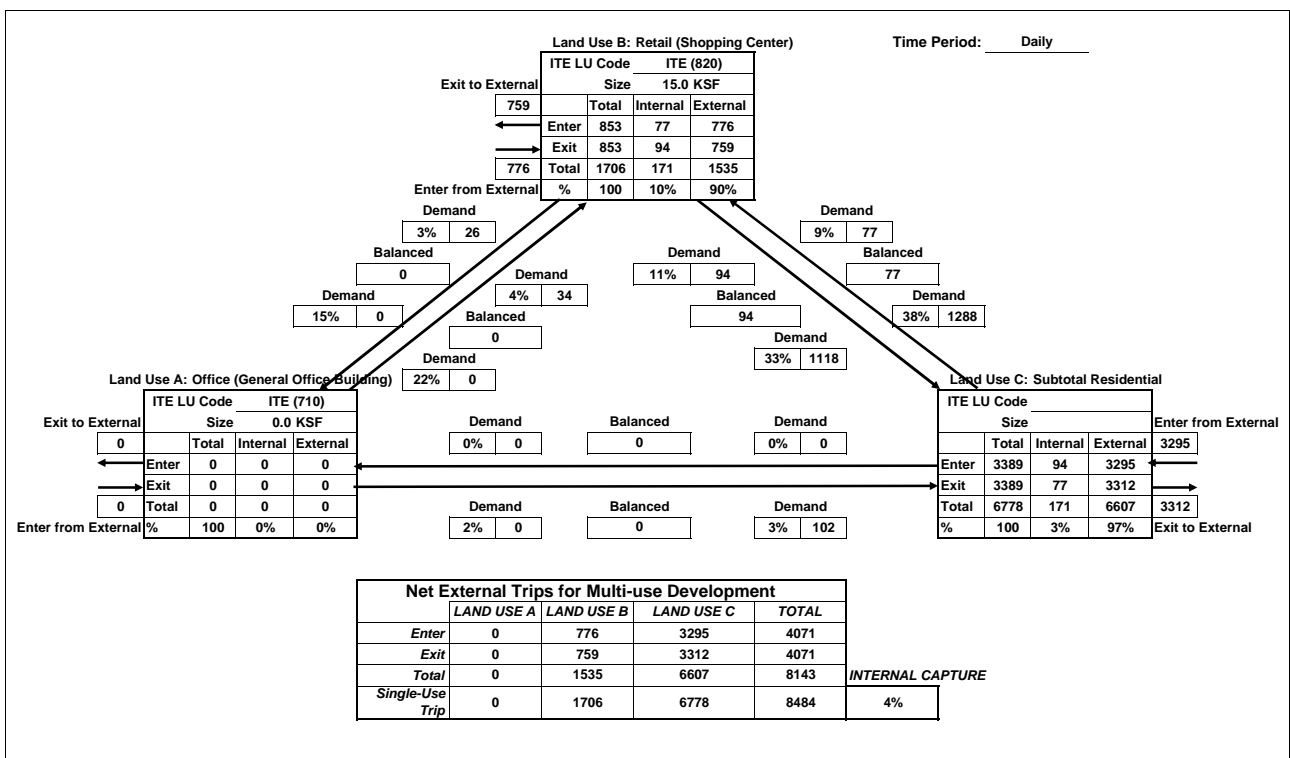
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	67	304	371	
Exit	0	70	224	294	
Total	0	138	528	665	INTERNAL CAPTURE
Single-Use Trip	0	154	544	698	5%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Name of Development: Railyards Study
 Full Project with Maximum Office

Time Period: Daily



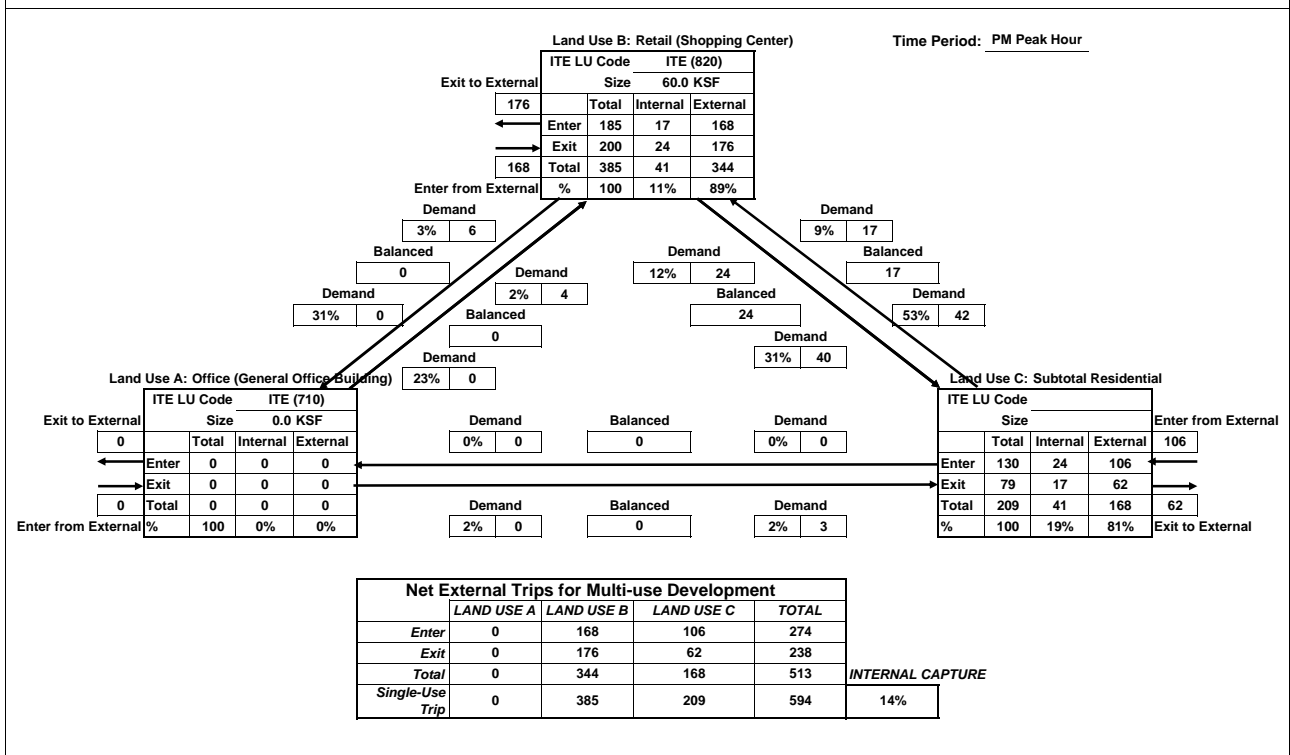
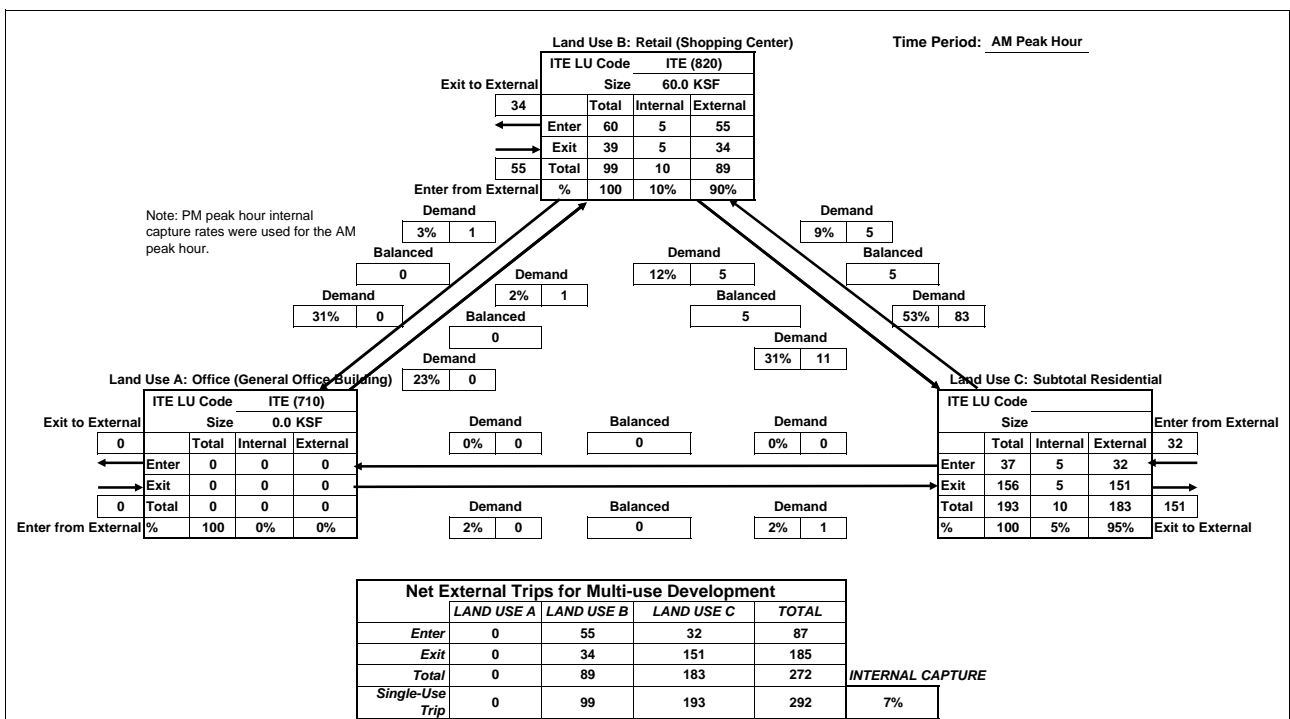
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study

Full Project with Maximum Office



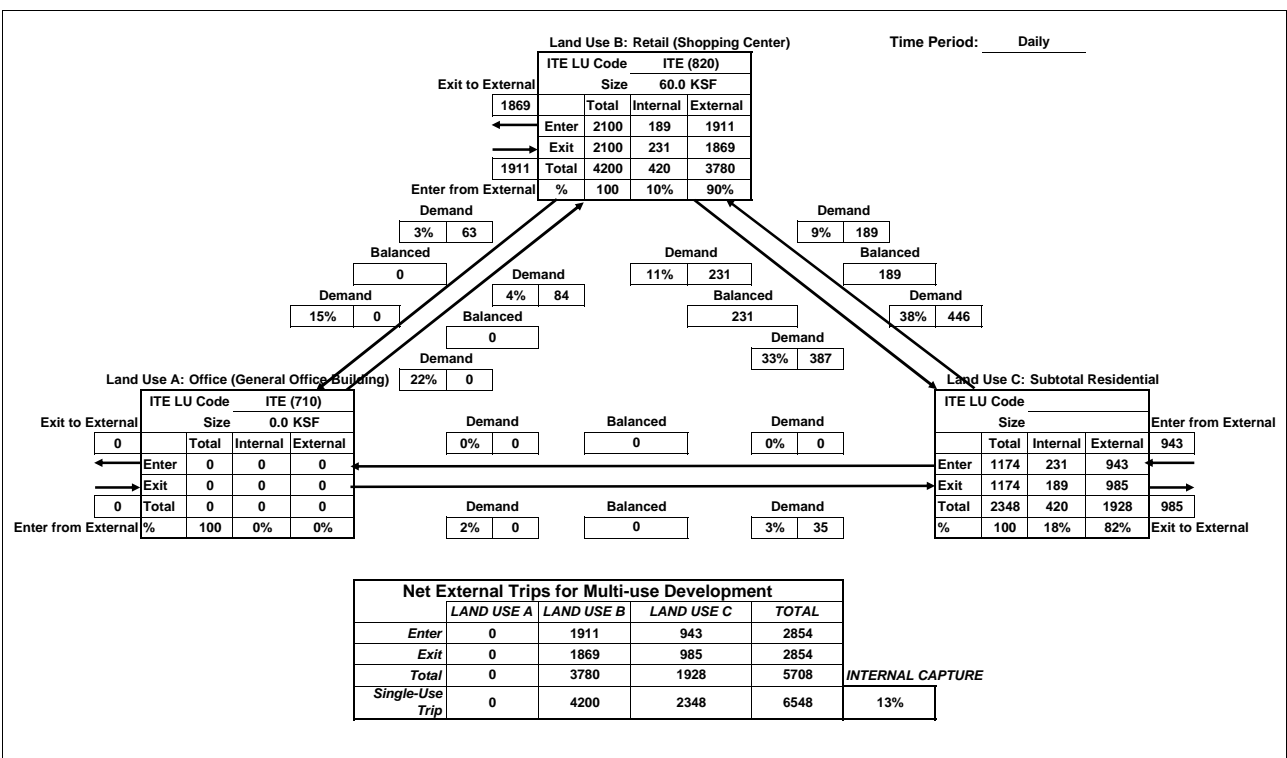
Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Full Project with Maximum Office

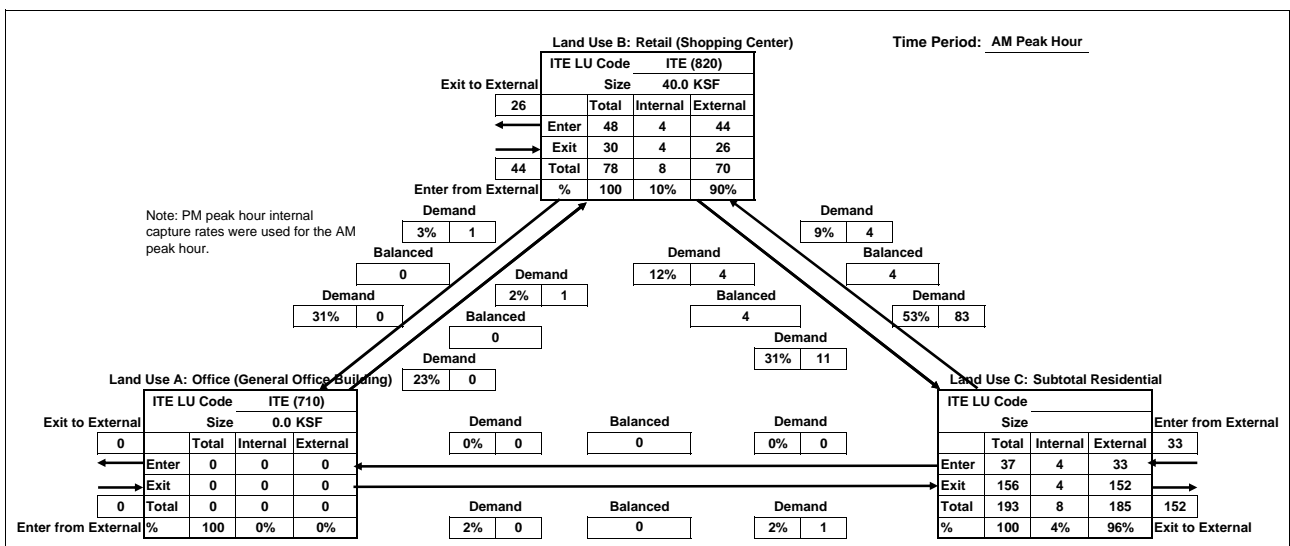
Time Period: Daily



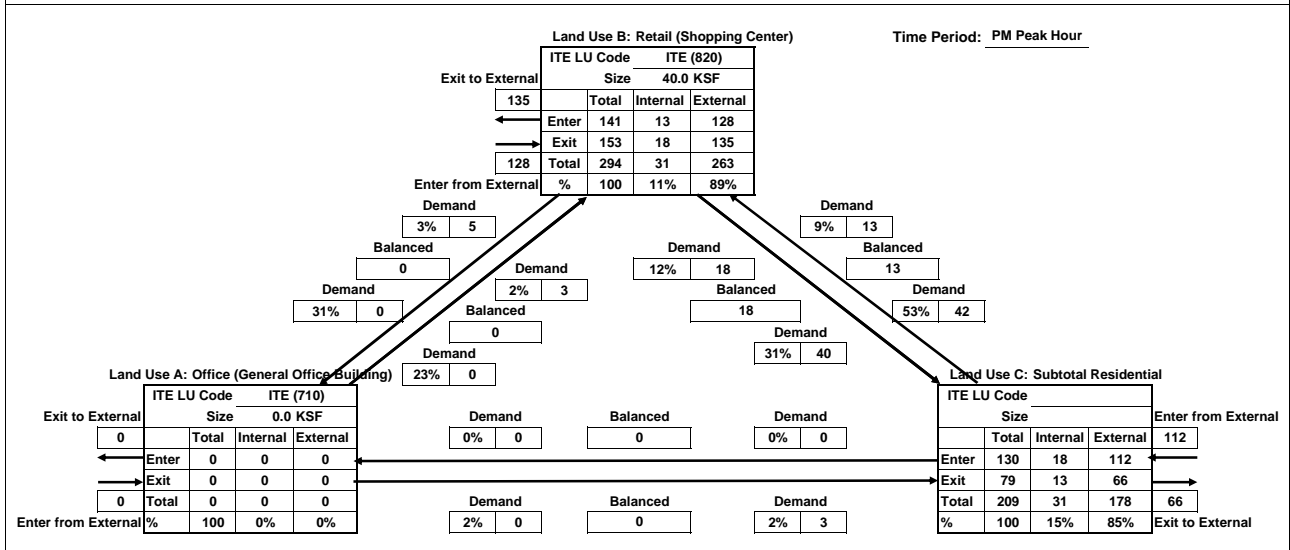
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
 Full Project with Maximum Office



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	44	33	77	
Exit	0	26	152	178	
Total	0	70	185	255	INTERNAL CAPTURE
Single-Use Trip	0	78	193	271	6%



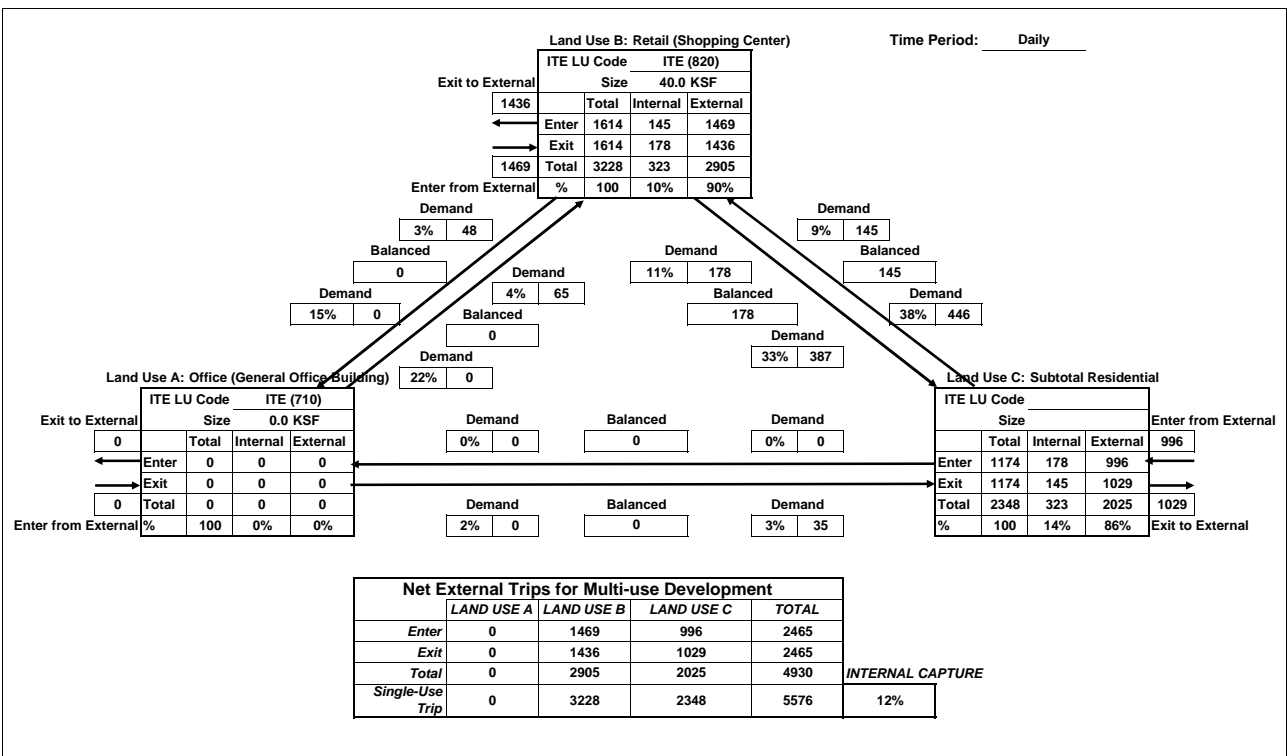
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	128	112	240	
Exit	0	135	66	201	
Total	0	263	178	441	INTERNAL CAPTURE
Single-Use Trip	0	294	209	503	12%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 24: Bounded by Property Boundary, Railyards, N. 10th

Name of Development: Railyards Study
 Full Project with Maximum Office

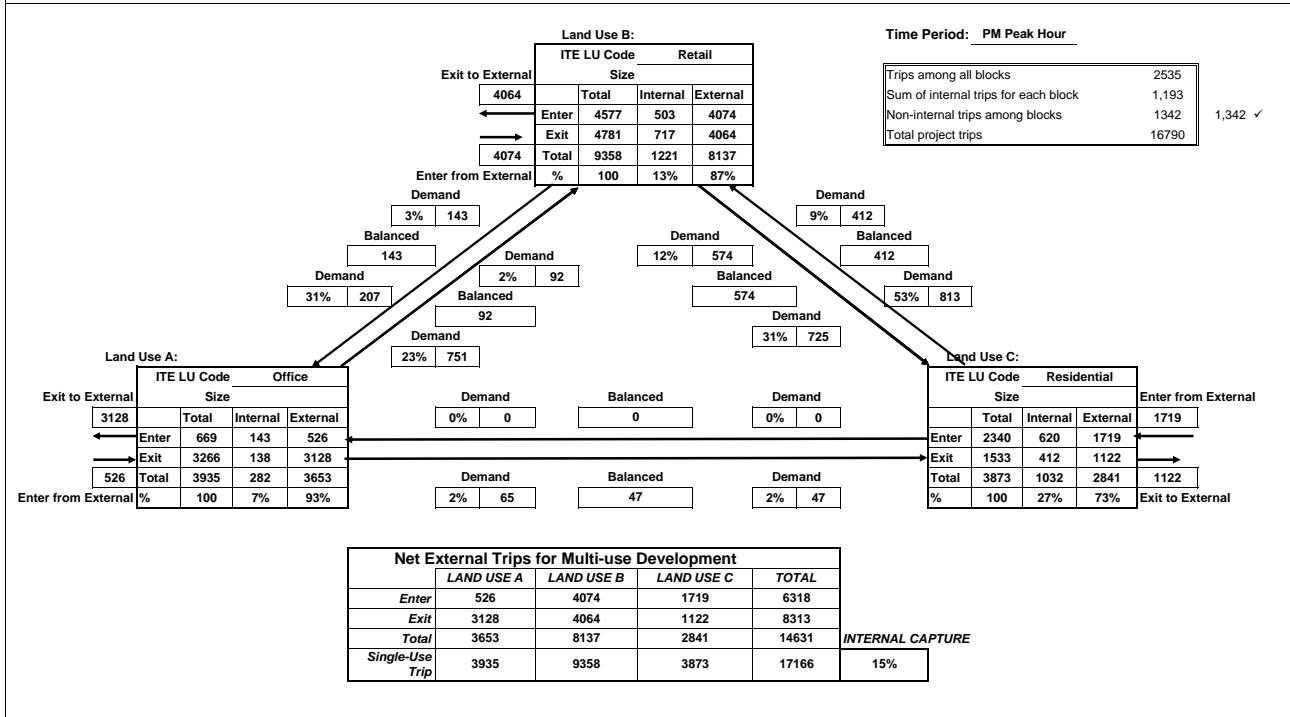
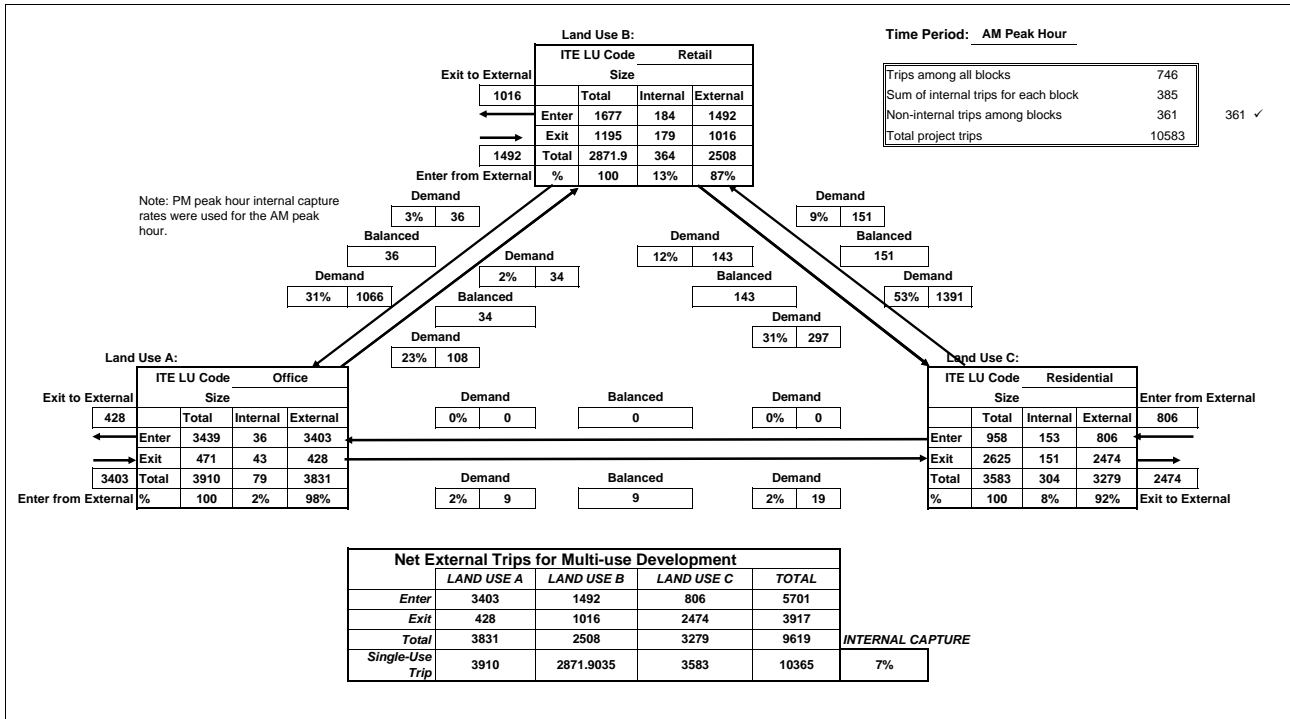
Time Period: Daily



**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling
Date: 8/17/2007

Name of Development: Downtown Study
Full Project with Maximum Office



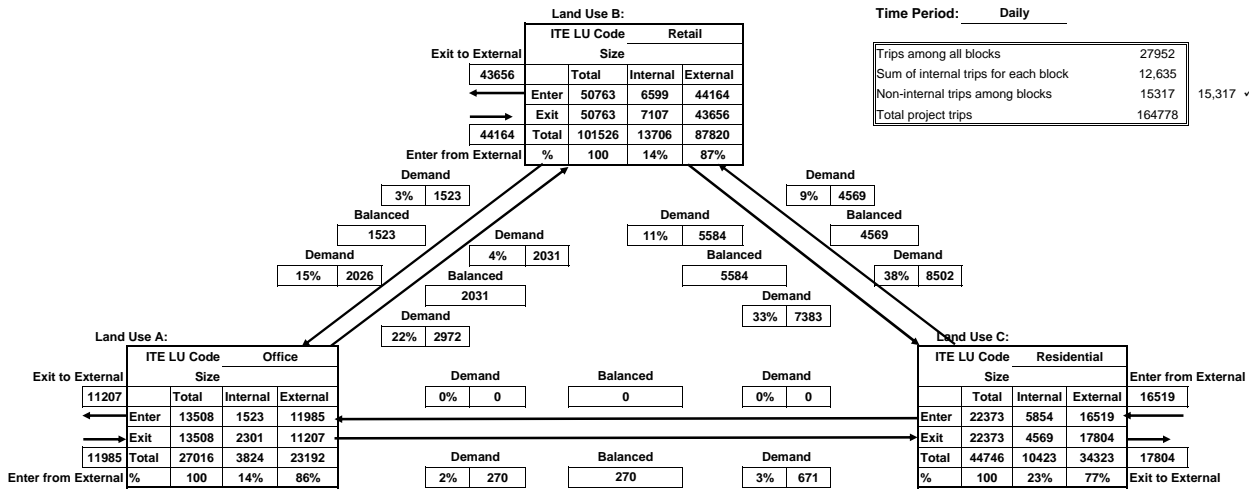
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 TRIPS AMONG ALL BLOCKS**

Name of Development: Downtown Study
 Full Project with Maximum Office

Time Period: Daily

Trips among all blocks	27952	
Sum of internal trips for each block	12,635	
Non-internal trips among blocks	15317	15,317 ✓
Total project trips	164778	



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	11985	44164	16519	72668	
Exit	11207	43656	17804	72668	
Total	23192	87820	34323	145336	
Single-Use Trip	27016	101526	44746	173288	INTERNAL CAPTURE
					16%

Full Project with Maximum Residential

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	228 KSF	11,604	157	100	257	518	561	1,079
Subtotal Residential	837 Units	5,596	208	220	428	237	188	425
Other	0	0	0	0	0	0	0	0
Total Trips for Block		17,200	365	320	685	755	749	1,504
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-1,883	-34	-30	-64	-81	-81	-162
Internal Trips Within This Block (-11.9%)		-2,052	-23	-23	-46	-101	-101	-201
Trips To-From Other Blocks within the Project (-4.7%)		-812	-10	-10	-20	-39	-39	-78
New External Trips (72%) of Total Trips for Block		12,454	297	257	555	535	528	1,063
Block 2: Bounded by South Park, 5th, Railyards, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	70 KSF	5,386	77	49	126	238	257	495
Subtotal Residential	595 Units	2,467	38	163	201	135	83	218
Other	0	0	0	0	0	0	0	0
Total Trips for Block		7,853	115	212	327	373	340	713
Transit Adjustments (-2.3%)		-182	-3	-7	-10	-9	-9	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-862	-12	-19	-31	-39	-37	-76
Internal Trips Within This Block (-11.8%)		-929	-11	-11	-22	-45	-45	-90
Trips To-From Other Blocks within the Project (-4.6%)		-360	-5	-5	-9	-18	-18	-36
New External Trips (70%) of Total Trips for Block		5,520	84	170	255	262	231	493
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
#DIV/0!		0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	223 KSF	11,438	154	99	253	510	553	1,063
Subtotal Residential	0 Units	0	0	0	0	0	0	0
Total Trips for Block		11,438	154	99	253	510	553	1,063
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.6%)		-1,327	-18	-11	-29	-59	-64	-123
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-619	-4	-4	-8	-32	-32	-64
New External Trips (83%) of Total Trips for Block		9,492	132	84	216	419	457	876
Block 5: Bounded by Railyards, Crocker, Camille, Huntington								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center) (90%)	116 KSF	7,479	104	67	171	331	359	690
Subtotal Residential	165 Units	846	15	62	77	45	27	72
Total Trips for Block		8,325	119	129	248	376	386	762
Transit Adjustments (0%)		0	0	0	0	0	0	0
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-949	-13	-13	-26	-42	-44	-86
Internal Trips Within This Block (-6.5%)		-544	-13	-13	-25	-26	-26	-52
Trips To-From Other Blocks within the Project (-5%)		-418	-3	-3	-7	-21	-21	-42
New External Trips (77%) of Total Trips for Block		6,414	90	100	190	287	295	582

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 6: Bounded by Railyards, 5th, Camille, Crocker								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	120 KSF	7,645	107	68	175	339	367	706
Subtotal Residential	281 Units	1,283	21	89	110	69	42	111
Total Trips for Block		8,928	128	157	285	408	409	817
Transit Adjustments (-2.3%)		-201	-3	-5	-8	-10	-9	-19
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,010	-14	-15	-29	-45	-47	-92
Internal Trips Within This Block (-9%)		-801	-14	-14	-28	-39	-39	-77
Trips To-From Other Blocks within the Project (-4.7%)		-423	-4	-4	-8	-21	-21	-43
New External Trips (73%) of Total Trips for Block		6,493	93	119	212	293	293	586
Block 7: Bounded by Railyards, 6th, Camille, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	72 KSF	5,485	79	50	129	242	262	504
Subtotal Residential	363 Units	1,592	25	109	134	86	53	139
Total Trips for Block		7,077	104	159	263	328	315	643
Transit Adjustments (-2.3%)		-162	-3	-5	-8	-7	-8	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-11.1%)		-789	-11	-15	-26	-35	-35	-70
Internal Trips Within This Block (-12.5%)		-887	-11	-11	-23	-43	-43	-85
Trips To-From Other Blocks within the Project (-4.5%)		-321	-4	-4	-7	-16	-16	-32
New External Trips (70%) of Total Trips for Block		4,919	75	124	199	227	213	440
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	728 Units	2,968	46	194	240	163	100	263
Total Trips for Block		2,968	46	194	240	163	100	263
Transit Adjustments (-2.6%)		-77	-2	-6	-8	-5	-3	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-285	-4	-15	-19	-14	-9	-23
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-159	-4	-4	-7	-8	-8	-16
New External Trips (82%) of Total Trips for Block		2,447	36	169	206	136	80	216
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5								
Office (General Office Building)	43 KSF	696	84	11	95	22	105	127
Retail & Restaurant	193 KSF	16,088	492	421	913	779	656	1,435
Subtotal Residential	139 Units	685	28	27	54	40	34	74
Other (Museum Exhibit Space)	188 KSF	1,878	0	0	0	19	169	188
Total Trips for Block		19,347	604	459	1,062	860	964	1,824
Transit Adjustments (-3.4%)		-657	-22	-11	-33	-21	-33	-54
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-2,004	-62	-51	-113	-95	-87	-181
Internal Trips Within This Block (-3.4%)		-661	-34	-34	-68	-47	-47	-94
Trips To-From Other Blocks within the Project (-5.1%)		-981	-15	-15	-30	-51	-51	-102
New External Trips (78%) of Total Trips for Block		15,044	471	349	819	646	746	1,393

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail & Restaurant	167 KSF	15,223	223	173	396	711	758	1,469
Subtotal Residential	108 Units	631	11	49	60	32	20	52
Other (Performing Arts)	1,800 Seats	360	0	0	0	18	18	36
Total Trips for Block		16,214	234	222	456	761	796	1,557
Transit Adjustments (-2.4%)		-391	-5	-6	-11	-17	-19	-35
Walk, Bike & Other Non-Auto Travel Adjustments (-11.3%)		-1,837	-27	-24	-51	-85	-91	-175
Internal Trips Within This Block (-2.4%)		-393	-20	-20	-41	-18	-18	-36
Trips To-From Other Blocks within the Project (-5.1%)		-832	-6	-6	-12	-45	-45	-89
New External Trips (79%) of Total Trips for Block		12,761	176	165	341	596	623	1,222
Block 11: Bounded by Camille, 6th, Rail Lines, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	28 KSF	2,969	45	28	73	130	140	270
Subtotal Residential	263 Units	1,215	20	85	105	65	40	105
Total Trips for Block		4,184	65	113	178	195	180	375
Transit Adjustments (-2.3%)		-97	-2	-4	-6	-5	-4	-9
Walk, Bike & Other Non-Auto Travel Adjustments (-11%)		-461	-7	-9	-16	-21	-19	-40
Internal Trips Within This Block (-12.2%)		-512	-6	-6	-13	-25	-25	-49
Trips To-From Other Blocks within the Project (-4.6%)		-191	-3	-3	-5	-9	-9	-19
New External Trips (70%) of Total Trips for Block		2,923	47	91	138	135	123	258
Block 12: Bounded by Rail Lines, 5th, I Street, LRT								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	38 KSF	3,621	54	34	88	159	172	331
Subtotal Residential	96 Units	401	6	26	33	23	14	36
Total Trips for Block		4,022	60	60	121	182	186	367
Transit Adjustments (-2.2%)		-90	-1	-2	-3	-4	-4	-8
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-459	-7	-6	-13	-20	-21	-41
Internal Trips Within This Block (-6.2%)		-250	-6	-6	-12	-13	-13	-26
Trips To-From Other Blocks within the Project (-4.9%)		-197	-2	-2	-3	-10	-10	-20
New External Trips (75%) of Total Trips for Block		3,026	45	45	90	135	138	272
Block 13: Bounded by Rail Lines, 6th, G, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	17 KSF	2,105	32	21	53	92	99	191
Subtotal Residential	227 Units	1,079	18	77	95	58	35	93
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		4,474	308	163	471	215	392	607
Transit Adjustments (-4.9%)		-217	-11	-4	-15	-6	-12	-18
Walk, Bike & Other Non-Auto Travel Adjustments (-8.6%)		-384	-13	-10	-23	-18	-21	-39
Internal Trips Within This Block (-8.1%)		-363	-5	-5	-9	-17	-17	-35
Trips To-From Other Blocks within the Project (-4.8%)		-215	-7	-7	-15	-18	-18	-35
New External Trips (74%) of Total Trips for Block		3,295	272	137	408	156	324	480
Block 14: Bounded by Rail Lines, 7th, G, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	12 KSF	1,712	27	17	44	74	80	154
Subtotal Residential	619 Units	2,557	40	168	208	140	86	226
Total Trips for Block		4,269	67	185	252	214	166	380
Transit Adjustments (-2.4%)		-104	-2	-6	-8	-5	-5	-10
Walk, Bike & Other Non-Auto Travel Adjustments (-10.4%)		-444	-6	-15	-21	-21	-16	-37
Internal Trips Within This Block (-6.9%)		-295	-4	-4	-8	-14	-14	-28
Trips To-From Other Blocks within the Project (-4.9%)		-210	-4	-4	-8	-10	-10	-21
New External Trips (75%) of Total Trips for Block		3,216	51	156	208	164	121	284

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 15: Bounded by G, 6th, H, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	85 KSF	6,110	87	55	142	270	292	562
Subtotal Residential	160 Units	827	14	61	75	43	27	70
Total Trips for Block		6,937	101	116	217	313	319	632
Transit Adjustments (-2.2%)		-156	-3	-3	-6	-7	-7	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-11.4%)		-788	-11	-11	-22	-35	-36	-71
Internal Trips Within This Block (-7.4%)		-515	-10	-10	-21	-25	-25	-49
Trips To-From Other Blocks within the Project (-4.8%)		-335	-3	-3	-6	-17	-17	-34
New External Trips (74%) of Total Trips for Block		5,142	74	89	162	230	235	464
Block 16: Bounded by G, 7th, Property Boundary, 6th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	6 KSF	1,114	18	12	30	48	52	100
Subtotal Residential	273 Units	1,253	21	87	108	67	41	108
Total Trips for Block		2,367	39	99	138	115	93	208
Transit Adjustments (-2.5%)		-58	-2	-3	-5	-3	-2	-5
Walk, Bike & Other Non-Auto Travel Adjustments (-10.5%)		-249	-4	-8	-12	-12	-9	-21
Internal Trips Within This Block (-8.1%)		-192	-3	-3	-5	-9	-9	-18
Trips To-From Other Blocks within the Project (-4.8%)		-114	-2	-2	-4	-6	-6	-11
New External Trips (74%) of Total Trips for Block		1,754	28	83	112	85	67	153
Block 17: Bounded by N. B, 7th, South Park, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,355 Units	5,332	80	342	422	295	181	476
Total Trips for Block		5,332	80	342	422	295	181	476
Transit Adjustments (-2.6%)		-139	-3	-11	-14	-9	-6	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-512	-6	-27	-33	-25	-16	-41
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-286	-7	-7	-13	-14	-14	-29
New External Trips (82%) of Total Trips for Block		4,395	64	297	362	247	145	391
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	0 KSF	0	0	0	0	0	0	0
Subtotal Residential	1,273 Units	5,023	76	322	398	278	170	448
Total Trips for Block		5,023	76	322	398	278	170	448
Transit Adjustments (-2.6%)		-131	-3	-11	-14	-9	-5	-14
Walk, Bike & Other Non-Auto Travel Adjustments (-9.6%)		-482	-6	-25	-31	-24	-15	-39
Internal Trips Within This Block (0%)		0	0	0	0	0	0	0
Trips To-From Other Blocks within the Project (-5.4%)		-270	-6	-6	-12	-13	-13	-27
New External Trips (82%) of Total Trips for Block		4,140	61	280	341	232	137	368
Block 19: Bounded by South Park, 7th, Railyards, 5th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,603 Units	6,267	94	400	494	347	213	560
Total Trips for Block		9,025	135	427	562	467	344	811
Transit Adjustments (-2.5%)		-224	-4	-14	-18	-14	-9	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10.2%)		-922	-12	-35	-47	-44	-33	-77
Internal Trips Within This Block (-5.3%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-5%)		-453	-8	-8	-17	-23	-23	-45
New External Trips (77%) of Total Trips for Block		6,950	104	363	468	364	257	620

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)								
City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 20: Bounded by South Park, N. 10th, Railyards, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	25 KSF	2,758	41	27	68	120	131	251
Subtotal Residential	1,865 Units	7,255	108	462	570	403	247	650
----- Total Trips for Block		10,013	149	489	638	523	378	901
Transit Adjustments (-2.5%)		-250	-5	-15	-20	-15	-11	-26
Walk, Bike & Other Non-Auto Travel Adjustments (-10.1%)		-1,016	-14	-39	-53	-49	-36	-85
Internal Trips Within This Block (-4.7%)		-476	-6	-6	-12	-23	-23	-46
Trips To-From Other Blocks within the Project (-5.1%)		-506	-10	-10	-19	-25	-25	-51
New External Trips (78%) of Total Trips for Block		7,765	114	419	534	411	283	694

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)

City Block	Amount	Trips Generated						
		Weekday	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Block 21: SITF Site								
Office (General Office Building)	122 KSF	1,550	193	26	219	37	178	215
Retail (Shopping Center)	27 KSF	2,900	43	28	71	127	137	264
Subtotal Residential	200 Units	1,417	59	38	97	63	55	118
Other (Transit)	514 Prkng	1,290	258	65	323	65	258	323
Total Trips for Block		7,157	553	157	710	292	628	920
Transit Adjustments (-5.8%)		-416	-33	-7	-40	-11	-34	-45
Walk, Bike & Other Non-Auto Travel Adjustments (-7.7%)		-551	-22	-9	-31	-23	-33	-56
Internal Trips Within This Block (-9.8%)		-702	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-4.7%)		-336	-11	-11	-22	-26	-26	-51
New External Trips (72%) of Total Trips for Block		5,153	479	122	601	201	505	705
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	15 KSF	1,979	31	20	50	86	93	179
Subtotal Residential	1,400 Units	7,719	239	352	591	355	261	616
Total Trips for Block		9,698	270	372	641	441	354	795
Transit Adjustments (-2.5%)		-245	-9	-12	-21	-13	-10	-23
Walk, Bike & Other Non-Auto Travel Adjustments (-10%)		-971	-23	-30	-53	-41	-33	-74
Internal Trips Within This Block (-3.5%)		-341	-5	-5	-9	-16	-16	-33
Trips To-From Other Blocks within the Project (-5.1%)		-498	-10	-10	-20	-23	-23	-45
New External Trips (79%) of Total Trips for Block		7,643	223	316	538	348	272	620
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	60 KSF	4,872	70	45	115	215	232	447
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		7,546	111	221	332	361	322	683
Transit Adjustments (-2.3%)		-177	-3	-7	-10	-9	-8	-17
Walk, Bike & Other Non-Auto Travel Adjustments (-10.9%)		-822	-11	-19	-30	-37	-35	-72
Internal Trips Within This Block (-11.1%)		-840	-10	-10	-20	-41	-41	-81
Trips To-From Other Blocks within the Project (-4.6%)		-349	-5	-5	-10	-17	-17	-35
New External Trips (71%) of Total Trips for Block		5,358	82	180	262	257	221	478
Block 24: Bounded by Property Boundary, Railyards, N. 10th								
Office (General Office Building)	0 KSF	0	0	0	0	0	0	0
Retail (Shopping Center)	40 KSF	3,743	55	35	90	164	178	342
Subtotal Residential	650 Units	2,674	41	176	217	146	90	236
Total Trips for Block		6,417	96	211	307	310	268	578
Transit Adjustments (-2.4%)		-152	-2	-7	-9	-8	-7	-15
Walk, Bike & Other Non-Auto Travel Adjustments (-10.8%)		-691	-9	-18	-27	-31	-29	-60
Internal Trips Within This Block (-10.1%)		-646	-8	-8	-16	-31	-31	-62
Trips To-From Other Blocks within the Project (-4.7%)		-302	-4	-4	-9	-15	-15	-30
New External Trips (72%) of Total Trips for Block		4,627	73	174	246	225	186	411
Total Project Trips								
Office (General Office Building)	164 KSF	2,246	277	37	314	59	283	342
Retail (Shopping Center)	1,566 KSF	116,989	1,937	1,376	3,312	5,273	5,510	10,783
Subtotal Residential	13,850 Units	61,761	1,248	3,686	4,934	3,237	2,096	5,332
Other		4,819	516	130	645	167	703	869
Total Project Trips		185,815	3,978	5,229	9,205	8,736	8,592	17,326
Transit Adjustments (-2.2%)		-4,126	-121	-146	-267	-187	-205	-391
Walk, Bike & Other Non-Auto Travel Adjustments (-10.6%)		-19,698	-346	-454	-800	-896	-847	-1,741
Internal Trips Within This Block (-6.4%)		-11,874	-203	-203	-405	-585	-585	-1,170
Trips To-From Other Blocks within the Project (-4.9%)		-9,186	-135	-135	-271	-477	-477	-954
New External Trips (76%) of Total Project Trips		140,931	3,173	4,290	7,462	6,591	6,478	13,070

Source: Dowling Associates, Inc. 2006

Table Xa: Trip Generation for Full Project with Maximum Residential (By City Block)									
City Block	Amount	Trips Generated							
		Weekday	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
		75.8%				81.1%			75.4%

Table Xb: Transit Trips for Full Project with Maximum Residential (By City Block)							
City Block	Transit Trips						
	Weekday	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1: Bounded by South Park, Crocker, Railyards, Bercut	481	13	12	25	22	22	44
Block 2: Bounded by South Park, 5th, Railyards, Crocker	219	4	7	11	11	10	21
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom	0	0	0	0	0	0	0
Block 4: Bounded by Railyards, Huntington, Camille, Bercut	297	4	3	7	13	15	28
Block 5: Bounded by Railyards, Crocker, Camille, Huntingtor	221	3	4	7	11	10	21
Block 6: Bounded by Railyards, 5th, Camille, Crocker	240	4	6	10	11	11	22
Block 7: Bounded by Railyards, 6th, Camille, 5th	194	3	5	8	9	9	18
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th	95	2	8	10	6	4	10
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5	762	25	13	38	27	52	79
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26	461	6	6	12	22	24	45
Block 11: Bounded by Camille, 6th, Rail Lines, 5th	116	2	4	6	5	6	11
Block 12: Bounded by Rail Lines, 5th, I Street, LRT	107	1	2	3	5	5	10
Block 13: Bounded by Rail Lines, 6th, G, 5th	251	34	11	45	12	36	48
Block 14: Bounded by Rail Lines, 7th, G, 6th	127	3	7	10	7	5	12
Block 15: Bounded by G, 6th, H, 6th	185	3	4	7	9	9	18
Block 16: Bounded by G, 7th, Property Boundary, 6th	69	2	3	5	3	4	7
Block 17: Bounded by N. B, 7th, South Park, 5th	171	3	14	17	11	7	18
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th	161	3	13	16	11	6	17
Block 19: Bounded by South Park, 7th, Railyards, 5th	273	5	17	22	16	12	28
Block 20: Bounded by South Park, N. 10th, Railyards, 7th	304	5	20	25	18	13	31
Block 21: SITF Site	475	59	14	73	18	60	78
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary	298	11	14	25	15	13	28
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th	213	4	8	12	12	9	21
Block 24: Bounded by Property Boundary, Railyards, N. 10th	183	3	8	11	10	8	18
Total New Transit Trips	5,903	202	203	405	284	350	633

Source: Dowling Associates, Inc. 2006

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 OS	1	1	0.75							
1 RRMU	2	1	4.31		200,000					
1 RRMU	3a	1	2.84							
2 OS	3b	1	0.13							
2 RRMU	3c	1	0.93			500				
2 RRMU	3d	1	0.73	197	28,000				32,000	29
2 OS	3e	1	0.67							
2 RRMU	3f	1	0.28	140						
Subtotal				337	228,000	500	0	0	32,000	29
2 RRMU	5a	2	1.14	104						
2 RRMU	5b	2	0.68	106	27,000				29,000	26
2 RRMU	6a	2	1.28	242						
2 RRMU	6b	2	1.07	143	43,000				47,000	43
2 OS	6c	2	0.15							
Subtotal				595	70,000	0	0	0	76,000	69
1 RRMU	33	3	2.62							
1 RRMU	11a	4	4.42		223,000					
1 OS	11b	4	0.27							
Subtotal				0	223,000	0	0	0	0	0
1 RRMU	10a	5	3.88	165	116,000				65,000	59
1 OS	10b	5	0.57							
Subtotal				165	116,000	0	0	0	65,000	59
1 RRMU	8a	6	0.61	47	27,000				27,000	25
1 RRMU	8b	6	1.22	83	33,000				38,000	35
1 RRMU	9a	6	0.60	68	26,000				26,000	24
1 RRMU	9b	6	1.27	83	34,000				38,000	35
Subtotal				281	120,000	0	0	0	129,000	119
2 RRMU	7a	7	2.06	202	18,000				18,000	16
2 RRMU	7b	7	1.19	161	54,000				58,000	53
2 OS	7c	7	0.03							
Subtotal				363	72,000	0	0	0	76,000	69
3 ORMU	47a	8	2.21	273						
1 RRMU	47b	8	0.78							
1 ORMU	48	8	2.56	455						

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				728	0	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
1 RRMU	12	9	1.17	39	71,000				43,000	39
1 RRMU	13a	9	0.11		3,500					
1 RRMU	13b	9	0.23		8,000					
1 RRMU	13c	9	0.12		5,600					
1 OS	13d	9	0.60							
1 RRMU	14	9	0.62		13,000	100				
1 RRMU	23	9	0.34					22,500 Restaurant		
1 RRMU	24	9	0.73					42,028 19816 Rest; 11165 Retail; 7730 Office		
1 RRMU	25	9	0.53					38,711 21014 Restaurant; 21014 Office		
1 RRMU	26	9	0.33					28,500 14250 Retail; 14250 Office		
1 RRMU	27	9	0.65					28,043 25000 Exhibit; 3043 Retail		
1 RRMU	28	9	2.24					93,134 Exhibit		
1 RRMU	29	9	1.67					69,696 Exhibit		
1 OS	30a	9	5.07							
1 OS	30b	9	1.35							
1 OS	31a	9	2.66							
1 OS	31b	9	0.32							
1 TU	38	9	16.78							
1 OS	45	9	0.33							
Subtotal				39	101,100	100	0	322,612	43,000	39
1 RRMU	15a	10	3.33	108	65,500			100,000 1,8	40,000	36
1 OS	15b	10	0.05							
1 OS	18a	10	1.05							
1 RRMU	18b	10	0.25		38,500					
1 RRMU	20	10	1.30					56,278 Market		
1 OS	21	10	5.30							
1 RRMU	22	10	0.15					6,500 Retail		
Subtotal				108	104,000	0	0	162,778	40,000	36
2 RRMU	16a	11	1.67	263	28,000				30,000	27
2 OS	16b	11	0.07							
1 RRMU	17	11	1.48							
Subtotal				263	28,000	0	0	0	30,000	27
2 ORMU	40	12	1.93	96	38,000					
2 ORMU	44	13	1.96	227	16,500					
2 ORMU	43	14	2.56	455	12,000					
2 ORMU	46	14	2.89	164						

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
Subtotal				619	12,000	0	0	0	0	0
1 ORMU	41	15	2.43	160	85,000					
1 ORMU	42	16	1.19	273	6,200					
3 OS	60	17	1.12							
3 OS	61	17	0.71							
3 OS	62	17	0.92							
3 RMU	69N	17	1.64	480						
3 RMU	69S	17	1.21	135						
3 RMU	70N	17	1.10	330						
3 RMU	70S	17	0.88	110						
3 RMU	71N	17	0.77	200						
3 RMU	71S	17	0.84	100						
Subtotal				1,355	0	0	0	0	0	0
4 OS	63	18	0.97							
4 OS	64	18	0.89							
4 OS	65	18	0.92							
4 RMU	66N	18	0.33	35						
4 RMU	66S	18	1.07	115						
4 RMU	67N	18	1.27	385						
4 RMU	67S	18	1.12	178						
4 RMU	68N	18	1.48	430						
4 RMU	68S	18	1.17	130						
Subtotal				1,273	0	0	0	0	0	0
3 OS	57a	19	0.12							
3 RMU	57N	19	1.24	250	15,000					
3 RMU	57S	19	1.38	415	10,000					
3 RMU	58N	19	1.17	125						
3 RMU	58S	19	1.15	345						
3 RMU	59N	19	1.27	135						
3 RMU	59S	19	1.11	333						
Subtotal				1,603	25,000	0	0	0	0	0
4 RMU	52N	20	0.98	105						
4 RMU	52S	20	1.30	390						
4 RMU	53N	20	1.38	150						
4 RMU	53S	20	1.49	445						
4 RMU	54N	20	1.35	275	15,000					

Dowling Associates, Inc.

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
4 RMU	54S	20	1.68	500	10,000					
4 OS	54a	20	0.12							
Subtotal				1,865	25,000	0	0	0	0	0

THE RAILYARDS
Land Use Distribution and Densities
Full Project with Maximum Residential

Phase	Parcel	Block	AC	Res DU	Retail SF	Hotel RM	Office SF	Hist SF	Mixed-Use	Housing Option
3 TU	39	21	15.34							
3 OS	34	22	1.26							
3 RMU	35	22	4.00	900	15,000	500				
Subtotal				900	15,000	500	0	0	0	0
4 RMU	49a	23	4.87	650	60,000					
1 ORMU	49b	23	0.73							
1 ORMU	49c	23	1.00							
3 OS	50	23	1.26							
Subtotal				650	60,000	0	0	0	0	0
4 RMU	51	24	4.70	650	40,000					
3 OS	72	25	10.37							
Subtotal				2,103			0			
TOTAL Max			180.39	12,550	1,384,800	1,100	0	485,390	491,000	447
Min				10,447			0			
Check				13,850	1,566,366		164,994			

Sacramento Railyards Traffic Study
Adjustments to ITE Trip Generation Rates for High Non-Auto Travel

Shares of Total Trips				
Transit Shares	Work Trips^a	Non-Work Trips^b	Total	
Walk Access				
Downtown	7.4%	1.8%		
Suburban	1.4%	0.3%		
Increase Above Suburban Conditions	6.0%	1.5%		
Drive Access				
Downtown	6.2%	1.2%		
Suburban	0.1%	0.3%		
Increase Above Suburban Conditions	6.1%	0.9%		
Walk, Bike & Other Non-Auto Shares				
Downtown	4.5%	18.8%		
Suburban	2.8%	6.5%		
Increase Above Suburban Conditions	1.7%	12.3%		
Adjustments for Higher Transit Use Downtown				
Office¹	10.9%	0.2%		11.1%
Retail²	0.8%	1.4%		2.2%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^{3,c}				
AM Peak Hour	2.5%	0.7%	0.2%	3.4%
PM Peak Hour	2.1%	0.6%	0.4%	3.1%
Daily	1.5%	0.7%	0.4%	2.6%
Adjustments for Higher Walk, Bike & Other Non-Auto Travel Downtown				
Office¹	1.5%	1.2%		2.8%
Retail²	0.1%	11.4%		11.6%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	0.7%	5.4%	1.8%	7.9%
PM Peak Hour	0.6%	4.7%	3.4%	8.6%
Daily	0.4%	5.6%	3.6%	9.6%
Transit Trips				
	Work Trips	Non-Work Trips		
Office¹	12.2%	0.3%		12.5%
Retail²	1.0%	1.7%		2.6%
	Home-Work	Home-Non-Work	Non Home-Based	
Residential^c				
AM Peak Hour	3.1%	0.8%	0.3%	4.1%
PM Peak Hour	2.6%	0.7%	0.5%	3.7%
Daily	1.9%	0.8%	0.5%	3.2%

¹ Assumes 90 percent of office trips are work trips.

² Assumes 7 percent of retail trips are work trips. Non-work trips would only include walk trips to transit.

³ Transit adjustments for residential uses only include walk trips to transit.

Source: *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey*, DKS, 2001.
 Table references from the source are provided as follows:

^a Table A26

^b Table A27

^c The amount of transit use for each trip purpose is based on the following data from Table A33:

Travel Hours	Home-Work	Home-Non-Work	Non Home-Based	Total
AM Peak Hour	73,190	78,124	25,868	177,182
PM Peak Hour	60,563	67,068	47,784	175,415
Daily	473,704	861,535	557,764	1,893,003

Sacramento Railyards Traffic Study
Block 1: Bounded by South Park, Crocker, Railyards, Bercut
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 1: Bounded by South Park, Crocker, Railyards, Bercut														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	228.0 KSF	ITE (820)	11,604	157	100	257	518	561	1,079	61%	39%	48%	52%	
Residential														
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%	
High Rise Residential Condominium	337 Units	ITE (232)	1,494	24	103	127	81	49	130	19%	81%	62%	38%	
Subtotal Residential	837 Units		5,596	208	220	428	237	188	425					
Other														
Total Trips for Block			17,200	365	320	685	755	749	1,504					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,346	-18	-12	-30	-60	-65	-125					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-537	-16	-18	-34	-21	-16	-37					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,883	-34	-30	-64	-81	-81	-162					
Internal Trips Within This Block			-2,052	-23	-23	-46	-101	-101	-201					
Trips To-From Other Blocks within the Project			-812	-10	-10	-20	-39	-39	-78					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				122	74	197	390	408	798					
Subtotal Residential				175	183	358	144	120	265					
Other				0	0	0	0	0	0					
Total				12,454	297	257	555	535	528	1,063				
New External Trips Percent of Total Project Trips				72%	82%	80%	81%	71%	71%	71%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				302	4	3	7	13	15	28				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				179	9	9	18	9	7	16				
Other				0	0	0	0	0	0	0				
Total Transit Trips				481	13	12	25	22	22	44				

Sacramento Railyards Traffic Study
Block 2: Bounded by South Park, 5th, Railyards, Crocker
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 2: Bounded by South Park, 5th, Railyards, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	70.0 KSF	ITE (820)	5,386	77	49	126	238	257	495	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	595 Units	ITE (232)	2,467	38	163	201	135	83	218	19%	81%	62%	38%	
Subtotal Residential	595 Units		2,467	38	163	201	135	83	218					
Other														
Total Trips for Block			7,853	115	212	327	373	340	713					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-118	-2	-1	-3	-5	-6	-11					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-64	-1	-6	-7	-4	-3	-7					
Other (-13%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-182	-3	-7	-10	-9	-9	-18					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-625	-9	-6	-15	-27	-30	-57					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-237	-3	-13	-16	-12	-7	-19					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-862	-12	-19	-31	-39	-37	-76					
Internal Trips Within This Block			-929	-11	-11	-22	-45	-45	-90					
Trips To-From Other Blocks within the Project			-360	-5	-5	-9	-18	-18	-36					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				57	36	93	176	181	357					
Subtotal Residential				27	134	162	86	50	136					
Other				0	0	0	0	0	0					
Total				5,520	84	170	255	262	231	493				
New External Trips Percent of Total Project Trips				70%	73%	80%	78%	70%	68%	69%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				140	2	1	3	6	7	13				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				79	2	6	8	5	3	8				
Other				0	0	0	0	0	0	0				
Total Transit Trips				219	4	7	11	11	10	21				

Sacramento Railyards Traffic Study
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	0 Units		0	0	0	0	0	0	0	0				
Other														
Total Trips for Block			0	0	0	0	0	0	0	0				
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0	0				
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)														
Retail (-11.6%)														
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)														
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			0	0	0	0	0	0	0	0				
Internal Trips Within This Block			0	0	0	0	0	0	0	0				
Trips To-From Other Blocks within the Project			0	0	0	0	0	0	0	0				
New External Trips														
Office (General Office Building)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Retail (Shopping Center)			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Subtotal Residential			#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Total			0	0	0	0	0	0	0	0				
New External Trips Percent of Total Project Trips			#DIV/0!	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0	0				
Retail (2.6%)			0	0	0	0	0	0	0	0				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0	0				
Total Transit Trips			0	0	0	0	0	0	0	0				

Sacramento Railyards Traffic Study
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%)	223.0 KSF	ITE (820)	11,438	154	99	253	510	553	1,063	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%	
Subtotal Residential	0 Units		0	0	0	0	0	0	0					
Other														
Total Trips for Block			11,438	154	99	253	510	553	1,063					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,327	-18	-11	-29	-59	-64	-123					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			0	0	0	0	0	0	0					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,327	-18	-11	-29	-59	-64	-123					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-619	-4	-4	-8	-32	-32	-64					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%)				132	84	216	419	457	876					
Subtotal Residential				0	0	0	0	0	0					
Total			9,492	132	84	216	419	457	876					
New External Trips Percent of Total Project Trips			83%	86%	85%	85%	82%	83%	82%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			297	4	3	7	13	15	28					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			0	0	0	0	0	0	0					
Total Transit Trips			297	4	3	7	13	15	28					

Sacramento Railyards Traffic Study
Block 5: Bounded by Railyards, Crocker, Camille, Huntington
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 5: Bounded by Railyards, Crocker, Camille, Huntington														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center) (90%) Residential	116.0 KSF	ITE (820)	7,479	104	67	171	331	359	690	61%	39%	48%	52%	
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	165 Units	ITE (232)	846	15	62	77	45	27	72	19%	81%	62%	38%	
Subtotal Residential	165 Units		846	15	62	77	45	27	72					
Other														
Total Trips for Block			8,325	119	129	248	376	386	762					
Transit Adjustments														
Office (-11.1%)														
Retail (-2.2%)														
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)														
Other														
Total Transit Adjustments			0	0	0	0	0	0	0					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-868	-12	-8	-20	-38	-42	-80					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-81	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-949	-13	-13	-26	-42	-44	-86					
Internal Trips Within This Block			-544	-13	-13	-25	-26	-26	-52					
Trips To-From Other Blocks within the Project			-418	-3	-3	-7	-21	-21	-42					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center) (90%) Subtotal Residential				81	53	134	261	285	546					
				9	47	56	26	10	36					
Total				6,414	90	100	190	287	295	582				
New External Trips Percent of Total Project Trips				77%	76%	77%	77%	76%	76%	76%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				194	2	2	4	9	9	18				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				27	1	2	3	2	1	3				
Total Transit Trips				221	3	4	7	11	10	21				

Sacramento Railyards Traffic Study
Block 6: Bounded by Railyards, 5th, Camille, Crocker
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 6: Bounded by Railyards, 5th, Camille, Crocker														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	120.0 KSF	ITE (820)	7,645	107	68	175	339	367	706	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	281 Units	ITE (232)	1,283	21	89	110	69	42	111	19%	81%	62%	38%	
Subtotal Residential	281 Units		1,283	21	89	110	69	42	111					
Other														
Total Trips for Block			8,928	128	157	285	408	409	817					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-168	-2	-2	-4	-8	-8	-16					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-33	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-201	-3	-5	-8	-10	-9	-19					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-887	-12	-8	-20	-39	-43	-82					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-123	-2	-7	-9	-6	-4	-10					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,010	-14	-15	-29	-45	-47	-92					
Internal Trips Within This Block			-801	-14	-14	-28	-39	-39	-77					
Trips To-From Other Blocks within the Project			-423	-4	-4	-8	-21	-21	-43					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				81	51	132	255	278	533					
Subtotal Residential				12	68	80	38	15	54					
Total				6,493	93	119	212	293	293					
New External Trips Percent of Total Project Trips				73%	73%	76%	75%	72%	72%					
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				199	3	2	5	9	9					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				41	1	4	5	2	2					
Total Transit Trips				240	4	6	10	11	11					

Sacramento Railyards Traffic Study
Block 7: Bounded by Railyards, 6th, Camille, 5th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 7: Bounded by Railyards, 6th, Camille, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	72.0 KSF	ITE (820)	5,485	79	50	129	242	262	504	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	363 Units	ITE (232)	1,592	25	109	134	86	53	139	19%	81%	62%	38%	
Subtotal Residential	363 Units		1,592	25	109	134	86	53	139					
Other														
Total Trips for Block			7,077	104	159	263	328	315	643					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-121	-2	-1	-3	-5	-6	-11					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-41	-1	-4	-5	-2	-2	-4					
Other														
Total Transit Adjustments			-162	-3	-5	-8	-7	-8	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-636	-9	-6	-15	-28	-30	-58					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-153	-2	-9	-11	-7	-5	-12					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-789	-11	-15	-26	-35	-35	-70					
Internal Trips Within This Block			-887	-11	-11	-23	-43	-43	-85					
Trips To-From Other Blocks within the Project			-321	-4	-4	-7	-16	-16	-32					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				59	37	96	178	189	367					
Subtotal Residential				16	87	103	49	24	73					
Total			4,919	75	124	199	227	213	440					
New External Trips Percent of Total Project Trips			70%	72%	78%	76%	69%	68%	69%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			143	2	1	3	6	7	13					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			51	1	4	5	3	2	5					
Total Transit Trips			194	3	5	8	9	9	18					

Sacramento Railyards Traffic Study
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	728 Units	ITE (232)	2,968	46	194	240	163	100	263	19%	81%	62%	38%	
Subtotal Residential	728 Units		2,968	46	194	240	163	100	263					
Other														
Total Trips for Block			2,968	46	194	240	163	100	263					

Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			0	0	0	0	0	0	0					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-77	-2	-6	-8	-5	-3	-8					
Other														
Total Transit Adjustments			-77	-2	-6	-8	-5	-3	-8					

Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			0	0	0	0	0	0	0					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-285	-4	-15	-19	-14	-9	-23					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-285	-4	-15	-19	-14	-9	-23					

Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-159	-4	-4	-7	-8	-8	-16					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				0	0	0	0	0	0					
Subtotal Residential				36	169	206	136	80	216					

Total			2,447	36	169	206	136	80	216					
New External Trips Percent of Total Project Trips			82%	79%	87%	86%	84%	80%	82%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			0	0	0	0	0	0	0					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			95	2	8	10	6	4	10					

Total Transit Trips			95	2	8	10	6	4	10					

Sacramento Railyards Traffic Study
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5													
Office (General Office Building)	43.0 KSF	ITE (710)	696	84	11	95	22	105	127	88%	12%	17%	83%
Retail & Restaurant (see footnote)	192.9 KSF		16,088	492	421	913	779	656	1,435				
Residential													
Hotel	100 rooms	ITE (310)	522	25	16	41	31	28	59	61%	39%	53%	47%
High Rise Residential Condominium	39 Units	ITE (232)	163	3	11	13	9	6	15	19%	81%	62%	38%
Subtotal Residential	139 Units		685	28	27	54	40	34	74				
Other (Museum Exhibit Space)	188 KSF	ARCO	1,878	0	0	0	19	169	188			10%	90%
Total Trips for Block			19,347	604	459	1,062	860	964	1,824				
Transit Adjustments													
Office (-11.1%)			-77	-10	-1	-11	-2	-12	-14				
Retail (-2.2%)			-354	-11	-9	-20	-17	-15	-32				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-18	-1	-1	-2	-1	-1	-2				
Other (Museum Exhibit Space) (-11.1%)			-208	0	0	0	-1	-5	-6				
Total Transit Adjustments			-657	-22	-11	-33	-21	-33	-54				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-19	-3	0	-3	-1	-3	-4				
Retail (-11.6%)			-1,866	-57	-49	-106	-90	-76	-166				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-66	-2	-2	-4	-3	-3	-6				
Other (Museum Exhibit Space) (-2.8%)			-53	0	0	0	-1	-5	-5				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-2,004	-62	-51	-113	-95	-87	-181				
Internal Trips Within This Block			-661	-34	-34	-68	-47	-47	-94				
Trips To-From Other Blocks within the Project			-981	-15	-15	-30	-51	-51	-102				
New External Trips													
Office (General Office Building)				58	7	65	12	69	81				
Retail & Restaurant (see footnote)				396	331	728	596	506	1,102				
Subtotal Residential				16	10	27	22	12	34				
Other (Museum Exhibit Space)				0	0	0	17	159	177				
Total			15,044	471	349	819	646	746	1,393				
New External Trips Percent of Total Project Trips			78%	78%	76%	77%	75%	77%	76%				
Transit Trips													
Office (12.5%)			87	11	1	12	3	13	16				
Retail (2.6%)			418	13	11	24	20	17	37				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			22	1	1	2	2	1	3				
Other (Museum Exhibit Space) (12.5%)			235	0	0	0	2	21	23				
Total Transit Trips			762	25	13	38	27	52	79				
Footnote:													
Retail & Restaurant													
Retail (Shopping Center)	129.6 KSF	ITE (820)	8,036	112	71	183	357	386	743	61%	39%	48%	52%
High-Turnover Restaurant	63.3 KSF	ITE (932)	8,052	380	350	730	422	270	692	52%	48%	61%	39%

Sacramento Railyards Traffic Study
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail & Market (see footnote)	166.8 KSF		15,223	223	173	396	711	758	1,469					
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	108 Units	ITE (232)	631	11	49	60	32	20	52	19%	81%	62%	38%	
Subtotal Residential	108 Units		631	11	49	60	32	20	52					
Other (Performing Arts)	1800 Seats	ITE(441)	360	0	0	0	18	18	36			50%	50%	
Total Trips for Block			16,214	234	222	456	761	796	1,557					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-335	-5	-4	-9	-15	-17	-32					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-16	0	-2	-2	-1	-1	-2					
Other (Performing Arts) (-11.1%)			-40	0	0	0	-1	-1	-1					
Total Transit Adjustments			-391	-5	-6	-11	-17	-19	-35					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-1,766	-26	-20	-46	-82	-88	-170					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-61	-1	-4	-5	-2	-2	-4					
Other (Performing Arts) (-2.8%)			-10	0	0	0	-1	-1	-1					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,837	-27	-24	-51	-85	-91	-175					
Internal Trips Within This Block			-393	-20	-20	-41	-18	-18	-36					
Trips To-From Other Blocks within the Project			-832	-6	-6	-12	-45	-45	-89					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail & Market (see footnote)				169	141	310	562	600	1,163					
Subtotal Residential				7	24	31	18	7	25					
Other (Performing Arts)				0	0	0	16	16	34					
Total			12,761	176	165	341	596	623	1,222					
New External Trips Percent of Total Project Trips			79%	75%	74%	75%	78%	78%	78%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			396	6	4	10	18	20	38					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			20	0	2	2	1	1	2					
Other (Performing Arts) (12.5%)			45	0	0	0	3	3	5					
Total Transit Trips			461	6	6	12	22	24	45					

Footnote:

Retail & Market														
Retail (Shopping Center)	110.5 KSF	ITE (820)	9,469	130	83	213	421	456	877	61%	39%	48%	52%	
High-Turnover Restaurant	0.0 KSF	ITE (932)	0	0	0	0	0	0	0	52%	48%	61%	39%	
Supermarket	56 KSF	ITE (850)	5,754	93	90	183	290	302	592	51%	49%	49%	51%	

Sacramento Railyards Traffic Study
Block 11: Bounded by Camille, 6th, Rail Lines, 5th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 11: Bounded by Camille, 6th, Rail Lines, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	28.0 KSF	ITE (820)	2,969	45	28	73	130	140	270	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	263 Units	ITE (232)	1,215	20	85	105	65	40	105	19%	81%	62%	38%	
Subtotal Residential	263 Units		1,215	20	85	105	65	40	105					
Other														
Total Trips for Block			4,184	65	113	178	195	180	375					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-65	-1	-1	-2	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-32	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-97	-2	-4	-6	-5	-4	-9					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-344	-5	-3	-8	-15	-16	-31					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-117	-2	-6	-8	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-461	-7	-9	-16	-21	-19	-40					
Internal Trips Within This Block			-512	-6	-6	-13	-25	-25	-49					
Trips To-From Other Blocks within the Project			-191	-3	-3	-5	-9	-9	-19					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				34	21	54	96	99	195					
Subtotal Residential				13	71	84	39	24	63					
Total				2,923	47	91	138	135	123	258				
New External Trips Percent of Total Project Trips				70%	72%	81%	78%	69%	68%	69%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				77	1	1	2	3	4	7				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				39	1	3	4	2	2	4				
Total Transit Trips				116	2	4	6	5	6	11				

Sacramento Railyards Traffic Study
Block 12: Bounded by Rail Lines, 5th, I Street, LRT
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 12: Bounded by Rail Lines, 5th, I Street, LRT														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	38.0 KSF	ITE (820)	3,621	54	34	88	159	172	331	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	96 Units	ITE (232)	401	6	26	33	23	14	36	19%	81%	62%	38%	
Subtotal Residential	96 Units		401	6	26	33	23	14	36					
Other		ITE(093)	0	0	0	0	0	0	0	80%	20%	20%	80%	
Total Trips for Block			4,022	60	60	121	182	186	367					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-80	-1	-1	-2	-3	-4	-7					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-10	0	-1	-1	-1	0	-1					
Other (-11.1%)			0	0	0	0	0	0	0					
Total Transit Adjustments			-90	-1	-2	-3	-4	-4	-8					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-420	-6	-4	-10	-18	-20	-38					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-39	-1	-2	-3	-2	-1	-3					
Other (-2.8%)			0	0	0	0	0	0	0					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-459	-7	-6	-13	-20	-21	-41					
Internal Trips Within This Block			-250	-6	-6	-12	-13	-13	-26					
Trips To-From Other Blocks within the Project			-197	-2	-2	-3	-10	-10	-20					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				41	27	68	122	133	255					
Subtotal Residential				3	18	21	13	5	18					
Other				0	0	0	0	0	0					
Total				3,026	45	45	90	135	138	272				
New External Trips Percent of Total Project Trips				75%	74%	74%	74%	74%	74%	74%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				94	1	1	2	4	5	9				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				13	0	1	1	1	0	1				
Other (12.5%)				0	0	0	0	0	0	0				
Total Transit Trips				107	1	2	3	5	5	10				

Sacramento Railyards Traffic Study
Block 13: Bounded by Rail Lines, 6th, G, 5th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 13: Bounded by Rail Lines, 6th, G, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	16.5 KSF	ITE (820)	2,105	32	21	53	92	99	191	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	227 Units	ITE (232)	1,079	18	77	95	58	35	93	19%	81%	62%	38%	
Subtotal Residential	227 Units		1,079	18	77	95	58	35	93					
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%	
Total Trips for Block			4,474	308	163	471	215	392	607					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-46	-1	0	-1	-2	-2	-4					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-28	-1	-2	-3	-2	-1	-3					
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11					
Total Transit Adjustments			-217	-11	-4	-15	-6	-12	-18					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-244	-4	-2	-6	-11	-11	-22					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-104	-2	-6	-8	-5	-3	-8					
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9					
Total Walk, Bike & Other Non-Auto Travel Adjustments			-384	-13	-10	-23	-18	-21	-39					
Internal Trips Within This Block			-363	-5	-5	-9	-17	-17	-35					
Trips To-From Other Blocks within the Project			-215	-7	-7	-15	-18	-18	-35					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				20	15	35	61	63	124					
Subtotal Residential				10	61	71	34	19	53					
Other (Transit)				242	61	303	61	242	303					
Total				3,295	272	137	408	156	324	480				
New External Trips Percent of Total Project Trips				74%	88%	84%	87%	73%	83%	79%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				55	1	0	1	2	3	5				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				35	1	3	4	2	1	3				
Other (Transit) (12.5%)				161	32	8	40	8	32	40				
Total Transit Trips				251	34	11	45	12	36	48				

Sacramento Railyards Traffic Study
Block 14: Bounded by Rail Lines, 7th, G, 6th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 14: Bounded by Rail Lines, 7th, G, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	12.0 KSF	ITE (820)	1,712	27	17	44	74	80	154	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	619 Units	ITE (232)	2,557	40	168	208	140	86	226	19%	81%	62%	38%	
Subtotal Residential	619 Units		2,557	40	168	208	140	86	226					
Other														
Total Trips for Block			4,269	67	185	252	214	166	380					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-38	-1	0	-1	-1	-2	-3					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-66	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-104	-2	-6	-8	-5	-5	-10					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-199	-3	-2	-5	-9	-9	-18					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-245	-3	-13	-16	-12	-7	-19					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-444	-6	-15	-21	-21	-16	-37					
Internal Trips Within This Block			-295	-4	-4	-8	-14	-14	-28					
Trips To-From Other Blocks within the Project			-210	-4	-4	-8	-10	-10	-21					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				19	13	32	55	56	110					
Subtotal Residential				32	144	175	109	65	174					
Total				3,216	51	156	208	164	121	284				
New External Trips Percent of Total Project Trips				75%	77%	85%	82%	76%	73%	75%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				45	1	0	1	2	2	4				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				82	2	7	9	5	3	8				
Total Transit Trips				127	3	7	10	7	5	12				

Sacramento Railyards Traffic Study
Block 15: Bounded by G, 6th, H, 6th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 15: Bounded by G, 6th, H, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	85.0 KSF	ITE (820)	6,110	87	55	142	270	292	562	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	160 Units	ITE (232)	827	14	61	75	43	27	70	19%	81%	62%	38%	
Subtotal Residential	160 Units		827	14	61	75	43	27	70					
Other														
Total Trips for Block			6,937	101	116	217	313	319	632					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-134	-2	-1	-3	-6	-6	-12					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-22	-1	-2	-3	-1	-1	-2					
Other														
Total Transit Adjustments			-156	-3	-3	-6	-7	-7	-14					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-709	-10	-6	-16	-31	-34	-65					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-79	-1	-5	-6	-4	-2	-6					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-788	-11	-11	-22	-35	-36	-71					
Internal Trips Within This Block			-515	-10	-10	-21	-25	-25	-49					
Trips To-From Other Blocks within the Project			-335	-3	-3	-6	-17	-17	-34					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				66	43	109	206	225	430					
Subtotal Residential				8	46	54	24	10	34					
Total				5,142	74	89	162	230	235	464				
New External Trips Percent of Total Project Trips				74%	73%	76%	75%	73%	74%	73%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				159	2	2	4	7	8	15				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				26	1	2	3	2	1	3				
Total Transit Trips				185	3	4	7	9	9	18				

Sacramento Railyards Traffic Study
Block 16: Bounded by G, 7th, Property Boundary, 6th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 16: Bounded by G, 7th, Property Boundary, 6th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	6.2 KSF	ITE (820)	1,114	18	12	30	48	52	100	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	273 Units	ITE (232)	1,253	21	87	108	67	41	108	19%	81%	62%	38%	
Subtotal Residential	273 Units		1,253	21	87	108	67	41	108					
Other														
Total Trips for Block			2,367	39	99	138	115	93	208					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-25	-1	0	-1	-1	-1	-2					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-33	-1	-3	-4	-2	-1	-3					
Other														
Total Transit Adjustments			-58	-2	-3	-5	-3	-2	-5					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-129	-2	-1	-3	-6	-6	-12					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-120	-2	-7	-9	-6	-3	-9					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-249	-4	-8	-12	-12	-9	-21					
Internal Trips Within This Block			-192	-3	-3	-5	-9	-9	-18					
Trips To-From Other Blocks within the Project			-114	-2	-2	-4	-6	-6	-11					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				13	9	22	35	37	72					
Subtotal Residential				16	74	89	50	31	81					
Total				1,754	28	83	112	85	67	153				
New External Trips Percent of Total Project Trips				74%	73%	84%	81%	74%	72%	73%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				29	1	0	1	1	2	3				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				40	1	3	4	2	2	4				
Total Transit Trips				69	2	3	5	3	4	7				

Sacramento Railyards Traffic Study
Block 17: Bounded by N. B, 7th, South Park, 5th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 17: Bounded by N. B, 7th, South Park, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	1,355 Units	ITE (232)	5,332	80	342	422	295	181	476	19%	81%	62%	38%	
Subtotal Residential	1,355 Units		5,332	80	342	422	295	181	476					
Other														
Total Trips for Block			5,332	80	342	422	295	181	476					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			0	0	0	0	0	0	0					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-139	-3	-11	-14	-9	-6	-15					
Other														
Total Transit Adjustments			-139	-3	-11	-14	-9	-6	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			0	0	0	0	0	0	0					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-512	-6	-27	-33	-25	-16	-41					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-512	-6	-27	-33	-25	-16	-41					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-286	-7	-7	-13	-14	-14	-29					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				0	0	0	0	0	0					
Subtotal Residential				64	297	362	247	145	391					
Total			4,395	64	297	362	247	145	391					
New External Trips Percent of Total Project Trips			82%	81%	87%	86%	84%	80%	82%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			0	0	0	0	0	0	0					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			171	3	14	17	11	7	18					
Total Transit Trips			171	3	14	17	11	7	18					

Sacramento Railyards Traffic Study
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated						Distribution					
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	0.0 KSF	ITE (820)	0	0	0	0	0	0	0	0	61%	39%	48%	52%
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	0	61%	39%	53%	47%
High Rise Residential Condominium	1,273 Units	ITE (232)	5,023	76	322	398	278	170	448	19%	81%	62%	38%	
Subtotal Residential	1,273 Units		5,023	76	322	398	278	170	448					
Other														
Total Trips for Block			5,023	76	322	398	278	170	448					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			0	0	0	0	0	0	0					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-131	-3	-11	-14	-9	-5	-14					
Other														
Total Transit Adjustments			-131	-3	-11	-14	-9	-5	-14					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			0	0	0	0	0	0	0					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-482	-6	-25	-31	-24	-15	-39					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-482	-6	-25	-31	-24	-15	-39					
Internal Trips Within This Block			0	0	0	0	0	0	0					
Trips To-From Other Blocks within the Project			-270	-6	-6	-12	-13	-13	-27					
New External Trips														
Office (General Office Building)			0	0	0	0	0	0	0					
Retail (Shopping Center)			0	0	0	0	0	0	0					
Subtotal Residential			61	280	341	232	137	368						
Total			4,140	61	280	341	232	137	368					
New External Trips Percent of Total Project Trips			82%	80%	87%	86%	83%	80%	82%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			0	0	0	0	0	0	0					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			161	3	13	16	11	6	17					
Total Transit Trips			161	3	13	16	11	6	17					

Sacramento Railyards Traffic Study
Block 19: Bounded by South Park, 7th, Railyards, 5th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 19: Bounded by South Park, 7th, Railyards, 5th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	25.0 KSF	ITE (820)	2,758	41	27	68	120	131	251	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	1,603 Units	ITE (232)	6,267	94	400	494	347	213	560	19%	81%	62%	38%	
Subtotal Residential	1,603 Units		6,267	94	400	494	347	213	560					
Other														
Total Trips for Block			9,025	135	427	562	467	344	811					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-61	-1	0	-1	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-163	-3	-14	-17	-11	-6	-17					
Other														
Total Transit Adjustments			-224	-4	-14	-18	-14	-9	-23					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-320	-5	-3	-8	-14	-15	-29					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-602	-7	-32	-39	-30	-18	-48					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-922	-12	-35	-47	-44	-33	-77					
Internal Trips Within This Block			-476	-6	-6	-12	-23	-23	-46					
Trips To-From Other Blocks within the Project			-453	-8	-8	-17	-23	-23	-45					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				29	21	50	88	91	179					
Subtotal Residential				75	343	418	276	166	441					
Total				6,950	104	363	468	364	257	620				
New External Trips Percent of Total Project Trips				77%	77%	85%	83%	78%	75%	76%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				72	1	1	2	3	4	7				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				201	4	16	20	13	8	21				
Total Transit Trips				273	5	17	22	16	12	28				

Sacramento Railyards Traffic Study
Block 20: Bounded by South Park, N. 10th, Railyards, 7th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 20: Bounded by South Park, N. 10th, Railyards, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	25.0 KSF	ITE (820)	2,758	41	27	68	120	131	251	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	1,865 Units	ITE (232)	7,255	108	462	570	403	247	650	19%	81%	62%	38%	
Subtotal Residential	1,865 Units		7,255	108	462	570	403	247	650					
Other														
Total Trips for Block			10,013	149	489	638	523	378	901					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-61	-1	0	-1	-3	-3	-6					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-189	-4	-15	-19	-12	-8	-20					
Other														
Total Transit Adjustments			-250	-5	-15	-20	-15	-11	-26					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-320	-5	-3	-8	-14	-15	-29					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-696	-9	-36	-45	-35	-21	-56					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-1,016	-14	-39	-53	-49	-36	-85					
Internal Trips Within This Block			-476	-6	-6	-12	-23	-23	-46					
Trips To-From Other Blocks within the Project			-506	-10	-10	-19	-25	-25	-51					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				29	21	50	88	91	179					
Subtotal Residential				85	399	484	323	192	515					
Total			7,765	114	419	534	411	283	694					
New External Trips Percent of Total Project Trips			78%	77%	86%	84%	79%	75%	77%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			72	1	1	2	3	4	7					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			232	4	19	23	15	9	24					
Total Transit Trips			304	5	20	25	18	13	31					

Sacramento Railyards Traffic Study
Block 21: SITF Site
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution			
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak	
				In	Out	Total	In	Out	Total	In	Out	In	Out
Block 21: SITF Site													
Office (General Office Building)	121.5 KSF	ITE (710)	1,550	193	26	219	37	178	215	88%	12%	17%	83%
Retail (Shopping Center)	27.0 KSF	ITE (820)	2,900	43	28	71	127	137	264	61%	39%	48%	52%
Residential													
Hotel	200 rooms	ITE (310)	1,417	59	38	97	63	55	118	61%	39%	53%	47%
High Rise Residential Condominium	0 Units	ITE (232)	0	0	0	0	0	0	0	19%	81%	62%	38%
Subtotal Residential	200 Units		1,417	59	38	97	63	55	118				
Other (Transit)	514 Prkng	ITE(093)	1,290	258	65	323	65	258	323	80%	20%	20%	80%
Total Trips for Block			7,157	553	157	710	292	628	920				
Transit Adjustments													
Office (-11.1%)			-172	-21	-3	-24	-4	-20	-24				
Retail (-2.2%)			-64	-1	-1	-2	-3	-3	-6				
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-37	-2	-1	-3	-2	-2	-4				
Other (Transit) (-11.1%)			-143	-9	-2	-11	-2	-9	-11				
Total Transit Adjustments			-416	-33	-7	-40	-11	-34	-45				
Walk, Bike & Other Non-Auto Travel Adjustments													
Office (-2.8%)			-43	-5	-1	-6	-1	-5	-6				
Retail (-11.6%)			-336	-5	-3	-8	-15	-16	-31				
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-136	-5	-3	-8	-5	-5	-10				
Other (Transit) (-2.8%)			-36	-7	-2	-9	-2	-7	-9				
Total Walk, Bike & Other Non-Auto Travel Adjustments			-551	-22	-9	-31	-23	-33	-56				
Internal Trips Within This Block			-702	-8	-8	-16	-31	-31	-62				
Trips To-From Other Blocks within the Project			-336	-11	-11	-22	-26	-26	-51				
New External Trips													
Office (General Office Building)				159	18	177	24	137	162				
Retail (Shopping Center)				31	17	48	83	91	174				
Subtotal Residential				47	26	73	33	35	68				
Other (Transit)				242	61	303	61	242	303				
Total				5,153	479	122	601	201	505	705			
New External Trips Percent of Total Project Trips				72%	87%	78%	85%	69%	80%	77%			
Transit Trips													
Office (12.5%)				194	24	3	27	5	22	27			
Retail (2.6%)				75	1	1	2	3	4	7			
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				45	2	2	4	2	2	4			
Other (Transit) (12.5%)				161	32	8	40	8	32	40			
Total Transit Trips				475	59	14	73	18	60	78			

Sacramento Railyards Traffic Study
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	15.0 KSF	ITE (820)	1,979	31	20	50	86	93	179	61%	39%	48%	52%	
Residential														
Hotel	500 rooms	ITE (310)	4,102	184	117	301	156	139	295	61%	39%	53%	47%	
High Rise Residential Condominium	900 Units	ITE (232)	3,617	55	235	290	199	122	321	19%	81%	62%	38%	
Subtotal Residential	1,400 Units		7,719	239	352	591	355	261	616					
Other														
Total Trips for Block			9,698	270	372	641	441	354	795					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-44	-1	0	-1	-2	-2	-4					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-201	-8	-12	-20	-11	-8	-19					
Other														
Total Transit Adjustments			-245	-9	-12	-21	-13	-10	-23					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-230	-4	-2	-6	-10	-11	-21					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-741	-19	-28	-47	-31	-22	-53					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-971	-23	-30	-53	-41	-33	-74					
Internal Trips Within This Block			-341	-5	-5	-9	-16	-16	-33					
Trips To-From Other Blocks within the Project			-498	-10	-10	-20	-23	-23	-45					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				23	15	38	63	65	128					
Subtotal Residential				201	301	502	285	207	493					
Total			7,643	223	316	538	348	272	620					
New External Trips Percent of Total Project Trips			79%	83%	85%	84%	79%	77%	78%					
Transit Trips														
Office (12.5%)			0	0	0	0	0	0	0					
Retail (2.6%)			51	1	0	1	2	3	5					
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)			247	10	14	24	13	10	23					
Total Transit Trips			298	11	14	25	15	13	28					

Sacramento Railyards Traffic Study
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	60.0 KSF	ITE (820)	4,872	70	45	115	215	232	447	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	650 Units	ITE (232)	2,674	41	176	217	146	90	236	19%	81%	62%	38%	
Subtotal Residential	650 Units		2,674	41	176	217	146	90	236					
Other														
Total Trips for Block			7,546	111	221	332	361	322	683					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-107	-2	-1	-3	-5	-5	-10					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-70	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-177	-3	-7	-10	-9	-8	-17					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-565	-8	-5	-13	-25	-27	-52					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-257	-3	-14	-17	-12	-8	-20					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-822	-11	-19	-30	-37	-35	-72					
Internal Trips Within This Block			-840	-10	-10	-20	-41	-41	-81					
Trips To-From Other Blocks within the Project			-349	-5	-5	-10	-17	-17	-35					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				52	33	85	158	163	322					
Subtotal Residential				31	147	177	99	57	156					
Total				5,358	82	180	262	257	221	478				
New External Trips Percent of Total Project Trips				71%	74%	82%	79%	71%	69%	70%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				127	2	1	3	6	6	12				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				86	2	7	9	6	3	9				
Total Transit Trips				213	4	8	12	12	9	21				

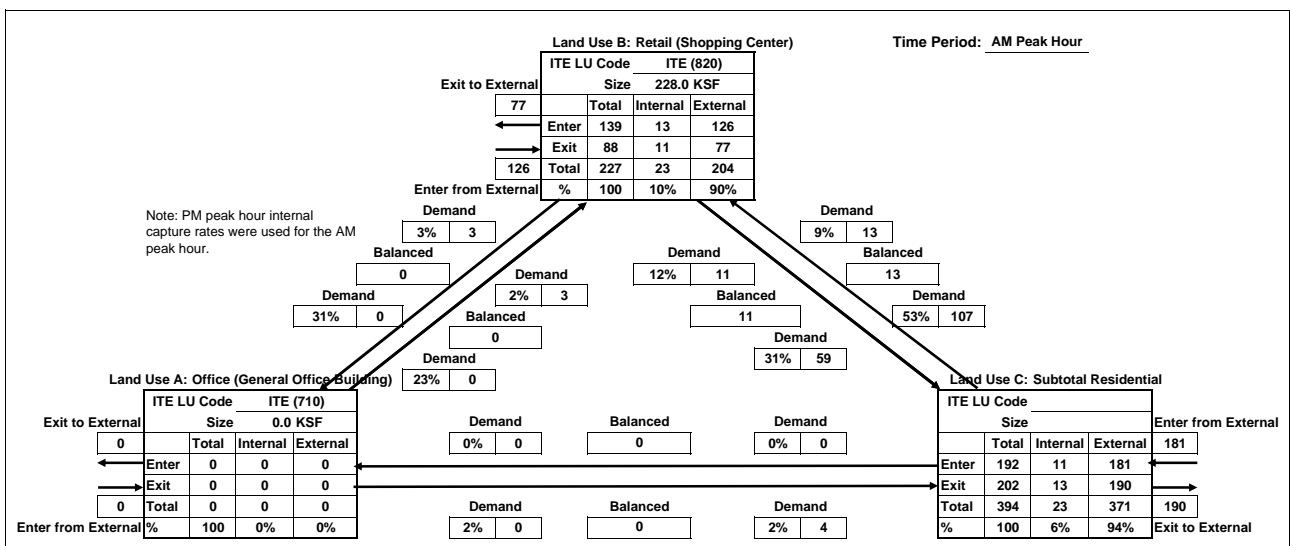
Sacramento Railyards Traffic Study
Block 24: Bounded by Property Boundary, Railyards, N. 10th
Full Project with Maximum Residential

Trip Generation Land Use Category	Amount	Source	Trips Generated							Distribution				
			Weekday	AM Peak Hour			PM Peak Hour			AM Peak		PM Peak		
				In	Out	Total	In	Out	Total	In	Out	In	Out	
Block 24: Bounded by Property Boundary, Railyards, N. 10th														
Office (General Office Building)	0.0 KSF	ITE (710)	0	0	0	0	0	0	0	0	88%	12%	17%	83%
Retail (Shopping Center)	40.0 KSF	ITE (820)	3,743	55	35	90	164	178	342	61%	39%	48%	52%	
Residential														
Hotel	0 rooms	ITE (310)	0	0	0	0	0	0	0	61%	39%	53%	47%	
High Rise Residential Condominium	650 Units	ITE (232)	2,674	41	176	217	146	90	236	19%	81%	62%	38%	
Subtotal Residential	650 Units		2,674	41	176	217	146	90	236					
Other														
Total Trips for Block			6,417	96	211	307	310	268	578					
Transit Adjustments														
Office (-11.1%)			0	0	0	0	0	0	0					
Retail (-2.2%)			-82	-1	-1	-2	-4	-4	-8					
Residential (Daily -2.6%, a.m. -3.4%, p.m. -3.1%)			-70	-1	-6	-7	-4	-3	-7					
Other														
Total Transit Adjustments			-152	-2	-7	-9	-8	-7	-15					
Walk, Bike & Other Non-Auto Travel Adjustments														
Office (-2.8%)			0	0	0	0	0	0	0					
Retail (-11.6%)			-434	-6	-4	-10	-19	-21	-40					
Residential (Daily -9.6%, a.m. -7.9%, p.m. -8.6%)			-257	-3	-14	-17	-12	-8	-20					
Other														
Total Walk, Bike & Other Non-Auto Travel Adjustments			-691	-9	-18	-27	-31	-29	-60					
Internal Trips Within This Block			-646	-8	-8	-16	-31	-31	-62					
Trips To-From Other Blocks within the Project			-302	-4	-4	-9	-15	-15	-30					
New External Trips														
Office (General Office Building)				0	0	0	0	0	0					
Retail (Shopping Center)				41	26	67	121	125	245					
Subtotal Residential				31	148	179	104	61	166					
Total				4,627	73	174	246	225	186	411				
New External Trips Percent of Total Project Trips				72%	76%	82%	80%	73%	69%	71%				
Transit Trips														
Office (12.5%)				0	0	0	0	0	0					
Retail (2.6%)				97	1	1	2	4	5	9				
Residential (Daily 3.2%, a.m. 4.1%, p.m. 3.7%)				86	2	7	9	6	3	9				
Total Transit Trips				183	3	8	11	10	8	18				

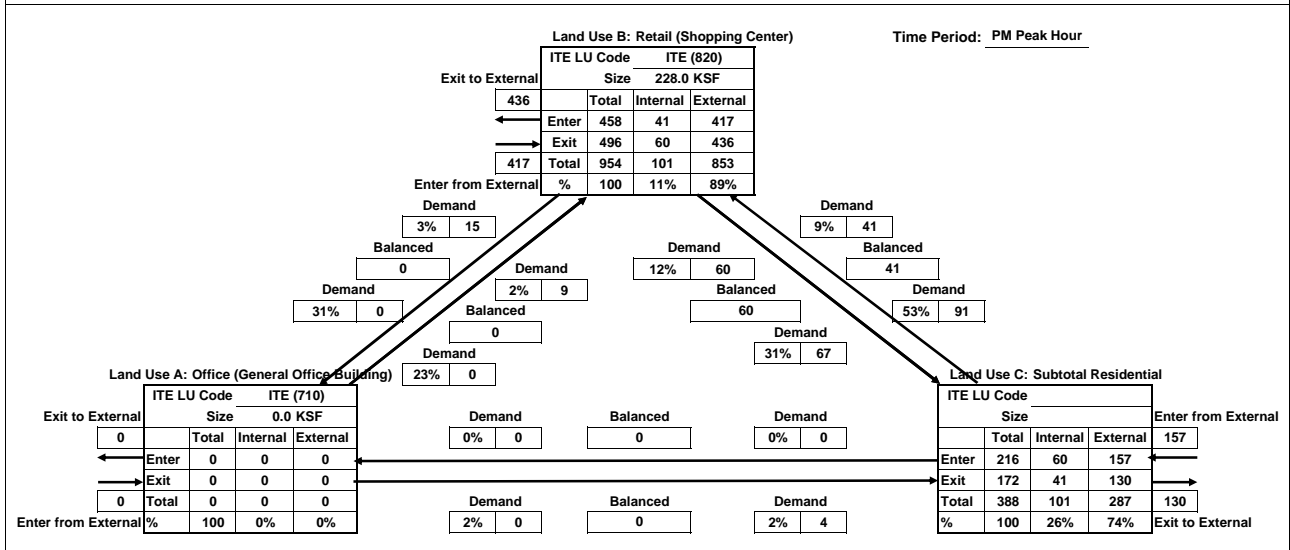
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Full Project with Maximum Residential



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	126	181	308	
Exit	0	77	190	267	
Total	0	204	371	575	INTERNAL CAPTURE
Single-Use Trip	0	227	394	621	7%



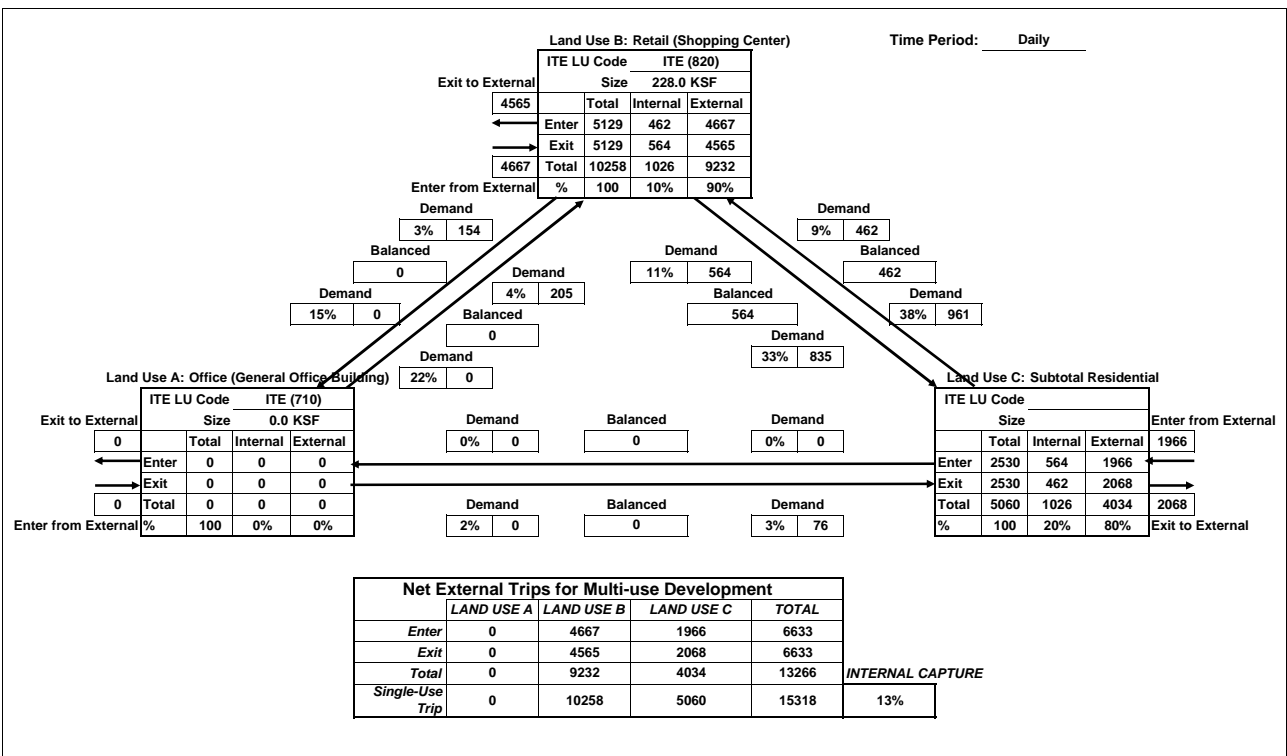
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	417	157	574	
Exit	0	436	130	567	
Total	0	853	287	1141	INTERNAL CAPTURE
Single-Use Trip	0	954	388	1342	15%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 1: Bounded by South Park, Crocker, Railyards, Bercut**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily



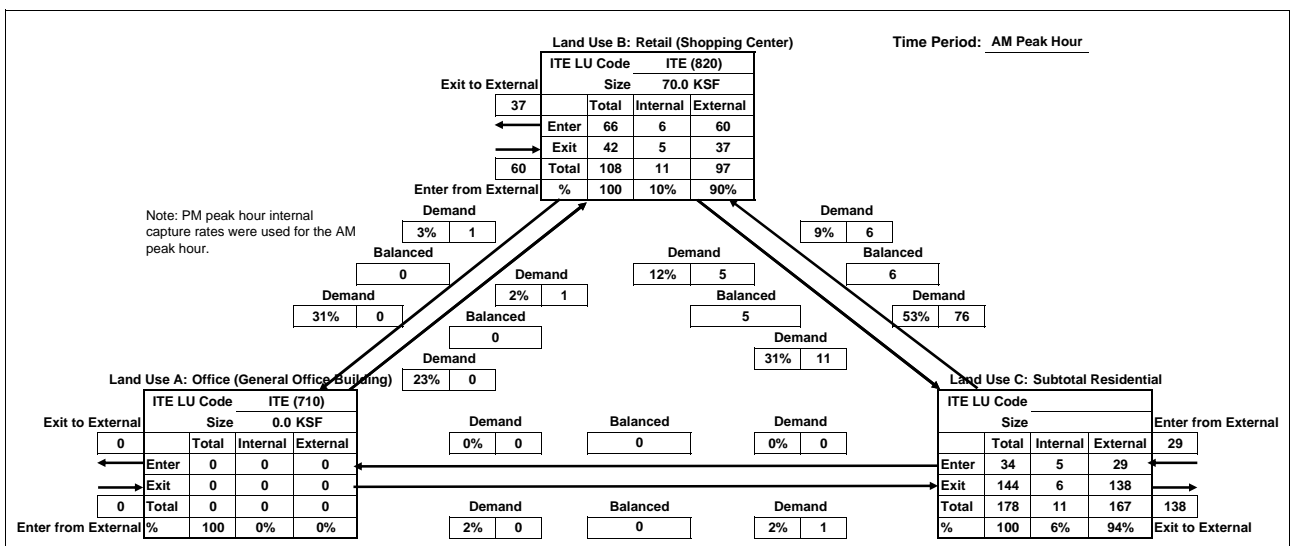
Analyst: Dowling

Date: 8/17/2007

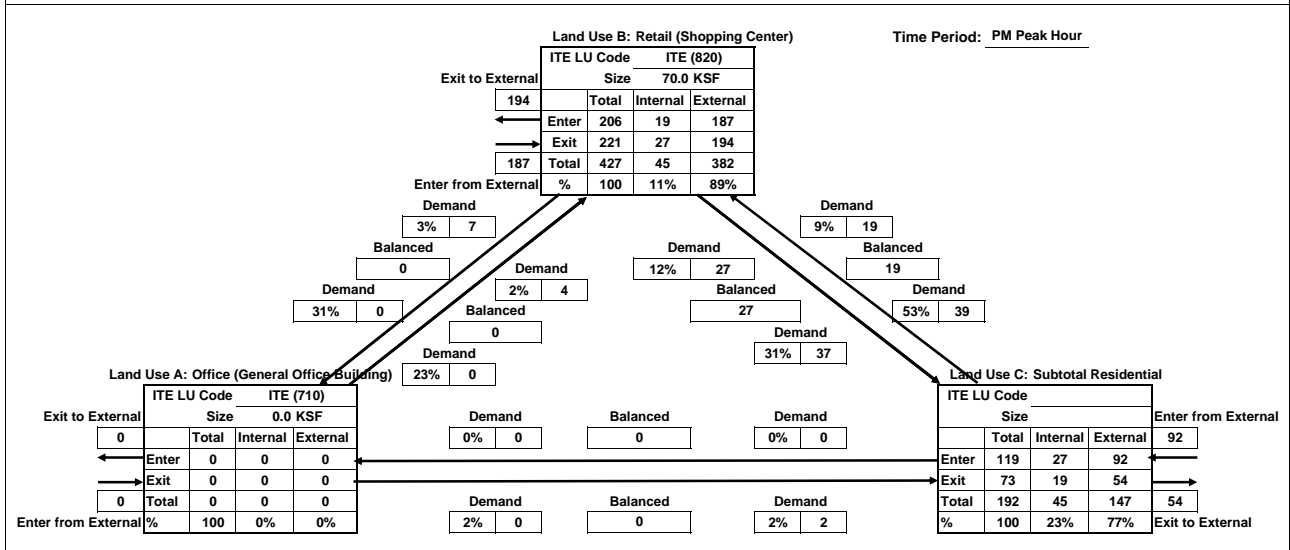
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study

Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	60	29	89	
Exit	0	37	138	175	
Total	0	97	167	264	INTERNAL CAPTURE
Single-Use Trip	0	108	178	286	8%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	187	92	280	
Exit	0	194	54	249	
Total	0	382	147	529	INTERNAL CAPTURE
Single-Use Trip	0	427	192	619	15%

Analyst: Dowling

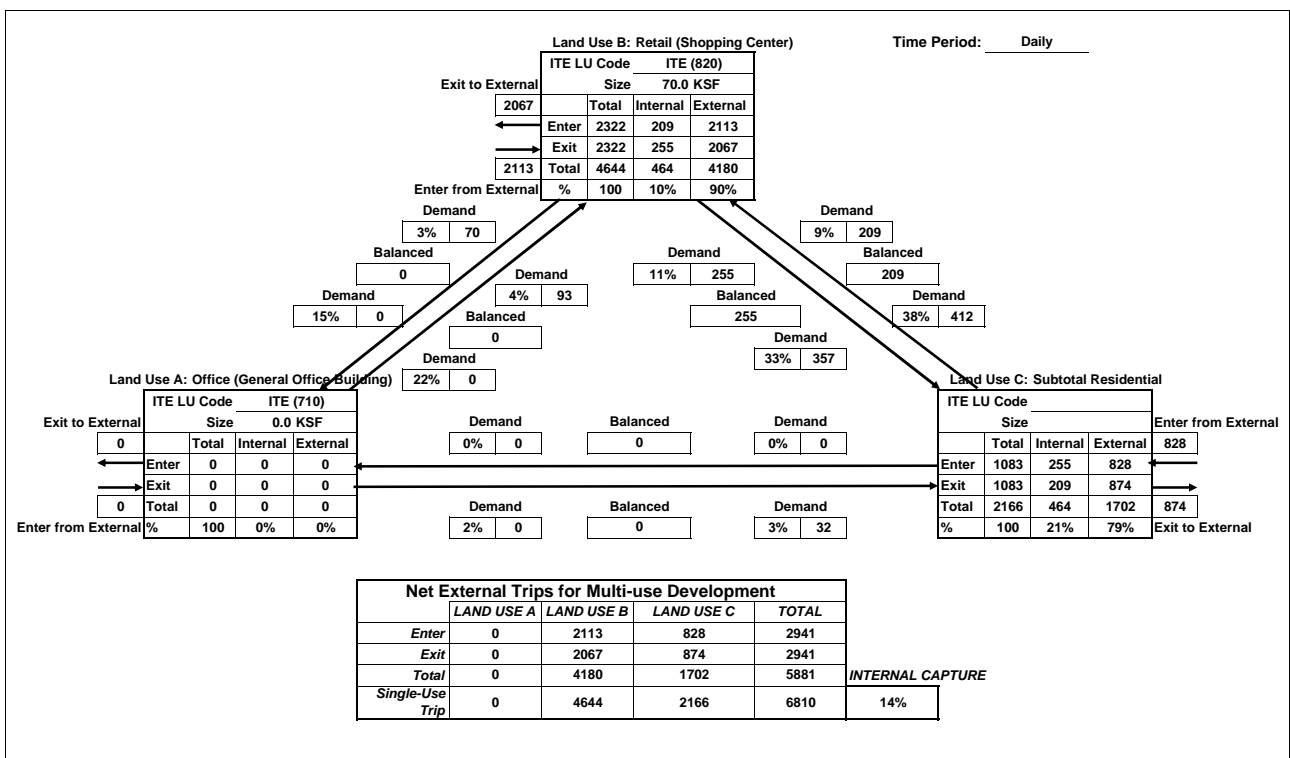
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 2: Bounded by South Park, 5th, Railyards, Crocker**

Name of Development: Railyards Study

Full Project with Maximum Residential

Time Period: Daily

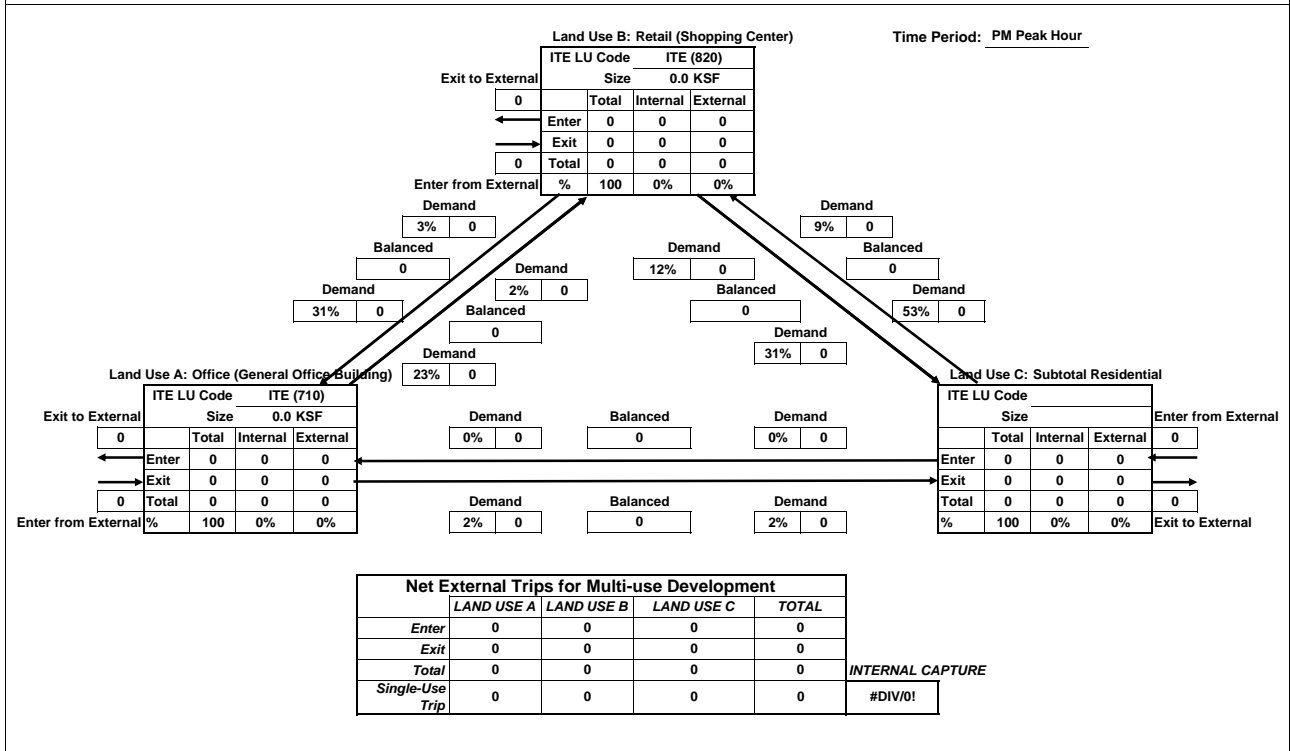
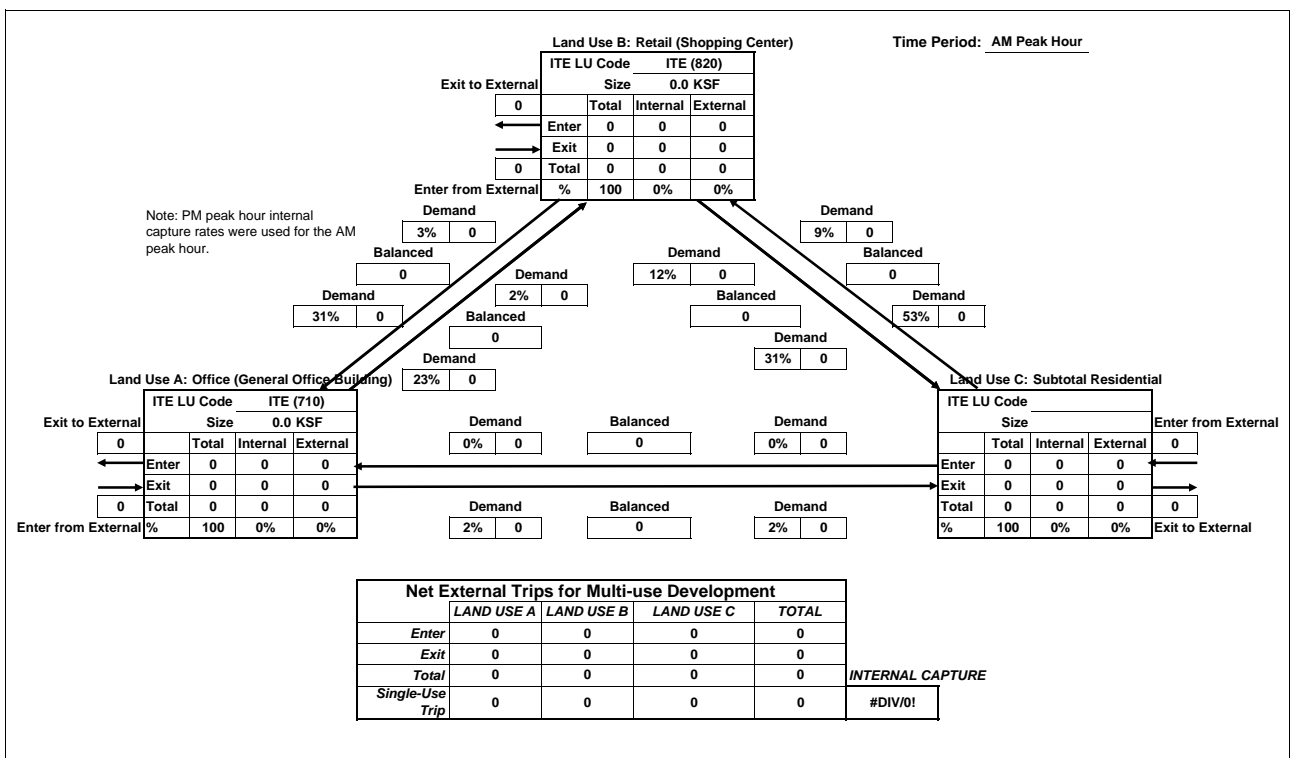


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study
Full Project with Maximum Residential



Analyst: Dowling

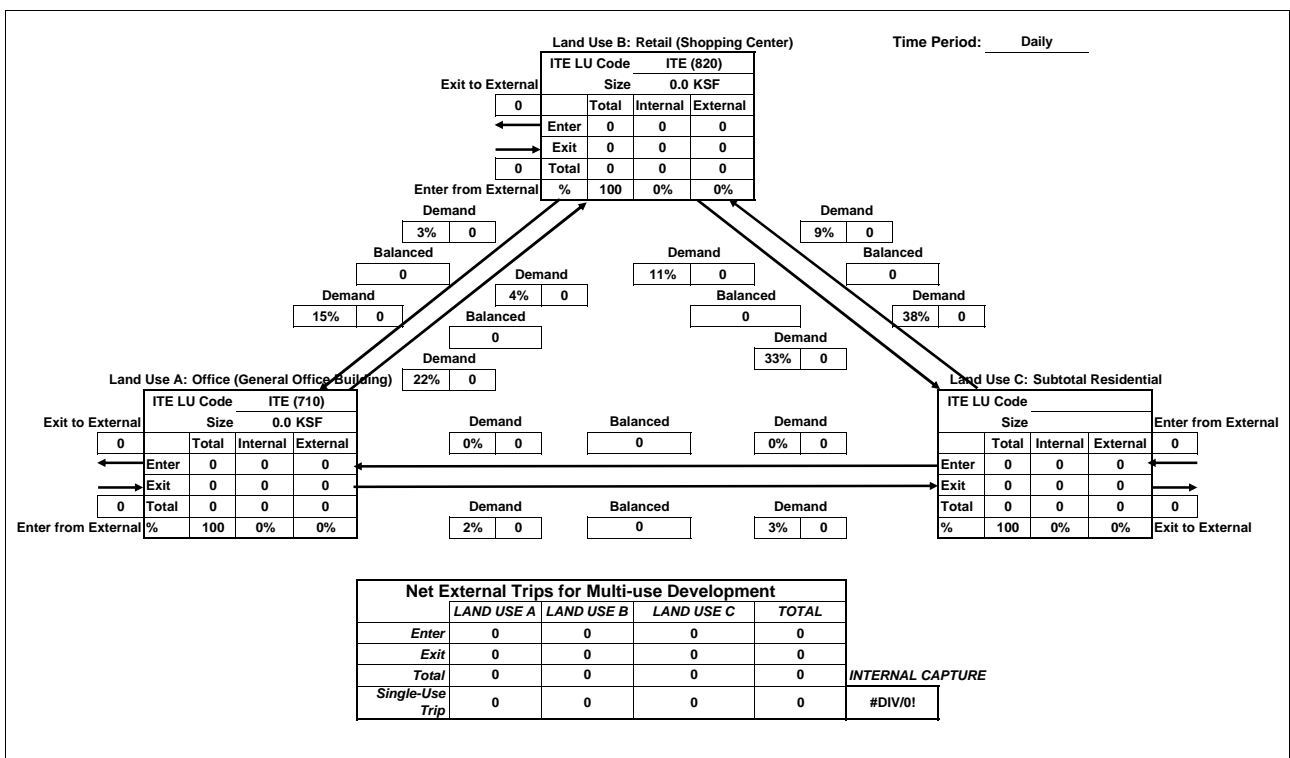
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 3: Bounded by Railyards, Bercut, Camille, Jibboom**

Name of Development: Railyards Study

Full Project with Maximum Residential

Time Period: Daily

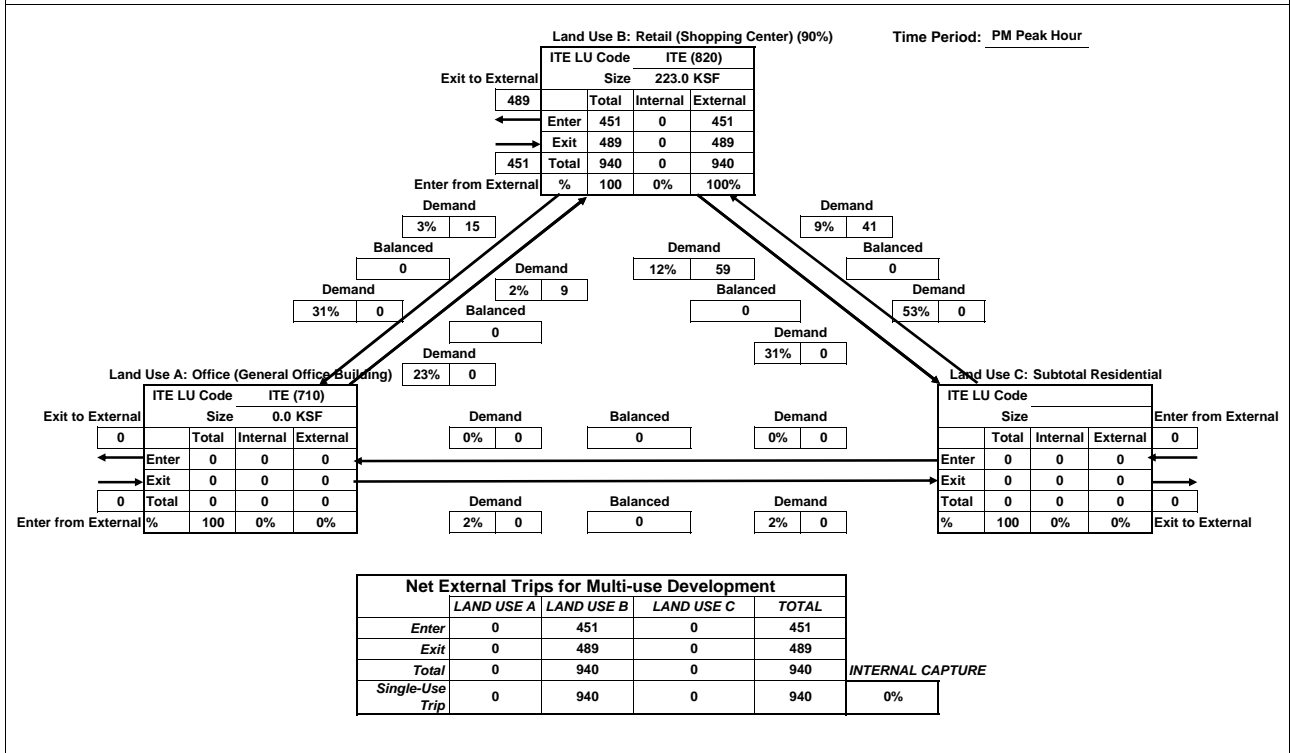
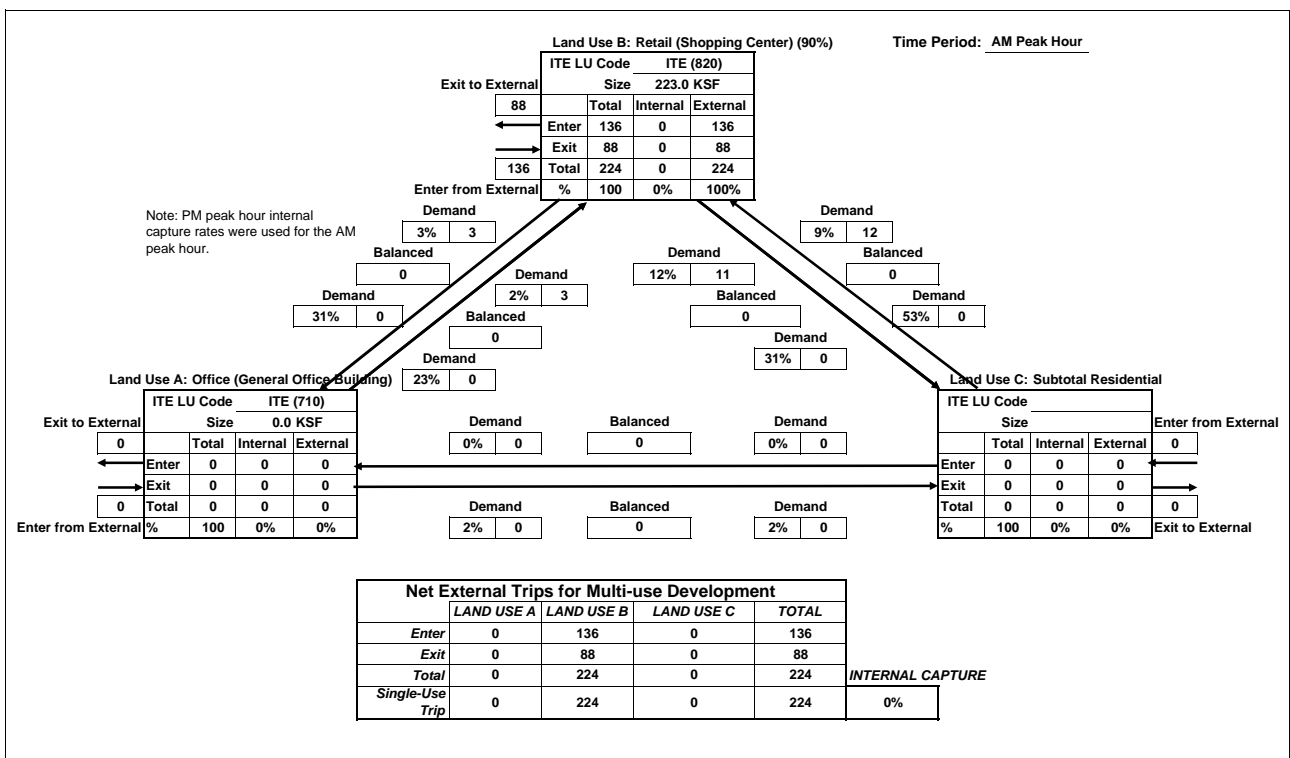


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study
Full Project with Maximum Residential



Analyst: Dowling

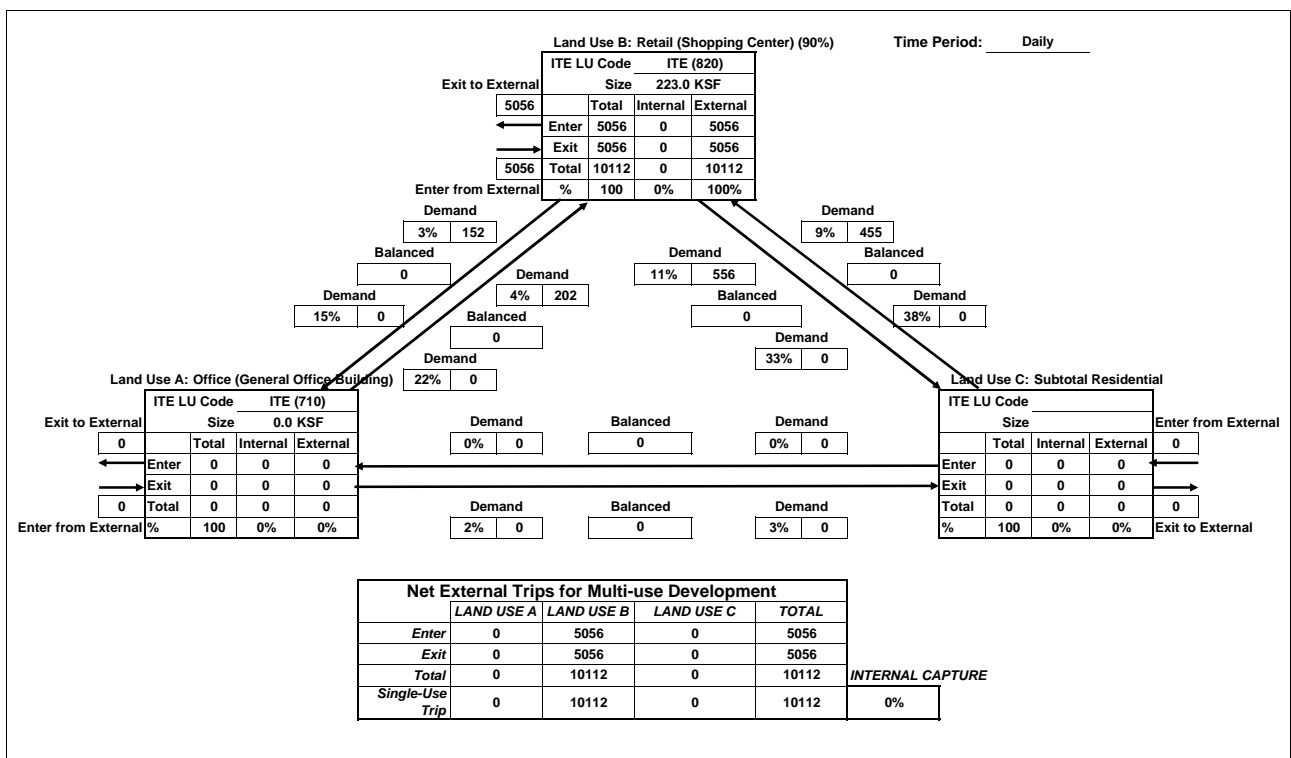
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 4: Bounded by Railyards, Huntington, Camille, Bercutt**

Name of Development: Railyards Study

Full Project with Maximum Residential

Time Period: Daily



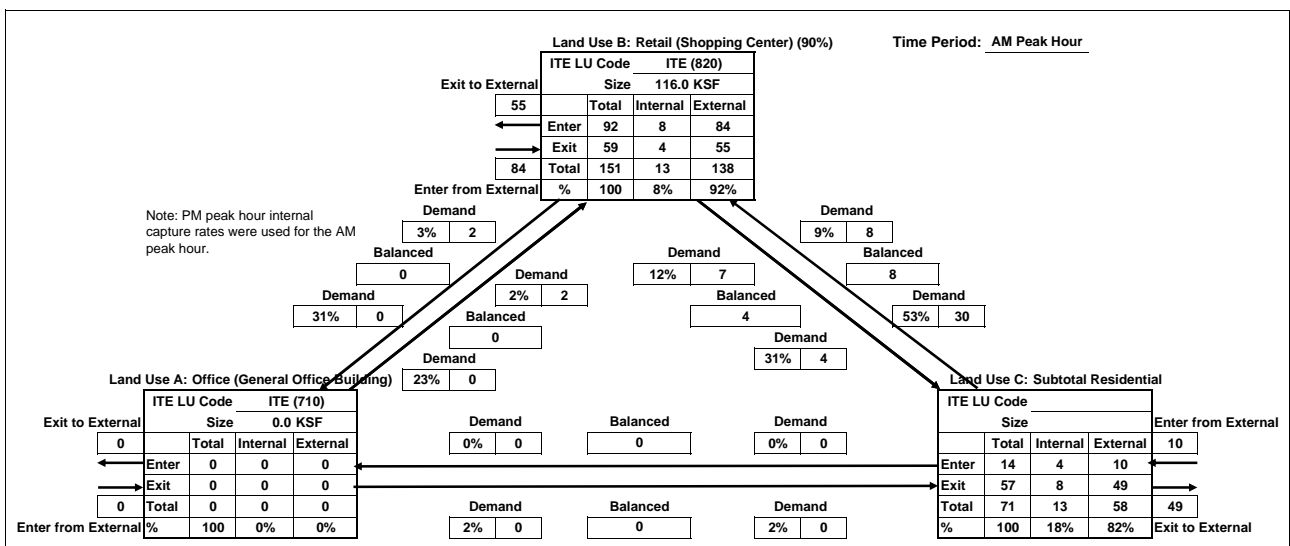
Analyst: Dowling

Date: 8/17/2007

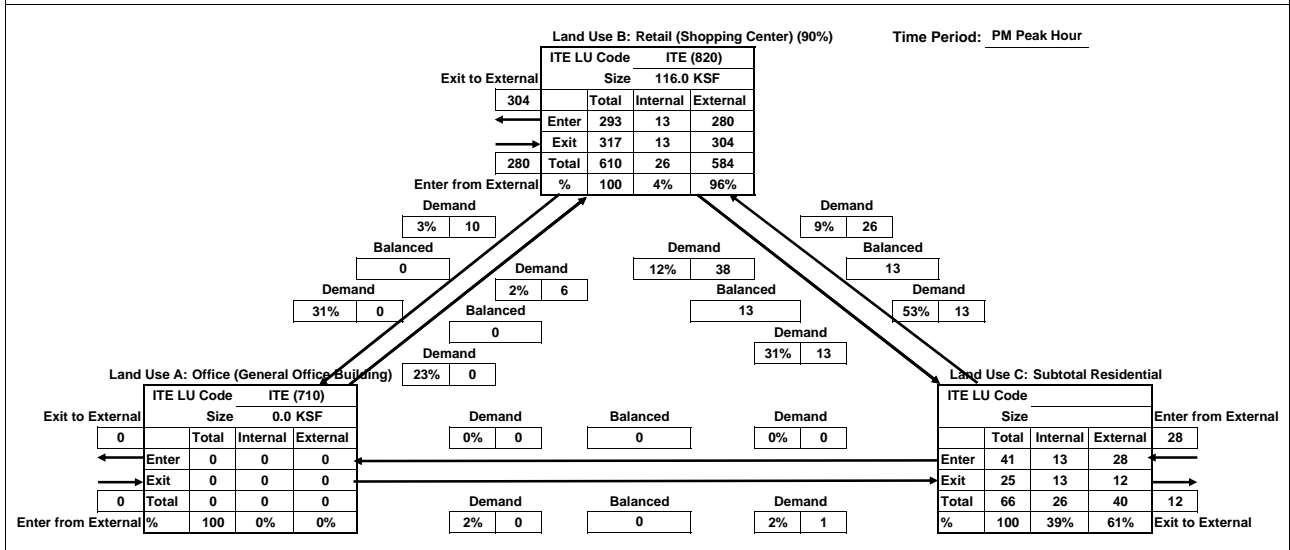
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study

Full Project with Maximum Residential



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	84	10	93	
Exit	0	55	49	103	
Total	0	138	58	197	INTERNAL CAPTURE
Single-Use Trip	0	151	71	222	11%



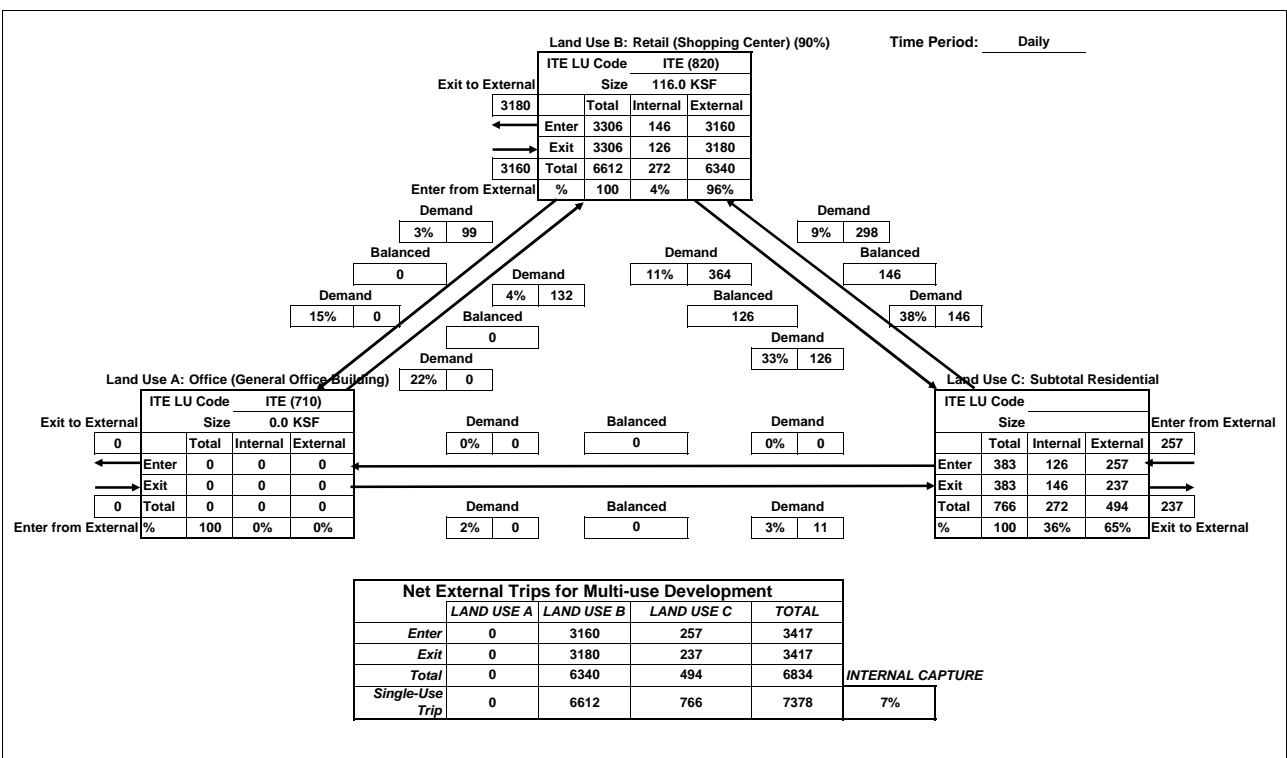
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	280	28	308	
Exit	0	304	12	316	
Total	0	584	40	624	INTERNAL CAPTURE
Single-Use Trip	0	610	66	676	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 5: Bounded by Railyards, Crocker, Camille, Huntington**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

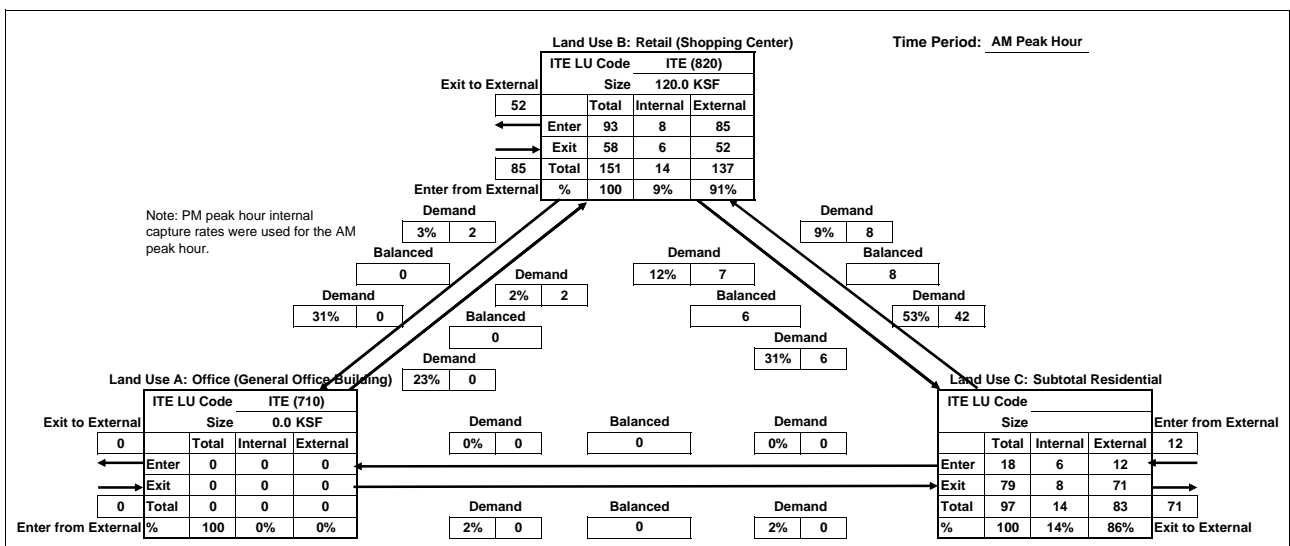


Analyst: Dowling

Date: 8/17/2007

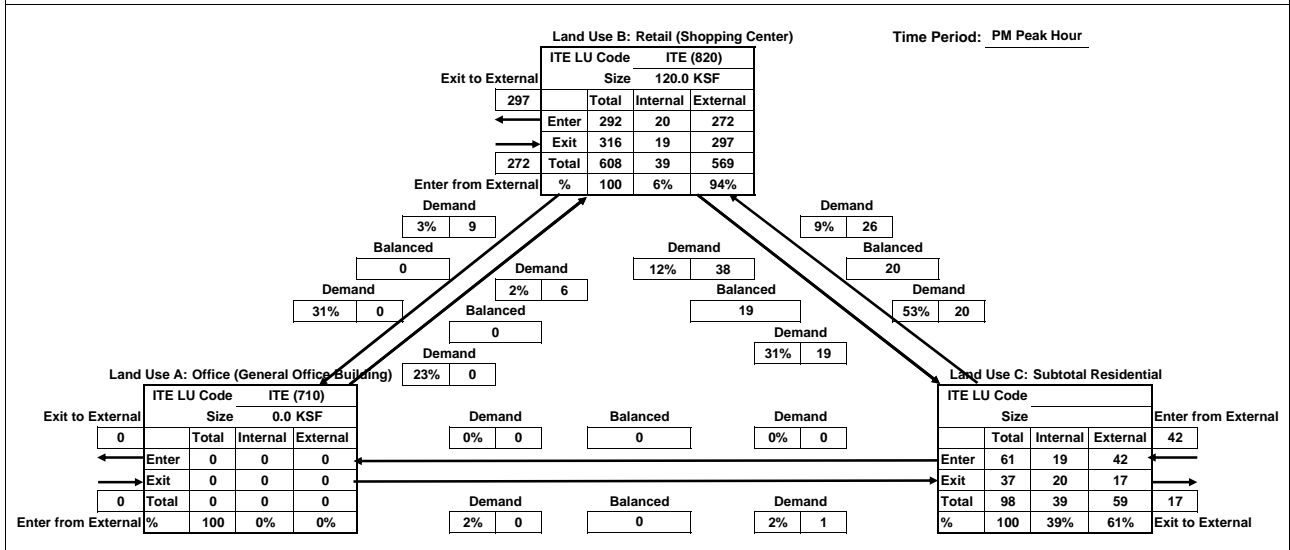
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
Full Project with Maximum Residential



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	85	12	97	
Exit	0	52	71	123	
Total	0	137	83	220	INTERNAL CAPTURE
Single-Use Trip	0	151	97	248	11%



Net External Trips for Multi-use Development

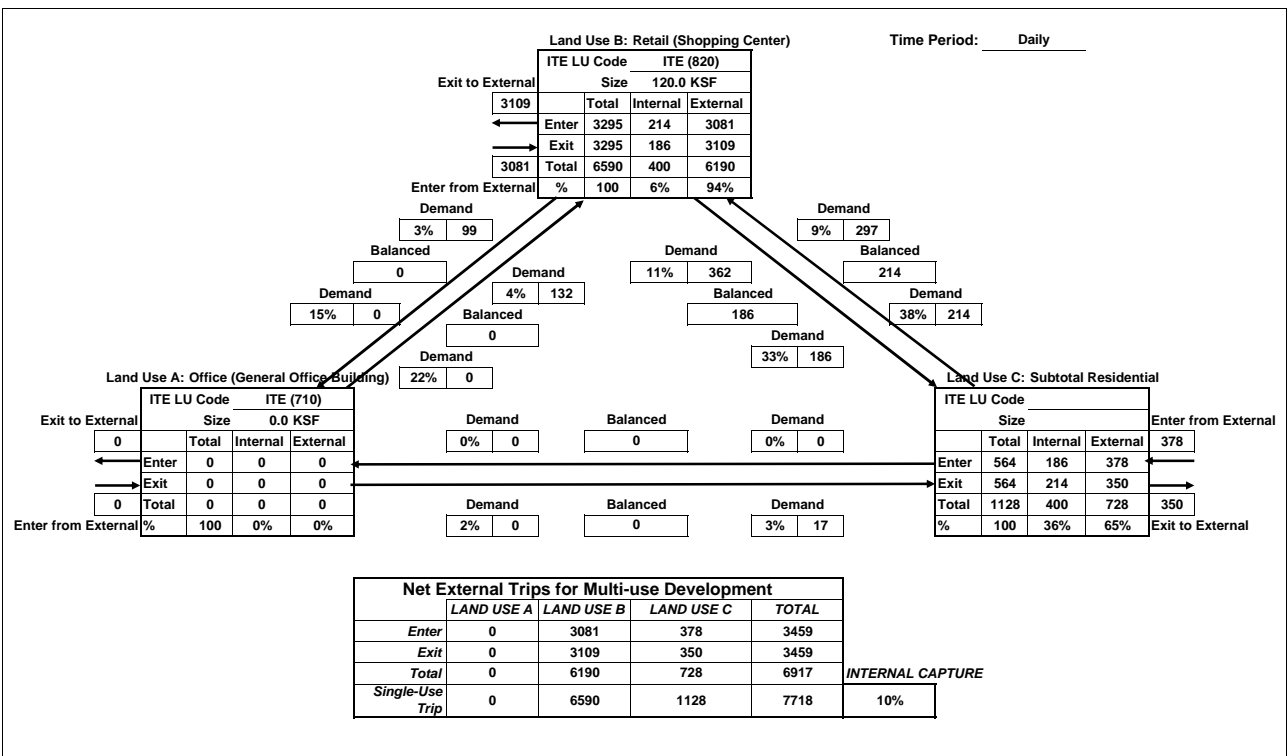
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	272	42	314	
Exit	0	297	17	314	
Total	0	569	59	629	INTERNAL CAPTURE
Single-Use Trip	0	608	98	706	11%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 6: Bounded by Railyards, 5th, Camille, Crocker**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

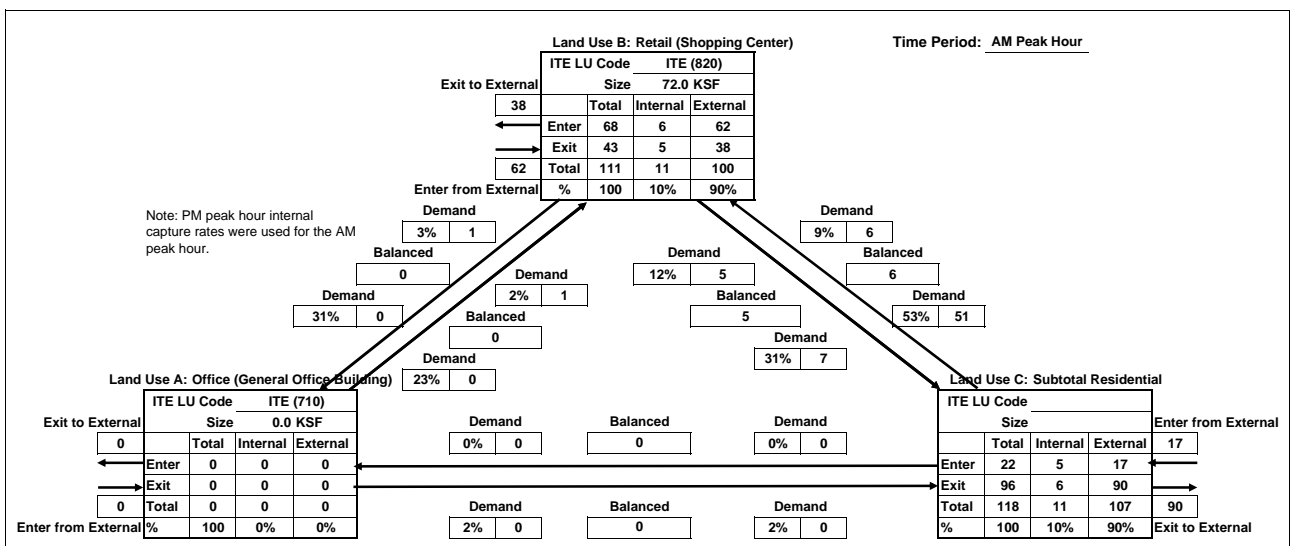


Analyst: Dowling

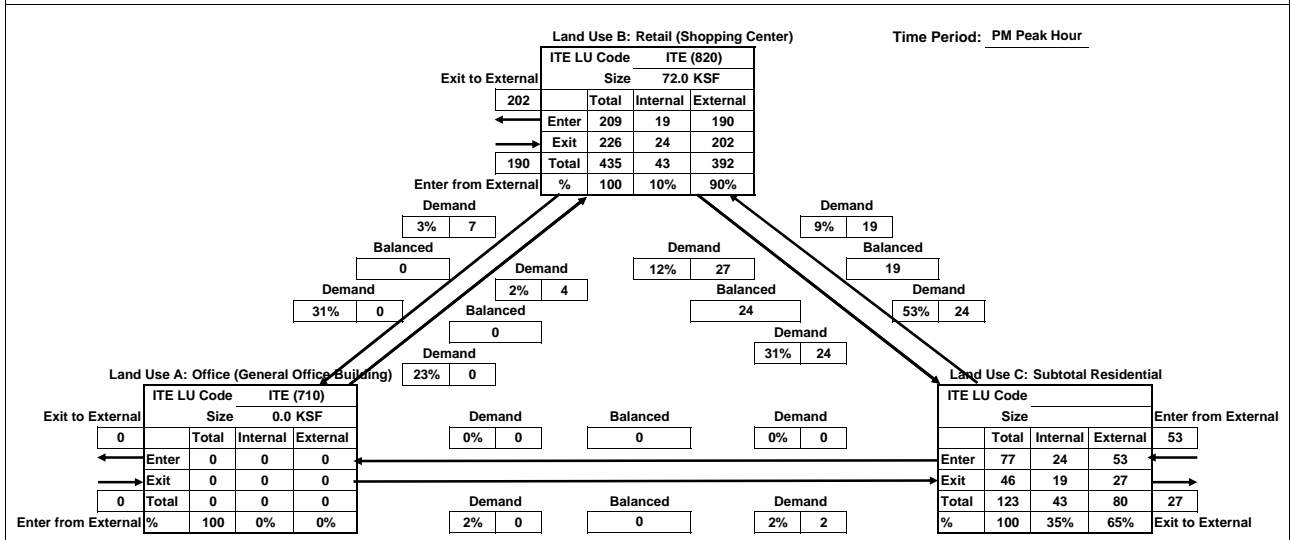
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
Full Project with Maximum Residential



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	62	17	79	
Exit	0	38	90	128	
Total	0	100	107	206	
Single-Use Trip	0	111	118	229	INTERNAL CAPTURE
					10%



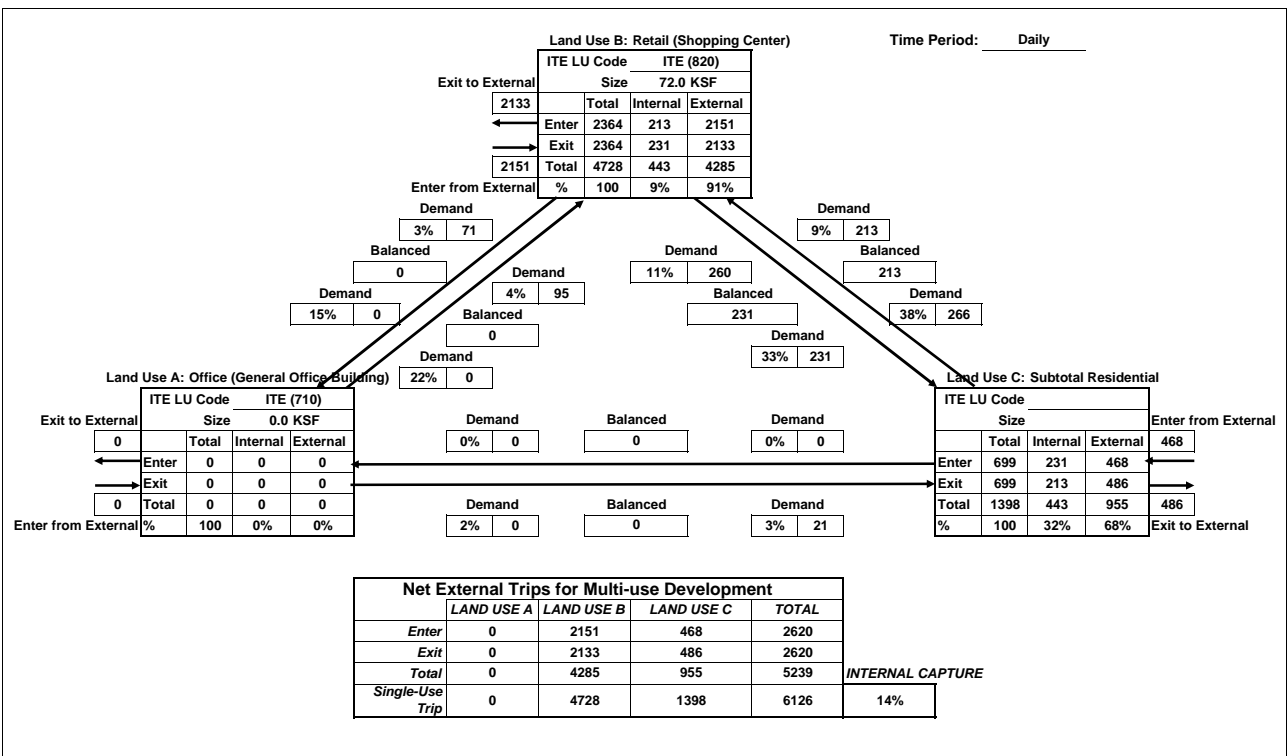
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	190	53	243	
Exit	0	202	27	229	
Total	0	392	80	473	
Single-Use Trip	0	435	123	558	INTERNAL CAPTURE
					15%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 7: Bounded by Railyards, 6th, Camille, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

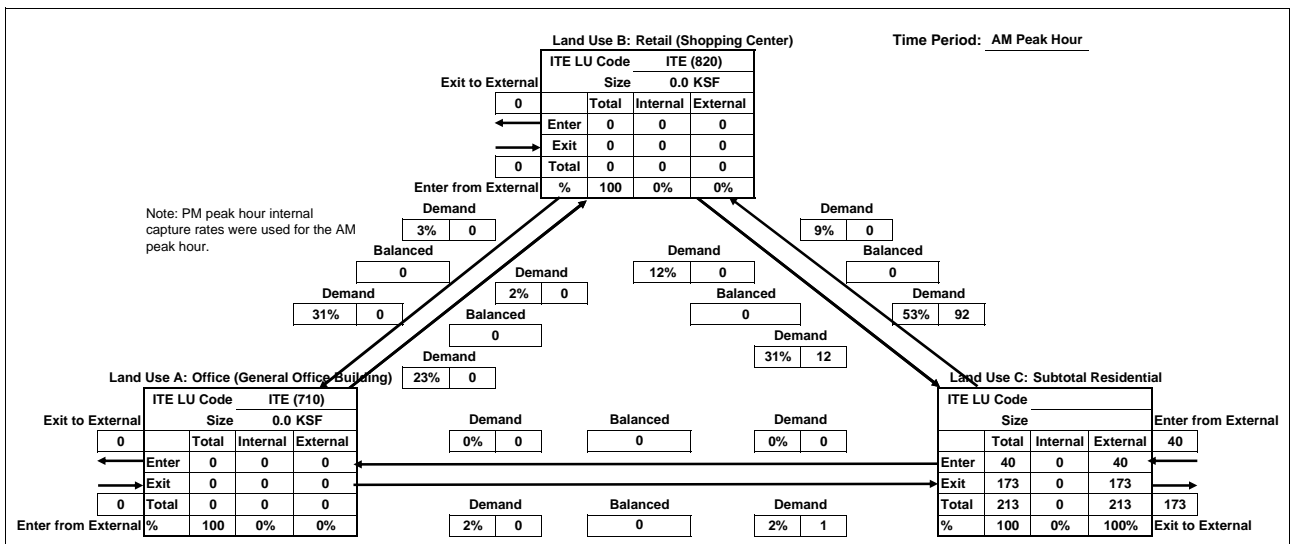
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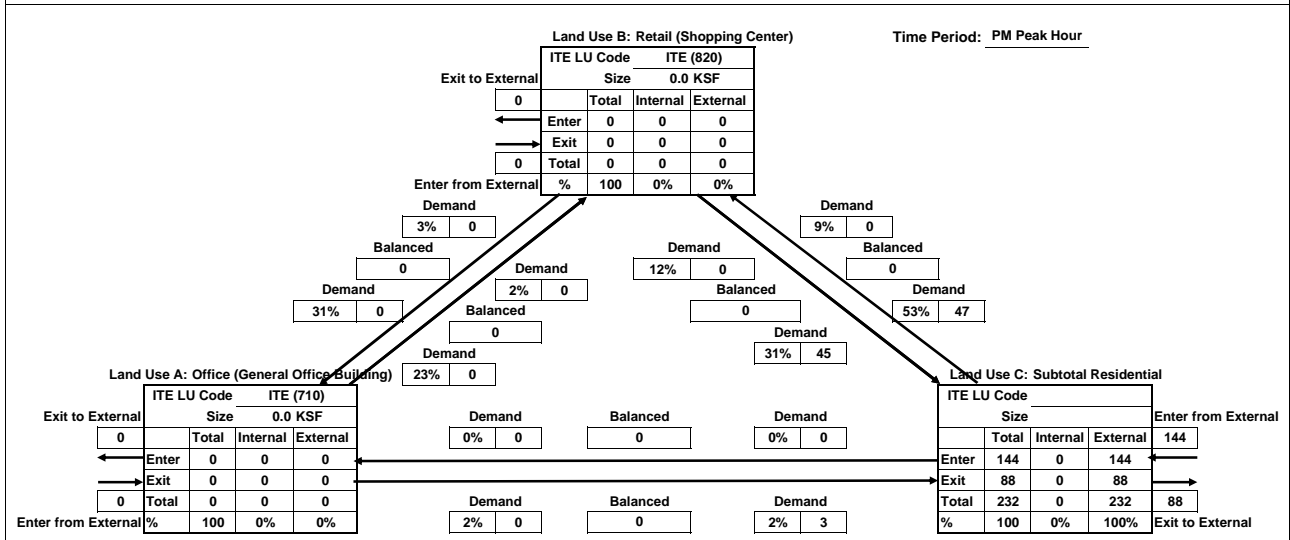
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 8: Bounded by Railyards, 7th, Rail Lines, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Residential



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	40	40	
Exit	0	0	173	173	
Total	0	0	213	213	INTERNAL CAPTURE
Single-Use Trip	0	0	213	213	0%



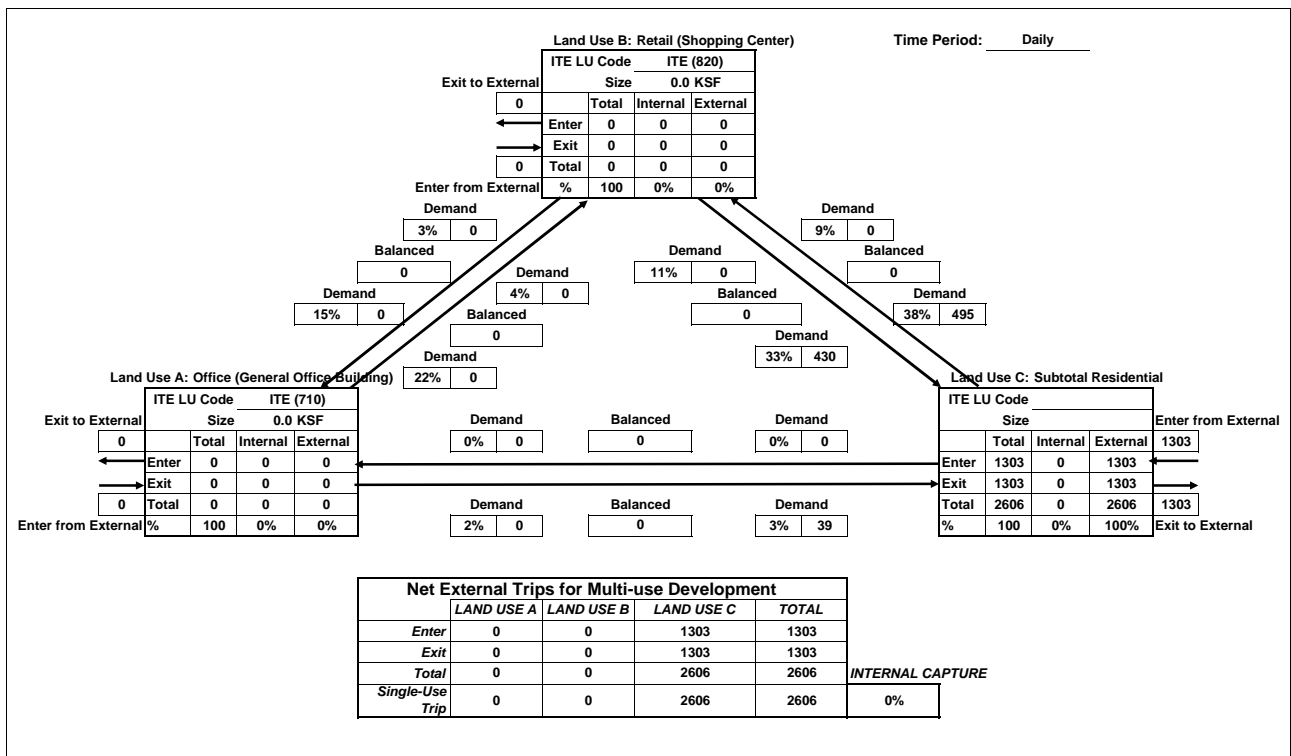
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	144	144	
Exit	0	0	88	88	
Total	0	0	232	232	INTERNAL CAPTURE
Single-Use Trip	0	0	232	232	0%

Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 8: Bounded by Railyards, 7th, Rail Lines, 6th

Name of Development: Railyards Study
Full Project with Maximum Residential

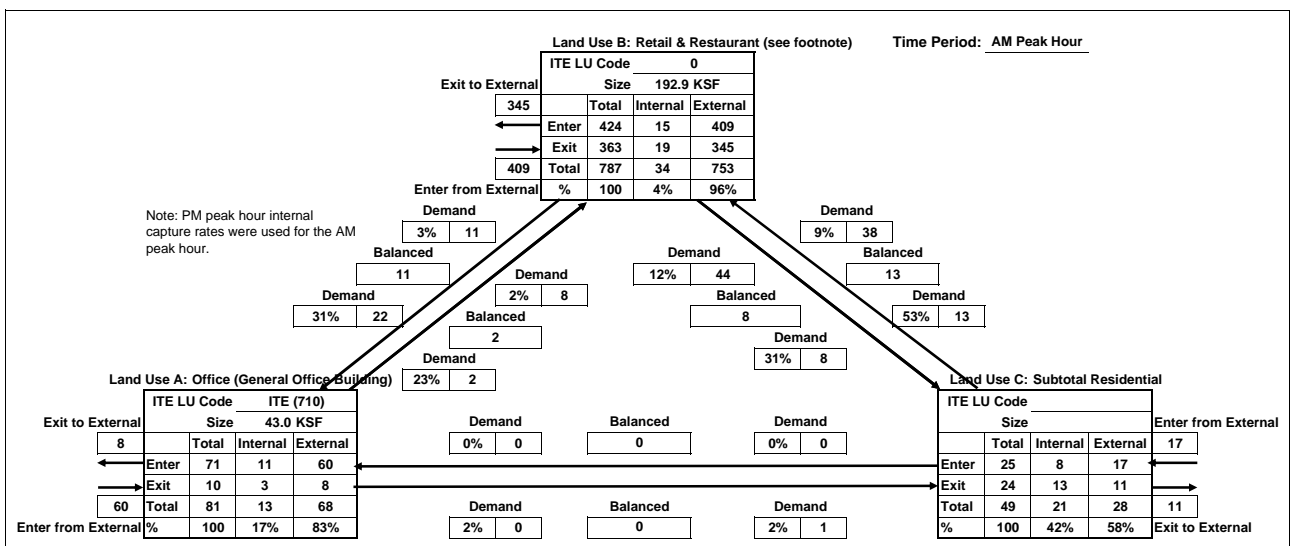
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

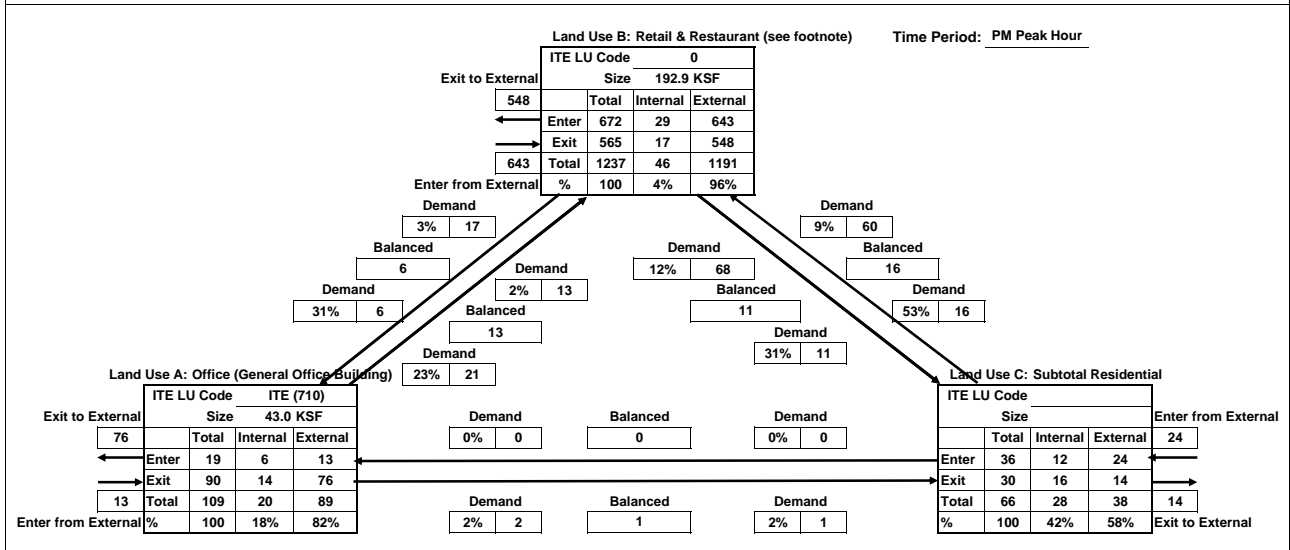
**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5**

Name of Development: Railyards Study
 Full Project with Maximum Residential



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	60	409	17	486	
Exit	8	345	11	364	
Total	68	753	28	849	INTERNAL CAPTURE
Single-Use Trip	81	787	49	917	7%



Net External Trips for Multi-use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	13	643	24	680	
Exit	76	548	14	638	
Total	89	1191	38	1318	INTERNAL CAPTURE
Single-Use Trip	109	1237	66	1412	7%

Analyst: Dowling

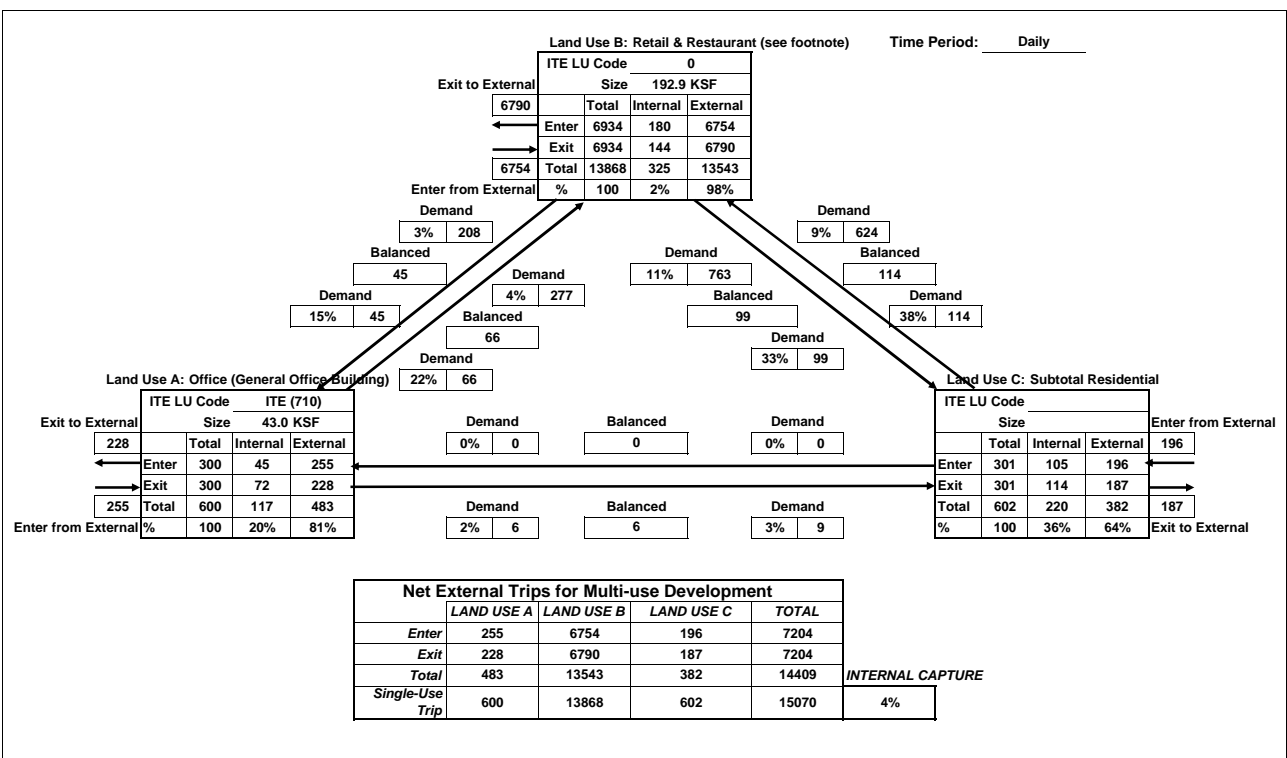
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 9: Bounded by Camille, Lots 15a, 20, 22, Rail Lines, I-5

Name of Development: Railyards Study

Full Project with Maximum Residential

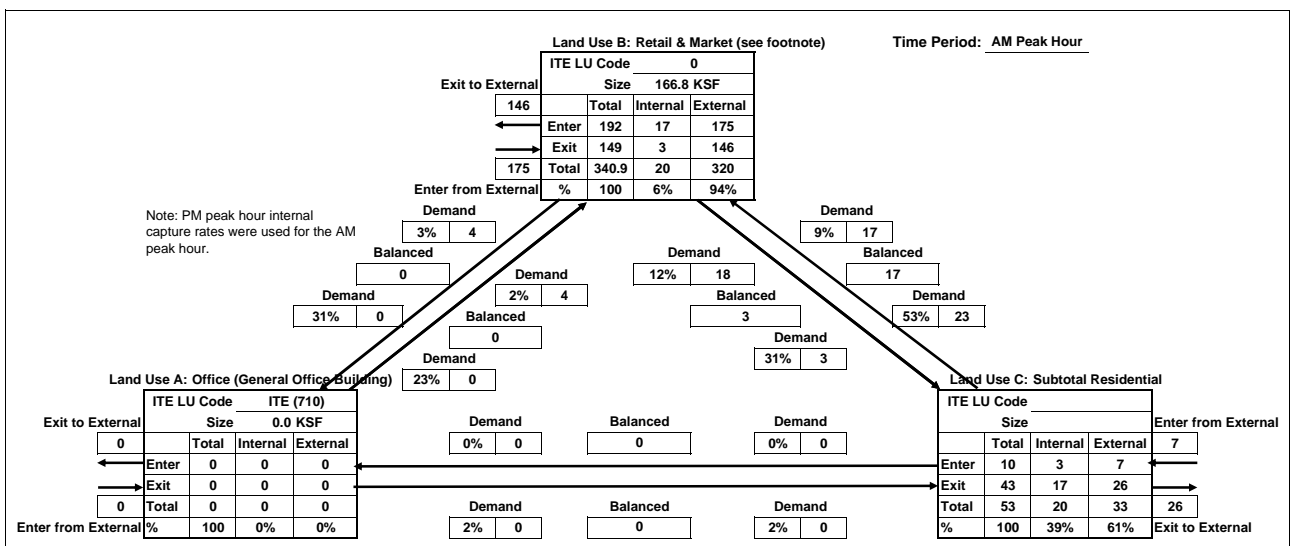
Time Period: Daily



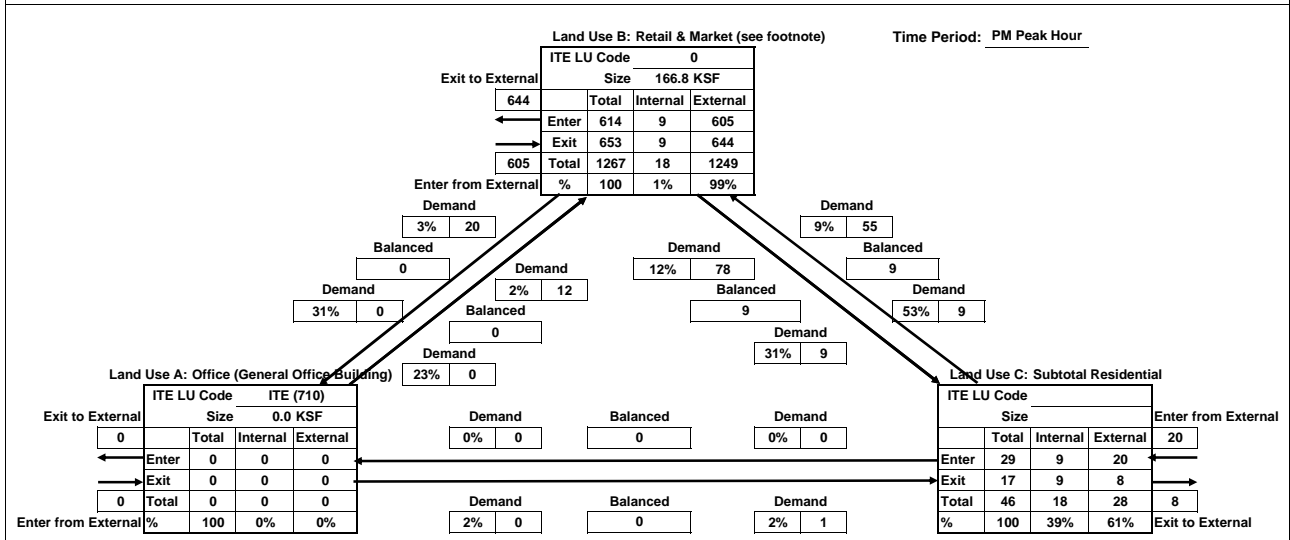
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	175	7	182	
Exit	0	146	26	171	
Total	0	320	33	353	INTERNAL CAPTURE
Single-Use Trip	0	340.9035	53	394	10%



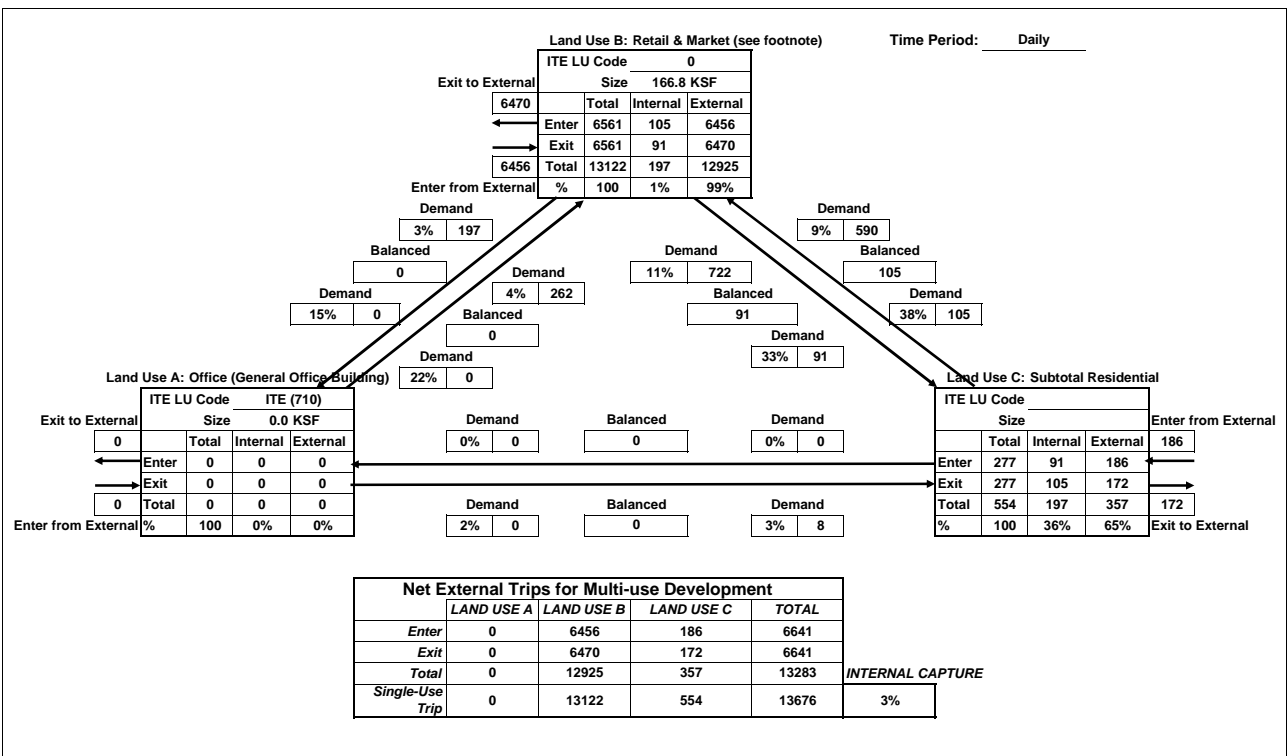
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	605	20	625	
Exit	0	644	8	652	
Total	0	1249	28	1277	INTERNAL CAPTURE
Single-Use Trip	0	1267	46	1313	3%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 10: Bounded by Camille, 5th, Rail Lines, Lots 23 thru 26**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

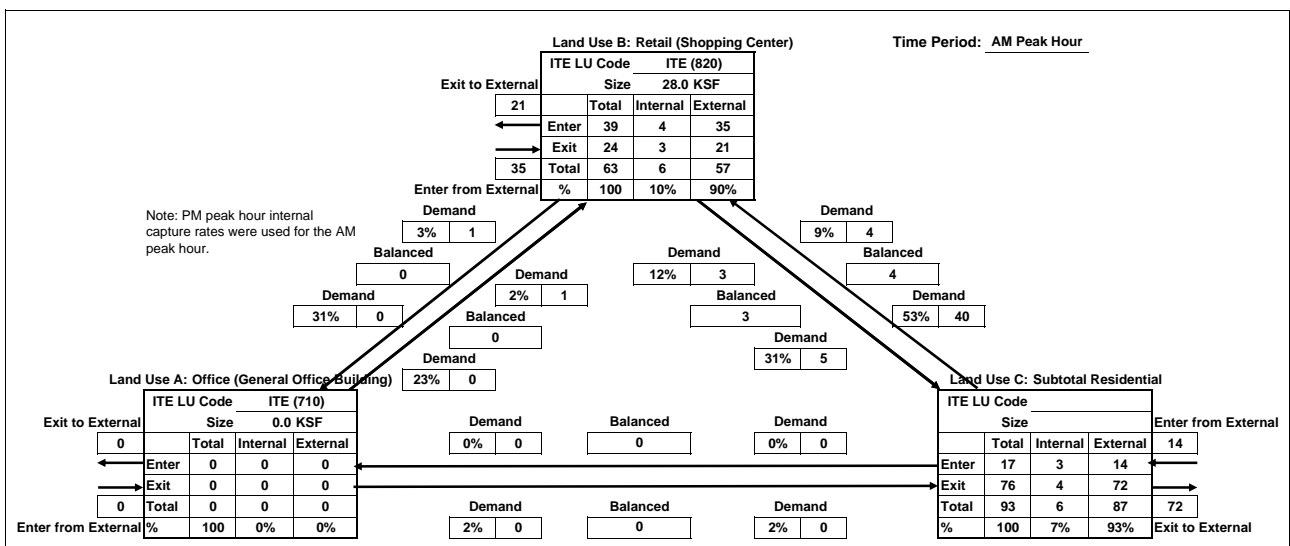


Analyst: Dowling

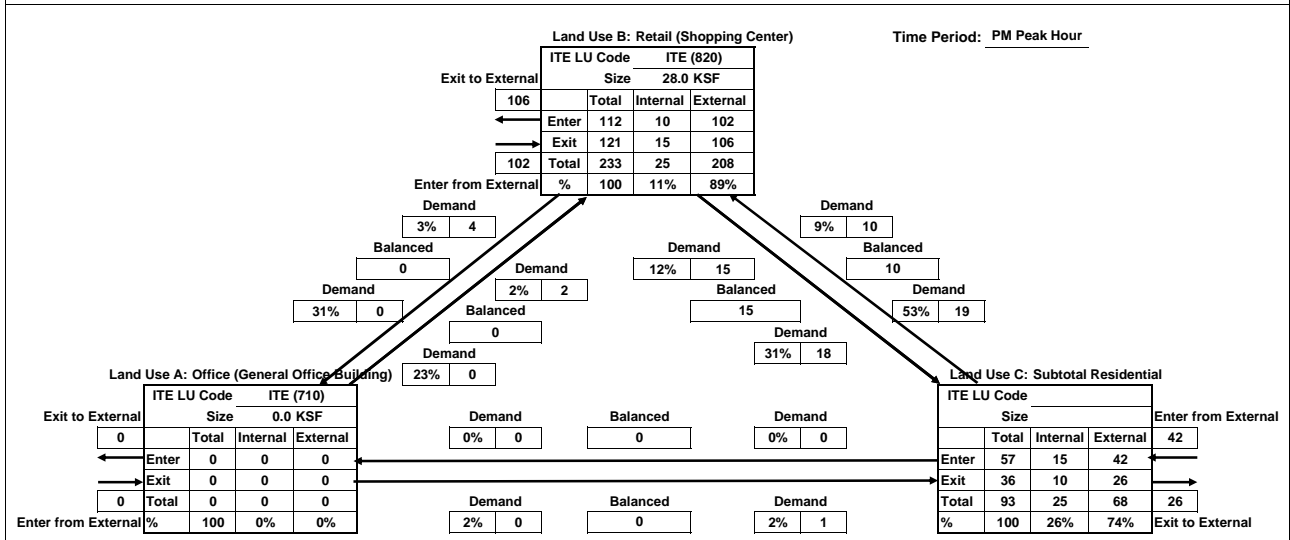
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	35	14	50	
Exit	0	21	72	94	
Total	0	57	87	143	INTERNAL CAPTURE
Single-Use Trip	0	63	93	156	8%



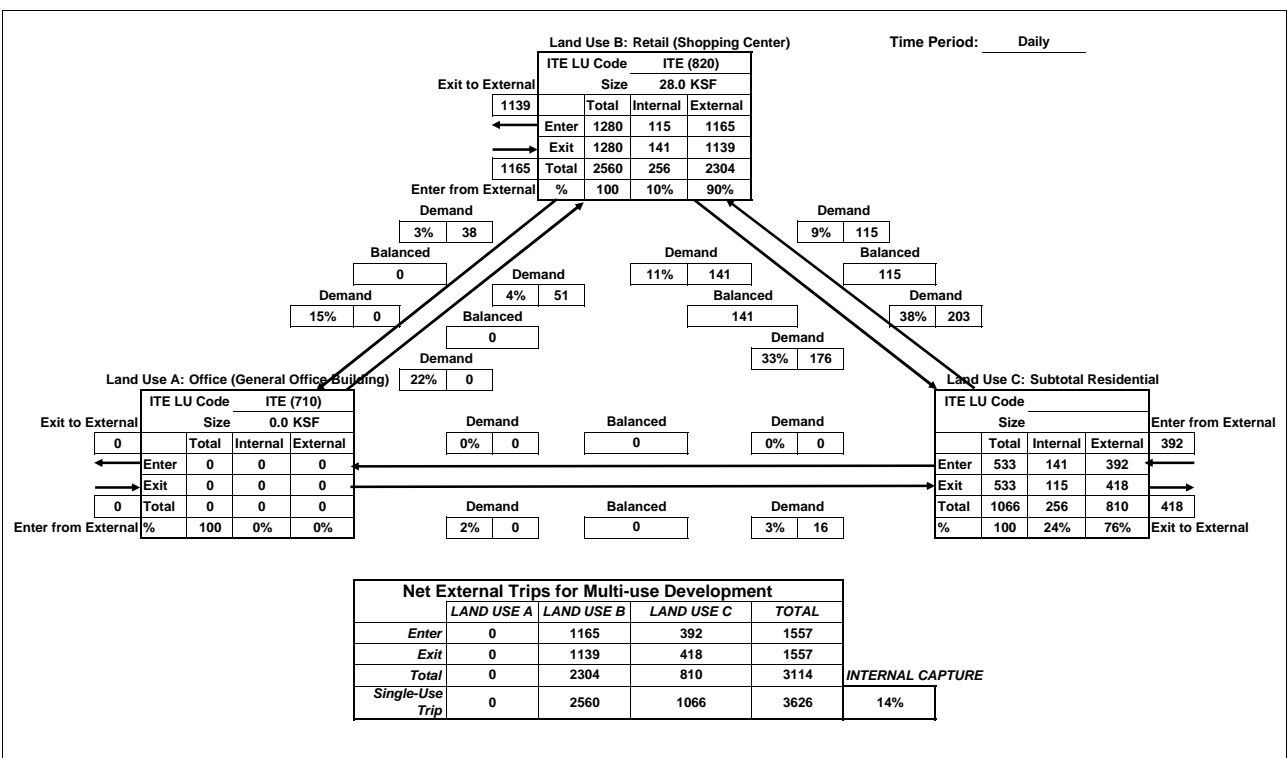
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	102	42	144	
Exit	0	106	26	132	
Total	0	208	68	277	INTERNAL CAPTURE
Single-Use Trip	0	233	93	326	15%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 11: Bounded by Camille, 6th, Rail Lines, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

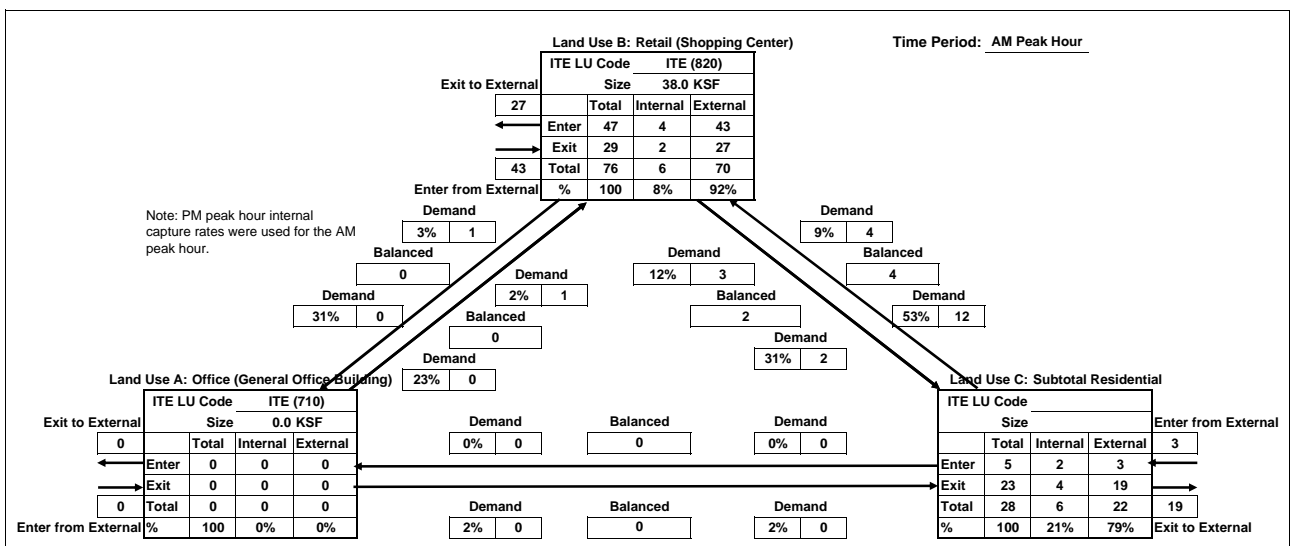
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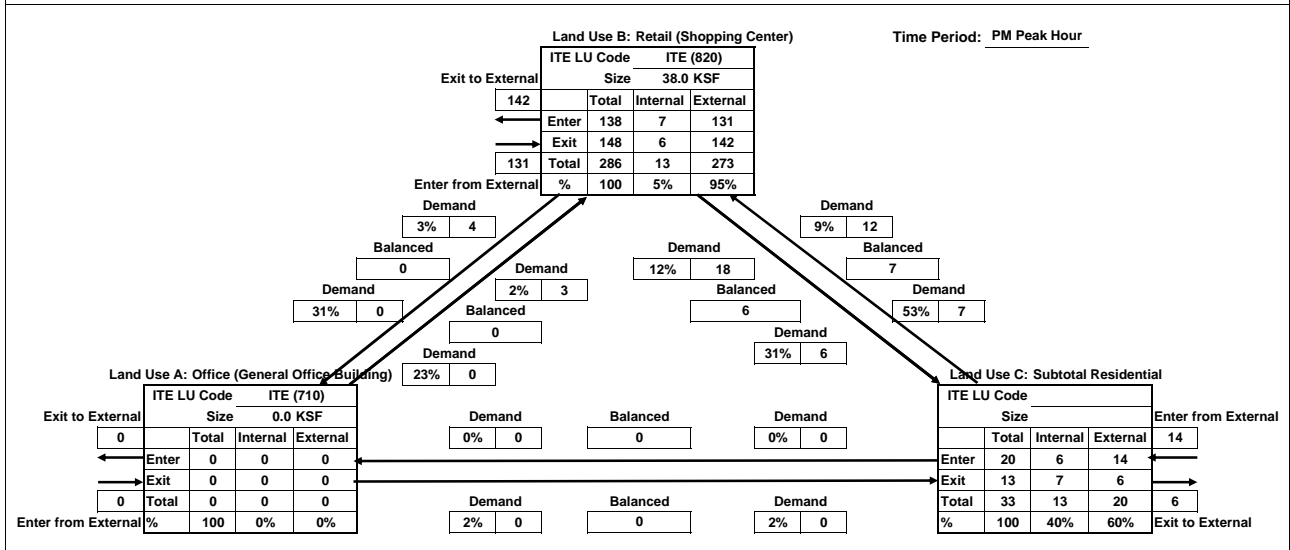
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Full Project with Maximum Residential



Net External Trips for Multi-use Development				
	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	0	43	3	46
Exit	0	27	19	46
Total	0	70	22	92
Single-Use Trip	0	76	28	104
				INTERNAL CAPTURE
				11%



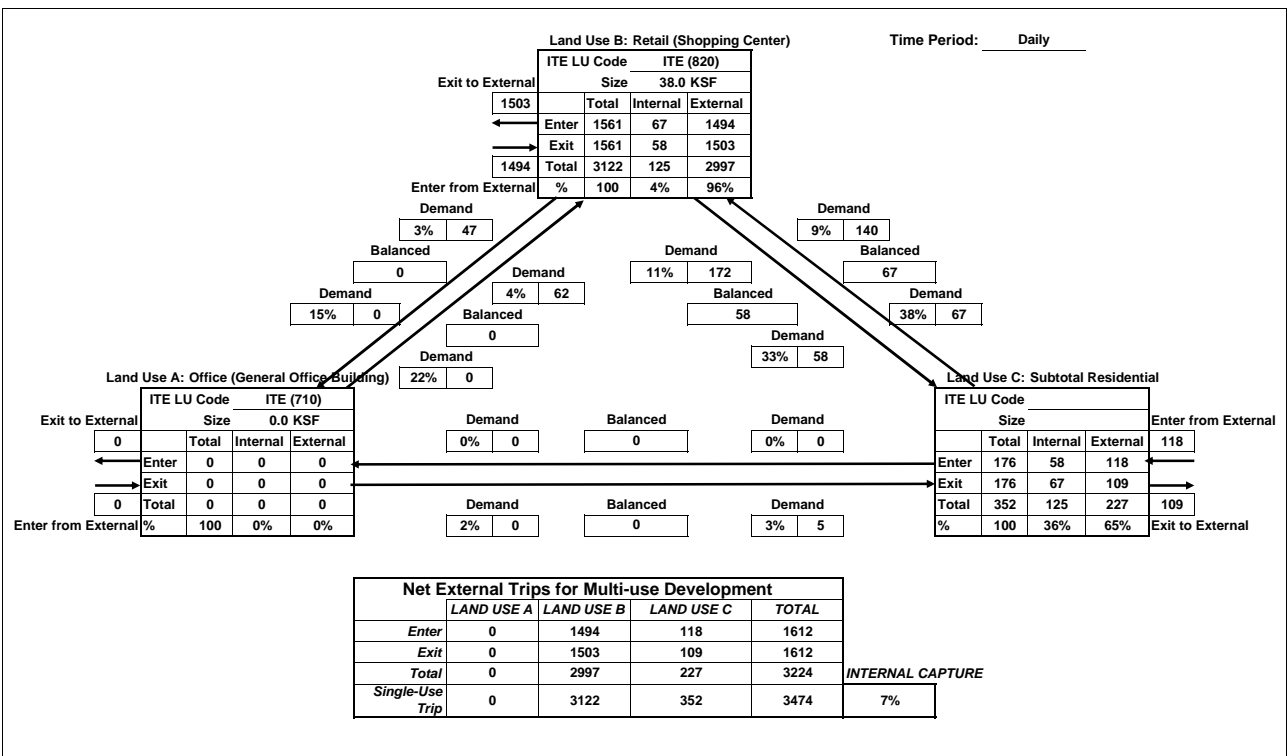
Net External Trips for Multi-use Development				
	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	0	131	14	145
Exit	0	142	6	148
Total	0	273	20	293
Single-Use Trip	0	286	33	319
				INTERNAL CAPTURE
				8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 12: Bounded by Rail Lines, 5th, I Street, LRT**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

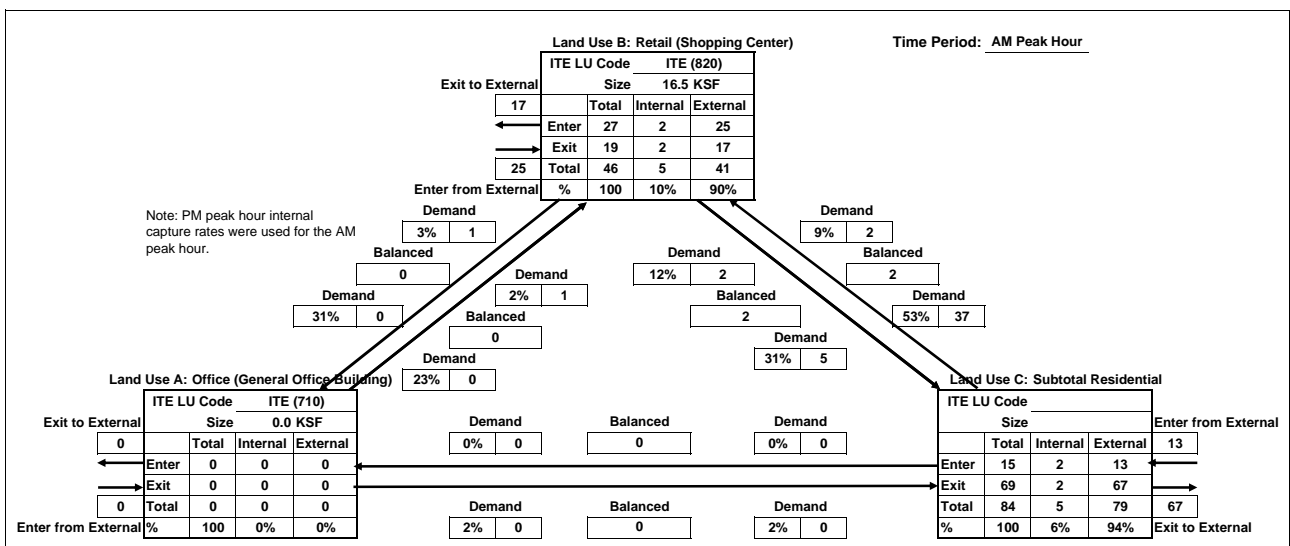


Analyst: Dowling

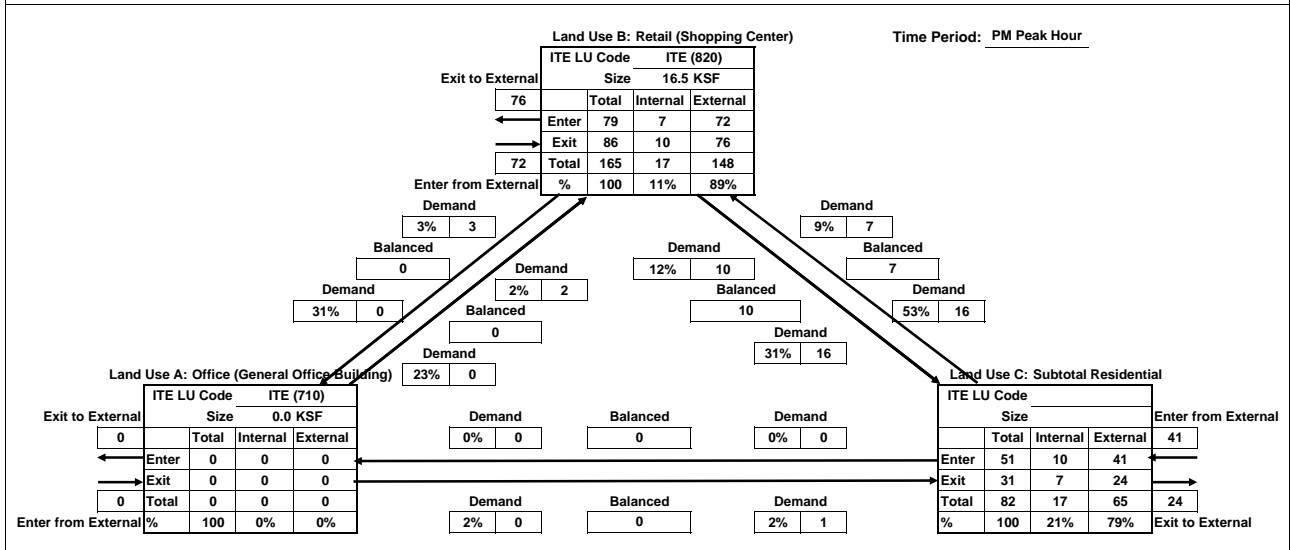
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
Full Project with Maximum Residential



Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	25	13	37	
Exit	0	17	67	83	
Total	0	41	79	121	INTERNAL CAPTURE
Single-Use Trip	0	46	84	130	7%



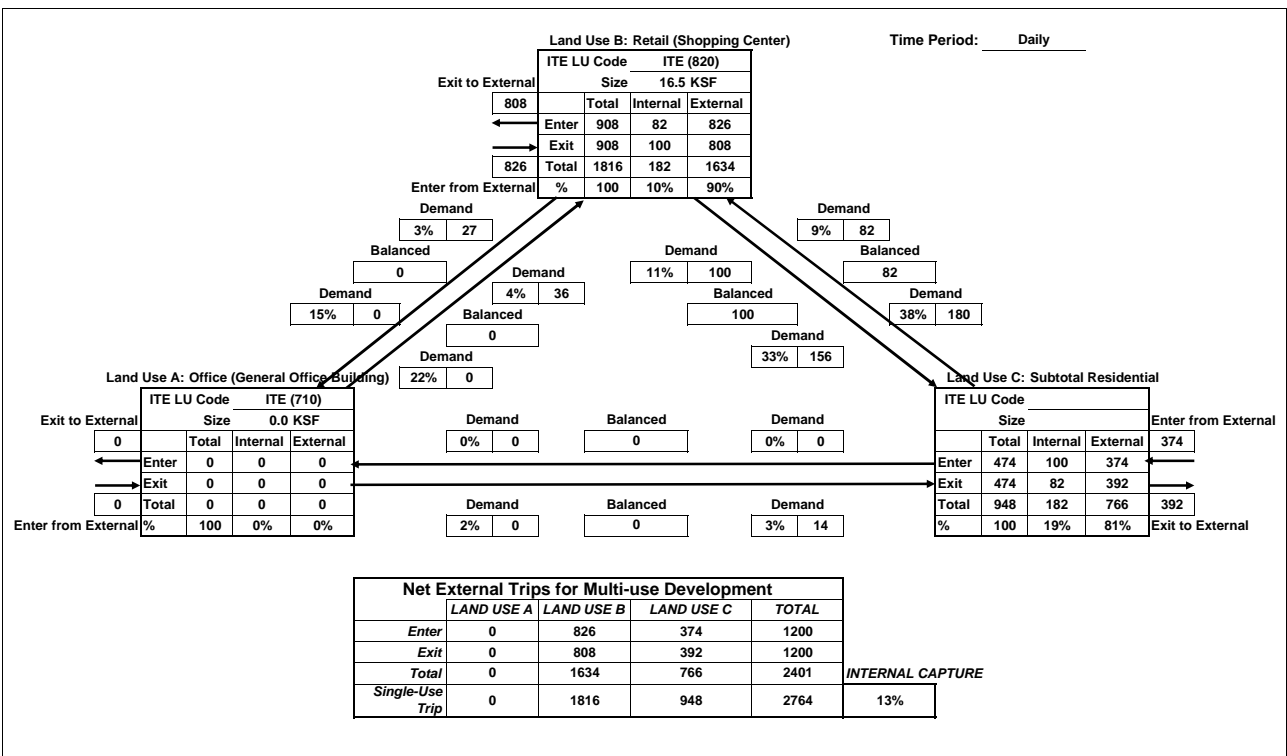
Net External Trips for Multi-use Development					
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	72	41	113	
Exit	0	76	24	100	
Total	0	148	65	212	INTERNAL CAPTURE
Single-Use Trip	0	165	82	247	14%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 13: Bounded by Rail Lines, 6th, G, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

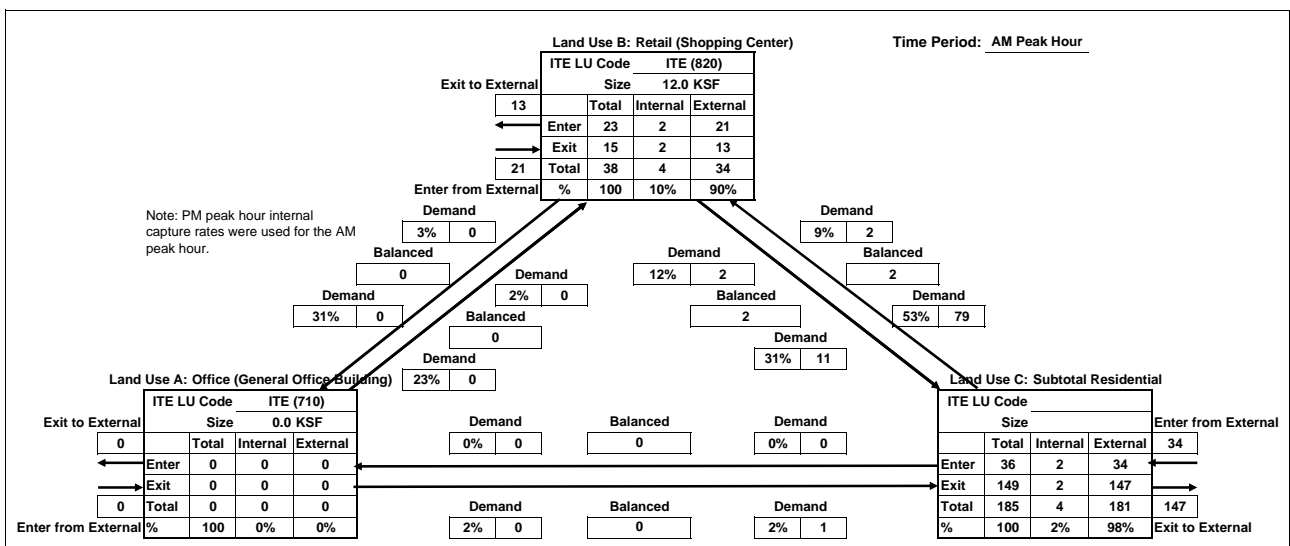


Analyst: Dowling

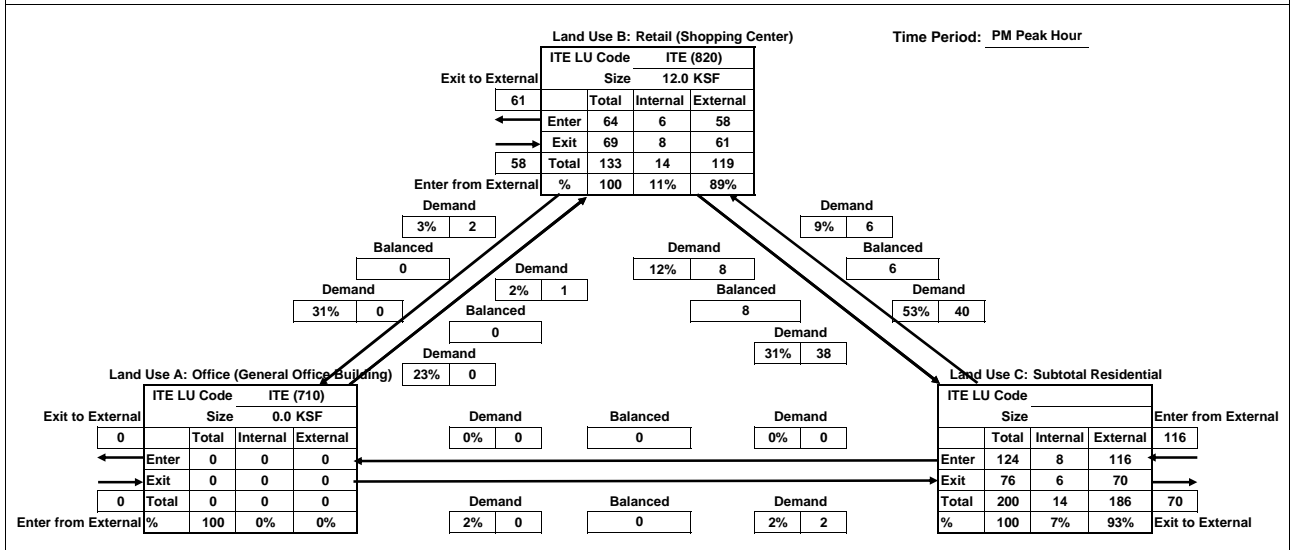
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	21	34	55	
Exit	0	13	147	160	
Total	0	34	181	215	INTERNAL CAPTURE
Single-Use Trip	0	38	185	223	3%



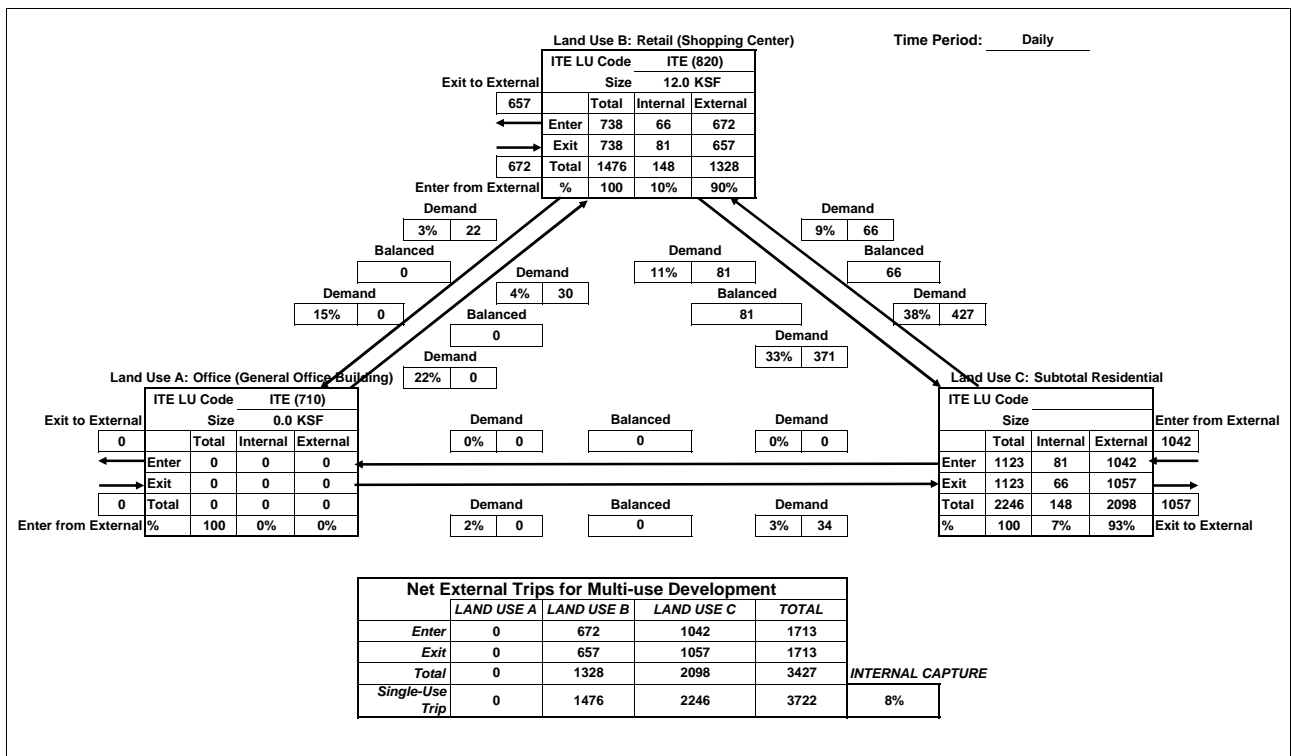
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	58	116	174	
Exit	0	61	70	131	
Total	0	119	186	305	INTERNAL CAPTURE
Single-Use Trip	0	133	200	333	8%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 14: Bounded by Rail Lines, 7th, G, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

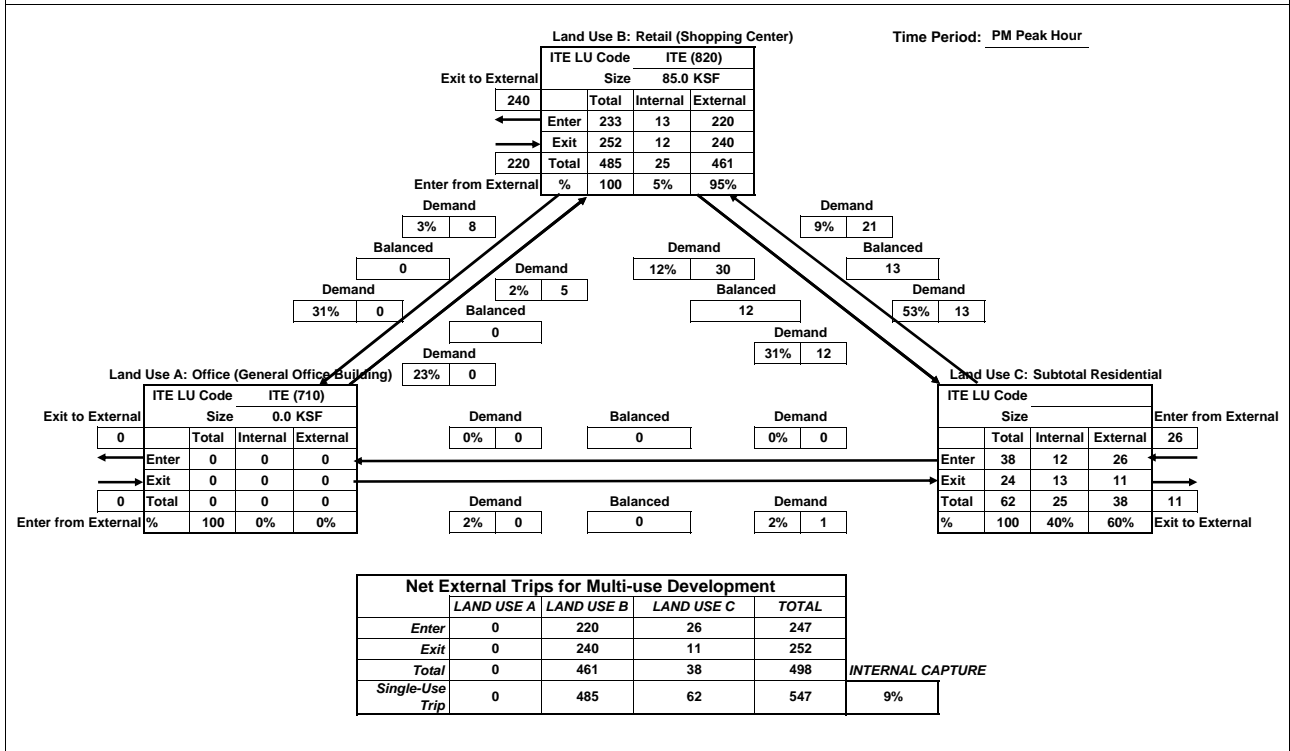
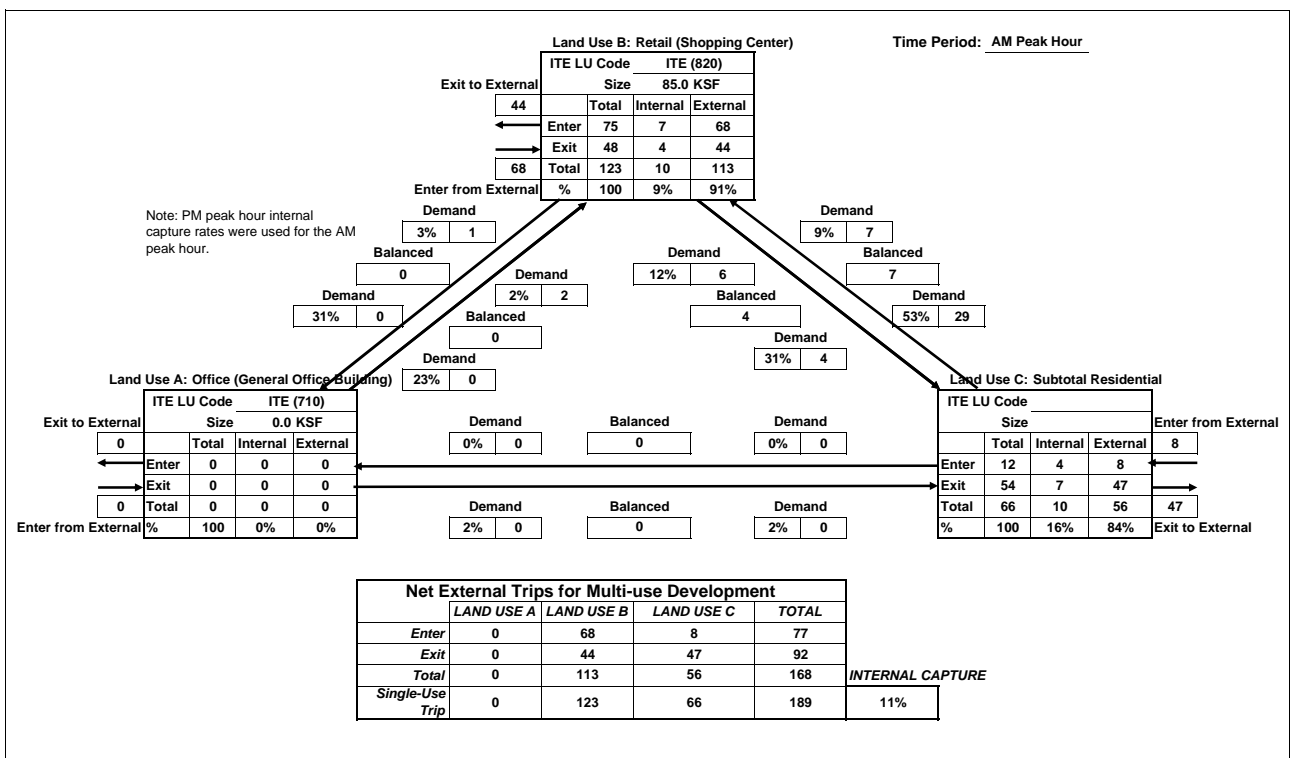


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
Full Project with Maximum Residential

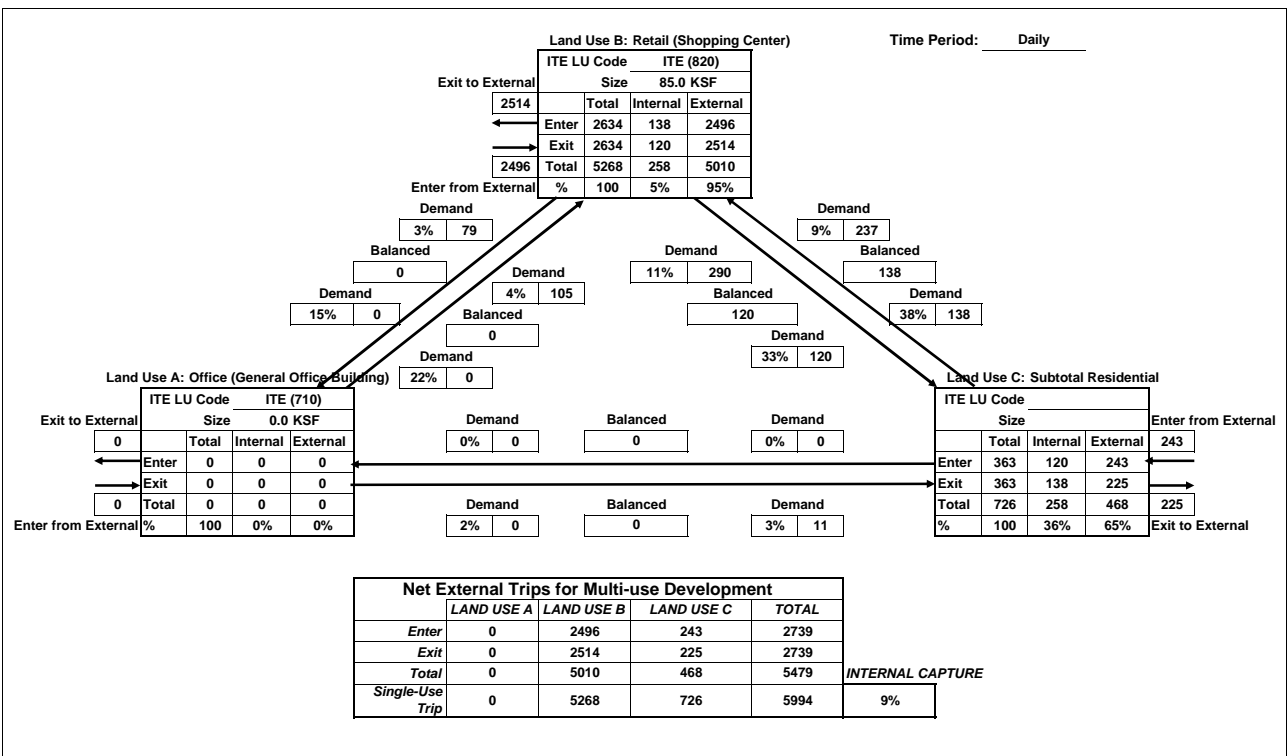


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 15: Bounded by G, 6th, H, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

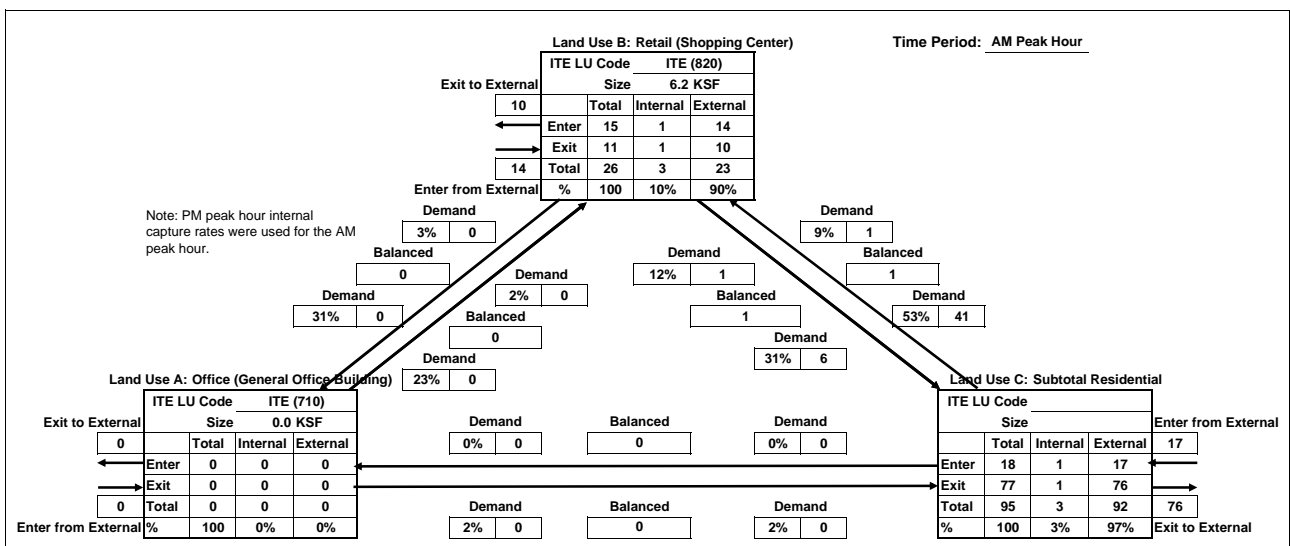
Time Period: Daily



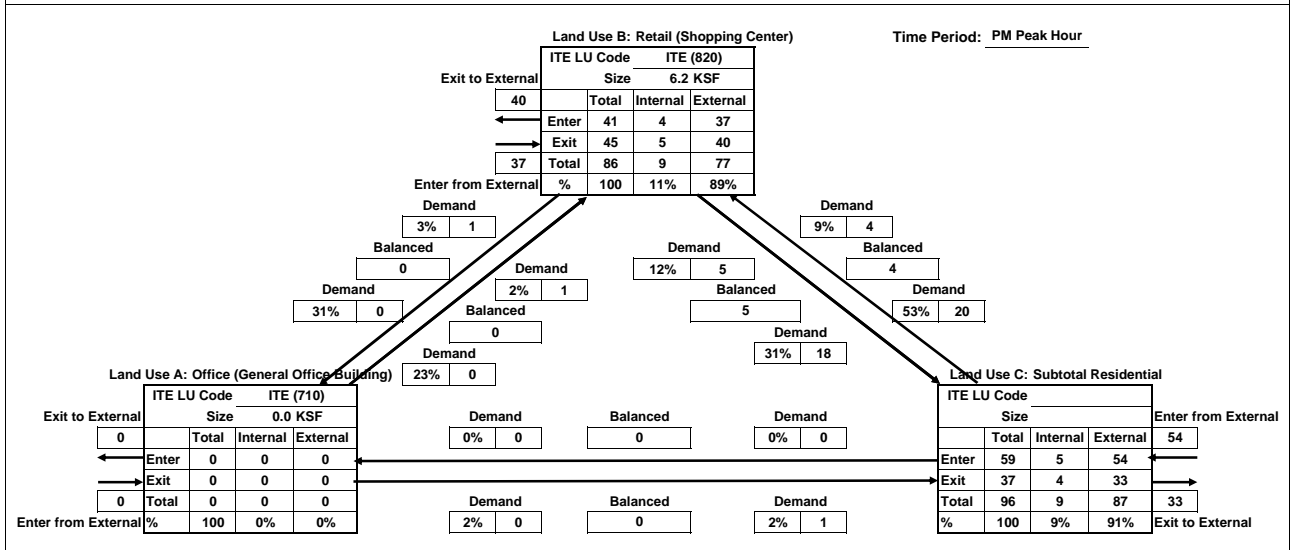
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study
 Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	14	17	30	
Exit	0	10	76	85	
Total	0	23	92	116	INTERNAL CAPTURE
Single-Use Trip	0	26	95	121	4%



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	37	54	91	
Exit	0	40	33	73	
Total	0	77	87	164	INTERNAL CAPTURE
Single-Use Trip	0	86	96	182	10%

Analyst: Dowling

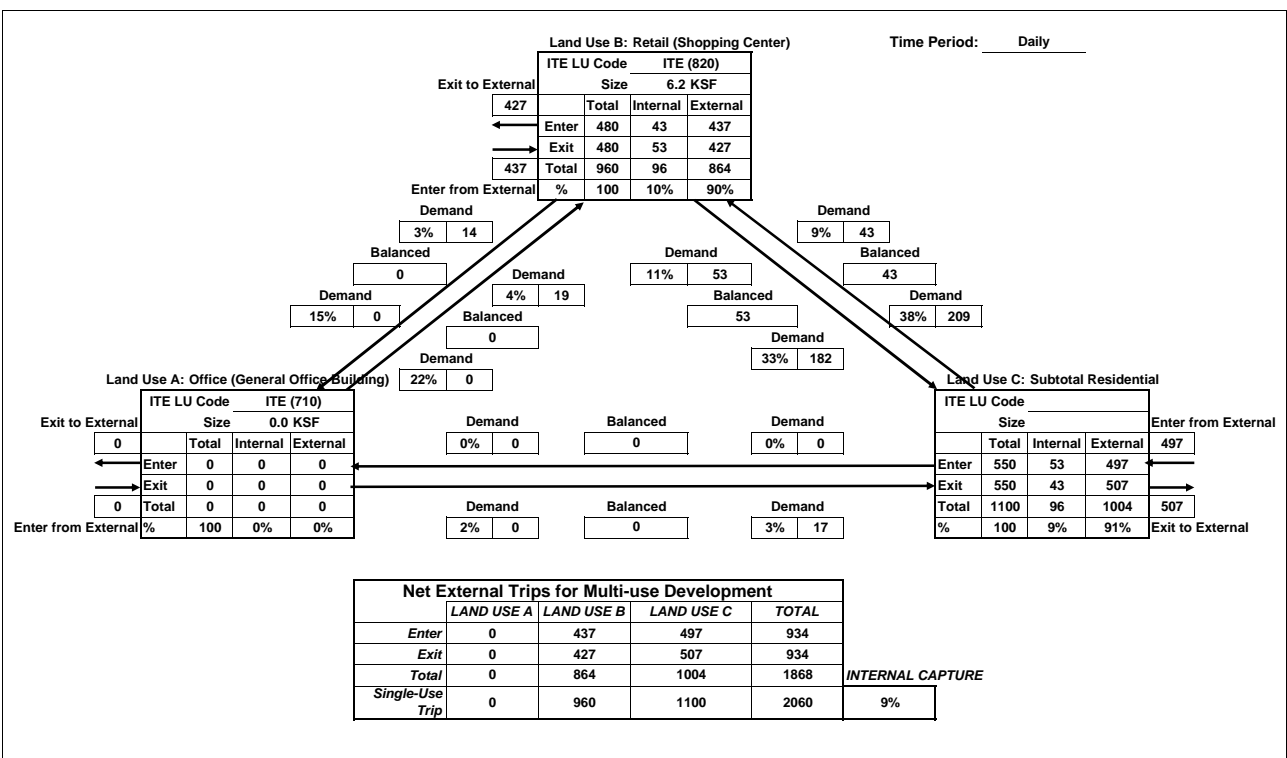
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 16: Bounded by G, 7th, Property Boundary, 6th**

Name of Development: Railyards Study

Full Project with Maximum Residential

Time Period: Daily



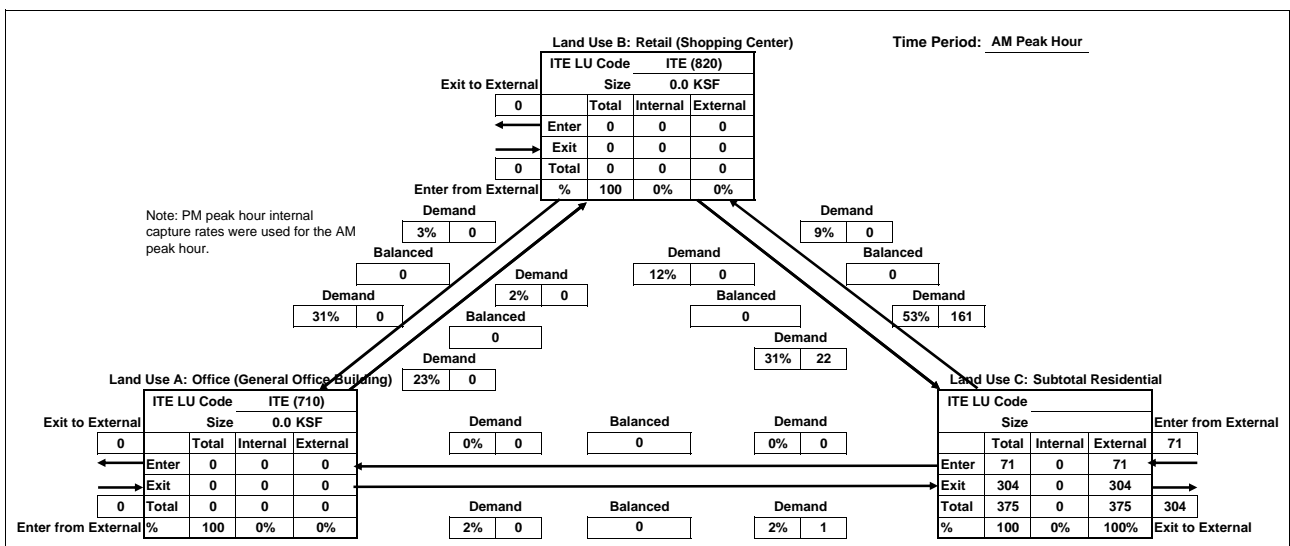
Analyst: Dowling

Date: 8/17/2007

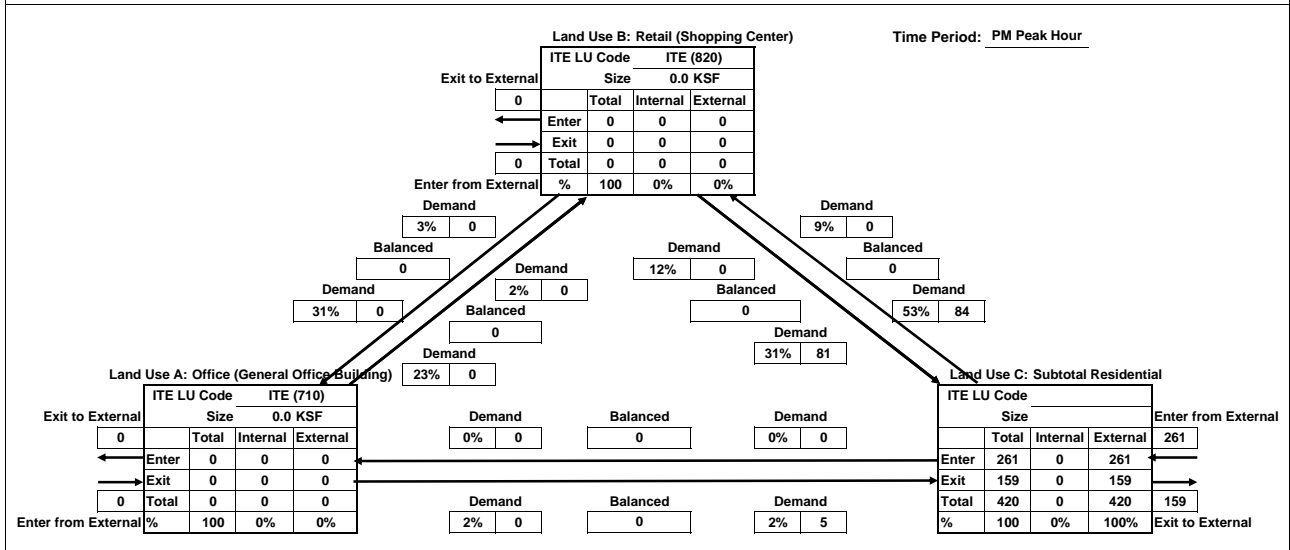
**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study

Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	71	71	
Exit	0	0	304	304	
Total	0	0	375	375	INTERNAL CAPTURE
Single-Use Trip	0	0	375	375	0%



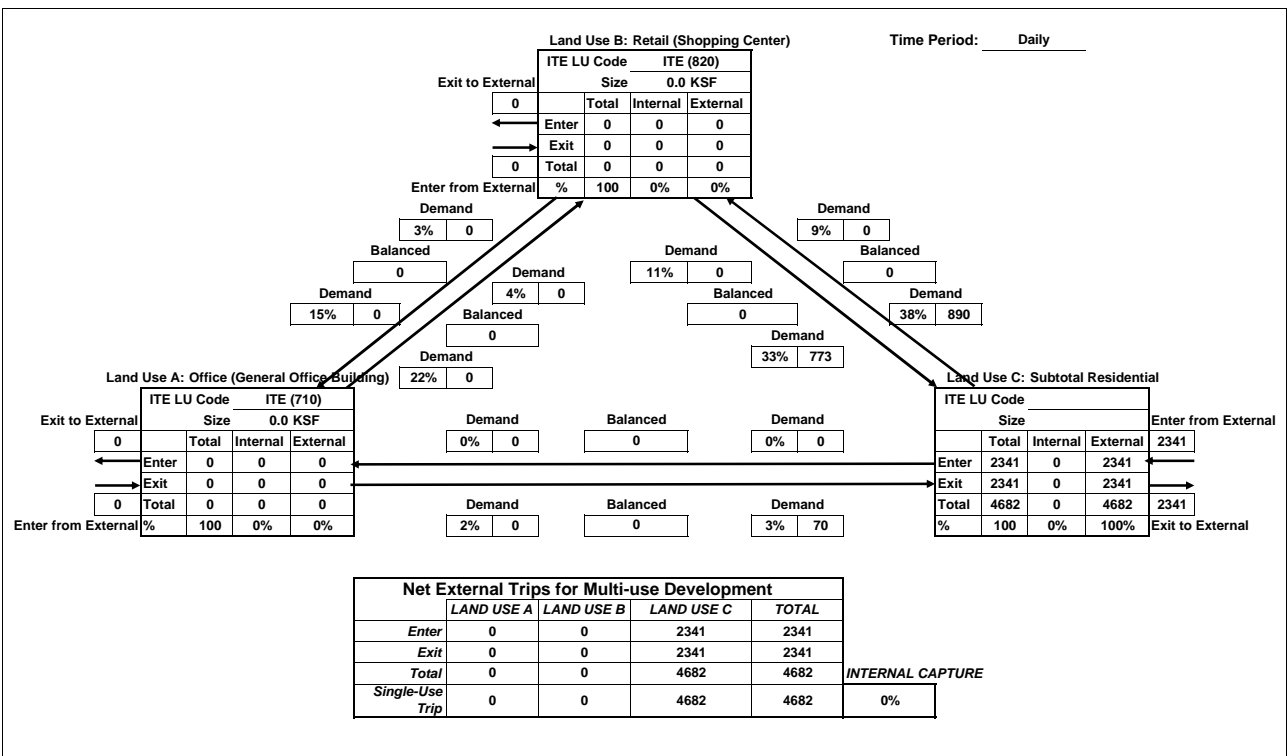
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	261	261	
Exit	0	0	159	159	
Total	0	0	420	420	INTERNAL CAPTURE
Single-Use Trip	0	0	420	420	0%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 17: Bounded by N. B, 7th, South Park, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

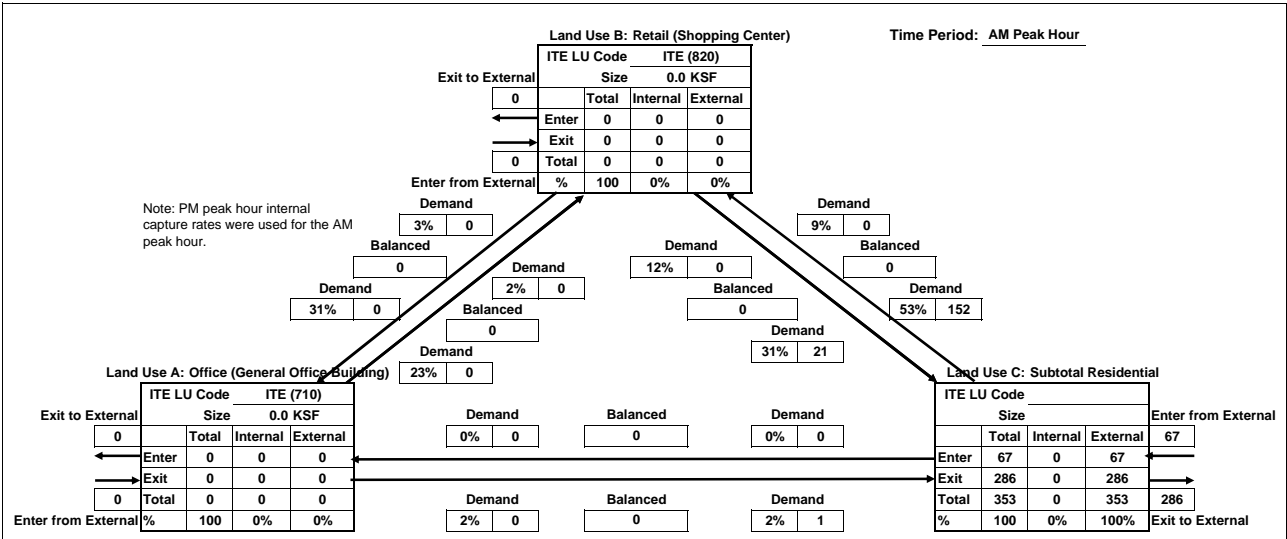
Time Period: Daily



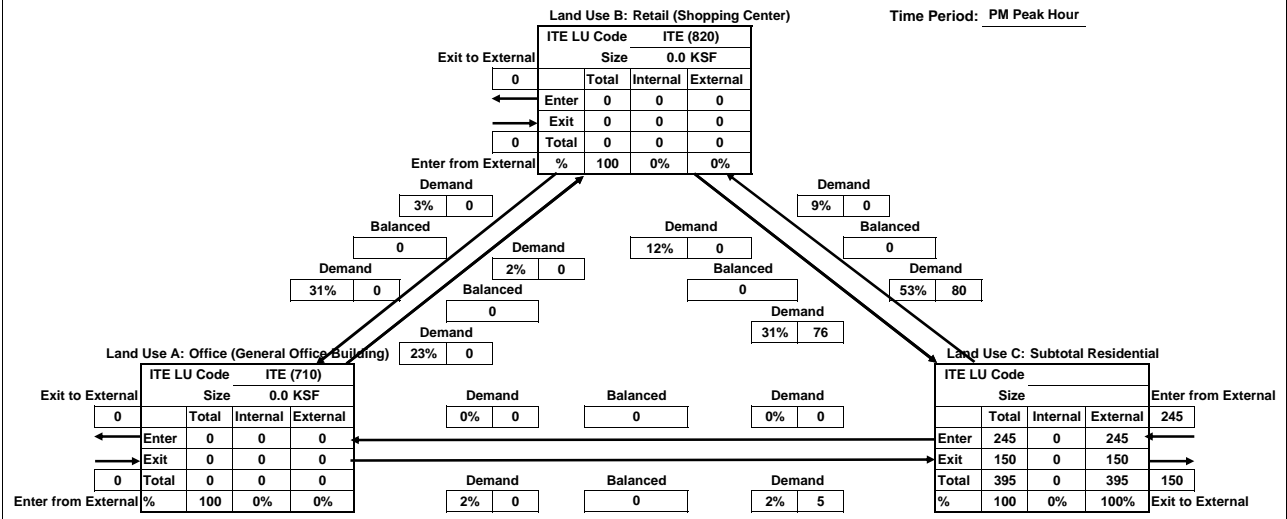
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
 Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	67	67	
Exit	0	0	286	286	
Total	0	0	353	353	INTERNAL CAPTURE
Single-Use Trip	0	0	353	353	0%



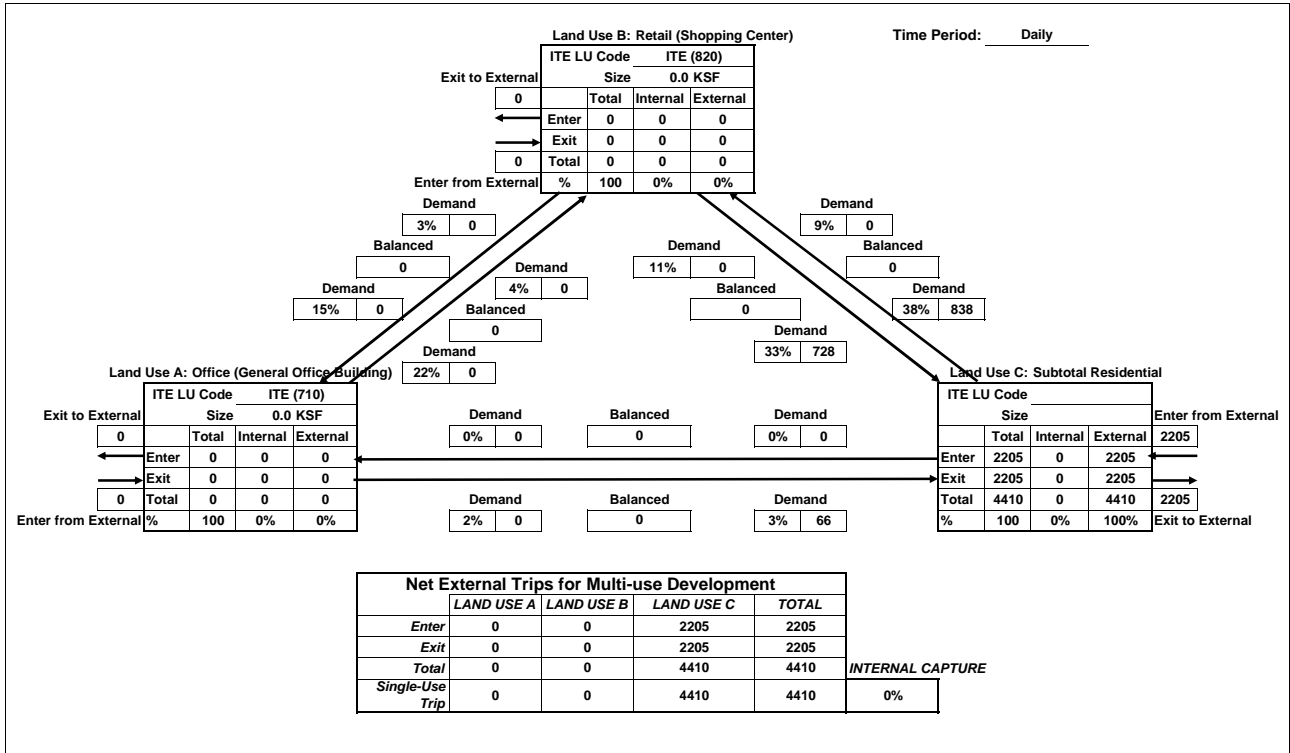
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	0	245	245	
Exit	0	0	150	150	
Total	0	0	395	395	INTERNAL CAPTURE
Single-Use Trip	0	0	395	395	0%

Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 18: Bounded by Property Boundary, N. 10th, South Park, 7th

Name of Development: Railyards Study
Full Project with Maximum Residential

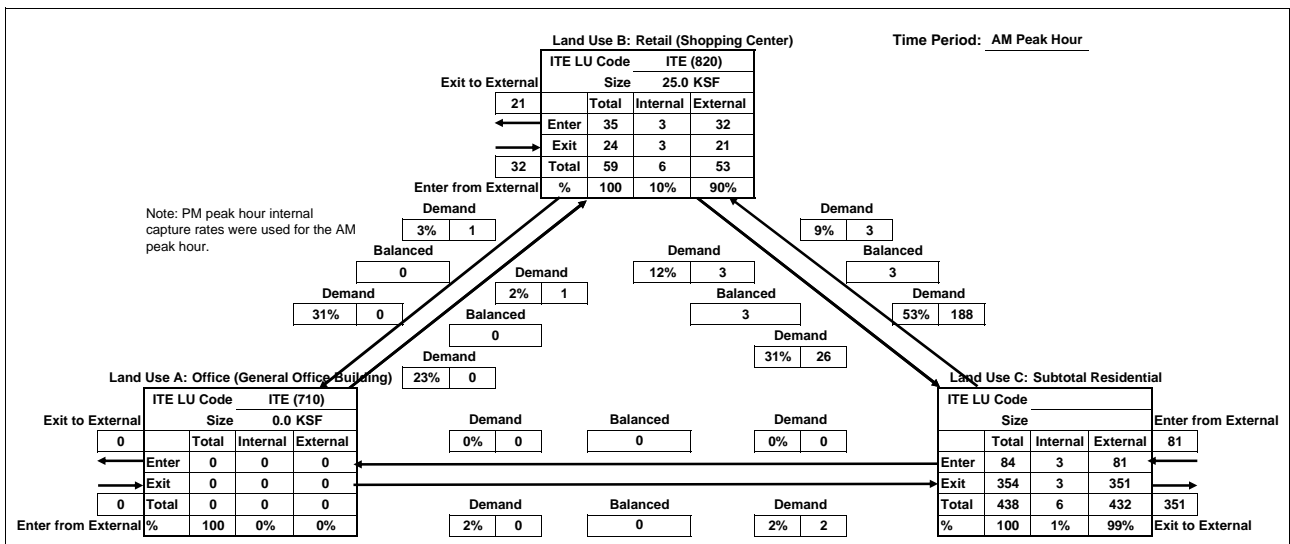
Time Period: Daily



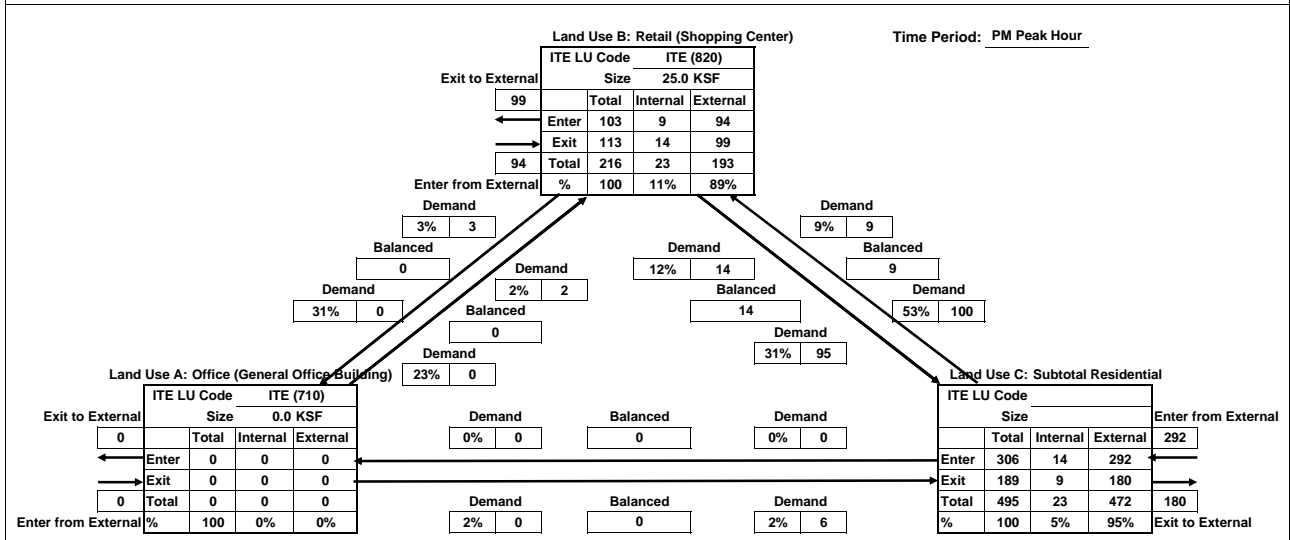
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
Full Project with Maximum Residential



	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	32	81	113	
Exit	0	21	351	372	
Total	0	53	432	485	INTERNAL CAPTURE
Single-Use Trip	0	59	438	497	2%



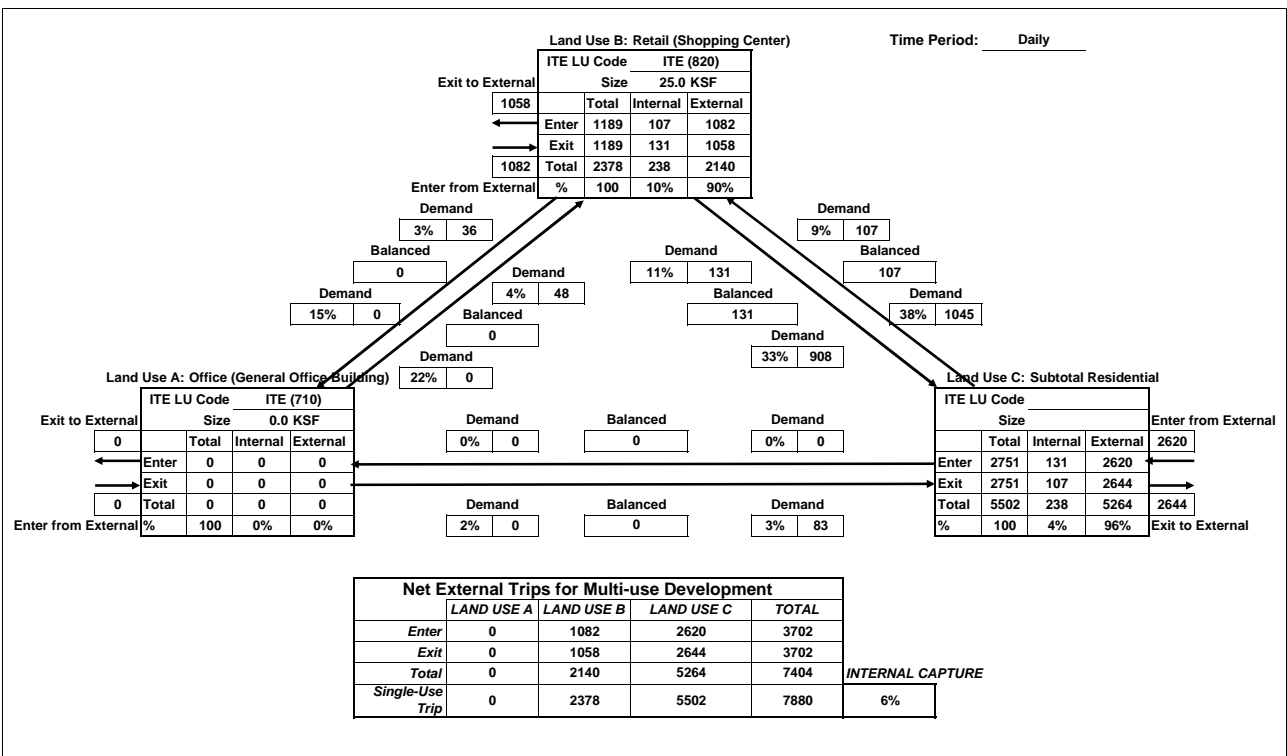
	LAND USE A	LAND USE B	LAND USE C	TOTAL	
Enter	0	94	292	386	
Exit	0	99	180	279	
Total	0	193	472	665	INTERNAL CAPTURE
Single-Use Trip	0	216	495	711	6%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 19: Bounded by South Park, 7th, Railyards, 5th**

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

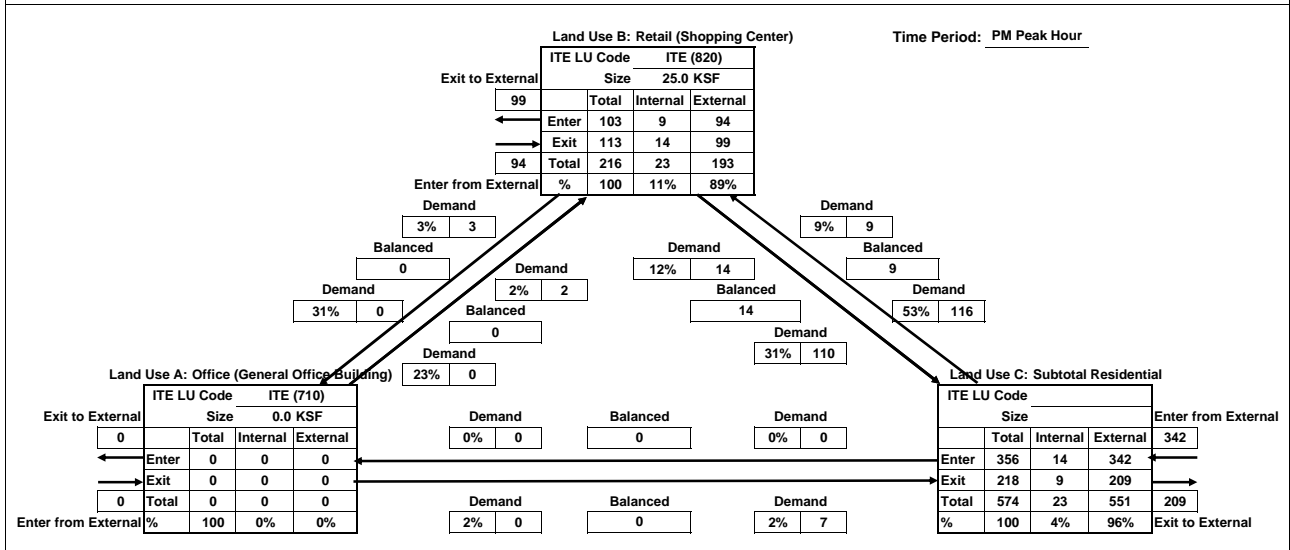
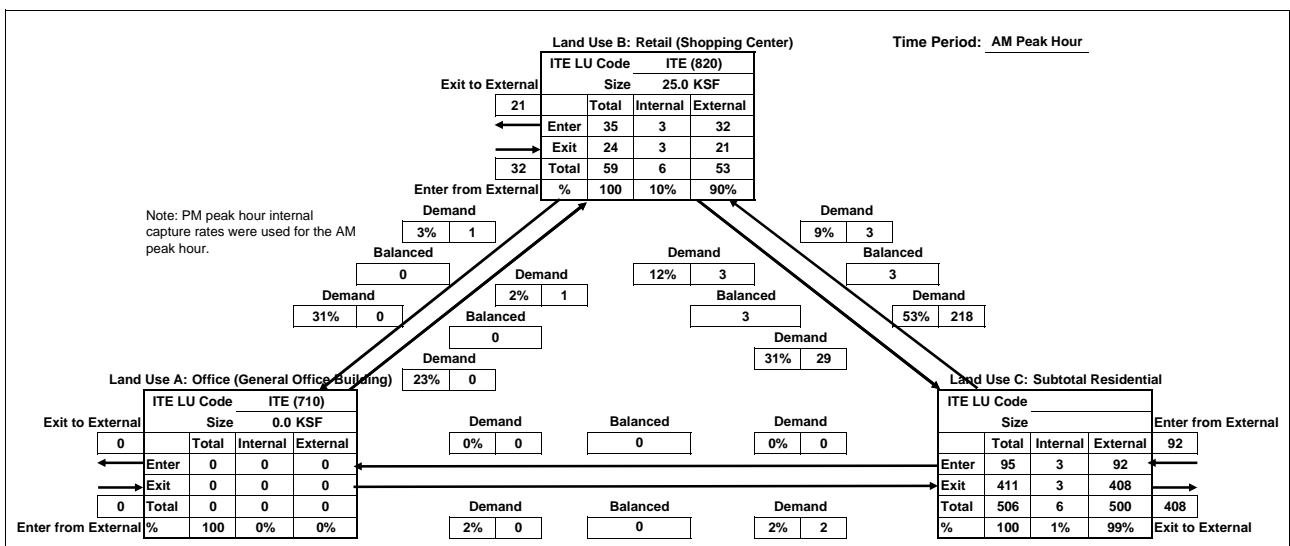


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study
Full Project with Maximum Residential



Analyst: Dowling

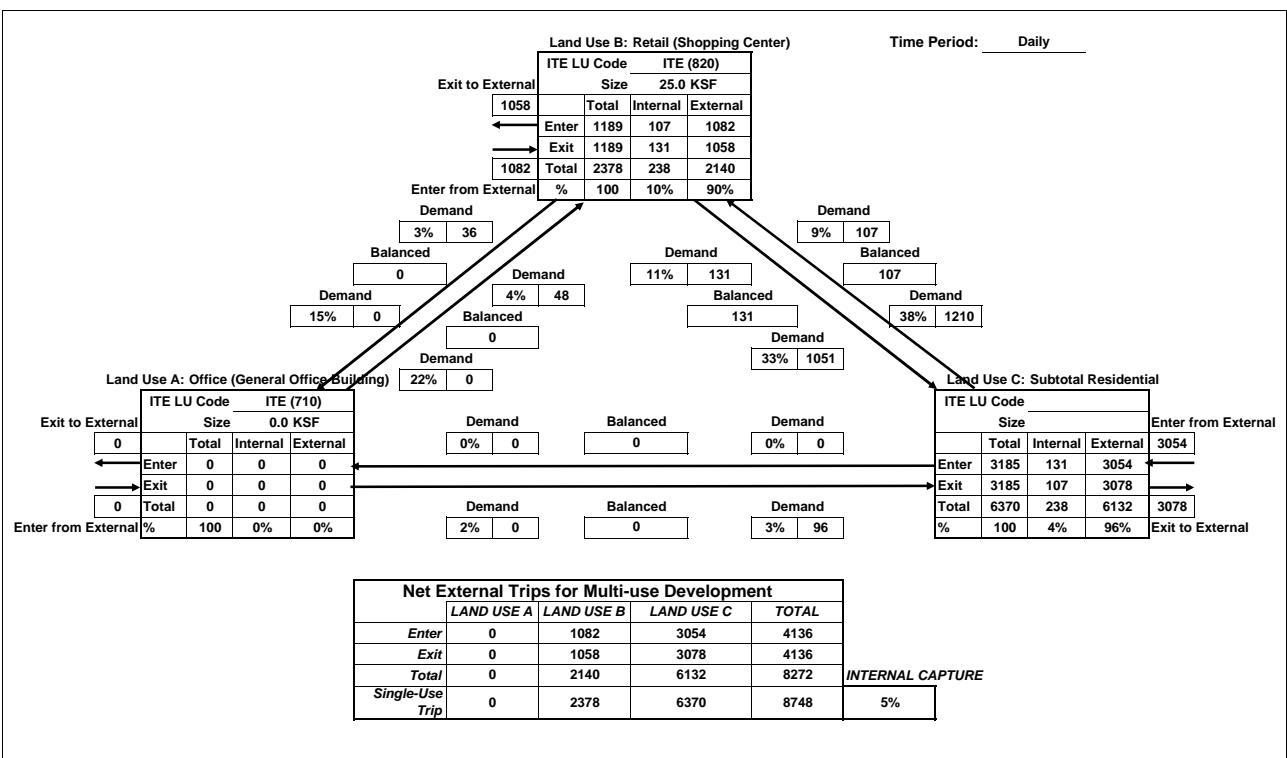
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 20: Bounded by South Park, N. 10th, Railyards, 7th**

Name of Development: Railyards Study

Full Project with Maximum Residential

Time Period: Daily

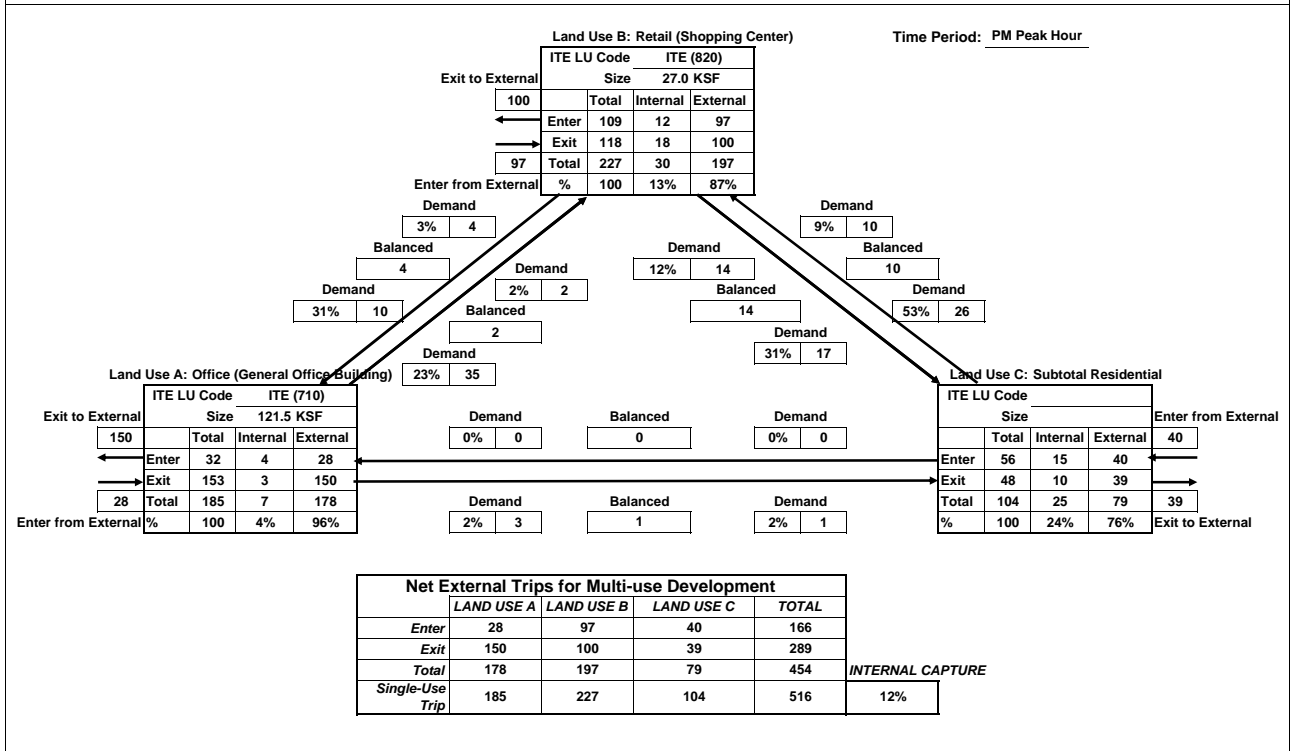
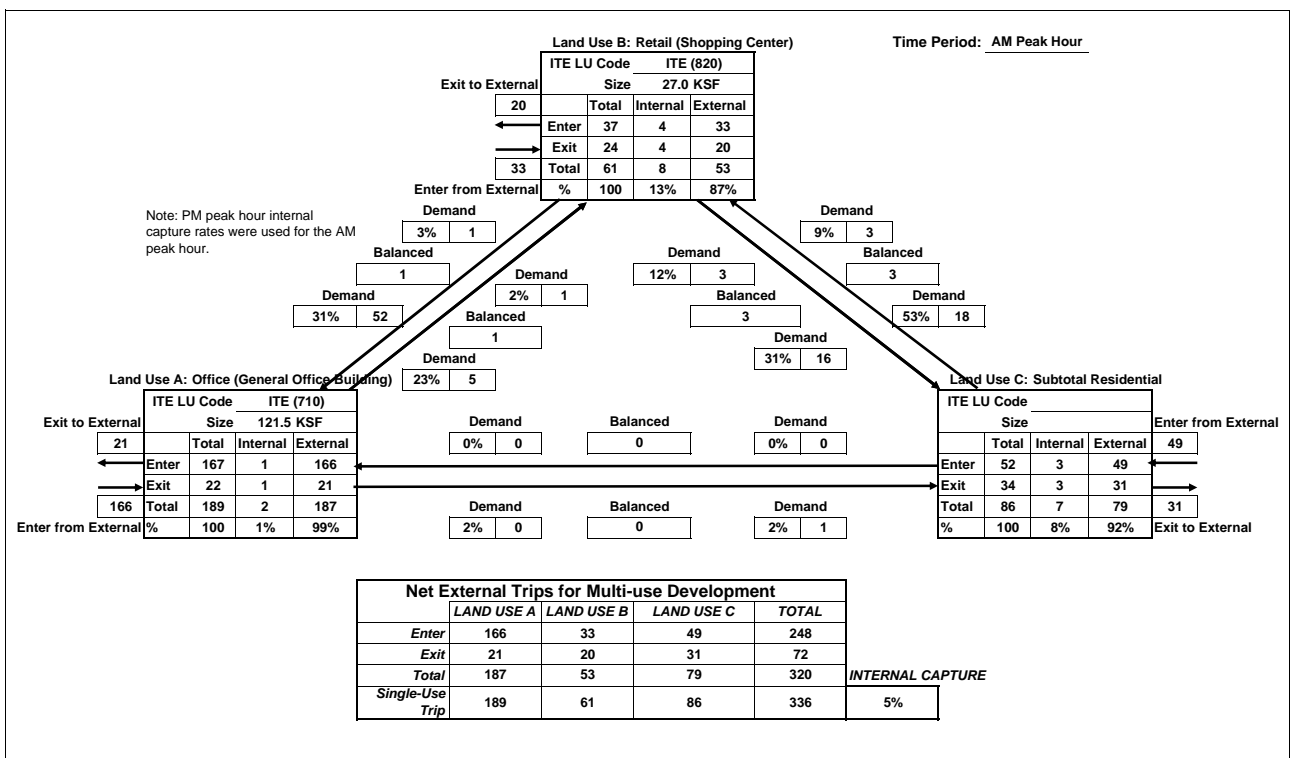


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 21: SITF Site**

Name of Development: Railyards Study
Full Project with Maximum Residential

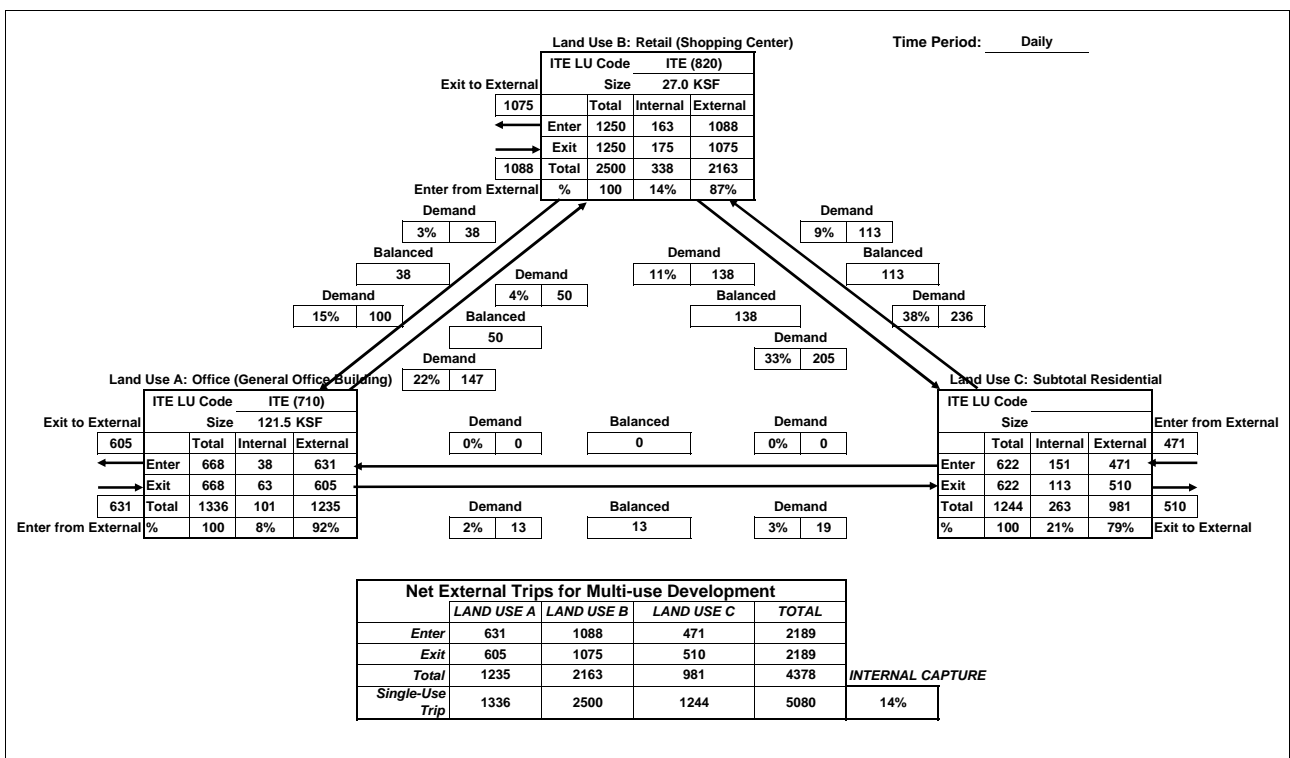


Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 21: SITF Site**

Name of Development: Railyards Study
 Full Project with Maximum Residential

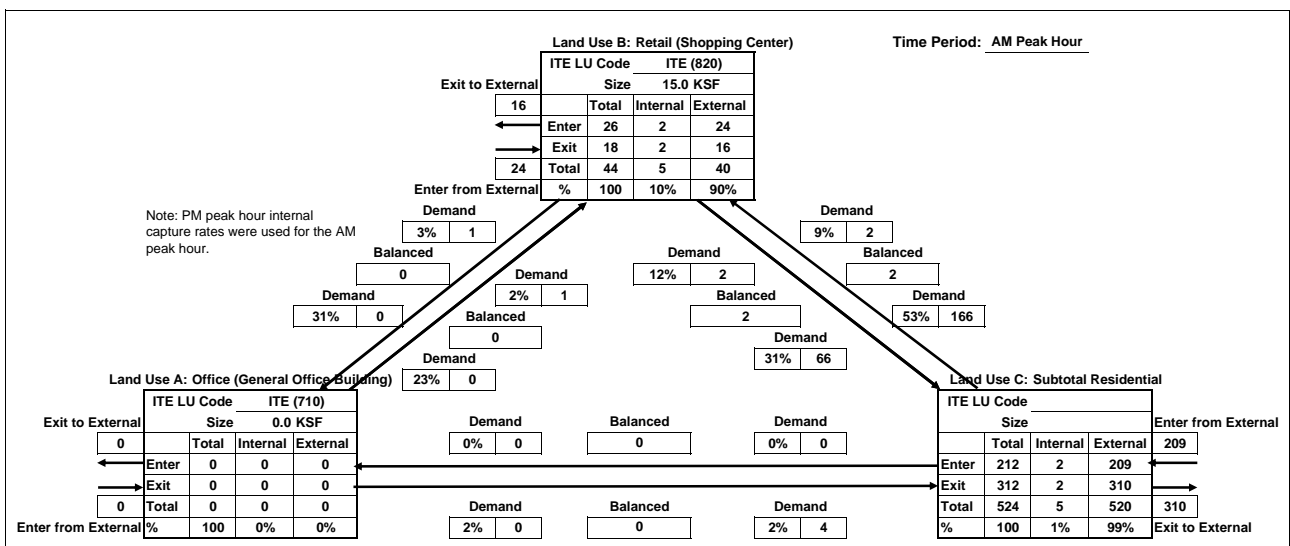
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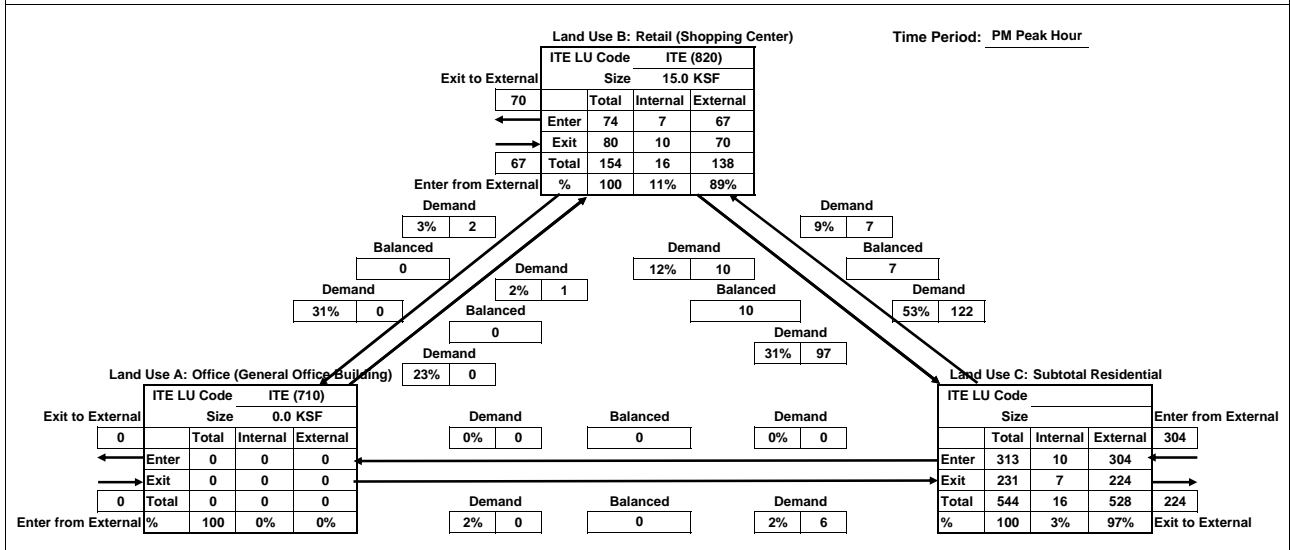
Analyst: Dowling
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary**

Name of Development: Railyards Study
Full Project with Maximum Residential



Net External Trips for Multi-use Development				
	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	0	24	209	233
Exit	0	16	310	326
Total	0	40	520	559
Single-Use Trip	0	44	524	568
				INTERNAL CAPTURE
				2%



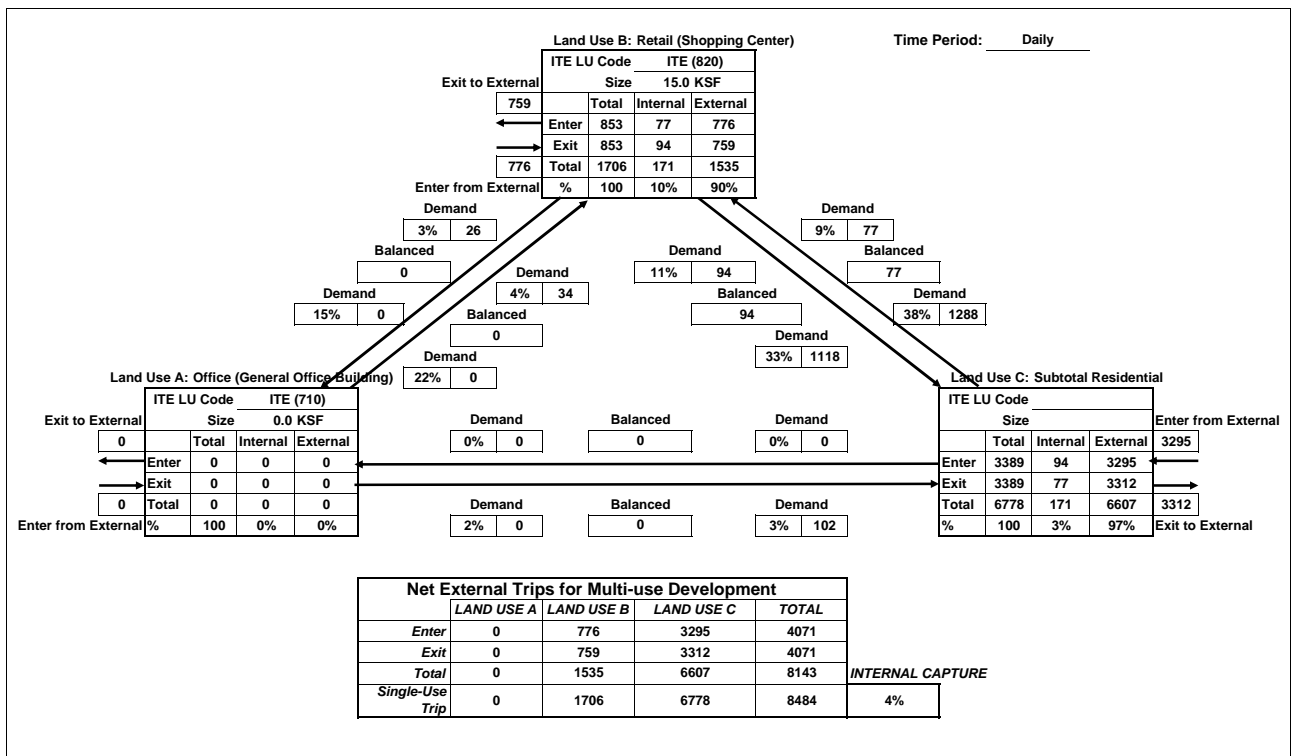
Net External Trips for Multi-use Development				
	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	0	67	304	371
Exit	0	70	224	294
Total	0	138	528	665
Single-Use Trip	0	154	544	698
				INTERNAL CAPTURE
				5%

Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY**
 Block 22: Bounded by Jibboom, I-5, Rail Lines, Property Boundary

Name of Development: Railyards Study
 Full Project with Maximum Residential

Time Period: Daily

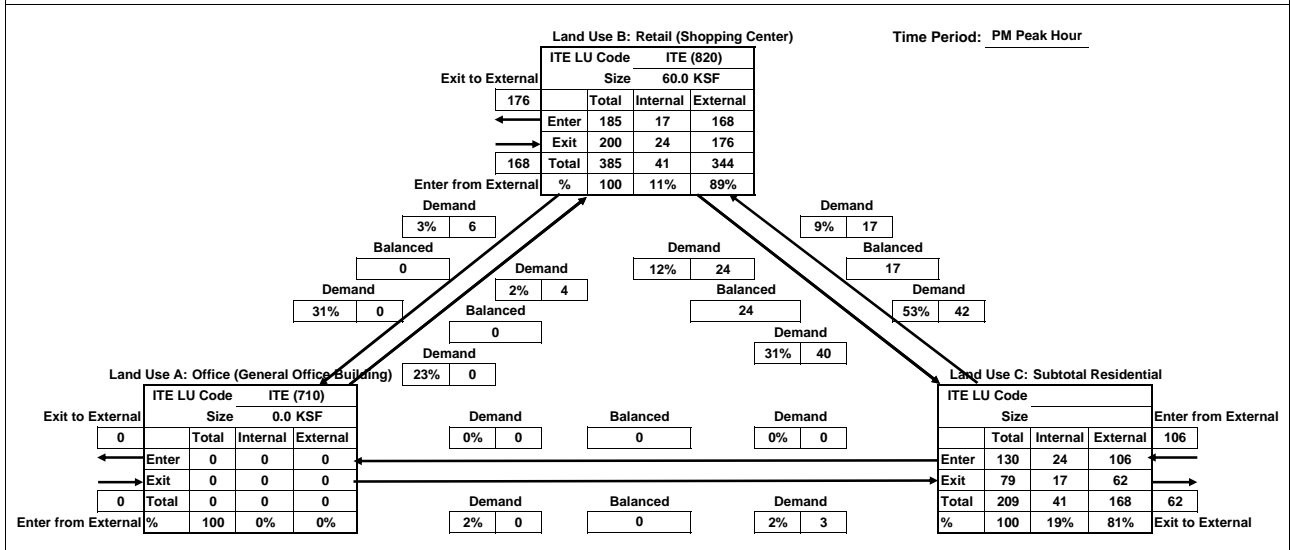
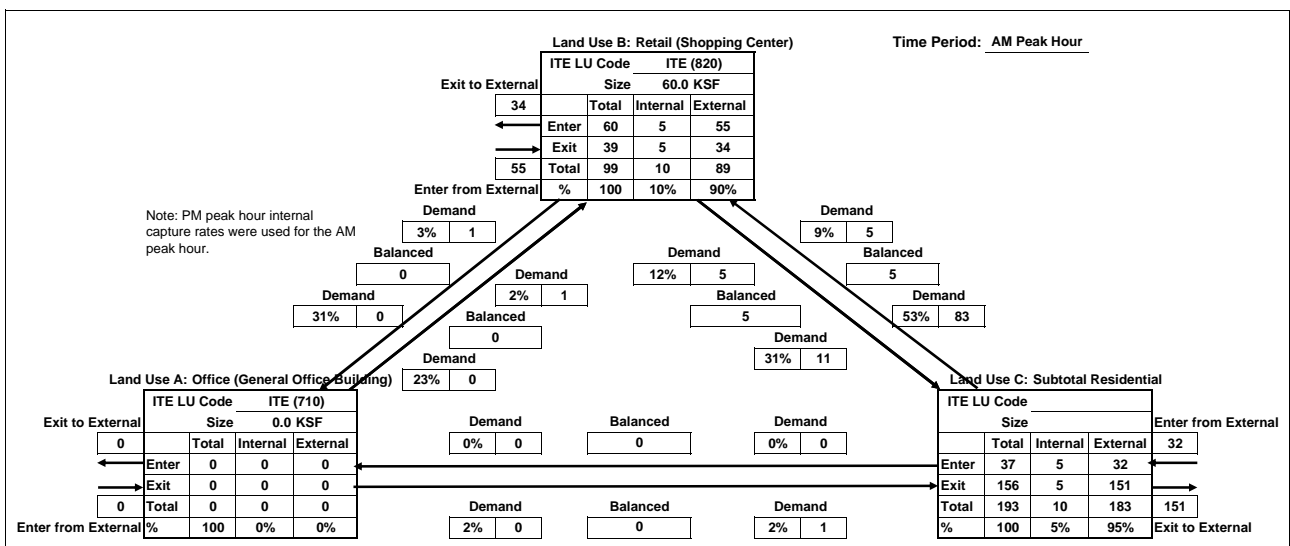


Analyst: Dowling

Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th**

Name of Development: Railyards Study
Full Project with Maximum Residential



Analyst: Dowling

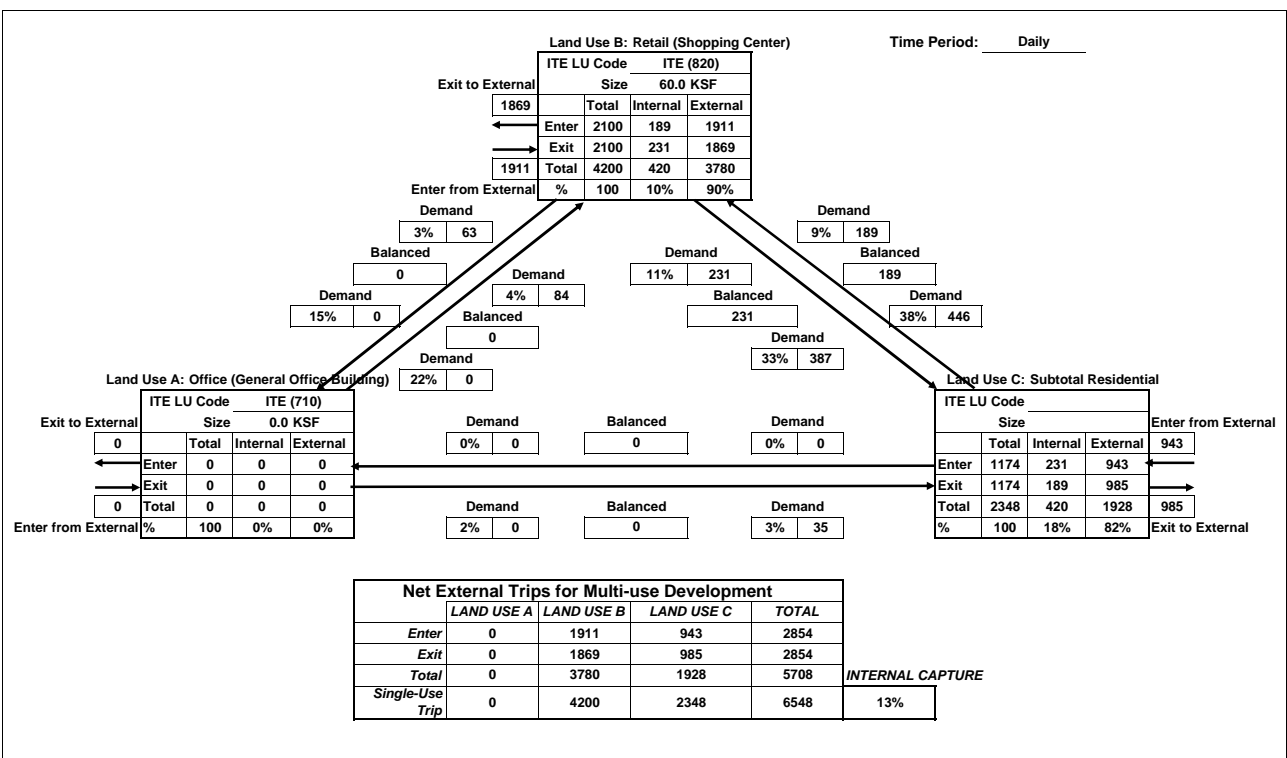
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY**
Block 23: Bounded by Railyards, 12th, Rail Lines, 7th

Name of Development: Railyards Study

Full Project with Maximum Residential

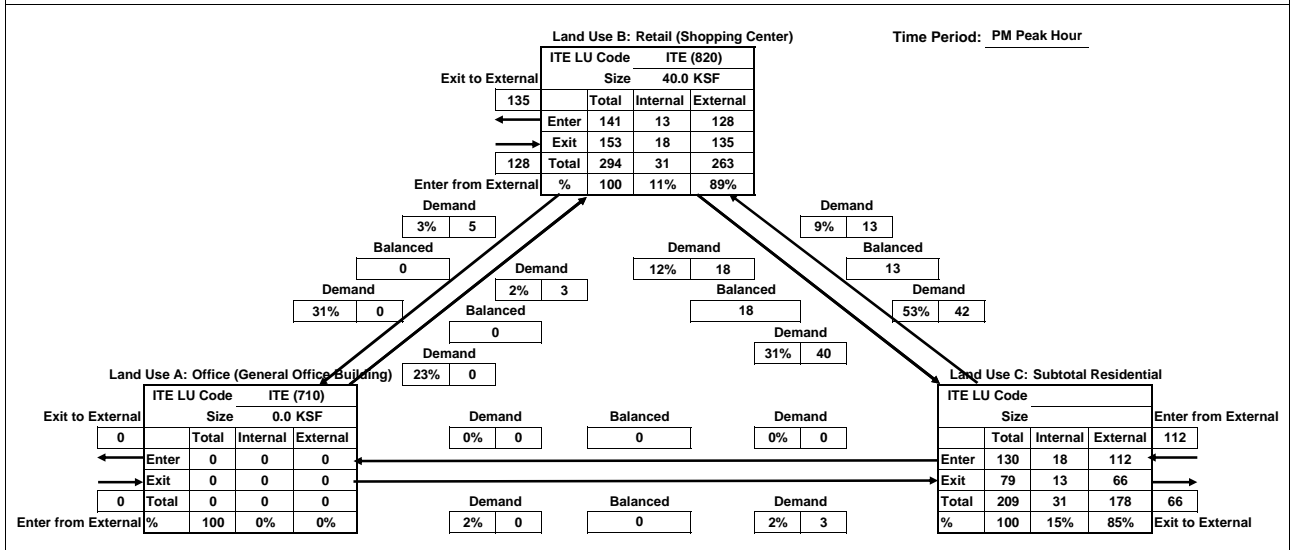
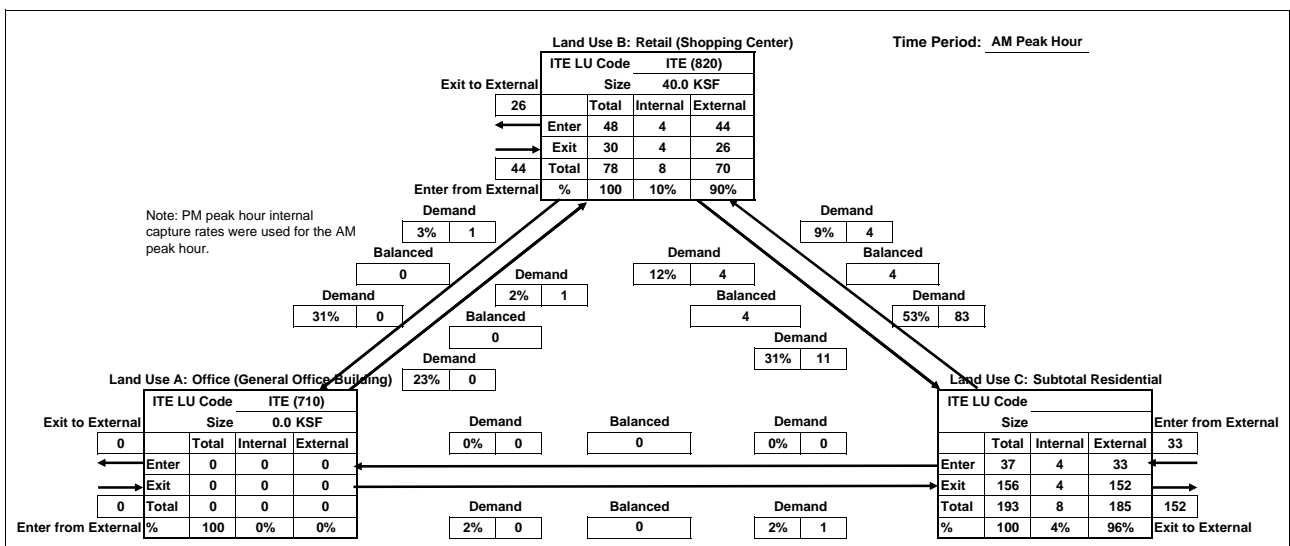
Time Period: Daily



Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 AND INTERNAL CAPTURE SUMMARY
 Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study
 Full Project with Maximum Residential



Analyst: Dowling

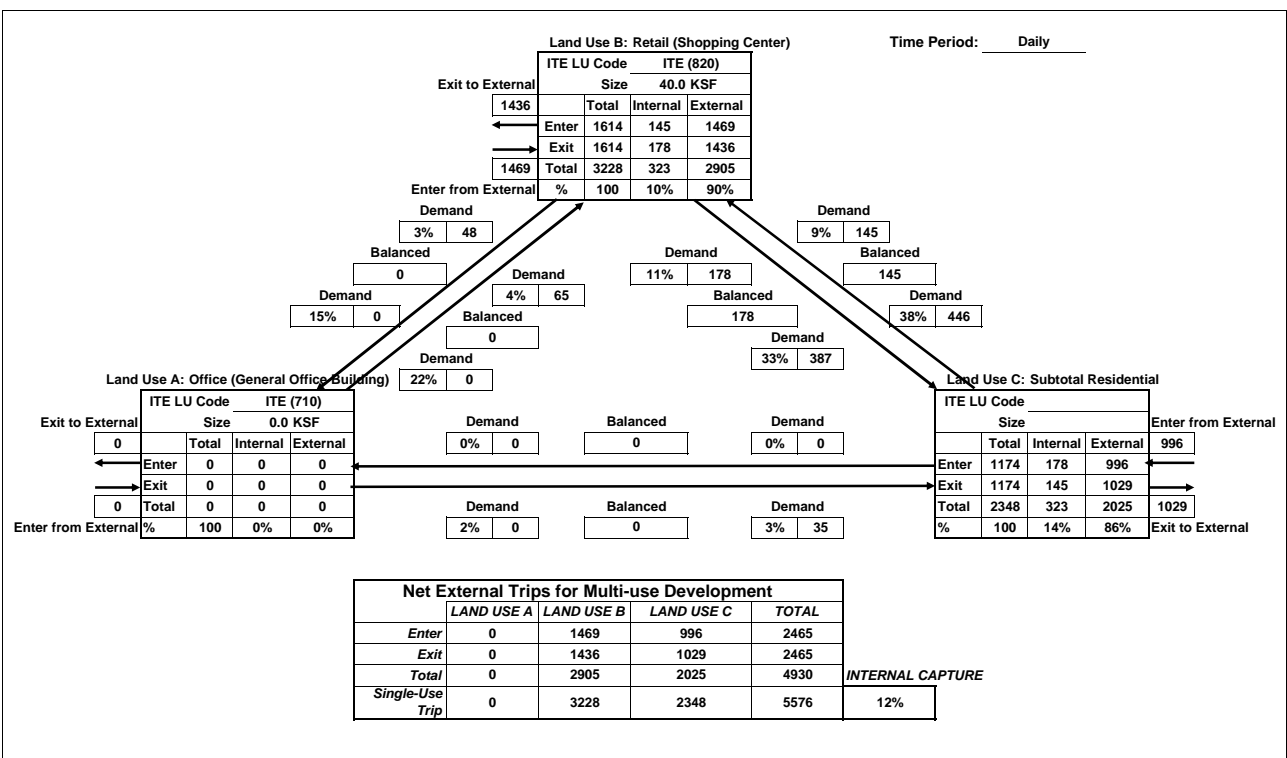
Date: 8/17/2007

**MULTI-USE DEVELOPMENT
TRIP GENERATION
AND INTERNAL CAPTURE SUMMARY
Block 24: Bounded by Property Boundary, Railyards, N. 10th**

Name of Development: Railyards Study

Full Project with Maximum Residential

Time Period: Daily

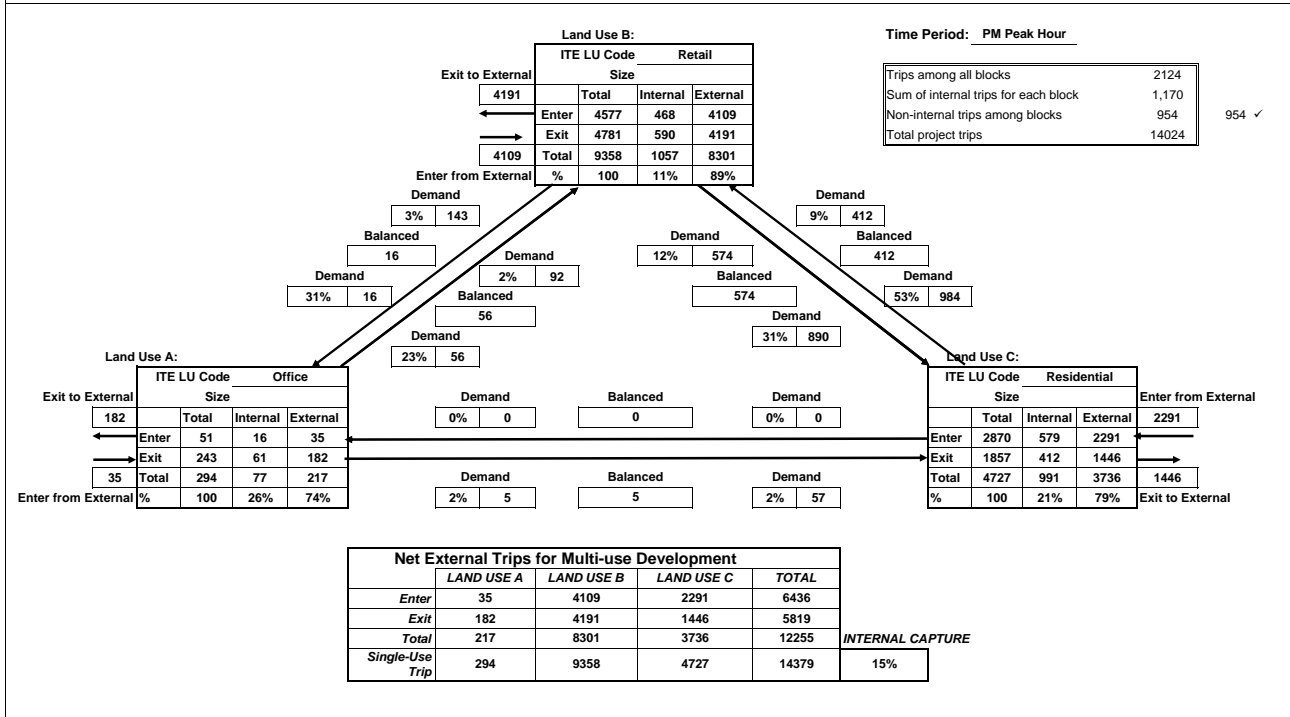
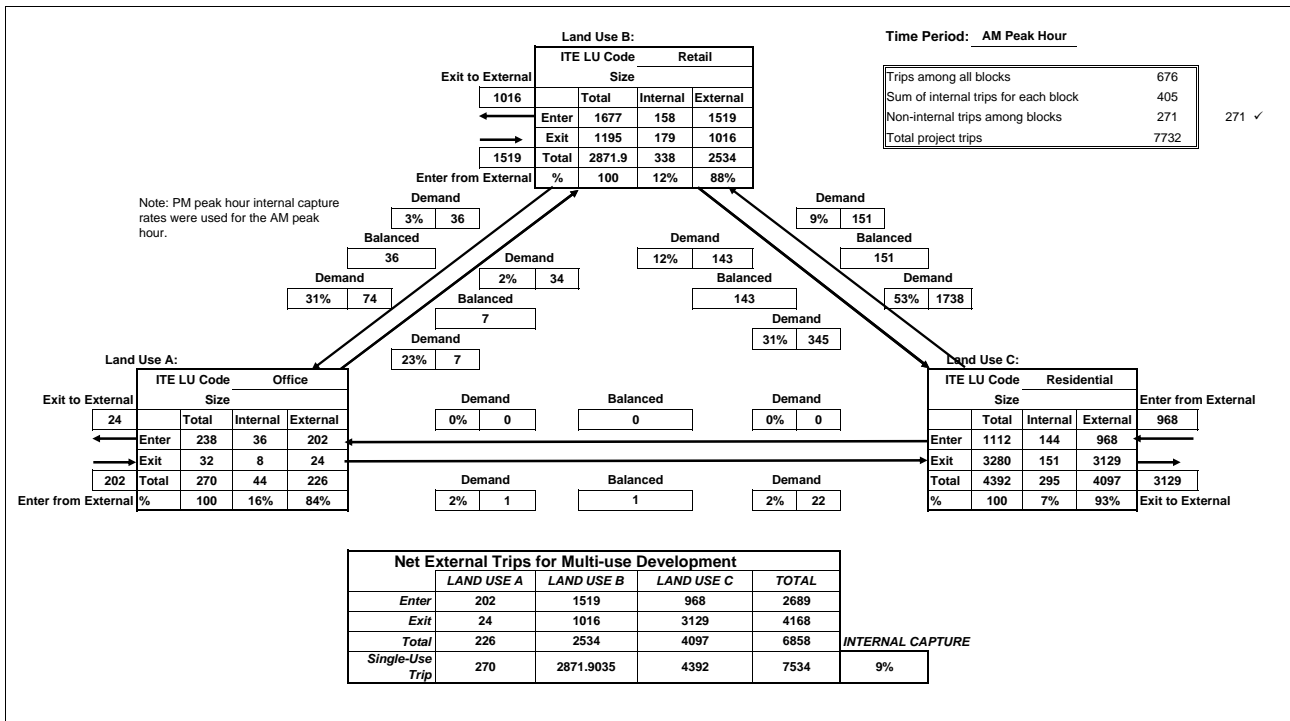


**MULTI-USE DEVELOPMENT
TRIP GENERATION
TRIPS AMONG ALL BLOCKS**

Analyst: Dowling

Name of Development: Downtown Study
Full Project with Maximum Residential

Date: 8/17/2007



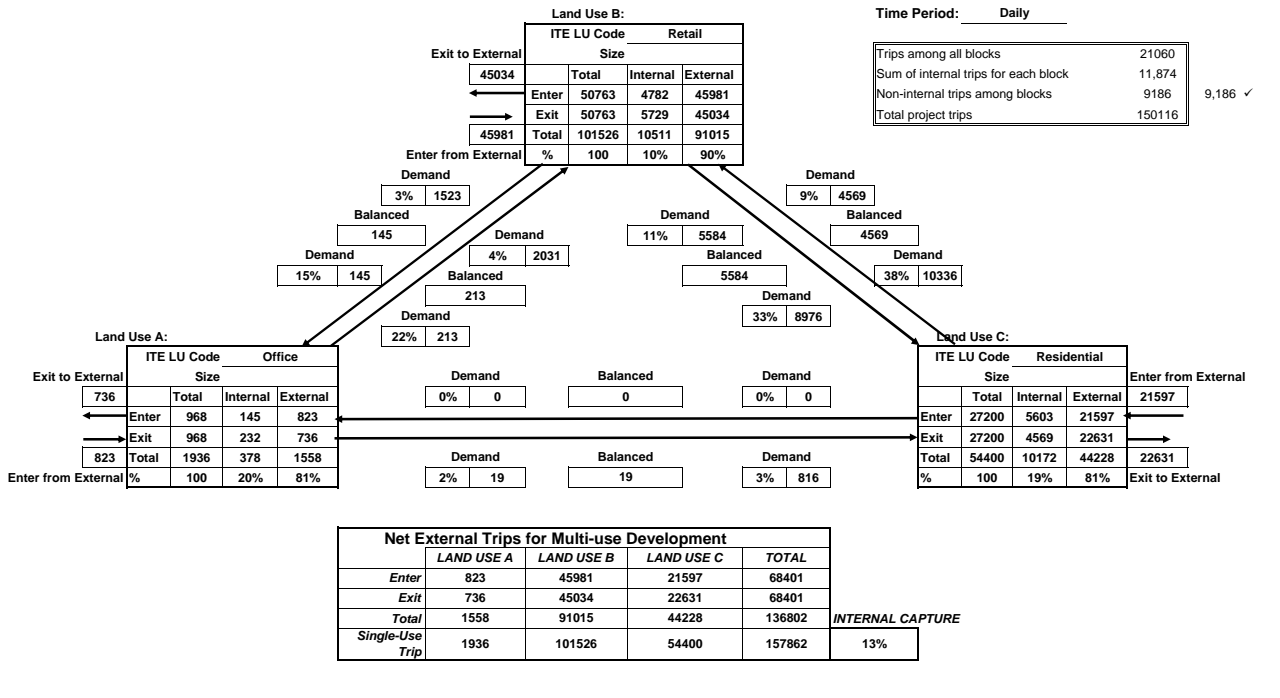
Analyst: Dowling
 Date: 8/17/2007

**MULTI-USE DEVELOPMENT
 TRIP GENERATION
 TRIPS AMONG ALL BLOCKS**

Name of Development: Downtown Study
 Full Project with Maximum Residential

Time Period: Daily

Trips among all blocks	21060	
Sum of internal trips for each block	11,874	
Non-internal trips among blocks	9186	9,186 ✓
Total project trips	150116	



LOS Worksheets

HCM Signalized Intersection Capacity Analysis
 1: Richard Blvd & I-5 SB Off

Railyards Study
 Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑						↑	↑
Volume (vph)	0	390	61	295	202	0	0	0	0	667	0	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	4.0
Lane Util. Factor		0.95		0.97	1.00						1.00	1.00
Frbp, ped/bikes		0.98		1.00	1.00						1.00	0.86
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.98		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3409		3433	1863						1770	1365
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3409		3433	1863						1770	1365
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	390	61	295	202	0	0	0	0	667	0	344
RTOR Reduction (vph)	0	18	0	0	0	0	0	0	0	0	0	241
Lane Group Flow (vph)	0	433	0	295	202	0	0	0	0	0	667	103
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9	3 12 13					4		4
Permitted Phases												4
Actuated Green, G (s)		12.5		26.0	41.5						21.0	21.0
Effective Green, g (s)		12.5		24.5	41.0						21.0	21.0
Actuated g/C Ratio		0.18		0.35	0.59						0.30	0.30
Clearance Time (s)		4.0									4.0	4.0
Vehicle Extension (s)		6.0									5.0	5.0
Lane Grp Cap (vph)		609		1202	1091						531	410
v/s Ratio Prot		c0.13		c0.09	0.11						c0.38	
v/s Ratio Perm												0.08
v/c Ratio		0.71		0.25	0.19						1.26	0.25
Uniform Delay, d1		27.0		16.2	6.7						24.5	18.6
Progression Factor		1.00		0.17	0.24						1.00	1.00
Incremental Delay, d2		5.6		0.2	0.2						130.0	0.7
Delay (s)		32.6		3.0	1.8						154.5	19.2
Level of Service		C		A	A						F	B
Approach Delay (s)		32.6			2.5			0.0			108.5	
Approach LOS		C			A			A			F	

Intersection Summary

HCM Average Control Delay	64.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗		↕	↗			
Volume (vph)	183	877	0	0	453	268	44	0	687	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.79		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.87	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)	1770	3539			3539	1258		1527	1504			
Flt Permitted	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)	1770	3539			3539	1258		1527	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	183	877	0	0	453	268	44	0	687	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	188	0	207	65	0	0	0
Lane Group Flow (vph)	183	877	0	0	453	80	0	160	299	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot				custom		Split		custom			
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	15.2	34.4			24.5	21.0		19.3	28.6			
Effective Green, g (s)	14.7	33.9			21.0	21.0		18.8	23.6			
Actuated g/C Ratio	0.21	0.48			0.30	0.30		0.27	0.34			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	372	1714			1062	377		410	507			
v/s Ratio Prot	0.10	c0.25			0.13	0.02		0.10	c0.20			
v/s Ratio Perm						0.05						
v/c Ratio	0.49	0.51			0.43	0.21		0.39	0.59			
Uniform Delay, d1	24.4	12.4			19.7	18.3		20.9	19.2			
Progression Factor	1.24	0.15			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.2	0.0			0.6	0.6		1.3	2.7			
Delay (s)	30.3	1.9			20.2	18.9		22.2	21.9			
Level of Service	C	A			C	B		C	C			
Approach Delay (s)		6.8			19.8			22.1			0.0	
Approach LOS		A			B			C			A	

Intersection Summary

HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	206	1218	164	19	526	10	77	16	7	28	16	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	0.99		1.00	1.00			1.00	0.96		1.00	1.00
Flpb, ped/bikes	0.99	1.00		0.99	1.00			1.00	1.00		0.99	1.00
Frt	1.00	0.98		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1753	3452		1760	5063			1789	1526		1780	1583
Flt Permitted	0.37	1.00		0.20	1.00			0.73	1.00		0.81	1.00
Satd. Flow (perm)	689	3452		362	5063			1364	1526		1482	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	206	1218	164	19	526	10	77	16	7	28	16	110
RTOR Reduction (vph)	0	11	0	0	2	0	0	0	6	0	0	90
Lane Group Flow (vph)	206	1371	0	19	534	0	0	93	1	0	44	20
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	32.0	32.0		22.1	22.1			9.7	9.7		9.7	9.7
Effective Green, g (s)	31.5	32.6		22.7	22.7			9.2	9.2		9.2	9.2
Actuated g/C Ratio	0.63	0.65		0.46	0.46			0.18	0.18		0.18	0.18
Clearance Time (s)	3.5	4.6		4.6	4.6			3.5	3.5		3.5	3.5
Vehicle Extension (s)	0.2	0.2		0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	562	2260		165	2308			252	282		274	292
v/s Ratio Prot	0.04	c0.40			0.11							
v/s Ratio Perm	0.19			0.05				c0.07	0.00		0.03	0.01
v/c Ratio	0.37	0.61		0.12	0.23			0.37	0.00		0.16	0.07
Uniform Delay, d1	4.0	4.9		7.8	8.2			17.8	16.6		17.1	16.8
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	0.3		0.1	0.0			0.3	0.0		0.1	0.0
Delay (s)	4.2	5.2		7.9	8.3			18.1	16.6		17.2	16.8
Level of Service	A	A		A	A			B	B		B	B
Approach Delay (s)		5.1			8.2			18.0			16.9	
Approach LOS		A			A			B			B	

Intersection Summary

HCM Average Control Delay	7.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	49.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & 5th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1096	12	10	592	27	17	0	7	18	1	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.96		1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.98	1.00		0.98	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3532		1770	3508		1728	1526		1727	1536	
Flt Permitted	0.95	1.00		0.95	1.00		0.73	1.00		0.75	1.00	
Satd. Flow (perm)	1770	3532		1770	3508		1336	1526		1369	1536	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	30	1096	12	10	592	27	17	0	7	18	1	34
RTOR Reduction (vph)	0	1	0	0	3	0	0	5	0	0	27	0
Lane Group Flow (vph)	30	1107	0	10	616	0	17	2	0	18	8	0
Confl. Peds. (#/hr)			36			36	36		36	36		36
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	1	6		5	2			8			4	
Permitted Phases		6			2		8			4		
Actuated Green, G (s)	6.0	22.4		5.3	21.7		11.3	11.3		11.3	11.3	
Effective Green, g (s)	5.0	22.7		4.3	22.0		10.8	10.8		10.8	10.8	
Actuated g/C Ratio	0.10	0.46		0.09	0.44		0.22	0.22		0.22	0.22	
Clearance Time (s)	3.0	4.3		3.0	4.3		3.5	3.5		3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	178	1610		153	1550		290	331		297	333	
v/s Ratio Prot	c0.02	c0.31		0.01	0.18			0.00			0.01	
v/s Ratio Perm							0.01			c0.01		
v/c Ratio	0.17	0.69		0.07	0.40		0.06	0.00		0.06	0.03	
Uniform Delay, d1	20.5	10.7		20.9	9.4		15.5	15.3		15.5	15.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	1.0		0.1	0.1		0.0	0.0		0.0	0.0	
Delay (s)	20.7	11.7		21.0	9.5		15.5	15.3		15.5	15.4	
Level of Service	C	B		C	A		B	B		B	B	
Approach Delay (s)		12.0			9.7			15.4			15.4	
Approach LOS		B			A			B			B	

Intersection Summary

HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	49.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	865	234	171	530	12	90	7	21	5	2	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85	1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3381		1770	3523		1681	1697	1583	1770	1626	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3381		1770	3523		1681	1697	1583	1770	1626	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	22	865	234	171	530	12	90	7	21	5	2	11
RTOR Reduction (vph)	0	10	0	0	0	0	0	0	18	0	11	0
Lane Group Flow (vph)	22	1089	0	171	542	0	49	48	3	5	2	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split		Prot	Split		
Protected Phases	1	6		5	2		8	8	8	7	7	
Permitted Phases												
Actuated Green, G (s)	2.2	47.1		12.7	57.6		10.8	10.8	10.8	1.9	1.9	
Effective Green, g (s)	1.2	47.1		11.7	57.6		10.3	10.3	10.3	1.4	1.4	
Actuated g/C Ratio	0.01	0.54		0.14	0.67		0.12	0.12	0.12	0.02	0.02	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.5	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	25	1841		239	2346		200	202	188	29	26	
v/s Ratio Prot	0.01	c0.32		c0.10	0.15		c0.03	0.03	0.00	c0.00	0.00	
v/s Ratio Perm												
v/c Ratio	0.88	0.59		0.72	0.23		0.24	0.24	0.01	0.17	0.08	
Uniform Delay, d1	42.6	13.2		35.8	5.7		34.6	34.5	33.6	42.0	41.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	124.9	0.3		8.2	0.0		0.2	0.2	0.0	1.0	0.5	
Delay (s)	167.5	13.6		44.0	5.7		34.8	34.8	33.6	43.0	42.4	
Level of Service	F	B		D	A		C	C	C	D	D	
Approach Delay (s)		16.6			14.9			34.6			42.6	
Approach LOS		B			B			C			D	

Intersection Summary

HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	86.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	585	41	12	589	87	14	20	4	13	11	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.94	1.00	0.99		1.00	1.00	1.00	1.00	1.00	0.91
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		0.98	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1489	1770	3444		1728	1863	1583	1770	1863	1443
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.75	1.00	1.00	0.74	1.00	1.00
Satd. Flow (perm)	1770	3539	1489	1770	3444		1365	1863	1583	1386	1863	1443
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	175	585	41	12	589	87	14	20	4	13	11	36
RTOR Reduction (vph)	0	0	12	0	9	0	0	0	3	0	0	31
Lane Group Flow (vph)	175	585	29	12	667	0	14	20	1	13	11	5
Confl. Peds. (#/hr)			35			35	35					35
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		Perm
Protected Phases	1	6		5	2			4				8
Permitted Phases			6				4		4	8		8
Actuated Green, G (s)	11.5	37.0	37.0	0.8	26.3		8.2	8.2	8.2	8.2	8.2	8.2
Effective Green, g (s)	11.0	37.5	37.5	0.3	26.8		7.7	7.7	7.7	7.7	7.7	7.7
Actuated g/C Ratio	0.19	0.65	0.65	0.01	0.47		0.13	0.13	0.13	0.13	0.13	0.13
Clearance Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2	0.2	2.0	2.0	2.0
Lane Grp Cap (vph)	339	2308	971	9	1605		183	249	212	186	249	193
v/s Ratio Prot	c0.10	0.17		0.01	c0.19			c0.01			0.01	
v/s Ratio Perm			0.02				0.01		0.00	0.01		0.00
v/c Ratio	0.52	0.25	0.03	1.33	0.42		0.08	0.08	0.00	0.07	0.04	0.02
Uniform Delay, d1	20.9	4.2	3.5	28.6	10.2		21.8	21.8	21.6	21.8	21.7	21.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	0.0	429.4	0.1		0.1	0.1	0.0	0.1	0.0	0.0
Delay (s)	21.4	4.2	3.6	458.0	10.2		21.9	21.9	21.6	21.8	21.7	21.7
Level of Service	C	A	A	F	B		C	C	C	C	C	C
Approach Delay (s)		7.9			18.0			21.8			21.7	
Approach LOS		A			B			C			C	

Intersection Summary

HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	57.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	520	50	23	612	32	35	22	12	17	19	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	0.99		1.00	0.99			0.99			0.99	
Flpb, ped/bikes	0.95	1.00		0.94	1.00			0.97			0.98	
Frt	1.00	0.99		1.00	0.99			0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.98	
Satd. Flow (prot)	1680	3447		1667	3487			1708			1718	
Flt Permitted	0.39	1.00		0.43	1.00			0.87			0.92	
Satd. Flow (perm)	688	3447		747	3487			1521			1601	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	16	520	50	23	612	32	35	22	12	17	19	10
RTOR Reduction (vph)	0	6	0	0	3	0	0	9	0	0	8	0
Lane Group Flow (vph)	16	564	0	23	641	0	0	60	0	0	38	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	51.9	51.9		51.9	51.9			19.7			19.7	
Effective Green, g (s)	52.4	52.4		52.4	52.4			19.2			19.2	
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.24			0.24	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	453	2269		492	2295			367			386	
v/s Ratio Prot		0.16			c0.18							
v/s Ratio Perm	0.02			0.03				c0.04			0.02	
v/c Ratio	0.04	0.25		0.05	0.28			0.16			0.10	
Uniform Delay, d1	4.8	5.6		4.8	5.7			23.9			23.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.1	0.3		0.2	0.3			0.1			0.0	
Delay (s)	4.9	5.8		5.0	6.0			23.9			23.5	
Level of Service	A	A		A	A			C			C	
Approach Delay (s)		5.8			6.0			23.9			23.5	
Approach LOS		A			A			C			C	

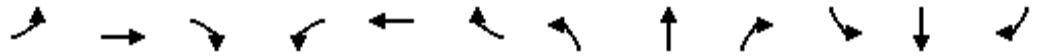
Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	79.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 9: Sunbeam Ave & 12th Street

Railyards Study
 Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	416	64	16	50	0	0	0	0	146	2923	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		1.00	1.00		1.00						0.86	
Frbp, ped/bikes		1.00	0.97		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		0.99						1.00	
Satd. Flow (prot)		1863	1542		1838						6379	
Flt Permitted		1.00	1.00		0.70						1.00	
Satd. Flow (perm)		1863	1542		1310						6379	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	416	64	16	50	0	0	0	0	146	2923	10
RTOR Reduction (vph)	0	0	38	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	416	26	0	66	0	0	0	0	0	3079	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm							Perm	
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)		25.7	25.7		25.7						52.8	
Effective Green, g (s)		25.2	25.2		25.2						52.8	
Actuated g/C Ratio		0.26	0.26		0.26						0.55	
Clearance Time (s)		3.5	3.5		3.5						4.0	
Vehicle Extension (s)		2.0	2.0		2.0						5.0	
Lane Grp Cap (vph)		489	404		344						3505	
v/s Ratio Prot		c0.22										
v/s Ratio Perm			0.02		0.05						0.48	
v/c Ratio		0.85	0.06		0.19						0.88	
Uniform Delay, d1		33.7	26.6		27.5						18.9	
Progression Factor		1.00	1.00		1.00						1.00	
Incremental Delay, d2		12.9	0.0		0.1						3.0	
Delay (s)		46.5	26.6		27.6						21.9	
Level of Service		D	C		C						C	
Approach Delay (s)		43.9			27.6			0.0			21.9	
Approach LOS		D			C			A			C	

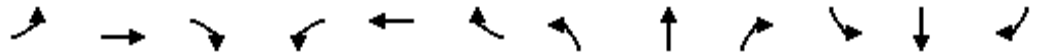
Intersection Summary

HCM Average Control Delay	24.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	96.1	Sum of lost time (s)	18.1
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
10: Basler St & 16th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	733	5	0	0	5	8	54	1019	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.96			1.00				
Flpb, ped/bikes	0.94	0.94			1.00			1.00				
Frt	1.00	1.00			0.92			1.00				
Flt Protected	0.95	0.95			1.00			1.00				
Satd. Flow (prot)	1582	1588			1634			6354				
Flt Permitted	0.75	0.72			1.00			1.00				
Satd. Flow (perm)	1247	1200			1634			6354				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	733	5	0	0	5	8	54	1019	9	0	0	0
RTOR Reduction (vph)	0	0	0	0	5	0	0	2	0	0	0	0
Lane Group Flow (vph)	366	372	0	0	8	0	0	1080	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			23.0				
Effective Green, g (s)	18.0	18.0			18.0			24.0				
Actuated g/C Ratio	0.36	0.36			0.36			0.48				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	449	432			588			3050				
v/s Ratio Prot					0.00							
v/s Ratio Perm	0.29	0.31						0.17				
v/c Ratio	0.82	0.86			0.01			0.35				
Uniform Delay, d1	14.5	14.8			10.3			8.1				
Progression Factor	1.00	1.00			1.00			1.39				
Incremental Delay, d2	15.0	19.7			0.0			0.3				
Delay (s)	29.5	34.5			10.3			11.6				
Level of Service	C	C			B			B				
Approach Delay (s)		32.0			10.3			11.6			0.0	
Approach LOS		C			B			B			A	

Intersection Summary

HCM Average Control Delay	19.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 13: Bercut Dr & Bannon St

Railyards Study
 Existing Conditions AM Peak





















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	→
Volume (veh/h)	102	14	0	35	0	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	102	14	0	35	0	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	512					
pX, platoon unblocked						
vC, conflicting volume			116		144	109
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			116		144	109
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1473		849	945

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	116	35	1
Volume Left	0	0	0
Volume Right	14	0	1
cSH	1700	1473	945
Volume to Capacity	0.07	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	8.8
Lane LOS			A
Approach Delay (s)	0.0	0.0	8.8
Approach LOS			A

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		16.2%	ICU Level of Service
Analysis Period (min)		15	A
Description: SB coded as EB			

HCM Unsignalized Intersection Capacity Analysis
 18: Water St & 7th Street

Railyards Study
 Existing Conditions AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	50	21	170	36	51	9	56	24	43	356	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	50	21	170	36	51	9	56	24	43	356	9
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1	SB 2						
Volume Total (vph)	78	206	51	89	43	365						
Volume Left (vph)	7	170	0	9	43	0						
Volume Right (vph)	21	0	51	24	0	9						
Hadj (s)	-0.11	0.45	-0.67	-0.11	0.53	0.02						
Departure Headway (s)	6.3	6.5	5.4	6.1	6.2	5.7						
Degree Utilization, x	0.14	0.37	0.08	0.15	0.07	0.58						
Capacity (veh/h)	523	523	622	551	554	615						
Control Delay (s)	10.3	12.1	7.6	10.1	8.5	14.9						
Approach Delay (s)	10.3	11.2		10.1	14.2							
Approach LOS	B	B		B	B							
Intersection Summary												
Delay			12.5									
HCM Level of Service			B									
Intersection Capacity Utilization			43.9%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 19: Water St & 10th St

Railyards Study
 Existing Conditions AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (veh/h)	7	68	164	39	32	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	68	164	39	32	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			841			
pX, platoon unblocked						
vC, conflicting volume	203				232	102
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	203				232	102
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				96	99
cM capacity (veh/h)	1366				732	934

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	30	45	109	94	41
Volume Left	7	0	0	0	32
Volume Right	0	0	0	39	9
cSH	1366	1700	1700	1700	769
Volume to Capacity	0.01	0.03	0.06	0.06	0.05
Queue Length 95th (ft)	0	0	0	0	4
Control Delay (s)	1.8	0.0	0.0	0.0	9.9
Lane LOS	A				A
Approach Delay (s)	0.7		0.0		9.9
Approach LOS					A

Intersection Summary					
Average Delay			1.4		
Intersection Capacity Utilization			17.3%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis
20: Water St & 12th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations	↑↑		↖	↑			↕			5↑↑↑	
Volume (vph)	62	33	35	72	29	7	16	34	23	2422	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0				4.0	4.0		
Lane Util. Factor	0.95		1.00	1.00				1.00	0.91		
Frbp, ped/bikes	1.00		1.00	0.97				0.96	0.99		
Flpb, ped/bikes	1.00		0.96	1.00				1.00	0.90		
Frt	0.95		1.00	0.96				0.92	0.99		
Flt Protected	1.00		0.95	1.00				0.99	0.96		
Satd. Flow (prot)	3355		1703	1736				1634	5733		
Flt Permitted	1.00		0.69	1.00				0.99	0.96		
Satd. Flow (perm)	3355		1241	1736				1634	5733		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	62	33	35	72	29	7	16	34	23	2422	171
RTOR Reduction (vph)	27	0	0	0	0	0	30	0	0	0	0
Lane Group Flow (vph)	68	0	35	101	0	0	27	0	0	2616	0
Confl. Peds. (#/hr)			36				36			36	36
Turn Type			Perm				Perm			Perm	
Protected Phases	4			4				1	2 3		
Permitted Phases			4				1			2 3	
Actuated Green, G (s)	17.8		17.8	17.8				11.7	38.3		
Effective Green, g (s)	17.8		17.8	17.8				11.7	41.3		
Actuated g/C Ratio	0.18		0.18	0.18				0.12	0.41		
Clearance Time (s)	4.0		4.0	4.0				4.0			
Vehicle Extension (s)	5.0		5.0	5.0				5.0			
Lane Grp Cap (vph)	597			221	309				191	2368	
v/s Ratio Prot	0.02			c0.06							
v/s Ratio Perm			0.03				0.02			0.46	
v/c Ratio	0.11			0.16	0.33				0.14	1.10	
Uniform Delay, d1	34.5			34.8	35.9				39.6	29.4	
Progression Factor	1.00			0.83	0.83				1.00	1.00	
Incremental Delay, d2	0.2			0.7	1.3				0.7	54.1	
Delay (s)	34.7			29.6	31.1				40.4	83.5	
Level of Service	C		C	C				D	F		
Approach Delay (s)	34.7			30.8						40.4	83.5
Approach LOS	C		C				D	F			

Intersection Summary

HCM Average Control Delay	78.6	HCM Level of Service	E
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	29.2
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
21: North B St & 16th Street

Railyards Study
Existing Conditions AM Peak




















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔			↔			↔↔↔				
Volume (vph)	97	6	0	0	9	4	90	1063	7	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.97			1.00				
Flpb, ped/bikes	0.91	0.92			1.00			1.00				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1533	1562			1730			6345				
Flt Permitted	0.75	0.79			1.00			1.00				
Satd. Flow (perm)	1208	1289			1730			6345				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	6	0	0	9	4	90	1063	7	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	2	0	0	0	0
Lane Group Flow (vph)	51	52	0	0	10	0	0	1158	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	12.0	12.0			12.0			30.0				
Effective Green, g (s)	12.0	12.0			12.0			30.0				
Actuated g/C Ratio	0.24	0.24			0.24			0.60				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	290	309			415			3807				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.04	0.04						0.18				
v/c Ratio	0.18	0.17			0.02			0.30				
Uniform Delay, d1	15.1	15.0			14.5			4.9				
Progression Factor	0.69	0.69			1.00			0.17				
Incremental Delay, d2	1.3	1.1			0.1			0.2				
Delay (s)	11.7	11.5			14.6			1.0				
Level of Service	B	B			B			A				
Approach Delay (s)		11.6			14.6			1.0			0.0	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM Average Control Delay			2.0				HCM Level of Service		A			
HCM Volume to Capacity ratio			0.27									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)		8.0			
Intersection Capacity Utilization			41.7%				ICU Level of Service		A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

37: F Street & 7th Street

Railyards Study
Existing Conditions AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	48	19	60	25	59	3	164	301	47
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	0	0	48	19	60	25	59	3	164	301	47
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage (veh)												2
Upstream signal (ft)								439				
pX, platoon unblocked												
vC, conflicting volume	832	764	324	763	786	60	348			62		
vC1, stage 1 conf vol	652	652		110	110							
vC2, stage 2 conf vol	180	112		652	676							
vCu, unblocked vol	832	764	324	763	786	60	348			62		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	87	95	94	98			89		
cM capacity (veh/h)	374	394	717	372	368	1005	1211			1541		
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total	0	48	79	87	512							
Volume Left	0	48	0	25	164							
Volume Right	0	0	60	3	47							
cSH	1700	372	709	1211	1541							
Volume to Capacity	0.00	0.13	0.11	0.02	0.11							
Queue Length 95th (ft)	0	11	9	2	9							
Control Delay (s)	0.0	16.1	10.7	2.4	3.1							
Lane LOS	A	C	B	A	A							
Approach Delay (s)	0.0	12.8		2.4	3.1							
Approach LOS	A	B										
Intersection Summary												
Average Delay				4.7								
Intersection Capacity Utilization			45.8%			ICU Level of Service				A		
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis
40: G Street & 7th Street

Railyards Study
Existing Conditions AM Peak

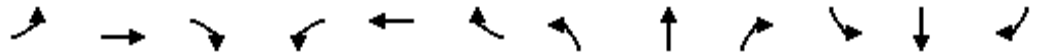


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙↘	↙				↕
Volume (vph)	229	123	0	0	0	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0
Lane Util. Factor	0.97	1.00				1.00
Frbp, ped/bikes	1.00	1.00				1.00
Flpb, ped/bikes	1.00	1.00				1.00
Frt	1.00	0.85				1.00
Flt Protected	0.95	1.00				1.00
Satd. Flow (prot)	3433	1583				1863
Flt Permitted	0.95	1.00				1.00
Satd. Flow (perm)	3433	1583				1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	229	123	0	0	0	360
RTOR Reduction (vph)	133	71	0	0	0	0
Lane Group Flow (vph)	96	52	0	0	0	360
Confl. Peds. (#/hr)		72				
Turn Type		Prot				
Protected Phases	1	1				2
Permitted Phases						
Actuated Green, G (s)	21.5	21.5				21.5
Effective Green, g (s)	21.0	21.0				21.0
Actuated g/C Ratio	0.42	0.42				0.42
Clearance Time (s)	3.5	3.5				3.5
Lane Grp Cap (vph)	1442	665				782
v/s Ratio Prot	0.03	c0.03				c0.19
v/s Ratio Perm						
v/c Ratio	0.07	0.08				0.46
Uniform Delay, d1	8.7	8.7				10.4
Progression Factor	1.00	2.13				1.00
Incremental Delay, d2	0.1	0.2				1.9
Delay (s)	8.7	18.8				12.4
Level of Service	A	B				B
Approach Delay (s)	12.2		0.0			12.4
Approach LOS	B		A			B
Intersection Summary						
HCM Average Control Delay			12.3		HCM Level of Service	B
HCM Volume to Capacity ratio			0.27			
Actuated Cycle Length (s)			50.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			43.1%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

41: G Street & 8th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↑↑↑			↑↑↑					
Volume (vph)	0	0	0	0	293	302	241	447	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)					4.0			4.0					
Lane Util. Factor					0.91			0.91					
Frbp, ped/bikes					0.97			1.00					
Flpb, ped/bikes					1.00			0.98					
Frt					0.92			1.00					
Flt Protected					1.00			0.98					
Satd. Flow (prot)					4549			4908					
Flt Permitted					1.00			0.98					
Satd. Flow (perm)					4549			4908					
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	0	293	302	241	447	0	0	0	0	
RTOR Reduction (vph)	0	0	0	0	158	0	0	140	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	437	0	0	548	0	0	0	0	
Confl. Peds. (#/hr)						72	72						
Turn Type								Perm					
Protected Phases					1			2					
Permitted Phases							2						
Actuated Green, G (s)					21.5			21.5					
Effective Green, g (s)					21.0			21.0					
Actuated g/C Ratio					0.42			0.42					
Clearance Time (s)					3.5			3.5					
Lane Grp Cap (vph)					1911			2061					
v/s Ratio Prot					c0.10								
v/s Ratio Perm								0.11					
v/c Ratio					0.23			0.27					
Uniform Delay, d1					9.3			9.5					
Progression Factor					1.12			0.92					
Incremental Delay, d2					0.3			0.3					
Delay (s)					10.7			9.0					
Level of Service					B			A					
Approach Delay (s)		0.0			10.7			9.0			0.0		
Approach LOS		A			B			A			A		
Intersection Summary													
HCM Average Control Delay			9.8		HCM Level of Service				A				
HCM Volume to Capacity ratio			0.25										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			37.7%		ICU Level of Service				A				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	46	279	0	0	0	0	0	1529	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.99	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.98	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					5009						4928	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					5009						4928	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	46	279	0	0	0	0	0	1529	242
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	43	0
Lane Group Flow (vph)	0	0	0	0	295	0	0	0	0	0	1728	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1703						2070	
v/s Ratio Prot											c0.35	
v/s Ratio Perm					0.06							
v/c Ratio					0.17						0.83	
Uniform Delay, d1					11.6						13.0	
Progression Factor					1.00						1.61	
Incremental Delay, d2					0.2						0.4	
Delay (s)					11.8						21.3	
Level of Service					B						C	
Approach Delay (s)		0.0			11.8			0.0			21.3	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM Average Control Delay			19.8								HCM Level of Service	B
HCM Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			50.0							12.0		
Intersection Capacity Utilization			50.6%								ICU Level of Service	A
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔↔						↔	↔		↔	
Volume (vph)	20	376	55	0	0	0	0	20	280	5	20	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	3.5		4.0	
Lane Util. Factor		0.91						0.95	0.95		1.00	
Frbp, ped/bikes		0.99						0.93	0.92		1.00	
Flpb, ped/bikes		1.00						1.00	1.00		0.99	
Frt		0.98						0.87	0.85		1.00	
Flt Protected		1.00						1.00	1.00		0.99	
Satd. Flow (prot)		4934						1435	1387		1824	
Flt Permitted		1.00						1.00	1.00		0.96	
Satd. Flow (perm)		4934						1435	1387		1766	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	20	280	5	20	0
RTOR Reduction (vph)	0	26	0	0	0	0	0	90	99	0	0	0
Lane Group Flow (vph)	0	425	0	0	0	0	0	62	49	0	25	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm								Perm	Perm		
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)		26.5						16.5	16.5		16.5	
Effective Green, g (s)		26.0						16.0	16.5		16.0	
Actuated g/C Ratio		0.52						0.32	0.33		0.32	
Clearance Time (s)		3.5						3.5	3.5		3.5	
Lane Grp Cap (vph)		2566						459	458		565	
v/s Ratio Prot								c0.04				
v/s Ratio Perm		0.09							0.04		0.01	
v/c Ratio		0.17						0.14	0.11		0.04	
Uniform Delay, d1		6.3						12.1	11.6		11.7	
Progression Factor		0.32						0.46	0.58		1.00	
Incremental Delay, d2		0.1						0.6	0.5		0.1	
Delay (s)		2.1						6.1	7.2		11.9	
Level of Service		A						A	A		B	
Approach Delay (s)		2.1			0.0			6.6			11.9	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	4.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.15		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑								↘	↑↑		
Volume (vph)	0	629	32	0	0	0	0	0	0	140	387	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0								4.0	4.0		
Lane Util. Factor		0.91								0.91	0.91		
Frbp, ped/bikes		1.00								1.00	1.00		
Flpb, ped/bikes		1.00								0.95	1.00		
Frt		0.99								1.00	1.00		
Flt Protected		1.00								0.95	1.00		
Satd. Flow (prot)		5033								1528	3378		
Flt Permitted		1.00								0.95	1.00		
Satd. Flow (perm)		5033								1528	3378		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	629	32	0	0	0	0	0	0	140	387	0	
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	73	5	0	
Lane Group Flow (vph)	0	650	0	0	0	0	0	0	0	53	396	0	
Confl. Peds. (#/hr)			72							72			
Turn Type										Perm			
Protected Phases		1									2		
Permitted Phases										2			
Actuated Green, G (s)		21.5								21.5	21.5		
Effective Green, g (s)		21.0								21.0	21.0		
Actuated g/C Ratio		0.42								0.42	0.42		
Clearance Time (s)		3.5								3.5	3.5		
Lane Grp Cap (vph)		2114								642	1419		
v/s Ratio Prot		0.13											
v/s Ratio Perm										0.03	0.12		
v/c Ratio		0.31								0.08	0.28		
Uniform Delay, d1		9.7								8.7	9.5		
Progression Factor		1.06								2.78	1.11		
Incremental Delay, d2		0.4								0.2	0.5		
Delay (s)		10.7								24.5	11.0		
Level of Service		B								C	B		
Approach Delay (s)		10.7			0.0			0.0			14.2		
Approach LOS		B			A			A			B		
Intersection Summary													
HCM Average Control Delay			12.2		HCM Level of Service						B		
HCM Volume to Capacity ratio			0.29										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)					8.0			
Intersection Capacity Utilization			43.1%		ICU Level of Service					A			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Volume (vph)	348	417	0	0	0	0	0	360	121	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.91						0.91				
Frbp, ped/bikes		1.00						0.98				
Flpb, ped/bikes		0.98						1.00				
Frt		1.00						0.96				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		4856						4817				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		4856						4817				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	348	417	0	0	0	0	0	360	121	0	0	0
RTOR Reduction (vph)	0	202	0	0	0	0	0	70	0	0	0	0
Lane Group Flow (vph)	0	563	0	0	0	0	0	411	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		21.5						21.5				
Effective Green, g (s)		21.0						21.0				
Actuated g/C Ratio		0.42						0.42				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		2040						2023				
v/s Ratio Prot								c0.09				
v/s Ratio Perm		0.12										
v/c Ratio		0.28						0.20				
Uniform Delay, d1		9.5						9.2				
Progression Factor		0.27						1.00				
Incremental Delay, d2		0.3						0.2				
Delay (s)		2.9						9.4				
Level of Service		A						A				
Approach Delay (s)		2.9			0.0			9.4			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			5.4				HCM Level of Service		A			
HCM Volume to Capacity ratio			0.24									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)		8.0			
Intersection Capacity Utilization			43.4%				ICU Level of Service		A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	114	254	0	0	0	39	0	995	22	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	1.00				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	1.00				1.00		1.00				
Satd. Flow (prot)	3221	1687				1611		5055				
Flt Permitted	0.95	1.00				1.00		1.00				
Satd. Flow (perm)	3221	1687				1611		5055				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	114	254	0	0	0	39	0	995	22	0	0	0
RTOR Reduction (vph)	78	2	0	0	0	35	0	5	0	0	0	0
Lane Group Flow (vph)	25	263	0	0	0	4	0	1012	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	12.5	21.5				5.5		21.5				
Effective Green, g (s)	12.0	21.0				5.0		21.0				
Actuated g/C Ratio	0.24	0.42				0.10		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	773	709				161		2123				
v/s Ratio Prot	0.01	c0.09				0.00		c0.20				
v/s Ratio Perm		0.07										
v/c Ratio	0.03	0.37				0.02		0.48				
Uniform Delay, d1	14.6	10.0				20.3		10.5				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	0.1	1.5				0.3		0.8				
Delay (s)	14.6	11.4				20.6		11.3				
Level of Service	B	B				C		B				
Approach Delay (s)		12.3			20.6			11.3			0.0	
Approach LOS		B			C			B			A	

Intersection Summary

HCM Average Control Delay	11.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	298	154	90	11	43	376
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.88	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1629	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1629	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	298	154	90	11	43	376
RTOR Reduction (vph)	0	0	0	6	267	0
Lane Group Flow (vph)	298	154	90	5	152	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	13.9	15.1	10.3	20.6	10.3	
Effective Green, g (s)	14.4	15.1	10.3	20.6	10.3	
Actuated g/C Ratio	0.31	0.32	0.22	0.44	0.22	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	542	599	408	829	357	
v/s Ratio Prot	c0.17	c0.08	0.05	0.00	c0.09	
v/s Ratio Perm				0.00		
v/c Ratio	0.55	0.26	0.22	0.01	0.43	
Uniform Delay, d1	13.6	11.8	15.1	7.4	15.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.9	0.4	0.5	0.0	0.8	
Delay (s)	14.5	12.2	15.5	7.4	16.6	
Level of Service	B	B	B	A	B	
Approach Delay (s)		13.7	14.6		16.6	
Approach LOS		B	B		B	

Intersection Summary

HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	47.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				
Volume (vph)	0	0	0	0	753	81	148	752	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				
Lane Util. Factor					0.86		0.97	0.95				
Frbp, ped/bikes					0.99		1.00	1.00				
Flpb, ped/bikes					1.00		1.00	1.00				
Frt					0.99		1.00	1.00				
Flt Protected					1.00		0.95	1.00				
Satd. Flow (prot)					6110		3433	3362				
Flt Permitted					1.00		0.95	1.00				
Satd. Flow (perm)					6110		3433	3362				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	753	81	148	752	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	36	0	68	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	798	0	80	752	0	0	0	0
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					
Protected Phases					1		2	2				
Permitted Phases												
Actuated Green, G (s)					17.0		24.5	24.5				
Effective Green, g (s)					18.0		24.0	24.0				
Actuated g/C Ratio					0.36		0.48	0.48				
Clearance Time (s)					5.0		3.5	3.5				
Lane Grp Cap (vph)					2200		1648	1614				
v/s Ratio Prot					c0.13		0.02	c0.22				
v/s Ratio Perm												
v/c Ratio					0.36		0.05	0.47				
Uniform Delay, d1					11.8		6.9	8.7				
Progression Factor					0.51		1.24	0.99				
Incremental Delay, d2					0.4		0.0	0.9				
Delay (s)					6.4		8.6	9.5				
Level of Service					A		A	A				
Approach Delay (s)		0.0			6.4			9.3			0.0	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	53	795	73	34	239	0	0	20	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes					0.99		1.00	1.00			1.00	1.00
Frt					0.99		1.00	1.00			0.93	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4943		1610	3388			1640	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4943		1610	3388			1640	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	53	795	73	34	239	0	0	20	55
RTOR Reduction (vph)	0	0	0	0	20	0	0	0	0	0	16	31
Lane Group Flow (vph)	0	0	0	0	901	0	31	242	0	0	23	5
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					16.5		15.5	15.5			7.5	7.5
Effective Green, g (s)					16.0		15.0	15.0			7.0	7.0
Actuated g/C Ratio					0.32		0.30	0.30			0.14	0.14
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1582		483	1016			230	211
v/s Ratio Prot							0.02	c0.07			c0.01	0.00
v/s Ratio Perm					0.18							
v/c Ratio					0.57		0.06	0.24			0.10	0.02
Uniform Delay, d1					14.1		12.5	13.2			18.7	18.6
Progression Factor					0.73		1.26	1.25			0.66	0.74
Incremental Delay, d2					1.5		0.2	0.5			0.9	0.2
Delay (s)					11.8		16.0	17.0			13.2	13.9
Level of Service					B		B	B			B	B
Approach Delay (s)		0.0			11.8			16.9			13.5	
Approach LOS		A			B			B			B	

Intersection Summary

HCM Average Control Delay	13.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔						↕	↗
Volume (vph)	0	0	0	253	701	0	0	0	0	0	266	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.93	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1412	4786						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1412	4786						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	253	701	0	0	0	0	0	266	218
RTOR Reduction (vph)	0	0	0	123	7	0	0	0	0	0	0	135
Lane Group Flow (vph)	0	0	0	105	719	0	0	0	0	0	266	83
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				23.5	23.5						19.5	19.5
Effective Green, g (s)				23.0	23.0						19.0	19.0
Actuated g/C Ratio				0.46	0.46						0.38	0.38
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				650	2202						1345	1059
v/s Ratio Prot											c0.08	
v/s Ratio Perm				0.07	0.15							0.03
v/c Ratio				0.16	0.33						0.20	0.08
Uniform Delay, d1				7.9	8.6						10.4	9.9
Progression Factor				1.00	1.00						0.45	0.71
Incremental Delay, d2				0.5	0.4						0.3	0.1
Delay (s)				8.4	9.0						5.0	7.2
Level of Service				A	A						A	A
Approach Delay (s)		0.0			8.8			0.0			6.0	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑→		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	1	1523	539	83	91	108	2	1575	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6056		2787	3433	1863	1584	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6056		2787	3433	1863	1584	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	1523	539	83	91	108	2	1575	211
RTOR Reduction (vph)	0	0	0	8	0	0	0	18	0
Lane Group Flow (vph)	0	2063	0	75	91	108	601	1169	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		34.3		9.5	9.5	9.5	44.7	44.7	
Effective Green, g (s)		34.3		9.0	9.0	9.0	44.7	44.7	
Actuated g/C Ratio		0.34		0.09	0.09	0.09	0.45	0.45	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		2077		251	309	168	708	1288	
v/s Ratio Prot		c0.34				c0.06	0.38	c0.41	
v/s Ratio Perm				0.03	0.03				
v/c Ratio		0.99		0.30	0.29	0.64	0.85	0.91	
Uniform Delay, d1		32.7		42.5	42.5	43.9	24.6	25.7	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		18.2		0.2	0.2	6.2	9.7	9.6	
Delay (s)		51.0		42.8	42.7	50.1	34.3	35.3	
Level of Service		D		D	D	D	C	D	
Approach Delay (s)		51.0				46.7	35.0		
Approach LOS		D				D	D		

Intersection Summary

HCM Average Control Delay	43.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	680	2325	96	0	0	0	0	260	274	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.93					0.98	0.94			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.96	0.85			
Flt Protected	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (prot)	1290	6023	1476					3179	1351			
Flt Permitted	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (perm)	1290	6023	1476					3179	1351			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	680	2325	96	0	0	0	0	260	274	0	0	0
RTOR Reduction (vph)	126	4	27	0	0	0	0	2	2	0	0	0
Lane Group Flow (vph)	452	2423	69	0	0	0	0	368	162	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	70.8	70.8	70.8					21.2	21.2			
Effective Green, g (s)	70.8	70.8	70.8					21.2	21.2			
Actuated g/C Ratio	0.71	0.71	0.71					0.21	0.21			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	913	4264	1045					674	286			
v/s Ratio Prot	0.35	c0.40						0.12				
v/s Ratio Perm			0.05						c0.12			
v/c Ratio	0.50	0.57	0.07					0.55	0.57			
Uniform Delay, d1	6.6	7.1	4.5					35.1	35.3			
Progression Factor	1.46	1.05	1.07					1.00	1.00			
Incremental Delay, d2	0.8	0.2	0.1					0.5	1.5			
Delay (s)	10.4	7.8	4.8					35.6	36.8			
Level of Service	B	A	A					D	D			
Approach Delay (s)		8.2			0.0			36.0			0.0	
Approach LOS		A			A			D			A	
Intersection Summary												
HCM Average Control Delay			12.2					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			100.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			59.7%					ICU Level of Service			B	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔↔						↔		↔		
Volume (vph)	390	2048	0	0	0	0	0	8	4	28	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.98		1.00		
Flpb, ped/bikes	0.92	1.00						1.00		0.94		
Frt	1.00	1.00						0.96		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1404	4794						1737		1665		
Flt Permitted	0.95	1.00						1.00		0.75		
Satd. Flow (perm)	1404	4794						1737		1314		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	2048	0	0	0	0	0	8	4	28	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	3	0	0	0	0
Lane Group Flow (vph)	351	2087	0	0	0	0	0	9	0	28	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	71.5	71.5						21.5		21.5		
Effective Green, g (s)	71.0	71.0						21.0		21.0		
Actuated g/C Ratio	0.71	0.71						0.21		0.21		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	997	3404						365		276		
v/s Ratio Prot								0.01				
v/s Ratio Perm	0.25	0.44								c0.02		
v/c Ratio	0.35	0.61						0.02		0.10		
Uniform Delay, d1	5.6	7.4						31.4		31.9		
Progression Factor	1.28	1.17						1.00		0.76		
Incremental Delay, d2	0.8	0.7						0.1		0.7		
Delay (s)	8.0	9.4						31.5		24.8		
Level of Service	A	A						C		C		
Approach Delay (s)		9.2			0.0			31.5				24.8
Approach LOS		A			A			C				C

Intersection Summary

HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑								↑↑↑	
Volume (vph)	0	1986	280	0	0	0	0	0	0	156	254	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0								4.0	
Lane Util. Factor		0.86	0.86								0.91	
Frbp, ped/bikes		1.00	0.93								1.00	
Flpb, ped/bikes		1.00	1.00								0.98	
Frt		1.00	0.85								1.00	
Flt Protected		1.00	1.00								0.98	
Satd. Flow (prot)		4791	1265								4876	
Flt Permitted		1.00	1.00								0.98	
Satd. Flow (perm)		4791	1265								4876	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1986	280	0	0	0	0	0	0	156	254	0
RTOR Reduction (vph)	0	1	60	0	0	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	2013	192	0	0	0	0	0	0	0	401	0
Confl. Peds. (#/hr)			36							36		
Turn Type			Perm								Perm	
Protected Phases		1										2
Permitted Phases			1								2	
Actuated Green, G (s)		61.5	61.5								31.5	
Effective Green, g (s)		61.0	61.0								31.0	
Actuated g/C Ratio		0.61	0.61								0.31	
Clearance Time (s)		3.5	3.5								3.5	
Lane Grp Cap (vph)		2923	772								1512	
v/s Ratio Prot		0.42										
v/s Ratio Perm			0.15								0.08	
v/c Ratio		0.69	0.25								0.27	
Uniform Delay, d1		13.1	9.0								25.9	
Progression Factor		0.35	0.04								0.94	
Incremental Delay, d2		1.1	0.6								0.4	
Delay (s)		5.8	1.0								24.9	
Level of Service		A	A								C	
Approach Delay (s)		5.2			0.0			0.0			24.9	
Approach LOS		A			A			A			C	

Intersection Summary

HCM Average Control Delay	8.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
57: L St & 3rd St

Railyards Study
Existing Conditions AM Peak



Movement	WBL	WBT	WBR	WBR2	SBT	SBR	SBR2
Lane Configurations							
Volume (vph)	93	144	241	60	632	108	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	0.91		
Frt	1.00	0.96	0.85	0.85	0.98		
Flt Protected	0.95	1.00	1.00	1.00	1.00		
Satd. Flow (prot)	1681	1624	1504	1583	4964		
Flt Permitted	0.95	1.00	1.00	1.00	1.00		
Satd. Flow (perm)	1681	1624	1504	1583	4964		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	93	144	241	60	632	108	12
RTOR Reduction (vph)	46	2	0	33	2	0	0
Lane Group Flow (vph)	38	206	186	27	750	0	0
Turn Type	Perm		Perm	Perm			
Protected Phases		2			4		
Permitted Phases	2		2	2			
Actuated Green, G (s)	32.5	32.5	32.5	32.5	30.5		
Effective Green, g (s)	32.0	32.0	32.0	32.0	30.0		
Actuated g/C Ratio	0.46	0.46	0.46	0.46	0.43		
Clearance Time (s)	3.5	3.5	3.5	3.5	3.5		
Lane Grp Cap (vph)	768	742	688	724	2127		
v/s Ratio Prot					c0.15		
v/s Ratio Perm	0.02	0.13	0.12	0.02			
v/c Ratio	0.05	0.28	0.27	0.04	0.35		
Uniform Delay, d1	10.6	11.8	11.8	10.5	13.5		
Progression Factor	0.33	0.66	0.66	0.37	1.00		
Incremental Delay, d2	0.1	0.9	1.0	0.1	0.5		
Delay (s)	3.6	8.7	8.7	4.0	13.9		
Level of Service	A	A	A	A	B		
Approach Delay (s)		7.4			13.9		
Approach LOS		A			B		

Intersection Summary			
HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	514	93	76	483	0	0	0	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				4.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.98		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6181		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6181		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	514	93	76	483	0	0	0	98
RTOR Reduction (vph)	0	0	0	0	47	0	37	0	0	0	0	48
Lane Group Flow (vph)	0	0	0	0	560	0	39	483	0	0	0	50
Confl. Peds. (#/hr)							55	55				55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					25.0		35.5	35.5				35.5
Effective Green, g (s)					26.0		36.0	36.0				36.0
Actuated g/C Ratio					0.37		0.51	0.51				0.51
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					2296		840	2615				1308
v/s Ratio Prot					c0.09			c0.09				
v/s Ratio Perm							0.02					0.02
v/c Ratio					0.24		0.05	0.18				0.04
Uniform Delay, d1					15.2		8.5	9.1				8.4
Progression Factor					1.00		1.13	0.91				1.00
Incremental Delay, d2					0.3		0.1	0.1				0.1
Delay (s)					15.5		9.7	8.4				8.5
Level of Service					B		A	A				A
Approach Delay (s)		0.0			15.5			8.6			8.5	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	188	662	0	0	0	0	0	334	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.95	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4729	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4729	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	188	662	0	0	0	0	0	334	175
RTOR Reduction (vph)	0	0	0	132	0	0	0	0	0	0	98	0
Lane Group Flow (vph)	0	0	0	56	662	0	0	0	0	0	411	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						22.5	
Effective Green, g (s)				15.0	15.0						22.0	
Actuated g/C Ratio				0.30	0.30						0.44	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2081	
v/s Ratio Prot					c0.13						c0.09	
v/s Ratio Perm				0.03								
v/c Ratio				0.11	0.43						0.20	
Uniform Delay, d1				12.7	14.1						8.6	
Progression Factor				1.00	1.00						2.07	
Incremental Delay, d2				0.0	0.1						0.2	
Delay (s)				12.7	14.2						18.0	
Level of Service				B	B						B	
Approach Delay (s)		0.0			13.8			0.0			18.0	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	482	304	0	0	101	76	137	576	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.96		1.00	0.99				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.94		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4589		3433	5016				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4589		3433	5016				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	482	304	0	0	101	76	137	576	35	0	0	0
RTOR Reduction (vph)	0	0	0	0	61	0	0	9	0	0	0	0
Lane Group Flow (vph)	482	304	0	0	116	0	137	602	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		31.0	31.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.44	0.44				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			918		1520	2221				
v/s Ratio Prot	c0.14	c0.09			0.03		0.04	c0.12				
v/s Ratio Perm												
v/c Ratio	0.76	0.19			0.13		0.09	0.27				
Uniform Delay, d1	27.0	11.9			23.0		11.3	12.3				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	8.1	0.3			0.3		0.1	0.3				
Delay (s)	35.1	12.2			23.3		11.4	12.6				
Level of Service	D	B			C		B	B				
Approach Delay (s)		26.2			23.3			12.4			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	19.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

Railyards Study
Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Volume (vph)	0	0	0	158	506	0	0	0	0	0	199	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.91	0.91
Frbp, ped/bikes					1.00						0.99	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.98	0.85
Flt Protected					0.99						1.00	1.00
Satd. Flow (prot)					4858						3107	1190
Flt Permitted					0.99						1.00	1.00
Satd. Flow (perm)					4858						3107	1190
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	158	506	0	0	0	0	0	199	137
RTOR Reduction (vph)	0	0	0	0	73	0	0	0	0	0	25	71
Lane Group Flow (vph)	0	0	0	0	591	0	0	0	0	0	210	30
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2623						932	357
v/s Ratio Prot					c0.12						c0.07	
v/s Ratio Perm												0.03
v/c Ratio					0.23						0.23	0.08
Uniform Delay, d1					6.0						13.1	12.6
Progression Factor					1.00						1.00	1.00
Incremental Delay, d2					0.2						0.6	0.5
Delay (s)					6.2						13.7	13.0
Level of Service					A						B	B
Approach Delay (s)		0.0			6.2			0.0			13.5	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	8.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

Railyards Study

Existing Conditions AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑									↑↑↑↑	
Volume (vph)	0	1997	308	0	0	0	0	0	0	129	202	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.97	
Frt		0.98									1.00	
Flt Protected		1.00									0.98	
Satd. Flow (prot)		6236									4848	
Flt Permitted		1.00									0.98	
Satd. Flow (perm)		6236									4848	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1997	308	0	0	0	0	0	0	129	202	0
RTOR Reduction (vph)	0	56	0	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	2249	0	0	0	0	0	0	0	0	326	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3367									1454	
v/s Ratio Prot		c0.36										
v/s Ratio Perm											0.07	
v/c Ratio		0.67									0.22	
Uniform Delay, d1		8.3									13.1	
Progression Factor		1.00									0.80	
Incremental Delay, d2		1.1									0.4	
Delay (s)		9.3									10.9	
Level of Service		A									B	
Approach Delay (s)		9.3			0.0			0.0			10.9	
Approach LOS		A			A			A			B	

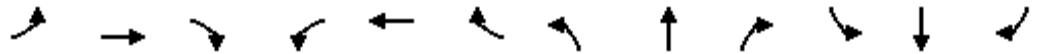
Intersection Summary

HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Richard Blvd & I-5 SB Off

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑						↑	↑
Volume (vph)	0	533	58	594	378	0	0	0	0	325	3	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	4.0
Lane Util. Factor		0.95		0.97	1.00						1.00	1.00
Frbp, ped/bikes		0.99		1.00	1.00						1.00	0.86
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.99		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3444		3433	1863						1775	1365
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3444		3433	1863						1775	1365
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	533	58	594	378	0	0	0	0	325	3	244
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	0	188
Lane Group Flow (vph)	0	580	0	594	378	0	0	0	0	0	328	56
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9 3 12 13						4	4	
Permitted Phases												4
Actuated Green, G (s)		12.5		31.0	46.5						16.0	16.0
Effective Green, g (s)		12.5		29.5	46.0						16.0	16.0
Actuated g/C Ratio		0.18		0.42	0.66						0.23	0.23
Clearance Time (s)		4.0									4.0	4.0
Vehicle Extension (s)		6.0									5.0	5.0
Lane Grp Cap (vph)		615		1447	1224						406	312
v/s Ratio Prot		c0.17		c0.17	0.20						c0.18	
v/s Ratio Perm												0.04
v/c Ratio		0.94		0.41	0.31						0.81	0.18
Uniform Delay, d1		28.4		14.2	5.2						25.5	21.7
Progression Factor		1.00		0.07	0.03						1.00	1.00
Incremental Delay, d2		24.0		0.3	0.2						12.7	0.6
Delay (s)		52.4		1.3	0.4						38.2	22.3
Level of Service		D		A	A						D	C
Approach Delay (s)		52.4			1.0			0.0			31.4	
Approach LOS		D			A			A			C	

Intersection Summary

HCM Average Control Delay	23.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗		↕	↗			
Volume (vph)	355	504	0	0	921	985	51	9	328	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.84		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.90	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)	1770	3539			3539	1337		1564	1504			
Flt Permitted	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)	1770	3539			3539	1337		1564	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	355	504	0	0	921	985	51	9	328	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	470	0	101	113	0	0	0
Lane Group Flow (vph)	355	504	0	0	921	515	0	97	77	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot				custom		Split	custom				
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	12.7	29.5			27.0	23.5		19.3	33.5			
Effective Green, g (s)	12.2	29.0			23.5	23.5		18.8	28.5			
Actuated g/C Ratio	0.17	0.41			0.34	0.34		0.27	0.41			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	308	1466			1188	449		420	612			
v/s Ratio Prot	c0.20	0.14			0.26	c0.17		c0.06	0.05			
v/s Ratio Perm						0.22						
v/c Ratio	1.15	0.34			0.78	1.15		0.23	0.13			
Uniform Delay, d1	28.9	14.0			20.9	23.3		20.0	13.0			
Progression Factor	0.80	0.09			1.00	1.00		1.00	1.00			
Incremental Delay, d2	84.1	0.1			3.8	89.6		0.6	0.2			
Delay (s)	107.3	1.4			24.7	112.9		20.6	13.2			
Level of Service	F	A			C	F		C	B			
Approach Delay (s)		45.2			70.2			16.9			0.0	
Approach LOS		D			E			B			A	

Intersection Summary

HCM Average Control Delay	56.8	HCM Level of Service	E
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	104.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	196	594	61	20	1379	36	175	15	13	40	14	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.2		5.2	5.2			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	0.99		1.00	1.00			1.00	0.96		1.00	1.00
Flpb, ped/bikes	1.00	1.00		0.98	1.00			1.00	1.00		0.98	1.00
Frt	1.00	0.99		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.96	1.00
Satd. Flow (prot)	1768	3470		1739	5054			1781	1521		1769	1583
Flt Permitted	0.15	1.00		0.40	1.00			0.70	1.00		0.74	1.00
Satd. Flow (perm)	278	3470		738	5054			1311	1521		1366	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	196	594	61	20	1379	36	175	15	13	40	14	259
RTOR Reduction (vph)	0	10	0	0	3	0	0	0	10	0	0	199
Lane Group Flow (vph)	196	645	0	20	1412	0	0	190	3	0	54	60
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	34.0	34.0		23.3	23.3			13.3	13.3		13.3	13.3
Effective Green, g (s)	33.5	33.4		22.7	22.7			12.8	12.8		12.8	12.8
Actuated g/C Ratio	0.60	0.60		0.41	0.41			0.23	0.23		0.23	0.23
Clearance Time (s)	3.5	4.6		4.6	4.6			3.5	3.5		3.5	3.5
Vehicle Extension (s)	0.2	0.2		0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	348	2092		302	2071			303	351		316	366
v/s Ratio Prot	c0.07	0.19			c0.28							
v/s Ratio Perm	0.27			0.03				c0.14	0.00		0.04	0.04
v/c Ratio	0.56	0.31		0.07	0.68			0.63	0.01		0.17	0.16
Uniform Delay, d1	7.0	5.4		9.9	13.4			19.2	16.4		17.1	17.0
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	1.2	0.0		0.0	0.7			2.9	0.0		0.1	0.1
Delay (s)	8.2	5.4		10.0	14.1			22.1	16.4		17.1	17.1
Level of Service	A	A		A	B			C	B		B	B
Approach Delay (s)		6.1			14.1			21.7			17.1	
Approach LOS		A			B			C			B	

Intersection Summary

HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	55.4	Sum of lost time (s)	13.2
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & 5th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	628	21	9	1568	11	13	1	17	15	0	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.96		1.00	0.95	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.97	1.00		0.97	1.00	
Frt	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3515		1770	3534		1711	1529		1709	1510	
Flt Permitted	0.95	1.00		0.95	1.00		0.73	1.00		0.75	1.00	
Satd. Flow (perm)	1770	3515		1770	3534		1313	1529		1342	1510	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	628	21	9	1568	11	13	1	17	15	0	43
RTOR Reduction (vph)	0	2	0	0	0	0	0	14	0	0	34	0
Lane Group Flow (vph)	12	647	0	9	1579	0	13	4	0	15	9	0
Confl. Peds. (#/hr)			36			36	36		36	36		36
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	1	6		5	2			8				4
Permitted Phases		6			2		8			4		
Actuated Green, G (s)	5.1	40.7		5.0	40.6		14.9	14.9		14.9	14.9	
Effective Green, g (s)	4.1	40.4		4.0	40.3		14.4	14.4		14.4	14.4	
Actuated g/C Ratio	0.06	0.57		0.06	0.56		0.20	0.20		0.20	0.20	
Clearance Time (s)	3.0	4.3		3.0	4.3		3.5	3.5		3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	102	1989		99	1995		265	308		271	305	
v/s Ratio Prot	c0.01	0.18		0.01	c0.45			0.00			0.01	
v/s Ratio Perm							0.01			c0.01		
v/c Ratio	0.12	0.33		0.09	0.79		0.05	0.01		0.06	0.03	
Uniform Delay, d1	31.9	8.2		32.0	12.2		23.0	22.8		23.0	22.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.0		0.1	2.1		0.0	0.0		0.0	0.0	
Delay (s)	32.1	8.3		32.1	14.3		23.0	22.8		23.0	22.9	
Level of Service	C	A		C	B		C	C		C	C	
Approach Delay (s)		8.7			14.4			22.9			22.9	
Approach LOS		A			B			C			C	

Intersection Summary

HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	71.4	Sum of lost time (s)	12.6
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	
Volume (vph)	9	553	97	84	1201	5	352	3	50	10	13	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3430		1770	3536		1681	1687	1583	1770	1666	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3430		1770	3536		1681	1687	1583	1770	1666	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	553	97	84	1201	5	352	3	50	10	13	31
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	34	0	30	0
Lane Group Flow (vph)	9	643	0	84	1206	0	176	179	16	10	14	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split		Prot	Split		
Protected Phases	1	6		5	2		8	8	8	7	7	
Permitted Phases												
Actuated Green, G (s)	5.1	37.6		8.5	41.0		15.2	15.2	15.2	3.6	3.6	
Effective Green, g (s)	4.1	37.6		7.5	41.0		14.7	14.7	14.7	3.1	3.1	
Actuated g/C Ratio	0.05	0.48		0.10	0.52		0.19	0.19	0.19	0.04	0.04	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.5	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	92	1635		168	1837		313	314	295	70	65	
v/s Ratio Prot	0.01	0.19		c0.05	c0.34		0.10	c0.11	0.01	0.01	c0.01	
v/s Ratio Perm												
v/c Ratio	0.10	0.39		0.50	0.66		0.56	0.57	0.05	0.14	0.22	
Uniform Delay, d1	35.6	13.3		33.9	13.8		29.2	29.2	26.4	36.6	36.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	0.1		0.9	0.7		1.4	1.6	0.0	0.3	0.6	
Delay (s)	35.8	13.4		34.8	14.5		30.6	30.8	26.4	37.0	37.3	
Level of Service	D	B		C	B		C	C	C	D	D	
Approach Delay (s)		13.7			15.8			30.1			37.3	
Approach LOS		B			B			C			D	

Intersection Summary

HCM Average Control Delay	18.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	78.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	565	31	6	1019	15	17	13	10	70	37	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0	5.0	4.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.94	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		0.98	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1496	1770	3529		1733	1863	1583	1770	1863	1492
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.73	1.00	1.00	0.75	1.00	1.00
Satd. Flow (perm)	1770	3539	1496	1770	3529		1337	1863	1583	1395	1863	1492
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	565	31	6	1019	15	17	13	10	70	37	170
RTOR Reduction (vph)	0	0	12	0	1	0	0	0	8	0	0	132
Lane Group Flow (vph)	26	565	19	6	1033	0	17	13	2	70	37	38
Confl. Peds. (#/hr)			35			35	35					35
Turn Type	Prot		Perm	Prot		Perm		Perm	Perm	Perm		Perm
Protected Phases	1	6		5	2			4				8
Permitted Phases			6				4		4	8		8
Actuated Green, G (s)	1.9	27.4	27.4	0.7	26.2		12.1	12.1	12.1	12.1	12.1	12.1
Effective Green, g (s)	1.4	26.9	26.9	0.2	25.7		11.6	11.6	11.6	11.6	11.6	11.6
Actuated g/C Ratio	0.03	0.52	0.52	0.00	0.50		0.22	0.22	0.22	0.22	0.22	0.22
Clearance Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2	0.2	2.0	2.0	2.0
Lane Grp Cap (vph)	48	1841	778	7	1754		300	418	355	313	418	335
v/s Ratio Prot	c0.01	0.16		0.00	c0.29			0.01			0.02	
v/s Ratio Perm			0.01				0.01		0.00	c0.05		0.03
v/c Ratio	0.54	0.31	0.02	0.86	0.59		0.06	0.03	0.01	0.22	0.09	0.11
Uniform Delay, d1	24.8	7.1	6.0	25.7	9.2		15.8	15.7	15.6	16.4	15.9	16.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.5	0.0	0.0	238.9	0.3		0.0	0.0	0.0	0.1	0.0	0.1
Delay (s)	31.4	7.1	6.0	264.6	9.6		15.8	15.7	15.6	16.5	15.9	16.0
Level of Service	C	A	A	F	A		B	B	B	B	B	B
Approach Delay (s)		8.1			11.0			15.7			16.1	
Approach LOS		A			B			B			B	

Intersection Summary

HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	51.7	Sum of lost time (s)	13.0
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	545	39	7	899	4	42	13	18	24	13	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00			0.98			0.98	
Flpb, ped/bikes	0.97	1.00		0.94	1.00			0.97			0.98	
Frt	1.00	0.99		1.00	1.00			0.97			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.98	
Satd. Flow (prot)	1714	3470		1671	3535			1674			1660	
Flt Permitted	0.28	1.00		0.42	1.00			0.84			0.90	
Satd. Flow (perm)	510	3470		747	3535			1450			1518	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	545	39	7	899	4	42	13	18	24	13	22
RTOR Reduction (vph)	0	5	0	0	0	0	0	14	0	0	17	0
Lane Group Flow (vph)	12	579	0	7	903	0	0	59	0	0	42	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	49.4	49.4		49.4	49.4			19.6			19.6	
Effective Green, g (s)	48.9	48.9		48.9	48.9			19.1			19.1	
Actuated g/C Ratio	0.64	0.64		0.64	0.64			0.25			0.25	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	324	2204		474	2245			360			377	
v/s Ratio Prot		0.17			c0.26							
v/s Ratio Perm	0.02			0.01				c0.04			0.03	
v/c Ratio	0.04	0.26		0.01	0.40			0.17			0.11	
Uniform Delay, d1	5.3	6.2		5.2	6.9			22.7			22.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.2	0.3		0.1	0.5			0.1			0.0	
Delay (s)	5.5	6.4		5.2	7.4			22.8			22.4	
Level of Service	A	A		A	A			C			C	
Approach Delay (s)		6.4			7.4			22.8			22.4	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	8.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	77.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	389	80	18	41	0	0	0	0	170	1912	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		1.00	1.00		1.00						0.86	
Frbp, ped/bikes		1.00	0.98		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		0.98						1.00	
Satd. Flow (prot)		1863	1548		1832						6363	
Flt Permitted		1.00	1.00		0.80						1.00	
Satd. Flow (perm)		1863	1548		1491						6363	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	389	80	18	41	0	0	0	0	170	1912	13
RTOR Reduction (vph)	0	0	51	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	389	29	0	59	0	0	0	0	0	2094	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm							Perm	
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)		20.2	20.2		20.2						34.4	
Effective Green, g (s)		19.7	19.7		19.7						34.4	
Actuated g/C Ratio		0.27	0.27		0.27						0.48	
Clearance Time (s)		3.5	3.5		3.5						4.0	
Vehicle Extension (s)		2.0	2.0		2.0						5.0	
Lane Grp Cap (vph)		508	422		406						3027	
v/s Ratio Prot		c0.21										
v/s Ratio Perm			0.02		0.04						0.33	
v/c Ratio		0.77	0.07		0.15						0.69	
Uniform Delay, d1		24.2	19.5		19.9						14.8	
Progression Factor		1.00	1.00		1.00						1.00	
Incremental Delay, d2		6.1	0.0		0.1						0.9	
Delay (s)		30.3	19.5		20.0						15.7	
Level of Service		C	B		B						B	
Approach Delay (s)		28.5			20.0			0.0			15.7	
Approach LOS		C			B			A			B	

Intersection Summary

HCM Average Control Delay	18.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	72.3	Sum of lost time (s)	18.2
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: Basler St & 16th Street

Railyards Study
 Existing Conditions PM PEAK



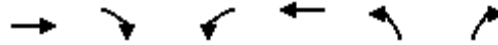
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	678	6	0	0	10	16	45	3936	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.92			1.00				
Flpb, ped/bikes	0.88	0.89			1.00			1.00				
Frt	1.00	1.00			0.92			1.00				
Flt Protected	0.95	0.95			1.00			1.00				
Satd. Flow (prot)	1487	1495			1572			6399				
Flt Permitted	0.74	0.71			1.00			1.00				
Satd. Flow (perm)	1158	1115			1572			6399				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	678	6	0	0	10	16	45	3936	6	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	339	345	0	0	26	0	0	3987	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			73.0				
Effective Green, g (s)	18.0	18.0			18.0			74.0				
Actuated g/C Ratio	0.18	0.18			0.18			0.74				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	208	201			283			4735				
v/s Ratio Prot					0.02							
v/s Ratio Perm	0.29	0.31						0.62				
v/c Ratio	1.63	1.72			0.09			0.84				
Uniform Delay, d1	41.0	41.0			34.2			9.0				
Progression Factor	1.00	1.00			1.00			0.48				
Incremental Delay, d2	304.3	342.6			0.6			1.1				
Delay (s)	345.3	383.6			34.8			5.4				
Level of Service	F	F			C			A				
Approach Delay (s)		364.6			34.8			5.4			0.0	
Approach LOS		F			C			A			A	

Intersection Summary

HCM Average Control Delay	57.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 13: Bercut Dr & Bannon St

Railyards Study
 Existing Conditions PM PEAK





















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Volume (veh/h)	41	13	0	87	13	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	41	13	0	87	13	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	512					
pX, platoon unblocked						
vC, conflicting volume			54		134	48
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			54		134	48
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	100
cM capacity (veh/h)			1551		859	1022

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	54	87	14
Volume Left	0	0	13
Volume Right	13	0	1
cSH	1700	1551	869
Volume to Capacity	0.03	0.00	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	9.2
Lane LOS			A
Approach Delay (s)	0.0	0.0	9.2
Approach LOS			A

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization		14.6%	ICU Level of Service A
Analysis Period (min)		15	
Description: SB coded as EB			

HCM Unsignalized Intersection Capacity Analysis
 18: Water St & 7th Street

Railyards Study
 Existing Conditions PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	1	29	11	54	43	67	62	332	205	39	155	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1	29	11	54	43	67	62	332	205	39	155	6
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1	SB 2						
Volume Total (vph)	41	97	67	599	39	161						
Volume Left (vph)	1	54	0	62	39	0						
Volume Right (vph)	11	0	67	205	0	6						
Hadj (s)	-0.12	0.31	-0.67	-0.15	0.53	0.01						
Departure Headway (s)	6.9	7.0	6.0	5.3	6.4	5.9						
Degree Utilization, x	0.08	0.19	0.11	0.88	0.07	0.26						
Capacity (veh/h)	485	484	562	670	539	588						
Control Delay (s)	10.5	10.5	8.6	35.2	8.7	9.8						
Approach Delay (s)	10.5	9.7		35.2	9.6							
Approach LOS	B	A		E	A							
Intersection Summary												
Delay			24.9									
HCM Level of Service			C									
Intersection Capacity Utilization			63.8%	ICU Level of Service	B							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 19: Water St & 10th St

Railyards Study
 Existing Conditions PM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (veh/h)	8	250	120	20	78	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	250	120	20	78	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			841			
pX, platoon unblocked						
vC, conflicting volume	140				271	70
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	140				271	70
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				89	99
cM capacity (veh/h)	1441				692	978

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	91	167	80	60	88
Volume Left	8	0	0	0	78
Volume Right	0	0	0	20	10
cSH	1441	1700	1700	1700	716
Volume to Capacity	0.01	0.10	0.05	0.04	0.12
Queue Length 95th (ft)	0	0	0	0	10
Control Delay (s)	0.7	0.0	0.0	0.0	10.7
Lane LOS	A				B
Approach Delay (s)	0.2		0.0		10.7
Approach LOS					B

Intersection Summary					
Average Delay			2.1		
Intersection Capacity Utilization			24.3%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis
20: Water St & 12th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations	↑↑		↖	↗			↕			5111		
Volume (vph)	313	60	58	65	31	4	27	18	55	1848	53	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0			4.0			4.0		
Lane Util. Factor	0.95		1.00	1.00			1.00			0.91		
Frbp, ped/bikes	1.00		1.00	0.97			0.98			1.00		
Flpb, ped/bikes	1.00		0.98	1.00			1.00			0.90		
Frt	0.98		1.00	0.95			0.95			1.00		
Flt Protected	1.00		0.95	1.00			1.00			0.95		
Satd. Flow (prot)	3454		1729	1721			1719			5756		
Flt Permitted	1.00		0.37	1.00			1.00			0.95		
Satd. Flow (perm)	3454		679	1721			1719			5756		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	313	60	58	65	31	4	27	18	55	1848	53	4
RTOR Reduction (vph)	17	0	0	0	0	0	16	0	0	0	0	0
Lane Group Flow (vph)	356	0	58	96	0	0	33	0	0	1960	0	0
Confl. Peds. (#/hr)			36		36			36	36		36	
Turn Type			Perm			Perm				Perm		
Protected Phases	4			4			1				2 3	
Permitted Phases			4			1				2 3		
Actuated Green, G (s)	19.7		19.7	19.7			11.8			38.2		
Effective Green, g (s)	19.7		19.7	19.7			11.8			41.2		
Actuated g/C Ratio	0.20		0.20	0.20			0.12			0.41		
Clearance Time (s)	4.0		4.0	4.0			4.0					
Vehicle Extension (s)	5.0		5.0	5.0			5.0					
Lane Grp Cap (vph)	680		134	339			203			2371		
v/s Ratio Prot	c0.10			0.06								
v/s Ratio Perm			0.09				0.02			0.34		
v/c Ratio	0.52		0.43	0.28			0.16			0.83		
Uniform Delay, d1	35.9		35.2	34.1			39.7			26.2		
Progression Factor	1.00		0.98	0.97			1.00			1.00		
Incremental Delay, d2	1.4		4.3	0.9			0.8			3.5		
Delay (s)	37.3		39.0	34.1			40.5			29.7		
Level of Service	D		D	C			D			C		
Approach Delay (s)	37.3			35.9			40.5			29.7		
Approach LOS	D			D			D			C		

Intersection Summary

HCM Average Control Delay	31.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	27.3
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: North B St & 16th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	390	53	0	0	7	0	74	3658	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			1.00			1.00				
Flpb, ped/bikes	0.89	0.92			1.00			1.00				
Frt	1.00	1.00			1.00			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1501	1565			1863			6392				
Flt Permitted	0.75	0.77			1.00			1.00				
Satd. Flow (perm)	1190	1255			1863			6392				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	53	0	0	7	0	74	3658	8	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	218	225	0	0	7	0	0	3740	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	20.0	20.0			20.0			72.0				
Effective Green, g (s)	20.0	20.0			20.0			72.0				
Actuated g/C Ratio	0.20	0.20			0.20			0.72				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	238	251			373			4602				
v/s Ratio Prot					0.00							
v/s Ratio Perm	0.18	0.18						0.59				
v/c Ratio	0.92	0.90			0.02			0.81				
Uniform Delay, d1	39.2	39.0			32.1			9.4				
Progression Factor	0.94	0.94			1.00			0.88				
Incremental Delay, d2	37.9	33.3			0.1			1.2				
Delay (s)	74.9	70.1			32.2			9.5				
Level of Service	E	E			C			A				
Approach Delay (s)		72.4			32.2			9.5			0.0	
Approach LOS		E			C			A			A	


















Intersection Summary

HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

37: F Street & 7th Street

Railyards Study
Existing Conditions PM PEAK

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (veh/h)	34	25	23	88	0	142	0	257	23	50	160	3	
Sign Control		Stop			Stop			Free			Free		
Grade		0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly flow rate (vph)	34	25	23	88	0	142	0	257	23	50	160	3	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type							None						
Median storage (veh)													
Upstream signal (ft)							439						
pX, platoon unblocked													
vC, conflicting volume	672	542	162	566	532	268	163					280	
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	672	542	162	566	532	268	163					280	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1					4.1	
tC, 2 stage (s)													
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2					2.2	
p0 queue free %	88	94	97	78	100	82	100					96	
cM capacity (veh/h)	292	430	883	393	436	770	1416					1283	
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1								
Volume Total	82	88	142	280	213								
Volume Left	34	88	0	0	50								
Volume Right	23	0	142	23	3								
cSH	409	393	770	1416	1283								
Volume to Capacity	0.20	0.22	0.18	0.00	0.04								
Queue Length 95th (ft)	18	21	17	0	3								
Control Delay (s)	16.0	16.8	10.7	0.0	2.1								
Lane LOS	C	C	B		A								
Approach Delay (s)	16.0	13.0		0.0	2.1								
Approach LOS	C	B											
Intersection Summary													
Average Delay			5.9										
Intersection Capacity Utilization			53.0%	ICU Level of Service	A								
Analysis Period (min)			15										

HCM Signalized Intersection Capacity Analysis
40: G Street & 7th Street

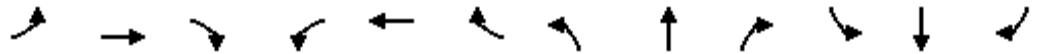
Railyards Study
Existing Conditions PM PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙↙	↙				↘
Volume (vph)	360	204	0	0	0	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0
Lane Util. Factor	0.97	1.00				1.00
Frbp, ped/bikes	1.00	1.00				1.00
Flpb, ped/bikes	1.00	1.00				1.00
Frt	1.00	0.85				1.00
Flt Protected	0.95	1.00				1.00
Satd. Flow (prot)	3433	1583				1863
Flt Permitted	0.95	1.00				1.00
Satd. Flow (perm)	3433	1583				1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	360	204	0	0	0	391
RTOR Reduction (vph)	209	118	0	0	0	0
Lane Group Flow (vph)	151	86	0	0	0	391
Confl. Peds. (#/hr)		72				
Turn Type		Prot				
Protected Phases	1	1				2
Permitted Phases						
Actuated Green, G (s)	21.5	21.5				21.5
Effective Green, g (s)	21.0	21.0				21.0
Actuated g/C Ratio	0.42	0.42				0.42
Clearance Time (s)	3.5	3.5				3.5
Lane Grp Cap (vph)	1442	665				782
v/s Ratio Prot	0.04	c0.05				c0.21
v/s Ratio Perm						
v/c Ratio	0.10	0.13				0.50
Uniform Delay, d1	8.8	8.9				10.6
Progression Factor	1.00	1.33				1.00
Incremental Delay, d2	0.1	0.4				2.3
Delay (s)	8.9	12.2				12.9
Level of Service	A	B				B
Approach Delay (s)	10.1		0.0			12.9
Approach LOS	B		A			B
Intersection Summary						
HCM Average Control Delay			11.3		HCM Level of Service	B
HCM Volume to Capacity ratio			0.31			
Actuated Cycle Length (s)			50.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			44.7%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
41: G Street & 8th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Volume (vph)	0	0	0	0	374	45	143	311	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0				
Lane Util. Factor					0.91			0.91				
Frbp, ped/bikes					0.99			1.00				
Flpb, ped/bikes					1.00			0.98				
Frt					0.98			1.00				
Flt Protected					1.00			0.98				
Satd. Flow (prot)					4970			4925				
Flt Permitted					1.00			0.98				
Satd. Flow (perm)					4970			4925				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	374	45	143	311	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	26	0	0	83	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	393	0	0	371	0	0	0	0
Confl. Peds. (#/hr)						72	72					
Turn Type							Perm					
Protected Phases					1			2				
Permitted Phases							2					
Actuated Green, G (s)					21.5			21.5				
Effective Green, g (s)					21.0			21.0				
Actuated g/C Ratio					0.42			0.42				
Clearance Time (s)					3.5			3.5				
Lane Grp Cap (vph)					2087			2069				
v/s Ratio Prot					c0.08							
v/s Ratio Perm								0.08				
v/c Ratio					0.19			0.18				
Uniform Delay, d1					9.1			9.1				
Progression Factor					0.91			0.85				
Incremental Delay, d2					0.2			0.2				
Delay (s)					8.5			7.9				
Level of Service					A			A				
Approach Delay (s)		0.0			8.5			7.9			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			8.2		HCM Level of Service				A			
HCM Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			33.1%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	58	239	0	0	0	0	0	1147	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.99	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.99	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					4980						4980	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					4980						4980	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	58	239	0	0	0	0	0	1147	115
RTOR Reduction (vph)	0	0	0	0	38	0	0	0	0	0	24	0
Lane Group Flow (vph)	0	0	0	0	259	0	0	0	0	0	1238	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1693						2092	
v/s Ratio Prot											c0.25	
v/s Ratio Perm					0.05							
v/c Ratio					0.15						0.59	
Uniform Delay, d1					11.5						11.2	
Progression Factor					1.00						1.59	
Incremental Delay, d2					0.2						0.8	
Delay (s)					11.7						18.5	
Level of Service					B						B	
Approach Delay (s)		0.0			11.7			0.0			18.5	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			17.2		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			40.2%		ICU Level of Service			A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↕↔						↔	↔		↔	
Volume (vph)	4	319	79	0	0	0	0	14	193	2	19	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	3.5		4.0	
Lane Util. Factor		0.91						0.95	0.95		1.00	
Frbp, ped/bikes		0.99						0.93	0.92		1.00	
Flpb, ped/bikes		1.00						1.00	1.00		0.99	
Frt		0.97						0.87	0.85		1.00	
Flt Protected		1.00						1.00	1.00		1.00	
Satd. Flow (prot)		4878						1435	1387		1844	
Flt Permitted		1.00						1.00	1.00		0.98	
Satd. Flow (perm)		4878						1435	1387		1824	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	14	193	2	19	0
RTOR Reduction (vph)	0	38	0	0	0	0	0	62	68	0	0	0
Lane Group Flow (vph)	0	364	0	0	0	0	0	43	34	0	21	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm								Perm	Perm		
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)		26.5						16.5	16.5		16.5	
Effective Green, g (s)		26.0						16.0	16.5		16.0	
Actuated g/C Ratio		0.52						0.32	0.33		0.32	
Clearance Time (s)		3.5						3.5	3.5		3.5	
Lane Grp Cap (vph)		2537						459	458		584	
v/s Ratio Prot								c0.03				
v/s Ratio Perm		0.07							0.02		0.01	
v/c Ratio		0.14						0.09	0.07		0.04	
Uniform Delay, d1		6.2						11.9	11.5		11.7	
Progression Factor		1.38						0.45	0.47		1.00	
Incremental Delay, d2		0.1						0.4	0.3		0.1	
Delay (s)		8.7						5.7	5.7		11.8	
Level of Service		A						A	A		B	
Approach Delay (s)		8.7			0.0			5.7			11.8	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.12		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↘	↙↑	
Volume (vph)	0	453	60	0	0	0	0	0	0	145	573	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frbp, ped/bikes		0.99								1.00	1.00	
Flpb, ped/bikes		1.00								0.95	1.00	
Frt		0.98								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		4960								1528	3381	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		4960								1528	3381	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	453	60	0	0	0	0	0	0	145	573	0
RTOR Reduction (vph)	0	34	0	0	0	0	0	0	0	75	3	0
Lane Group Flow (vph)	0	479	0	0	0	0	0	0	0	55	585	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		21.5								21.5	21.5	
Effective Green, g (s)		21.0								21.0	21.0	
Actuated g/C Ratio		0.42								0.42	0.42	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		2083								642	1420	
v/s Ratio Prot		0.10										
v/s Ratio Perm										0.04	0.17	
v/c Ratio		0.23								0.09	0.41	
Uniform Delay, d1		9.3								8.7	10.2	
Progression Factor		0.99								1.89	0.89	
Incremental Delay, d2		0.3								0.2	0.8	
Delay (s)		9.5								16.7	9.9	
Level of Service		A								B	A	
Approach Delay (s)		9.5			0.0			0.0			11.1	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM Average Control Delay			10.5								HCM Level of Service	B
HCM Volume to Capacity ratio			0.32									
Actuated Cycle Length (s)			50.0								Sum of lost time (s)	8.0
Intersection Capacity Utilization			44.7%								ICU Level of Service	A
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Volume (vph)	148	462	0	0	0	0	0	312	218	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.91						0.91				
Frbp, ped/bikes		1.00						0.97				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.94				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		4962						4649				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		4962						4649				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	148	462	0	0	0	0	0	312	218	0	0	0
RTOR Reduction (vph)	0	86	0	0	0	0	0	126	0	0	0	0
Lane Group Flow (vph)	0	524	0	0	0	0	0	404	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		21.5						21.5				
Effective Green, g (s)		21.0						21.0				
Actuated g/C Ratio		0.42						0.42				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		2084						1953				
v/s Ratio Prot								c0.09				
v/s Ratio Perm		0.11										
v/c Ratio		0.25						0.21				
Uniform Delay, d1		9.4						9.2				
Progression Factor		0.45						1.00				
Incremental Delay, d2		0.3						0.2				
Delay (s)		4.6						9.4				
Level of Service		A						A				
Approach Delay (s)		4.6			0.0			9.4			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			6.8					HCM Level of Service			A	
HCM Volume to Capacity ratio			0.23									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			36.1%					ICU Level of Service			A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↖				↗		↖↗↘				
Volume (vph)	794	413	0	0	0	46	0	2028	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	0.99				1.00		1.00				
Satd. Flow (prot)	3221	1664				1611		5071				
Flt Permitted	0.95	0.99				1.00		1.00				
Satd. Flow (perm)	3221	1664				1611		5071				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	794	413	0	0	0	46	0	2028	20	0	0	0
RTOR Reduction (vph)	34	12	0	0	0	12	0	2	0	0	0	0
Lane Group Flow (vph)	681	480	0	0	0	34	0	2046	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	15.5	21.5				2.5		21.5				
Effective Green, g (s)	15.0	21.0				2.0		21.0				
Actuated g/C Ratio	0.30	0.42				0.04		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	966	699				64		2130				
v/s Ratio Prot	0.21	c0.21				0.02		c0.40				
v/s Ratio Perm		0.08										
v/c Ratio	0.71	0.69				0.52		0.96				
Uniform Delay, d1	15.5	11.8				23.5		14.1				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	4.3	5.4				27.4		12.2				
Delay (s)	19.9	17.3				51.0		26.3				
Level of Service	B	B				D		C				
Approach Delay (s)		18.8			51.0			26.3			0.0	
Approach LOS		B			D			C			A	

Intersection Summary

HCM Average Control Delay	23.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	523	164	179	25	38	417
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.88	
Flt Protected	0.95	1.00	1.00	1.00	1.00	
Satd. Flow (prot)	1770	1863	1863	1583	1625	
Flt Permitted	0.95	1.00	1.00	1.00	1.00	
Satd. Flow (perm)	1770	1863	1863	1583	1625	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	523	164	179	25	38	417
RTOR Reduction (vph)	0	0	0	17	359	0
Lane Group Flow (vph)	523	164	179	8	96	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	35.9	40.9	13.7	23.8	10.1	
Effective Green, g (s)	35.4	40.9	13.7	23.8	10.1	
Actuated g/C Ratio	0.49	0.57	0.19	0.33	0.14	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	868	1055	354	610	227	
v/s Ratio Prot	c0.30	0.09	c0.10	0.00	c0.06	
v/s Ratio Perm				0.00		
v/c Ratio	0.60	0.16	0.51	0.01	0.42	
Uniform Delay, d1	13.3	7.4	26.2	16.3	28.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.0	0.1	2.0	0.0	1.3	
Delay (s)	14.3	7.6	28.2	16.3	29.7	
Level of Service	B	A	C	B	C	
Approach Delay (s)		12.7	26.7		29.7	
Approach LOS		B	C		C	

Intersection Summary

HCM Average Control Delay	20.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	72.2	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖↗	↑↑				
Volume (vph)	0	0	0	0	2640	55	419	347	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				
Lane Util. Factor					0.86		0.97	0.95				
Frbp, ped/bikes					1.00		1.00	1.00				
Flpb, ped/bikes					1.00		1.00	1.00				
Frt					1.00		1.00	1.00				
Flt Protected					1.00		0.95	1.00				
Satd. Flow (prot)					6210		3433	3362				
Flt Permitted					1.00		0.95	1.00				
Satd. Flow (perm)					6210		3433	3362				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	2640	55	419	347	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	12	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	2692	0	407	347	0	0	0	0
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					
Protected Phases					1		2	2				
Permitted Phases												
Actuated Green, G (s)					73.0		18.5	18.5				
Effective Green, g (s)					74.0		18.0	18.0				
Actuated g/C Ratio					0.74		0.18	0.18				
Clearance Time (s)					5.0		3.5	3.5				
Lane Grp Cap (vph)					4595		618	605				
v/s Ratio Prot					c0.43		c0.12	0.10				
v/s Ratio Perm												
v/c Ratio					0.59		0.66	0.57				
Uniform Delay, d1					6.0		38.1	37.5				
Progression Factor					0.88		0.91	0.92				
Incremental Delay, d2					0.4		5.0	3.6				
Delay (s)					5.6		39.9	38.2				
Level of Service					A		D	D				
Approach Delay (s)		0.0			5.6			39.1			0.0	
Approach LOS		A			A			D			A	

Intersection Summary

HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	41	1997	65	292	106	0	0	13	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					1.00		1.00	1.00			0.86	0.85
Flt Protected					1.00		0.95	0.97			1.00	1.00
Satd. Flow (prot)					5009		1610	3295			1527	1504
Flt Permitted					1.00		0.95	0.97			1.00	1.00
Satd. Flow (perm)					5009		1610	3295			1527	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	41	1997	65	292	106	0	0	13	288
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	18	18
Lane Group Flow (vph)	0	0	0	0	2100	0	146	252	0	0	133	132
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					66.5		13.5	13.5			9.5	9.5
Effective Green, g (s)					66.0		13.0	13.0			9.0	9.0
Actuated g/C Ratio					0.66		0.13	0.13			0.09	0.09
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					3306		209	428			137	135
v/s Ratio Prot							c0.09	0.08			0.09	c0.09
v/s Ratio Perm					0.42							
v/c Ratio					0.64		0.70	0.59			0.97	0.98
Uniform Delay, d1					10.0		41.6	41.0			45.4	45.4
Progression Factor					1.05		0.98	0.98			0.98	0.98
Incremental Delay, d2					0.8		17.4	5.7			69.1	71.4
Delay (s)					11.3		58.2	45.8			113.6	115.8
Level of Service					B		E	D			F	F
Approach Delay (s)		0.0			11.3			50.4			114.7	
Approach LOS		A			B			D			F	

Intersection Summary

HCM Average Control Delay	27.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
52: I St & 7th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↖						↑↑	↗↘
Volume (vph)	0	0	0	191	1618	0	0	0	0	0	368	496
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.86	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1303	4795						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1303	4795						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	191	1618	0	0	0	0	0	368	496
RTOR Reduction (vph)	0	0	0	65	1	0	0	0	0	0	0	40
Lane Group Flow (vph)	0	0	0	107	1636	0	0	0	0	0	368	456
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1							2
Permitted Phases				1								2
Actuated Green, G (s)				62.5	62.5						30.5	30.5
Effective Green, g (s)				62.0	62.0						30.0	30.0
Actuated g/C Ratio				0.62	0.62						0.30	0.30
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				808	2973						1062	836
v/s Ratio Prot											0.10	
v/s Ratio Perm				0.08	0.34							c0.16
v/c Ratio				0.13	0.55						0.35	0.55
Uniform Delay, d1				7.9	11.0						27.3	29.3
Progression Factor				1.00	1.00						0.80	0.77
Incremental Delay, d2				0.3	0.7						0.9	2.5
Delay (s)				8.2	11.7						22.7	25.2
Level of Service				A	B						C	C
Approach Delay (s)		0.0			11.4			0.0			24.1	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM Average Control Delay			15.5		HCM Level of Service						B	
HCM Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			53.7%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑→		↑↑	↑↑	↑	↑↑	↑↑	
Volume (vph)	1	873	417	216	294	370	408	0	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.95		0.85	1.00	1.00	1.00	0.85	
Flt Protected		1.00		1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)		5990		2787	3433	1863	1770	2882	
Flt Permitted		1.00		1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)		5990		2787	3433	1863	1770	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	873	417	216	294	370	408	0	53
RTOR Reduction (vph)	0	0	0	162	0	0	0	37	0
Lane Group Flow (vph)	0	1291	0	54	294	370	408	16	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		25.0		21.3	21.3	21.3	26.0	26.0	
Effective Green, g (s)		25.0		20.8	20.8	20.8	26.0	26.0	
Actuated g/C Ratio		0.30		0.25	0.25	0.25	0.31	0.31	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1787		692	852	462	549	894	
v/s Ratio Prot		c0.22				c0.20	c0.23	0.01	
v/s Ratio Perm				0.02	0.09				
v/c Ratio		0.89dr		0.08	0.35	0.80	0.74	0.02	
Uniform Delay, d1		26.3		24.1	25.9	29.6	25.9	20.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.6		0.0	0.1	9.1	5.7	0.0	
Delay (s)		28.9		24.2	26.0	38.7	31.7	20.1	
Level of Service		C		C	C	D	C	C	
Approach Delay (s)		28.9				33.0	30.3		
Approach LOS		C				C	C		

Intersection Summary

HCM Average Control Delay	29.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	83.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖↖↖	↖					↖↖	↖			
Volume (vph)	324	1112	130	0	0	0	0	449	407	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.96					0.99	0.96			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.96	0.85			
Flt Protected	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (prot)	1290	6023	1520					3235	1387			
Flt Permitted	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (perm)	1290	6023	1520					3235	1387			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	324	1112	130	0	0	0	0	449	407	0	0	0
RTOR Reduction (vph)	158	12	75	0	0	0	0	14	14	0	0	0
Lane Group Flow (vph)	117	1149	55	0	0	0	0	582	246	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0			
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0			
Actuated g/C Ratio	0.42	0.42	0.42					0.42	0.42			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	542	2530	638					1359	583			
v/s Ratio Prot	0.09	c0.19						c0.18				
v/s Ratio Perm			0.04						0.18			
v/c Ratio	0.22	0.45	0.09					0.43	0.42			
Uniform Delay, d1	9.3	10.4	8.7					10.3	10.2			
Progression Factor	1.00	1.00	1.00					1.00	1.00			
Incremental Delay, d2	0.9	0.6	0.3					0.1	0.2			
Delay (s)	10.2	11.0	9.0					10.3	10.4			
Level of Service	B	B	A					B	B			
Approach Delay (s)		10.7			0.0			10.4			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			10.6					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			57.9%					ICU Level of Service			B	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↔↕↕						↕		↘		
Volume (vph)	105	1244	0	0	0	0	0	142	185	67	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.98		1.00		
Flpb, ped/bikes	0.96	1.00						1.00		0.98		
Frt	1.00	1.00						0.92		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1463	4802						1680		1739		
Flt Permitted	0.95	1.00						1.00		0.47		
Satd. Flow (perm)	1463	4802						1680		853		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	105	1244	0	0	0	0	0	142	185	67	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	21	0	0	0	0
Lane Group Flow (vph)	94	1255	0	0	0	0	0	306	0	67	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	24.5	24.5						18.5		18.5		
Effective Green, g (s)	24.0	24.0						18.0		18.0		
Actuated g/C Ratio	0.48	0.48						0.36		0.36		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	702	2305						605		307		
v/s Ratio Prot							c0.18					
v/s Ratio Perm	0.06	0.26								0.08		
v/c Ratio	0.13	0.54						0.51		0.22		
Uniform Delay, d1	7.2	9.2						12.5		11.1		
Progression Factor	1.57	1.62						1.00		0.68		
Incremental Delay, d2	0.4	0.8						3.0		1.3		
Delay (s)	11.7	15.6						15.5		8.9		
Level of Service	B								B		A	
Approach Delay (s)	15.4		0.0				15.5		8.9			
Approach LOS	B		A				B		A			

Intersection Summary

HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑									↑↑↑		
Volume (vph)	0	1289	294	0	0	0	0	0	0	83	471	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0									4.0		
Lane Util. Factor		0.91									0.91		
Frbp, ped/bikes		0.99									1.00		
Flpb, ped/bikes		1.00									1.00		
Frt		0.97									1.00		
Flt Protected		1.00									0.99		
Satd. Flow (prot)		4906									5025		
Flt Permitted		1.00									0.99		
Satd. Flow (perm)		4906									5025		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	1289	294	0	0	0	0	0	0	83	471	0	
RTOR Reduction (vph)	0	74	0	0	0	0	0	0	0	0	19	0	
Lane Group Flow (vph)	0	1509	0	0	0	0	0	0	0	0	535	0	
Confl. Peds. (#/hr)			36							36			
Turn Type										Perm			
Protected Phases		1									2		
Permitted Phases										2			
Actuated Green, G (s)		24.5									18.5		
Effective Green, g (s)		24.0									18.0		
Actuated g/C Ratio		0.48									0.36		
Clearance Time (s)		3.5									3.5		
Lane Grp Cap (vph)		2355									1809		
v/s Ratio Prot		0.31											
v/s Ratio Perm											0.11		
v/c Ratio		0.64									0.30		
Uniform Delay, d1		9.8									11.5		
Progression Factor		0.48									1.06		
Incremental Delay, d2		1.2									0.4		
Delay (s)		5.9									12.6		
Level of Service		A									B		
Approach Delay (s)		5.9			0.0			0.0			12.6		
Approach LOS		A			A			A			B		
Intersection Summary													
HCM Average Control Delay			7.6									HCM Level of Service	A
HCM Volume to Capacity ratio			0.49										
Actuated Cycle Length (s)			50.0									Sum of lost time (s)	8.0
Intersection Capacity Utilization			49.5%									ICU Level of Service	A
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
57: L St & 3rd St

Railyards Study
Existing Conditions PM PEAK



Movement	WBL	WBT	WBR	WBR2	SBT	SBR	SBR2
Lane Configurations							
Volume (vph)	398	435	859	132	451	271	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	0.91		
Frt	1.00	0.95	0.85	0.85	0.94		
Flt Protected	0.95	1.00	1.00	1.00	1.00		
Satd. Flow (prot)	1681	1609	1504	1583	4765		
Flt Permitted	0.95	1.00	1.00	1.00	1.00		
Satd. Flow (perm)	1681	1609	1504	1583	4765		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	398	435	859	132	451	271	56
RTOR Reduction (vph)	27	3	0	45	12	0	0
Lane Group Flow (vph)	331	695	636	87	766	0	0
Turn Type	Perm		Perm	Perm			
Protected Phases		2			4		
Permitted Phases	2		2	2			
Actuated Green, G (s)	46.5	46.5	46.5	46.5	16.5		
Effective Green, g (s)	46.0	46.0	46.0	46.0	16.0		
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.23		
Clearance Time (s)	3.5	3.5	3.5	3.5	3.5		
Lane Grp Cap (vph)	1105	1057	988	1040	1089		
v/s Ratio Prot					c0.16		
v/s Ratio Perm	0.20	0.43	0.42	0.05			
v/c Ratio	0.30	0.66	0.64	0.08	0.86dr		
Uniform Delay, d1	5.1	7.2	7.1	4.4	24.8		
Progression Factor	0.69	1.50	1.45	1.16	1.00		
Incremental Delay, d2	0.5	2.1	2.1	0.1	3.8		
Delay (s)	4.0	13.0	12.5	5.2	28.6		
Level of Service	A	B	B	A	C		
Approach Delay (s)		10.5			28.6		
Approach LOS		B			C		

Intersection Summary

HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
58: L St & 5th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	1484	140	320	664	0	0	0	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		5.0	5.0				5.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6280		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6280		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1484	140	320	664	0	0	0	59
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1602	0	320	664	0	0	0	59
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					20.0		40.5	40.5				40.5
Effective Green, g (s)					21.0		40.0	40.0				40.0
Actuated g/C Ratio					0.30		0.57	0.57				0.57
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					1884		933	2906				1453
v/s Ratio Prot					c0.26			0.13				
v/s Ratio Perm							c0.20					0.02
v/c Ratio					0.85		0.34	0.23				0.04
Uniform Delay, d1					23.0		8.0	7.4				6.6
Progression Factor					1.00		0.83	0.86				1.00
Incremental Delay, d2					5.1		0.9	0.2				0.1
Delay (s)					28.1		7.6	6.5				6.6
Level of Service					C		A	A				A
Approach Delay (s)		0.0			28.1			6.8			6.6	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	19.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
59: L St & 7th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	121	1306	0	0	0	0	0	469	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.95	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4760	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4760	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	121	1306	0	0	0	0	0	469	214
RTOR Reduction (vph)	0	0	0	85	0	0	0	0	0	0	100	0
Lane Group Flow (vph)	0	0	0	36	1306	0	0	0	0	0	583	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						22.5	
Effective Green, g (s)				15.0	15.0						22.0	
Actuated g/C Ratio				0.30	0.30						0.44	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2094	
v/s Ratio Prot					c0.26						c0.12	
v/s Ratio Perm				0.02								
v/c Ratio				0.07	0.86						0.28	
Uniform Delay, d1				12.5	16.5						8.9	
Progression Factor				1.00	1.00						0.78	
Incremental Delay, d2				0.0	4.8						0.3	
Delay (s)				12.5	21.2						7.2	
Level of Service				B	C						A	
Approach Delay (s)		0.0			20.5			0.0			7.2	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
60: Capitol Mall & 5th Street

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	320	200	0	0	339	83	246	692	43	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.98		1.00	0.99				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.97		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4855		3433	5015				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4855		3433	5015				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	320	200	0	0	339	83	246	692	43	0	0	0
RTOR Reduction (vph)	0	0	0	0	59	0	0	10	0	0	0	0
Lane Group Flow (vph)	320	200	0	0	363	0	246	725	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		30.0	30.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.43	0.43				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			971		1471	2149				
v/s Ratio Prot	c0.09	0.06			c0.07		0.07	c0.14				
v/s Ratio Perm												
v/c Ratio	0.50	0.13			0.37		0.17	0.34				
Uniform Delay, d1	25.6	11.5			24.2		12.3	13.4				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	2.8	0.2			1.1		0.2	0.4				
Delay (s)	28.4	11.7			25.3		12.6	13.8				
Level of Service	C	B			C		B	B				
Approach Delay (s)		22.0			25.3			13.5			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
61: P St & 3rd St

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Volume (vph)	0	0	0	151	2129	0	0	0	0	0	417	677
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.91	0.91
Frbp, ped/bikes					1.00						0.96	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.93	0.85
Flt Protected					1.00						1.00	1.00
Satd. Flow (prot)					4900						2897	1190
Flt Permitted					1.00						1.00	1.00
Satd. Flow (perm)					4900						2897	1190
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	151	2129	0	0	0	0	0	417	677
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	4	4
Lane Group Flow (vph)	0	0	0	0	2264	0	0	0	0	0	746	342
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2646						869	357
v/s Ratio Prot					c0.46						0.26	
v/s Ratio Perm												c0.29
v/c Ratio					0.86						0.86	0.96
Uniform Delay, d1					9.8						16.5	17.2
Progression Factor					1.00						1.00	1.00
Incremental Delay, d2					3.8						10.7	37.8
Delay (s)					13.6						27.2	55.0
Level of Service					B						C	E
Approach Delay (s)		0.0			13.6			0.0			36.0	
Approach LOS		A			B			A			D	

Intersection Summary

HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

Railyards Study
Existing Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	525	72	0	0	0	0	0	0	160	442	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.98	
Frt		0.98									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6253									4923	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6253									4923	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	525	72	0	0	0	0	0	0	160	442	0
RTOR Reduction (vph)	0	33	0	0	0	0	0	0	0	0	112	0
Lane Group Flow (vph)	0	564	0	0	0	0	0	0	0	0	490	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3377									1477	
v/s Ratio Prot		c0.09										
v/s Ratio Perm											0.10	
v/c Ratio		0.17									0.33	
Uniform Delay, d1		5.8									13.6	
Progression Factor		1.00									1.19	
Incremental Delay, d2		0.1									0.3	
Delay (s)		5.9									16.5	
Level of Service		A									B	
Approach Delay (s)		5.9			0.0			0.0			16.5	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑						↑	↑
Volume (vph)	0	452	63	352	203	0	0	0	0	784	0	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	4.0
Lane Util. Factor		0.95		0.97	1.00						1.00	1.00
Frbp, ped/bikes		0.98		1.00	1.00						1.00	0.86
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.98		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3421		3433	1863						1770	1365
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3421		3433	1863						1770	1365
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	452	63	352	203	0	0	0	0	784	0	344
RTOR Reduction (vph)	0	16	0	0	0	0	0	0	0	0	0	241
Lane Group Flow (vph)	0	499	0	352	203	0	0	0	0	0	784	103
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9	3 12 13					4	4	
Permitted Phases												4
Actuated Green, G (s)		12.5		26.0	41.5						21.0	21.0
Effective Green, g (s)		12.5		24.5	41.0						21.0	21.0
Actuated g/C Ratio		0.18		0.35	0.59						0.30	0.30
Clearance Time (s)		4.0									4.0	4.0
Vehicle Extension (s)		6.0									5.0	5.0
Lane Grp Cap (vph)		611		1202	1091						531	410
v/s Ratio Prot		c0.15		c0.10	0.11						c0.44	
v/s Ratio Perm												0.08
v/c Ratio		0.82		0.29	0.19						1.48	0.25
Uniform Delay, d1		27.7		16.5	6.7						24.5	18.6
Progression Factor		1.00		0.18	0.19						1.00	1.00
Incremental Delay, d2		9.8		0.3	0.2						224.4	0.7
Delay (s)		37.5		3.2	1.4						248.9	19.2
Level of Service		D		A	A						F	B
Approach Delay (s)		37.5			2.6			0.0			178.9	
Approach LOS		D			A			A			F	

Intersection Summary

HCM Average Control Delay	101.2	HCM Level of Service	F
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	119.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗		↕	↗			
Volume (vph)	183	1066	0	0	516	283	44	0	994	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.79		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.86	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	3539			3539	1256		1520	1504			
Flt Permitted	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1770	3539			3539	1256		1520	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	183	1066	0	0	516	283	44	0	994	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	199	0	181	38	0	0	0
Lane Group Flow (vph)	183	1066	0	0	516	84	0	340	479	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot				custom		Split	custom				
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	15.1	34.3			24.4	20.9		19.5	28.7			
Effective Green, g (s)	14.6	33.8			20.9	20.9		19.0	23.7			
Actuated g/C Ratio	0.21	0.48			0.30	0.30		0.27	0.34			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	369	1709			1057	375		413	509			
v/s Ratio Prot	0.10	c0.30			0.15	0.02		0.22	c0.32			
v/s Ratio Perm						0.05						
v/c Ratio	0.50	0.62			0.49	0.23		0.82	0.94			
Uniform Delay, d1	24.5	13.4			20.2	18.5		23.9	22.5			
Progression Factor	1.23	0.16			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.2	0.1			0.7	0.6		13.8	26.6			
Delay (s)	30.3	2.2			20.9	19.1		37.7	49.1			
Level of Service	C	A			C	B		D	D			
Approach Delay (s)		6.3			20.3			43.4			0.0	
Approach LOS		A			C			D			A	

Intersection Summary

HCM Average Control Delay	22.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	119.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	206	1387	530	29	526	32	183	23	9	28	26	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	0.98		1.00	0.99			1.00	0.95		1.00	1.00
Flpb, ped/bikes	0.99	1.00		1.00	1.00			1.00	1.00		0.99	1.00
Frt	1.00	0.96		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1747	3325		1765	5010			1784	1511		1793	1583
Flt Permitted	0.39	1.00		0.11	1.00			0.71	1.00		0.81	1.00
Satd. Flow (perm)	711	3325		204	5010			1325	1511		1493	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	206	1387	530	29	526	32	183	23	9	28	26	110
RTOR Reduction (vph)	0	41	0	0	6	0	0	0	7	0	0	87
Lane Group Flow (vph)	206	1876	0	29	552	0	0	206	2	0	54	23
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	1	6			2			8				4
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	46.1	46.1		35.9	35.9			14.8	14.8		14.8	14.8
Effective Green, g (s)	45.6	46.7		36.5	36.5			14.3	14.3		14.3	14.3
Actuated g/C Ratio	0.66	0.68		0.53	0.53			0.21	0.21		0.21	0.21
Clearance Time (s)	3.5	4.6		4.6	4.6			3.5	3.5		3.5	3.5
Vehicle Extension (s)	0.2	0.2		0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	563	2250		108	2650			275	313		309	328
v/s Ratio Prot	0.03	c0.56			0.11							
v/s Ratio Perm	0.21			0.14				c0.16	0.00		0.04	0.01
v/c Ratio	0.37	0.83		0.27	0.21			0.75	0.01		0.17	0.07
Uniform Delay, d1	4.7	8.3		8.9	8.6			25.7	21.7		22.5	22.0
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	2.7		0.5	0.0			9.4	0.0		0.1	0.0
Delay (s)	4.8	11.0		9.4	8.6			35.0	21.7		22.6	22.0
Level of Service	A	B		A	A			D	C		C	C
Approach Delay (s)		10.4			8.7			34.5			22.2	
Approach LOS		B			A			C			C	

Intersection Summary

HCM Average Control Delay	12.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	102.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & 5th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1272	12	10	608	27	17	0	7	18	1	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.96		1.00	0.96	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.97	1.00		0.97	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3532		1770	3508		1722	1520		1720	1530	
Flt Permitted	0.95	1.00		0.95	1.00		0.73	1.00		0.75	1.00	
Satd. Flow (perm)	1770	3532		1770	3508		1331	1520		1363	1530	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	30	1272	12	10	608	27	17	0	7	18	1	34
RTOR Reduction (vph)	0	0	0	0	2	0	0	6	0	0	28	0
Lane Group Flow (vph)	30	1284	0	10	633	0	17	1	0	18	7	0
Confl. Peds. (#/hr)			36			36	36		36	36		36
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	1	6		5	2			8				4
Permitted Phases		6			2		8			4		
Actuated Green, G (s)	2.1	30.5		5.3	33.7		11.3	11.3		11.3	11.3	
Effective Green, g (s)	1.1	30.8		4.3	34.0		10.8	10.8		10.8	10.8	
Actuated g/C Ratio	0.02	0.53		0.07	0.59		0.19	0.19		0.19	0.19	
Clearance Time (s)	3.0	4.3		3.0	4.3		3.5	3.5		3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	34	1879		131	2060		248	284		254	285	
v/s Ratio Prot	c0.02	c0.36		0.01	c0.18			0.00			0.00	
v/s Ratio Perm							0.01			c0.01		
v/c Ratio	0.88	0.68		0.08	0.31		0.07	0.00		0.07	0.03	
Uniform Delay, d1	28.3	10.0		25.0	6.0		19.4	19.2		19.4	19.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	104.6	0.8		0.1	0.0		0.0	0.0		0.0	0.0	
Delay (s)	132.9	10.8		25.0	6.0		19.4	19.2		19.5	19.3	
Level of Service	F	B		C	A		B	B		B	B	
Approach Delay (s)		13.6			6.3			19.4			19.3	
Approach LOS		B			A			B			B	

Intersection Summary

HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	57.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	1156	234	176	562	12	91	48	90	7	6	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.98	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3414		1770	3524		1681	1741	1583	1770	1682	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.98	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3414		1770	3524		1681	1741	1583	1770	1682	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	22	1156	234	176	562	12	91	48	90	7	6	11
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	77	0	11	0
Lane Group Flow (vph)	22	1383	0	176	574	0	68	71	13	7	6	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split			Prot	Split	
Protected Phases	1	6		5	2		8	8	8	7	7	
Permitted Phases												
Actuated Green, G (s)	2.2	44.0		13.2	55.0		12.5	12.5	12.5	2.0	2.0	
Effective Green, g (s)	1.2	44.0		12.2	55.0		12.0	12.0	12.0	1.5	1.5	
Actuated g/C Ratio	0.01	0.51		0.14	0.64		0.14	0.14	0.14	0.02	0.02	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.5	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	25	1753		252	2262		235	244	222	31	29	
v/s Ratio Prot	0.01	c0.41		c0.10	0.16		0.04	c0.04	0.01	c0.00	0.00	
v/s Ratio Perm												
v/c Ratio	0.88	0.79		0.70	0.25		0.29	0.29	0.06	0.23	0.21	
Uniform Delay, d1	42.2	17.0		35.0	6.6		33.0	33.0	31.9	41.5	41.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	124.9	2.2		6.7	0.0		0.2	0.2	0.0	1.3	1.3	
Delay (s)	167.1	19.3		41.7	6.6		33.3	33.3	32.0	42.9	42.9	
Level of Service	F	B		D	A		C	C	C	D	D	
Approach Delay (s)		21.6			14.8			32.8			42.9	
Approach LOS		C			B			C			D	

Intersection Summary

HCM Average Control Delay	20.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	85.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	846	142	182	609	101	31	23	59	13	11	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.94	1.00	0.99		1.00	1.00	1.00	1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		0.98	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1492	1770	3435		1729	1863	1583	1770	1863	1461
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.75	1.00	1.00	0.74	1.00	1.00
Satd. Flow (perm)	1770	3539	1492	1770	3435		1366	1863	1583	1383	1863	1461
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	175	846	142	182	609	101	31	23	59	13	11	36
RTOR Reduction (vph)	0	0	48	0	11	0	0	0	50	0	0	30
Lane Group Flow (vph)	175	846	94	182	699	0	31	23	9	13	11	6
Confl. Peds. (#/hr)			35			35	35					35
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		Perm
Protected Phases	1	6		5	2			4				8
Permitted Phases			6				4		4	8		8
Actuated Green, G (s)	12.0	21.9	21.9	12.3	22.2		9.1	9.1	9.1	9.1	9.1	9.1
Effective Green, g (s)	11.5	22.4	22.4	11.8	22.7		8.6	8.6	8.6	8.6	8.6	8.6
Actuated g/C Ratio	0.21	0.41	0.41	0.22	0.41		0.16	0.16	0.16	0.16	0.16	0.16
Clearance Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2	0.2	2.0	2.0	2.0
Lane Grp Cap (vph)	371	1447	610	381	1423		214	292	248	217	292	229
v/s Ratio Prot	0.10	c0.24		c0.10	0.20			0.01				0.01
v/s Ratio Perm			0.06				c0.02		0.01	0.01		0.00
v/c Ratio	0.47	0.58	0.15	0.48	0.49		0.14	0.08	0.04	0.06	0.04	0.02
Uniform Delay, d1	19.0	12.6	10.2	18.8	11.8		19.9	19.7	19.6	19.7	19.6	19.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.4	0.0	0.3	0.1		0.1	0.0	0.0	0.0	0.0	0.0
Delay (s)	19.3	13.0	10.3	19.1	11.9		20.0	19.8	19.6	19.7	19.6	19.6
Level of Service	B	B	B	B	B		C	B	B	B	B	B
Approach Delay (s)		13.6			13.4			19.8			19.6	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	54.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	835	50	23	816	32	35	22	24	17	19	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.99	
Flpb, ped/bikes	0.97	1.00		0.97	1.00			0.98			0.98	
Frt	1.00	0.99		1.00	0.99			0.96			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.98	
Satd. Flow (prot)	1709	3480		1713	3500			1679			1720	
Flt Permitted	0.30	1.00		0.29	1.00			0.89			0.91	
Satd. Flow (perm)	541	3480		517	3500			1519			1599	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	16	835	50	23	816	32	35	22	24	17	19	10
RTOR Reduction (vph)	0	4	0	0	2	0	0	18	0	0	8	0
Lane Group Flow (vph)	16	881	0	23	846	0	0	63	0	0	38	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	50.0	50.0		50.0	50.0			19.6			19.6	
Effective Green, g (s)	50.5	50.5		50.5	50.5			19.1			19.1	
Actuated g/C Ratio	0.65	0.65		0.65	0.65			0.25			0.25	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	352	2265		336	2278			374			394	
v/s Ratio Prot		c0.25			0.24							
v/s Ratio Perm	0.03			0.04				c0.04			0.02	
v/c Ratio	0.05	0.39		0.07	0.37			0.17			0.10	
Uniform Delay, d1	4.9	6.3		5.0	6.2			23.0			22.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.2	0.5		0.4	0.5			0.1			0.0	
Delay (s)	5.1	6.8		5.3	6.7			23.1			22.6	
Level of Service	A	A		A	A			C			C	
Approach Delay (s)		6.8			6.7			23.1			22.6	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	77.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	665	76	20	0	20	43	1660	50	2990	846
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	665	76	20	0	20	43	1660	50	2990	846
RTOR Reduction (vph)	0	58	0	18	0	0	0	30	0	300
Lane Group Flow (vph)	665	18	0	22	0	43	1660	20	2990	546
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	28.0	28.0		14.4		4.4	78.1	59.8	68.7	68.7
Effective Green, g (s)	28.0	27.0		13.4		4.4	78.1	59.8	68.7	68.7
Actuated g/C Ratio	0.19	0.18		0.09		0.03	0.52	0.40	0.46	0.46
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	2.0	2.0		2.0		3.0		3.0		
Lane Grp Cap (vph)	641	285		151		52	3336	631	3075	725
v/s Ratio Prot	c0.19	0.01		c0.01		c0.02	0.26		c0.45	0.34
v/s Ratio Perm								0.01		
v/c Ratio	1.04	0.06		0.14		0.83	0.50	0.03	0.97	0.75
Uniform Delay, d1	61.0	51.0		63.0		72.4	23.3	27.5	39.7	33.6
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	45.6	0.0		0.2		64.4	0.1	0.1	10.6	4.4
Delay (s)	106.6	51.0		63.2		136.9	23.4	27.6	50.3	38.1
Level of Service	F	D		E		F	C	C	D	D
Approach Delay (s)				63.2			26.3			
Approach LOS				E			C			

Intersection Summary			
HCM Average Control Delay	48.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	87	64	16	50	0	0	0	0	146	3076	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		1.00	1.00		1.00						0.86	
Frbp, ped/bikes		1.00	0.97		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		0.99						1.00	
Satd. Flow (prot)		1863	1541		1835						6380	
Flt Permitted		1.00	1.00		0.91						1.00	
Satd. Flow (perm)		1863	1541		1691						6380	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	87	64	16	50	0	0	0	0	146	3076	10
RTOR Reduction (vph)	0	0	58	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	87	6	0	66	0	0	0	0	0	3232	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm							Perm	
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)		9.5	9.5		9.5						83.0	
Effective Green, g (s)		9.0	9.0		9.0						83.0	
Actuated g/C Ratio		0.09	0.09		0.09						0.83	
Clearance Time (s)		3.5	3.5		3.5						4.0	
Vehicle Extension (s)		2.0	2.0		2.0						5.0	
Lane Grp Cap (vph)		168	139		152						5295	
v/s Ratio Prot		c0.05										
v/s Ratio Perm			0.00		0.04						0.51	
v/c Ratio		0.52	0.04		0.43						0.61	
Uniform Delay, d1		43.4	41.6		43.1						2.9	
Progression Factor		1.00	1.00		0.95						1.00	
Incremental Delay, d2		1.1	0.0		0.7						0.5	
Delay (s)		44.6	41.6		41.6						3.5	
Level of Service		D	D		D						A	
Approach Delay (s)		43.3			41.6			0.0			3.5	
Approach LOS		D			D			A			A	

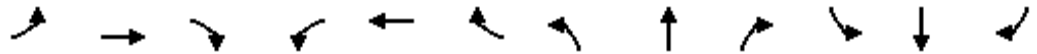
Intersection Summary

HCM Average Control Delay	5.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
10: Basler St & 16th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↖			↘			↖	↗			
Volume (vph)	408	5	0	0	5	13	54	858	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.95			1.00				
Flpb, ped/bikes	0.94	0.94			1.00			1.00				
Frt	1.00	1.00			0.90			1.00				
Flt Protected	0.95	0.95			1.00			1.00				
Satd. Flow (prot)	1583	1591			1595			6344				
Flt Permitted	0.75	0.72			1.00			1.00				
Satd. Flow (perm)	1242	1199			1595			6344				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	408	5	0	0	5	13	54	858	9	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	3	0	0	0	0
Lane Group Flow (vph)	208	205	0	0	10	0	0	918	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			23.0				
Effective Green, g (s)	18.0	18.0			18.0			24.0				
Actuated g/C Ratio	0.36	0.36			0.36			0.48				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	447	432			574			3045				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.17	c0.17						0.14				
v/c Ratio	0.47	0.47			0.02			0.30				
Uniform Delay, d1	12.3	12.3			10.3			7.9				
Progression Factor	0.83	0.83			1.00			1.36				
Incremental Delay, d2	3.4	3.6			0.1			0.2				
Delay (s)	13.6	13.9			10.4			11.0				
Level of Service	B	B			B			B				
Approach Delay (s)		13.8			10.4			11.0			0.0	
Approach LOS		B			B			B			A	
Intersection Summary												
HCM Average Control Delay			11.8					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.38									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			43.9%					ICU Level of Service			A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
 13: Bercut Dr & Bannon St

Railyards Study
 Baseline Conditions AM PEAK





















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	→
Volume (veh/h)	102	400	1	44	106	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	102	400	1	44	106	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	512					
pX, platoon unblocked						
vC, conflicting volume			502		348	302
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			502		348	302
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		84	100
cM capacity (veh/h)			1062		648	738

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	502	45	107
Volume Left	0	1	106
Volume Right	400	0	1
cSH	1700	1062	649
Volume to Capacity	0.30	0.00	0.16
Queue Length 95th (ft)	0	0	15
Control Delay (s)	0.0	0.2	11.6
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	11.6
Approach LOS			B

Intersection Summary			
Average Delay		1.9	
Intersection Capacity Utilization		42.6%	ICU Level of Service A
Analysis Period (min)		15	
Description: SB coded as EB			

HCM Unsignalized Intersection Capacity Analysis
 18: Water St & 7th Street

Railyards Study
 Baseline Conditions AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	58	53	76	170	156	51	123	137	24	43	356	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	58	53	76	170	156	51	123	137	24	43	356	24
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1	SB 2						
Volume Total (vph)	187	326	51	284	43	380						
Volume Left (vph)	58	170	0	123	43	0						
Volume Right (vph)	76	0	51	24	0	24						
Hadj (s)	-0.15	0.29	-0.67	0.07	0.53	-0.01						
Departure Headway (s)	8.1	7.9	6.9	7.9	8.0	7.4						
Degree Utilization, x	0.42	0.72	0.10	0.62	0.10	0.78						
Capacity (veh/h)	390	427	487	429	431	468						
Control Delay (s)	17.0	27.4	9.5	22.9	10.6	31.3						
Approach Delay (s)	17.0	25.0		22.9	29.2							
Approach LOS	C	C		C	D							
Intersection Summary												
Delay			24.7									
HCM Level of Service			C									
Intersection Capacity Utilization			77.3%	ICU Level of Service	D							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 19: Water St & 10th St

Railyards Study
 Baseline Conditions AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (veh/h)	58	68	164	152	66	50
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	58	68	164	152	66	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			841			
pX, platoon unblocked						
vC, conflicting volume	316				390	158
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	316				390	158
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				88	94
cM capacity (veh/h)	1241				559	859

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	81	45	109	207	116
Volume Left	58	0	0	0	66
Volume Right	0	0	0	152	50
cSH	1241	1700	1700	1700	658
Volume to Capacity	0.05	0.03	0.06	0.12	0.18
Queue Length 95th (ft)	4	0	0	0	16
Control Delay (s)	5.9	0.0	0.0	0.0	11.6
Lane LOS	A				B
Approach Delay (s)	3.8		0.0		11.6
Approach LOS					B

Intersection Summary			
Average Delay		3.3	
Intersection Capacity Utilization	29.7%		ICU Level of Service A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
21: North B St & 16th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	97	7	0	0	10	4	189	1063	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.97			1.00				
Flpb, ped/bikes	0.91	0.92			1.00			0.99				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.96			1.00			0.99				
Satd. Flow (prot)	1533	1566			1740			6292				
Flt Permitted	0.75	0.79			1.00			0.99				
Satd. Flow (perm)	1207	1295			1740			6292				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	7	0	0	10	4	189	1063	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	2	0	0	0	0
Lane Group Flow (vph)	51	53	0	0	11	0	0	1260	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	12.0	12.0			12.0			30.0				
Effective Green, g (s)	12.0	12.0			12.0			30.0				
Actuated g/C Ratio	0.24	0.24			0.24			0.60				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	290	311			418			3775				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.04	0.04						0.20				
v/c Ratio	0.18	0.17			0.03			0.33				
Uniform Delay, d1	15.1	15.1			14.5			5.0				
Progression Factor	1.17	1.17			1.00			0.25				
Incremental Delay, d2	1.3	1.1			0.1			0.2				
Delay (s)	18.9	18.8			14.6			1.5				
Level of Service	B	B			B			A				
Approach Delay (s)		18.9			14.6			1.5			0.0	
Approach LOS		B			B			A			A	

Intersection Summary

HCM Average Control Delay	2.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

37: F Street & 7th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Volume (veh/h)	7	0	0	49	19	62	25	236	3	164	326	47
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	0	0	49	19	62	25	236	3	164	326	47
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh											2	
Upstream signal (ft)								439				
pX, platoon unblocked												
vC, conflicting volume	1036	966	350	965	988	238	373			239		
vC1, stage 1 conf vol	678	678		288	288							
vC2, stage 2 conf vol	359	289		678	701							
vCu, unblocked vol	1036	966	350	965	988	238	373			239		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	100	86	94	92	98			88		
cM capacity (veh/h)	314	352	694	344	342	801	1185			1328		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	7	49	81	264	537
Volume Left	7	49	0	25	164
Volume Right	0	0	62	3	47
cSH	314	344	609	1185	1328
Volume to Capacity	0.02	0.14	0.13	0.02	0.12
Queue Length 95th (ft)	2	12	11	2	11
Control Delay (s)	16.7	17.2	11.8	0.9	3.4
Lane LOS	C	C	B	A	A
Approach Delay (s)	16.7	13.8		0.9	3.4
Approach LOS	C	B			

Intersection Summary	
Average Delay	4.2
Intersection Capacity Utilization	58.9%
ICU Level of Service	B
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis
40: G Street & 7th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙↙	↙				↕
Volume (vph)	302	262	0	0	0	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0
Lane Util. Factor	0.97	1.00				1.00
Frbp, ped/bikes	1.00	1.00				1.00
Flpb, ped/bikes	1.00	1.00				1.00
Frt	1.00	0.85				1.00
Flt Protected	0.95	1.00				1.00
Satd. Flow (prot)	3433	1583				1863
Flt Permitted	0.95	1.00				1.00
Satd. Flow (perm)	3433	1583				1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	302	262	0	0	0	365
RTOR Reduction (vph)	175	152	0	0	0	0
Lane Group Flow (vph)	127	110	0	0	0	365
Confl. Peds. (#/hr)		72				
Turn Type		Prot				
Protected Phases	1	1				2
Permitted Phases						
Actuated Green, G (s)	21.5	21.5				21.5
Effective Green, g (s)	21.0	21.0				21.0
Actuated g/C Ratio	0.42	0.42				0.42
Clearance Time (s)	3.5	3.5				3.5
Lane Grp Cap (vph)	1442	665				782
v/s Ratio Prot	0.04	c0.07				c0.20
v/s Ratio Perm						
v/c Ratio	0.09	0.17				0.47
Uniform Delay, d1	8.7	9.0				10.5
Progression Factor	1.00	3.28				1.00
Incremental Delay, d2	0.1	0.5				2.0
Delay (s)	8.8	30.2				12.5
Level of Service	A	C				B
Approach Delay (s)	18.8		0.0			12.5
Approach LOS	B		A			B

Intersection Summary

HCM Average Control Delay	16.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

41: G Street & 8th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↑↑↑			↑↑↑					
Volume (vph)	0	0	0	0	366	302	372	447	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)					4.0			4.0					
Lane Util. Factor					0.91			0.91					
Frbp, ped/bikes					0.97			1.00					
Flpb, ped/bikes					1.00			0.98					
Frt					0.93			1.00					
Flt Protected					1.00			0.98					
Satd. Flow (prot)					4607			4856					
Flt Permitted					1.00			0.98					
Satd. Flow (perm)					4607			4856					
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	0	366	302	372	447	0	0	0	0	
RTOR Reduction (vph)	0	0	0	0	158	0	0	205	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	510	0	0	614	0	0	0	0	
Confl. Peds. (#/hr)						72	72						
Turn Type							Perm						
Protected Phases					1			2					
Permitted Phases							2						
Actuated Green, G (s)					21.5			21.5					
Effective Green, g (s)					21.0			21.0					
Actuated g/C Ratio					0.42			0.42					
Clearance Time (s)					3.5			3.5					
Lane Grp Cap (vph)					1935			2040					
v/s Ratio Prot					0.11								
v/s Ratio Perm								0.13					
v/c Ratio					0.26			0.30					
Uniform Delay, d1					9.5			9.6					
Progression Factor					1.45			0.57					
Incremental Delay, d2					0.3			0.4					
Delay (s)					14.0			5.9					
Level of Service					B			A					
Approach Delay (s)		0.0			14.0			5.9			0.0		
Approach LOS		A			B			A			A		
Intersection Summary													
HCM Average Control Delay			9.5		HCM Level of Service				A				
HCM Volume to Capacity ratio			0.28										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			44.8%		ICU Level of Service				A				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←						←←←	
Volume (vph)	0	0	0	46	285	0	0	0	0	0	1529	403
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.98	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.97	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					5010						4846	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					5010						4846	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	46	285	0	0	0	0	0	1529	403
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	95	0
Lane Group Flow (vph)	0	0	0	0	301	0	0	0	0	0	1837	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1703						2035	
v/s Ratio Prot											c0.38	
v/s Ratio Perm					0.06							
v/c Ratio					0.18						0.90	
Uniform Delay, d1					11.6						13.5	
Progression Factor					1.00						0.46	
Incremental Delay, d2					0.2						3.7	
Delay (s)					11.8						10.0	
Level of Service					B						A	
Approach Delay (s)		0.0			11.8			0.0			10.0	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM Average Control Delay			10.2		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			54.6%		ICU Level of Service			A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	376	55	0	0	0	0	175	280	58	49	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	3.5		4.0	
Lane Util. Factor	1.00	0.95						0.95	0.95		1.00	
Frbp, ped/bikes	1.00	0.99						0.98	0.92		1.00	
Flpb, ped/bikes	0.88	1.00						1.00	1.00		0.97	
Frt	1.00	0.98						0.96	0.85		1.00	
Flt Protected	0.95	1.00						1.00	1.00		0.97	
Satd. Flow (prot)	1557	3435						1657	1380		1765	
Flt Permitted	0.95	1.00						1.00	1.00		0.78	
Satd. Flow (perm)	1557	3435						1657	1380		1416	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	175	280	58	49	0
RTOR Reduction (vph)	0	23	0	0	0	0	0	27	130	0	0	0
Lane Group Flow (vph)	20	408	0	0	0	0	0	215	83	0	107	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm							Perm		Perm		
Protected Phases	1							2		2		
Permitted Phases	1							2		2		
Actuated Green, G (s)	18.5	18.5						19.5	19.5		19.5	
Effective Green, g (s)	18.0	18.0						19.0	19.5		19.0	
Actuated g/C Ratio	0.36	0.36						0.38	0.39		0.38	
Clearance Time (s)	3.5	3.5						3.5	3.5		3.5	
Lane Grp Cap (vph)	561	1237						630	538		538	
v/s Ratio Prot	c0.12							c0.13				
v/s Ratio Perm	0.01								0.06		0.08	
v/c Ratio	0.04	0.33						0.34	0.15		0.20	
Uniform Delay, d1	10.4	11.6						11.0	9.9		10.4	
Progression Factor	1.35	1.48						0.80	3.60		1.00	
Incremental Delay, d2	0.1	0.7						1.4	0.6		0.8	
Delay (s)	14.2	17.8						10.3	36.2		11.2	
Level of Service	B	B						B	D		B	
Approach Delay (s)		17.7			0.0			22.4			11.2	
Approach LOS		B			A			C			B	

Intersection Summary

HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	642	41	0	0	0	0	0	0	164	444	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		1.00								1.00	1.00	
Flpb, ped/bikes		1.00								0.95	1.00	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3494								1528	3378	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3494								1528	3378	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	642	41	0	0	0	0	0	0	164	444	0
RTOR Reduction (vph)	0	10	0	0	0	0	0	0	0	92	5	0
Lane Group Flow (vph)	0	673	0	0	0	0	0	0	0	56	455	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		18.5								19.5	19.5	
Effective Green, g (s)		18.0								19.0	19.0	
Actuated g/C Ratio		0.36								0.38	0.38	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1258								581	1284	
v/s Ratio Prot		0.19										
v/s Ratio Perm										0.04	0.13	
v/c Ratio		0.54								0.10	0.35	
Uniform Delay, d1		12.7								10.0	11.1	
Progression Factor		0.73								3.03	1.18	
Incremental Delay, d2		1.6								0.3	0.7	
Delay (s)		10.8								30.6	13.8	
Level of Service		B								C	B	
Approach Delay (s)		10.8			0.0			0.0			17.9	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM Average Control Delay			14.2									HCM Level of Service B
HCM Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			50.0							13.0		Sum of lost time (s)
Intersection Capacity Utilization			43.4%									ICU Level of Service A
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Volume (vph)	387	417	0	0	0	0	0	447	121	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.98						1.00				
Frt		1.00						0.97				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		3370						4857				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		3370						4857				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	387	417	0	0	0	0	0	447	121	0	0	0
RTOR Reduction (vph)	0	223	0	0	0	0	0	75	0	0	0	0
Lane Group Flow (vph)	0	581	0	0	0	0	0	493	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		18.5						19.5				
Effective Green, g (s)		18.0						19.0				
Actuated g/C Ratio		0.36						0.38				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1213						1846				
v/s Ratio Prot								c0.10				
v/s Ratio Perm		0.17										
v/c Ratio		0.48						0.27				
Uniform Delay, d1		12.4						10.7				
Progression Factor		1.45						1.00				
Incremental Delay, d2		1.2						0.4				
Delay (s)		19.2						11.1				
Level of Service		B						B				
Approach Delay (s)		19.2			0.0			11.1			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			15.8					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.37									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		13.0		
Intersection Capacity Utilization			46.9%					ICU Level of Service		A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↖				↗		↑↑↑				
Volume (vph)	144	254	0	0	0	40	0	1004	23	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	1.00				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	1.00				1.00		1.00				
Satd. Flow (prot)	3221	1685				1611		5053				
Flt Permitted	0.95	1.00				1.00		1.00				
Satd. Flow (perm)	3221	1685				1611		5053				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	144	254	0	0	0	40	0	1004	23	0	0	0
RTOR Reduction (vph)	99	3	0	0	0	36	0	5	0	0	0	0
Lane Group Flow (vph)	31	265	0	0	0	4	0	1022	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot		custom									
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	12.5	21.5				5.5		21.5				
Effective Green, g (s)	12.0	21.0				5.0		21.0				
Actuated g/C Ratio	0.24	0.42				0.10		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	773	708				161		2122				
v/s Ratio Prot	0.01	c0.09				0.00		c0.20				
v/s Ratio Perm		0.07										
v/c Ratio	0.04	0.37				0.02		0.48				
Uniform Delay, d1	14.6	10.0				20.3		10.5				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	0.1	1.5				0.3		0.8				
Delay (s)	14.7	11.5				20.6		11.3				
Level of Service	B	B				C		B				
Approach Delay (s)		12.5			20.6			11.3			0.0	
Approach LOS		B			C			B			A	

Intersection Summary

HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	359	154	94	13	43	376
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.88	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1629	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1629	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	359	154	94	13	43	376
RTOR Reduction (vph)	0	0	0	8	270	0
Lane Group Flow (vph)	359	154	94	5	149	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	16.6	18.1	10.6	21.1	10.5	
Effective Green, g (s)	17.1	18.1	10.6	21.1	10.5	
Actuated g/C Ratio	0.34	0.36	0.21	0.42	0.21	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	603	672	393	792	341	
v/s Ratio Prot	c0.20	c0.08	0.05	0.00	c0.09	
v/s Ratio Perm				0.00		
v/c Ratio	0.60	0.23	0.24	0.01	0.44	
Uniform Delay, d1	13.7	11.2	16.4	8.5	17.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.3	0.3	0.5	0.0	0.9	
Delay (s)	15.0	11.5	17.0	8.5	18.2	
Level of Service	B	B	B	A	B	
Approach Delay (s)		14.0	16.0		18.2	
Approach LOS		B	B		B	

Intersection Summary			
HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	50.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	813	86	148	752	0	0	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					0.99		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6112		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6112		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	813	86	148	752	0	0	0	20
RTOR Reduction (vph)	0	0	0	0	35	0	54	0	0	0	0	10
Lane Group Flow (vph)	0	0	0	0	864	0	94	752	0	0	0	10
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					17.0		24.5	24.5				24.5
Effective Green, g (s)					18.0		24.0	24.0				24.5
Actuated g/C Ratio					0.36		0.48	0.48				0.49
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					2200		1648	1614				1366
v/s Ratio Prot					c0.14		0.03	c0.22				
v/s Ratio Perm												0.00
v/c Ratio					0.39		0.06	0.47				0.01
Uniform Delay, d1					11.9		7.0	8.7				6.5
Progression Factor					0.52		1.10	0.99				1.00
Incremental Delay, d2					0.4		0.1	0.8				0.0
Delay (s)					6.6		7.7	9.5				6.5
Level of Service					A		A	A				A
Approach Delay (s)		0.0			6.6			9.2			6.5	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	53	833	137	34	289	0	0	20	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes					0.99		1.00	1.00			1.00	1.00
Frt					0.98		1.00	1.00			0.91	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4885		1610	3388			1602	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4885		1610	3388			1602	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	53	833	137	34	289	0	0	20	84
RTOR Reduction (vph)	0	0	0	0	41	0	0	0	0	0	29	43
Lane Group Flow (vph)	0	0	0	0	982	0	31	292	0	0	25	7
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom						custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					16.5		15.5	15.5			7.5	7.5
Effective Green, g (s)					16.0		15.0	15.0			7.0	7.0
Actuated g/C Ratio					0.32		0.30	0.30			0.14	0.14
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1563		483	1016			224	211
v/s Ratio Prot							0.02	c0.09			c0.02	0.00
v/s Ratio Perm					0.20							
v/c Ratio					0.63		0.06	0.29			0.11	0.03
Uniform Delay, d1					14.5		12.5	13.4			18.8	18.6
Progression Factor					0.87		1.27	1.26			1.10	1.49
Incremental Delay, d2					1.8		0.2	0.7			1.0	0.3
Delay (s)					14.4		16.1	17.5			21.6	28.0
Level of Service					B		B	B			C	C
Approach Delay (s)		0.0			14.4			17.4			24.7	
Approach LOS		A			B			B			C	

Intersection Summary

HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔						↕	↘
Volume (vph)	0	0	0	277	764	0	0	0	0	0	293	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.93	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1412	4785						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1412	4785						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	277	764	0	0	0	0	0	293	257
RTOR Reduction (vph)	0	0	0	149	7	0	0	0	0	0	0	170
Lane Group Flow (vph)	0	0	0	100	785	0	0	0	0	0	293	87
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				20.5	20.5						17.5	17.5
Effective Green, g (s)				20.0	20.0						17.0	17.0
Actuated g/C Ratio				0.40	0.40						0.34	0.34
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				565	1914						1203	948
v/s Ratio Prot											c0.08	
v/s Ratio Perm				0.07	0.16							0.03
v/c Ratio				0.18	0.41						0.24	0.09
Uniform Delay, d1				9.7	10.8						11.9	11.2
Progression Factor				1.00	1.00						0.27	0.02
Incremental Delay, d2				0.7	0.7						0.5	0.2
Delay (s)				10.4	11.4						3.6	0.4
Level of Service				B	B						A	A
Approach Delay (s)		0.0			11.2			0.0			2.1	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM Average Control Delay			8.0		HCM Level of Service						A	
HCM Volume to Capacity ratio			0.33									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			13.0				
Intersection Capacity Utilization			30.9%		ICU Level of Service						A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑→		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	1	1523	554	84	91	114	2	1606	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6049		2787	3433	1863	1584	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6049		2787	3433	1863	1584	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	1523	554	84	91	114	2	1606	244
RTOR Reduction (vph)	0	0	0	7	0	0	0	20	0
Lane Group Flow (vph)	0	2078	0	77	91	114	612	1220	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		33.4		9.7	9.7	9.7	45.4	45.4	
Effective Green, g (s)		33.4		9.2	9.2	9.2	45.4	45.4	
Actuated g/C Ratio		0.33		0.09	0.09	0.09	0.45	0.45	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		2020		256	316	171	719	1308	
v/s Ratio Prot		c0.34				c0.06	0.39	c0.42	
v/s Ratio Perm				0.03	0.03				
v/c Ratio		1.03		0.30	0.29	0.67	0.85	0.93	
Uniform Delay, d1		33.3		42.4	42.3	43.9	24.3	25.9	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		27.8		0.2	0.2	7.4	9.9	12.2	
Delay (s)		61.1		42.6	42.5	51.3	34.2	38.1	
Level of Service		E		D	D	D	C	D	
Approach Delay (s)		61.1				47.4	36.8		
Approach LOS		E				D	D		

Intersection Summary

HCM Average Control Delay	49.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	680	2361	111	0	0	0	0	263	299	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.93					0.98	0.94			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.95	0.85			
Flt Protected	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (prot)	1290	6024	1476					3160	1351			
Flt Permitted	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (perm)	1290	6024	1476					3160	1351			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	680	2361	111	0	0	0	0	263	299	0	0	0
RTOR Reduction (vph)	125	4	32	0	0	0	0	2	2	0	0	0
Lane Group Flow (vph)	460	2452	79	0	0	0	0	387	171	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	70.6	70.6	70.6					21.4	21.4			
Effective Green, g (s)	70.6	70.6	70.6					21.4	21.4			
Actuated g/C Ratio	0.71	0.71	0.71					0.21	0.21			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	911	4253	1042					676	289			
v/s Ratio Prot	0.36	c0.41						0.12				
v/s Ratio Perm			0.05						c0.13			
v/c Ratio	0.50	0.58	0.08					0.57	0.59			
Uniform Delay, d1	6.7	7.3	4.6					35.2	35.4			
Progression Factor	1.37	1.03	1.05					1.00	1.00			
Incremental Delay, d2	0.8	0.2	0.1					0.7	2.2			
Delay (s)	9.9	7.7	4.9					35.9	37.6			
Level of Service	A	A	A					D	D			
Approach Delay (s)		8.0			0.0			36.4			0.0	
Approach LOS		A			A			D			A	
Intersection Summary												
HCM Average Control Delay			12.3					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			100.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			72.2%					ICU Level of Service			C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↔↗↗↗						↕		↘		
Volume (vph)	441	2058	0	0	0	0	0	8	7	28	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.97		1.00		
Flpb, ped/bikes	0.92	1.00						1.00		0.94		
Frt	1.00	1.00						0.94		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1404	4793						1688		1666		
Flt Permitted	0.95	1.00						1.00		0.75		
Satd. Flow (perm)	1404	4793						1688		1311		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	441	2058	0	0	0	0	0	8	7	28	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	397	2102	0	0	0	0	0	9	0	28	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm								D.Pm			
Protected Phases	1								2			
Permitted Phases	1								2			
Actuated Green, G (s)	71.5	71.5						21.5		21.5		
Effective Green, g (s)	71.0	71.0						21.0		21.0		
Actuated g/C Ratio	0.71	0.71						0.21		0.21		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	997	3403						354		275		
v/s Ratio Prot								0.01				
v/s Ratio Perm	0.28	0.44								c0.02		
v/c Ratio	0.40	0.62						0.03		0.10		
Uniform Delay, d1	5.9	7.5						31.4		31.9		
Progression Factor	1.26	1.18						1.00		0.75		
Incremental Delay, d2	1.0	0.7						0.1		0.6		
Delay (s)	8.4	9.6						31.5		24.7		
Level of Service	A	A						C		C		
Approach Delay (s)		9.4			0.0			31.5				24.7
Approach LOS		A			A			C				C

Intersection Summary

HCM Average Control Delay	9.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↑↑↑	↑								↑↑↑			
Volume (vph)	0	1986	324	0	0	0	0	0	0	168	293	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		4.0	4.0								4.0			
Lane Util. Factor		0.86	0.86								0.91			
Frbp, ped/bikes		1.00	0.93								1.00			
Flpb, ped/bikes		1.00	1.00								0.98			
Frt		1.00	0.85								1.00			
Flt Protected		1.00	1.00								0.98			
Satd. Flow (prot)		4789	1265								4885			
Flt Permitted		1.00	1.00								0.98			
Satd. Flow (perm)		4789	1265								4885			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	0	1986	324	0	0	0	0	0	0	168	293	0		
RTOR Reduction (vph)	0	1	126	0	0	0	0	0	0	0	104	0		
Lane Group Flow (vph)	0	2017	166	0	0	0	0	0	0	0	357	0		
Confl. Peds. (#/hr)			36							36				
Turn Type			Perm								Perm			
Protected Phases		1										2		
Permitted Phases			1							2				
Actuated Green, G (s)		54.5	54.5								28.5			
Effective Green, g (s)		54.0	54.0								28.0			
Actuated g/C Ratio		0.54	0.54								0.28			
Clearance Time (s)		3.5	3.5								3.5			
Lane Grp Cap (vph)		2586	683								1368			
v/s Ratio Prot		0.42												
v/s Ratio Perm			0.13								0.07			
v/c Ratio		0.78	0.24								0.26			
Uniform Delay, d1		18.3	12.2								28.0			
Progression Factor		0.91	1.96								1.16			
Incremental Delay, d2		2.0	0.7								0.4			
Delay (s)		18.8	24.6								32.8			
Level of Service		B	C								C			
Approach Delay (s)		19.5			0.0			0.0			32.8			
Approach LOS		B			A			A			C			
Intersection Summary														
HCM Average Control Delay			21.7									HCM Level of Service	C	
HCM Volume to Capacity ratio			0.60											
Actuated Cycle Length (s)			100.0								18.0		Sum of lost time (s)	
Intersection Capacity Utilization			56.9%										ICU Level of Service	B
Analysis Period (min)			15											
c Critical Lane Group														

HCM Signalized Intersection Capacity Analysis
57: L St & 3rd St

Railyards Study
Baseline Conditions AM PEAK



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	93	200	186	60	126	45	651	126	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.5	5.0	4.5	4.5	5.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.99	0.85	0.85	1.00	1.00	0.97		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1671	1504	1583	1770	3539	4950		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1671	1504	1583	1770	3539	4950		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	93	200	186	60	126	45	651	126	14
RTOR Reduction (vph)	0	0	0	35	0	0	2	0	0
Lane Group Flow (vph)	84	228	167	25	126	45	789	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2					
Actuated Green, G (s)	41.5	41.5	41.5	41.5	17.5	49.5	27.5		
Effective Green, g (s)	41.0	41.0	41.5	41.0	17.5	49.5	27.0		
Actuated g/C Ratio	0.41	0.41	0.42	0.41	0.18	0.50	0.27		
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Lane Grp Cap (vph)	689	685	624	649	310	1752	1337		
v/s Ratio Prot					c0.07	0.01	c0.16		
v/s Ratio Perm	0.05	0.14	0.11	0.02					
v/c Ratio	0.12	0.33	0.27	0.04	0.41	0.03	0.59		
Uniform Delay, d1	18.3	20.2	19.2	17.7	36.6	12.9	31.7		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.4	1.3	1.1	0.1	3.9	0.0	1.9		
Delay (s)	18.7	21.5	20.3	17.8	40.6	12.9	33.6		
Level of Service	B	C	C	B	D	B	C		
Approach Delay (s)		20.3				33.3	33.6		
Approach LOS		C				C	C		

Intersection Summary

HCM Average Control Delay	28.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
58: L St & 5th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	527	97	78	511	0	0	0	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				4.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.98		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6178		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6178		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	527	97	78	511	0	0	0	103
RTOR Reduction (vph)	0	0	0	0	48	0	38	0	0	0	0	50
Lane Group Flow (vph)	0	0	0	0	576	0	40	511	0	0	0	53
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					25.0		35.5	35.5				35.5
Effective Green, g (s)					26.0		36.0	36.0				36.0
Actuated g/C Ratio					0.37		0.51	0.51				0.51
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					2295		840	2615				1308
v/s Ratio Prot					c0.09			c0.10				
v/s Ratio Perm							0.02					0.02
v/c Ratio					0.25		0.05	0.20				0.04
Uniform Delay, d1					15.3		8.5	9.2				8.4
Progression Factor					1.00		1.13	0.90				1.00
Incremental Delay, d2					0.3		0.1	0.1				0.1
Delay (s)					15.5		9.6	8.4				8.5
Level of Service					B		A	A				A
Approach Delay (s)		0.0			15.5			8.6			8.5	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
59: L St & 7th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	202	729	0	0	0	0	0	354	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.94	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4694	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4694	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	202	729	0	0	0	0	0	354	215
RTOR Reduction (vph)	0	0	0	141	0	0	0	0	0	0	98	0
Lane Group Flow (vph)	0	0	0	61	729	0	0	0	0	0	471	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						27.5	
Effective Green, g (s)				15.0	15.0						27.0	
Actuated g/C Ratio				0.30	0.30						0.54	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2535	
v/s Ratio Prot					c0.14						c0.10	
v/s Ratio Perm				0.04								
v/c Ratio				0.12	0.48						0.19	
Uniform Delay, d1				12.7	14.3						5.9	
Progression Factor				1.00	1.00						1.70	
Incremental Delay, d2				0.0	0.1						0.2	
Delay (s)				12.7	14.4						10.2	
Level of Service				B	B						B	
Approach Delay (s)		0.0			14.0			0.0			10.2	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	512	312	0	0	102	76	146	609	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.96		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.94		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4591		3433	5020				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4591		3433	5020				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	512	312	0	0	102	76	146	609	35	0	0	0
RTOR Reduction (vph)	0	0	0	0	61	0	0	9	0	0	0	0
Lane Group Flow (vph)	512	312	0	0	117	0	146	635	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		31.0	31.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.44	0.44				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			918		1520	2223				
v/s Ratio Prot	c0.15	c0.09			0.03		0.04	c0.13				
v/s Ratio Perm												
v/c Ratio	0.80	0.20			0.13		0.10	0.29				
Uniform Delay, d1	27.3	11.9			23.0		11.3	12.4				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	10.3	0.3			0.3		0.1	0.3				
Delay (s)	37.5	12.2			23.3		11.5	12.8				
Level of Service	D	B			C		B	B				
Approach Delay (s)		28.0			23.3			12.5			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	20.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

Railyards Study
Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Volume (vph)	0	0	0	171	599	0	0	0	0	0	199	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.91	0.91
Frbp, ped/bikes					1.00						0.98	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.97	0.85
Flt Protected					0.99						1.00	1.00
Satd. Flow (prot)					4862						3081	1190
Flt Permitted					0.99						1.00	1.00
Satd. Flow (perm)					4862						3081	1190
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	171	599	0	0	0	0	0	199	152
RTOR Reduction (vph)	0	0	0	0	79	0	0	0	0	0	32	74
Lane Group Flow (vph)	0	0	0	0	691	0	0	0	0	0	213	32
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2625						924	357
v/s Ratio Prot					c0.14						c0.07	
v/s Ratio Perm												0.03
v/c Ratio					0.26						0.23	0.09
Uniform Delay, d1					6.2						13.2	12.6
Progression Factor					1.00						2.14	6.55
Incremental Delay, d2					0.2						0.5	0.4
Delay (s)					6.4						28.6	82.9
Level of Service					A						C	F
Approach Delay (s)		0.0			6.4			0.0			45.0	
Approach LOS		A			A			A			D	

Intersection Summary

HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

Railyards Study

Baseline Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	2253	308	0	0	0	0	0	0	137	204	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.97	
Frt		0.98									1.00	
Flt Protected		1.00									0.98	
Satd. Flow (prot)		6254									4841	
Flt Permitted		1.00									0.98	
Satd. Flow (perm)		6254									4841	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2253	308	0	0	0	0	0	0	137	204	0
RTOR Reduction (vph)	0	49	0	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	2512	0	0	0	0	0	0	0	0	339	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3377									1452	
v/s Ratio Prot		c0.40										
v/s Ratio Perm											0.07	
v/c Ratio		0.74									0.23	
Uniform Delay, d1		8.8									13.2	
Progression Factor		1.00									0.80	
Incremental Delay, d2		1.5									0.4	
Delay (s)		10.4									10.9	
Level of Service		B									B	
Approach Delay (s)		10.4			0.0			0.0			10.9	
Approach LOS		B			A			A			B	

Intersection Summary

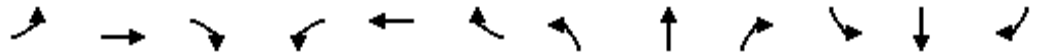
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑						↑	↑
Volume (vph)	0	546	58	711	414	0	0	0	0	453	3	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	4.0
Lane Util. Factor		0.95		0.97	1.00						1.00	1.00
Frbp, ped/bikes		0.99		1.00	1.00						1.00	0.86
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.99		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3446		3433	1863						1775	1365
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3446		3433	1863						1775	1365
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	546	58	711	414	0	0	0	0	453	3	244
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	0	188
Lane Group Flow (vph)	0	593	0	711	414	0	0	0	0	0	456	56
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9	3 12 13					4	4	
Permitted Phases												4
Actuated Green, G (s)		12.5		31.0	46.5						16.0	16.0
Effective Green, g (s)		12.5		29.5	46.0						16.0	16.0
Actuated g/C Ratio		0.18		0.42	0.66						0.23	0.23
Clearance Time (s)		4.0									4.0	4.0
Vehicle Extension (s)		6.0									5.0	5.0
Lane Grp Cap (vph)		615		1447	1224						406	312
v/s Ratio Prot		c0.17		c0.21	0.22						c0.26	
v/s Ratio Perm												0.04
v/c Ratio		0.96		0.49	0.34						1.12	0.18
Uniform Delay, d1		28.5		14.8	5.3						27.0	21.7
Progression Factor		1.00		0.05	0.03						1.00	1.00
Incremental Delay, d2		27.9		0.3	0.2						82.6	0.6
Delay (s)		56.4		1.1	0.4						109.6	22.3
Level of Service		E		A	A						F	C
Approach Delay (s)		56.4			0.9			0.0			79.1	
Approach LOS		E			A			A			E	

Intersection Summary

HCM Average Control Delay	37.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗		↕	↗			
Volume (vph)	355	660	0	0	1073	1020	52	9	568	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.84		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.88	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)	1770	3539			3539	1337		1543	1504			
Flt Permitted	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)	1770	3539			3539	1337		1543	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	355	660	0	0	1073	1020	52	9	568	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	470	0	187	77	0	0	0
Lane Group Flow (vph)	355	660	0	0	1073	550	0	130	235	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot				custom		Split		custom			
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	12.6	29.4			27.0	23.5		19.4	33.6			
Effective Green, g (s)	12.1	28.9			23.5	23.5		18.9	28.6			
Actuated g/C Ratio	0.17	0.41			0.34	0.34		0.27	0.41			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	306	1461			1188	449		417	614			
v/s Ratio Prot	c0.20	0.19			0.30	c0.18		0.08	c0.16			
v/s Ratio Perm						0.23						
v/c Ratio	1.16	0.45			0.90	1.23		0.31	0.38			
Uniform Delay, d1	29.0	14.8			22.2	23.3		20.4	14.5			
Progression Factor	0.92	0.13			1.00	1.00		1.00	1.00			
Incremental Delay, d2	75.7	0.0			10.3	120.0		0.9	0.8			
Delay (s)	102.4	2.0			32.5	143.3		21.3	15.3			
Level of Service	F	A			C	F		C	B			
Approach Delay (s)		37.1			86.5			18.3			0.0	
Approach LOS		D			F			B			A	

Intersection Summary

HCM Average Control Delay	61.6	HCM Level of Service	E
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	112.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Volume (vph)	196	801	271	30	1379	36	489	29	17	47	24	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.2		5.2	5.2			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	0.98		1.00	1.00			1.00	0.96		1.00	1.00
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00	1.00		0.99	1.00
Frt	1.00	0.96		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.97	1.00
Satd. Flow (prot)	1770	3345		1749	5052			1779	1513		1789	1583
Flt Permitted	0.15	1.00		0.27	1.00			0.69	1.00		0.54	1.00
Satd. Flow (perm)	288	3345		491	5052			1279	1513		996	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	196	801	271	30	1379	36	489	29	17	47	24	259
RTOR Reduction (vph)	0	51	0	0	3	0	0	0	5	0	0	166
Lane Group Flow (vph)	196	1021	0	30	1412	0	0	518	12	0	71	93
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	33.4	33.4		22.4	22.4			24.2	24.2		24.2	24.2
Effective Green, g (s)	32.9	32.8		21.8	21.8			23.7	23.7		23.7	23.7
Actuated g/C Ratio	0.50	0.50		0.33	0.33			0.36	0.36		0.36	0.36
Clearance Time (s)	3.5	4.6		4.6	4.6			3.5	3.5		3.5	3.5
Vehicle Extension (s)	0.2	0.2		0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	302	1670		163	1676			461	546		359	571
v/s Ratio Prot	0.07	c0.31			c0.28							
v/s Ratio Perm	0.26			0.06				c0.41	0.01		0.07	0.06
v/c Ratio	0.65	0.61		0.18	0.84			1.12	0.02		0.20	0.16
Uniform Delay, d1	12.0	11.9		15.6	20.4			21.0	13.5		14.5	14.3
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	3.6	0.5		0.2	3.9			80.2	0.0		0.1	0.0
Delay (s)	15.6	12.3		15.8	24.2			101.2	13.5		14.6	14.3
Level of Service	B	B		B	C			F	B		B	B
Approach Delay (s)		12.8			24.1			98.5			14.4	
Approach LOS		B			C			F			B	

Intersection Summary

HCM Average Control Delay	30.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	65.7	Sum of lost time (s)	14.4
Intersection Capacity Utilization	95.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & 5th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	849	21	9	1568	11	13	1	17	15	0	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.96		1.00	0.95	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.97	1.00		0.97	1.00	
Frt	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3521		1770	3534		1711	1529		1709	1510	
Flt Permitted	0.95	1.00		0.95	1.00		0.73	1.00		0.75	1.00	
Satd. Flow (perm)	1770	3521		1770	3534		1313	1529		1342	1510	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	849	21	9	1568	11	13	1	17	15	0	43
RTOR Reduction (vph)	0	1	0	0	0	0	0	14	0	0	34	0
Lane Group Flow (vph)	12	869	0	9	1579	0	13	4	0	15	9	0
Confl. Peds. (#/hr)			36			36	36		36	36		36
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	1	6		5	2			8				4
Permitted Phases		6			2		8			4		
Actuated Green, G (s)	5.1	40.7		5.0	40.6		14.9	14.9		14.9	14.9	
Effective Green, g (s)	4.1	40.4		4.0	40.3		14.4	14.4		14.4	14.4	
Actuated g/C Ratio	0.06	0.57		0.06	0.56		0.20	0.20		0.20	0.20	
Clearance Time (s)	3.0	4.3		3.0	4.3		3.5	3.5		3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	102	1992		99	1995		265	308		271	305	
v/s Ratio Prot	c0.01	0.25		0.01	c0.45			0.00			0.01	
v/s Ratio Perm							0.01			c0.01		
v/c Ratio	0.12	0.44		0.09	0.79		0.05	0.01		0.06	0.03	
Uniform Delay, d1	31.9	8.9		32.0	12.2		23.0	22.8		23.0	22.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.1		0.1	2.1		0.0	0.0		0.0	0.0	
Delay (s)	32.1	9.0		32.1	14.3		23.0	22.8		23.0	22.9	
Level of Service	C	A		C	B		C	C		C	C	
Approach Delay (s)		9.3			14.4			22.9			22.9	
Approach LOS		A			B			C			C	

Intersection Summary

HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	71.4	Sum of lost time (s)	12.6
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	779	97	88	1201	7	352	11	359	10	17	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3457		1770	3535		1681	1690	1583	1770	1682	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3457		1770	3535		1681	1690	1583	1770	1682	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	779	97	88	1201	7	352	11	359	10	17	31
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	243	0	29	0
Lane Group Flow (vph)	9	871	0	88	1208	0	180	183	116	10	19	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split			Prot	Split	
Protected Phases	1	6		5	2		8	8	8	7	7	
Permitted Phases												
Actuated Green, G (s)	5.1	37.6		8.9	41.4		15.5	15.5	15.5	5.1	5.1	
Effective Green, g (s)	4.1	37.6		7.9	41.4		15.0	15.0	15.0	4.6	4.6	
Actuated g/C Ratio	0.05	0.46		0.10	0.51		0.18	0.18	0.18	0.06	0.06	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.5	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	89	1603		172	1805		311	313	293	100	95	
v/s Ratio Prot	0.01	0.25		c0.05	c0.34		0.11	c0.11	0.07	0.01	c0.01	
v/s Ratio Perm												
v/c Ratio	0.10	0.54		0.51	0.67		0.58	0.58	0.40	0.10	0.20	
Uniform Delay, d1	36.7	15.6		34.8	14.8		30.2	30.2	29.1	36.3	36.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	0.2		1.1	0.7		1.6	1.8	0.3	0.2	0.4	
Delay (s)	36.9	15.8		35.8	15.5		31.8	32.0	29.4	36.4	36.9	
Level of Service	D	B		D	B		C	C	C	D	D	
Approach Delay (s)		16.0			16.9			30.6			36.8	
Approach LOS		B			B			C			D	

Intersection Summary

HCM Average Control Delay	20.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	81.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	1062	68	84	1019	15	50	22	177	77	38	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0	5.0	4.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.94	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		0.98	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1489	1770	3528		1729	1863	1583	1770	1863	1486
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.73	1.00	1.00	0.74	1.00	1.00
Satd. Flow (perm)	1770	3539	1489	1770	3528		1333	1863	1583	1384	1863	1486
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	1062	68	84	1019	15	50	22	177	77	38	170
RTOR Reduction (vph)	0	0	16	0	0	0	0	0	140	0	0	135
Lane Group Flow (vph)	26	1062	52	84	1034	0	50	22	37	77	38	35
Confl. Peds. (#/hr)			35			35	35					35
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		Perm
Protected Phases	1	6		5	2			4				8
Permitted Phases			6				4		4	8		8
Actuated Green, G (s)	2.0	27.5	27.5	6.5	32.0		12.6	12.6	12.6	12.6	12.6	12.6
Effective Green, g (s)	1.5	27.0	27.0	6.0	31.5		12.1	12.1	12.1	12.1	12.1	12.1
Actuated g/C Ratio	0.03	0.46	0.46	0.10	0.54		0.21	0.21	0.21	0.21	0.21	0.21
Clearance Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2	0.2	2.0	2.0	2.0
Lane Grp Cap (vph)	46	1645	692	183	1913		278	388	330	288	388	309
v/s Ratio Prot	0.01	c0.30		c0.05	0.29			0.01				0.02
v/s Ratio Perm			0.03				0.04		0.02	c0.06		0.02
v/c Ratio	0.57	0.65	0.08	0.46	0.54		0.18	0.06	0.11	0.27	0.10	0.11
Uniform Delay, d1	28.0	11.9	8.6	24.5	8.6		18.9	18.4	18.6	19.3	18.6	18.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.1	0.7	0.0	0.7	0.2		0.1	0.0	0.1	0.2	0.0	0.1
Delay (s)	37.1	12.6	8.6	25.2	8.8		19.0	18.4	18.7	19.5	18.6	18.7
Level of Service	D	B	A	C	A		B	B	B	B	B	B
Approach Delay (s)		12.9			10.0			18.7			18.9	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	58.1	Sum of lost time (s)	13.0
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	1218	39	7	899	4	42	13	54	24	13	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00			0.97			0.98	
Flpb, ped/bikes	0.97	1.00		0.99	1.00			0.98			0.98	
Frt	1.00	1.00		1.00	1.00			0.93			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.98	
Satd. Flow (prot)	1716	3507		1743	3535			1623			1665	
Flt Permitted	0.28	1.00		0.17	1.00			0.89			0.89	
Satd. Flow (perm)	507	3507		307	3535			1468			1508	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	1218	39	7	899	4	42	13	54	24	13	22
RTOR Reduction (vph)	0	2	0	0	0	0	0	12	0	0	16	0
Lane Group Flow (vph)	12	1255	0	7	903	0	0	97	0	0	43	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	46.5	46.5		46.5	46.5			19.6			19.6	
Effective Green, g (s)	46.0	46.0		46.0	46.0			19.1			19.1	
Actuated g/C Ratio	0.62	0.62		0.62	0.62			0.26			0.26	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	315	2177		191	2194			378			389	
v/s Ratio Prot		c0.36			0.26							
v/s Ratio Perm	0.02			0.02				c0.07			0.03	
v/c Ratio	0.04	0.58		0.04	0.41			0.26			0.11	
Uniform Delay, d1	5.5	8.3		5.5	7.2			21.9			21.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.2	1.1		0.4	0.6			0.1			0.0	
Delay (s)	5.7	9.4		5.8	7.7			22.0			21.1	
Level of Service	A	A		A	A			C			C	
Approach Delay (s)		9.4			7.7			22.0			21.1	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	9.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	74.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	1374	262	50	0	50	56	4506	20	1624	523
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6774	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6774	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1374	262	50	0	50	56	4506	20	1624	523
RTOR Reduction (vph)	0	97	0	24	0	0	0	5	0	323
Lane Group Flow (vph)	1374	165	0	76	0	56	4506	15	1624	200
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	36.0	36.0		14.9		7.1	69.1	51.1	57.5	57.5
Effective Green, g (s)	36.0	35.0		13.9		7.1	69.1	51.1	57.5	57.5
Actuated g/C Ratio	0.24	0.23		0.09		0.05	0.46	0.34	0.38	0.38
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	824	369		157		84	2952	539	2597	607
v/s Ratio Prot	c0.40	0.10		c0.04		0.03	c0.70		0.24	0.13
v/s Ratio Perm								0.01		
v/c Ratio	1.67	0.45		0.48		0.67	1.53	0.03	0.63	0.33
Uniform Delay, d1	57.0	49.2		64.6		70.3	40.5	32.9	37.5	32.7
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	305.7	0.9		2.3		18.2	238.6	0.1	0.5	0.3
Delay (s)	362.7	50.1		66.9		88.5	279.1	33.0	38.0	33.0
Level of Service	F	D		E		F	F	C	D	C
Approach Delay (s)				66.9			275.7			
Approach LOS				E			F			

Intersection Summary

HCM Average Control Delay	219.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.45		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	133.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	0	80	66	41	0	0	0	0	170	1928	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0		4.0						4.0	
Lane Util. Factor			1.00		1.00						0.86	
Frbp, ped/bikes			0.97		1.00						1.00	
Flpb, ped/bikes			1.00		0.99						1.00	
Frt			0.85		1.00						1.00	
Flt Protected			1.00		0.97						1.00	
Satd. Flow (prot)			1541		1790						6358	
Flt Permitted			1.00		0.81						1.00	
Satd. Flow (perm)			1541		1498						6358	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	80	66	41	0	0	0	0	170	1928	13
RTOR Reduction (vph)	0	0	70	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	10	0	107	0	0	0	0	0	2110	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm						Perm		
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)			12.4		12.4						59.0	
Effective Green, g (s)			11.9		11.9						59.0	
Actuated g/C Ratio			0.12		0.12						0.59	
Clearance Time (s)			3.5		3.5						4.0	
Vehicle Extension (s)			2.0		2.0						5.0	
Lane Grp Cap (vph)			183		178						3751	
v/s Ratio Prot												
v/s Ratio Perm			0.01		0.07						0.33	
v/c Ratio			0.05		0.60						0.56	
Uniform Delay, d1			39.0		41.8						12.6	
Progression Factor			1.00		0.89						1.00	
Incremental Delay, d2			0.0		3.5						0.6	
Delay (s)			39.1		40.9						13.2	
Level of Service			D		D						B	
Approach Delay (s)		39.1			40.9			0.0			13.2	
Approach LOS		D			D			A			B	

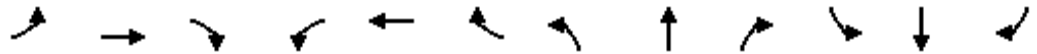
Intersection Summary

HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	29.1
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
10: Basler St & 16th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	31	6	0	0	53	25	45	3864	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.96			1.00				
Flpb, ped/bikes	0.89	0.93			1.00			1.00				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.97			1.00			1.00				
Satd. Flow (prot)	1500	1585			1708			6398				
Flt Permitted	0.71	0.85			1.00			1.00				
Satd. Flow (perm)	1115	1396			1708			6398				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	6	0	0	53	25	45	3864	6	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	18	19	0	0	78	0	0	3915	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			73.0				
Effective Green, g (s)	18.0	18.0			18.0			74.0				
Actuated g/C Ratio	0.18	0.18			0.18			0.74				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	201	251			307			4735				
v/s Ratio Prot					c0.05							
v/s Ratio Perm	0.02	0.01						0.61				
v/c Ratio	0.09	0.08			0.25			0.83				
Uniform Delay, d1	34.2	34.1			35.2			8.7				
Progression Factor	0.66	0.66			1.00			0.42				
Incremental Delay, d2	0.7	0.5			2.0			0.9				
Delay (s)	23.3	23.0			37.2			4.6				
Level of Service	C	C			D			A				
Approach Delay (s)		23.1			37.2			4.6			0.0	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM Average Control Delay	5.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

13: Bercut Dr & Bannon St

Railyards Study
Baseline Conditions PM PEAK



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Volume (veh/h)	42	243	2	110	322	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	42	243	2	110	322	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	512					
pX, platoon unblocked						
vC, conflicting volume			285		278	164
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			285		278	164
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		55	100
cM capacity (veh/h)			1277		711	881
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	285	112	323			
Volume Left	0	2	322			
Volume Right	243	0	1			
cSH	1700	1277	712			
Volume to Capacity	0.17	0.00	0.45			
Queue Length 95th (ft)	0	0	59			
Control Delay (s)	0.0	0.2	14.2			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.2	14.2			
Approach LOS			B			
Intersection Summary						
Average Delay			6.4			
Intersection Capacity Utilization			41.8%		ICU Level of Service	A
Analysis Period (min)			15			
Description: SB coded as EB						

HCM Unsignalized Intersection Capacity Analysis
 18: Water St & 7th Street

Railyards Study
 Baseline Conditions PM PEAK

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	133	31	127	54	109	80	81	499	205	54	155	18
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	133	31	127	54	109	80	81	499	205	54	155	18
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1	SB 2						
Volume Total (vph)	291	163	80	785	54	173						
Volume Left (vph)	133	54	0	81	54	0						
Volume Right (vph)	127	0	80	205	0	18						
Hadj (s)	-0.14	0.20	-0.67	-0.10	0.53	-0.04						
Departure Headway (s)	7.5	8.0	7.2	6.9	8.1	7.6						
Degree Utilization, x	0.61	0.36	0.16	1.51	0.12	0.36						
Capacity (veh/h)	466	430	479	524	421	453						
Control Delay (s)	21.5	14.4	10.3	257.3	11.1	13.6						
Approach Delay (s)	21.5	13.0		257.3	13.0							
Approach LOS	C	B		F	B							
Intersection Summary												
Delay			138.6									
HCM Level of Service			F									
Intersection Capacity Utilization			85.9%	ICU Level of Service	E							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

19: Water St & 10th St

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (veh/h)	66	250	120	74	191	122
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	66	250	120	74	191	122
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			841			
pX, platoon unblocked						
vC, conflicting volume	194				414	97
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	194				414	97
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				65	87
cM capacity (veh/h)	1377				539	940
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	149	167	80	114	313	
Volume Left	66	0	0	0	191	
Volume Right	0	0	0	74	122	
cSH	1377	1700	1700	1700	647	
Volume to Capacity	0.05	0.10	0.05	0.07	0.48	
Queue Length 95th (ft)	4	0	0	0	66	
Control Delay (s)	3.6	0.0	0.0	0.0	15.7	
Lane LOS	A				C	
Approach Delay (s)	1.7		0.0		15.7	
Approach LOS					C	
Intersection Summary						
Average Delay			6.6			
Intersection Capacity Utilization			42.6%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

20: Water St & 12th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↘↗	
Volume (vph)	37	313	179	58	109	31	4	27	19	55	2013	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.98			0.97			1.00	
Flpb, ped/bikes		1.00		0.98	1.00			1.00			0.90	
Frt		0.95		1.00	0.97			0.95			1.00	
Flt Protected		1.00		0.95	1.00			1.00			0.95	
Satd. Flow (prot)		3335		1741	1765			1715			5757	
Flt Permitted		0.92		0.23	1.00			1.00			0.95	
Satd. Flow (perm)		3091		425	1765			1715			5757	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	37	313	179	58	109	31	4	27	19	55	2013	57
RTOR Reduction (vph)	0	67	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	0	462	0	58	140	0	0	33	0	0	2125	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		21.2		21.2	21.2			11.8			38.2	
Effective Green, g (s)		21.2		21.2	21.2			11.8			41.2	
Actuated g/C Ratio		0.21		0.21	0.21			0.12			0.41	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)		655		90	374			202			2372	
v/s Ratio Prot					0.08							
v/s Ratio Perm		c0.15		0.14				0.02			0.37	
v/c Ratio		0.71		0.64	0.37			0.16			0.90	
Uniform Delay, d1		36.5		36.0	33.7			39.7			27.4	
Progression Factor		1.00		1.05	1.06			1.00			1.00	
Incremental Delay, d2		4.3		14.8	1.0			0.8			5.8	
Delay (s)		40.8		52.5	36.8			40.5			33.2	
Level of Service		D		D	D			D			C	
Approach Delay (s)		40.8			41.4			40.5			33.2	
Approach LOS		D			D			D			C	

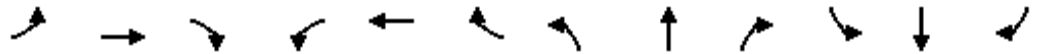
Intersection Summary

HCM Average Control Delay	35.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	25.8
Intersection Capacity Utilization	88.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
21: North B St & 16th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	390	54	0	0	7	0	159	3658	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			1.00			1.00				
Flpb, ped/bikes	0.89	0.92			1.00			1.00				
Frt	1.00	1.00			1.00			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1501	1567			1863			6378				
Flt Permitted	0.75	0.77			1.00			1.00				
Satd. Flow (perm)	1190	1259			1863			6378				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	54	0	0	7	0	159	3658	8	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	222	222	0	0	7	0	0	3825	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	20.0	20.0			20.0			72.0				
Effective Green, g (s)	20.0	20.0			20.0			72.0				
Actuated g/C Ratio	0.20	0.20			0.20			0.72				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	238	252			373			4592				
v/s Ratio Prot					0.00							
v/s Ratio Perm	0.19	0.18						0.60				
v/c Ratio	0.93	0.88			0.02			0.83				
Uniform Delay, d1	39.3	38.8			32.1			9.8				
Progression Factor	0.55	0.55			1.00			0.90				
Incremental Delay, d2	37.8	28.1			0.1			1.4				
Delay (s)	59.6	49.7			32.2			10.2				
Level of Service	E	D			C			B				
Approach Delay (s)		54.7			32.2			10.2			0.0	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

37: F Street & 7th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Volume (veh/h)	34	25	23	89	0	151	0	449	23	85	160	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	34	25	23	89	0	151	0	449	23	85	160	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								439				
pX, platoon unblocked												
vC, conflicting volume	943	804	162	828	794	460	163			472		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	943	804	162	828	794	460	163			472		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	80	91	97	64	100	75	100			92		
cM capacity (veh/h)	171	292	883	249	296	601	1416			1090		
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total	82	89	151	472	248							
Volume Left	34	89	0	0	85							
Volume Right	23	0	151	23	3							
cSH	264	249	601	1416	1090							
Volume to Capacity	0.31	0.36	0.25	0.00	0.08							
Queue Length 95th (ft)	32	39	25	0	6							
Control Delay (s)	24.7	27.3	13.0	0.0	3.4							
Lane LOS	C	D	B		A							
Approach Delay (s)	24.7	18.3		0.0	3.4							
Approach LOS	C	C										
Intersection Summary												
Average Delay			7.0									
Intersection Capacity Utilization			65.6%		ICU Level of Service					C		
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis
40: G Street & 7th Street

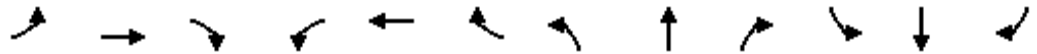
Railyards Study
Baseline Conditions PM PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙↘	↙				↘
Volume (vph)	482	347	0	0	0	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0
Lane Util. Factor	0.97	1.00				1.00
Frbp, ped/bikes	1.00	1.00				1.00
Flpb, ped/bikes	1.00	1.00				1.00
Frt	1.00	0.85				1.00
Flt Protected	0.95	1.00				1.00
Satd. Flow (prot)	3433	1583				1863
Flt Permitted	0.95	1.00				1.00
Satd. Flow (perm)	3433	1583				1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	482	347	0	0	0	391
RTOR Reduction (vph)	280	201	0	0	0	0
Lane Group Flow (vph)	202	146	0	0	0	391
Confl. Peds. (#/hr)		72				
Turn Type		Prot				
Protected Phases	1	1				2
Permitted Phases						
Actuated Green, G (s)	21.5	21.5				21.5
Effective Green, g (s)	21.0	21.0				21.0
Actuated g/C Ratio	0.42	0.42				0.42
Clearance Time (s)	3.5	3.5				3.5
Lane Grp Cap (vph)	1442	665				782
v/s Ratio Prot	0.06	c0.09				c0.21
v/s Ratio Perm						
v/c Ratio	0.14	0.22				0.50
Uniform Delay, d1	8.9	9.3				10.6
Progression Factor	17.08	1.87				1.00
Incremental Delay, d2	0.2	0.7				2.3
Delay (s)	152.8	18.1				12.9
Level of Service	F	B				B
Approach Delay (s)	96.4		0.0			12.9
Approach LOS	F		A			B
Intersection Summary						
HCM Average Control Delay			69.7		HCM Level of Service	E
HCM Volume to Capacity ratio			0.36			
Actuated Cycle Length (s)			50.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			44.7%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
41: G Street & 8th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Volume (vph)	0	0	0	0	497	45	260	311	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0				
Lane Util. Factor					0.91			0.91				
Frbp, ped/bikes					0.99			1.00				
Flpb, ped/bikes					1.00			0.98				
Frt					0.99			1.00				
Flt Protected					1.00			0.98				
Satd. Flow (prot)					4996			4856				
Flt Permitted					1.00			0.98				
Satd. Flow (perm)					4996			4856				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	497	45	260	311	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	21	0	0	135	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	521	0	0	436	0	0	0	0
Confl. Peds. (#/hr)						72	72					
Turn Type							Perm					
Protected Phases					1			2				
Permitted Phases							2					
Actuated Green, G (s)					21.5			21.5				
Effective Green, g (s)					21.0			21.0				
Actuated g/C Ratio					0.42			0.42				
Clearance Time (s)					3.5			3.5				
Lane Grp Cap (vph)					2098			2040				
v/s Ratio Prot					c0.10							
v/s Ratio Perm								0.09				
v/c Ratio					0.25			0.21				
Uniform Delay, d1					9.4			9.2				
Progression Factor					1.01			0.39				
Incremental Delay, d2					0.3			0.2				
Delay (s)					9.8			3.9				
Level of Service					A			A				
Approach Delay (s)		0.0			9.8			3.9			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			6.7		HCM Level of Service				A			
HCM Volume to Capacity ratio			0.23									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			38.6%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	59	240	0	0	0	0	0	1151	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.99	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.98	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					4979						4935	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					4979						4935	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	59	240	0	0	0	0	0	1151	172
RTOR Reduction (vph)	0	0	0	0	39	0	0	0	0	0	39	0
Lane Group Flow (vph)	0	0	0	0	260	0	0	0	0	0	1284	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1693						2073	
v/s Ratio Prot											c0.26	
v/s Ratio Perm					0.05							
v/c Ratio					0.15						0.62	
Uniform Delay, d1					11.5						11.4	
Progression Factor					1.00						1.49	
Incremental Delay, d2					0.2						0.7	
Delay (s)					11.7						17.6	
Level of Service					B						B	
Approach Delay (s)		0.0			11.7			0.0			17.6	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			16.5		HCM Level of Service						B	
HCM Volume to Capacity ratio			0.41									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			41.7%		ICU Level of Service			A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	319	79	0	0	0	0	151	193	106	84	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	3.5		4.0	
Lane Util. Factor	1.00	0.95						0.95	0.95		1.00	
Frbp, ped/bikes	1.00	0.98						0.99	0.92		1.00	
Flpb, ped/bikes	0.88	1.00						1.00	1.00		0.97	
Frt	1.00	0.97						0.97	0.85		1.00	
Flt Protected	0.95	1.00						1.00	1.00		0.97	
Satd. Flow (prot)	1557	3378						1697	1380		1756	
Flt Permitted	0.95	1.00						1.00	1.00		0.74	
Satd. Flow (perm)	1557	3378						1697	1380		1344	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	151	193	106	84	0
RTOR Reduction (vph)	0	44	0	0	0	0	0	15	110	0	0	0
Lane Group Flow (vph)	4	354	0	0	0	0	0	169	50	0	190	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm								Perm	Perm		
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)	22.5	22.5						15.5	15.5		15.5	
Effective Green, g (s)	22.0	22.0						15.0	15.5		15.0	
Actuated g/C Ratio	0.44	0.44						0.30	0.31		0.30	
Clearance Time (s)	3.5	3.5						3.5	3.5		3.5	
Lane Grp Cap (vph)	685	1486						509	428		403	
v/s Ratio Prot		c0.10						0.10				
v/s Ratio Perm	0.00								0.04		c0.14	
v/c Ratio	0.01	0.24						0.33	0.12		0.47	
Uniform Delay, d1	7.9	8.8						13.6	12.3		14.3	
Progression Factor	0.77	0.60						1.06	2.65		1.00	
Incremental Delay, d2	0.0	0.4						1.5	0.5		3.9	
Delay (s)	6.1	5.6						15.9	33.2		18.2	
Level of Service	A	A						B	C		B	
Approach Delay (s)		5.6			0.0			23.9			18.2	
Approach LOS		A			A			C			B	

Intersection Summary

HCM Average Control Delay	14.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	46.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	505	71	0	0	0	0	0	0	194	622	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.99								1.00	1.00	
Flpb, ped/bikes		1.00								0.93	1.00	
Frt		0.98								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3438								1494	3378	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3438								1494	3378	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	505	71	0	0	0	0	0	0	194	622	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	112	4	0
Lane Group Flow (vph)	0	554	0	0	0	0	0	0	0	63	637	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		19.5								18.5	18.5	
Effective Green, g (s)		19.0								18.0	18.0	
Actuated g/C Ratio		0.38								0.36	0.36	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1306								538	1216	
v/s Ratio Prot		0.16										
v/s Ratio Perm										0.04	0.19	
v/c Ratio		0.42								0.12	0.52	
Uniform Delay, d1		11.5								10.7	12.6	
Progression Factor		1.52								2.12	0.94	
Incremental Delay, d2		1.0								0.4	1.5	
Delay (s)		18.3								23.1	13.4	
Level of Service		B								C	B	
Approach Delay (s)		18.3			0.0			0.0			15.4	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM Average Control Delay			16.6									HCM Level of Service B
HCM Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			50.0							13.0		Sum of lost time (s)
Intersection Capacity Utilization			44.7%									ICU Level of Service A
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Volume (vph)	172	540	0	0	0	0	0	400	218	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.97				
Flpb, ped/bikes		0.98						1.00				
Frt		1.00						0.95				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		3436						4676				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		3436						4676				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	172	540	0	0	0	0	0	400	218	0	0	0
RTOR Reduction (vph)	0	61	0	0	0	0	0	148	0	0	0	0
Lane Group Flow (vph)	0	651	0	0	0	0	0	470	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		21.5						16.5				
Effective Green, g (s)		21.0						16.0				
Actuated g/C Ratio		0.42						0.32				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1443						1496				
v/s Ratio Prot								c0.10				
v/s Ratio Perm		0.19										
v/c Ratio		0.45						0.31				
Uniform Delay, d1		10.4						12.9				
Progression Factor		0.63						1.00				
Incremental Delay, d2		1.0						0.5				
Delay (s)		7.5						13.4				
Level of Service		A						B				
Approach Delay (s)		7.5			0.0			13.4			0.0	
Approach LOS		A			A			B			A	

Intersection Summary

HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↖				↗		↖↗↘				
Volume (vph)	794	431	0	0	0	46	0	2072	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	0.99				1.00		1.00				
Satd. Flow (prot)	3221	1665				1611		5072				
Flt Permitted	0.95	0.99				1.00		1.00				
Satd. Flow (perm)	3221	1665				1611		5072				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	794	431	0	0	0	46	0	2072	20	0	0	0
RTOR Reduction (vph)	33	11	0	0	0	12	0	2	0	0	0	0
Lane Group Flow (vph)	682	499	0	0	0	34	0	2090	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	15.5	21.5				2.5		21.5				
Effective Green, g (s)	15.0	21.0				2.0		21.0				
Actuated g/C Ratio	0.30	0.42				0.04		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	966	699				64		2130				
v/s Ratio Prot	0.21	c0.21				0.02		c0.41				
v/s Ratio Perm		0.09										
v/c Ratio	0.71	0.71				0.52		0.98				
Uniform Delay, d1	15.5	12.0				23.5		14.3				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	4.3	6.1				27.4		15.6				
Delay (s)	19.9	18.1				51.0		29.9				
Level of Service	B	B				D		C				
Approach Delay (s)		19.2			51.0			29.9			0.0	
Approach LOS		B			D			C			A	

Intersection Summary

HCM Average Control Delay	26.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	538	164	179	27	47	439
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.88	
Flt Protected	0.95	1.00	1.00	1.00	1.00	
Satd. Flow (prot)	1770	1863	1863	1583	1628	
Flt Permitted	0.95	1.00	1.00	1.00	1.00	
Satd. Flow (perm)	1770	1863	1863	1583	1628	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	538	164	179	27	47	439
RTOR Reduction (vph)	0	0	0	17	300	0
Lane Group Flow (vph)	538	164	179	10	186	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	36.1	41.7	14.4	28.1	13.7	
Effective Green, g (s)	35.6	41.7	14.4	28.1	13.7	
Actuated g/C Ratio	0.46	0.54	0.19	0.37	0.18	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	822	1013	350	663	291	
v/s Ratio Prot	c0.30	0.09	c0.10	0.00	c0.11	
v/s Ratio Perm				0.00		
v/c Ratio	0.65	0.16	0.51	0.01	0.64	
Uniform Delay, d1	15.8	8.8	28.0	15.5	29.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.7	0.1	2.1	0.0	4.6	
Delay (s)	17.5	8.9	30.1	15.5	33.8	
Level of Service	B	A	C	B	C	
Approach Delay (s)		15.5	28.2		33.8	
Approach LOS		B	C		C	

Intersection Summary

HCM Average Control Delay	23.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	76.7	Sum of lost time (s)	13.0
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	2724	55	448	347	0	0	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					1.00		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6211		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6211		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	2724	55	448	347	0	0	0	50
RTOR Reduction (vph)	0	0	0	0	3	0	5	0	0	0	0	3
Lane Group Flow (vph)	0	0	0	0	2776	0	443	347	0	0	0	47
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					65.0		26.5	26.5				26.5
Effective Green, g (s)					66.0		26.0	26.0				26.5
Actuated g/C Ratio					0.66		0.26	0.26				0.26
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					4099		893	874				739
v/s Ratio Prot					c0.45		c0.13	0.10				
v/s Ratio Perm												0.02
v/c Ratio					0.68		0.50	0.40				0.06
Uniform Delay, d1					10.5		31.4	30.5				27.5
Progression Factor					0.87		0.92	0.93				1.00
Incremental Delay, d2					0.6		1.8	1.2				0.2
Delay (s)					9.8		30.9	29.7				27.6
Level of Service					A		C	C				C
Approach Delay (s)		0.0			9.8			30.3			27.6	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	14.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	41	2019	114	292	146	0	0	13	353
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.99		1.00	1.00			0.86	0.85
Flt Protected					1.00		0.95	0.98			1.00	1.00
Satd. Flow (prot)					4977		1610	3308			1523	1504
Flt Permitted					1.00		0.95	0.98			1.00	1.00
Satd. Flow (perm)					4977		1610	3308			1523	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	41	2019	114	292	146	0	0	13	353
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	17	17
Lane Group Flow (vph)	0	0	0	0	2168	0	146	292	0	0	165	167
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					66.5		13.5	13.5			9.5	9.5
Effective Green, g (s)					66.0		13.0	13.0			9.0	9.0
Actuated g/C Ratio					0.66		0.13	0.13			0.09	0.09
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					3285		209	430			137	135
v/s Ratio Prot							c0.09	0.09			0.11	c0.11
v/s Ratio Perm					0.44							
v/c Ratio					0.66		0.70	0.68			1.20	1.23
Uniform Delay, d1					10.2		41.6	41.5			45.5	45.5
Progression Factor					0.61		1.00	1.00			0.96	0.96
Incremental Delay, d2					0.8		17.4	8.2			141.1	153.6
Delay (s)					7.1		59.1	49.8			184.8	197.2
Level of Service					A		E	D			F	F
Approach Delay (s)		0.0			7.1			52.9			191.1	
Approach LOS		A			A			D			F	

Intersection Summary

HCM Average Control Delay	36.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔						↕	↗
Volume (vph)	0	0	0	229	1642	0	0	0	0	0	384	543
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.86	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1303	4793						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1303	4793						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	229	1642	0	0	0	0	0	384	543
RTOR Reduction (vph)	0	0	0	93	1	0	0	0	0	0	0	198
Lane Group Flow (vph)	0	0	0	113	1664	0	0	0	0	0	384	345
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				55.5	55.5						27.5	27.5
Effective Green, g (s)				55.0	55.0						27.0	27.0
Actuated g/C Ratio				0.55	0.55						0.27	0.27
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				717	2636						956	752
v/s Ratio Prot											0.11	
v/s Ratio Perm				0.09	0.35							c0.12
v/c Ratio				0.16	0.63						0.40	0.46
Uniform Delay, d1				11.1	15.5						29.9	30.4
Progression Factor				1.00	1.00						1.11	1.23
Incremental Delay, d2				0.5	1.2						1.2	1.9
Delay (s)				11.6	16.7						34.2	39.2
Level of Service				B	B						C	D
Approach Delay (s)		0.0			16.1			0.0			37.1	
Approach LOS		A			B			A			D	

Intersection Summary

HCM Average Control Delay	23.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
53: J St & 3rd St

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑→		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	1	873	433	229	294	370	0	443	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.95		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		5987		2787	3433	1863	1583	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		5987		2787	3433	1863	1583	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	873	433	229	294	370	0	443	64
RTOR Reduction (vph)	0	0	0	109	0	0	0	20	0
Lane Group Flow (vph)	0	1307	0	120	294	370	168	319	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		24.6		19.3	19.3	19.3	21.1	21.1	
Effective Green, g (s)		24.6		18.8	18.8	18.8	21.1	21.1	
Actuated g/C Ratio		0.32		0.25	0.25	0.25	0.28	0.28	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1925		685	844	458	437	795	
v/s Ratio Prot		c0.22				c0.20	0.11	c0.11	
v/s Ratio Perm				0.04	0.09				
v/c Ratio		0.85dr		0.18	0.35	0.81	0.38	0.40	
Uniform Delay, d1		22.5		22.7	23.8	27.2	22.4	22.6	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.0		0.0	0.1	9.5	0.8	0.5	
Delay (s)		24.5		22.8	23.9	36.7	23.2	23.0	
Level of Service		C		C	C	D	C	C	
Approach Delay (s)		24.5				31.0	23.1		
Approach LOS		C				C	C		

Intersection Summary

HCM Average Control Delay	25.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	76.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖↖↖	↖					↖↖	↖			
Volume (vph)	342	1160	130	0	0	0	0	474	410	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.96					0.99	0.96			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.97	0.85			
Flt Protected	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (prot)	1290	6023	1520					3247	1387			
Flt Permitted	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (perm)	1290	6023	1520					3247	1387			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	342	1160	130	0	0	0	0	474	410	0	0	0
RTOR Reduction (vph)	146	12	75	0	0	0	0	12	12	0	0	0
Lane Group Flow (vph)	145	1199	55	0	0	0	0	601	259	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0			
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0			
Actuated g/C Ratio	0.42	0.42	0.42					0.42	0.42			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	542	2530	638					1364	583			
v/s Ratio Prot	0.11	c0.20						0.19				
v/s Ratio Perm			0.04						c0.19			
v/c Ratio	0.27	0.47	0.09					0.44	0.44			
Uniform Delay, d1	9.5	10.5	8.7					10.3	10.3			
Progression Factor	1.00	1.00	1.00					1.00	1.00			
Incremental Delay, d2	1.2	0.6	0.3					0.1	0.2			
Delay (s)	10.7	11.1	9.0					10.4	10.5			
Level of Service	B	B	A					B	B			
Approach Delay (s)		10.9			0.0			10.4			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			10.7					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.46									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			71.6%					ICU Level of Service			C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
55: J St & 6th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↔↗↗↗						↖		↘		
Volume (vph)	138	1300	0	0	0	0	0	142	192	67	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.98		1.00		
Flpb, ped/bikes	0.96	1.00						1.00		0.98		
Frt	1.00	1.00						0.92		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1463	4801						1677		1739		
Flt Permitted	0.95	1.00						1.00		0.46		
Satd. Flow (perm)	1463	4801						1677		837		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	138	1300	0	0	0	0	0	142	192	67	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	18	0	0	0	0
Lane Group Flow (vph)	124	1314	0	0	0	0	0	316	0	67	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	24.5	24.5						18.5		18.5		
Effective Green, g (s)	24.0	24.0						18.0		18.0		
Actuated g/C Ratio	0.48	0.48						0.36		0.36		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	702	2304						604		301		
v/s Ratio Prot							c0.19					
v/s Ratio Perm	0.08	0.27								0.08		
v/c Ratio	0.18	0.57						0.52		0.22		
Uniform Delay, d1	7.4	9.3						12.6		11.1		
Progression Factor	1.57	1.61						1.00		0.66		
Incremental Delay, d2	0.5	0.9						3.2		1.3		
Delay (s)	12.1	15.9						15.8		8.7		
Level of Service	B								B		A	
Approach Delay (s)	15.6		0.0				15.8				8.7	
Approach LOS	B		A				B				A	

Intersection Summary

HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↑↑↑									↑↑↑			
Volume (vph)	0	1310	323	0	0	0	0	0	0	87	519	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		4.0									4.0			
Lane Util. Factor		0.91									0.91			
Frbp, ped/bikes		0.99									1.00			
Flpb, ped/bikes		1.00									1.00			
Frt		0.97									1.00			
Flt Protected		1.00									0.99			
Satd. Flow (prot)		4894									5027			
Flt Permitted		1.00									0.99			
Satd. Flow (perm)		4894									5027			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	0	1310	323	0	0	0	0	0	0	87	519	0		
RTOR Reduction (vph)	0	85	0	0	0	0	0	0	0	0	46	0		
Lane Group Flow (vph)	0	1548	0	0	0	0	0	0	0	0	560	0		
Confl. Peds. (#/hr)			36							36				
Turn Type										Perm				
Protected Phases		1									2			
Permitted Phases										2				
Actuated Green, G (s)		21.5									16.5			
Effective Green, g (s)		21.0									16.0			
Actuated g/C Ratio		0.42									0.32			
Clearance Time (s)		3.5									3.5			
Lane Grp Cap (vph)		2055									1609			
v/s Ratio Prot		0.32												
v/s Ratio Perm											0.11			
v/c Ratio		0.75									0.35			
Uniform Delay, d1		12.3									13.0			
Progression Factor		1.62									0.73			
Incremental Delay, d2		2.3									0.6			
Delay (s)		22.2									10.1			
Level of Service		C									B			
Approach Delay (s)		22.2			0.0			0.0			10.1			
Approach LOS		C			A			A			B			
Intersection Summary														
HCM Average Control Delay			18.9									HCM Level of Service	B	
HCM Volume to Capacity ratio			0.58											
Actuated Cycle Length (s)			50.0								13.0		Sum of lost time (s)	
Intersection Capacity Utilization			51.6%										ICU Level of Service	A
Analysis Period (min)			15											
c Critical Lane Group														

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

Railyards Study
Baseline Conditions PM PEAK



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	398	638	657	132	262	58	477	316	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.0	4.5	4.0	3.5	4.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.99	0.85	0.85	1.00	1.00	0.94		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1668	1504	1583	1770	3539	4762		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1668	1504	1583	1770	3539	4762		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	398	638	657	132	262	58	477	316	35
RTOR Reduction (vph)	0	0	0	53	0	0	5	0	0
Lane Group Flow (vph)	358	744	591	79	262	58	823	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		6			3	8	4		
Permitted Phases	6	6	6	6					
Actuated Green, G (s)	60.0	60.0	60.0	60.0	11.0	32.5	17.5		
Effective Green, g (s)	59.5	59.5	60.0	59.5	11.0	32.5	17.0		
Actuated g/C Ratio	0.60	0.60	0.60	0.60	0.11	0.32	0.17		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	3.5		
Lane Grp Cap (vph)	1000	992	902	942	195	1150	810		
v/s Ratio Prot					c0.15	0.02	c0.17		
v/s Ratio Perm	0.21	0.45	0.39	0.05					
v/c Ratio	0.36	0.75	0.66	0.08	1.34	0.05	1.26dr		
Uniform Delay, d1	10.4	14.8	13.2	8.6	44.5	23.2	41.5		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	1.0	5.2	3.7	0.2	184.8	0.1	35.7		
Delay (s)	11.4	20.0	16.9	8.8	229.3	23.2	77.2		
Level of Service	B	C	B	A	F	C	E		
Approach Delay (s)		16.5				192.0	77.2		
Approach LOS		B				F	E		

Intersection Summary

HCM Average Control Delay	52.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	1484	154	324	684	0	0	0	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		5.0	5.0				5.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6268		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6268		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1484	154	324	684	0	0	0	59
RTOR Reduction (vph)	0	0	0	0	25	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1614	0	324	684	0	0	0	59
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					20.0		40.5	40.5				40.5
Effective Green, g (s)					21.0		40.0	40.0				40.0
Actuated g/C Ratio					0.30		0.57	0.57				0.57
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					1880		933	2906				1453
v/s Ratio Prot					c0.26			0.13				
v/s Ratio Perm							c0.20					0.02
v/c Ratio					0.86		0.35	0.24				0.04
Uniform Delay, d1					23.1		8.0	7.4				6.6
Progression Factor					1.00		0.82	0.85				1.00
Incremental Delay, d2					5.3		1.0	0.2				0.1
Delay (s)					28.4		7.5	6.5				6.6
Level of Service					C		A	A				A
Approach Delay (s)		0.0			28.4			6.8			6.6	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	19.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	141	1384	0	0	0	0	0	515	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.95	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4771	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4771	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	141	1384	0	0	0	0	0	515	223
RTOR Reduction (vph)	0	0	0	99	0	0	0	0	0	0	100	0
Lane Group Flow (vph)	0	0	0	42	1384	0	0	0	0	0	638	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						22.5	
Effective Green, g (s)				15.0	15.0						22.0	
Actuated g/C Ratio				0.30	0.30						0.44	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2099	
v/s Ratio Prot					c0.27						c0.13	
v/s Ratio Perm				0.03								
v/c Ratio				0.08	0.91						0.30	
Uniform Delay, d1				12.6	16.8						9.1	
Progression Factor				1.00	1.00						1.21	
Incremental Delay, d2				0.0	7.9						0.3	
Delay (s)				12.6	24.8						11.3	
Level of Service				B	C						B	
Approach Delay (s)		0.0			23.6			0.0			11.3	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	19.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	328	209	0	0	344	83	256	721	44	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.98		1.00	0.99				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.97		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4858		3433	5016				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4858		3433	5016				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	328	209	0	0	344	83	256	721	44	0	0	0
RTOR Reduction (vph)	0	0	0	0	58	0	0	10	0	0	0	0
Lane Group Flow (vph)	328	209	0	0	369	0	256	755	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		30.0	30.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.43	0.43				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			972		1471	2150				
v/s Ratio Prot	c0.10	0.06			c0.08		0.07	c0.15				
v/s Ratio Perm												
v/c Ratio	0.51	0.13			0.38		0.17	0.35				
Uniform Delay, d1	25.7	11.5			24.2		12.3	13.5				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	2.9	0.2			1.1		0.3	0.5				
Delay (s)	28.6	11.7			25.4		12.6	13.9				
Level of Service	C	B			C		B	B				
Approach Delay (s)		22.0			25.4			13.6			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	48.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑↑
Volume (vph)	0	0	0	163	2357	0	0	0	0	0	420	677
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.86	0.86
Frbp, ped/bikes					1.00						0.98	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.96	0.85
Flt Protected					1.00						1.00	1.00
Satd. Flow (prot)					4900						2850	2374
Flt Permitted					1.00						1.00	1.00
Satd. Flow (perm)					4900						2850	2374
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	163	2357	0	0	0	0	0	420	677
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	1	3
Lane Group Flow (vph)	0	0	0	0	2504	0	0	0	0	0	581	512
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2646						855	712
v/s Ratio Prot					c0.51						0.20	
v/s Ratio Perm												c0.22
v/c Ratio					0.95						0.68	0.72
Uniform Delay, d1					10.8						15.4	15.6
Progression Factor					1.00						0.87	0.92
Incremental Delay, d2					8.8						3.5	5.1
Delay (s)					19.6						16.9	19.5
Level of Service					B						B	B
Approach Delay (s)		0.0			19.6			0.0			18.1	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	19.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

Railyards Study
Baseline Conditions PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	649	76	0	0	0	0	0	0	169	448	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.98	
Frt		0.98									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6273									4918	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6273									4918	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	649	76	0	0	0	0	0	0	169	448	0
RTOR Reduction (vph)	0	35	0	0	0	0	0	0	0	0	118	0
Lane Group Flow (vph)	0	690	0	0	0	0	0	0	0	0	499	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3387									1475	
v/s Ratio Prot		c0.11										
v/s Ratio Perm											0.10	
v/c Ratio		0.20									0.34	
Uniform Delay, d1		5.9									13.6	
Progression Factor		1.00									0.65	
Incremental Delay, d2		0.1									0.4	
Delay (s)		6.1									9.3	
Level of Service		A									A	
Approach Delay (s)		6.1			0.0			0.0			9.3	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑						↑	↑
Volume (vph)	0	452	67	421	203	0	0	0	0	788	0	619
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	4.0
Lane Util. Factor		0.95		0.97	1.00						1.00	1.00
Frbp, ped/bikes		0.98		1.00	1.00						1.00	0.86
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.98		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3415		3433	1863						1770	1365
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3415		3433	1863						1770	1365
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	452	67	421	203	0	0	0	0	788	0	619
RTOR Reduction (vph)	0	16	0	0	0	0	0	0	0	0	0	433
Lane Group Flow (vph)	0	503	0	421	203	0	0	0	0	0	788	186
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9	3 12 13					4		4
Permitted Phases												4
Actuated Green, G (s)		12.5		26.0	41.5						21.0	21.0
Effective Green, g (s)		12.5		24.5	41.0						21.0	21.0
Actuated g/C Ratio		0.18		0.35	0.59						0.30	0.30
Clearance Time (s)		4.0									4.0	4.0
Vehicle Extension (s)		6.0									5.0	5.0
Lane Grp Cap (vph)		610		1202	1091						531	410
v/s Ratio Prot		c0.15		c0.12	0.11						c0.45	
v/s Ratio Perm												0.14
v/c Ratio		0.82		0.35	0.19						1.48	0.45
Uniform Delay, d1		27.7		16.9	6.7						24.5	19.8
Progression Factor		1.00		0.14	0.10						1.00	1.00
Incremental Delay, d2		10.3		0.3	0.2						227.7	1.7
Delay (s)		38.0		2.7	0.8						252.2	21.5
Level of Service		D		A	A						F	C
Approach Delay (s)		38.0			2.1			0.0			150.7	
Approach LOS		D			A			A			F	

Intersection Summary

HCM Average Control Delay	91.4	HCM Level of Service	F
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	132.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗		↕	↗			
Volume (vph)	183	1066	0	0	581	432	44	0	1111	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.79		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.86	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	3539			3539	1256		1519	1504			
Flt Permitted	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1770	3539			3539	1256		1519	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	183	1066	0	0	581	432	44	0	1111	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	303	0	181	38	0	0	0
Lane Group Flow (vph)	183	1066	0	0	581	129	0	396	540	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot					custom	Split		custom			
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	15.1	34.3			24.4	20.9		19.5	28.7			
Effective Green, g (s)	14.6	33.8			20.9	20.9		19.0	23.7			
Actuated g/C Ratio	0.21	0.48			0.30	0.30		0.27	0.34			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	369	1709			1057	375		412	509			
v/s Ratio Prot	0.10	c0.30			0.16	0.03		0.26	c0.36			
v/s Ratio Perm						0.08						
v/c Ratio	0.50	0.62			0.55	0.34		0.96	1.06			
Uniform Delay, d1	24.5	13.4			20.6	19.2		25.1	23.2			
Progression Factor	1.26	0.21			1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.2	0.1			1.0	1.2		34.5	57.2			
Delay (s)	31.0	3.0			21.6	20.3		59.7	80.4			
Level of Service	C	A			C	C		E	F			
Approach Delay (s)		7.1			21.1			70.0			0.0	
Approach LOS		A			C			E			A	

Intersection Summary

HCM Average Control Delay	32.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	132.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕	↗		↕	↗
Volume (vph)	206	1387	712	42	526	32	438	60	102	28	45	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	0.97		1.00	0.99			1.00	0.94		1.00	1.00
Flpb, ped/bikes	0.98	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.95		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.98	1.00
Satd. Flow (prot)	1741	3258		1770	5001			1784	1493		1819	1583
Flt Permitted	0.39	1.00		0.08	1.00			0.70	1.00		0.40	1.00
Satd. Flow (perm)	710	3258		152	5001			1304	1493		746	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	206	1387	712	42	526	32	438	60	102	28	45	110
RTOR Reduction (vph)	0	72	0	0	6	0	0	0	35	0	0	81
Lane Group Flow (vph)	206	2027	0	42	552	0	0	498	67	0	73	29
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	58.8	58.8		48.5	48.5			24.4	24.4		24.4	24.4
Effective Green, g (s)	58.3	59.4		49.1	49.1			23.9	23.9		23.9	23.9
Actuated g/C Ratio	0.64	0.65		0.54	0.54			0.26	0.26		0.26	0.26
Clearance Time (s)	3.5	4.6		4.6	4.6			3.5	3.5		3.5	3.5
Vehicle Extension (s)	0.2	0.2		0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	525	2120		82	2689			341	391		195	414
v/s Ratio Prot	0.03	c0.62			0.11							
v/s Ratio Perm	0.22			0.28				c0.38	0.05		0.10	0.02
v/c Ratio	0.39	0.96		0.51	0.21			1.46	0.17		0.37	0.07
Uniform Delay, d1	7.0	14.7		13.5	11.0			33.7	26.1		27.6	25.3
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.2	10.8		2.2	0.0			222.8	0.1		0.4	0.0
Delay (s)	7.2	25.6		15.7	11.0			256.5	26.1		28.0	25.4
Level of Service	A	C		B	B			F	C		C	C
Approach Delay (s)		23.9			11.3			217.3			26.4	
Approach LOS		C			B			F			C	

Intersection Summary

HCM Average Control Delay	53.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	91.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	123.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	1272	12	10	608	27	17	5	7	18	5	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.98		1.00	0.96	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.97	1.00		0.97	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.91		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3532		1770	3508		1723	1661		1721	1556	
Flt Permitted	0.95	1.00		0.95	1.00		0.73	1.00		0.75	1.00	
Satd. Flow (perm)	1770	3532		1770	3508		1317	1661		1358	1556	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	1272	12	10	608	27	17	5	7	18	5	42
RTOR Reduction (vph)	0	0	0	0	2	0	0	6	0	0	34	0
Lane Group Flow (vph)	42	1284	0	10	633	0	17	6	0	18	13	0
Confl. Peds. (#/hr)			36			36	36		36	36		36
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	1	6		5	2			8			4	
Permitted Phases		6			2		8			4		
Actuated Green, G (s)	3.7	29.9		5.3	31.5		11.3	11.3		11.3	11.3	
Effective Green, g (s)	2.7	30.2		4.3	31.8		10.8	10.8		10.8	10.8	
Actuated g/C Ratio	0.05	0.53		0.08	0.55		0.19	0.19		0.19	0.19	
Clearance Time (s)	3.0	4.3		3.0	4.3		3.5	3.5		3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	83	1862		133	1947		248	313		256	293	
v/s Ratio Prot	c0.02	c0.36		0.01	0.18			0.00			0.01	
v/s Ratio Perm							0.01			c0.01		
v/c Ratio	0.51	0.69		0.08	0.32		0.07	0.02		0.07	0.04	
Uniform Delay, d1	26.6	10.1		24.7	6.9		19.1	18.9		19.1	19.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.8	0.9		0.1	0.0		0.0	0.0		0.0	0.0	
Delay (s)	28.4	10.9		24.7	7.0		19.2	18.9		19.2	19.0	
Level of Service	C	B		C	A		B	B		B	B	
Approach Delay (s)		11.5			7.2			19.1			19.1	
Approach LOS		B			A			B			B	

Intersection Summary

HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	57.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	1156	256	409	562	16	91	48	258	7	23	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.98	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3415		1770	3517		1681	1741	1583	1770	1772	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.98	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3415		1770	3517		1681	1741	1583	1770	1772	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	1156	256	409	562	16	91	48	258	7	23	11
RTOR Reduction (vph)	0	14	0	0	1	0	0	0	222	0	11	0
Lane Group Flow (vph)	38	1398	0	409	577	0	68	71	36	7	23	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split			Prot	Split	
Protected Phases	1	6		5	2		8	8	8	7	7	
Permitted Phases												
Actuated Green, G (s)	3.3	50.0		28.4	75.1		16.1	16.1	16.1	3.3	3.3	
Effective Green, g (s)	2.3	50.0		27.4	75.1		15.6	15.6	15.6	2.8	2.8	
Actuated g/C Ratio	0.02	0.45		0.25	0.67		0.14	0.14	0.14	0.03	0.03	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.5	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	36	1527		434	2362		235	243	221	44	44	
v/s Ratio Prot	0.02	c0.41		c0.23	0.16		0.04	c0.04	0.02	0.00	c0.01	
v/s Ratio Perm												
v/c Ratio	1.06	0.92		0.94	0.24		0.29	0.29	0.16	0.16	0.53	
Uniform Delay, d1	54.8	28.9		41.4	7.2		43.1	43.1	42.4	53.3	53.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	167.1	8.7		28.7	0.0		0.2	0.2	0.1	0.6	5.2	
Delay (s)	221.9	37.6		70.1	7.2		43.4	43.4	42.5	54.0	59.1	
Level of Service	F	D		E	A		D	D	D	D	E	
Approach Delay (s)		42.4			33.3			42.8			58.2	
Approach LOS		D			C			D			E	

Intersection Summary

HCM Average Control Delay	39.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	111.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	995	142	182	816	101	31	96	59	13	11	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.94	1.00	0.99		1.00	1.00	1.00	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1483	1770	3456		1723	1863	1583	1770	1863	1482
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.75	1.00	1.00	0.69	1.00	1.00
Satd. Flow (perm)	1770	3539	1483	1770	3456		1361	1863	1583	1294	1863	1482
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	175	995	142	182	816	101	31	96	59	13	11	36
RTOR Reduction (vph)	0	0	41	0	8	0	0	0	47	0	0	29
Lane Group Flow (vph)	175	995	101	182	909	0	31	96	12	13	11	7
Confl. Peds. (#/hr)			35			35	35					35
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		Perm
Protected Phases	1	6		5	2			4				8
Permitted Phases			6				4		4	8		8
Actuated Green, G (s)	12.8	25.6	25.6	13.1	25.9		13.0	13.0	13.0	13.0	13.0	13.0
Effective Green, g (s)	12.3	26.1	26.1	12.6	26.4		12.5	12.5	12.5	12.5	12.5	12.5
Actuated g/C Ratio	0.19	0.41	0.41	0.20	0.42		0.20	0.20	0.20	0.20	0.20	0.20
Clearance Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2	0.2	2.0	2.0	2.0
Lane Grp Cap (vph)	344	1462	612	353	1444		269	368	313	256	368	293
v/s Ratio Prot	0.10	c0.28		c0.10	0.26			c0.05			0.01	
v/s Ratio Perm			0.07				0.02		0.01	0.01		0.00
v/c Ratio	0.51	0.68	0.17	0.52	0.63		0.12	0.26	0.04	0.05	0.03	0.02
Uniform Delay, d1	22.7	15.1	11.7	22.6	14.5		20.8	21.4	20.5	20.5	20.5	20.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	1.1	0.0	0.5	0.6		0.1	0.1	0.0	0.0	0.0	0.0
Delay (s)	23.2	16.2	11.7	23.1	15.2		20.9	21.6	20.5	20.6	20.5	20.4
Level of Service	C	B	B	C	B		C	C	C	C	C	C
Approach Delay (s)		16.6			16.5			21.1			20.5	
Approach LOS		B			B			C			C	

Intersection Summary

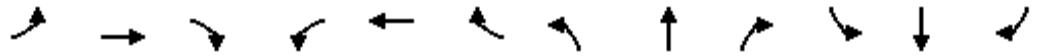
HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	63.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	926	50	23	837	32	35	22	24	17	19	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	0.99		1.00	0.99			0.98			0.98	
Flpb, ped/bikes	0.97	1.00		0.97	1.00			0.98			0.98	
Frt	1.00	0.99		1.00	0.99			0.96			0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.98	
Satd. Flow (prot)	1712	3486		1722	3501			1680			1696	
Flt Permitted	0.29	1.00		0.25	1.00			0.88			0.92	
Satd. Flow (perm)	526	3486		459	3501			1517			1589	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	18	926	50	23	837	32	35	22	24	17	19	16
RTOR Reduction (vph)	0	4	0	0	2	0	0	18	0	0	12	0
Lane Group Flow (vph)	18	972	0	23	867	0	0	63	0	0	40	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	49.3	49.3		49.3	49.3			19.6			19.6	
Effective Green, g (s)	49.8	49.8		49.8	49.8			19.1			19.1	
Actuated g/C Ratio	0.65	0.65		0.65	0.65			0.25			0.25	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	341	2258		297	2267			377			395	
v/s Ratio Prot		c0.28			0.25							
v/s Ratio Perm	0.03			0.05				c0.04			0.03	
v/c Ratio	0.05	0.43		0.08	0.38			0.17			0.10	
Uniform Delay, d1	4.9	6.6		5.0	6.3			22.7			22.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.3	0.6		0.5	0.5			0.1			0.0	
Delay (s)	5.2	7.2		5.5	6.8			22.7			22.3	
Level of Service	A	A		A	A			C			C	
Approach Delay (s)		7.2			6.8			22.7			22.3	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	8.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	76.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

6/17/2007



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	750	76	20	0	20	47	1660	50	3280	864
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	750	76	20	0	20	47	1660	50	3280	864
RTOR Reduction (vph)	0	52	0	18	0	0	0	30	0	280
Lane Group Flow (vph)	750	24	0	22	0	47	1660	20	3280	584
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	28.0	28.0		14.4		4.4	78.1	59.8	68.7	68.7
Effective Green, g (s)	28.0	27.0		13.4		4.4	78.1	59.8	68.7	68.7
Actuated g/C Ratio	0.19	0.18		0.09		0.03	0.52	0.40	0.46	0.46
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	2.0	2.0		2.0		3.0		3.0		
Lane Grp Cap (vph)	641	285		151		52	3336	631	3075	725
v/s Ratio Prot	c0.22	0.02		c0.01		c0.03	0.26		c0.49	0.37
v/s Ratio Perm								0.01		
v/c Ratio	1.17	0.09		0.14		0.90	0.50	0.03	1.07	0.81
Uniform Delay, d1	61.0	51.2		63.0		72.6	23.3	27.5	40.7	34.9
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	92.5	0.0		0.2		89.2	0.1	0.1	37.5	6.5
Delay (s)	153.5	51.3		63.2		161.8	23.4	27.6	78.1	41.4
Level of Service	F	D		E		F	C	C	E	D
Approach Delay (s)				63.2			27.2			
Approach LOS				E			C			

Intersection Summary

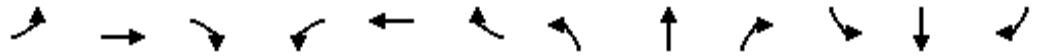
HCM Average Control Delay	68.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	88	64	23	50	0	0	0	0	146	3371	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		1.00	1.00		1.00						0.86	
Frbp, ped/bikes		1.00	0.97		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		0.98						1.00	
Satd. Flow (prot)		1863	1541		1826						6383	
Flt Permitted		1.00	1.00		0.88						1.00	
Satd. Flow (perm)		1863	1541		1627						6383	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	88	64	23	50	0	0	0	0	146	3371	10
RTOR Reduction (vph)	0	0	58	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	88	6	0	73	0	0	0	0	0	3527	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm							Perm	
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)		9.6	9.6		9.6						82.9	
Effective Green, g (s)		9.1	9.1		9.1						82.9	
Actuated g/C Ratio		0.09	0.09		0.09						0.83	
Clearance Time (s)		3.5	3.5		3.5						4.0	
Vehicle Extension (s)		2.0	2.0		2.0						5.0	
Lane Grp Cap (vph)		170	140		148						5292	
v/s Ratio Prot		c0.05										
v/s Ratio Perm			0.00		0.04						0.55	
v/c Ratio		0.52	0.04		0.49						0.67	
Uniform Delay, d1		43.4	41.5		43.3						3.3	
Progression Factor		1.00	1.00		0.95						1.00	
Incremental Delay, d2		1.1	0.0		0.9						0.7	
Delay (s)		44.5	41.5		42.0						3.9	
Level of Service		D	D		D						A	
Approach Delay (s)		43.2			42.0			0.0			3.9	
Approach LOS		D			D			A			A	

Intersection Summary

HCM Average Control Delay	6.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Basler St & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘				
Volume (vph)	408	5	0	0	5	13	62	858	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.95			1.00				
Flpb, ped/bikes	0.94	0.94			1.00			0.99				
Frt	1.00	1.00			0.90			1.00				
Flt Protected	0.95	0.95			1.00			1.00				
Satd. Flow (prot)	1583	1591			1595			6338				
Flt Permitted	0.75	0.72			1.00			1.00				
Satd. Flow (perm)	1242	1199			1595			6338				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	408	5	0	0	5	13	62	858	9	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	3	0	0	0	0
Lane Group Flow (vph)	208	205	0	0	10	0	0	926	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			23.0				
Effective Green, g (s)	18.0	18.0			18.0			24.0				
Actuated g/C Ratio	0.36	0.36			0.36			0.48				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	447	432			574			3042				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.17	c0.17						0.15				
v/c Ratio	0.47	0.47			0.02			0.30				
Uniform Delay, d1	12.3	12.3			10.3			7.9				
Progression Factor	0.83	0.83			1.00			1.36				
Incremental Delay, d2	3.4	3.6			0.1			0.2				
Delay (s)	13.6	13.9			10.4			11.0				
Level of Service	B	B			B			B				
Approach Delay (s)		13.8			10.4			11.0			0.0	
Approach LOS		B			B			B			A	

Intersection Summary

HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

13: Bercut Dr & Bannon St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	↘
Volume (veh/h)	102	617	1	109	426	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	102	617	1	109	426	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)	512					
pX, platoon unblocked						
vC, conflicting volume			719		522	410
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			719		522	410
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		17	100
cM capacity (veh/h)			882		515	641

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	719	110	427
Volume Left	0	1	426
Volume Right	617	0	1
cSH	1700	882	515
Volume to Capacity	0.42	0.00	0.83
Queue Length 95th (ft)	0	0	207
Control Delay (s)	0.0	0.1	37.5
Lane LOS		A	E
Approach Delay (s)	0.0	0.1	37.5
Approach LOS			E

Intersection Summary			
Average Delay		12.7	
Intersection Capacity Utilization		73.8%	ICU Level of Service D
Analysis Period (min)		15	
Description: SB coded as EB			

HCM Signalized Intersection Capacity Analysis

17: N B Street & 5th St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Volume (vph)	154	0	0	187	179	284
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.5	4.5
Lane Util. Factor	1.00			1.00	1.00	0.88
Fr _t	1.00			1.00	1.00	0.85
Fl _t Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	1863			1863	1770	2787
Fl _t Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	1863			1863	1770	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	154	0	0	187	179	284
RTOR Reduction (vph)	0	0	0	0	0	130
Lane Group Flow (vph)	154	0	0	187	179	154
Turn Type						Perm
Protected Phases	4			8	2	
Permitted Phases						2
Actuated Green, G (s)	9.8			9.8	21.7	21.7
Effective Green, g (s)	9.8			9.8	21.7	21.7
Actuated g/C Ratio	0.25			0.25	0.54	0.54
Clearance Time (s)	4.0			4.0	4.5	4.5
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	456			456	960	1512
v/s Ratio Prot	0.08			c0.10	c0.10	
v/s Ratio Perm						0.06
v/c Ratio	0.34			0.41	0.19	0.10
Uniform Delay, d ₁	12.4			12.7	4.7	4.4
Progression Factor	1.00			0.86	0.91	2.05
Incremental Delay, d ₂	0.4			0.6	0.4	0.1
Delay (s)	12.9			11.5	4.7	9.2
Level of Service	B			B	A	A
Approach Delay (s)	12.9			11.5	7.5	
Approach LOS	B			B	A	

Intersection Summary

HCM Average Control Delay	9.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	26.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

18: North B St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	331	86	76	329	156	90	0	0	0	72	543	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0						4.0	
Lane Util. Factor	0.91	0.91		0.95	0.95						0.95	
Frt	1.00	0.97		1.00	0.95						0.98	
Flt Protected	0.95	0.98		0.95	0.99						0.99	
Satd. Flow (prot)	1610	3192		1681	1675						3463	
Flt Permitted	0.44	0.62		0.52	0.89						0.99	
Satd. Flow (perm)	753	2044		916	1499						3463	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	331	86	76	329	156	90	0	0	0	72	543	75
RTOR Reduction (vph)	0	44	0	0	26	0	0	0	0	0	9	0
Lane Group Flow (vph)	165	284	0	276	273	0	0	0	0	0	681	0
Turn Type	Perm			Perm							Perm	
Protected Phases		4			8							6
Permitted Phases	4			8						6		
Actuated Green, G (s)	30.0	30.0		30.0	30.0						42.0	
Effective Green, g (s)	30.0	30.0		30.0	30.0						42.0	
Actuated g/C Ratio	0.38	0.38		0.38	0.38						0.52	
Clearance Time (s)	4.0	4.0		4.0	4.0						4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)	282	767		344	562						1818	
v/s Ratio Prot												
v/s Ratio Perm	0.22	0.14		0.30	0.18						0.20	
v/c Ratio	0.59	0.37		0.80	0.49						0.37	
Uniform Delay, d1	20.0	18.1		22.3	19.1						11.2	
Progression Factor	0.87	0.83		1.00	1.00						1.00	
Incremental Delay, d2	3.1	0.3		12.6	0.7						0.6	
Delay (s)	20.5	15.4		35.0	19.8						11.8	
Level of Service	C	B		C	B						B	
Approach Delay (s)		17.1			27.1			0.0			11.8	
Approach LOS		B			C			A			B	

Intersection Summary

HCM Average Control Delay	18.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

19: North B St & 10th St

6/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (veh/h)	58	92	399	152	66	50
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	58	92	399	152	66	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		1285	841			
pX, platoon unblocked						
vC, conflicting volume	551				637	276
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	551				637	276
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				83	93
cM capacity (veh/h)	1015				386	722

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	89	61	266	285	116
Volume Left	58	0	0	0	66
Volume Right	0	0	0	152	50
cSH	1015	1700	1700	1700	483
Volume to Capacity	0.06	0.04	0.16	0.17	0.24
Queue Length 95th (ft)	5	0	0	0	23
Control Delay (s)	5.9	0.0	0.0	0.0	14.8
Lane LOS	A				B
Approach Delay (s)	3.5		0.0		14.8
Approach LOS					B

Intersection Summary					
Average Delay			2.7		
Intersection Capacity Utilization			36.8%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis

20: North B St & 12th Street

6/17/2007



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↙	↓			↘			↑↑↑	
Volume (vph)	12	78	60	45	211	29	8	16	36	32	2676	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.99			0.96			0.99	
Flpb, ped/bikes		1.00		0.96	1.00			1.00			0.91	
Frt		0.94		1.00	0.98			0.92			0.98	
Flt Protected		1.00		0.95	1.00			0.99			0.96	
Satd. Flow (prot)		3302		1708	1809			1631			5701	
Flt Permitted		0.93		0.66	1.00			0.99			0.96	
Satd. Flow (perm)		3069		1181	1809			1631			5701	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	78	60	45	211	29	8	16	36	32	2676	351
RTOR Reduction (vph)	0	48	0	0	0	0	0	32	0	0	0	0
Lane Group Flow (vph)	0	102	0	45	240	0	0	28	0	0	3059	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		20.1		20.1	20.1			11.7			49.2	
Effective Green, g (s)		20.1		20.1	20.1			11.7			52.2	
Actuated g/C Ratio		0.20		0.20	0.20			0.12			0.52	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)		617		237	364			191			2976	
v/s Ratio Prot					c0.13							
v/s Ratio Perm		0.03		0.04				0.02			0.54	
v/c Ratio		0.17		0.19	0.66			0.15			1.03	
Uniform Delay, d1		33.0		33.2	36.8			39.7			23.9	
Progression Factor		1.00		1.20	1.19			1.00			0.85	
Incremental Delay, d2		0.3		0.8	5.6			0.7			23.5	
Delay (s)		33.3		40.7	49.2			40.4			43.9	
Level of Service		C		D	D			D			D	
Approach Delay (s)		33.3			47.9			40.4			43.9	
Approach LOS		C			D			D			D	

Intersection Summary

HCM Average Control Delay	43.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	93.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: North B St & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			↰			↰↱↲				
Volume (vph)	97	10	0	0	13	5	207	1063	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.97			1.00				
Flpb, ped/bikes	0.91	0.93			1.00			0.99				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.96			1.00			0.99				
Satd. Flow (prot)	1534	1579			1743			6284				
Flt Permitted	0.75	0.80			1.00			0.99				
Satd. Flow (perm)	1204	1318			1743			6284				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	10	0	0	13	5	207	1063	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	4	0	0	2	0	0	0	0
Lane Group Flow (vph)	53	54	0	0	14	0	0	1278	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	12.0	12.0			12.0			30.0				
Effective Green, g (s)	12.0	12.0			12.0			30.0				
Actuated g/C Ratio	0.24	0.24			0.24			0.60				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	289	316			418			3770				
v/s Ratio Prot					0.01							
v/s Ratio Perm	c0.04	0.04						0.20				
v/c Ratio	0.18	0.17			0.03			0.34				
Uniform Delay, d1	15.1	15.1			14.6			5.0				
Progression Factor	1.21	1.22			1.00			0.26				
Incremental Delay, d2	1.3	1.1			0.2			0.2				
Delay (s)	19.6	19.4			14.7			1.5				
Level of Service	B	B			B			A				
Approach Delay (s)		19.5			14.7			1.5			0.0	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM Average Control Delay			3.0				HCM Level of Service		A			
HCM Volume to Capacity ratio			0.29									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)		8.0			
Intersection Capacity Utilization			41.7%				ICU Level of Service		A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
 22: South Park St & Bercut Dr

6/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	47	107	156	34	104	59
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	47	107	156	34	104	59
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	47	107	190	104	59	
Volume Left (vph)	47	0	0	104	0	
Volume Right (vph)	0	107	34	0	0	
Hadj (s)	0.53	-0.67	-0.07	0.53	0.03	
Departure Headway (s)	5.9	4.7	4.8	5.6	5.1	
Degree Utilization, x	0.08	0.14	0.25	0.16	0.08	
Capacity (veh/h)	571	715	720	616	676	
Control Delay (s)	8.2	7.3	9.5	8.5	7.4	
Approach Delay (s)	7.6		9.5	8.1		
Approach LOS	A		A	A		
Intersection Summary						
Delay			8.4			
HCM Level of Service			A			
Intersection Capacity Utilization			29.4%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

23: South Park St & 5th St

6/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↖			↕↕↕		
Volume (vph)	132	0	5	331	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5			4.5		
Lane Util. Factor	0.97			0.91		
Frt	1.00			1.00		
Flt Protected	0.95			1.00		
Satd. Flow (prot)	3433			5082		
Flt Permitted	0.95			1.00		
Satd. Flow (perm)	3433			5082		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	132	0	5	331	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	132	0	0	336	0	0
Turn Type			Perm			
Protected Phases	4			2		
Permitted Phases	4		2			
Actuated Green, G (s)	12.8			58.2		
Effective Green, g (s)	12.8			58.2		
Actuated g/C Ratio	0.16			0.73		
Clearance Time (s)	4.5			4.5		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	549			3697		
v/s Ratio Prot	c0.04					
v/s Ratio Perm				0.07		
v/c Ratio	0.24			0.09		
Uniform Delay, d1	29.4			3.2		
Progression Factor	1.00			0.23		
Incremental Delay, d2	0.2			0.0		
Delay (s)	29.6			0.8		
Level of Service	C			A		
Approach Delay (s)	29.6			0.8	0.0	
Approach LOS	C			A	A	

Intersection Summary

HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.12		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	18.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

26: Railyards Blvd & Jibboom St

6/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	201	6	63	220	296	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.90		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	1667		1770	1863
Flt Permitted	0.95	1.00	1.00		0.56	1.00
Satd. Flow (perm)	1770	1583	1667		1046	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	201	6	63	220	296	5
RTOR Reduction (vph)	0	4	85	0	0	0
Lane Group Flow (vph)	201	2	198	0	296	5
Turn Type		Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	
Actuated Green, G (s)	25.0	25.0	52.0		52.0	52.0
Effective Green, g (s)	25.0	25.0	52.0		52.0	52.0
Actuated g/C Ratio	0.29	0.29	0.61		0.61	0.61
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	521	466	1020		640	1140
v/s Ratio Prot	c0.11		0.12			0.00
v/s Ratio Perm		0.00			c0.28	
v/c Ratio	0.39	0.00	0.19		0.46	0.00
Uniform Delay, d1	23.9	21.2	7.3		8.9	6.4
Progression Factor	0.80	0.79	1.00		1.00	1.00
Incremental Delay, d2	2.1	0.0	0.1		2.4	0.0
Delay (s)	21.3	16.8	7.4		11.3	6.4
Level of Service	C	B	A		B	A
Approach Delay (s)	21.2		7.4			11.2
Approach LOS	C		A			B

Intersection Summary

HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↕		↖	↗		↖	↗	
Volume (vph)	123	234	159	5	86	10	74	58	5	5	57	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.94		1.00	0.98		1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1750		1770	3484		1770	1841		1770	1736	
Flt Permitted	0.69	1.00		0.41	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1288	1750		768	3484		1770	1841		1770	1736	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	123	234	159	5	86	10	74	58	5	5	57	47
RTOR Reduction (vph)	0	22	0	0	5	0	0	4	0	0	38	0
Lane Group Flow (vph)	123	371	0	5	91	0	74	59	0	5	66	0
Turn Type	Perm		Perm			Split			Split			
Protected Phases	2		6			3		3		4		4
Permitted Phases	2		6									
Actuated Green, G (s)	39.4	39.4		39.4	39.4		16.8	16.8		16.8	16.8	
Effective Green, g (s)	39.4	39.4		39.4	39.4		16.8	16.8		16.8	16.8	
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.20	0.20		0.20	0.20	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	597	811		356	1615		350	364		350	343	
v/s Ratio Prot		c0.21			0.03		c0.04	0.03		0.00	c0.04	
v/s Ratio Perm	0.10			0.01								
v/c Ratio	0.21	0.46		0.01	0.06		0.21	0.16		0.01	0.19	
Uniform Delay, d1	13.5	15.5		12.3	12.6		28.6	28.3		27.4	28.4	
Progression Factor	0.66	0.68		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.4		0.1	0.1		0.3	0.2		0.0	0.3	
Delay (s)	9.1	11.0		12.4	12.6		28.9	28.5		27.5	28.7	
Level of Service	A	B		B	B		C	C		C	C	
Approach Delay (s)		10.6			12.6			28.7			28.7	
Approach LOS		B			B			C			C	

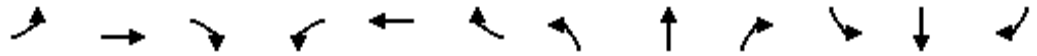
Intersection Summary

HCM Average Control Delay	16.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

28: Railyards Blvd & Crocker St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↔	↔		↔	↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	34	72	36	70	16	69	24	138	5	52	45	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	34	72	36	70	16	69	24	138	5	52	45	24
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	70	72	78	77	24	143	52	69				
Volume Left (vph)	34	0	70	0	24	0	52	0				
Volume Right (vph)	0	36	0	69	0	5	0	24				
Hadj (s)	0.28	-0.32	0.48	-0.59	0.53	0.01	0.53	-0.21				
Departure Headway (s)	5.7	5.1	5.9	4.8	5.9	5.4	6.0	5.2				
Degree Utilization, x	0.11	0.10	0.13	0.10	0.04	0.21	0.09	0.10				
Capacity (veh/h)	595	666	579	705	578	635	570	650				
Control Delay (s)	8.2	7.5	8.6	7.2	8.0	8.7	8.3	7.6				
Approach Delay (s)	7.8		7.9		8.6		7.9					
Approach LOS	A		A		A		A					
Intersection Summary												
Delay			8.1									
HCM Level of Service			A									
Intersection Capacity Utilization			31.4%		ICU Level of Service		A					
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

29: Railyards Blvd & Stanford St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔		↖	↗		↖	↗	
Volume (vph)	5	83	46	51	140	41	14	114	5	71	29	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.95			0.97		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1763			3408		1770	1851		1770	1822	
Flt Permitted	0.95	1.00			0.99		0.73	1.00		0.66	1.00	
Satd. Flow (perm)	1770	1763			3408		1369	1851		1232	1822	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	83	46	51	140	41	14	114	5	71	29	5
RTOR Reduction (vph)	0	27	0	0	18	0	0	2	0	0	4	0
Lane Group Flow (vph)	5	102	0	0	214	0	14	117	0	71	30	0
Turn Type	Split		Split				Perm		Perm			
Protected Phases	1	1		2	2			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	16.8	16.8			34.4		16.8	16.8		16.8	16.8	
Effective Green, g (s)	16.8	16.8			34.4		16.8	16.8		16.8	16.8	
Actuated g/C Ratio	0.21	0.21			0.43		0.21	0.21		0.21	0.21	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	372	370			1465		287	389		259	383	
v/s Ratio Prot	0.00	c0.06			c0.06			c0.06			0.02	
v/s Ratio Perm							0.01			0.06		
v/c Ratio	0.01	0.28			0.15		0.05	0.30		0.27	0.08	
Uniform Delay, d1	25.0	26.5			13.9		25.2	26.6		26.5	25.4	
Progression Factor	1.00	1.00			0.09		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.4			0.2		0.1	0.4		0.6	0.1	
Delay (s)	25.0	26.9			1.4		25.3	27.1		27.1	25.5	
Level of Service	C	C			A		C	C		C	C	
Approach Delay (s)		26.8			1.4			26.9			26.5	
Approach LOS		C			A			C			C	

Intersection Summary

HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	34.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

30: Railyards Blvd & 5th St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑			↑↑			↙↑↑				
Volume (vph)	5	154	0	0	226	33	6	299	34	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.0				
Lane Util. Factor	1.00	1.00			0.95			0.91				
Frt	1.00	1.00			0.98			0.98				
Flt Protected	0.95	1.00			1.00			1.00				
Satd. Flow (prot)	1770	1863			3472			5004				
Flt Permitted	0.95	1.00			1.00			1.00				
Satd. Flow (perm)	1770	1863			3472			5004				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	154	0	0	226	33	6	299	34	0	0	0
RTOR Reduction (vph)	0	0	0	0	16	0	0	12	0	0	0	0
Lane Group Flow (vph)	5	154	0	0	243	0	0	327	0	0	0	0
Turn Type	Split			Split								
Protected Phases	4	4			8			2	2			
Permitted Phases					8			2	2			
Actuated Green, G (s)	14.3	14.3			14.3			38.4				
Effective Green, g (s)	14.3	14.3			14.3			38.4				
Actuated g/C Ratio	0.18	0.18			0.18			0.48				
Clearance Time (s)	4.5	4.5			4.5			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	316	333			621			2402				
v/s Ratio Prot	0.00	c0.08			c0.07			c0.07				
v/s Ratio Perm												
v/c Ratio	0.02	0.46			0.39			0.14				
Uniform Delay, d1	27.1	29.4			29.0			11.6				
Progression Factor	0.47	0.62			0.73			1.00				
Incremental Delay, d2	0.0	1.0			0.4			0.1				
Delay (s)	12.8	19.1			21.5			11.7				
Level of Service	B	B			C			B				
Approach Delay (s)		18.9			21.5			11.7			0.0	
Approach LOS		B			C			B			A	

Intersection Summary

HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	21.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

31: Railyards Blvd & Judah St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	163	25	15	254	5	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	163	25	15	254	5	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	298			284		
pX, platoon unblocked				0.93	0.93	0.93
vC, conflicting volume				188	332	176
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol				94	248	80
tC, single (s)				4.1	6.8	6.9
tC, 2 stage (s)						
tF (s)				2.2	3.5	3.3
p0 queue free %				99	99	99
cM capacity (veh/h)				1398	663	899

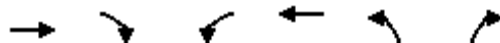
Direction, Lane #	EB 1	WB 1	WB 2	WB 3	NB 1
Volume Total	188	15	127	127	13
Volume Left	0	15	0	0	5
Volume Right	25	0	0	0	8
cSH	1700	1398	1700	1700	791
Volume to Capacity	0.11	0.01	0.07	0.07	0.02
Queue Length 95th (ft)	0	1	0	0	1
Control Delay (s)	0.0	7.6	0.0	0.0	9.6
Lane LOS	A			A	
Approach Delay (s)	0.0	0.4	9.6		
Approach LOS	A				

Intersection Summary					
Average Delay			0.5		
Intersection Capacity Utilization			22.5%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↔↔	↔	↔
Volume (vph)	166	5	280	264	5	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	0.95	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1855		1770	3539	1770	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	1855		1770	3539	1770	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	166	5	280	264	5	27
RTOR Reduction (vph)	1	0	0	0	0	22
Lane Group Flow (vph)	170	0	280	264	5	5
Turn Type			Prot			Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	35.0		17.8	56.8	15.2	15.2
Effective Green, g (s)	35.0		17.8	56.8	15.2	15.2
Actuated g/C Ratio	0.44		0.22	0.71	0.19	0.19
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	812		394	2513	336	301
v/s Ratio Prot	c0.09		c0.16	0.07	0.00	
v/s Ratio Perm						c0.00
v/c Ratio	0.21		0.71	0.11	0.01	0.02
Uniform Delay, d1	13.9		28.7	3.6	26.3	26.3
Progression Factor	0.23		0.92	0.50	1.00	1.00
Incremental Delay, d2	0.6		5.7	0.1	0.0	0.0
Delay (s)	3.8		32.2	1.9	26.3	26.4
Level of Service	A		C	A	C	C
Approach Delay (s)	3.8			17.5	26.3	
Approach LOS	A			B	C	

Intersection Summary

HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↕	↘
Volume (vph)	0	193	0	0	385	544
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		1.00			0.91	0.91
Frt		0.86			0.94	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		1611			3187	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		1611			3187	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	193	0	0	385	544
RTOR Reduction (vph)	0	180	0	0	95	131
Lane Group Flow (vph)	0	13	0	0	546	157
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		5.5			43.5	43.5
Effective Green, g (s)		5.5			43.5	43.5
Actuated g/C Ratio		0.07			0.54	0.54
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		111			1733	784
v/s Ratio Prot		c0.01			c0.17	0.11
v/s Ratio Perm						
v/c Ratio		0.12			0.31	0.20
Uniform Delay, d1		35.0			10.0	9.3
Progression Factor		1.00			1.05	2.29
Incremental Delay, d2		0.5			0.4	0.5
Delay (s)		35.5			11.0	21.9
Level of Service		D			B	C
Approach Delay (s)	35.5			0.0	14.4	
Approach LOS	D			A	B	

Intersection Summary

HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

36: Camille Ln & Bercut Dr

6/17/2007



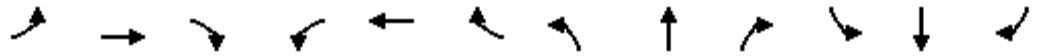
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↘		↗	↘	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	5	0	0	5	124	0	0	0	161	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	5	0	0	5	124	0	0	0	161	0	0

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	5	129	0	0	161	0
Volume Left (vph)	0	0	0	0	161	0
Volume Right (vph)	0	124	0	0	0	0
Hadj (s)	0.03	-0.54	0.00	0.00	0.53	0.00
Departure Headway (s)	4.5	3.8	4.9	4.9	5.3	4.8
Degree Utilization, x	0.01	0.14	0.00	0.00	0.24	0.00
Capacity (veh/h)	757	903	720	720	655	749
Control Delay (s)	7.6	7.4	6.7	6.7	8.8	6.6
Approach Delay (s)	7.6	7.4	0.0		8.8	
Approach LOS	A	A	A		A	

Intersection Summary	
Delay	8.2
HCM Level of Service	A
Intersection Capacity Utilization	23.5%
ICU Level of Service	A
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis
 37: F Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻↻↻	
Volume (vph)	0	5	5	50	19	0	0	0	0	175	356	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	
Lane Util. Factor		1.00		1.00	1.00						0.91	
Frt		0.93		1.00	1.00						0.99	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1737		1770	1863						4948	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		1737		1770	1863						4948	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	5	5	50	19	0	0	0	0	175	356	47
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	0	6	0	50	19	0	0	0	0	0	564	0
Turn Type				Split							Perm	
Protected Phases		4		8	8							6
Permitted Phases										6		
Actuated Green, G (s)		16.0		25.0	25.0						17.0	
Effective Green, g (s)		16.0		25.0	25.0						17.0	
Actuated g/C Ratio		0.23		0.36	0.36						0.24	
Clearance Time (s)		4.0		4.0	4.0						4.0	
Lane Grp Cap (vph)		397		632	665						1202	
v/s Ratio Prot		c0.00		c0.03	0.01							
v/s Ratio Perm											0.11	
v/c Ratio		0.02		0.08	0.03						0.47	
Uniform Delay, d1		20.9		14.9	14.6						22.6	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		0.1		0.2	0.1						1.3	
Delay (s)		21.0		15.1	14.7						24.0	
Level of Service		C		B	B						C	
Approach Delay (s)		21.0			15.0			0.0			24.0	
Approach LOS		C			B			A			C	

Intersection Summary

HCM Average Control Delay	23.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.18		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↔	↔		↕↕↕				
Volume (vph)	45	5	0	0	105	658	105	621	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0				
Lane Util. Factor		1.00			0.95	0.95		0.91				
Frt		1.00			0.89	0.85		1.00				
Flt Protected		0.96			1.00	1.00		0.99				
Satd. Flow (prot)		1783			1576	1504		5044				
Flt Permitted		0.68			1.00	1.00		0.99				
Satd. Flow (perm)		1264			1576	1504		5044				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	45	5	0	0	105	658	105	621	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	68	68	0	1	0	0	0	0
Lane Group Flow (vph)	0	50	0	0	320	307	0	730	0	0	0	0
Turn Type	Perm					Perm	Perm					
Protected Phases		4			8			2				
Permitted Phases	4					8	2	2				
Actuated Green, G (s)		23.0			23.0	23.0		19.0				
Effective Green, g (s)		23.0			23.0	23.0		19.0				
Actuated g/C Ratio		0.46			0.46	0.46		0.38				
Clearance Time (s)		4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)		581			725	692		1917				
v/s Ratio Prot					0.20							
v/s Ratio Perm		0.04				c0.20		0.14				
v/c Ratio		0.09			0.44	0.44		0.38				
Uniform Delay, d1		7.6			9.1	9.2		11.2				
Progression Factor		1.00			1.19	1.20		0.33				
Incremental Delay, d2		0.3			0.2	0.2		0.4				
Delay (s)		7.9			11.0	11.2		4.1				
Level of Service		A			B	B		A				
Approach Delay (s)		7.9			11.1			4.1			0.0	
Approach LOS		A			B			A			A	

Intersection Summary

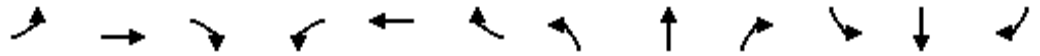
HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (vph)	5	5	5	119	714	236	469	316	5	5	600	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	
Frt		0.96			0.97		1.00	1.00		1.00	0.99	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750			3403		1770	1858		1770	1843	
Flt Permitted		0.68			0.91		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1213			3118		1770	1858		1770	1843	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	119	714	236	469	316	5	5	600	45
RTOR Reduction (vph)	0	4	0	0	26	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	12	0	0	1043	0	469	321	0	5	642	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		30.0			30.0		24.0	53.0		5.0	34.0	
Effective Green, g (s)		30.0			30.0		24.0	53.0		5.0	34.0	
Actuated g/C Ratio		0.30			0.30		0.24	0.53		0.05	0.34	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		364			935		425	985		89	627	
v/s Ratio Prot							c0.27	0.17		0.00	c0.35	
v/s Ratio Perm		0.01			c0.33							
v/c Ratio		0.03			1.12		1.10	0.33		0.06	1.02	
Uniform Delay, d1		24.7			35.0		38.0	13.3		45.3	33.0	
Progression Factor		1.04			0.71		1.10	0.06		1.00	1.00	
Incremental Delay, d2		0.2			61.3		50.3	0.1		1.2	42.3	
Delay (s)		25.9			86.2		92.2	0.8		46.5	75.3	
Level of Service		C			F		F	A		D	E	
Approach Delay (s)		25.9			86.2			55.1			75.1	
Approach LOS		C			F			E			E	

Intersection Summary

HCM Average Control Delay	73.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↗
Volume (vph)	0	0	15	321	1244	0	0	0	0	0	365	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.5	4.0
Lane Util. Factor			1.00	0.91	0.91						0.95	1.00
Frbp, ped/bikes			1.00	1.00	1.00						1.00	1.00
Flpb, ped/bikes			1.00	1.00	1.00						1.00	1.00
Frt			0.86	1.00	1.00						1.00	0.85
Flt Protected			1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)			1611	1610	3386						3539	1583
Flt Permitted			1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)			1611	1610	3386						3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	321	1244	0	0	0	0	0	365	147
RTOR Reduction (vph)	0	0	8	165	3	0	0	0	0	0	0	9
Lane Group Flow (vph)	0	0	7	124	1273	0	0	0	0	0	365	138
Confl. Peds. (#/hr)						72						
Turn Type			custom	Perm								Perm
Protected Phases					1						2	
Permitted Phases			1	1								2
Actuated Green, G (s)			22.0	22.0	22.0						20.5	20.5
Effective Green, g (s)			22.0	21.5	22.0						20.0	20.5
Actuated g/C Ratio			0.44	0.43	0.44						0.40	0.41
Clearance Time (s)			3.5	3.5	3.5						4.0	4.0
Lane Grp Cap (vph)			709	692	1490						1416	649
v/s Ratio Prot											c0.10	
v/s Ratio Perm			0.00	0.08	0.38							0.09
v/c Ratio			0.01	0.18	0.85						0.26	0.21
Uniform Delay, d1			7.9	8.8	12.6						10.0	9.5
Progression Factor			1.00	1.54	0.72						1.00	1.00
Incremental Delay, d2			0.0	0.5	5.5						0.4	0.7
Delay (s)			7.9	14.1	14.5						10.5	10.3
Level of Service			A	B	B						B	B
Approach Delay (s)		7.9			14.4			0.0			10.4	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	13.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

41: G Street & 8th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Volume (vph)	0	0	0	0	874	321	701	447	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0				
Lane Util. Factor					0.91			0.91				
Frbp, ped/bikes					0.98			1.00				
Flpb, ped/bikes					1.00			0.97				
Frt					0.96			1.00				
Flt Protected					1.00			0.97				
Satd. Flow (prot)					4799			4780				
Flt Permitted					1.00			0.97				
Satd. Flow (perm)					4799			4780				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	874	321	701	447	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	133	0	0	43	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1062	0	0	1105	0	0	0	0
Confl. Peds. (#/hr)						72	72					
Turn Type							Perm					
Protected Phases					1			2				
Permitted Phases							2					
Actuated Green, G (s)					22.0			21.0				
Effective Green, g (s)					21.5			20.5				
Actuated g/C Ratio					0.43			0.41				
Clearance Time (s)					3.5			3.5				
Lane Grp Cap (vph)					2064			1960				
v/s Ratio Prot					c0.22							
v/s Ratio Perm								0.23				
v/c Ratio					0.51			0.94dl				
Uniform Delay, d1					10.4			11.3				
Progression Factor					0.93			0.43				
Incremental Delay, d2					0.8			0.9				
Delay (s)					10.5			5.8				
Level of Service					B			A				
Approach Delay (s)		0.0			10.5			5.8			0.0	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	8.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.0%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←						←←←	
Volume (vph)	0	0	0	46	470	0	0	0	0	0	1529	454
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.98	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5037						4823	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5037						4823	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	46	470	0	0	0	0	0	1529	454
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	107	0
Lane Group Flow (vph)	0	0	0	0	493	0	0	0	0	0	1876	0
Confl. Peds. (#/hr)				72								72
Turn Type					Perm							
Protected Phases						4						2
Permitted Phases				4								
Actuated Green, G (s)					17.5							21.5
Effective Green, g (s)					17.0							21.0
Actuated g/C Ratio					0.34							0.42
Clearance Time (s)					3.5							3.5
Lane Grp Cap (vph)					1713							2026
v/s Ratio Prot												c0.39
v/s Ratio Perm					0.10							
v/c Ratio					0.29							0.93
Uniform Delay, d1					12.1							13.8
Progression Factor					1.00							0.50
Incremental Delay, d2					0.4							3.1
Delay (s)					12.5							10.0
Level of Service					B							A
Approach Delay (s)		0.0			12.5			0.0				10.0
Approach LOS		A			B			A				A
Intersection Summary												
HCM Average Control Delay			10.5									HCM Level of Service B
HCM Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			50.0								12.0	Sum of lost time (s)
Intersection Capacity Utilization			57.5%									ICU Level of Service B
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

43: H Street & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4						4				
Volume (vph)	5	30	0	0	0	0	30	726	833	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		1.00						0.91				
Frt		1.00						0.92				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1850						4681				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1850						4681				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	30	0	0	0	0	30	726	833	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	397	0	0	0	0
Lane Group Flow (vph)	0	35	0	0	0	0	0	1192	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4					2	2				
Permitted Phases	4											
Actuated Green, G (s)		16.0						21.0				
Effective Green, g (s)		16.0						21.0				
Actuated g/C Ratio		0.32						0.42				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		592						1966				
v/s Ratio Prot								c0.25				
v/s Ratio Perm		0.02										
v/c Ratio		0.06						0.61				
Uniform Delay, d1		11.8						11.3				
Progression Factor		1.00						0.05				
Incremental Delay, d2		0.2						0.8				
Delay (s)		12.0						1.3				
Level of Service		B						A				
Approach Delay (s)		12.0			0.0			1.3			0.0	
Approach LOS		B			A			A			A	

Intersection Summary

HCM Average Control Delay	1.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	376	55	0	0	0	0	1010	280	449	253	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0	3.5	4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95	0.95	0.95	0.95	
Frbp, ped/bikes	1.00	0.98						1.00	0.85	1.00	1.00	
Flpb, ped/bikes	0.76	1.00						1.00	1.00	1.00	1.00	
Frt	1.00	0.98						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (prot)	1345	3404						1755	1274	1681	1744	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (perm)	1345	3404						1755	1274	1681	1744	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	1010	280	449	253	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	1	70	0	0	0
Lane Group Flow (vph)	20	420	0	0	0	0	0	1037	182	346	356	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm						Perm Split					
Protected Phases	1						2 6 6					
Permitted Phases	1						2					
Actuated Green, G (s)	15.0	15.0						49.0	49.0	17.0	17.0	
Effective Green, g (s)	15.0	14.5						48.5	49.0	16.5	16.5	
Actuated g/C Ratio	0.15	0.14						0.48	0.49	0.16	0.16	
Clearance Time (s)	3.5	3.5						3.5	3.5	4.0	4.0	
Lane Grp Cap (vph)	202	494						851	624	277	288	
v/s Ratio Prot		c0.12						c0.59		c0.21	0.20	
v/s Ratio Perm	0.01								0.14			
v/c Ratio	0.10	0.85						1.22	0.29	1.25	1.24	
Uniform Delay, d1	36.7	41.7						25.8	15.2	41.8	41.8	
Progression Factor	0.80	0.83						0.76	0.71	0.62	0.62	
Incremental Delay, d2	0.7	13.0						107.9	1.1	115.0	109.1	
Delay (s)	30.1	47.6						127.5	11.9	140.9	135.1	
Level of Service	C	D						F	B	F	F	
Approach Delay (s)		46.8			0.0			104.9			138.0	
Approach LOS		D			A			F			F	

Intersection Summary

HCM Average Control Delay	103.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	101.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	667	106	0	0	0	0	0	0	240	444	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.99								1.00	1.00	
Flpb, ped/bikes		1.00								0.95	1.00	
Frt		0.98								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3437								1528	3373	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3437								1528	3373	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	667	106	0	0	0	0	0	0	240	444	0
RTOR Reduction (vph)	0	26	0	0	0	0	0	0	0	134	7	0
Lane Group Flow (vph)	0	747	0	0	0	0	0	0	0	82	461	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		18.5								19.5	19.5	
Effective Green, g (s)		18.0								19.0	19.0	
Actuated g/C Ratio		0.36								0.38	0.38	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1237								581	1282	
v/s Ratio Prot		0.22										
v/s Ratio Perm										0.05	0.14	
v/c Ratio		0.60								0.14	0.36	
Uniform Delay, d1		13.1								10.2	11.1	
Progression Factor		1.01								3.66	1.23	
Incremental Delay, d2		0.9								0.5	0.8	
Delay (s)		14.1								37.6	14.4	
Level of Service		B								D	B	
Approach Delay (s)		14.1			0.0			0.0			21.8	
Approach LOS		B			A			A			C	
Intersection Summary												
HCM Average Control Delay			17.7									HCM Level of Service B
HCM Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			50.0							13.0		Sum of lost time (s)
Intersection Capacity Utilization			42.0%									ICU Level of Service A
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Volume (vph)	387	675	0	0	0	0	0	871	121	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.98						1.00				
Frt		1.00						0.98				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		3411						4954				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		3411						4954				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	387	675	0	0	0	0	0	871	121	0	0	0
RTOR Reduction (vph)	0	121	0	0	0	0	0	36	0	0	0	0
Lane Group Flow (vph)	0	941	0	0	0	0	0	956	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		18.5						19.5				
Effective Green, g (s)		18.0						19.0				
Actuated g/C Ratio		0.36						0.38				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1228						1883				
v/s Ratio Prot								c0.19				
v/s Ratio Perm		0.28										
v/c Ratio		0.77						0.51				
Uniform Delay, d1		14.1						11.9				
Progression Factor		0.42						1.00				
Incremental Delay, d2		4.2						1.0				
Delay (s)		10.1						12.9				
Level of Service		B						B				
Approach Delay (s)		10.1			0.0			12.9			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			11.4					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		13.0		
Intersection Capacity Utilization			56.7%					ICU Level of Service		B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔				↔		↔↔↔				
Volume (vph)	144	259	0	0	0	47	0	1011	23	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	1.00				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	1.00				1.00		1.00				
Satd. Flow (prot)	3221	1685				1611		5054				
Flt Permitted	0.95	1.00				1.00		1.00				
Satd. Flow (perm)	3221	1685				1611		5054				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	144	259	0	0	0	47	0	1011	23	0	0	0
RTOR Reduction (vph)	99	3	0	0	0	42	0	5	0	0	0	0
Lane Group Flow (vph)	31	270	0	0	0	5	0	1029	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	12.5	21.5				5.5		21.5				
Effective Green, g (s)	12.0	21.0				5.0		21.0				
Actuated g/C Ratio	0.24	0.42				0.10		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	773	708				161		2123				
v/s Ratio Prot	0.01	c0.09				0.00		c0.20				
v/s Ratio Perm		0.07										
v/c Ratio	0.04	0.38				0.03		0.48				
Uniform Delay, d1	14.6	10.0				20.3		10.6				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	0.1	1.6				0.3		0.8				
Delay (s)	14.7	11.6				20.6		11.4				
Level of Service	B	B				C		B				
Approach Delay (s)		12.6			20.6			11.4			0.0	
Approach LOS		B			C			B			A	
Intersection Summary												
HCM Average Control Delay			12.0			HCM Level of Service			B			
HCM Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			50.0			Sum of lost time (s)		8.0				
Intersection Capacity Utilization			56.6%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	462	154	94	15	115	481
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.89	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1644	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1644	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	462	154	94	15	115	481
RTOR Reduction (vph)	0	0	0	8	105	0
Lane Group Flow (vph)	462	154	94	7	491	0
Turn Type	Prot		pm+ov			
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	36.2	39.5	12.1	45.9	33.8	
Effective Green, g (s)	36.7	39.5	12.1	45.9	33.8	
Actuated g/C Ratio	0.39	0.42	0.13	0.49	0.36	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	687	778	238	835	587	
v/s Ratio Prot	c0.26	0.08	c0.05	0.00	c0.30	
v/s Ratio Perm				0.00		
v/c Ratio	0.67	0.20	0.39	0.01	0.84	
Uniform Delay, d1	24.0	17.5	37.9	12.6	27.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.4	0.2	1.9	0.0	10.0	
Delay (s)	26.3	17.7	39.8	12.6	37.9	
Level of Service	C	B	D	B	D	
Approach Delay (s)		24.2	36.0		37.9	
Approach LOS		C	D		D	

Intersection Summary

HCM Average Control Delay	31.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	94.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	839	86	148	1423	0	0	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					0.99		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6116		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6116		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	839	86	148	1423	0	0	0	20
RTOR Reduction (vph)	0	0	0	0	12	0	48	0	0	0	0	10
Lane Group Flow (vph)	0	0	0	0	913	0	100	1423	0	0	0	10
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					17.0		24.5	24.5				24.5
Effective Green, g (s)					18.0		24.0	24.0				24.5
Actuated g/C Ratio					0.36		0.48	0.48				0.49
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					2202		1648	1614				1366
v/s Ratio Prot					c0.15		0.03	c0.42				
v/s Ratio Perm												0.00
v/c Ratio					0.41		0.06	0.88				0.01
Uniform Delay, d1					12.0		7.0	11.7				6.5
Progression Factor					0.58		1.01	1.12				1.00
Incremental Delay, d2					0.4		0.1	5.6				0.0
Delay (s)					7.4		7.1	18.8				6.5
Level of Service					A		A	B				A
Approach Delay (s)		0.0			7.4			17.7			6.5	
Approach LOS		A			A			B			A	

Intersection Summary

HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑		↑	←↑			↑	↑
Volume (vph)	0	0	0	53	833	453	34	509	0	0	26	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.97		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.95		1.00	1.00			0.88	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4661		1610	3389			1549	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4661		1610	3389			1549	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	53	833	453	34	509	0	0	26	281
RTOR Reduction (vph)	0	0	0	0	184	0	0	0	0	0	111	131
Lane Group Flow (vph)	0	0	0	0	1155	0	31	512	0	0	44	21
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom						custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					16.5		15.5	15.5			7.5	7.5
Effective Green, g (s)					16.0		15.0	15.0			7.0	7.0
Actuated g/C Ratio					0.32		0.30	0.30			0.14	0.14
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1492		483	1017			217	211
v/s Ratio Prot							0.02	c0.15			c0.03	0.01
v/s Ratio Perm					0.25							
v/c Ratio					0.77		0.06	0.50			0.20	0.10
Uniform Delay, d1					15.4		12.5	14.4			19.0	18.8
Progression Factor					0.65		1.36	1.34			3.56	4.87
Incremental Delay, d2					3.6		0.2	1.5			0.2	0.1
Delay (s)					13.6		17.3	20.8			67.8	91.5
Level of Service					B		B	C			E	F
Approach Delay (s)		0.0			13.6			20.6			79.6	
Approach LOS		A			B			C			E	

Intersection Summary

HCM Average Control Delay	24.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖↖↖						↗↗	↗↗
Volume (vph)	0	0	0	304	1011	0	0	0	0	0	293	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.93	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1412	4789						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1412	4789						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	304	1011	0	0	0	0	0	293	257
RTOR Reduction (vph)	0	0	0	164	6	0	0	0	0	0	0	170
Lane Group Flow (vph)	0	0	0	110	1035	0	0	0	0	0	293	87
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				20.5	20.5						17.5	17.5
Effective Green, g (s)				20.0	20.0						17.0	17.0
Actuated g/C Ratio				0.40	0.40						0.34	0.34
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				565	1916						1203	948
v/s Ratio Prot											c0.08	
v/s Ratio Perm				0.08	0.22							0.03
v/c Ratio				0.19	0.54						0.24	0.09
Uniform Delay, d1				9.8	11.5						11.9	11.2
Progression Factor				1.00	1.00						0.35	0.09
Incremental Delay, d2				0.8	1.1						0.4	0.2
Delay (s)				10.5	12.6						4.6	1.2
Level of Service				B	B						A	A
Approach Delay (s)		0.0			12.2			0.0			3.0	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑→		↖↖	↗↗	↑	↘↘	↗↗	
Volume (vph)	1	1881	554	84	93	114	4	1618	307
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.99		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.97		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6101		2787	3433	1863	1585	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6101		2787	3433	1863	1585	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	1881	554	84	93	114	4	1618	307
RTOR Reduction (vph)	0	0	0	6	0	0	0	28	0
Lane Group Flow (vph)	0	2436	0	78	93	114	651	1250	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		33.2		9.7	9.7	9.7	45.6	45.6	
Effective Green, g (s)		33.2		9.2	9.2	9.2	45.6	45.6	
Actuated g/C Ratio		0.33		0.09	0.09	0.09	0.46	0.46	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		2026		256	316	171	723	1314	
v/s Ratio Prot		c0.40				c0.06	0.41	c0.43	
v/s Ratio Perm				0.03	0.03				
v/c Ratio		1.20		0.30	0.29	0.67	0.90	0.95	
Uniform Delay, d1		33.4		42.4	42.4	43.9	25.1	26.1	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		96.1		0.2	0.2	7.4	14.6	14.8	
Delay (s)		129.5		42.7	42.6	51.3	39.7	40.9	
Level of Service		F		D	D	D	D	D	
Approach Delay (s)		129.5				47.4	40.5		
Approach LOS		F				D	D		

Intersection Summary

HCM Average Control Delay	87.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖↖↖	↖					↖↖	↖			
Volume (vph)	1164	2361	111	0	0	0	0	447	400	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.93					0.99	0.94			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.96	0.85			
Flt Protected	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (prot)	1290	5985	1476					3220	1351			
Flt Permitted	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (perm)	1290	5985	1476					3220	1351			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1164	2361	111	0	0	0	0	447	400	0	0	0
RTOR Reduction (vph)	70	27	30	0	0	0	0	2	2	0	0	0
Lane Group Flow (vph)	617	2811	81	0	0	0	0	585	258	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	67.6	67.6	67.6					24.4	24.4			
Effective Green, g (s)	67.6	67.6	67.6					24.4	24.4			
Actuated g/C Ratio	0.68	0.68	0.68					0.24	0.24			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	872	4046	998					786	330			
v/s Ratio Prot	c0.48	0.47						0.18				
v/s Ratio Perm			0.05						c0.19			
v/c Ratio	0.71	0.69	0.08					0.74	0.78			
Uniform Delay, d1	10.1	9.9	5.6					34.9	35.3			
Progression Factor	0.82	0.79	0.76					1.00	1.00			
Incremental Delay, d2	0.4	0.1	0.0					3.4	10.7			
Delay (s)	8.7	7.9	4.2					38.3	46.0			
Level of Service	A	A	A					D	D			
Approach Delay (s)		7.9			0.0			40.7			0.0	
Approach LOS		A			A			D			A	

Intersection Summary

HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↕↕						↕		↵		
Volume (vph)	613	2058	0	0	0	0	0	10	7	28	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.97		1.00		
Flpb, ped/bikes	0.92	1.00						1.00		0.94		
Frt	1.00	1.00						0.94		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1404	4788						1708		1666		
Flt Permitted	0.95	1.00						1.00		0.75		
Satd. Flow (perm)	1404	4788						1708		1309		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	613	2058	0	0	0	0	0	10	7	28	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	552	2119	0	0	0	0	0	11	0	28	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	71.5	71.5						21.5		21.5		
Effective Green, g (s)	71.0	71.0						21.0		21.0		
Actuated g/C Ratio	0.71	0.71						0.21		0.21		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	997	3399						359		275		
v/s Ratio Prot								0.01				
v/s Ratio Perm	0.39	0.44								c0.02		
v/c Ratio	0.55	0.62						0.03		0.10		
Uniform Delay, d1	6.9	7.5						31.4		31.9		
Progression Factor	1.32	1.31						1.00		0.86		
Incremental Delay, d2	1.6	0.6						0.2		0.5		
Delay (s)	10.8	10.5						31.6		28.1		
Level of Service	B	B						C		C		
Approach Delay (s)		10.6			0.0			31.6			28.1	
Approach LOS		B			A			C			C	

Intersection Summary

HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↑↑↑	↑								↑↑↑			
Volume (vph)	0	1986	324	0	0	0	0	0	0	173	293	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		4.0	4.0								4.0			
Lane Util. Factor		0.86	0.86								0.91			
Frbp, ped/bikes		1.00	0.93								1.00			
Flpb, ped/bikes		1.00	1.00								0.98			
Frt		1.00	0.85								1.00			
Flt Protected		1.00	1.00								0.98			
Satd. Flow (prot)		4789	1265								4881			
Flt Permitted		1.00	1.00								0.98			
Satd. Flow (perm)		4789	1265								4881			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	0	1986	324	0	0	0	0	0	0	173	293	0		
RTOR Reduction (vph)	0	1	126	0	0	0	0	0	0	0	105	0		
Lane Group Flow (vph)	0	2017	166	0	0	0	0	0	0	0	361	0		
Confl. Peds. (#/hr)			36							36				
Turn Type			Perm								Perm			
Protected Phases		1										2		
Permitted Phases			1							2				
Actuated Green, G (s)		54.5	54.5								28.5			
Effective Green, g (s)		54.0	54.0								28.0			
Actuated g/C Ratio		0.54	0.54								0.28			
Clearance Time (s)		3.5	3.5								3.5			
Lane Grp Cap (vph)		2586	683								1367			
v/s Ratio Prot		0.42												
v/s Ratio Perm			0.13								0.07			
v/c Ratio		0.78	0.24								0.26			
Uniform Delay, d1		18.3	12.2								28.0			
Progression Factor		0.88	1.86								1.07			
Incremental Delay, d2		2.0	0.7								0.5			
Delay (s)		18.1	23.4								30.5			
Level of Service		B	C								C			
Approach Delay (s)		18.8			0.0			0.0			30.5			
Approach LOS		B			A			A			C			
Intersection Summary														
HCM Average Control Delay			20.8									HCM Level of Service	C	
HCM Volume to Capacity ratio			0.60											
Actuated Cycle Length (s)			100.0								18.0		Sum of lost time (s)	
Intersection Capacity Utilization			57.2%										ICU Level of Service	B
Analysis Period (min)			15											
c Critical Lane Group														

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/17/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	93	185	201	60	126	45	651	160	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.5	5.0	4.5	4.5	5.0		
Lane Util. Factor	0.95	0.86	0.91	0.95	1.00	0.95	0.91		
Frt	1.00	0.98	0.85	0.85	1.00	1.00	0.97		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1574	1441	1504	1770	3539	4922		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1574	1441	1504	1770	3539	4922		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	93	185	201	60	126	45	651	160	18
RTOR Reduction (vph)	0	0	1	32	0	0	2	0	0
Lane Group Flow (vph)	84	216	184	22	126	45	827	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2					
Actuated Green, G (s)	41.5	41.5	41.5	41.5	17.5	49.5	27.5		
Effective Green, g (s)	41.0	41.0	41.5	41.0	17.5	49.5	27.0		
Actuated g/C Ratio	0.41	0.41	0.42	0.41	0.18	0.50	0.27		
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Lane Grp Cap (vph)	689	645	598	617	310	1752	1329		
v/s Ratio Prot					c0.07	0.01	c0.17		
v/s Ratio Perm	0.05	0.14	0.13	0.01					
v/c Ratio	0.12	0.33	0.31	0.04	0.41	0.03	0.62		
Uniform Delay, d1	18.3	20.2	19.6	17.7	36.6	12.9	32.0		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.4	1.4	1.3	0.1	3.9	0.0	2.2		
Delay (s)	18.7	21.6	20.9	17.8	40.6	12.9	34.2		
Level of Service	B	C	C	B	D	B	C		
Approach Delay (s)		20.5				33.3	34.2		
Approach LOS		C				C	C		

Intersection Summary

HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔	↑↑↑				↔
Volume (vph)	0	0	0	0	527	130	78	766	0	0	0	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				4.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.98		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.97		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6116		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6116		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	527	130	78	766	0	0	0	103
RTOR Reduction (vph)	0	0	0	0	63	0	38	0	0	0	0	50
Lane Group Flow (vph)	0	0	0	0	594	0	40	766	0	0	0	53
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					25.0		35.5	35.5				35.5
Effective Green, g (s)					26.0		36.0	36.0				36.0
Actuated g/C Ratio					0.37		0.51	0.51				0.51
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					2272		840	2615				1308
v/s Ratio Prot					c0.10			c0.15				
v/s Ratio Perm							0.02					0.02
v/c Ratio					0.26		0.05	0.29				0.04
Uniform Delay, d1					15.3		8.5	9.7				8.4
Progression Factor					1.00		1.24	0.93				1.00
Incremental Delay, d2					0.3		0.1	0.2				0.1
Delay (s)					15.6		10.6	9.2				8.5
Level of Service					B		B	A				A
Approach Delay (s)		0.0			15.6			9.3			8.5	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	11.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	202	729	0	0	0	0	0	354	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.94	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4694	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4694	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	202	729	0	0	0	0	0	354	215
RTOR Reduction (vph)	0	0	0	141	0	0	0	0	0	0	98	0
Lane Group Flow (vph)	0	0	0	61	729	0	0	0	0	0	471	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						27.5	
Effective Green, g (s)				15.0	15.0						27.0	
Actuated g/C Ratio				0.30	0.30						0.54	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2535	
v/s Ratio Prot					c0.14						c0.10	
v/s Ratio Perm				0.04								
v/c Ratio				0.12	0.48						0.19	
Uniform Delay, d1				12.7	14.3						5.9	
Progression Factor				1.00	1.00						1.54	
Incremental Delay, d2				0.0	0.1						0.2	
Delay (s)				12.7	14.4						9.2	
Level of Service				B	B						A	
Approach Delay (s)		0.0			14.0			0.0			9.2	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	688	312	0	0	102	76	163	655	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.96		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.94		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4591		3433	5024				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4591		3433	5024				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	688	312	0	0	102	76	163	655	35	0	0	0
RTOR Reduction (vph)	0	0	0	0	61	0	0	8	0	0	0	0
Lane Group Flow (vph)	688	312	0	0	117	0	163	682	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		31.0	31.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.44	0.44				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			918		1520	2225				
v/s Ratio Prot	c0.20	c0.09			0.03		0.05	c0.14				
v/s Ratio Perm												
v/c Ratio	1.08	0.20			0.13		0.11	0.31				
Uniform Delay, d1	28.5	11.9			23.0		11.4	12.6				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	58.6	0.3			0.3		0.1	0.4				
Delay (s)	87.1	12.2			23.3		11.5	12.9				
Level of Service	F	B			C		B	B				
Approach Delay (s)		63.7			23.3			12.7			0.0	
Approach LOS		E			C			B			A	

Intersection Summary

HCM Average Control Delay	38.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Volume (vph)	0	0	0	171	599	0	0	0	0	0	201	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.91	0.91
Frbp, ped/bikes					1.00						0.99	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.97	0.85
Flt Protected					0.99						1.00	1.00
Satd. Flow (prot)					4862						3087	1190
Flt Permitted					0.99						1.00	1.00
Satd. Flow (perm)					4862						3087	1190
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	171	599	0	0	0	0	0	201	152
RTOR Reduction (vph)	0	0	0	0	79	0	0	0	0	0	31	76
Lane Group Flow (vph)	0	0	0	0	691	0	0	0	0	0	214	32
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2625						926	357
v/s Ratio Prot					c0.14						c0.07	
v/s Ratio Perm												0.03
v/c Ratio					0.26						0.23	0.09
Uniform Delay, d1					6.2						13.2	12.6
Progression Factor					1.00						2.09	6.46
Incremental Delay, d2					0.2						0.5	0.4
Delay (s)					6.4						28.0	81.7
Level of Service					A						C	F
Approach Delay (s)		0.0			6.4			0.0			44.4	
Approach LOS		A			A			A			D	

Intersection Summary

HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	2253	312	0	0	0	0	0	0	137	204	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.97	
Frt		0.98									1.00	
Flt Protected		1.00									0.98	
Satd. Flow (prot)		6252									4841	
Flt Permitted		1.00									0.98	
Satd. Flow (perm)		6252									4841	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2253	312	0	0	0	0	0	0	137	204	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	2515	0	0	0	0	0	0	0	0	339	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3376									1452	
v/s Ratio Prot		c0.40										
v/s Ratio Perm											0.07	
v/c Ratio		0.74									0.23	
Uniform Delay, d1		8.8									13.2	
Progression Factor		1.00									0.79	
Incremental Delay, d2		1.5									0.4	
Delay (s)		10.4									10.8	
Level of Service		B									B	
Approach Delay (s)		10.4			0.0			0.0			10.8	
Approach LOS		B			A			A			B	

Intersection Summary

HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑						↑	↑
Volume (vph)	0	546	669	711	414	0	0	0	0	453	3	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	4.0
Lane Util. Factor		0.95		0.97	1.00						1.00	1.00
Frbp, ped/bikes		0.93		1.00	1.00						1.00	0.86
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.92		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3023		3433	1863						1775	1365
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3023		3433	1863						1775	1365
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	546	669	711	414	0	0	0	0	453	3	375
RTOR Reduction (vph)	0	232	0	0	0	0	0	0	0	0	0	289
Lane Group Flow (vph)	0	983	0	711	414	0	0	0	0	0	456	86
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9	3 12 13					4		4
Permitted Phases												4
Actuated Green, G (s)		12.5		31.0	46.5						16.0	16.0
Effective Green, g (s)		12.5		29.5	46.0						16.0	16.0
Actuated g/C Ratio		0.18		0.42	0.66						0.23	0.23
Clearance Time (s)		4.0									4.0	4.0
Vehicle Extension (s)		6.0									5.0	5.0
Lane Grp Cap (vph)		540		1447	1224						406	312
v/s Ratio Prot		c0.33		c0.21	0.22						c0.26	
v/s Ratio Perm												0.06
v/c Ratio		1.82		0.49	0.34						1.12	0.27
Uniform Delay, d1		28.8		14.8	5.3						27.0	22.2
Progression Factor		1.00		0.05	0.03						1.00	1.00
Incremental Delay, d2		376.7		0.3	0.2						82.6	1.0
Delay (s)		405.5		1.1	0.4						109.6	23.2
Level of Service		F		A	A						F	C
Approach Delay (s)		405.5			0.8			0.0			70.6	
Approach LOS		F			A			A			E	

Intersection Summary

HCM Average Control Delay	174.1	HCM Level of Service	F
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	157.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗		↔	↗			
Volume (vph)	355	660	0	0	1073	1662	53	9	857	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	1.00		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.84		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.87	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)	1770	3539			3539	1337		1531	1504			
Flt Permitted	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)	1770	3539			3539	1337		1531	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	355	660	0	0	1073	1662	53	9	857	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	470	0	294	77	0	0	0
Lane Group Flow (vph)	355	660	0	0	1073	1192	0	171	377	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot					custom	Split		custom			
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	12.5	29.3			27.0	23.5		19.5	33.7			
Effective Green, g (s)	12.0	28.8			23.5	23.5		19.0	28.7			
Actuated g/C Ratio	0.17	0.41			0.34	0.34		0.27	0.41			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	303	1456			1188	449		416	617			
v/s Ratio Prot	c0.20	0.19			0.30	c0.39		0.11	c0.25			
v/s Ratio Perm						0.50						
v/c Ratio	1.17	0.45			0.90	2.66		0.41	0.61			
Uniform Delay, d1	29.0	14.9			22.2	23.3		20.9	16.3			
Progression Factor	1.06	0.33			1.00	1.00		1.00	1.00			
Incremental Delay, d2	80.7	0.0			10.3	751.4		1.4	2.6			
Delay (s)	111.5	4.9			32.5	774.6		22.3	18.8			
Level of Service	F	A			C	F		C	B			
Approach Delay (s)		42.2			483.5			20.6			0.0	
Approach LOS		D			F			C			A	

Intersection Summary

HCM Average Control Delay	296.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.63		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	157.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	801	606	82	1379	36	1319	75	206	74	70	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	0.97		1.00	1.00			1.00	0.95		1.00	1.00
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.94		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.97	1.00
Satd. Flow (prot)	1770	3208		1758	5052			1779	1511		1816	1583
Flt Permitted	0.14	1.00		0.16	1.00			0.64	1.00		0.18	1.00
Satd. Flow (perm)	263	3208		291	5052			1187	1511		343	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	199	801	606	82	1379	36	1319	75	206	74	70	259
RTOR Reduction (vph)	0	202	0	0	3	0	0	0	22	0	0	168
Lane Group Flow (vph)	199	1205	0	82	1412	0	0	1394	184	0	144	91
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	36.2	36.2		24.8	24.8			24.6	24.6		24.6	24.6
Effective Green, g (s)	35.7	36.8		25.4	25.4			24.1	24.1		24.1	24.1
Actuated g/C Ratio	0.52	0.53		0.37	0.37			0.35	0.35		0.35	0.35
Clearance Time (s)	3.5	4.6		4.6	4.6			3.5	3.5		3.5	3.5
Vehicle Extension (s)	0.2	0.2		0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	298	1713		107	1862			415	529		120	554
v/s Ratio Prot	0.07	c0.38			0.28			c1.17	0.12		0.42	0.06
v/s Ratio Perm	0.27			0.28				0.12			0.42	0.06
v/c Ratio	0.67	0.70		0.77	0.76			3.36	0.35		1.20	0.16
Uniform Delay, d1	12.2	12.0		19.1	19.1			22.4	16.6		22.4	15.4
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	4.3	1.1		25.0	1.6			1067.7	0.1		145.6	0.1
Delay (s)	16.5	13.1		44.1	20.7			1090.1	16.7		168.0	15.5
Level of Service	B	B		D	C			F	B		F	B
Approach Delay (s)		13.5			22.0			951.9			70.0	
Approach LOS		B			C			F			E	

Intersection Summary

HCM Average Control Delay	314.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.75		
Actuated Cycle Length (s)	68.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	153.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	951	21	9	1568	11	13	5	17	15	5	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.96		1.00	0.96	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.97	1.00		0.97	1.00	
Frt	1.00	1.00		1.00	1.00		1.00	0.88		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3523		1770	3534		1711	1587		1708	1545	
Flt Permitted	0.95	1.00		0.95	1.00		0.73	1.00		0.74	1.00	
Satd. Flow (perm)	1770	3523		1770	3534		1307	1587		1336	1545	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	951	21	9	1568	11	13	5	17	15	5	43
RTOR Reduction (vph)	0	1	0	0	0	0	0	14	0	0	35	0
Lane Group Flow (vph)	42	971	0	9	1579	0	13	8	0	15	13	0
Confl. Peds. (#/hr)			36			36	36		36	36		36
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	1	6		5	2			8			4	
Permitted Phases		6			2		8			4		
Actuated Green, G (s)	6.3	42.0		5.0	40.7		14.8	14.8		14.8	14.8	
Effective Green, g (s)	5.3	42.3		4.0	41.0		14.3	14.3		14.3	14.3	
Actuated g/C Ratio	0.07	0.58		0.06	0.56		0.20	0.20		0.20	0.20	
Clearance Time (s)	3.0	4.3		3.0	4.3		3.5	3.5		3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	129	2053		98	1996		257	313		263	304	
v/s Ratio Prot	c0.02	0.28		0.01	c0.45			0.01			0.01	
v/s Ratio Perm							0.01			c0.01		
v/c Ratio	0.33	0.47		0.09	0.79		0.05	0.03		0.06	0.04	
Uniform Delay, d1	32.0	8.7		32.6	12.4		23.6	23.5		23.7	23.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	0.1		0.1	2.1		0.0	0.0		0.0	0.0	
Delay (s)	32.5	8.8		32.7	14.5		23.7	23.5		23.7	23.6	
Level of Service	C	A		C	B		C	C		C	C	
Approach Delay (s)		9.8			14.6			23.6			23.7	
Approach LOS		A			B			C			C	

Intersection Summary

HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	72.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	779	135	137	1201	18	352	11	651	10	116	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3441		1770	3528		1681	1690	1583	1770	1804	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3441		1770	3528		1681	1690	1583	1770	1804	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	48	779	135	137	1201	18	352	11	651	10	116	31
RTOR Reduction (vph)	0	8	0	0	1	0	0	0	536	0	7	0
Lane Group Flow (vph)	48	906	0	137	1218	0	180	183	115	10	140	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split			Prot	Split	
Protected Phases	1	6		5	2		8	8	8	7	7	
Permitted Phases												
Actuated Green, G (s)	7.3	38.2		12.4	43.3		17.2	17.2	17.2	12.4	12.4	
Effective Green, g (s)	6.3	38.2		11.4	43.3		16.7	16.7	16.7	11.9	11.9	
Actuated g/C Ratio	0.07	0.41		0.12	0.46		0.18	0.18	0.18	0.13	0.13	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.5	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	118	1395		214	1622		298	300	281	224	228	
v/s Ratio Prot	0.03	0.26		c0.08	c0.35		0.11	c0.11	0.07	0.01	c0.08	
v/s Ratio Perm												
v/c Ratio	0.41	0.65		0.64	0.75		0.60	0.61	0.41	0.04	0.61	
Uniform Delay, d1	42.2	22.6		39.4	21.0		35.7	35.7	34.4	36.2	39.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8	0.8		4.8	1.8		2.4	2.6	0.4	0.0	3.4	
Delay (s)	43.0	23.4		44.3	22.8		38.1	38.3	34.7	36.2	42.4	
Level of Service	D	C		D	C		D	D	C	D	D	
Approach Delay (s)		24.4			25.0			36.0			42.0	
Approach LOS		C			C			D			D	

Intersection Summary

HCM Average Control Delay	28.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	94.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗		↖	↗	↘	↖	↗	↘
Volume (vph)	26	1396	68	84	1019	15	50	53	177	77	38	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.93	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1467	1770	3528		1715	1863	1583	1770	1863	1483
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.73	1.00	1.00	0.72	1.00	1.00
Satd. Flow (perm)	1770	3539	1467	1770	3528		1322	1863	1583	1346	1863	1483
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	1396	68	84	1019	15	50	53	177	77	38	170
RTOR Reduction (vph)	0	0	10	0	0	0	0	0	141	0	0	136
Lane Group Flow (vph)	26	1396	58	84	1034	0	50	53	36	77	38	34
Confl. Peds. (#/hr)			35			35	35					35
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		Perm
Protected Phases	1	6		5	2			4				8
Permitted Phases			6				4		4	8		8
Actuated Green, G (s)	2.4	43.6	43.6	6.8	48.0		16.2	16.2	16.2	16.2	16.2	16.2
Effective Green, g (s)	1.9	44.1	44.1	6.3	48.5		15.7	15.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.02	0.56	0.56	0.08	0.62		0.20	0.20	0.20	0.20	0.20	0.20
Clearance Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2	0.2	2.0	2.0	2.0
Lane Grp Cap (vph)	43	1998	828	143	2191		266	375	318	271	375	298
v/s Ratio Prot	0.01	c0.39		c0.05	0.29			0.03				0.02
v/s Ratio Perm			0.04				0.04		0.02	c0.06		0.02
v/c Ratio	0.60	0.70	0.07	0.59	0.47		0.19	0.14	0.11	0.28	0.10	0.11
Uniform Delay, d1	37.7	12.2	7.7	34.6	7.9		25.9	25.7	25.5	26.4	25.4	25.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	15.3	0.9	0.0	3.9	0.1		0.1	0.1	0.1	0.2	0.0	0.1
Delay (s)	53.1	13.1	7.7	38.6	8.0		26.0	25.7	25.6	26.6	25.5	25.6
Level of Service	D	B	A	D	A		C	C	C	C	C	C
Approach Delay (s)		13.6			10.3			25.7			25.9	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	78.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	1376	39	7	899	5	42	13	54	24	13	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00			0.97			0.97	
Flpb, ped/bikes	0.97	1.00		0.99	1.00			0.98			0.98	
Frt	1.00	1.00		1.00	1.00			0.93			0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.98	
Satd. Flow (prot)	1717	3511		1752	3534			1623			1655	
Flt Permitted	0.28	1.00		0.13	1.00			0.89			0.89	
Satd. Flow (perm)	500	3511		236	3534			1466			1508	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	21	1376	39	7	899	5	42	13	54	24	13	26
RTOR Reduction (vph)	0	2	0	0	0	0	0	8	0	0	19	0
Lane Group Flow (vph)	21	1413	0	7	904	0	0	101	0	0	44	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	46.2	46.2		46.2	46.2			19.6			19.6	
Effective Green, g (s)	46.7	46.7		46.7	46.7			19.1			19.1	
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.26			0.26	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	316	2222		149	2236			379			390	
v/s Ratio Prot		c0.40			0.26							
v/s Ratio Perm	0.04			0.03				c0.07			0.03	
v/c Ratio	0.07	0.64		0.05	0.40			0.27			0.11	
Uniform Delay, d1	5.2	8.3		5.1	6.7			21.8			20.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.4	1.4		0.6	0.5			0.1			0.0	
Delay (s)	5.6	9.7		5.7	7.2			21.9			20.9	
Level of Service	A	A		A	A			C			C	
Approach Delay (s)		9.7			7.2			21.9			20.9	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	9.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	73.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 8: Richard Blvd & 12th Street

6/17/2007



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	1535	262	50	0	50	63	4622	20	1886	523
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1535	262	50	0	50	63	4622	20	1886	523
RTOR Reduction (vph)	0	87	0	24	0	0	0	4	0	268
Lane Group Flow (vph)	1535	175	0	76	0	63	4622	16	1886	255
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	36.0	36.0		14.9		7.3	81.1	63.1	69.3	69.3
Effective Green, g (s)	36.0	35.0		13.9		7.3	81.1	63.1	69.3	69.3
Actuated g/C Ratio	0.24	0.23		0.09		0.05	0.54	0.42	0.46	0.46
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	824	369		157		86	3465	666	3101	731
v/s Ratio Prot	c0.45	0.11		c0.04		0.04	c0.72		0.28	0.16
v/s Ratio Perm								0.01		
v/c Ratio	1.86	0.47		0.48		0.73	1.33	0.02	0.61	0.35
Uniform Delay, d1	57.0	49.6		64.6		70.4	34.4	25.4	30.2	25.9
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	392.9	1.0		2.3		27.2	152.3	0.1	0.3	0.3
Delay (s)	449.9	50.5		66.9		97.6	186.8	25.5	30.5	26.2
Level of Service	F	D		E		F	F	C	C	C
Approach Delay (s)				66.9			184.9			
Approach LOS				E			F			

Intersection Summary		
HCM Average Control Delay	183.3	HCM Level of Service F
HCM Volume to Capacity ratio	1.39	
Actuated Cycle Length (s)	150.0	Sum of lost time (s) 19.0
Intersection Capacity Utilization	139.4%	ICU Level of Service H
Analysis Period (min)	15	

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	0	80	66	41	0	0	0	0	172	2188	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0		4.0						4.0	
Lane Util. Factor			1.00		1.00						0.86	
Frbp, ped/bikes			0.97		1.00						1.00	
Flpb, ped/bikes			1.00		0.99						1.00	
Frt			0.85		1.00						1.00	
Flt Protected			1.00		0.97						1.00	
Satd. Flow (prot)			1541		1790						6363	
Flt Permitted			1.00		0.81						1.00	
Satd. Flow (perm)			1541		1498						6363	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	80	66	41	0	0	0	0	172	2188	13
RTOR Reduction (vph)	0	0	66	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	14	0	107	0	0	0	0	0	2372	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm						Perm		
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)			12.4		12.4						59.0	
Effective Green, g (s)			11.9		11.9						59.0	
Actuated g/C Ratio			0.12		0.12						0.59	
Clearance Time (s)			3.5		3.5						4.0	
Vehicle Extension (s)			2.0		2.0						5.0	
Lane Grp Cap (vph)			183		178						3754	
v/s Ratio Prot												
v/s Ratio Perm			0.01		0.07						0.37	
v/c Ratio			0.08		0.60						0.63	
Uniform Delay, d1			39.2		41.8						13.4	
Progression Factor			1.00		0.93						1.00	
Incremental Delay, d2			0.1		3.2						0.8	
Delay (s)			39.2		42.0						14.2	
Level of Service			D		D						B	
Approach Delay (s)		39.2			42.0			0.0			14.2	
Approach LOS		D			D			A			B	

Intersection Summary

HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	29.1
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Basler St & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	31	7	0	0	53	25	62	3989	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.96			1.00				
Flpb, ped/bikes	0.89	0.93			1.00			1.00				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.97			1.00			1.00				
Satd. Flow (prot)	1500	1599			1708			6394				
Flt Permitted	0.71	0.86			1.00			1.00				
Satd. Flow (perm)	1115	1425			1708			6394				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	7	0	0	53	25	62	3989	6	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	19	19	0	0	78	0	0	4057	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			73.0				
Effective Green, g (s)	18.0	18.0			18.0			74.0				
Actuated g/C Ratio	0.18	0.18			0.18			0.74				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	201	257			307			4732				
v/s Ratio Prot					c0.05							
v/s Ratio Perm	0.02	0.01						0.63				
v/c Ratio	0.09	0.07			0.25			0.86				
Uniform Delay, d1	34.2	34.1			35.2			9.2				
Progression Factor	0.74	0.74			1.00			0.39				
Incremental Delay, d2	0.7	0.4			2.0			1.0				
Delay (s)	26.0	25.6			37.2			4.6				
Level of Service	C	C			D			A				
Approach Delay (s)		25.8			37.2			4.6			0.0	
Approach LOS		C			D			A			A	

Intersection Summary

HCM Average Control Delay	5.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

13: Bercut Dr & Bannon St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	←
Volume (veh/h)	42	676	2	678	820	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	42	676	2	678	820	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	512					
pX, platoon unblocked						
vC, conflicting volume			718		1062	380
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			718		1062	380
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		0	100
cM capacity (veh/h)			883		247	667

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	718	680	821
Volume Left	0	2	820
Volume Right	676	0	1
cSH	1700	883	247
Volume to Capacity	0.42	0.00	3.32
Queue Length 95th (ft)	0	0	Err
Control Delay (s)	0.0	0.1	Err
Lane LOS		A	F
Approach Delay (s)	0.0	0.1	Err
Approach LOS			F

Intersection Summary			
Average Delay		3699.5	
Intersection Capacity Utilization		96.2%	ICU Level of Service F
Analysis Period (min)		15	
Description: SB coded as EB			

HCM Signalized Intersection Capacity Analysis

17: N B Street & 5th St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Volume (vph)	154	0	0	133	481	679
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.5	4.5
Lane Util. Factor	1.00			1.00	1.00	0.88
Fr _t	1.00			1.00	1.00	0.85
Fl _t Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	1863			1863	1770	2787
Fl _t Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	1863			1863	1770	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	154	0	0	133	481	679
RTOR Reduction (vph)	0	0	0	0	0	194
Lane Group Flow (vph)	154	0	0	133	481	485
Turn Type						Perm
Protected Phases	4			8	2	
Permitted Phases						2
Actuated Green, G (s)	14.3			14.3	57.2	57.2
Effective Green, g (s)	14.3			14.3	57.2	57.2
Actuated g/C Ratio	0.18			0.18	0.72	0.72
Clearance Time (s)	4.0			4.0	4.5	4.5
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	333			333	1266	1993
v/s Ratio Prot	c0.08			0.07	c0.27	
v/s Ratio Perm						0.17
v/c Ratio	0.46			0.40	0.38	0.24
Uniform Delay, d ₁	29.4			29.1	4.5	3.9
Progression Factor	1.00			0.88	0.72	0.20
Incremental Delay, d ₂	1.0			0.8	0.9	0.3
Delay (s)	30.4			26.4	4.1	1.1
Level of Service	C			C	A	A
Approach Delay (s)	30.4			26.4	2.3	
Approach LOS	C			C	A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

18: North B St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	692	91	127	298	161	80	0	0	0	96	331	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0						4.0	
Lane Util. Factor	0.91	0.91		0.95	0.95						0.95	
Frt	1.00	0.97		1.00	0.96						0.99	
Flt Protected	0.95	0.97		0.95	0.99						0.99	
Satd. Flow (prot)	1610	3178		1681	1682						3467	
Flt Permitted	0.52	0.64		0.38	0.88						0.99	
Satd. Flow (perm)	882	2092		673	1496						3467	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	692	91	127	298	161	80	0	0	0	96	331	31
RTOR Reduction (vph)	0	44	0	0	26	0	0	0	0	0	5	0
Lane Group Flow (vph)	346	520	0	259	254	0	0	0	0	0	453	0
Turn Type	Perm			Perm							Perm	
Protected Phases		4			8							6
Permitted Phases	4			8						6		
Actuated Green, G (s)	39.1	39.1		39.1	39.1							32.9
Effective Green, g (s)	39.1	39.1		39.1	39.1							32.9
Actuated g/C Ratio	0.49	0.49		0.49	0.49							0.41
Clearance Time (s)	4.0	4.0		4.0	4.0							4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0							3.0
Lane Grp Cap (vph)	431	1022		329	731							1426
v/s Ratio Prot												
v/s Ratio Perm	c0.39	0.25		0.38	0.17							0.13
v/c Ratio	0.80	0.51		0.79	0.35							0.32
Uniform Delay, d1	17.2	13.9		17.0	12.6							15.9
Progression Factor	0.57	0.52		1.00	1.00							1.00
Incremental Delay, d2	10.1	0.4		11.8	0.3							0.6
Delay (s)	19.9	7.6		28.7	12.9							16.5
Level of Service	B	A		C	B							B
Approach Delay (s)		12.3			20.5			0.0				16.5
Approach LOS		B			C			A				B

Intersection Summary

HCM Average Control Delay	15.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

19: North B St & 10th St

6/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Volume (veh/h)	66	291	539	74	191	122
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	66	291	539	74	191	122
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		1285	841			
pX, platoon unblocked						
vC, conflicting volume	613				854	306
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	613				854	306
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				31	82
cM capacity (veh/h)	962				278	689

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	163	194	359	254	313
Volume Left	66	0	0	0	191
Volume Right	0	0	0	74	122
cSH	962	1700	1700	1700	362
Volume to Capacity	0.07	0.11	0.21	0.15	0.87
Queue Length 95th (ft)	6	0	0	0	205
Control Delay (s)	4.0	0.0	0.0	0.0	53.9
Lane LOS	A				F
Approach Delay (s)	1.8		0.0		53.9
Approach LOS					F

Intersection Summary					
Average Delay			13.7		
Intersection Capacity Utilization			55.3%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis

20: North B St & 12th Street

6/17/2007



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↖↗	
Volume (vph)	37	325	179	131	149	31	4	27	19	55	2013	425
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.98			0.97			0.98	
Flpb, ped/bikes		1.00		0.98	1.00			1.00			0.91	
Frt		0.95		1.00	0.97			0.95			0.97	
Flt Protected		1.00		0.95	1.00			1.00			0.96	
Satd. Flow (prot)		3340		1741	1786			1715			5665	
Flt Permitted		0.92		0.25	1.00			1.00			0.96	
Satd. Flow (perm)		3087		450	1786			1715			5665	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	37	325	179	131	149	31	4	27	19	55	2013	425
RTOR Reduction (vph)	0	61	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	0	480	0	131	180	0	0	33	0	0	2493	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		23.0		23.0	23.0			11.8			38.2	
Effective Green, g (s)		23.0		23.0	23.0			11.8			41.2	
Actuated g/C Ratio		0.23		0.23	0.23			0.12			0.41	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)		710		104	411			202			2334	
v/s Ratio Prot					0.10							
v/s Ratio Perm		0.16		0.29				0.02			0.44	
v/c Ratio		0.68		1.26	0.44			0.16			1.07	
Uniform Delay, d1		35.1		38.5	33.0			39.7			29.4	
Progression Factor		1.00		0.98	0.99			1.00			0.76	
Incremental Delay, d2		3.3		165.2	1.3			0.8			39.1	
Delay (s)		38.4		203.0	33.8			40.5			61.5	
Level of Service		D		F	C			D			E	
Approach Delay (s)		38.4			105.1			40.5			61.5	
Approach LOS		D			F			D			E	

Intersection Summary

HCM Average Control Delay	61.5	HCM Level of Service	E
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	95.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: North B St & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			↰			↰↱↲				
Volume (vph)	393	59	0	0	94	5	181	3796	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.99			1.00				
Flpb, ped/bikes	0.91	0.93			1.00			1.00				
Frt	1.00	1.00			0.99			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1525	1588			1839			6372				
Flt Permitted	0.67	0.69			1.00			1.00				
Satd. Flow (perm)	1076	1143			1839			6372				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	393	59	0	0	94	5	181	3796	9	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	220	232	0	0	99	0	0	3986	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm			Perm						Perm		
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	20.0	20.0			20.0			72.0				
Effective Green, g (s)	20.0	20.0			20.0			72.0				
Actuated g/C Ratio	0.20	0.20			0.20			0.72				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	215	229			368			4588				
v/s Ratio Prot					0.05							
v/s Ratio Perm	c0.20	0.20						0.63				
v/c Ratio	1.02	1.01			0.27			0.87				
Uniform Delay, d1	40.0	40.0			33.8			10.5				
Progression Factor	0.56	0.56			1.00			0.91				
Incremental Delay, d2	60.1	55.7			1.8			1.8				
Delay (s)	82.5	78.0			35.6			11.3				
Level of Service	F	E			D			B				
Approach Delay (s)		80.2			35.6			11.3			0.0	
Approach LOS		F			D			B			A	

Intersection Summary

HCM Average Control Delay	18.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 22: South Park St & Bercut Dr

6/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	171	211	331	32	184	156
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	171	211	331	32	184	156
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	171	211	363	184	156	
Volume Left (vph)	171	0	0	184	0	
Volume Right (vph)	0	211	32	0	0	
Hadj (s)	0.53	-0.67	-0.02	0.53	0.03	
Departure Headway (s)	7.0	5.8	5.9	6.7	6.2	
Degree Utilization, x	0.33	0.34	0.60	0.34	0.27	
Capacity (veh/h)	489	588	586	514	554	
Control Delay (s)	12.2	10.5	17.2	12.0	10.3	
Approach Delay (s)	11.3		17.2	11.2		
Approach LOS	B		C	B		
Intersection Summary						
Delay			13.3			
HCM Level of Service			B			
Intersection Capacity Utilization			49.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

23: South Park St & 5th St

6/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗			↖↗↗		
Volume (vph)	241	0	5	919	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5			4.5		
Lane Util. Factor	0.97			0.91		
Frt	1.00			1.00		
Flt Protected	0.95			1.00		
Satd. Flow (prot)	3433			5084		
Flt Permitted	0.95			1.00		
Satd. Flow (perm)	3433			5084		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	241	0	5	919	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	241	0	0	924	0	0
Turn Type	Perm					
Protected Phases	4			2		
Permitted Phases	4			2		
Actuated Green, G (s)	14.4			56.6		
Effective Green, g (s)	14.4			56.6		
Actuated g/C Ratio	0.18			0.71		
Clearance Time (s)	4.5			4.5		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	618			3597		
v/s Ratio Prot	c0.07					
v/s Ratio Perm	0.18					
v/c Ratio	0.39			0.26		
Uniform Delay, d1	28.9			4.2		
Progression Factor	1.00			0.28		
Incremental Delay, d2	0.4			0.1		
Delay (s)	29.3			1.3		
Level of Service	C			A		
Approach Delay (s)	29.3			1.3		0.0
Approach LOS	C			A		A

Intersection Summary

HCM Average Control Delay	7.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

26: Railyards Blvd & Jibboom St

6/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	830	613	17	223	285	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.87		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	1629		1770	1863
Flt Permitted	0.95	1.00	1.00		0.52	1.00
Satd. Flow (perm)	1770	1583	1629		978	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	830	613	17	223	285	32
RTOR Reduction (vph)	0	281	142	0	0	0
Lane Group Flow (vph)	830	332	98	0	285	32
Turn Type		Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	
Actuated Green, G (s)	46.0	46.0	31.0		31.0	31.0
Effective Green, g (s)	46.0	46.0	31.0		31.0	31.0
Actuated g/C Ratio	0.54	0.54	0.36		0.36	0.36
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	958	857	594		357	679
v/s Ratio Prot	c0.47		0.06			0.02
v/s Ratio Perm		0.21			c0.29	
v/c Ratio	0.87	0.39	0.17		0.80	0.05
Uniform Delay, d1	16.8	11.3	18.3		24.2	17.5
Progression Factor	0.72	1.01	1.00		1.00	1.00
Incremental Delay, d2	6.7	0.8	0.1		16.8	0.1
Delay (s)	18.8	12.2	18.4		41.0	17.6
Level of Service	B	B	B		D	B
Approach Delay (s)	16.0		18.4			38.7
Approach LOS	B		B			D

Intersection Summary

HCM Average Control Delay	19.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/17/2007



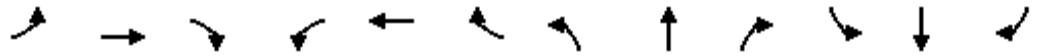
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	→		↰	↕	↕	↰	→		↰	→	
Volume (vph)	26	217	264	6	859	121	416	216	5	6	153	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.92		1.00	0.98		1.00	1.00		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1709		1770	3474		1770	1856		1770	1717	
Flt Permitted	0.13	1.00		0.24	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	243	1709		442	3474		1770	1856		1770	1717	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	217	264	6	859	121	416	216	5	6	153	167
RTOR Reduction (vph)	0	47	0	0	11	0	0	1	0	0	49	0
Lane Group Flow (vph)	26	434	0	6	969	0	416	220	0	6	271	0
Turn Type	Perm		Perm		Split		Split					
Protected Phases	2		6		3		3		4		4	
Permitted Phases	2		6									
Actuated Green, G (s)	30.7	30.7		30.7	30.7		22.7	22.7		19.6	19.6	
Effective Green, g (s)	30.7	30.7		30.7	30.7		22.7	22.7		19.6	19.6	
Actuated g/C Ratio	0.36	0.36		0.36	0.36		0.27	0.27		0.23	0.23	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	88	617		160	1255		473	496		408	396	
v/s Ratio Prot		0.25			c0.28		c0.24	0.12		0.00	c0.16	
v/s Ratio Perm	0.11			0.01								
v/c Ratio	0.30	0.70		0.04	0.77		0.88	0.44		0.01	0.68	
Uniform Delay, d1	19.4	23.3		17.6	24.0		29.8	25.9		25.2	29.9	
Progression Factor	1.28	1.35		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.5	3.0		0.4	4.6		16.8	0.6		0.0	4.8	
Delay (s)	26.5	34.4		18.0	28.7		46.6	26.5		25.3	34.7	
Level of Service	C	C		B	C		D	C		C	C	
Approach Delay (s)		34.0			28.6			39.7			34.5	
Approach LOS		C			C			D			C	

Intersection Summary

HCM Average Control Delay	33.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 28: Railyards Blvd & Crocker St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↔	↔		↔	↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	33	67	47	134	193	249	208	146	102	60	59	109
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	33	67	47	134	193	249	208	146	102	60	59	109

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	67	81	231	346	208	248	60	168
Volume Left (vph)	33	0	134	0	208	0	60	0
Volume Right (vph)	0	47	0	249	0	102	0	109
Hadj (s)	0.28	-0.37	0.32	-0.47	0.53	-0.25	0.53	-0.42
Departure Headway (s)	7.7	7.1	7.1	6.3	7.4	6.7	7.8	6.9
Degree Utilization, x	0.14	0.16	0.45	0.60	0.43	0.46	0.13	0.32
Capacity (veh/h)	436	476	492	549	459	522	435	497
Control Delay (s)	10.8	10.2	14.6	17.2	14.7	14.0	10.8	11.9
Approach Delay (s)	10.4		16.2		14.3		11.6	
Approach LOS	B		C		B		B	

Intersection Summary	
Delay	14.2
HCM Level of Service	B
Intersection Capacity Utilization	56.2%
ICU Level of Service	B
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

29: Railyards Blvd & Stanford St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	187	43	44	457	206	119	10	5	137	21	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.97			0.96		1.00	0.95		1.00	0.97	
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1811			3374		1770	1770		1770	1809	
Flt Permitted	0.95	1.00			1.00		0.74	1.00		0.75	1.00	
Satd. Flow (perm)	1770	1811			3374		1379	1770		1393	1809	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	187	43	44	457	206	119	10	5	137	21	5
RTOR Reduction (vph)	0	11	0	0	51	0	0	4	0	0	4	0
Lane Group Flow (vph)	5	219	0	0	656	0	119	11	0	137	22	0
Turn Type	Split		Split				Perm		Perm			
Protected Phases	1	1		2	2			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	18.6	18.6			31.1		18.3	18.3		18.3	18.3	
Effective Green, g (s)	18.6	18.6			31.1		18.3	18.3		18.3	18.3	
Actuated g/C Ratio	0.23	0.23			0.39		0.23	0.23		0.23	0.23	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	412	421			1312		315	405		319	414	
v/s Ratio Prot	0.00	c0.12			c0.19			0.01			0.01	
v/s Ratio Perm							0.09			c0.10		
v/c Ratio	0.01	0.52			0.50		0.38	0.03		0.43	0.05	
Uniform Delay, d1	23.6	26.8			18.6		26.0	23.9		26.4	24.1	
Progression Factor	1.00	1.00			0.74		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	1.2			1.0		0.8	0.0		0.9	0.1	
Delay (s)	23.6	28.0			14.7		26.8	24.0		27.3	24.1	
Level of Service	C	C			B		C	C		C	C	
Approach Delay (s)		27.9			14.7			26.5			26.8	
Approach LOS		C			B			C			C	

Intersection Summary

HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

30: Railyards Blvd & 5th St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕				
Volume (vph)	5	325	0	0	431	205	276	715	176	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.0				
Lane Util. Factor	1.00	1.00			0.95			0.91				
Frt	1.00	1.00			0.95			0.98				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1770	1863			3368			4912				
Flt Permitted	0.95	1.00			1.00			0.99				
Satd. Flow (perm)	1770	1863			3368			4912				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	325	0	0	431	205	276	715	176	0	0	0
RTOR Reduction (vph)	0	0	0	0	74	0	0	28	0	0	0	0
Lane Group Flow (vph)	5	325	0	0	562	0	0	1139	0	0	0	0
Turn Type	Split						Split					
Protected Phases	4	4			8		2	2				
Permitted Phases					8			2				
Actuated Green, G (s)	18.4	18.4			18.6			30.0				
Effective Green, g (s)	18.4	18.4			18.6			30.0				
Actuated g/C Ratio	0.23	0.23			0.23			0.38				
Clearance Time (s)	4.5	4.5			4.5			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	407	428			783			1842				
v/s Ratio Prot	0.00	c0.17			c0.17			c0.23				
v/s Ratio Perm												
v/c Ratio	0.01	0.76			0.72			0.62				
Uniform Delay, d1	23.8	28.7			28.3			20.3				
Progression Factor	0.40	0.39			1.32			1.00				
Incremental Delay, d2	0.0	7.0			3.1			1.6				
Delay (s)	9.5	18.2			40.5			21.9				
Level of Service	A	B			D			C				
Approach Delay (s)		18.1			40.5			21.9			0.0	
Approach LOS		B			D			C			A	

Intersection Summary

HCM Average Control Delay	26.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

31: Railyards Blvd & Judah St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	496	5	5	540	96	125
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	496	5	5	540	96	125
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	298			284		
pX, platoon unblocked			0.84	0.84	0.84	
vC, conflicting volume			501	778	498	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			305	596	302	
tC, single (s)			4.1	6.8	6.9	
tC, 2 stage (s)						
tF (s)			2.2	3.5	3.3	
p0 queue free %			100	74	78	
cM capacity (veh/h)			1047	364	580	

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	NB 1
Volume Total	501	5	270	270	221
Volume Left	0	5	0	0	96
Volume Right	5	0	0	0	125
cSH	1700	1047	1700	1700	461
Volume to Capacity	0.29	0.00	0.16	0.16	0.48
Queue Length 95th (ft)	0	0	0	0	64
Control Delay (s)	0.0	8.5	0.0	0.0	19.8
Lane LOS		A			C
Approach Delay (s)	0.0	0.1			19.8
Approach LOS					C

Intersection Summary						
Average Delay			3.5			
Intersection Capacity Utilization			46.1%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻		↻	↕	↻	↻
Volume (vph)	616	5	112	342	203	378
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	0.95	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1861		1770	3539	1770	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	1861		1770	3539	1770	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	616	5	112	342	203	378
RTOR Reduction (vph)	0	0	0	0	0	297
Lane Group Flow (vph)	621	0	112	342	203	81
Turn Type			Prot			Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	42.8		8.0	54.8	17.2	17.2
Effective Green, g (s)	42.8		8.0	54.8	17.2	17.2
Actuated g/C Ratio	0.53		0.10	0.68	0.22	0.22
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	996		177	2424	381	340
v/s Ratio Prot	c0.33		c0.06	0.10	c0.11	
v/s Ratio Perm						0.05
v/c Ratio	0.62		0.63	0.14	0.53	0.24
Uniform Delay, d1	13.0		34.6	4.4	27.8	26.0
Progression Factor	0.35		0.80	1.53	1.00	1.00
Incremental Delay, d2	2.6		7.0	0.1	1.4	0.4
Delay (s)	7.2		34.7	6.9	29.3	26.3
Level of Service	A		C	A	C	C
Approach Delay (s)	7.2			13.7	27.4	
Approach LOS	A			B	C	

Intersection Summary

HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↕↗	↗
Volume (vph)	0	993	0	0	50	454
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		1.00			0.91	0.91
Frt		0.86			0.88	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		1611			2973	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		1611			2973	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	993	0	0	50	454
RTOR Reduction (vph)	0	764	0	0	135	135
Lane Group Flow (vph)	0	229	0	0	142	92
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		16.7			32.3	32.3
Effective Green, g (s)		16.7			32.3	32.3
Actuated g/C Ratio		0.21			0.40	0.40
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		336			1200	582
v/s Ratio Prot		c0.14			0.05	c0.06
v/s Ratio Perm						
v/c Ratio		0.68			0.12	0.16
Uniform Delay, d1		29.2			14.9	15.2
Progression Factor		5.68			1.19	1.45
Incremental Delay, d2		4.6			0.2	0.5
Delay (s)		170.6			18.0	22.6
Level of Service		F			B	C
Approach Delay (s)	170.6			0.0	20.0	
Approach LOS	F			A	C	

Intersection Summary

HCM Average Control Delay	119.9	HCM Level of Service	F
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	74.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

36: Camille Ln & Bercut Dr

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↖	↗		↖	↗	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	5	0	0	5	423	0	0	0	245	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	5	0	0	5	423	0	0	0	245	0	0

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	5	428	0	0	245	0
Volume Left (vph)	0	0	0	0	245	0
Volume Right (vph)	0	423	0	0	0	0
Hadj (s)	0.03	-0.56	0.00	0.00	0.53	0.00
Departure Headway (s)	5.2	4.1	5.8	5.8	6.0	5.5
Degree Utilization, x	0.01	0.49	0.00	0.00	0.41	0.00
Capacity (veh/h)	629	833	567	567	570	635
Control Delay (s)	8.3	11.1	7.6	7.6	11.9	7.3
Approach Delay (s)	8.3	11.1	0.0		11.9	
Approach LOS	A	B	A		B	

Intersection Summary	
Delay	11.4
HCM Level of Service	B
Intersection Capacity Utilization	46.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

37: F Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻↻↻	
Volume (vph)	0	25	23	90	5	0	0	0	0	415	623	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	
Lane Util. Factor		1.00		1.00	1.00						0.91	
Frt		0.94		1.00	1.00						1.00	
Flt Protected		1.00		0.95	1.00						0.98	
Satd. Flow (prot)		1742		1770	1863						4983	
Flt Permitted		1.00		0.95	1.00						0.98	
Satd. Flow (perm)		1742		1770	1863						4983	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	25	23	90	5	0	0	0	0	415	623	5
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	29	0	90	5	0	0	0	0	0	1042	0
Turn Type				Split							Perm	
Protected Phases		4		8	8							6
Permitted Phases										6		
Actuated Green, G (s)		19.0		22.0	22.0						47.0	
Effective Green, g (s)		19.0		22.0	22.0						47.0	
Actuated g/C Ratio		0.19		0.22	0.22						0.47	
Clearance Time (s)		4.0		4.0	4.0						4.0	
Lane Grp Cap (vph)		331		389	410						2342	
v/s Ratio Prot		c0.02		c0.05	0.00							
v/s Ratio Perm											0.21	
v/c Ratio		0.09		0.23	0.01						0.45	
Uniform Delay, d1		33.4		32.1	30.5						17.8	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		0.5		1.4	0.1						0.6	
Delay (s)		33.9		33.4	30.6						18.4	
Level of Service		C		C	C						B	
Approach Delay (s)		33.9			33.3			0.0			18.4	
Approach LOS		C			C			A			B	

Intersection Summary

HCM Average Control Delay	20.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↔	↔		↕↕↕				
Volume (vph)	293	5	0	0	96	1182	61	661	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0				
Lane Util. Factor		1.00			0.95	0.95		0.91				
Frt		1.00			0.87	0.85		1.00				
Flt Protected		0.95			1.00	1.00		1.00				
Satd. Flow (prot)		1775			1543	1504		5059				
Flt Permitted		0.21			1.00	1.00		1.00				
Satd. Flow (perm)		399			1543	1504		5059				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	293	5	0	0	96	1182	61	661	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	33	33	0	1	0	0	0	0
Lane Group Flow (vph)	0	298	0	0	619	593	0	726	0	0	0	0
Turn Type	Perm						Perm	custom				
Protected Phases		4			8							
Permitted Phases	4					8	2	2				
Actuated Green, G (s)		26.0			26.0	26.0		16.0				
Effective Green, g (s)		26.0			26.0	26.0		16.0				
Actuated g/C Ratio		0.52			0.52	0.52		0.32				
Clearance Time (s)		4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)		207			802	782		1619				
v/s Ratio Prot					0.40							
v/s Ratio Perm		c0.75				0.39		c0.14				
v/c Ratio		1.44			0.77	0.76		0.45				
Uniform Delay, d1		12.0			9.6	9.5		13.5				
Progression Factor		1.00			1.33	1.33		0.77				
Incremental Delay, d2		223.1			0.7	0.6		0.8				
Delay (s)		235.1			13.5	13.3		11.3				
Level of Service		F			B	B		B				
Approach Delay (s)		235.1			13.4			11.3			0.0	
Approach LOS		F			B			B			A	

Intersection Summary

HCM Average Control Delay	41.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕		↗	↘		↗	↘	
Volume (vph)	5	5	5	353	568	437	251	198	5	5	1399	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	
Frt		0.96			0.95		1.00	1.00		1.00	0.99	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750			3325		1770	1856		1770	1853	
Flt Permitted		0.64			0.86		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1142			2910		1770	1856		1770	1853	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	353	568	437	251	198	5	5	1399	50
RTOR Reduction (vph)	0	4	0	0	57	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	11	0	0	1301	0	251	202	0	5	1448	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		29.0			29.0		9.0	54.0		5.0	50.0	
Effective Green, g (s)		29.0			29.0		9.0	54.0		5.0	50.0	
Actuated g/C Ratio		0.29			0.29		0.09	0.54		0.05	0.50	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		331			844		159	1002		89	927	
v/s Ratio Prot							c0.14	0.11		0.00	c0.78	
v/s Ratio Perm		0.01			c0.45							
v/c Ratio		0.03			1.54		1.58	0.20		0.06	1.56	
Uniform Delay, d1		25.5			35.5		45.5	11.9		45.3	25.0	
Progression Factor		0.79			1.02		0.21	0.78		1.00	1.00	
Incremental Delay, d2		0.2			249.1		263.1	0.0		1.2	258.0	
Delay (s)		20.4			285.2		272.5	9.3		46.5	283.0	
Level of Service		C			F		F	A		D	F	
Approach Delay (s)		20.4			285.2			154.8			282.1	
Approach LOS		C			F			F			F	

Intersection Summary

HCM Average Control Delay	264.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	143.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↗
Volume (vph)	0	0	15	482	1026	0	0	0	0	0	737	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.5	4.0
Lane Util. Factor			1.00	0.91	0.91						0.95	1.00
Frbp, ped/bikes			1.00	1.00	1.00						1.00	1.00
Flpb, ped/bikes			1.00	1.00	1.00						1.00	1.00
Frt			0.86	1.00	1.00						1.00	0.85
Flt Protected			1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)			1611	1610	3383						3539	1583
Flt Permitted			1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)			1611	1610	3383						3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	482	1026	0	0	0	0	0	737	83
RTOR Reduction (vph)	0	0	7	28	6	0	0	0	0	0	0	33
Lane Group Flow (vph)	0	0	8	407	1068	0	0	0	0	0	737	50
Confl. Peds. (#/hr)						72						
Turn Type			custom	Perm								Perm
Protected Phases					1						2	
Permitted Phases			1	1								2
Actuated Green, G (s)			25.5	25.5	25.5						17.0	17.0
Effective Green, g (s)			25.5	25.0	25.5						16.5	17.0
Actuated g/C Ratio			0.51	0.50	0.51						0.33	0.34
Clearance Time (s)			3.5	3.5	3.5						4.0	4.0
Lane Grp Cap (vph)			822	805	1725						1168	538
v/s Ratio Prot											c0.21	
v/s Ratio Perm			0.00	0.25	0.32							0.03
v/c Ratio			0.01	0.50	0.62						0.63	0.09
Uniform Delay, d1			6.0	8.4	8.8						14.2	11.2
Progression Factor			1.00	0.47	0.52						0.75	0.85
Incremental Delay, d2			0.0	2.2	1.6						2.5	0.3
Delay (s)			6.1	6.2	6.2						13.0	9.8
Level of Service			A	A	A						B	A
Approach Delay (s)		6.1			6.2		0.0				12.7	
Approach LOS		A			A		A				B	

Intersection Summary

HCM Average Control Delay	8.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

41: G Street & 8th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Volume (vph)	0	0	0	0	709	52	372	352	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0				
Lane Util. Factor					0.91			0.91				
Frbp, ped/bikes					1.00			1.00				
Flpb, ped/bikes					1.00			0.97				
Frt					0.99			1.00				
Flt Protected					1.00			0.97				
Satd. Flow (prot)					5012			4827				
Flt Permitted					1.00			0.97				
Satd. Flow (perm)					5012			4827				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	709	52	372	352	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	17	0	0	72	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	744	0	0	652	0	0	0	0
Confl. Peds. (#/hr)						72	72					
Turn Type							Perm					
Protected Phases					1			2				
Permitted Phases							2					
Actuated Green, G (s)					21.9			21.1				
Effective Green, g (s)					21.4			20.6				
Actuated g/C Ratio					0.43			0.41				
Clearance Time (s)					3.5			3.5				
Lane Grp Cap (vph)					2145			1989				
v/s Ratio Prot					0.15							
v/s Ratio Perm								0.14				
v/c Ratio					0.35			0.33				
Uniform Delay, d1					9.6			10.0				
Progression Factor					0.88			0.35				
Incremental Delay, d2					0.4			0.3				
Delay (s)					8.9			3.8				
Level of Service					A			A				
Approach Delay (s)		0.0			8.9			3.8			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			6.4				HCM Level of Service				A	
HCM Volume to Capacity ratio			0.34									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)				8.0	
Intersection Capacity Utilization			55.7%				ICU Level of Service				B	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	59	381	0	0	0	0	0	1151	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.99	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.98	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					5013						4935	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					5013						4935	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	59	381	0	0	0	0	0	1151	172
RTOR Reduction (vph)	0	0	0	0	39	0	0	0	0	0	39	0
Lane Group Flow (vph)	0	0	0	0	401	0	0	0	0	0	1284	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1704						2073	
v/s Ratio Prot											c0.26	
v/s Ratio Perm					0.08							
v/c Ratio					0.24						0.62	
Uniform Delay, d1					11.8						11.4	
Progression Factor					1.00						1.69	
Incremental Delay, d2					0.3						0.1	
Delay (s)					12.2						19.4	
Level of Service					B						B	
Approach Delay (s)		0.0			12.2			0.0			19.4	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			17.6		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			41.9%		ICU Level of Service			A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

43: H Street & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖						↖↗				
Volume (vph)	5	30	0	0	0	0	30	722	402	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		1.00						0.91				
Frt		1.00						0.95				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1850						4813				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1850						4813				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	30	0	0	0	0	30	722	402	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	193	0	0	0	0
Lane Group Flow (vph)	0	35	0	0	0	0	0	961	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4					2	2				
Permitted Phases	4											
Actuated Green, G (s)		16.0						26.0				
Effective Green, g (s)		16.0						26.0				
Actuated g/C Ratio		0.32						0.52				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		592						2503				
v/s Ratio Prot								c0.20				
v/s Ratio Perm		0.02										
v/c Ratio		0.06						0.38				
Uniform Delay, d1		11.8						7.2				
Progression Factor		1.00						2.60				
Incremental Delay, d2		0.2						0.0				
Delay (s)		12.0						18.7				
Level of Service		B						B				
Approach Delay (s)		12.0			0.0			18.7			0.0	
Approach LOS		B			A			B			A	

Intersection Summary

HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	33.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	319	79	0	0	0	0	556	193	1197	866	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0	3.5	4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95	0.95	0.95	0.95	
Frbp, ped/bikes	1.00	0.97						0.99	0.85	1.00	1.00	
Flpb, ped/bikes	0.76	1.00						1.00	1.00	1.00	1.00	
Frt	1.00	0.97						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (prot)	1345	3329						1752	1274	1681	1754	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (perm)	1345	3329						1752	1274	1681	1754	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	556	193	1197	866	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	2	67	0	0	0
Lane Group Flow (vph)	4	376	0	0	0	0	0	574	107	1005	1058	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm						Perm Split					
Protected Phases	1						2 6 6					
Permitted Phases	1						2					
Actuated Green, G (s)	16.5	16.5						25.5	25.5	39.0	39.0	
Effective Green, g (s)	16.5	16.0						25.0	25.5	38.5	38.5	
Actuated g/C Ratio	0.16	0.16						0.25	0.26	0.38	0.38	
Clearance Time (s)	3.5	3.5						3.5	3.5	4.0	4.0	
Lane Grp Cap (vph)	222	533						438	325	647	675	
v/s Ratio Prot		c0.11						c0.33		0.60	c0.60	
v/s Ratio Perm	0.00								0.08			
v/c Ratio	0.02	0.71						1.31	0.33	1.55	1.57	
Uniform Delay, d1	35.0	39.8						37.5	30.3	30.8	30.8	
Progression Factor	1.13	1.19						1.07	1.29	0.81	0.81	
Incremental Delay, d2	0.1	7.2						150.5	1.9	249.7	256.0	
Delay (s)	39.7	54.3						190.8	40.9	274.7	281.0	
Level of Service	D	D						F	D	F	F	
Approach Delay (s)		54.2			0.0			155.9			277.9	
Approach LOS		D			A			F			F	

Intersection Summary

HCM Average Control Delay	221.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	112.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	1273	335	0	0	0	0	0	0	386	622	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.98								1.00	1.00	
Flpb, ped/bikes		1.00								0.93	0.99	
Frt		0.97								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3370								1494	3353	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3370								1494	3353	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1273	335	0	0	0	0	0	0	386	622	0
RTOR Reduction (vph)	0	47	0	0	0	0	0	0	0	99	14	0
Lane Group Flow (vph)	0	1561	0	0	0	0	0	0	0	225	670	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		19.5								18.5	18.5	
Effective Green, g (s)		19.0								18.0	18.0	
Actuated g/C Ratio		0.38								0.36	0.36	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1281								538	1207	
v/s Ratio Prot		0.46										
v/s Ratio Perm										0.15	0.20	
v/c Ratio		1.22								0.42	0.56	
Uniform Delay, d1		15.5								12.1	12.8	
Progression Factor		1.58								1.79	1.40	
Incremental Delay, d2		99.0								1.9	1.5	
Delay (s)		123.6								23.6	19.4	
Level of Service		F								C	B	
Approach Delay (s)		123.6			0.0			0.0			20.7	
Approach LOS		F			A			A			C	
Intersection Summary												
HCM Average Control Delay			83.9									HCM Level of Service F
HCM Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			50.0							13.0		Sum of lost time (s)
Intersection Capacity Utilization			72.5%									ICU Level of Service C
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↔↔↔				
Volume (vph)	172	1464	0	0	0	0	0	569	218	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.98				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.96				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		3494						4763				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		3494						4763				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	172	1464	0	0	0	0	0	569	218	0	0	0
RTOR Reduction (vph)	0	18	0	0	0	0	0	40	0	0	0	0
Lane Group Flow (vph)	0	1618	0	0	0	0	0	747	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		22.5						15.5				
Effective Green, g (s)		22.0						15.0				
Actuated g/C Ratio		0.44						0.30				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1537						1429				
v/s Ratio Prot								c0.16				
v/s Ratio Perm		0.46										
v/c Ratio		1.05						0.52				
Uniform Delay, d1		14.0						14.5				
Progression Factor		0.40						1.00				
Incremental Delay, d2		25.7						1.4				
Delay (s)		31.3						15.9				
Level of Service		C						B				
Approach Delay (s)		31.3			0.0			15.9			0.0	
Approach LOS		C			A			B			A	

Intersection Summary

HCM Average Control Delay	26.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	888	494	0	0	0	47	0	2072	21	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	0.99				1.00		1.00				
Satd. Flow (prot)	3221	1665				1611		5071				
Flt Permitted	0.95	0.99				1.00		1.00				
Satd. Flow (perm)	3221	1665				1611		5071				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	888	494	0	0	0	47	0	2072	21	0	0	0
RTOR Reduction (vph)	32	11	0	0	0	8	0	2	0	0	0	0
Lane Group Flow (vph)	767	572	0	0	0	39	0	2091	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	15.5	21.5				2.5		21.5				
Effective Green, g (s)	15.0	21.0				2.0		21.0				
Actuated g/C Ratio	0.30	0.42				0.04		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	966	699				64		2130				
v/s Ratio Prot	0.24	c0.25				0.02		c0.41				
v/s Ratio Perm		0.10										
v/c Ratio	0.79	0.82				0.61		0.98				
Uniform Delay, d1	16.1	12.8				23.6		14.3				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	6.7	10.3				36.9		15.7				
Delay (s)	22.8	23.1				60.6		30.0				
Level of Service	C	C				E		C				
Approach Delay (s)		22.9			60.6			30.0			0.0	
Approach LOS		C			E			C			A	
Intersection Summary												
HCM Average Control Delay			27.6				HCM Level of Service				C	
HCM Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			89.4%				ICU Level of Service			E		
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↑	↗	↘	↘
Volume (vph)	594	164	179	56	490	546
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.93	
Flt Protected	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (prot)	1770	1863	1863	1583	1690	
Flt Permitted	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (perm)	1770	1863	1863	1583	1690	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	594	164	179	56	490	546
RTOR Reduction (vph)	0	0	0	18	24	0
Lane Group Flow (vph)	594	164	179	38	1012	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	35.5	44.9	18.0	71.1	53.1	
Effective Green, g (s)	36.0	44.9	18.0	71.1	53.1	
Actuated g/C Ratio	0.30	0.38	0.15	0.60	0.45	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	535	702	282	998	753	
v/s Ratio Prot	c0.34	0.09	c0.10	0.02	c0.60	
v/s Ratio Perm				0.01		
v/c Ratio	1.11	0.23	0.63	0.04	1.34	
Uniform Delay, d1	41.6	25.3	47.5	9.9	33.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	72.7	0.3	5.7	0.0	163.4	
Delay (s)	114.3	25.6	53.2	9.9	196.4	
Level of Service	F	C	D	A	F	
Approach Delay (s)		95.1	42.9		196.4	
Approach LOS		F	D		F	

Intersection Summary

HCM Average Control Delay	140.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	119.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	3241	55	448	1022	0	0	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					1.00		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6217		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6217		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	3241	55	448	1022	0	0	0	50
RTOR Reduction (vph)	0	0	0	0	2	0	1	0	0	0	0	1
Lane Group Flow (vph)	0	0	0	0	3294	0	447	1022	0	0	0	49
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					65.0		26.5	26.5				26.5
Effective Green, g (s)					66.0		26.0	26.0				26.5
Actuated g/C Ratio					0.66		0.26	0.26				0.26
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					4103		893	874				739
v/s Ratio Prot					c0.53		0.13	c0.30				
v/s Ratio Perm												0.02
v/c Ratio					0.80		0.50	1.17				0.07
Uniform Delay, d1					12.3		31.5	37.0				27.5
Progression Factor					1.54		0.96	0.94				1.00
Incremental Delay, d2					0.2		1.7	86.6				0.2
Delay (s)					19.1		31.9	121.5				27.7
Level of Service					B		C	F				C
Approach Delay (s)		0.0			19.1			94.2			27.7	
Approach LOS		A			B			F			C	

Intersection Summary

HCM Average Control Delay	42.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑		↑	←↑↑			↑	↑
Volume (vph)	0	0	0	41	2019	268	292	339	0	0	21	1126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.98		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.98		1.00	1.00			0.86	0.85
Flt Protected					1.00		0.95	0.99			1.00	1.00
Satd. Flow (prot)					4884		1610	3356			1514	1504
Flt Permitted					1.00		0.95	0.99			1.00	1.00
Satd. Flow (perm)					4884		1610	3356			1514	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	41	2019	268	292	339	0	0	21	1126
RTOR Reduction (vph)	0	0	0	0	17	0	0	0	0	0	17	17
Lane Group Flow (vph)	0	0	0	0	2311	0	204	427	0	0	556	557
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					66.5		13.5	13.5			9.5	9.5
Effective Green, g (s)					66.0		13.0	13.0			9.0	9.0
Actuated g/C Ratio					0.66		0.13	0.13			0.09	0.09
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					3223		209	436			136	135
v/s Ratio Prot							0.13	c0.13			0.37	c0.37
v/s Ratio Perm					0.47							
v/c Ratio					0.72		0.98	0.98			4.09	4.12
Uniform Delay, d1					11.0		43.3	43.4			45.5	45.5
Progression Factor					0.68		1.06	1.06			1.29	1.29
Incremental Delay, d2					1.1		55.0	37.3			1390.3	1407.3
Delay (s)					8.6		100.9	83.4			1448.8	1465.8
Level of Service					A		F	F			F	F
Approach Delay (s)		0.0			8.6			89.1			1457.3	
Approach LOS		A			A			F			F	

Intersection Summary

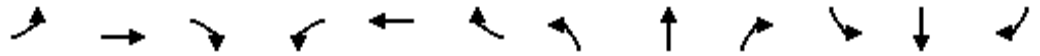
HCM Average Control Delay	425.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	134.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔						↕	↗
Volume (vph)	0	0	0	229	1666	0	0	0	0	0	765	543
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.86	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1303	4793						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1303	4793						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	229	1666	0	0	0	0	0	765	543
RTOR Reduction (vph)	0	0	0	93	1	0	0	0	0	0	0	157
Lane Group Flow (vph)	0	0	0	113	1688	0	0	0	0	0	765	386
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				55.5	55.5						27.5	27.5
Effective Green, g (s)				55.0	55.0						27.0	27.0
Actuated g/C Ratio				0.55	0.55						0.27	0.27
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				717	2636						956	752
v/s Ratio Prot											c0.22	
v/s Ratio Perm				0.09	0.35							0.14
v/c Ratio				0.16	0.64						0.80	0.51
Uniform Delay, d1				11.1	15.6						34.0	30.9
Progression Factor				1.00	1.00						0.97	0.97
Incremental Delay, d2				0.5	1.2						5.8	2.1
Delay (s)				11.6	16.8						38.8	32.0
Level of Service				B	B						D	C
Approach Delay (s)		0.0			16.3			0.0			36.0	
Approach LOS		A			B			A			D	
Intersection Summary												
HCM Average Control Delay			24.3		HCM Level of Service						C	
HCM Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			18.0				
Intersection Capacity Utilization			58.8%		ICU Level of Service						B	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	1	1187	433	229	294	425	2	491	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.99		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6060		2787	3433	1863	1585	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6060		2787	3433	1863	1585	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	1187	433	229	294	425	2	491	450
RTOR Reduction (vph)	0	0	0	84	0	0	0	109	0
Lane Group Flow (vph)	0	1621	0	145	294	425	316	518	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		25.0		23.6	23.6	23.6	25.5	25.5	
Effective Green, g (s)		25.0		23.1	23.1	23.1	25.5	25.5	
Actuated g/C Ratio		0.29		0.27	0.27	0.27	0.30	0.30	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1770		752	926	503	472	859	
v/s Ratio Prot		c0.27				c0.23	c0.20	0.18	
v/s Ratio Perm				0.05	0.09				
v/c Ratio		0.92		0.19	0.32	0.84	0.67	0.60	
Uniform Delay, d1		29.3		24.1	25.0	29.6	26.4	25.7	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		8.9		0.0	0.1	11.9	3.9	1.4	
Delay (s)		38.2		24.1	25.0	41.4	30.3	27.1	
Level of Service		D		C	C	D	C	C	
Approach Delay (s)		38.2				34.7	28.2		
Approach LOS		D				C	C		

Intersection Summary

HCM Average Control Delay	33.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	85.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔↔↔	↔					↕↕	↔			
Volume (vph)	774	1160	130	0	0	0	0	645	459	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.96					0.99	0.96			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.98	0.85			
Flt Protected	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (prot)	1290	5961	1520					3288	1387			
Flt Permitted	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (perm)	1290	5961	1520					3288	1387			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	774	1160	130	0	0	0	0	645	459	0	0	0
RTOR Reduction (vph)	84	84	75	0	0	0	0	12	12	0	0	0
Lane Group Flow (vph)	303	1463	55	0	0	0	0	757	323	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0			
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0			
Actuated g/C Ratio	0.42	0.42	0.42					0.42	0.42			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	542	2504	638					1381	583			
v/s Ratio Prot	0.24	c0.25						0.23				
v/s Ratio Perm			0.04						c0.23			
v/c Ratio	0.56	0.58	0.09					0.55	0.55			
Uniform Delay, d1	11.0	11.1	8.7					10.9	11.0			
Progression Factor	1.00	1.00	1.00					1.00	1.00			
Incremental Delay, d2	4.1	1.0	0.3					0.2	0.7			
Delay (s)	15.1	12.2	9.0					11.2	11.6			
Level of Service	B	B	A					B	B			
Approach Delay (s)		12.5			0.0			11.3			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			12.1					HCM Level of Service		B		
HCM Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		8.0		
Intersection Capacity Utilization			99.5%					ICU Level of Service		F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖↖						↖		↖		
Volume (vph)	306	1300	0	0	0	0	0	160	192	67	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.98		1.00		
Flpb, ped/bikes	0.96	1.00						1.00		0.98		
Frt	1.00	1.00						0.93		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1463	4796						1687		1740		
Flt Permitted	0.95	1.00						1.00		0.43		
Satd. Flow (perm)	1463	4796						1687		796		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	306	1300	0	0	0	0	0	160	192	67	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	18	0	0	0	0
Lane Group Flow (vph)	275	1331	0	0	0	0	0	334	0	67	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	24.5	24.5						18.5		18.5		
Effective Green, g (s)	24.0	24.0						18.0		18.0		
Actuated g/C Ratio	0.48	0.48						0.36		0.36		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	702	2302						607		287		
v/s Ratio Prot							c0.20					
v/s Ratio Perm	0.19	0.28								0.08		
v/c Ratio	0.39	0.58						0.55		0.23		
Uniform Delay, d1	8.3	9.4						12.8		11.2		
Progression Factor	1.41	1.43						1.00		0.60		
Incremental Delay, d2	1.3	0.9						3.6		0.2		
Delay (s)	13.1	14.2						16.3		6.9		
Level of Service	B								B		A	
Approach Delay (s)	14.0		0.0				16.3				6.9	
Approach LOS	B		A				B				A	

Intersection Summary

HCM Average Control Delay	14.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	134.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	1310	323	0	0	0	0	0	0	256	709	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.91									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.99	
Frt		0.97									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		4894									4979	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		4894									4979	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1310	323	0	0	0	0	0	0	256	709	0
RTOR Reduction (vph)	0	85	0	0	0	0	0	0	0	0	86	0
Lane Group Flow (vph)	0	1548	0	0	0	0	0	0	0	0	879	0
Confl. Peds. (#/hr)			36							36		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		21.5									16.5	
Effective Green, g (s)		21.0									16.0	
Actuated g/C Ratio		0.42									0.32	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		2055									1593	
v/s Ratio Prot		0.32										
v/s Ratio Perm											0.18	
v/c Ratio		0.75									0.55	
Uniform Delay, d1		12.3									14.0	
Progression Factor		1.60									0.56	
Incremental Delay, d2		2.2									1.0	
Delay (s)		22.0									8.9	
Level of Service		C									A	
Approach Delay (s)		22.0			0.0			0.0			8.9	
Approach LOS		C			A			A			A	
Intersection Summary												
HCM Average Control Delay			17.1		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				13.0			
Intersection Capacity Utilization			58.7%		ICU Level of Service					B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/17/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	398	584	725	132	272	58	593	465	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.0	4.5	4.0	3.5	4.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.98	0.85	0.85	1.00	1.00	0.93		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1657	1504	1583	1770	3539	4730		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1657	1504	1583	1770	3539	4730		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	398	584	725	132	272	58	593	465	52
RTOR Reduction (vph)	0	0	0	53	0	0	5	0	0
Lane Group Flow (vph)	358	718	631	79	272	58	1105	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		6			3	8	4		
Permitted Phases	6	6	6	6					
Actuated Green, G (s)	60.0	60.0	60.0	60.0	11.0	32.5	17.5		
Effective Green, g (s)	59.5	59.5	60.0	59.5	11.0	32.5	17.0		
Actuated g/C Ratio	0.60	0.60	0.60	0.60	0.11	0.32	0.17		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	3.5		
Lane Grp Cap (vph)	1000	986	902	942	195	1150	804		
v/s Ratio Prot					c0.15	0.02	c0.23		
v/s Ratio Perm	0.21	0.43	0.42	0.05					
v/c Ratio	0.36	0.73	0.70	0.08	1.39	0.05	1.85dr		
Uniform Delay, d1	10.4	14.5	13.8	8.6	44.5	23.2	41.5		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	1.0	4.7	4.5	0.2	205.8	0.1	176.3		
Delay (s)	11.4	19.2	18.3	8.8	250.3	23.2	217.8		
Level of Service	B	B	B	A	F	C	F		
Approach Delay (s)		16.6				210.4	217.8		
Approach LOS		B				F	F		

Intersection Summary

HCM Average Control Delay	104.2	HCM Level of Service	F
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	1484	189	324	852	0	0	0	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				4.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.98		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6240		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6240		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1484	189	324	852	0	0	0	59
RTOR Reduction (vph)	0	0	0	0	33	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1640	0	324	852	0	0	0	59
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					20.0		40.5	40.5				40.5
Effective Green, g (s)					21.0		41.0	41.0				41.0
Actuated g/C Ratio					0.30		0.59	0.59				0.59
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					1872		956	2978				1489
v/s Ratio Prot					c0.26			0.17				
v/s Ratio Perm							c0.20					0.02
v/c Ratio					0.88		0.34	0.29				0.04
Uniform Delay, d1					23.3		7.5	7.2				6.1
Progression Factor					1.00		0.90	0.92				1.00
Incremental Delay, d2					6.1		0.9	0.2				0.0
Delay (s)					29.4		7.6	6.9				6.2
Level of Service					C		A	A				A
Approach Delay (s)		0.0			29.4			7.1			6.2	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	19.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	↘
Volume (vph)	0	0	0	141	1384	0	0	0	0	0	680	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.99	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.96	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4828	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4828	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	141	1384	0	0	0	0	0	680	223
RTOR Reduction (vph)	0	0	0	99	0	0	0	0	0	0	100	0
Lane Group Flow (vph)	0	0	0	42	1384	0	0	0	0	0	803	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						22.5	
Effective Green, g (s)				15.0	15.0						22.0	
Actuated g/C Ratio				0.30	0.30						0.44	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2124	
v/s Ratio Prot					c0.27						c0.17	
v/s Ratio Perm				0.03								
v/c Ratio				0.08	0.91						0.38	
Uniform Delay, d1				12.6	16.8						9.4	
Progression Factor				1.00	1.00						0.98	
Incremental Delay, d2				0.0	7.9						0.4	
Delay (s)				12.6	24.8						9.6	
Level of Service				B	C						A	
Approach Delay (s)		0.0			23.6			0.0			9.6	
Approach LOS		A			C			A			A	

Intersection Summary

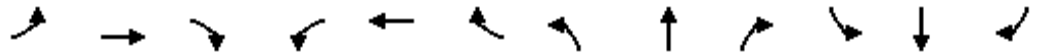
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	428	209	0	0	344	83	279	762	44	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.98		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.97		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4858		3433	5020				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4858		3433	5020				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	428	209	0	0	344	83	279	762	44	0	0	0
RTOR Reduction (vph)	0	0	0	0	56	0	0	9	0	0	0	0
Lane Group Flow (vph)	428	209	0	0	371	0	279	797	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot					custom						
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		31.0	31.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.44	0.44				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			972		1520	2223				
v/s Ratio Prot	c0.12	0.06			c0.08		0.08	c0.16				
v/s Ratio Perm												
v/c Ratio	0.67	0.13			0.38		0.18	0.36				
Uniform Delay, d1	26.5	11.5			24.3		11.8	12.9				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	5.5	0.2			1.1		0.3	0.5				
Delay (s)	32.1	11.7			25.4		12.1	13.4				
Level of Service	C	B			C		B	B				
Approach Delay (s)		25.4			25.4			13.0			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

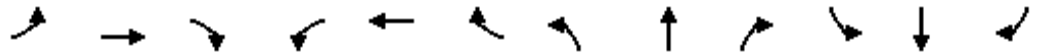
HCM Average Control Delay	19.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑↑
Volume (vph)	0	0	0	163	2357	0	0	0	0	0	522	677
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.86	0.86
Frbp, ped/bikes					1.00						0.99	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.97	0.85
Flt Protected					1.00						1.00	1.00
Satd. Flow (prot)					4900						2917	2374
Flt Permitted					1.00						1.00	1.00
Satd. Flow (perm)					4900						2917	2374
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	163	2357	0	0	0	0	0	522	677
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	1	3
Lane Group Flow (vph)	0	0	0	0	2504	0	0	0	0	0	636	559
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2646						875	712
v/s Ratio Prot					c0.51						0.22	
v/s Ratio Perm												c0.24
v/c Ratio					0.95						0.73	0.79
Uniform Delay, d1					10.8						15.7	16.0
Progression Factor					1.00						0.94	1.02
Incremental Delay, d2					8.8						3.0	4.9
Delay (s)					19.6						17.6	21.2
Level of Service					B						B	C
Approach Delay (s)		0.0			19.6			0.0			19.3	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	649	77	0	0	0	0	0	0	184	532	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.98	
Frt		0.98									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6272									4928	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6272									4928	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	649	77	0	0	0	0	0	0	184	532	0
RTOR Reduction (vph)	0	35	0	0	0	0	0	0	0	0	125	0
Lane Group Flow (vph)	0	691	0	0	0	0	0	0	0	0	591	0
Confl. Peds. (#/hr)			72								72	
Parking (#/hr)											0	0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3387									1478	
v/s Ratio Prot		c0.11										
v/s Ratio Perm											0.12	
v/c Ratio		0.20									0.40	
Uniform Delay, d1		5.9									13.9	
Progression Factor		1.00									0.61	
Incremental Delay, d2		0.1									0.5	
Delay (s)		6.1									9.0	
Level of Service		A									A	
Approach Delay (s)		6.1			0.0			0.0			9.0	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑					↑	↑	↑
Volume (vph)	0	494	87	389	340	0	0	0	0	930	0	431
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95		0.97	1.00					0.95	0.95	1.00
Frbp, ped/bikes		0.98		1.00	1.00					1.00	1.00	0.85
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	1.00
Frt		0.98		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3386		3433	1863					1681	1681	1338
Flt Permitted		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3386		3433	1863					1681	1681	1338
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	494	87	389	340	0	0	0	0	930	0	431
RTOR Reduction (vph)	0	18	0	0	0	0	0	0	0	0	0	307
Lane Group Flow (vph)	0	563	0	389	340	0	0	0	0	465	465	124
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9	3 12 13					4	4	
Permitted Phases												4
Actuated Green, G (s)		18.6		27.9	49.5					23.0	23.0	23.0
Effective Green, g (s)		18.6		26.4	49.0					23.0	23.0	23.0
Actuated g/C Ratio		0.23		0.33	0.61					0.29	0.29	0.29
Clearance Time (s)		4.0								4.0	4.0	4.0
Vehicle Extension (s)		6.0								5.0	5.0	5.0
Lane Grp Cap (vph)		787		1133	1141					483	483	385
v/s Ratio Prot		c0.17		c0.11	0.18					c0.28	0.28	
v/s Ratio Perm												0.09
v/c Ratio		0.72		0.34	0.30					0.96	0.96	0.32
Uniform Delay, d1		28.3		20.3	7.3					28.1	28.1	22.4
Progression Factor		1.00		0.33	0.86					1.00	1.00	1.00
Incremental Delay, d2		4.5		0.3	0.3					31.9	31.9	1.0
Delay (s)		32.7		7.1	6.6					59.9	59.9	23.4
Level of Service		C		A	A					E	E	C
Approach Delay (s)		32.7			6.9			0.0			48.4	
Approach LOS		C			A			A			D	

Intersection Summary

HCM Average Control Delay	33.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	108.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗↗		↕	↗			
Volume (vph)	183	1265	0	0	675	383	59	0	1041	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	0.88		0.95	0.95			
Frpb, ped/bikes	1.00	1.00			1.00	0.62		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.87	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)	1770	3539			3539	1716		1525	1504			
Flt Permitted	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)	1770	3539			3539	1716		1525	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	183	1265	0	0	675	383	59	0	1041	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	247	0	172	14	0	0	0
Lane Group Flow (vph)	183	1265	0	0	675	136	0	376	538	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot					custom	Split		custom			
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	11.5	36.3			31.9	28.4		25.6	36.7			
Effective Green, g (s)	11.0	35.8			28.4	28.4		25.1	31.7			
Actuated g/C Ratio	0.14	0.45			0.36	0.36		0.31	0.40			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	243	1584			1256	609		478	596			
v/s Ratio Prot	0.10	c0.36			0.19	0.02		0.25	c0.36			
v/s Ratio Perm						0.06						
v/c Ratio	0.75	0.80			0.54	0.22		0.79	0.90			
Uniform Delay, d1	33.2	19.0			20.6	18.1		25.0	22.7			
Progression Factor	1.24	0.19			0.79	1.12		1.00	1.00			
Incremental Delay, d2	7.5	1.6			0.8	0.4		9.6	17.8			
Delay (s)	48.5	5.3			17.1	20.6		34.6	40.5			
Level of Service	D	A			B	C		C	D			
Approach Delay (s)		10.8			18.4			37.5			0.0	
Approach LOS		B			B			D			A	

Intersection Summary

HCM Average Control Delay	21.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	108.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	206	1658	530	29	796	48	183	23	9	47	26	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	0.98		1.00	0.99			1.00	0.95		1.00	1.00
Flpb, ped/bikes	0.99	1.00		1.00	1.00			1.00	1.00		0.98	1.00
Frt	1.00	0.96		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1759	3344		1770	5006			1784	1502		1773	1583
Flt Permitted	0.27	1.00		0.09	1.00			0.70	1.00		0.73	1.00
Satd. Flow (perm)	504	3344		167	5006			1300	1502		1342	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	206	1658	530	29	796	48	183	23	9	47	26	110
RTOR Reduction (vph)	0	31	0	0	7	0	0	0	7	0	0	85
Lane Group Flow (vph)	206	2157	0	29	837	0	0	206	2	0	73	25
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	53.5	53.5		43.9	43.9			18.4	18.4		18.4	18.4
Effective Green, g (s)	53.0	54.1		44.5	44.5			17.9	17.9		17.9	17.9
Actuated g/C Ratio	0.66	0.68		0.56	0.56			0.22	0.22		0.22	0.22
Clearance Time (s)	3.5	4.6		4.6	4.6			3.5	3.5		3.5	3.5
Vehicle Extension (s)	0.2	0.2		0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	422	2261		93	2785			291	336		300	354
v/s Ratio Prot	0.03	c0.64			0.17							
v/s Ratio Perm	0.29			0.17				c0.16	0.00		0.05	0.02
v/c Ratio	0.49	0.95		0.31	0.30			0.71	0.01		0.24	0.07
Uniform Delay, d1	5.7	11.8		9.5	9.5			28.6	24.1		25.5	24.5
Progression Factor	0.68	0.66		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.2	6.9		8.5	0.3			6.3	0.0		0.2	0.0
Delay (s)	4.0	14.7		18.1	9.7			34.9	24.1		25.6	24.5
Level of Service	A	B		B	A			C	C		C	C
Approach Delay (s)		13.8			10.0			34.5			25.0	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	109.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & 5th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1586	12	10	860	28	17	0	7	20	1	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.96		1.00	0.96	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.97	1.00		0.97	1.00	
Frt	1.00	1.00		1.00	1.00		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3534		1770	3516		1717	1514		1713	1520	
Flt Permitted	0.95	1.00		0.95	1.00		0.72	1.00		0.75	1.00	
Satd. Flow (perm)	1770	3534		1770	3516		1297	1514		1358	1520	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	30	1586	12	10	860	28	17	0	7	20	1	60
RTOR Reduction (vph)	0	0	0	0	2	0	0	6	0	0	50	0
Lane Group Flow (vph)	30	1598	0	10	886	0	17	1	0	20	11	0
Confl. Peds. (#/hr)			36			36	36		36	36		36
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	1	6		5	2			8			4	
Permitted Phases		6			2		8			4		
Actuated Green, G (s)	2.0	38.9		4.4	41.3		11.4	11.4		11.4	11.4	
Effective Green, g (s)	1.0	39.2		3.4	41.6		10.9	10.9		10.9	10.9	
Actuated g/C Ratio	0.02	0.60		0.05	0.64		0.17	0.17		0.17	0.17	
Clearance Time (s)	3.0	4.3		3.0	4.3		3.5	3.5		3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	27	2115		92	2233		216	252		226	253	
v/s Ratio Prot	c0.02	c0.45		0.01	0.25			0.00			0.01	
v/s Ratio Perm							0.01			c0.01		
v/c Ratio	1.11	0.76		0.11	0.40		0.08	0.00		0.09	0.04	
Uniform Delay, d1	32.2	9.6		29.6	5.8		23.1	22.8		23.1	22.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	209.3	1.4		0.2	0.0		0.1	0.0		0.1	0.0	
Delay (s)	241.5	11.0		29.8	5.9		23.1	22.8		23.2	22.9	
Level of Service	F	B		C	A		C	C		C	C	
Approach Delay (s)		15.3			6.1			23.0			23.0	
Approach LOS		B			A			C			C	

Intersection Summary

HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	1391	262	323	825	23	122	71	105	26	58	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3430		1770	3518		1681	1746	1583	1770	1736	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3430		1770	3518		1681	1746	1583	1770	1736	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	1391	262	323	825	23	122	71	105	26	58	48
RTOR Reduction (vph)	0	12	0	0	1	0	0	0	90	0	25	0
Lane Group Flow (vph)	34	1641	0	323	847	0	95	98	15	26	81	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split			Prot	Split	
Protected Phases	1	6		5	2		8	8		8	7	7
Permitted Phases												
Actuated Green, G (s)	3.4	58.1		18.2	72.9		16.7	16.7	16.7	6.2	6.2	
Effective Green, g (s)	2.4	58.1		17.2	72.9		16.2	16.2	16.2	5.7	5.7	
Actuated g/C Ratio	0.02	0.51		0.15	0.64		0.14	0.14	0.14	0.05	0.05	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.5	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	38	1760		269	2266		241	250	227	89	87	
v/s Ratio Prot	0.02	c0.48		c0.18	0.24		c0.06	0.06	0.01	0.01	c0.05	
v/s Ratio Perm												
v/c Ratio	0.89	0.93		1.20	0.37		0.39	0.39	0.07	0.29	0.93	
Uniform Delay, d1	55.3	25.7		48.0	9.4		44.0	44.0	42.0	51.8	53.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	102.2	9.4		120.4	0.0		0.4	0.4	0.0	0.7	73.7	
Delay (s)	157.5	35.1		168.4	9.5		44.4	44.4	42.0	52.5	127.3	
Level of Service	F	D		F	A		D	D	D	D	F	
Approach Delay (s)		37.6			53.3			43.6			112.6	
Approach LOS		D			D			D			F	

Intersection Summary

HCM Average Control Delay	46.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	113.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	1041	216	216	1018	101	41	32	65	27	31	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.93	1.00	0.99		1.00	1.00	1.00	1.00	1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1478	1770	3470		1721	1863	1583	1770	1863	1477
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.74	1.00	1.00	0.74	1.00	1.00
Satd. Flow (perm)	1770	3539	1478	1770	3470		1335	1863	1583	1372	1863	1477
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	175	1041	216	216	1018	101	41	32	65	27	31	36
RTOR Reduction (vph)	0	0	58	0	6	0	0	0	53	0	0	29
Lane Group Flow (vph)	175	1041	158	216	1113	0	41	32	12	27	31	7
Confl. Peds. (#/hr)			35			35	35					35
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		Perm
Protected Phases	1	6		5	2			4				8
Permitted Phases			6				4		4	8		8
Actuated Green, G (s)	13.2	28.0	28.0	15.0	29.8		13.1	13.1	13.1	13.1	13.1	13.1
Effective Green, g (s)	12.7	28.5	28.5	14.5	30.3		12.6	12.6	12.6	12.6	12.6	12.6
Actuated g/C Ratio	0.19	0.42	0.42	0.21	0.45		0.19	0.19	0.19	0.19	0.19	0.19
Clearance Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2	0.2	2.0	2.0	2.0
Lane Grp Cap (vph)	333	1492	623	380	1555		249	347	295	256	347	275
v/s Ratio Prot	0.10	0.29		c0.12	c0.32			0.02			0.02	
v/s Ratio Perm			0.11				c0.03		0.01	0.02		0.00
v/c Ratio	0.53	0.70	0.25	0.57	0.72		0.16	0.09	0.04	0.11	0.09	0.02
Uniform Delay, d1	24.7	16.0	12.7	23.8	15.2		23.1	22.8	22.5	22.8	22.8	22.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	1.2	0.1	1.2	1.3		0.1	0.0	0.0	0.1	0.0	0.0
Delay (s)	25.4	17.2	12.7	24.9	16.5		23.2	22.8	22.6	22.9	22.8	22.5
Level of Service	C	B	B	C	B		C	C	C	C	C	C
Approach Delay (s)		17.5			17.8			22.8			22.7	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	18.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	67.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	1029	51	23	1204	32	36	22	24	17	53	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00			0.98			0.97	
Flpb, ped/bikes	0.99	1.00		0.98	1.00			0.98			0.99	
Frt	1.00	0.99		1.00	1.00			0.96			0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1744	3491		1734	3513			1690			1678	
Flt Permitted	0.17	1.00		0.21	1.00			0.86			0.97	
Satd. Flow (perm)	305	3491		386	3513			1486			1633	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	37	1029	51	23	1204	32	36	22	24	17	53	59
RTOR Reduction (vph)	0	3	0	0	2	0	0	17	0	0	14	0
Lane Group Flow (vph)	37	1077	0	23	1234	0	0	65	0	0	115	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	43.5	43.5		43.5	43.5			20.3			20.3	
Effective Green, g (s)	44.0	44.0		44.0	44.0			19.8			19.8	
Actuated g/C Ratio	0.61	0.61		0.61	0.61			0.28			0.28	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	187	2139		237	2153			410			450	
v/s Ratio Prot		0.31			c0.35							
v/s Ratio Perm	0.12			0.06				0.04			c0.07	
v/c Ratio	0.20	0.50		0.10	0.57			0.16			0.26	
Uniform Delay, d1	6.1	7.8		5.7	8.3			19.7			20.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	2.4	0.8		0.8	1.1			0.1			0.1	
Delay (s)	8.5	8.6		6.5	9.4			19.8			20.4	
Level of Service	A	A		A	A			B			C	
Approach Delay (s)		8.6			9.4			19.8			20.4	
Approach LOS		A			A			B			C	

Intersection Summary

HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	71.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

6/15/2007



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	894	76	20	0	20	61	1997	50	3381	1218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	894	76	20	0	20	61	1997	50	3381	1218
RTOR Reduction (vph)	0	43	0	18	0	0	0	26	0	391
Lane Group Flow (vph)	894	33	0	22	0	61	1997	24	3381	827
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	28.0	28.0		14.4		6.2	78.1	58.4	66.9	66.9
Effective Green, g (s)	28.0	27.0		13.4		6.2	78.1	58.4	66.9	66.9
Actuated g/C Ratio	0.19	0.18		0.09		0.04	0.52	0.39	0.45	0.45
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	2.0	2.0		2.0		3.0		3.0		
Lane Grp Cap (vph)	641	285		151		73	3336	616	2994	706
v/s Ratio Prot	c0.26	0.02		c0.01		c0.03	0.31		0.50	c0.52
v/s Ratio Perm								0.01		
v/c Ratio	1.39	0.11		0.14		0.84	0.60	0.04	1.13	1.17
Uniform Delay, d1	61.0	51.5		63.0		71.4	25.0	28.4	41.6	41.6
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	187.0	0.1		0.2		53.1	0.3	0.1	63.0	92.0
Delay (s)	248.0	51.6		63.2		124.5	25.3	28.5	104.6	133.6
Level of Service	F	D		E		F	C	C	F	F
Approach Delay (s)				63.2			28.3			
Approach LOS				E			C			

Intersection Summary

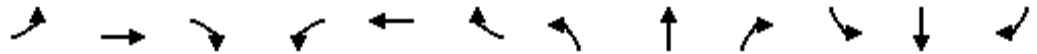
HCM Average Control Delay	104.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	92	64	36	50	0	0	0	0	149	3465	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		1.00	1.00		1.00						0.86	
Frbp, ped/bikes		1.00	0.97		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		0.99						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		0.98						1.00	
Satd. Flow (prot)		1863	1541		1815						6383	
Flt Permitted		1.00	1.00		0.84						1.00	
Satd. Flow (perm)		1863	1541		1549						6383	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	92	64	36	50	0	0	0	0	149	3465	10
RTOR Reduction (vph)	0	0	57	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	92	7	0	86	0	0	0	0	0	3624	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm						Perm		
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)		11.5	11.5		11.5						81.0	
Effective Green, g (s)		11.0	11.0		11.0						81.0	
Actuated g/C Ratio		0.11	0.11		0.11						0.81	
Clearance Time (s)		3.5	3.5		3.5						4.0	
Vehicle Extension (s)		2.0	2.0		2.0						5.0	
Lane Grp Cap (vph)		205	170		170						5170	
v/s Ratio Prot		0.05										
v/s Ratio Perm			0.00		0.06						0.57	
v/c Ratio		0.45	0.04		0.51						0.70	
Uniform Delay, d1		41.7	39.8		41.9						4.2	
Progression Factor		1.00	1.00		0.93						1.00	
Incremental Delay, d2		0.6	0.0		0.8						0.8	
Delay (s)		42.2	39.8		39.6						5.0	
Level of Service		D	D		D						A	
Approach Delay (s)		41.2			39.6			0.0			5.0	
Approach LOS		D			D			A			A	

Intersection Summary

HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Basler St & 16th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	408	12	0	0	5	13	75	1213	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.95			1.00				
Flpb, ped/bikes	0.94	0.94			1.00			1.00				
Frt	1.00	1.00			0.90			1.00				
Flt Protected	0.95	0.95			1.00			1.00				
Satd. Flow (prot)	1583	1597			1595			6350				
Flt Permitted	0.75	0.73			1.00			1.00				
Satd. Flow (perm)	1242	1212			1595			6350				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	408	12	0	0	5	13	75	1213	9	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	2	0	0	0	0
Lane Group Flow (vph)	208	212	0	0	10	0	0	1295	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			23.0				
Effective Green, g (s)	18.0	18.0			18.0			24.0				
Actuated g/C Ratio	0.36	0.36			0.36			0.48				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	447	436			574			3048				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.17	c0.17						0.20				
v/c Ratio	0.47	0.49			0.02			0.43				
Uniform Delay, d1	12.3	12.4			10.3			8.5				
Progression Factor	0.83	0.84			1.00			1.33				
Incremental Delay, d2	3.3	3.7			0.1			0.4				
Delay (s)	13.6	14.1			10.4			11.7				
Level of Service	B	B			B			B				
Approach Delay (s)		13.9			10.4			11.7			0.0	
Approach LOS		B			B			B			A	
Intersection Summary												
HCM Average Control Delay			12.2					HCM Level of Service		B		
HCM Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		8.0		
Intersection Capacity Utilization			44.1%					ICU Level of Service		A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

13: Bercut Dr & Bannon St

6/15/2007





















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	↗
Volume (veh/h)	146	400	1	44	106	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	146	400	1	44	106	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)	512					
pX, platoon unblocked						
vC, conflicting volume			546		392	346
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			546		392	346
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		83	100
cM capacity (veh/h)			1023		612	697

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	546	45	107
Volume Left	0	1	106
Volume Right	400	0	1
cSH	1700	1023	612
Volume to Capacity	0.32	0.00	0.17
Queue Length 95th (ft)	0	0	16
Control Delay (s)	0.0	0.2	12.1
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	12.1
Approach LOS			B

Intersection Summary			
Average Delay		1.9	
Intersection Capacity Utilization		44.9%	ICU Level of Service A
Analysis Period (min)		15	
Description: SB coded as EB			

HCM Unsignalized Intersection Capacity Analysis
 18: Water St & 7th Street

6/15/2007

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control		Stop			Stop			Stop			Stop		
Volume (vph)	58	60	89	186	156	88	188	205	24	96	502	69	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly flow rate (vph)	58	60	89	186	156	88	188	205	24	96	502	69	
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1	SB 2							
Volume Total (vph)	207	342	88	417	96	571							
Volume Left (vph)	58	186	0	188	96	0							
Volume Right (vph)	89	0	88	24	0	69							
Hadj (s)	-0.17	0.31	-0.67	0.09	0.53	-0.05							
Departure Headway (s)	9.5	9.0	8.1	8.8	9.0	8.4							
Degree Utilization, x	0.55	0.86	0.20	1.01	0.24	1.33							
Capacity (veh/h)	363	388	440	417	395	437							
Control Delay (s)	23.5	45.9	11.8	78.1	13.6	188.6							
Approach Delay (s)	23.5	38.9		78.1	163.5								
Approach LOS	C	E		F	F								
Intersection Summary													
Delay			94.8										
HCM Level of Service			F										
Intersection Capacity Utilization			96.9%	ICU Level of Service									F
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis

19: Water St & 10th St

6/15/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (veh/h)	99	122	164	154	101	74
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	99	122	164	154	101	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			841			
pX, platoon unblocked						
vC, conflicting volume	318				500	159
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	318				500	159
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				78	91
cM capacity (veh/h)	1239				460	858
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	140	81	109	209	175	
Volume Left	99	0	0	0	101	
Volume Right	0	0	0	154	74	
cSH	1239	1700	1700	1700	572	
Volume to Capacity	0.08	0.05	0.06	0.12	0.31	
Queue Length 95th (ft)	7	0	0	0	32	
Control Delay (s)	6.0	0.0	0.0	0.0	14.0	
Lane LOS	A				B	
Approach Delay (s)	3.8		0.0		14.0	
Approach LOS					B	
Intersection Summary						
Average Delay			4.6			
Intersection Capacity Utilization			35.9%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

20: Water St & 12th Street

6/15/2007



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↘↙	
Volume (vph)	13	68	144	41	229	30	8	49	35	28	3073	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.99			0.97			0.99	
Flpb, ped/bikes		1.00		0.97	1.00			1.00			0.90	
Frt		0.90		1.00	0.98			0.95			0.99	
Flt Protected		1.00		0.95	1.00			1.00			0.95	
Satd. Flow (prot)		3183		1715	1811			1714			5741	
Flt Permitted		0.93		0.56	1.00			1.00			0.95	
Satd. Flow (perm)		2971		1017	1811			1714			5741	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	68	144	41	229	30	8	49	35	28	3073	171
RTOR Reduction (vph)	0	115	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	110	0	41	259	0	0	68	0	0	3272	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		20.4		20.4	20.4			12.1			48.5	
Effective Green, g (s)		20.4		20.4	20.4			12.1			51.5	
Actuated g/C Ratio		0.20		0.20	0.20			0.12			0.52	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)		606		207	369			207			2957	
v/s Ratio Prot					c0.14							
v/s Ratio Perm		0.04		0.04				0.04			0.57	
v/c Ratio		0.18		0.20	0.70			0.33			1.11	
Uniform Delay, d1		32.9		33.0	37.0			40.2			24.2	
Progression Factor		1.00		1.23	1.21			1.00			1.00	
Incremental Delay, d2		0.3		0.9	7.1			2.0			53.6	
Delay (s)		33.2		41.6	51.8			42.2			77.8	
Level of Service		C		D	D			D			E	
Approach Delay (s)		33.2			50.4			42.2			77.8	
Approach LOS		C			D			D			E	

Intersection Summary

HCM Average Control Delay	72.3	HCM Level of Service	E
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: North B St & 16th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	97	8	0	0	13	4	225	1444	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.98			1.00				
Flpb, ped/bikes	0.91	0.93			1.00			0.99				
Frt	1.00	1.00			0.97			1.00				
Flt Protected	0.95	0.96			1.00			0.99				
Satd. Flow (prot)	1533	1571			1761			6305				
Flt Permitted	0.75	0.80			1.00			0.99				
Satd. Flow (perm)	1205	1303			1761			6305				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	8	0	0	13	4	225	1444	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	2	0	0	0	0
Lane Group Flow (vph)	52	53	0	0	14	0	0	1677	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	12.0	12.0			12.0			30.0				
Effective Green, g (s)	12.0	12.0			12.0			30.0				
Actuated g/C Ratio	0.24	0.24			0.24			0.60				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	289	313			423			3783				
v/s Ratio Prot					0.01							
v/s Ratio Perm	c0.04	0.04						0.27				
v/c Ratio	0.18	0.17			0.03			0.44				
Uniform Delay, d1	15.1	15.1			14.6			5.4				
Progression Factor	1.14	1.13			1.00			0.37				
Incremental Delay, d2	1.2	1.0			0.1			0.3				
Delay (s)	18.4	18.1			14.7			2.3				
Level of Service	B	B			B			A				
Approach Delay (s)		18.2			14.7			2.3			0.0	
Approach LOS		B			B			A			A	

Intersection Summary

HCM Average Control Delay	3.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

37: F Street & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↘			↕			↕	
Volume (veh/h)	7	0	0	49	19	63	25	397	3	257	420	47
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	0	0	49	19	63	25	397	3	257	420	47
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh											2	
Upstream signal (ft)								439				
pX, platoon unblocked												
vC, conflicting volume	1478	1408	444	1406	1430	398	467			400		
vC1, stage 1 conf vol	958	958		448	448							
vC2, stage 2 conf vol	521	450		958	981							
vCu, unblocked vol	1478	1408	444	1406	1430	398	467			400		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	100	76	91	90	98			78		
cM capacity (veh/h)	165	216	614	205	217	651	1094			1159		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	7	49	82	425	724
Volume Left	7	49	0	25	257
Volume Right	0	0	63	3	47
cSH	165	205	445	1094	1159
Volume to Capacity	0.04	0.24	0.18	0.02	0.22
Queue Length 95th (ft)	3	23	17	2	21
Control Delay (s)	27.7	28.0	14.9	0.7	5.0
Lane LOS	D	D	B	A	A
Approach Delay (s)	27.7	19.8		0.7	5.0
Approach LOS	D	C			

Intersection Summary				
Average Delay			5.2	
Intersection Capacity Utilization		77.5%	ICU Level of Service	D
Analysis Period (min)		15		

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/15/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	461	389	0	0	0	429
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0
Lane Util. Factor	0.97	1.00				1.00
Frbp, ped/bikes	1.00	1.00				1.00
Flpb, ped/bikes	1.00	1.00				1.00
Frt	1.00	0.85				1.00
Flt Protected	0.95	1.00				1.00
Satd. Flow (prot)	3433	1583				1863
Flt Permitted	0.95	1.00				1.00
Satd. Flow (perm)	3433	1583				1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	461	389	0	0	0	429
RTOR Reduction (vph)	267	226	0	0	0	0
Lane Group Flow (vph)	194	163	0	0	0	429
Confl. Peds. (#/hr)		72				
Turn Type		Prot				
Protected Phases	1	1				2
Permitted Phases						
Actuated Green, G (s)	21.5	21.5				21.5
Effective Green, g (s)	21.0	21.0				21.0
Actuated g/C Ratio	0.42	0.42				0.42
Clearance Time (s)	3.5	3.5				3.5
Lane Grp Cap (vph)	1442	665				782
v/s Ratio Prot	0.06	c0.10				c0.23
v/s Ratio Perm						
v/c Ratio	0.13	0.25				0.55
Uniform Delay, d1	8.9	9.4				10.9
Progression Factor	9.60	3.95				1.00
Incremental Delay, d2	0.2	0.8				2.8
Delay (s)	85.7	37.9				13.7
Level of Service	F	D				B
Approach Delay (s)	63.8		0.0			13.7
Approach LOS	E		A			B
Intersection Summary						
HCM Average Control Delay			47.0		HCM Level of Service	D
HCM Volume to Capacity ratio			0.40			
Actuated Cycle Length (s)			50.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			46.7%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

41: G Street & 8th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↑↑↑			↑↑↑					
Volume (vph)	0	0	0	0	543	304	487	447	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)					4.0			4.0					
Lane Util. Factor					0.91			0.91					
Frbp, ped/bikes					0.98			1.00					
Flpb, ped/bikes					1.00			0.97					
Frt					0.95			1.00					
Flt Protected					1.00			0.97					
Satd. Flow (prot)					4704			4823					
Flt Permitted					1.00			0.97					
Satd. Flow (perm)					4704			4823					
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	0	543	304	487	447	0	0	0	0	
RTOR Reduction (vph)	0	0	0	0	158	0	0	117	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	689	0	0	817	0	0	0	0	
Confl. Peds. (#/hr)						72	72						
Turn Type							Perm						
Protected Phases					1			2					
Permitted Phases							2						
Actuated Green, G (s)					21.5			21.5					
Effective Green, g (s)					21.0			21.0					
Actuated g/C Ratio					0.42			0.42					
Clearance Time (s)					3.5			3.5					
Lane Grp Cap (vph)					1976			2026					
v/s Ratio Prot					c0.15								
v/s Ratio Perm								0.17					
v/c Ratio					0.35			0.40					
Uniform Delay, d1					9.9			10.1					
Progression Factor					1.33			0.59					
Incremental Delay, d2					0.4			0.5					
Delay (s)					13.5			6.5					
Level of Service					B			A					
Approach Delay (s)		0.0			13.5			6.5			0.0		
Approach LOS		A			B			A			A		
Intersection Summary													
HCM Average Control Delay			9.8		HCM Level of Service				A				
HCM Volume to Capacity ratio			0.38										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			52.7%		ICU Level of Service				A				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←						←←←	
Volume (vph)	0	0	0	46	303	0	0	0	0	0	1601	453
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.98	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.97	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					5014						4832	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					5014						4832	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	46	303	0	0	0	0	0	1601	453
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	102	0
Lane Group Flow (vph)	0	0	0	0	319	0	0	0	0	0	1952	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1705						2029	
v/s Ratio Prot											c0.40	
v/s Ratio Perm					0.06							
v/c Ratio					0.19						0.96	
Uniform Delay, d1					11.6						14.1	
Progression Factor					1.00						0.47	
Incremental Delay, d2					0.2						1.8	
Delay (s)					11.9						8.4	
Level of Service					B						A	
Approach Delay (s)		0.0			11.9			0.0			8.4	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM Average Control Delay			8.9									A
HCM Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			50.0							12.0		
Intersection Capacity Utilization			57.1%									B
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	376	55	0	0	0	0	301	308	113	75	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	3.5	4.0	4.0	
Lane Util. Factor	1.00	0.95						0.95	0.95	1.00	1.00	
Frbp, ped/bikes	1.00	0.99						0.99	0.92	1.00	1.00	
Flpb, ped/bikes	0.88	1.00						1.00	1.00	0.96	1.00	
Frt	1.00	0.98						0.99	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1557	3435						1731	1380	1699	1863	
Flt Permitted	0.95	1.00						1.00	1.00	0.45	1.00	
Satd. Flow (perm)	1557	3435						1731	1380	806	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	301	308	113	75	0
RTOR Reduction (vph)	0	23	0	0	0	0	0	7	169	0	0	0
Lane Group Flow (vph)	20	408	0	0	0	0	0	325	108	113	75	0
Confl. Peds. (#/hr)	72		72							72	72	
Turn Type	Perm									Perm	Perm	
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)	18.5	18.5						19.5	19.5	19.5	19.5	
Effective Green, g (s)	18.0	18.0						19.0	19.5	19.0	19.0	
Actuated g/C Ratio	0.36	0.36						0.38	0.39	0.38	0.38	
Clearance Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
Lane Grp Cap (vph)	561	1237						658	538	306	708	
v/s Ratio Prot		c0.12						c0.19			0.04	
v/s Ratio Perm	0.01								0.08	0.14		
v/c Ratio	0.04	0.33						0.49	0.20	0.37	0.11	
Uniform Delay, d1	10.4	11.6						11.8	10.1	11.2	10.0	
Progression Factor	1.36	1.49						0.76	3.57	1.00	1.00	
Incremental Delay, d2	0.1	0.7						2.3	0.7	3.4	0.3	
Delay (s)	14.3	18.0						11.3	36.8	14.6	10.3	
Level of Service	B	B						B	D	B	B	
Approach Delay (s)		17.8			0.0			22.9			12.9	
Approach LOS		B			A			C			B	

Intersection Summary

HCM Average Control Delay	19.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑								↖	↗↑		
Volume (vph)	0	715	48	0	0	0	0	0	0	164	691	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0								4.0	4.0		
Lane Util. Factor		0.95								0.91	0.91		
Frbp, ped/bikes		1.00								1.00	1.00		
Flpb, ped/bikes		1.00								0.95	1.00		
Frt		0.99								1.00	1.00		
Flt Protected		1.00								0.95	1.00		
Satd. Flow (prot)		3492								1528	3382		
Flt Permitted		1.00								0.95	1.00		
Satd. Flow (perm)		3492								1528	3382		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	715	48	0	0	0	0	0	0	164	691	0	
RTOR Reduction (vph)	0	10	0	0	0	0	0	0	0	92	3	0	
Lane Group Flow (vph)	0	753	0	0	0	0	0	0	0	56	704	0	
Confl. Peds. (#/hr)			72							72			
Turn Type										Perm			
Protected Phases		1									2		
Permitted Phases										2			
Actuated Green, G (s)		18.5								19.5	19.5		
Effective Green, g (s)		18.0								19.0	19.0		
Actuated g/C Ratio		0.36								0.38	0.38		
Clearance Time (s)		3.5								3.5	3.5		
Lane Grp Cap (vph)		1257								581	1285		
v/s Ratio Prot		0.22											
v/s Ratio Perm										0.04	0.21		
v/c Ratio		0.60								0.10	0.55		
Uniform Delay, d1		13.1								10.0	12.1		
Progression Factor		0.77								2.41	1.05		
Incremental Delay, d2		2.0								0.3	1.6		
Delay (s)		12.0								24.4	14.3		
Level of Service		B								C	B		
Approach Delay (s)		12.0			0.0			0.0			16.1		
Approach LOS		B			A			A			B		
Intersection Summary													
HCM Average Control Delay			14.2									HCM Level of Service	B
HCM Volume to Capacity ratio			0.57										
Actuated Cycle Length (s)			50.0									Sum of lost time (s)	13.0
Intersection Capacity Utilization			46.7%									ICU Level of Service	A
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↕↕↕				
Volume (vph)	387	462	0	0	0	0	0	567	221	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.98				
Flpb, ped/bikes		0.98						1.00				
Frt		1.00						0.96				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		3379						4786				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		3379						4786				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	387	462	0	0	0	0	0	567	221	0	0	0
RTOR Reduction (vph)	0	178	0	0	0	0	0	137	0	0	0	0
Lane Group Flow (vph)	0	671	0	0	0	0	0	651	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		18.5						19.5				
Effective Green, g (s)		18.0						19.0				
Actuated g/C Ratio		0.36						0.38				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1216						1819				
v/s Ratio Prot								c0.14				
v/s Ratio Perm		0.20										
v/c Ratio		0.55						0.36				
Uniform Delay, d1		12.8						11.1				
Progression Factor		1.19						1.00				
Incremental Delay, d2		1.5						0.6				
Delay (s)		16.8						11.7				
Level of Service		B						B				
Approach Delay (s)		16.8			0.0			11.7			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			14.3					HCM Level of Service		B		
HCM Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		13.0		
Intersection Capacity Utilization			48.2%					ICU Level of Service		A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕				↗		↑↑↑				
Volume (vph)	297	264	0	0	0	41	0	1129	23	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	0.99				1.00		1.00				
Satd. Flow (prot)	3221	1675				1611		5057				
Flt Permitted	0.95	0.99				1.00		1.00				
Satd. Flow (perm)	3221	1675				1611		5057				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	297	264	0	0	0	41	0	1129	23	0	0	0
RTOR Reduction (vph)	203	6	0	0	0	37	0	4	0	0	0	0
Lane Group Flow (vph)	64	288	0	0	0	4	0	1148	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	12.5	21.5				5.5		21.5				
Effective Green, g (s)	12.0	21.0				5.0		21.0				
Actuated g/C Ratio	0.24	0.42				0.10		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	773	704				161		2124				
v/s Ratio Prot	0.02	c0.10				0.00		c0.23				
v/s Ratio Perm		0.07										
v/c Ratio	0.08	0.41				0.03		0.54				
Uniform Delay, d1	14.7	10.2				20.3		10.9				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	0.2	1.8				0.3		1.0				
Delay (s)	14.9	11.9				20.6		11.9				
Level of Service	B	B				C		B				
Approach Delay (s)		13.4			20.6			11.9			0.0	
Approach LOS		B			C			B			A	
Intersection Summary												
HCM Average Control Delay			12.5			HCM Level of Service			B			
HCM Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			50.0			Sum of lost time (s)		8.0				
Intersection Capacity Utilization			59.1%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/15/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	369	178	106	28	69	558
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.88	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1630	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1630	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	369	178	106	28	69	558
RTOR Reduction (vph)	0	0	0	14	207	0
Lane Group Flow (vph)	369	178	106	14	420	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	23.6	26.7	12.8	38.6	25.8	
Effective Green, g (s)	24.1	26.7	12.8	38.6	25.8	
Actuated g/C Ratio	0.32	0.36	0.17	0.52	0.35	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	571	666	319	903	563	
v/s Ratio Prot	c0.21	0.10	c0.06	0.01	c0.26	
v/s Ratio Perm				0.00		
v/c Ratio	0.65	0.27	0.33	0.02	0.75	
Uniform Delay, d1	21.7	17.1	27.2	8.8	21.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	0.4	1.1	0.0	5.4	
Delay (s)	23.9	17.4	28.3	8.8	26.9	
Level of Service	C	B	C	A	C	
Approach Delay (s)		21.8	24.2		26.9	
Approach LOS		C	C		C	

Intersection Summary

HCM Average Control Delay	24.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	74.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	1031	81	187	752	0	0	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					0.99		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6144		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6144		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1031	81	187	752	0	0	0	20
RTOR Reduction (vph)	0	0	0	0	24	0	22	0	0	0	0	10
Lane Group Flow (vph)	0	0	0	0	1088	0	165	752	0	0	0	10
Confl. Peds. (#/hr)							72					
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					17.0		24.5	24.5				24.5
Effective Green, g (s)					18.0		24.0	24.0				24.5
Actuated g/C Ratio					0.36		0.48	0.48				0.49
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					2212		1648	1614				1366
v/s Ratio Prot					c0.18		0.05	c0.22				
v/s Ratio Perm												0.00
v/c Ratio					0.49		0.10	0.47				0.01
Uniform Delay, d1					12.4		7.1	8.7				6.5
Progression Factor					0.52		0.95	0.95				1.00
Incremental Delay, d2					0.6		0.1	0.8				0.0
Delay (s)					7.1		6.8	9.1				6.5
Level of Service					A		A	A				A
Approach Delay (s)		0.0			7.1			8.6			6.5	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	53	991	219	50	361	0	0	20	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes					0.99		1.00	1.00			1.00	1.00
Frt					0.97		1.00	1.00			0.90	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4847		1610	3388			1586	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4847		1610	3388			1586	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	53	991	219	50	361	0	0	20	108
RTOR Reduction (vph)	0	0	0	0	65	0	0	0	0	0	39	54
Lane Group Flow (vph)	0	0	0	0	1198	0	45	366	0	0	26	9
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom						custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					16.5		15.5	15.5			7.5	7.5
Effective Green, g (s)					16.0		15.0	15.0			7.0	7.0
Actuated g/C Ratio					0.32		0.30	0.30			0.14	0.14
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1551		483	1016			222	211
v/s Ratio Prot							0.03	c0.11			c0.02	0.01
v/s Ratio Perm					0.25							
v/c Ratio					0.77		0.09	0.36			0.12	0.04
Uniform Delay, d1					15.4		12.6	13.7			18.8	18.6
Progression Factor					0.87		1.30	1.28			0.98	1.29
Incremental Delay, d2					3.5		0.3	0.9			1.1	0.4
Delay (s)					16.9		16.8	18.4			19.4	24.4
Level of Service					B		B	B			B	C
Approach Delay (s)		0.0			16.9			18.3			21.9	
Approach LOS		A			B			B			C	

Intersection Summary

HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔↔↔						↕↕	↘↘
Volume (vph)	0	0	0	345	906	0	0	0	0	0	454	354
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.93	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1412	4781						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1412	4781						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	345	906	0	0	0	0	0	454	354
RTOR Reduction (vph)	0	0	0	182	9	0	0	0	0	0	0	215
Lane Group Flow (vph)	0	0	0	122	938	0	0	0	0	0	454	139
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1							2
Permitted Phases				1								2
Actuated Green, G (s)				20.5	20.5						17.5	17.5
Effective Green, g (s)				20.0	20.0						17.0	17.0
Actuated g/C Ratio				0.40	0.40						0.34	0.34
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				565	1912						1203	948
v/s Ratio Prot											c0.13	
v/s Ratio Perm				0.09	0.20							0.05
v/c Ratio				0.22	0.49						0.38	0.15
Uniform Delay, d1				9.8	11.2						12.5	11.5
Progression Factor				1.00	1.00						0.53	0.72
Incremental Delay, d2				0.9	0.9						0.8	0.3
Delay (s)				10.7	12.1						7.5	8.6
Level of Service				B	B						A	A
Approach Delay (s)		0.0			11.8			0.0			7.9	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM Average Control Delay			10.3		HCM Level of Service						B	
HCM Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			13.0				
Intersection Capacity Utilization			37.6%		ICU Level of Service						A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/15/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	9	1523	623	92	134	190	5	1767	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6018		2787	3433	1863	1585	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6018		2787	3433	1863	1585	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	1523	623	92	134	190	5	1767	306
RTOR Reduction (vph)	0	0	0	4	0	0	0	24	0
Lane Group Flow (vph)	0	2155	0	88	134	190	694	1360	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		31.0		11.5	11.5	11.5	46.0	46.0	
Effective Green, g (s)		31.0		11.0	11.0	11.0	46.0	46.0	
Actuated g/C Ratio		0.31		0.11	0.11	0.11	0.46	0.46	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1866		307	378	205	729	1326	
v/s Ratio Prot		c0.36				c0.10	0.44	c0.47	
v/s Ratio Perm				0.03	0.04				
v/c Ratio		1.27dr		0.29	0.35	0.93	0.95	1.03	
Uniform Delay, d1		34.5		40.9	41.2	44.1	25.9	27.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		76.3		0.2	0.2	41.9	22.4	31.4	
Delay (s)		110.8		41.1	41.4	86.0	48.3	58.4	
Level of Service		F		D	D	F	D	E	
Approach Delay (s)		110.8				67.6	55.0		
Approach LOS		F				E	E		

Intersection Summary

HCM Average Control Delay	81.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.1%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔↔↔	↔					↕↕	↔			
Volume (vph)	701	2551	127	0	0	0	0	296	301	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.93					0.98	0.94			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.96	0.85			
Flt Protected	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (prot)	1290	6026	1476					3189	1351			
Flt Permitted	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (perm)	1290	6026	1476					3189	1351			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	701	2551	127	0	0	0	0	296	301	0	0	0
RTOR Reduction (vph)	112	3	34	0	0	0	0	1	1	0	0	0
Lane Group Flow (vph)	512	2625	93	0	0	0	0	412	183	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	70.3	70.3	70.3					21.7	21.7			
Effective Green, g (s)	70.3	70.3	70.3					21.7	21.7			
Actuated g/C Ratio	0.70	0.70	0.70					0.22	0.22			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	907	4236	1038					692	293			
v/s Ratio Prot	0.40	c0.44						0.13				
v/s Ratio Perm			0.06						c0.14			
v/c Ratio	0.56	0.62	0.09					0.60	0.63			
Uniform Delay, d1	7.3	7.8	4.7					35.2	35.5			
Progression Factor	1.18	1.00	1.04					1.00	1.00			
Incremental Delay, d2	0.2	0.1	0.0					0.9	3.0			
Delay (s)	8.8	7.9	4.9					36.1	38.4			
Level of Service	A	A	A					D	D			
Approach Delay (s)		7.9			0.0			36.8			0.0	
Approach LOS		A			A			D			A	
Intersection Summary												
HCM Average Control Delay			12.3					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			100.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			77.6%					ICU Level of Service			D	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↕↕↕						↕		↰		
Volume (vph)	518	2171	0	0	0	0	0	27	13	37	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.98		1.00		
Flpb, ped/bikes	0.92	1.00						1.00		0.94		
Frt	1.00	1.00						0.96		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1404	4792						1740		1669		
Flt Permitted	0.95	1.00						1.00		0.73		
Satd. Flow (perm)	1404	4792						1740		1284		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	518	2171	0	0	0	0	0	27	13	37	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	466	2223	0	0	0	0	0	30	0	37	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	71.5	71.5						21.5		21.5		
Effective Green, g (s)	71.0	71.0						21.0		21.0		
Actuated g/C Ratio	0.71	0.71						0.21		0.21		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	997	3402						365		270		
v/s Ratio Prot								0.02				
v/s Ratio Perm	0.33	0.46								c0.03		
v/c Ratio	0.47	0.65						0.08		0.14		
Uniform Delay, d1	6.3	7.8						31.7		32.1		
Progression Factor	1.20	1.15						1.00		0.75		
Incremental Delay, d2	1.3	0.8						0.4		0.8		
Delay (s)	8.8	9.8						32.2		25.0		
Level of Service	A	A						C		C		
Approach Delay (s)		9.6			0.0			32.2			25.0	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑								↑↑↑	
Volume (vph)	0	2085	358	0	0	0	0	0	0	174	513	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0								4.0	
Lane Util. Factor		0.86	0.86								0.91	
Frbp, ped/bikes		1.00	0.93								1.00	
Flpb, ped/bikes		1.00	1.00								0.98	
Frt		1.00	0.85								1.00	
Flt Protected		1.00	1.00								0.99	
Satd. Flow (prot)		4788	1265								4945	
Flt Permitted		1.00	1.00								0.99	
Satd. Flow (perm)		4788	1265								4945	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2085	358	0	0	0	0	0	0	174	513	0
RTOR Reduction (vph)	0	2	133	0	0	0	0	0	0	0	61	0
Lane Group Flow (vph)	0	2119	189	0	0	0	0	0	0	0	626	0
Confl. Peds. (#/hr)			36							36		
Turn Type			Perm								Perm	
Protected Phases		1										2
Permitted Phases			1								2	
Actuated Green, G (s)		54.5	54.5								28.5	
Effective Green, g (s)		54.0	54.0								28.0	
Actuated g/C Ratio		0.54	0.54								0.28	
Clearance Time (s)		3.5	3.5								3.5	
Lane Grp Cap (vph)		2586	683								1385	
v/s Ratio Prot		0.44										
v/s Ratio Perm			0.15								0.13	
v/c Ratio		0.82	0.28								0.45	
Uniform Delay, d1		19.0	12.4								29.7	
Progression Factor		0.96	2.18								1.16	
Incremental Delay, d2		2.5	0.8								1.0	
Delay (s)		20.7	28.0								35.3	
Level of Service		C	C								D	
Approach Delay (s)		21.7			0.0			0.0			35.3	
Approach LOS		C			A			A			D	
Intersection Summary												
HCM Average Control Delay			24.7									HCM Level of Service C
HCM Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			100.0								18.0	Sum of lost time (s)
Intersection Capacity Utilization			63.2%									ICU Level of Service B
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/15/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	97	296	314	65	186	59	696	229	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.5	5.0	4.5	4.5	5.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.99	0.85	0.85	1.00	1.00	0.96		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1669	1504	1583	1770	3539	4881		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1669	1504	1583	1770	3539	4881		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	296	314	65	186	59	696	229	25
RTOR Reduction (vph)	0	0	0	38	0	0	3	0	0
Lane Group Flow (vph)	87	337	283	27	186	59	947	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2					
Actuated Green, G (s)	41.5	41.5	41.5	41.5	17.5	49.5	27.5		
Effective Green, g (s)	41.0	41.0	41.5	41.0	17.5	49.5	27.0		
Actuated g/C Ratio	0.41	0.41	0.42	0.41	0.18	0.50	0.27		
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Lane Grp Cap (vph)	689	684	624	649	310	1752	1318		
v/s Ratio Prot					c0.11	0.02	c0.19		
v/s Ratio Perm	0.05	0.20	0.19	0.02					
v/c Ratio	0.13	0.49	0.45	0.04	0.60	0.03	0.72		
Uniform Delay, d1	18.4	21.8	21.1	17.7	38.0	13.0	33.1		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.4	2.5	2.4	0.1	8.3	0.0	3.4		
Delay (s)	18.7	24.3	23.4	17.8	46.3	13.0	36.5		
Level of Service	B	C	C	B	D	B	D		
Approach Delay (s)		22.8				38.3	36.5		
Approach LOS		C				D	D		

Intersection Summary

HCM Average Control Delay	31.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	791	102	94	528	0	0	0	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				4.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.98		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6239		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6239		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	791	102	94	528	0	0	0	119
RTOR Reduction (vph)	0	0	0	0	33	0	31	0	0	0	0	35
Lane Group Flow (vph)	0	0	0	0	860	0	63	528	0	0	0	84
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					25.0		35.5	35.5				35.5
Effective Green, g (s)					26.0		36.0	36.0				36.0
Actuated g/C Ratio					0.37		0.51	0.51				0.51
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					2317		840	2615				1308
v/s Ratio Prot					c0.14			c0.10				
v/s Ratio Perm							0.04					0.03
v/c Ratio					0.37		0.08	0.20				0.06
Uniform Delay, d1					16.0		8.6	9.2				8.5
Progression Factor					1.00		0.85	0.89				1.00
Incremental Delay, d2					0.5		0.2	0.2				0.1
Delay (s)					16.5		7.5	8.3				8.6
Level of Service					B		A	A				A
Approach Delay (s)		0.0			16.5			8.2			8.6	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	215	1064	0	0	0	0	0	384	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.93	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4632	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4632	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	215	1064	0	0	0	0	0	384	300
RTOR Reduction (vph)	0	0	0	151	0	0	0	0	0	0	85	0
Lane Group Flow (vph)	0	0	0	65	1064	0	0	0	0	0	599	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						27.5	
Effective Green, g (s)				15.0	15.0						27.0	
Actuated g/C Ratio				0.30	0.30						0.54	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2501	
v/s Ratio Prot					c0.21						c0.13	
v/s Ratio Perm				0.04								
v/c Ratio				0.13	0.70						0.24	
Uniform Delay, d1				12.7	15.5						6.1	
Progression Factor				1.00	1.00						1.92	
Incremental Delay, d2				0.0	1.1						0.2	
Delay (s)				12.8	16.6						11.9	
Level of Service				B	B						B	
Approach Delay (s)		0.0			16.0			0.0			11.9	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	14.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	529	407	0	0	117	76	222	663	36	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.97		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.94		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4629		3433	5023				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4629		3433	5023				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	529	407	0	0	117	76	222	663	36	0	0	0
RTOR Reduction (vph)	0	0	0	0	61	0	0	8	0	0	0	0
Lane Group Flow (vph)	529	407	0	0	132	0	222	691	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		31.0	31.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.44	0.44				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			926		1520	2224				
v/s Ratio Prot	c0.15	c0.11			0.03		0.06	c0.14				
v/s Ratio Perm												
v/c Ratio	0.83	0.26			0.14		0.15	0.31				
Uniform Delay, d1	27.4	12.3			23.1		11.6	12.6				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	11.9	0.4			0.3		0.2	0.4				
Delay (s)	39.3	12.7			23.4		11.8	13.0				
Level of Service	D	B			C		B	B				
Approach Delay (s)		27.7			23.4			12.7			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	20.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←						→→	↗
Volume (vph)	0	0	0	173	637	0	0	0	0	0	226	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.91	0.91
Frbp, ped/bikes					1.00						0.99	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.98	0.85
Flt Protected					0.99						1.00	1.00
Satd. Flow (prot)					4864						3114	1190
Flt Permitted					0.99						1.00	1.00
Satd. Flow (perm)					4864						3114	1190
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	173	637	0	0	0	0	0	226	152
RTOR Reduction (vph)	0	0	0	0	80	0	0	0	0	0	26	80
Lane Group Flow (vph)	0	0	0	0	730	0	0	0	0	0	238	34
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2627						934	357
v/s Ratio Prot					c0.15						c0.08	
v/s Ratio Perm												0.03
v/c Ratio					0.28						0.25	0.10
Uniform Delay, d1					6.2						13.3	12.6
Progression Factor					1.00						1.95	6.29
Incremental Delay, d2					0.3						0.5	0.4
Delay (s)					6.5						26.4	79.7
Level of Service					A						C	E
Approach Delay (s)		0.0			6.5			0.0			42.5	
Approach LOS		A			A			A			D	

Intersection Summary

HCM Average Control Delay	17.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	35.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	2385	443	0	0	0	0	0	0	157	221	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.97	
Frt		0.98									1.00	
Flt Protected		1.00									0.98	
Satd. Flow (prot)		6207									4833	
Flt Permitted		1.00									0.98	
Satd. Flow (perm)		6207									4833	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2385	443	0	0	0	0	0	0	157	221	0
RTOR Reduction (vph)	0	67	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	2761	0	0	0	0	0	0	0	0	377	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3352									1450	
v/s Ratio Prot		c0.44										
v/s Ratio Perm											0.08	
v/c Ratio		0.82									0.26	
Uniform Delay, d1		9.5									13.3	
Progression Factor		1.00									0.74	
Incremental Delay, d2		2.4									0.4	
Delay (s)		12.0									10.2	
Level of Service		B									B	
Approach Delay (s)		12.0			0.0			0.0			10.2	
Approach LOS		B			A			A			B	

Intersection Summary

HCM Average Control Delay	11.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑					↑	↑	↑
Volume (vph)	0	692	78	842	614	0	0	0	0	539	3	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95		0.97	1.00					0.95	0.95	1.00
Frbp, ped/bikes		0.99		1.00	1.00					1.00	1.00	0.86
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	1.00
Frt		0.98		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3441		3433	1863					1681	1686	1365
Flt Permitted		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3441		3433	1863					1681	1686	1365
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	692	78	842	614	0	0	0	0	539	3	244
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	0	185
Lane Group Flow (vph)	0	758	0	842	614	0	0	0	0	269	273	59
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9	3 12 13					4	4	
Permitted Phases												4
Actuated Green, G (s)		12.5		30.0	45.5					17.0	17.0	17.0
Effective Green, g (s)		12.5		28.5	45.0					17.0	17.0	17.0
Actuated g/C Ratio		0.18		0.41	0.64					0.24	0.24	0.24
Clearance Time (s)		4.0								4.0	4.0	4.0
Vehicle Extension (s)		6.0								5.0	5.0	5.0
Lane Grp Cap (vph)		614		1398	1198					408	409	332
v/s Ratio Prot		c0.22		c0.25	0.33					0.16	c0.16	
v/s Ratio Perm												0.04
v/c Ratio		1.23		0.60	0.51					0.66	0.67	0.18
Uniform Delay, d1		28.8		16.3	6.7					23.9	23.9	21.0
Progression Factor		1.00		0.10	0.30					1.00	1.00	1.00
Incremental Delay, d2		119.0		0.4	0.3					5.1	5.4	0.5
Delay (s)		147.7		2.1	2.3					29.0	29.3	21.5
Level of Service		F		A	A					C	C	C
Approach Delay (s)		147.7			2.2			0.0			26.8	
Approach LOS		F			A			A			C	

Intersection Summary

HCM Average Control Delay	45.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗↗		↕	↗			
Volume (vph)	379	868	0	0	1382	1044	74	9	770	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	0.88		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.71		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.88	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)	1770	3539			3539	1970		1542	1504			
Flt Permitted	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)	1770	3539			3539	1970		1542	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	379	868	0	0	1382	1044	74	9	770	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	664	0	215	44	0	0	0
Lane Group Flow (vph)	379	868	0	0	1382	380	0	215	379	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot					custom	Split		custom			
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	10.5	30.3			29.0	25.5		19.5	32.7			
Effective Green, g (s)	10.0	29.8			25.5	25.5		19.0	27.7			
Actuated g/C Ratio	0.14	0.43			0.36	0.36		0.27	0.40			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	253	1507			1289	718		419	595			
v/s Ratio Prot	c0.21	0.25			c0.39	0.07		0.14	c0.25			
v/s Ratio Perm						0.12						
v/c Ratio	1.50	0.58			1.07	0.53		0.51	0.64			
Uniform Delay, d1	30.0	15.3			22.2	17.5		21.6	17.1			
Progression Factor	0.85	0.12			0.43	2.80		1.00	1.00			
Incremental Delay, d2	230.1	0.2			37.8	0.4		2.1	3.1			
Delay (s)	255.5	2.1			47.5	49.5		23.7	20.2			
Level of Service	F	A			D	D		C	C			
Approach Delay (s)		79.1			48.4			22.0			0.0	
Approach LOS		E			D			C			A	

Intersection Summary

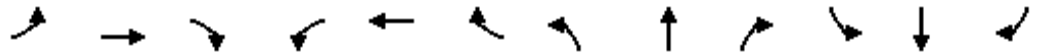
HCM Average Control Delay	51.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	92.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	219	1177	282	30	1765	41	489	29	17	103	24	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	0.99		1.00	1.00			1.00	0.95		1.00	1.00
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00	1.00		0.99	1.00
Frt	1.00	0.97		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.96	1.00
Satd. Flow (prot)	1770	3388		1760	5055			1779	1510		1772	1583
Flt Permitted	0.15	1.00		0.16	1.00			0.65	1.00		0.38	1.00
Satd. Flow (perm)	273	3388		304	5055			1208	1510		707	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	1177	282	30	1765	41	489	29	17	103	24	259
RTOR Reduction (vph)	0	30	0	0	3	0	0	0	8	0	0	134
Lane Group Flow (vph)	219	1429	0	30	1803	0	0	518	9	0	127	125
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	33.4	33.4		23.8	23.8			28.5	28.5		28.5	28.5
Effective Green, g (s)	32.9	34.0		24.4	24.4			28.0	28.0		28.0	28.0
Actuated g/C Ratio	0.47	0.49		0.35	0.35			0.40	0.40		0.40	0.40
Clearance Time (s)	3.5	4.6		4.6	4.6			3.5	3.5		3.5	3.5
Vehicle Extension (s)	0.2	0.2		0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	248	1646		106	1762			483	604		283	633
v/s Ratio Prot	0.07	c0.42			c0.36							
v/s Ratio Perm	0.34			0.10				c0.43	0.01		0.18	0.08
v/c Ratio	0.88	0.87		0.28	1.02			1.07	0.01		0.45	0.20
Uniform Delay, d1	16.4	16.0		16.5	22.8			21.0	12.7		15.4	13.7
Progression Factor	1.20	0.73		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	24.1	4.1		6.6	27.5			61.7	0.0		0.4	0.1
Delay (s)	43.7	15.8		23.0	50.3			82.7	12.7		15.8	13.7
Level of Service	D	B		C	D			F	B		B	B
Approach Delay (s)		19.5			49.9			80.5			14.4	
Approach LOS		B			D			F			B	

Intersection Summary

HCM Average Control Delay	39.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & 5th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	1248	21	9	1961	14	13	1	17	17	0	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.96		1.00	0.95	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.97	1.00		0.97	1.00	
Frt	1.00	1.00		1.00	1.00		1.00	0.86		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3527		1770	3534		1710	1528		1708	1509	
Flt Permitted	0.95	1.00		0.95	1.00		0.73	1.00		0.75	1.00	
Satd. Flow (perm)	1770	3527		1770	3534		1312	1528		1341	1509	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	43	1248	21	9	1961	14	13	1	17	17	0	43
RTOR Reduction (vph)	0	1	0	0	0	0	0	14	0	0	35	0
Lane Group Flow (vph)	43	1268	0	9	1975	0	13	4	0	17	8	0
Confl. Peds. (#/hr)			36			36	36		36	36		36
Turn Type	Prot		Prot		Perm			Perm				
Protected Phases	1	6		5	2			8				4
Permitted Phases		6			2		8			4		
Actuated Green, G (s)	6.3	42.0		5.0	40.7		14.8	14.8		14.8	14.8	
Effective Green, g (s)	5.3	42.3		4.0	41.0		14.3	14.3		14.3	14.3	
Actuated g/C Ratio	0.07	0.58		0.06	0.56		0.20	0.20		0.20	0.20	
Clearance Time (s)	3.0	4.3		3.0	4.3		3.5	3.5		3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	129	2055		98	1996		258	301		264	297	
v/s Ratio Prot	c0.02	0.36		0.01	c0.56			0.00			0.01	
v/s Ratio Perm							0.01			c0.01		
v/c Ratio	0.33	0.62		0.09	0.99		0.05	0.01		0.06	0.03	
Uniform Delay, d1	32.0	9.9		32.6	15.6		23.6	23.5		23.7	23.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	0.4		0.1	17.4		0.0	0.0		0.0	0.0	
Delay (s)	32.5	10.3		32.7	33.0		23.7	23.5		23.7	23.6	
Level of Service	C	B		C	C		C	C		C	C	
Approach Delay (s)		11.0			33.0			23.6			23.6	
Approach LOS		B			C			C			C	

Intersection Summary

HCM Average Control Delay	24.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	72.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	1141	128	108	1532	34	364	52	486	34	43	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3472		1770	3523		1681	1706	1583	1770	1693	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3472		1770	3523		1681	1706	1583	1770	1693	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	62	1141	128	108	1532	34	364	52	486	34	43	67
RTOR Reduction (vph)	0	4	0	0	1	0	0	0	285	0	43	0
Lane Group Flow (vph)	62	1265	0	108	1565	0	207	209	201	34	67	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split			Prot	Split	
Protected Phases	1	6		5	2		8	8	8	7	7	
Permitted Phases												
Actuated Green, G (s)	7.9	40.9		10.4	43.4		18.1	18.1	18.1	8.6	8.6	
Effective Green, g (s)	6.9	40.9		9.4	43.4		17.6	17.6	17.6	8.1	8.1	
Actuated g/C Ratio	0.08	0.44		0.10	0.47		0.19	0.19	0.19	0.09	0.09	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.5	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	133	1544		181	1662		322	326	303	156	149	
v/s Ratio Prot	0.04	0.36		c0.06	c0.44		0.12	0.12	c0.13	0.02	c0.04	
v/s Ratio Perm												
v/c Ratio	0.47	0.82		0.60	0.94		0.64	0.64	0.66	0.22	0.45	
Uniform Delay, d1	40.8	22.3		39.5	23.1		34.3	34.3	34.4	39.0	39.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.9	3.3		3.5	11.0		3.3	3.2	4.2	0.3	0.8	
Delay (s)	41.7	25.7		43.0	34.1		37.6	37.5	38.6	39.3	40.6	
Level of Service	D	C		D	C		D	D	D	D	D	
Approach Delay (s)		26.4			34.7			38.1			40.3	
Approach LOS		C			C			D			D	

Intersection Summary

HCM Average Control Delay	32.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	1517	126	100	1317	28	130	31	206	87	40	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.93	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1467	1770	3523		1715	1863	1583	1770	1863	1484
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.73	1.00	1.00	0.74	1.00	1.00
Satd. Flow (perm)	1770	3539	1467	1770	3523		1319	1863	1583	1373	1863	1484
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	1517	126	100	1317	28	130	31	206	87	40	170
RTOR Reduction (vph)	0	0	18	0	1	0	0	0	164	0	0	136
Lane Group Flow (vph)	26	1517	108	100	1344	0	130	31	42	87	40	34
Confl. Peds. (#/hr)			35			35	35					35
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		Perm
Protected Phases	1	6		5	2			4				8
Permitted Phases			6				4		4	8		8
Actuated Green, G (s)	2.4	43.1	43.1	7.4	48.1		16.3	16.3	16.3	16.3	16.3	16.3
Effective Green, g (s)	1.9	43.6	43.6	6.9	48.6		15.8	15.8	15.8	15.8	15.8	15.8
Actuated g/C Ratio	0.02	0.56	0.56	0.09	0.62		0.20	0.20	0.20	0.20	0.20	0.20
Clearance Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2	0.2	2.0	2.0	2.0
Lane Grp Cap (vph)	43	1971	817	156	2187		266	376	319	277	376	299
v/s Ratio Prot	0.01	c0.43		c0.06	0.38			0.02			0.02	
v/s Ratio Perm			0.07				c0.10		0.03	0.06		0.02
v/c Ratio	0.60	0.77	0.13	0.64	0.61		0.49	0.08	0.13	0.31	0.11	0.11
Uniform Delay, d1	37.8	13.5	8.3	34.5	9.1		27.7	25.4	25.6	26.6	25.5	25.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	15.3	1.7	0.0	6.6	0.4		0.5	0.0	0.1	0.2	0.0	0.1
Delay (s)	53.2	15.1	8.3	41.1	9.5		28.2	25.4	25.7	26.9	25.5	25.6
Level of Service	D	B	A	D	A		C	C	C	C	C	C
Approach Delay (s)		15.2			11.7			26.5			26.0	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	78.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	1645	43	7	1202	4	42	14	54	24	33	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00			0.97			0.97	
Flpb, ped/bikes	0.98	1.00		1.00	1.00			0.98			0.99	
Frt	1.00	1.00		1.00	1.00			0.93			0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1742	3513		1770	3536			1630			1667	
Flt Permitted	0.17	1.00		0.09	1.00			0.88			0.93	
Satd. Flow (perm)	319	3513		169	3536			1456			1572	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	74	1645	43	7	1202	4	42	14	54	24	33	46
RTOR Reduction (vph)	0	2	0	0	0	0	0	4	0	0	14	0
Lane Group Flow (vph)	74	1686	0	7	1206	0	0	106	0	0	89	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	43.5	43.5		43.5	43.5			20.3			20.3	
Effective Green, g (s)	44.0	44.0		44.0	44.0			19.8			19.8	
Actuated g/C Ratio	0.61	0.61		0.61	0.61			0.28			0.28	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	195	2153		104	2167			402			434	
v/s Ratio Prot		c0.48			0.34							
v/s Ratio Perm	0.23			0.04				c0.07			0.06	
v/c Ratio	0.38	0.78		0.07	0.56			0.26			0.20	
Uniform Delay, d1	7.0	10.3		5.6	8.2			20.3			20.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	5.5	2.9		1.2	1.0			0.1			0.1	
Delay (s)	12.5	13.3		6.9	9.2			20.4			20.0	
Level of Service	B	B		A	A			C			C	
Approach Delay (s)		13.2			9.2			20.4			20.0	
Approach LOS		B			A			C			C	

Intersection Summary

HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	71.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	88.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

6/15/2007



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	1788	262	50	0	50	82	5000	20	1981	894
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1788	262	50	0	50	82	5000	20	1981	894
RTOR Reduction (vph)	0	75	0	24	0	0	0	4	0	501
Lane Group Flow (vph)	1788	187	0	76	0	82	5000	16	1981	393
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	36.0	36.0		14.9		7.3	69.1	51.1	57.3	57.3
Effective Green, g (s)	36.0	35.0		13.9		7.3	69.1	51.1	57.3	57.3
Actuated g/C Ratio	0.24	0.23		0.09		0.05	0.46	0.34	0.38	0.38
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	824	369		157		86	2952	539	2564	605
v/s Ratio Prot	c0.52	0.12		c0.04		0.05	c0.78		0.30	0.25
v/s Ratio Perm								0.01		
v/c Ratio	2.17	0.51		0.48		0.95	1.69	0.03	0.77	0.65
Uniform Delay, d1	57.0	50.0		64.6		71.2	40.5	32.9	40.6	38.1
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	530.5	1.1		2.3		81.0	313.7	0.1	1.5	2.4
Delay (s)	587.5	51.1		66.9		152.2	354.1	33.0	42.1	40.5
Level of Service	F	D		E		F	F	C	D	D
Approach Delay (s)				66.9			349.6			
Approach LOS				E			F			

Intersection Summary

HCM Average Control Delay	293.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.70		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	152.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	9	80	66	41	0	0	0	0	170	2284	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		1.00	1.00		1.00						0.86	
Frbp, ped/bikes		1.00	0.97		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		0.99						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		0.97						1.00	
Satd. Flow (prot)		1863	1541		1791						6365	
Flt Permitted		1.00	1.00		0.81						1.00	
Satd. Flow (perm)		1863	1541		1489						6365	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	9	80	66	41	0	0	0	0	170	2284	13
RTOR Reduction (vph)	0	0	65	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	9	15	0	107	0	0	0	0	0	2466	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm						Perm		
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)		12.4	12.4		12.4						59.0	
Effective Green, g (s)		11.9	11.9		11.9						59.0	
Actuated g/C Ratio		0.12	0.12		0.12						0.59	
Clearance Time (s)		3.5	3.5		3.5						4.0	
Vehicle Extension (s)		2.0	2.0		2.0						5.0	
Lane Grp Cap (vph)		222	183		177						3755	
v/s Ratio Prot		0.00										
v/s Ratio Perm			0.01		0.07						0.39	
v/c Ratio		0.04	0.08		0.60						0.66	
Uniform Delay, d1		39.0	39.2		41.8						13.7	
Progression Factor		1.00	1.00		0.95						1.00	
Incremental Delay, d2		0.0	0.1		3.0						0.9	
Delay (s)		39.0	39.3		42.8						14.6	
Level of Service		D	D		D						B	
Approach Delay (s)		39.2			42.8			0.0			14.6	
Approach LOS		D			D			A			B	

Intersection Summary

HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	29.1
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Basler St & 16th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	31	16	0	0	53	26	75	4382	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.96			1.00				
Flpb, ped/bikes	0.89	0.96			1.00			1.00				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.98			1.00			1.00				
Satd. Flow (prot)	1500	1678			1704			6393				
Flt Permitted	0.71	0.93			1.00			1.00				
Satd. Flow (perm)	1114	1584			1704			6393				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	16	0	0	53	26	75	4382	6	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	23	24	0	0	79	0	0	4463	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			73.0				
Effective Green, g (s)	18.0	18.0			18.0			74.0				
Actuated g/C Ratio	0.18	0.18			0.18			0.74				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	201	285			307			4731				
v/s Ratio Prot					c0.05							
v/s Ratio Perm	0.02	0.02						0.70				
v/c Ratio	0.11	0.08			0.26			0.94				
Uniform Delay, d1	34.3	34.1			35.3			11.2				
Progression Factor	0.80	0.80			1.00			0.31				
Incremental Delay, d2	0.9	0.5			2.0			1.7				
Delay (s)	28.3	27.8			37.3			5.2				
Level of Service	C	C			D			A				
Approach Delay (s)		28.0			37.3			5.2			0.0	
Approach LOS		C			D			A			A	

Intersection Summary

HCM Average Control Delay	6.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

13: Bercut Dr & Bannon St

6/15/2007





















Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↔	↔
Volume (veh/h)	78	243	2	127	322	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	78	243	2	127	322	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	512					
pX, platoon unblocked						
vC, conflicting volume			321		330	200
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			321		330	200
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		51	100
cM capacity (veh/h)			1239		663	841

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	321	129	323
Volume Left	0	2	322
Volume Right	243	0	1
cSH	1700	1239	664
Volume to Capacity	0.19	0.00	0.49
Queue Length 95th (ft)	0	0	67
Control Delay (s)	0.0	0.1	15.5
Lane LOS		A	C
Approach Delay (s)	0.0	0.1	15.5
Approach LOS			C

Intersection Summary			
Average Delay		6.5	
Intersection Capacity Utilization	43.6%		ICU Level of Service A
Analysis Period (min)		15	
Description: SB coded as EB			

HCM Unsignalized Intersection Capacity Analysis
 18: Water St & 7th Street

6/15/2007

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	133	58	143	81	111	123	124	655	205	129	205	18
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	133	58	143	81	111	123	124	655	205	129	205	18
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1	SB 2						
Volume Total (vph)	334	192	123	984	129	223						
Volume Left (vph)	133	81	0	124	129	0						
Volume Right (vph)	143	0	123	205	0	18						
Hadj (s)	-0.14	0.24	-0.67	-0.07	0.53	-0.02						
Departure Headway (s)	8.2	8.7	7.8	8.0	8.8	8.3						
Degree Utilization, x	0.76	0.47	0.27	2.18	0.32	0.51						
Capacity (veh/h)	424	388	441	461	394	413						
Control Delay (s)	32.7	18.0	12.5	554.2	14.6	18.4						
Approach Delay (s)	32.7	15.8		554.2	17.0							
Approach LOS	D	C		F	C							
Intersection Summary												
Delay			285.8									
HCM Level of Service			F									
Intersection Capacity Utilization			101.5%		ICU Level of Service	G						
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

19: Water St & 10th St

6/15/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Volume (veh/h)	109	327	190	74	236	129
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	109	327	190	74	236	129
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			841			
pX, platoon unblocked						
vC, conflicting volume	264				608	132
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	264				608	132
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				40	86
cM capacity (veh/h)	1297				391	893

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	218	218	127	137	365
Volume Left	109	0	0	0	236
Volume Right	0	0	0	74	129
cSH	1297	1700	1700	1700	488
Volume to Capacity	0.08	0.13	0.07	0.08	0.75
Queue Length 95th (ft)	7	0	0	0	158
Control Delay (s)	4.4	0.0	0.0	0.0	31.1
Lane LOS	A				D
Approach Delay (s)	2.2		0.0		31.1
Approach LOS					D

Intersection Summary			
Average Delay		11.6	
Intersection Capacity Utilization		50.8%	ICU Level of Service A
Analysis Period (min)		15	

HCM Signalized Intersection Capacity Analysis

20: Water St & 12th Street

6/15/2007



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↘↗	
Volume (vph)	37	313	310	123	155	32	4	51	18	55	2332	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.98			0.98			1.00	
Flpb, ped/bikes		1.00		0.99	1.00			1.00			0.90	
Frt		0.93		1.00	0.97			0.97			1.00	
Flt Protected		1.00		0.95	1.00			1.00			0.95	
Satd. Flow (prot)		3271		1748	1787			1766			5757	
Flt Permitted		0.93		0.17	1.00			1.00			0.95	
Satd. Flow (perm)		3039		320	1787			1766			5757	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	37	313	310	123	155	32	4	51	18	55	2332	65
RTOR Reduction (vph)	0	159	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	501	0	123	187	0	0	61	0	0	2452	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		23.0		23.0	23.0			12.0			38.0	
Effective Green, g (s)		23.0		23.0	23.0			12.0			41.0	
Actuated g/C Ratio		0.23		0.23	0.23			0.12			0.41	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)		699		74	411			212			2360	
v/s Ratio Prot					0.10							
v/s Ratio Perm		0.16		0.38				0.03			0.43	
v/c Ratio		0.72		1.66	0.45			0.29			1.04	
Uniform Delay, d1		35.5		38.5	33.1			40.1			29.5	
Progression Factor		1.00		1.02	1.03			1.00			1.00	
Incremental Delay, d2		4.3		336.2	1.2			1.6			29.6	
Delay (s)		39.8		375.5	35.1			41.7			59.1	
Level of Service		D		F	D			D			E	
Approach Delay (s)		39.8			170.2			41.7			59.1	
Approach LOS		D			F			D			E	

Intersection Summary

HCM Average Control Delay	64.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	98.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: North B St & 16th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			↰			↰↱↲				
Volume (vph)	390	54	0	0	92	0	200	4222	12	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			1.00			1.00				
Flpb, ped/bikes	0.91	0.93			1.00			1.00				
Frt	1.00	1.00			1.00			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1523	1582			1863			6372				
Flt Permitted	0.69	0.71			1.00			1.00				
Satd. Flow (perm)	1100	1161			1863			6372				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	54	0	0	92	0	200	4222	12	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	218	226	0	0	92	0	0	4434	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	20.0	20.0			20.0			72.0				
Effective Green, g (s)	20.0	20.0			20.0			72.0				
Actuated g/C Ratio	0.20	0.20			0.20			0.72				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	220	232			373			4588				
v/s Ratio Prot					0.05							
v/s Ratio Perm	c0.20	0.19						0.70				
v/c Ratio	0.99	0.97			0.25			0.97				
Uniform Delay, d1	39.9	39.7			33.7			12.9				
Progression Factor	0.69	0.69			1.00			0.96				
Incremental Delay, d2	49.8	44.6			1.6			6.3				
Delay (s)	77.2	71.9			35.2			18.7				
Level of Service	E	E			D			B				
Approach Delay (s)		74.5			35.2			18.7			0.0	
Approach LOS		E			D			B			A	

Intersection Summary

HCM Average Control Delay	24.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

37: F Street & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↘			↕			↕	
Volume (veh/h)	34	25	23	89	0	229	0	542	23	155	183	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	34	25	23	89	0	229	0	542	23	155	183	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh												2
Upstream signal (ft)								439				
pX, platoon unblocked												
vC, conflicting volume	1277	1060	184	1084	1050	554	186			565		
vC1, stage 1 conf vol	494	494		554	554							
vC2, stage 2 conf vol	782	565		530	496							
vCu, unblocked vol	1277	1060	184	1084	1050	554	186			565		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	53	92	97	74	100	57	100			85		
cM capacity (veh/h)	72	315	858	347	378	532	1388			1007		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	82	89	229	565	341
Volume Left	34	89	0	0	155
Volume Right	23	0	229	23	3
cSH	142	347	532	1388	1007
Volume to Capacity	0.58	0.26	0.43	0.00	0.15
Queue Length 95th (ft)	74	25	54	0	14
Control Delay (s)	60.4	18.9	16.8	0.0	5.1
Lane LOS	F	C	C		A
Approach Delay (s)	60.4	17.4		0.0	5.1
Approach LOS	F	C			

Intersection Summary		
Average Delay		9.3
Intersection Capacity Utilization	80.4%	ICU Level of Service
Analysis Period (min)		15
		D

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/15/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	712	397	0	0	0	395
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0
Lane Util. Factor	0.97	1.00				1.00
Frbp, ped/bikes	1.00	1.00				1.00
Flpb, ped/bikes	1.00	1.00				1.00
Frt	1.00	0.85				1.00
Flt Protected	0.95	1.00				1.00
Satd. Flow (prot)	3433	1583				1863
Flt Permitted	0.95	1.00				1.00
Satd. Flow (perm)	3433	1583				1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	712	397	0	0	0	395
RTOR Reduction (vph)	363	230	0	0	0	0
Lane Group Flow (vph)	350	167	0	0	0	395
Confl. Peds. (#/hr)		72				
Turn Type		Prot				
Protected Phases	1	1				2
Permitted Phases						
Actuated Green, G (s)	21.5	21.5				21.5
Effective Green, g (s)	21.0	21.0				21.0
Actuated g/C Ratio	0.42	0.42				0.42
Clearance Time (s)	3.5	3.5				3.5
Lane Grp Cap (vph)	1442	665				782
v/s Ratio Prot	0.10	c0.11				c0.21
v/s Ratio Perm						
v/c Ratio	0.24	0.25				0.51
Uniform Delay, d1	9.4	9.4				10.7
Progression Factor	1.13	1.75				1.00
Incremental Delay, d2	0.4	0.9				2.3
Delay (s)	11.0	17.3				13.0
Level of Service	B	B				B
Approach Delay (s)	13.2		0.0			13.0
Approach LOS	B		A			B
Intersection Summary						
HCM Average Control Delay			13.2		HCM Level of Service	B
HCM Volume to Capacity ratio			0.38			
Actuated Cycle Length (s)			50.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			68.1%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

41: G Street & 8th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Volume (vph)	0	0	0	0	770	98	276	438	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0				
Lane Util. Factor					0.91			0.91				
Frbp, ped/bikes					0.99			1.00				
Flpb, ped/bikes					1.00			0.98				
Frt					0.98			1.00				
Flt Protected					1.00			0.98				
Satd. Flow (prot)					4964			4890				
Flt Permitted					1.00			0.98				
Satd. Flow (perm)					4964			4890				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	770	98	276	438	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	32	0	0	56	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	836	0	0	658	0	0	0	0
Confl. Peds. (#/hr)						72	72					
Turn Type							Perm					
Protected Phases					1			2				
Permitted Phases							2					
Actuated Green, G (s)					21.5			21.5				
Effective Green, g (s)					21.0			21.0				
Actuated g/C Ratio					0.42			0.42				
Clearance Time (s)					3.5			3.5				
Lane Grp Cap (vph)					2085			2054				
v/s Ratio Prot					0.17							
v/s Ratio Perm								0.13				
v/c Ratio					0.40			0.32				
Uniform Delay, d1					10.1			9.7				
Progression Factor					1.16			0.53				
Incremental Delay, d2					0.6			0.4				
Delay (s)					12.3			5.5				
Level of Service					B			A				
Approach Delay (s)		0.0			12.3			5.5			0.0	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM Average Control Delay			9.2					HCM Level of Service			A	
HCM Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			39.6%					ICU Level of Service			A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

6/15/2007

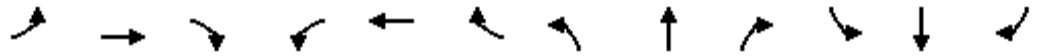


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	59	270	0	0	0	0	0	1151	318
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.98	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.97	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					4989						4837	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					4989						4837	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	59	270	0	0	0	0	0	1151	318
RTOR Reduction (vph)	0	0	0	0	39	0	0	0	0	0	100	0
Lane Group Flow (vph)	0	0	0	0	290	0	0	0	0	0	1369	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1696						2032	
v/s Ratio Prot											c0.28	
v/s Ratio Perm					0.06							
v/c Ratio					0.17						0.67	
Uniform Delay, d1					11.6						11.7	
Progression Factor					1.00						1.62	
Incremental Delay, d2					0.2						0.2	
Delay (s)					11.8						19.1	
Level of Service					B						B	
Approach Delay (s)		0.0			11.8			0.0			19.1	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			17.8		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			45.4%		ICU Level of Service			A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕						↕	↗	↙	↕	
Volume (vph)	4	319	79	0	0	0	0	263	389	188	133	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	3.5	4.0	4.0	
Lane Util. Factor	1.00	0.95						0.95	0.95	1.00	1.00	
Frbp, ped/bikes	1.00	0.98						0.98	0.92	1.00	1.00	
Flpb, ped/bikes	0.88	1.00						1.00	1.00	0.96	1.00	
Frt	1.00	0.97						0.96	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1557	3378						1673	1380	1703	1863	
Flt Permitted	0.95	1.00						1.00	1.00	0.37	1.00	
Satd. Flow (perm)	1557	3378						1673	1380	661	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	263	389	188	133	0
RTOR Reduction (vph)	0	44	0	0	0	0	0	22	212	0	0	0
Lane Group Flow (vph)	4	354	0	0	0	0	0	323	95	188	133	0
Confl. Peds. (#/hr)	72		72							72	72	
Turn Type	Perm								Perm	Perm		
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)	22.5	22.5						15.5	15.5	15.5	15.5	
Effective Green, g (s)	22.0	22.0						15.0	15.5	15.0	15.0	
Actuated g/C Ratio	0.44	0.44						0.30	0.31	0.30	0.30	
Clearance Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
Lane Grp Cap (vph)	685	1486						502	428	198	559	
v/s Ratio Prot		c0.10						0.19			0.07	
v/s Ratio Perm	0.00								0.07	c0.28		
v/c Ratio	0.01	0.24						0.64	0.22	0.95	0.24	
Uniform Delay, d1	7.9	8.8						15.2	12.8	17.1	13.2	
Progression Factor	0.76	0.60						1.33	5.64	1.00	1.00	
Incremental Delay, d2	0.0	0.4						3.0	0.6	52.0	1.0	
Delay (s)	6.0	5.6						23.2	72.7	69.1	14.2	
Level of Service	A	A						C	E	E	B	
Approach Delay (s)		5.6			0.0			46.5			46.4	
Approach LOS		A			A			D			D	

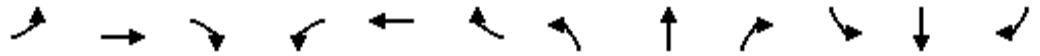
Intersection Summary

HCM Average Control Delay	34.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	770	82	0	0	0	0	0	0	194	924	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.99								1.00	1.00	
Flpb, ped/bikes		1.00								0.93	1.00	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3460								1494	3382	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3460								1494	3382	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	770	82	0	0	0	0	0	0	194	924	0
RTOR Reduction (vph)	0	16	0	0	0	0	0	0	0	112	3	0
Lane Group Flow (vph)	0	836	0	0	0	0	0	0	0	63	940	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		19.5								18.5	18.5	
Effective Green, g (s)		19.0								18.0	18.0	
Actuated g/C Ratio		0.38								0.36	0.36	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1315								538	1218	
v/s Ratio Prot		c0.24										
v/s Ratio Perm										0.04	0.28	
v/c Ratio		0.64								0.12	0.77	
Uniform Delay, d1		12.7								10.7	14.2	
Progression Factor		1.50								1.48	0.82	
Incremental Delay, d2		2.0								0.4	4.4	
Delay (s)		21.1								16.3	16.1	
Level of Service		C								B	B	
Approach Delay (s)		21.1			0.0			0.0			16.1	
Approach LOS		C			A			A			B	
Intersection Summary												
HCM Average Control Delay			18.3		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				13.0			
Intersection Capacity Utilization			84.8%		ICU Level of Service					E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Volume (vph)	249	683	0	0	0	0	0	462	259	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.97				
Flpb, ped/bikes		0.98						1.00				
Frt		1.00						0.95				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		3425						4669				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		3425						4669				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	249	683	0	0	0	0	0	462	259	0	0	0
RTOR Reduction (vph)	0	74	0	0	0	0	0	167	0	0	0	0
Lane Group Flow (vph)	0	858	0	0	0	0	0	554	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		21.5						16.5				
Effective Green, g (s)		21.0						16.0				
Actuated g/C Ratio		0.42						0.32				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1439						1494				
v/s Ratio Prot								c0.12				
v/s Ratio Perm		0.25										
v/c Ratio		0.60						0.37				
Uniform Delay, d1		11.2						13.1				
Progression Factor		0.74						1.00				
Incremental Delay, d2		1.5						0.7				
Delay (s)		9.8						13.8				
Level of Service		A						B				
Approach Delay (s)		9.8			0.0			13.8			0.0	
Approach LOS		A			A			B			A	

Intersection Summary

HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	838	489	0	0	0	47	0	2072	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	0.99				1.00		1.00				
Satd. Flow (prot)	3221	1666				1611		5072				
Flt Permitted	0.95	0.99				1.00		1.00				
Satd. Flow (perm)	3221	1666				1611		5072				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	838	489	0	0	0	47	0	2072	20	0	0	0
RTOR Reduction (vph)	32	10	0	0	0	11	0	2	0	0	0	0
Lane Group Flow (vph)	722	563	0	0	0	36	0	2090	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	15.5	21.5				2.5		21.5				
Effective Green, g (s)	15.0	21.0				2.0		21.0				
Actuated g/C Ratio	0.30	0.42				0.04		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	966	700				64		2130				
v/s Ratio Prot	0.22	c0.24				0.02		c0.41				
v/s Ratio Perm		0.10										
v/c Ratio	0.75	0.80				0.57		0.98				
Uniform Delay, d1	15.8	12.7				23.6		14.3				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	5.3	9.5				31.9		15.6				
Delay (s)	21.1	22.2				55.5		29.9				
Level of Service	C	C				E		C				
Approach Delay (s)		21.5			55.5			29.9			0.0	
Approach LOS		C			E			C			A	
Intersection Summary												
HCM Average Control Delay			27.0				HCM Level of Service				C	
HCM Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			89.1%				ICU Level of Service			E		
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/15/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	652	223	179	58	74	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.88	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1631	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1631	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	652	223	179	58	74	560
RTOR Reduction (vph)	0	0	0	16	202	0
Lane Group Flow (vph)	652	223	179	42	432	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	36.6	44.4	16.7	47.2	30.5	
Effective Green, g (s)	37.1	44.4	16.7	47.2	30.5	
Actuated g/C Ratio	0.39	0.46	0.17	0.49	0.32	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	682	859	323	842	517	
v/s Ratio Prot	c0.37	0.12	c0.10	0.02	c0.26	
v/s Ratio Perm				0.01		
v/c Ratio	0.96	0.26	0.55	0.05	0.84	
Uniform Delay, d1	28.8	15.9	36.4	12.8	30.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	23.9	0.3	3.0	0.0	11.2	
Delay (s)	52.7	16.2	39.4	12.9	41.7	
Level of Service	D	B	D	B	D	
Approach Delay (s)		43.4	32.9		41.7	
Approach LOS		D	C		D	

Intersection Summary

HCM Average Control Delay	41.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	96.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↗↘	↑↑				↗↘
Volume (vph)	0	0	0	0	3134	55	524	347	0	0	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					1.00		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6216		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6216		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	3134	55	524	347	0	0	0	50
RTOR Reduction (vph)	0	0	0	0	2	0	2	0	0	0	0	1
Lane Group Flow (vph)	0	0	0	0	3187	0	522	347	0	0	0	49
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					65.0		26.5	26.5				26.5
Effective Green, g (s)					66.0		26.0	26.0				26.5
Actuated g/C Ratio					0.66		0.26	0.26				0.26
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					4103		893	874				739
v/s Ratio Prot					c0.51		c0.15	0.10				
v/s Ratio Perm												0.02
v/c Ratio					0.78		0.58	0.40				0.07
Uniform Delay, d1					11.9		32.3	30.5				27.5
Progression Factor					0.85		0.96	0.97				1.00
Incremental Delay, d2					0.7		2.4	1.2				0.2
Delay (s)					10.8		33.4	30.7				27.7
Level of Service					B		C	C				C
Approach Delay (s)		0.0			10.8			32.3			27.7	
Approach LOS		A			B			C			C	

Intersection Summary

HCM Average Control Delay	15.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑		↑	←↑↑			↑	↑
Volume (vph)	0	0	0	41	2303	188	339	379	0	0	13	401
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.99		1.00	1.00			0.86	0.85
Flt Protected					1.00		0.95	0.99			1.00	1.00
Satd. Flow (prot)					4948		1610	3354			1521	1504
Flt Permitted					1.00		0.95	0.99			1.00	1.00
Satd. Flow (perm)					4948		1610	3354			1521	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	41	2303	188	339	379	0	0	13	401
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	0	10	10
Lane Group Flow (vph)	0	0	0	0	2523	0	234	484	0	0	199	195
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm			custom					custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					66.5		13.5	13.5			9.5	9.5
Effective Green, g (s)					66.0		13.0	13.0			9.0	9.0
Actuated g/C Ratio					0.66		0.13	0.13			0.09	0.09
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					3266		209	436			137	135
v/s Ratio Prot							c0.15	0.14			c0.13	0.13
v/s Ratio Perm					0.51							
v/c Ratio					0.77		1.12	1.11			1.45	1.44
Uniform Delay, d1					11.8		43.5	43.5			45.5	45.5
Progression Factor					0.69		1.06	1.06			0.93	0.93
Incremental Delay, d2					1.3		95.5	74.8			239.4	236.5
Delay (s)					9.4		141.4	120.8			281.6	278.7
Level of Service					A		F	F			F	F
Approach Delay (s)		0.0			9.4			127.5			280.2	
Approach LOS		A			A			F			F	

Intersection Summary

HCM Average Control Delay	63.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔						↕	↗
Volume (vph)	0	0	0	281	1869	0	0	0	0	0	574	674
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.86	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1303	4792						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1303	4792						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	281	1869	0	0	0	0	0	574	674
RTOR Reduction (vph)	0	0	0	114	1	0	0	0	0	0	0	188
Lane Group Flow (vph)	0	0	0	139	1896	0	0	0	0	0	574	486
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				55.5	55.5						27.5	27.5
Effective Green, g (s)				55.0	55.0						27.0	27.0
Actuated g/C Ratio				0.55	0.55						0.27	0.27
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				717	2636						956	752
v/s Ratio Prot											0.16	
v/s Ratio Perm				0.11	0.40							c0.17
v/c Ratio				0.19	0.72						0.60	0.65
Uniform Delay, d1				11.3	16.8						31.8	32.3
Progression Factor				1.00	1.00						1.19	1.30
Incremental Delay, d2				0.6	1.7						2.2	3.4
Delay (s)				11.9	18.5						40.1	45.4
Level of Service				B	B						D	D
Approach Delay (s)		0.0			17.7			0.0			42.9	
Approach LOS		A			B			A			D	
Intersection Summary												
HCM Average Control Delay			27.0		HCM Level of Service						C	
HCM Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			18.0				
Intersection Capacity Utilization			64.9%		ICU Level of Service						C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/15/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	6	896	433	241	377	403	3	642	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.95		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		5989		2787	3433	1863	1586	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		5989		2787	3433	1863	1586	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	896	433	241	377	403	3	642	147
RTOR Reduction (vph)	0	0	0	46	0	0	0	37	0
Lane Group Flow (vph)	0	1335	0	195	377	403	266	489	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		24.9		22.0	22.0	22.0	23.6	23.6	
Effective Green, g (s)		24.9		21.5	21.5	21.5	23.6	23.6	
Actuated g/C Ratio		0.30		0.26	0.26	0.26	0.29	0.29	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1819		731	900	488	456	829	
v/s Ratio Prot		c0.22				c0.22	0.17	c0.17	
v/s Ratio Perm				0.07	0.11				
v/c Ratio		0.91dr		0.27	0.42	0.83	0.58	0.59	
Uniform Delay, d1		25.6		24.0	25.1	28.5	25.0	25.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.7		0.1	0.1	10.4	2.2	1.3	
Delay (s)		28.3		24.1	25.2	38.9	27.2	26.3	
Level of Service		C		C	C	D	C	C	
Approach Delay (s)		28.3				32.3	26.6		
Approach LOS		C				C	C		

Intersection Summary

HCM Average Control Delay	28.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	82.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↙↙↙↙	↙					↕↕	↙			
Volume (vph)	346	1464	145	0	0	0	0	528	498	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.96					0.99	0.96			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.96	0.85			
Flt Protected	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (prot)	1290	6028	1520					3227	1387			
Flt Permitted	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (perm)	1290	6028	1520					3227	1387			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	346	1464	145	0	0	0	0	528	498	0	0	0
RTOR Reduction (vph)	122	6	84	0	0	0	0	4	4	0	0	0
Lane Group Flow (vph)	189	1493	61	0	0	0	0	708	310	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0			
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0			
Actuated g/C Ratio	0.42	0.42	0.42					0.42	0.42			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	542	2532	638					1355	583			
v/s Ratio Prot	0.15	c0.25						0.22				
v/s Ratio Perm			0.04						c0.22			
v/c Ratio	0.35	0.59	0.10					0.52	0.53			
Uniform Delay, d1	9.8	11.2	8.8					10.8	10.8			
Progression Factor	1.00	1.00	1.00					1.00	1.00			
Incremental Delay, d2	1.8	1.0	0.3					0.2	0.5			
Delay (s)	11.6	12.2	9.1					10.9	11.3			
Level of Service	B	B	A					B	B			
Approach Delay (s)		11.9			0.0			11.1			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			11.6					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			79.7%					ICU Level of Service			D	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↙↕↘						↕		↘		
Volume (vph)	367	1419	0	0	0	0	0	205	200	132	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.98		1.00		
Flpb, ped/bikes	0.96	1.00						1.00		0.99		
Frt	1.00	1.00						0.93		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1463	4795						1703		1744		
Flt Permitted	0.95	1.00						1.00		0.37		
Satd. Flow (perm)	1463	4795						1703		679		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	367	1419	0	0	0	0	0	205	200	132	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	330	1456	0	0	0	0	0	393	0	132	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	24.5	24.5						18.5		18.5		
Effective Green, g (s)	24.0	24.0						18.0		18.0		
Actuated g/C Ratio	0.48	0.48						0.36		0.36		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	702	2302						613		244		
v/s Ratio Prot							c0.23					
v/s Ratio Perm	0.23	0.30								0.19		
v/c Ratio	0.47	0.63						0.64		0.54		
Uniform Delay, d1	8.7	9.7						13.3		12.7		
Progression Factor	1.53	1.56						1.00		0.85		
Incremental Delay, d2	1.9	1.1						5.1		7.9		
Delay (s)	15.2	16.2						18.4		18.7		
Level of Service	B								B			
Approach Delay (s)	16.0				0.0		18.4				18.7	
Approach LOS	B				A		B				B	

Intersection Summary

HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↑↑↑									↑↑↑			
Volume (vph)	0	1400	425	0	0	0	0	0	0	130	773	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		4.0									4.0			
Lane Util. Factor		0.91									0.91			
Frbp, ped/bikes		0.99									1.00			
Flpb, ped/bikes		1.00									1.00			
Frt		0.97									1.00			
Flt Protected		1.00									0.99			
Satd. Flow (prot)		4860									5027			
Flt Permitted		1.00									0.99			
Satd. Flow (perm)		4860									5027			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	0	1400	425	0	0	0	0	0	0	130	773	0		
RTOR Reduction (vph)	0	109	0	0	0	0	0	0	0	0	46	0		
Lane Group Flow (vph)	0	1716	0	0	0	0	0	0	0	0	857	0		
Confl. Peds. (#/hr)			36							36				
Turn Type										Perm				
Protected Phases		1									2			
Permitted Phases										2				
Actuated Green, G (s)		21.5									16.5			
Effective Green, g (s)		21.0									16.0			
Actuated g/C Ratio		0.42									0.32			
Clearance Time (s)		3.5									3.5			
Lane Grp Cap (vph)		2041									1609			
v/s Ratio Prot		0.35												
v/s Ratio Perm											0.17			
v/c Ratio		0.84									0.53			
Uniform Delay, d1		13.0									13.9			
Progression Factor		1.56									0.68			
Incremental Delay, d2		3.6									1.1			
Delay (s)		23.8									10.6			
Level of Service		C									B			
Approach Delay (s)		23.8			0.0			0.0			10.6			
Approach LOS		C			A			A			B			
Intersection Summary														
HCM Average Control Delay			19.4									HCM Level of Service	B	
HCM Volume to Capacity ratio			0.71											
Actuated Cycle Length (s)			50.0								13.0		Sum of lost time (s)	
Intersection Capacity Utilization			61.5%										ICU Level of Service	B
Analysis Period (min)			15											
c Critical Lane Group														

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/15/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	406	770	731	145	356	73	591	357	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.0	4.5	4.0	3.5	4.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.99	0.85	0.85	1.00	1.00	0.94		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1670	1504	1583	1770	3539	4779		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1670	1504	1583	1770	3539	4779		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	406	770	731	145	356	73	591	357	40
RTOR Reduction (vph)	0	0	0	59	0	0	4	0	0
Lane Group Flow (vph)	365	884	658	86	356	73	984	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		6			3	8	4		
Permitted Phases	6	6	6	6					
Actuated Green, G (s)	60.0	60.0	60.0	60.0	11.0	32.5	17.5		
Effective Green, g (s)	59.5	59.5	60.0	59.5	11.0	32.5	17.0		
Actuated g/C Ratio	0.60	0.60	0.60	0.60	0.11	0.32	0.17		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	3.5		
Lane Grp Cap (vph)	1000	994	902	942	195	1150	812		
v/s Ratio Prot					c0.20	0.02	c0.21		
v/s Ratio Perm	0.22	0.53	0.44	0.05					
v/c Ratio	0.36	0.89	0.73	0.09	1.83	0.06	1.43dr		
Uniform Delay, d1	10.5	17.4	14.2	8.7	44.5	23.3	41.5		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	1.0	11.8	5.2	0.2	390.9	0.1	106.6		
Delay (s)	11.5	29.2	19.4	8.9	435.4	23.4	148.1		
Level of Service	B	C	B	A	F	C	F		
Approach Delay (s)		21.5				365.3	148.1		
Approach LOS		C				F	F		

Intersection Summary

HCM Average Control Delay	100.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	92.5%	ICU Level of Service	F
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	1697	150	406	830	0	0	0	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				4.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6287		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6287		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1697	150	406	830	0	0	0	74
RTOR Reduction (vph)	0	0	0	0	20	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1827	0	406	830	0	0	0	74
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					20.0		40.5	40.5				40.5
Effective Green, g (s)					21.0		41.0	41.0				41.0
Actuated g/C Ratio					0.30		0.59	0.59				0.59
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					1886		956	2978				1489
v/s Ratio Prot					c0.29			0.16				
v/s Ratio Perm							c0.25					0.03
v/c Ratio					0.97		0.42	0.28				0.05
Uniform Delay, d1					24.2		8.0	7.2				6.2
Progression Factor					1.00		0.88	0.90				1.00
Incremental Delay, d2					14.6		1.2	0.2				0.1
Delay (s)					38.8		8.2	6.7				6.3
Level of Service					D		A	A				A
Approach Delay (s)		0.0			38.8			7.2			6.3	
Approach LOS		A			D			A			A	

Intersection Summary

HCM Average Control Delay	25.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	154	1617	0	0	0	0	0	627	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.94	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4694	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4694	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	154	1617	0	0	0	0	0	627	380
RTOR Reduction (vph)	0	0	0	108	0	0	0	0	0	0	99	0
Lane Group Flow (vph)	0	0	0	46	1617	0	0	0	0	0	908	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						22.5	
Effective Green, g (s)				15.0	15.0						22.0	
Actuated g/C Ratio				0.30	0.30						0.44	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2065	
v/s Ratio Prot					c0.32						c0.19	
v/s Ratio Perm				0.03								
v/c Ratio				0.09	1.06						0.44	
Uniform Delay, d1				12.6	17.5						9.7	
Progression Factor				1.00	1.00						1.09	
Incremental Delay, d2				0.0	40.7						0.5	
Delay (s)				12.6	58.2						11.1	
Level of Service				B	E						B	
Approach Delay (s)		0.0			54.2			0.0			11.1	
Approach LOS		A			D			A			B	

Intersection Summary

HCM Average Control Delay	38.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	423	267	0	0	365	83	324	800	46	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.98		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.97		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4868		3433	5020				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4868		3433	5020				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	423	267	0	0	365	83	324	800	46	0	0	0
RTOR Reduction (vph)	0	0	0	0	51	0	0	9	0	0	0	0
Lane Group Flow (vph)	423	267	0	0	397	0	324	837	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		31.0	31.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.44	0.44				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			974		1520	2223				
v/s Ratio Prot	c0.12	0.08			c0.08		0.09	c0.17				
v/s Ratio Perm												
v/c Ratio	0.66	0.17			0.41		0.21	0.38				
Uniform Delay, d1	26.5	11.8			24.4		12.0	13.0				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	5.4	0.2			1.3		0.3	0.5				
Delay (s)	31.8	12.0			25.7		12.3	13.5				
Level of Service	C	B			C		B	B				
Approach Delay (s)		24.1			25.7			13.2			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑↑
Volume (vph)	0	0	0	178	2357	0	0	0	0	0	484	728
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.86	0.86
Frbp, ped/bikes					1.00						0.98	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.96	0.85
Flt Protected					1.00						1.00	1.00
Satd. Flow (prot)					4899						2870	2374
Flt Permitted					1.00						1.00	1.00
Satd. Flow (perm)					4899						2870	2374
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	178	2357	0	0	0	0	0	484	728
RTOR Reduction (vph)	0	0	0	0	17	0	0	0	0	0	1	3
Lane Group Flow (vph)	0	0	0	0	2518	0	0	0	0	0	643	565
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2645						861	712
v/s Ratio Prot					c0.51						0.22	
v/s Ratio Perm												c0.24
v/c Ratio					0.95						0.75	0.79
Uniform Delay, d1					10.9						15.8	16.1
Progression Factor					1.00						0.96	1.02
Incremental Delay, d2					9.4						4.0	6.1
Delay (s)					20.3						19.1	22.4
Level of Service					C						B	C
Approach Delay (s)		0.0			20.3			0.0			20.6	
Approach LOS		A			C			A			C	

Intersection Summary

HCM Average Control Delay	20.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

6/15/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									←←←	
Volume (vph)	0	729	195	0	0	0	0	0	0	200	495	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.98	
Frt		0.97									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6138									4909	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6138									4909	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	729	195	0	0	0	0	0	0	200	495	0
RTOR Reduction (vph)	0	57	0	0	0	0	0	0	0	0	130	0
Lane Group Flow (vph)	0	867	0	0	0	0	0	0	0	0	565	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3315									1473	
v/s Ratio Prot		c0.14										
v/s Ratio Perm											0.12	
v/c Ratio		0.26									0.38	
Uniform Delay, d1		6.2									13.8	
Progression Factor		1.00									0.63	
Incremental Delay, d2		0.2									0.5	
Delay (s)		6.4									9.2	
Level of Service		A									A	
Approach Delay (s)		6.4			0.0			0.0			9.2	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑					↑	↑	↑
Volume (vph)	0	452	92	389	203	0	0	0	0	897	0	686
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95		0.97	1.00					0.95	0.95	1.00
Frbp, ped/bikes		0.98		1.00	1.00					1.00	1.00	0.85
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	1.00
Frt		0.97		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3367		3433	1863					1681	1681	1338
Flt Permitted		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3367		3433	1863					1681	1681	1338
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	452	92	389	203	0	0	0	0	897	0	686
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	0	489
Lane Group Flow (vph)	0	523	0	389	203	0	0	0	0	448	449	197
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9	3 12 13					4	4	
Permitted Phases												4
Actuated Green, G (s)		19.0		27.5	49.5					23.0	23.0	23.0
Effective Green, g (s)		19.0		26.0	49.0					23.0	23.0	23.0
Actuated g/C Ratio		0.24		0.32	0.61					0.29	0.29	0.29
Clearance Time (s)		4.0								4.0	4.0	4.0
Vehicle Extension (s)		6.0								5.0	5.0	5.0
Lane Grp Cap (vph)		800		1116	1141					483	483	385
v/s Ratio Prot		c0.16		c0.11	0.11					0.27	c0.27	
v/s Ratio Perm												0.15
v/c Ratio		0.65		0.35	0.18					0.93	0.93	0.51
Uniform Delay, d1		27.5		20.6	6.7					27.7	27.7	23.8
Progression Factor		1.00		0.39	0.72					1.00	1.00	1.00
Incremental Delay, d2		3.1		0.4	0.1					24.9	25.2	2.3
Delay (s)		30.6		8.4	5.0					52.6	52.9	26.1
Level of Service		C		A	A					D	D	C
Approach Delay (s)		30.6			7.2			0.0			41.2	
Approach LOS		C			A			A			D	

Intersection Summary

HCM Average Control Delay	31.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	127.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗↗		↕	↗			
Volume (vph)	183	1087	0	0	535	463	61	0	1143	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	0.88		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.61		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.86	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	3539			3539	1701		1523	1504			
Flt Permitted	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1770	3539			3539	1701		1523	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	183	1087	0	0	535	463	61	0	1143	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	301	0	181	25	0	0	0
Lane Group Flow (vph)	183	1087	0	0	535	162	0	429	569	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot					custom	Split		custom			
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	11.5	36.3			31.5	28.0		26.0	36.7			
Effective Green, g (s)	11.0	35.8			28.0	28.0		25.5	31.7			
Actuated g/C Ratio	0.14	0.45			0.35	0.35		0.32	0.40			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	243	1584			1239	595		485	596			
v/s Ratio Prot	c0.10	c0.31			0.15	0.02		0.28	c0.38			
v/s Ratio Perm						0.07						
v/c Ratio	0.75	0.69			0.43	0.27		0.89	0.95			
Uniform Delay, d1	33.2	17.6			19.9	18.7		25.9	23.4			
Progression Factor	1.24	0.21			1.07	2.68		1.00	1.00			
Incremental Delay, d2	7.9	0.8			0.4	0.4		18.5	26.3			
Delay (s)	49.2	4.6			21.6	50.5		44.4	49.7			
Level of Service	D	A			C	D		D	D			
Approach Delay (s)		11.0			35.0			47.0			0.0	
Approach LOS		B			D			D			A	

Intersection Summary

HCM Average Control Delay	30.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	127.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Volume (vph)	206	1435	703	80	526	57	413	60	127	37	64	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.2		5.2	5.2			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	0.97		1.00	0.99			1.00	0.95		1.00	1.00
Flpb, ped/bikes	0.99	1.00		1.00	1.00			1.00	1.00		0.99	1.00
Frt	1.00	0.95		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.98	1.00
Satd. Flow (prot)	1745	3276		1770	4950			1785	1502		1820	1583
Flt Permitted	0.38	1.00		0.11	1.00			0.68	1.00		0.53	1.00
Satd. Flow (perm)	689	3276		200	4950			1272	1502		976	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	206	1435	703	80	526	57	413	60	127	37	64	110
RTOR Reduction (vph)	0	75	0	0	16	0	0	0	24	0	0	78
Lane Group Flow (vph)	206	2063	0	80	567	0	0	473	103	0	101	32
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	47.8	47.8		37.9	37.9			24.1	24.1		24.1	24.1
Effective Green, g (s)	47.3	47.2		37.3	37.3			23.6	23.6		23.6	23.6
Actuated g/C Ratio	0.59	0.59		0.47	0.47			0.30	0.30		0.30	0.30
Clearance Time (s)	3.5	4.6		4.6	4.6			3.5	3.5		3.5	3.5
Vehicle Extension (s)	0.2	0.2		0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	485	1933		93	2308			375	443		288	467
v/s Ratio Prot	0.03	c0.63			0.11							
v/s Ratio Perm	0.22			0.40				c0.37	0.07		0.10	0.02
v/c Ratio	0.42	1.07		0.86	0.25			1.26	0.23		0.35	0.07
Uniform Delay, d1	7.8	16.4		19.0	12.9			28.2	21.3		22.2	20.3
Progression Factor	0.78	0.77		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	37.9		60.6	0.3			137.4	0.1		0.3	0.0
Delay (s)	6.2	50.4		79.7	13.1			165.6	21.4		22.4	20.3
Level of Service	A	D		E	B			F	C		C	C
Approach Delay (s)		46.5			21.2			135.1			21.3	
Approach LOS		D			C			F			C	

Intersection Summary

HCM Average Control Delay	54.7	HCM Level of Service	D
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	124.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1458	12	10	653	27	17	5	7	20	5	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.98		1.00	0.96	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.97	1.00		0.97	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.91		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3533		1770	3510		1723	1660		1720	1545	
Flt Permitted	0.95	1.00		0.95	1.00		0.71	1.00		0.75	1.00	
Satd. Flow (perm)	1770	3533		1770	3510		1294	1660		1357	1545	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	30	1458	12	10	653	27	17	5	7	20	5	62
RTOR Reduction (vph)	0	0	0	0	3	0	0	6	0	0	50	0
Lane Group Flow (vph)	30	1470	0	10	677	0	17	6	0	20	17	0
Confl. Peds. (#/hr)			36			36	36		36	36		36
Turn Type	Prot		Prot		Perm		Perm					
Protected Phases	1	6		5	2			8				4
Permitted Phases		6			2		8			4		
Actuated Green, G (s)	6.0	31.9		4.4	30.3		11.4	11.4		11.4	11.4	
Effective Green, g (s)	5.0	31.6		3.4	30.0		10.9	10.9		10.9	10.9	
Actuated g/C Ratio	0.09	0.54		0.06	0.51		0.19	0.19		0.19	0.19	
Clearance Time (s)	3.0	4.3		3.0	4.3		3.5	3.5		3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	151	1908		103	1800		241	309		253	288	
v/s Ratio Prot	c0.02	c0.42		0.01	0.19			0.00			0.01	
v/s Ratio Perm							0.01			c0.01		
v/c Ratio	0.20	0.77		0.10	0.38		0.07	0.02		0.08	0.06	
Uniform Delay, d1	24.9	10.6		26.1	8.6		19.6	19.4		19.7	19.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	1.8		0.2	0.0		0.0	0.0		0.0	0.0	
Delay (s)	25.1	12.4		26.2	8.6		19.7	19.4		19.7	19.6	
Level of Service	C	B		C	A		B	B		B	B	
Approach Delay (s)		12.6			8.9			19.6			19.6	
Approach LOS		B			A			B			B	

Intersection Summary

HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	58.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	
Volume (vph)	39	1238	252	580	641	22	91	48	260	22	88	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.98	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3425		1770	3513		1681	1741	1583	1770	1774	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.98	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3425		1770	3513		1681	1741	1583	1770	1774	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	39	1238	252	580	641	22	91	48	260	22	88	41
RTOR Reduction (vph)	0	14	0	0	2	0	0	0	221	0	14	0
Lane Group Flow (vph)	39	1476	0	580	661	0	68	71	39	22	115	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split			Prot	Split	
Protected Phases	1	6		5	2		8	8	8	7	7	
Permitted Phases												
Actuated Green, G (s)	5.8	48.8		18.7	61.7		15.9	15.9	15.9	6.3	6.3	
Effective Green, g (s)	4.8	48.8		17.7	61.7		15.4	15.4	15.4	5.8	5.8	
Actuated g/C Ratio	0.05	0.47		0.17	0.59		0.15	0.15	0.15	0.06	0.06	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.5	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	82	1612		302	2090		250	259	235	99	99	
v/s Ratio Prot	0.02	c0.43		c0.33	0.19		0.04	c0.04	0.02	0.01	c0.06	
v/s Ratio Perm												
v/c Ratio	0.48	0.92		1.92	0.32		0.27	0.27	0.16	0.22	1.16	
Uniform Delay, d1	48.2	25.5		43.0	10.5		39.2	39.2	38.5	46.8	49.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.6	8.3		426.3	0.0		0.2	0.2	0.1	0.4	139.9	
Delay (s)	49.8	33.8		469.3	10.5		39.4	39.4	38.7	47.2	188.8	
Level of Service	D	C		F	B		D	D	D	D	F	
Approach Delay (s)		34.3			224.6			38.9			168.2	
Approach LOS		C			F			D			F	

Intersection Summary

HCM Average Control Delay	112.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	103.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	108.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗		↖	↗	↘	↖	↗	↘
Volume (vph)	175	1048	207	221	1106	101	31	120	59	24	27	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.93	1.00	0.99		1.00	1.00	1.00	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1472	1770	3474		1717	1863	1583	1770	1863	1483
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.74	1.00	1.00	0.67	1.00	1.00
Satd. Flow (perm)	1770	3539	1472	1770	3474		1337	1863	1583	1251	1863	1483
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	175	1048	207	221	1106	101	31	120	59	24	27	36
RTOR Reduction (vph)	0	0	53	0	5	0	0	0	47	0	0	29
Lane Group Flow (vph)	175	1048	154	221	1202	0	31	120	12	24	27	7
Confl. Peds. (#/hr)			35			35	35					35
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases			6				4		4	8		8
Actuated Green, G (s)	13.0	31.5	31.5	15.0	33.5		15.2	15.2	15.2	15.2	15.2	15.2
Effective Green, g (s)	12.5	32.0	32.0	14.5	34.0		14.7	14.7	14.7	14.7	14.7	14.7
Actuated g/C Ratio	0.17	0.44	0.44	0.20	0.46		0.20	0.20	0.20	0.20	0.20	0.20
Clearance Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2	0.2	2.0	2.0	2.0
Lane Grp Cap (vph)	302	1547	643	351	1614		268	374	318	251	374	298
v/s Ratio Prot	0.10	0.30		c0.12	c0.35			c0.06			0.01	
v/s Ratio Perm			0.10				0.02		0.01	0.02		0.00
v/c Ratio	0.58	0.68	0.24	0.63	0.74		0.12	0.32	0.04	0.10	0.07	0.02
Uniform Delay, d1	27.9	16.5	12.9	26.9	16.0		23.9	25.0	23.6	23.8	23.7	23.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	0.9	0.1	2.5	1.7		0.1	0.2	0.0	0.1	0.0	0.0
Delay (s)	29.6	17.4	13.0	29.4	17.7		24.0	25.2	23.6	23.9	23.7	23.5
Level of Service	C	B	B	C	B		C	C	C	C	C	C
Approach Delay (s)		18.3			19.5			24.5			23.7	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	19.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	73.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	1030	50	39	1278	32	35	22	24	17	49	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00			0.98			0.97	
Flpb, ped/bikes	0.99	1.00		0.98	1.00			0.98			0.99	
Frt	1.00	0.99		1.00	1.00			0.96			0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1748	3492		1734	3514			1690			1661	
Flt Permitted	0.15	1.00		0.21	1.00			0.86			0.97	
Satd. Flow (perm)	270	3492		386	3514			1487			1618	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	1030	50	39	1278	32	35	22	24	17	49	69
RTOR Reduction (vph)	0	3	0	0	2	0	0	17	0	0	11	0
Lane Group Flow (vph)	31	1077	0	39	1308	0	0	64	0	0	124	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	43.4	43.4		43.4	43.4			20.3			20.3	
Effective Green, g (s)	43.9	43.9		43.9	43.9			19.8			19.8	
Actuated g/C Ratio	0.61	0.61		0.61	0.61			0.28			0.28	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	165	2138		236	2152			411			447	
v/s Ratio Prot		0.31			c0.37							
v/s Ratio Perm	0.11			0.10				0.04			c0.08	
v/c Ratio	0.19	0.50		0.17	0.61			0.15			0.28	
Uniform Delay, d1	6.1	7.8		6.0	8.6			19.6			20.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	2.5	0.9		1.5	1.3			0.1			0.1	
Delay (s)	8.6	8.6		7.5	9.9			19.7			20.5	
Level of Service	A	A		A	A			B			C	
Approach Delay (s)		8.6			9.8			19.7			20.5	
Approach LOS		A			A			B			C	

Intersection Summary

HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	71.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

6/17/2007



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	891	76	20	0	20	62	1947	50	3692	1299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	891	76	20	0	20	62	1947	50	3692	1299
RTOR Reduction (vph)	0	43	0	18	0	0	0	26	0	375
Lane Group Flow (vph)	891	33	0	22	0	62	1947	24	3692	924
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	28.0	28.0		13.6		5.5	78.4	61.4	68.4	68.4
Effective Green, g (s)	28.0	27.0		12.6		5.5	78.4	61.4	68.4	68.4
Actuated g/C Ratio	0.19	0.18		0.08		0.04	0.52	0.41	0.46	0.46
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	641	285		142		65	3349	648	3061	722
v/s Ratio Prot	c0.26	0.02		c0.01		c0.04	0.30		0.55	c0.58
v/s Ratio Perm								0.02		
v/c Ratio	1.39	0.11		0.15		0.95	0.58	0.04	1.21	1.28
Uniform Delay, d1	61.0	51.5		63.7		72.1	24.5	26.6	40.8	40.8
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	185.0	0.2		0.5		94.7	0.3	0.1	96.1	136.5
Delay (s)	246.0	51.7		64.2		166.8	24.8	26.7	136.9	177.3
Level of Service	F	D		E		F	C	C	F	F
Approach Delay (s)				64.2			29.1			
Approach LOS				E			C			

Intersection Summary

HCM Average Control Delay	126.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	89	64	34	51	0	0	0	0	148	3776	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		1.00	1.00		1.00						0.86	
Frbp, ped/bikes		1.00	0.97		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		0.99						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		0.98						1.00	
Satd. Flow (prot)		1863	1541		1817						6385	
Flt Permitted		1.00	1.00		0.85						1.00	
Satd. Flow (perm)		1863	1541		1566						6385	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	89	64	34	51	0	0	0	0	148	3776	11
RTOR Reduction (vph)	0	0	57	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	89	7	0	85	0	0	0	0	0	3935	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm							Perm	
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)		11.4	11.4		11.4						64.0	
Effective Green, g (s)		10.9	10.9		10.9						64.0	
Actuated g/C Ratio		0.11	0.11		0.11						0.64	
Clearance Time (s)		3.5	3.5		3.5						4.0	
Vehicle Extension (s)		2.0	2.0		2.0						5.0	
Lane Grp Cap (vph)		203	168		171						4086	
v/s Ratio Prot		0.05										
v/s Ratio Perm			0.00		c0.05						0.62	
v/c Ratio		0.44	0.04		0.50						0.96	
Uniform Delay, d1		41.7	39.9		42.0						16.9	
Progression Factor		1.00	1.00		0.92						1.00	
Incremental Delay, d2		0.6	0.0		0.8						7.8	
Delay (s)		42.2	39.9		39.3						24.7	
Level of Service		D	D		D						C	
Approach Delay (s)		41.3			39.3			0.0			24.7	
Approach LOS		D			D			A			C	

Intersection Summary

HCM Average Control Delay	25.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	25.1
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Basler St & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	408	9	0	0	5	13	74	1167	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.95			1.00				
Flpb, ped/bikes	0.94	0.94			1.00			1.00				
Frt	1.00	1.00			0.90			1.00				
Flt Protected	0.95	0.95			1.00			1.00				
Satd. Flow (prot)	1583	1594			1595			6367				
Flt Permitted	0.75	0.72			1.00			1.00				
Satd. Flow (perm)	1242	1206			1595			6367				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	408	9	0	0	5	13	74	1167	9	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	2	0	0	0	0
Lane Group Flow (vph)	208	209	0	0	10	0	0	1248	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			23.0				
Effective Green, g (s)	18.0	18.0			18.0			24.0				
Actuated g/C Ratio	0.36	0.36			0.36			0.48				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	447	434			574			3056				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.17	c0.17						0.20				
v/c Ratio	0.47	0.48			0.02			0.41				
Uniform Delay, d1	12.3	12.4			10.3			8.4				
Progression Factor	0.76	0.76			1.00			1.45				
Incremental Delay, d2	3.2	3.6			0.1			0.4				
Delay (s)	12.6	13.0			10.4			12.6				
Level of Service	B	B			B			B				
Approach Delay (s)		12.8			10.4			12.6			0.0	
Approach LOS		B			B			B			A	

Intersection Summary

HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

13: Bercut Dr & Bannon St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	←	↘
Volume (veh/h)	147	617	2	123	411	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	147	617	2	123	411	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	512					
pX, platoon unblocked						
vC, conflicting volume			764		582	456
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			764		582	456
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		13	100
cM capacity (veh/h)			849		474	605

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	764	125	412
Volume Left	0	2	411
Volume Right	617	0	1
cSH	1700	849	474
Volume to Capacity	0.45	0.00	0.87
Queue Length 95th (ft)	0	0	229
Control Delay (s)	0.0	0.2	45.1
Lane LOS		A	E
Approach Delay (s)	0.0	0.2	45.1
Approach LOS			E

Intersection Summary			
Average Delay		14.3	
Intersection Capacity Utilization		75.3%	ICU Level of Service D
Analysis Period (min)		15	
Description: SB coded as EB			

HCM Signalized Intersection Capacity Analysis

17: N B Street & 5th St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Volume (vph)	127	0	0	187	200	418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.5	4.5
Lane Util. Factor	1.00			1.00	1.00	0.88
Fr _t	1.00			1.00	1.00	0.85
Fl _t Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	1863			1863	1770	2787
Fl _t Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	1863			1863	1770	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	127	0	0	187	200	418
RTOR Reduction (vph)	0	0	0	0	0	191
Lane Group Flow (vph)	127	0	0	187	200	227
Turn Type						Perm
Protected Phases	4			8	2	
Permitted Phases						2
Actuated Green, G (s)	9.8			9.8	21.7	21.7
Effective Green, g (s)	9.8			9.8	21.7	21.7
Actuated g/C Ratio	0.25			0.25	0.54	0.54
Clearance Time (s)	4.0			4.0	4.5	4.5
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	456			456	960	1512
v/s Ratio Prot	0.07			c0.10	c0.11	
v/s Ratio Perm						0.08
v/c Ratio	0.28			0.41	0.21	0.15
Uniform Delay, d ₁	12.2			12.7	4.7	4.6
Progression Factor	1.00			1.04	0.91	2.77
Incremental Delay, d ₂	0.3			0.4	0.5	0.2
Delay (s)	12.6			13.6	4.8	12.8
Level of Service	B			B	A	B
Approach Delay (s)	12.6			13.6	10.2	
Approach LOS	B			B	B	

Intersection Summary

HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	28.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

18: North B St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	359	179	76	582	167	154	0	0	0	82	804	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0						4.0	
Lane Util. Factor	0.91	0.91		0.95	0.95						0.95	
Frt	1.00	0.97		1.00	0.95						0.99	
Flt Protected	0.95	0.98		0.95	0.98						1.00	
Satd. Flow (prot)	1610	3235		1681	1657						3487	
Flt Permitted	0.36	0.60		0.48	0.73						1.00	
Satd. Flow (perm)	611	1972		845	1229						3487	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	359	179	76	582	167	154	0	0	0	82	804	66
RTOR Reduction (vph)	0	22	0	0	22	0	0	0	0	0	7	0
Lane Group Flow (vph)	190	402	0	425	456	0	0	0	0	0	945	0
Turn Type	Perm			Perm							Perm	
Protected Phases		4			8							6
Permitted Phases	4			8						6		
Actuated Green, G (s)	42.6	42.6		42.6	42.6						29.4	
Effective Green, g (s)	42.6	42.6		42.6	42.6						29.4	
Actuated g/C Ratio	0.53	0.53		0.53	0.53						0.37	
Clearance Time (s)	4.0	4.0		4.0	4.0						4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)	325	1050		450	654						1281	
v/s Ratio Prot												
v/s Ratio Perm	0.31	0.20		0.50	0.37						0.27	
v/c Ratio	0.58	0.38		0.94	0.70						0.74	
Uniform Delay, d1	12.7	11.0		17.6	13.9						22.0	
Progression Factor	1.08	1.09		1.00	1.00						1.00	
Incremental Delay, d2	2.6	0.2		28.6	3.3						3.8	
Delay (s)	16.4	12.2		46.2	17.2						25.8	
Level of Service	B	B		D	B						C	
Approach Delay (s)		13.5			30.8			0.0			25.8	
Approach LOS		B			C			A			C	

Intersection Summary

HCM Average Control Delay	24.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

19: North B St & 10th St

6/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Volume (veh/h)	87	111	635	271	88	107
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	87	111	635	271	88	107
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		1285	841			
pX, platoon unblocked						
vC, conflicting volume	906				1000	453
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	906				1000	453
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	88				58	81
cM capacity (veh/h)	747				212	554

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	124	74	423	483	195
Volume Left	87	0	0	0	88
Volume Right	0	0	0	271	107
cSH	747	1700	1700	1700	320
Volume to Capacity	0.12	0.04	0.25	0.28	0.61
Queue Length 95th (ft)	10	0	0	0	94
Control Delay (s)	7.7	0.0	0.0	0.0	32.3
Lane LOS	A				D
Approach Delay (s)	4.8		0.0		32.3
Approach LOS					D

Intersection Summary					
Average Delay			5.6		
Intersection Capacity Utilization			53.3%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis

20: North B St & 12th Street

6/17/2007



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↘↗	
Volume (vph)	12	82	105	37	433	29	10	60	34	28	2994	503
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.99			0.98			0.98	
Flpb, ped/bikes		1.00		0.97	1.00			1.00			0.91	
Frt		0.92		1.00	0.99			0.96			0.98	
Flt Protected		1.00		0.95	1.00			1.00			0.96	
Satd. Flow (prot)		3245		1712	1835			1733			5683	
Flt Permitted		0.71		0.61	1.00			1.00			0.96	
Satd. Flow (perm)		2312		1093	1835			1733			5683	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	82	105	37	433	29	10	60	34	28	2994	503
RTOR Reduction (vph)	0	81	0	0	0	0	0	18	0	0	0	0
Lane Group Flow (vph)	0	118	0	37	462	0	0	86	0	0	3525	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		23.0		23.0	23.0			12.3			37.7	
Effective Green, g (s)		23.0		23.0	23.0			12.3			40.7	
Actuated g/C Ratio		0.23		0.23	0.23			0.12			0.41	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)		532		251	422			213			2313	
v/s Ratio Prot					c0.25							
v/s Ratio Perm		0.05		0.03				0.05			0.62	
v/c Ratio		0.22		0.15	1.09			0.40			1.52	
Uniform Delay, d1		31.2		30.7	38.5			40.5			29.6	
Progression Factor		1.00		1.25	1.23			1.00			1.09	
Incremental Delay, d2		0.4		0.5	70.6			2.6			237.7	
Delay (s)		31.7		38.8	117.7			43.0			270.1	
Level of Service		C		D	F			D			F	
Approach Delay (s)		31.7			111.9			43.0			270.1	
Approach LOS		C			F			D			F	

Intersection Summary

HCM Average Control Delay	235.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	105.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: North B St & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			↰			↰↱↲				
Volume (vph)	97	12	0	0	16	5	403	1399	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.98			1.00				
Flpb, ped/bikes	0.95	0.96			1.00			0.99				
Frt	1.00	1.00			0.97			1.00				
Flt Protected	0.95	0.96			1.00			0.99				
Satd. Flow (prot)	1593	1633			1775			6287				
Flt Permitted	0.74	0.81			1.00			0.99				
Satd. Flow (perm)	1247	1371			1775			6287				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	12	0	0	16	5	403	1399	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	4	0	0	1	0	0	0	0
Lane Group Flow (vph)	54	55	0	0	17	0	0	1811	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	12.0	12.0			12.0			30.0				
Effective Green, g (s)	12.0	12.0			12.0			30.0				
Actuated g/C Ratio	0.24	0.24			0.24			0.60				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	299	329			426			3772				
v/s Ratio Prot					0.01							
v/s Ratio Perm	c0.04	0.04						0.29				
v/c Ratio	0.18	0.17			0.04			0.48				
Uniform Delay, d1	15.1	15.0			14.6			5.6				
Progression Factor	1.18	1.18			1.00			0.30				
Incremental Delay, d2	1.1	0.9			0.2			0.4				
Delay (s)	18.8	18.6			14.8			2.1				
Level of Service	B	B			B			A				
Approach Delay (s)		18.7			14.8			2.1			0.0	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM Average Control Delay			3.2				HCM Level of Service		A			
HCM Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)		8.0			
Intersection Capacity Utilization			71.7%				ICU Level of Service		C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
 22: South Park St & Bercut Dr

6/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	63	82	186	59	87	115
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	63	82	186	59	87	115
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	63	82	245	87	115	
Volume Left (vph)	63	0	0	87	0	
Volume Right (vph)	0	82	59	0	0	
Hadj (s)	0.53	-0.67	-0.11	0.53	0.03	
Departure Headway (s)	6.1	4.9	4.8	5.7	5.2	
Degree Utilization, x	0.11	0.11	0.33	0.14	0.16	
Capacity (veh/h)	548	677	722	611	671	
Control Delay (s)	8.7	7.3	10.2	8.4	8.0	
Approach Delay (s)	7.9		10.2	8.1		
Approach LOS	A		B	A		
Intersection Summary						
Delay			8.9			
HCM Level of Service			A			
Intersection Capacity Utilization			31.7%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

23: South Park St & 5th St

6/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗			↖↗↗		
Volume (vph)	164	0	5	454	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5			4.5		
Lane Util. Factor	0.97			0.91		
Frt	1.00			1.00		
Flt Protected	0.95			1.00		
Satd. Flow (prot)	3433			5083		
Flt Permitted	0.95			1.00		
Satd. Flow (perm)	3433			5083		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	164	0	5	454	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	164	0	0	459	0	0
Turn Type	Perm					
Protected Phases	4			2		
Permitted Phases	4			2		
Actuated Green, G (s)	14.1			56.9		
Effective Green, g (s)	14.1			56.9		
Actuated g/C Ratio	0.18			0.71		
Clearance Time (s)	4.5			4.5		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	605			3615		
v/s Ratio Prot	c0.05					
v/s Ratio Perm	0.09					
v/c Ratio	0.27			0.13		
Uniform Delay, d1	28.5			3.7		
Progression Factor	1.00			0.18		
Incremental Delay, d2	0.2			0.1		
Delay (s)	28.7			0.7		
Level of Service	C			A		
Approach Delay (s)	28.7			0.7		0.0
Approach LOS	C			A		A

Intersection Summary

HCM Average Control Delay	8.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.16		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	21.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

26: Railyards Blvd & Jibboom St

6/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	293	7	63	270	317	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.89		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	1659		1770	1863
Flt Permitted	0.95	1.00	1.00		0.52	1.00
Satd. Flow (perm)	1770	1583	1659		973	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	293	7	63	270	317	11
RTOR Reduction (vph)	0	5	105	0	0	0
Lane Group Flow (vph)	293	2	228	0	317	11
Turn Type		Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	
Actuated Green, G (s)	25.0	25.0	52.0		52.0	52.0
Effective Green, g (s)	25.0	25.0	52.0		52.0	52.0
Actuated g/C Ratio	0.29	0.29	0.61		0.61	0.61
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	521	466	1015		595	1140
v/s Ratio Prot	c0.17		0.14			0.01
v/s Ratio Perm		0.00			c0.33	
v/c Ratio	0.56	0.00	0.22		0.53	0.01
Uniform Delay, d1	25.4	21.2	7.4		9.5	6.4
Progression Factor	0.88	0.99	1.00		1.00	1.00
Incremental Delay, d2	4.3	0.0	0.1		3.4	0.0
Delay (s)	26.7	21.0	7.5		12.9	6.5
Level of Service	C	C	A		B	A
Approach Delay (s)	26.5		7.5			12.7
Approach LOS	C		A			B

Intersection Summary

HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	234	179	5	106	11	80	60	5	5	63	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.93		1.00	0.99		1.00	0.99		1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1742		1770	3489		1770	1841		1770	1683	
Flt Permitted	0.68	1.00		0.39	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1263	1742		718	3489		1770	1841		1770	1683	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	175	234	179	5	106	11	80	60	5	5	63	113
RTOR Reduction (vph)	0	25	0	0	6	0	0	4	0	0	84	0
Lane Group Flow (vph)	175	388	0	5	111	0	80	61	0	5	92	0
Turn Type	Perm		Perm			Split			Split			
Protected Phases	2		6			3		3		4		4
Permitted Phases	2		6									
Actuated Green, G (s)	38.3	38.3		38.3	38.3		16.8	16.8		17.9	17.9	
Effective Green, g (s)	38.3	38.3		38.3	38.3		16.8	16.8		17.9	17.9	
Actuated g/C Ratio	0.45	0.45		0.45	0.45		0.20	0.20		0.21	0.21	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	569	785		324	1572		350	364		373	354	
v/s Ratio Prot		c0.22			0.03		c0.05	0.03		0.00	c0.05	
v/s Ratio Perm	0.14			0.01								
v/c Ratio	0.31	0.49		0.02	0.07		0.23	0.17		0.01	0.26	
Uniform Delay, d1	14.9	16.5		12.9	13.3		28.7	28.3		26.6	28.0	
Progression Factor	0.68	0.68		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.5		0.1	0.1		0.3	0.2		0.0	0.4	
Delay (s)	10.3	11.7		13.0	13.3		29.0	28.5		26.6	28.4	
Level of Service	B	B		B	B		C	C		C	C	
Approach Delay (s)		11.3			13.3			28.8			28.4	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

28: Railyards Blvd & Crocker St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↔	↔		↔	↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	33	71	34	88	17	71	25	157	5	54	52	25
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	33	71	34	88	17	71	25	157	5	54	52	25

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	69	70	97	80	25	162	54	77
Volume Left (vph)	33	0	88	0	25	0	54	0
Volume Right (vph)	0	34	0	71	0	5	0	25
Hadj (s)	0.27	-0.31	0.49	-0.59	0.53	0.01	0.53	-0.19
Departure Headway (s)	5.8	5.2	6.0	4.9	6.0	5.5	6.1	5.3
Degree Utilization, x	0.11	0.10	0.16	0.11	0.04	0.25	0.09	0.11
Capacity (veh/h)	582	647	570	691	571	627	562	637
Control Delay (s)	8.3	7.6	8.9	7.3	8.1	9.0	8.5	7.8
Approach Delay (s)	8.0		8.2		8.9		8.1	
Approach LOS	A		A		A		A	

Intersection Summary

Delay	8.3
HCM Level of Service	A
Intersection Capacity Utilization	33.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

29: Railyards Blvd & Stanford St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔		↖	↗		↖	↗	
Volume (vph)	5	87	43	57	163	43	14	113	5	107	28	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.95			0.98		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1770			3415		1770	1851		1770	1820	
Flt Permitted	0.95	1.00			0.99		0.74	1.00		0.66	1.00	
Satd. Flow (perm)	1770	1770			3415		1370	1851		1236	1820	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	87	43	57	163	43	14	113	5	107	28	5
RTOR Reduction (vph)	0	24	0	0	17	0	0	2	0	0	4	0
Lane Group Flow (vph)	5	106	0	0	246	0	14	116	0	107	29	0
Turn Type	Split		Split				Perm		Perm			
Protected Phases	1	1		2	2			8				4
Permitted Phases							8			4		
Actuated Green, G (s)	16.8	16.8			34.4		16.8	16.8		16.8	16.8	
Effective Green, g (s)	16.8	16.8			34.4		16.8	16.8		16.8	16.8	
Actuated g/C Ratio	0.21	0.21			0.43		0.21	0.21		0.21	0.21	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	372	372			1468		288	389		260	382	
v/s Ratio Prot	0.00	c0.06			c0.07			0.06			0.02	
v/s Ratio Perm							0.01			c0.09		
v/c Ratio	0.01	0.28			0.17		0.05	0.30		0.41	0.08	
Uniform Delay, d1	25.0	26.5			14.0		25.2	26.6		27.3	25.4	
Progression Factor	1.00	1.00			0.12		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.4			0.2		0.1	0.4		1.1	0.1	
Delay (s)	25.0	27.0			2.0		25.3	27.1		28.4	25.5	
Level of Service	C	C			A		C	C		C	C	
Approach Delay (s)		26.9			2.0			26.9			27.7	
Approach LOS		C			A			C			C	

Intersection Summary

HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	37.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

30: Railyards Blvd & 5th St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕				
Volume (vph)	5	194	0	0	258	35	5	419	32	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.0				
Lane Util. Factor	1.00	1.00			0.95			0.91				
Frt	1.00	1.00			0.98			0.99				
Flt Protected	0.95	1.00			1.00			1.00				
Satd. Flow (prot)	1770	1863			3476			5029				
Flt Permitted	0.95	1.00			1.00			1.00				
Satd. Flow (perm)	1770	1863			3476			5029				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	194	0	0	258	35	5	419	32	0	0	0
RTOR Reduction (vph)	0	0	0	0	15	0	0	8	0	0	0	0
Lane Group Flow (vph)	5	194	0	0	278	0	0	448	0	0	0	0
Turn Type	Split			Split								
Protected Phases	4	4			8			2	2			
Permitted Phases					8			2	2			
Actuated Green, G (s)	14.1	14.1			13.3			39.6				
Effective Green, g (s)	14.1	14.1			13.3			39.6				
Actuated g/C Ratio	0.18	0.18			0.17			0.50				
Clearance Time (s)	4.5	4.5			4.5			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	312	328			578			2489				
v/s Ratio Prot	0.00	c0.10			c0.08			c0.09				
v/s Ratio Perm												
v/c Ratio	0.02	0.59			0.48			0.18				
Uniform Delay, d1	27.2	30.3			30.2			11.2				
Progression Factor	0.45	0.58			0.75			1.00				
Incremental Delay, d2	0.0	2.8			0.6			0.2				
Delay (s)	12.2	20.3			23.4			11.4				
Level of Service	B	C			C			B				
Approach Delay (s)		20.1			23.4			11.4			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	16.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

31: Railyards Blvd & Judah St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩		↩	↩↩	↩↩	
Volume (veh/h)	197	29	47	254	39	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	197	29	47	254	39	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	298			284		
pX, platoon unblocked				0.91	0.91	0.91
vC, conflicting volume	226			432	212	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	97			324	81	
tC, single (s)	4.1			6.8	6.9	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	97			93	98	
cM capacity (veh/h)	1357			565	874	

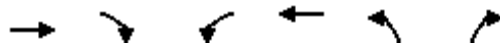
Direction, Lane #	EB 1	WB 1	WB 2	WB 3	NB 1
Volume Total	226	47	127	127	54
Volume Left	0	47	0	0	39
Volume Right	29	0	0	0	15
cSH	1700	1357	1700	1700	626
Volume to Capacity	0.13	0.03	0.07	0.07	0.09
Queue Length 95th (ft)	0	3	0	0	7
Control Delay (s)	0.0	7.7	0.0	0.0	11.3
Lane LOS	A			B	
Approach Delay (s)	0.0	1.2	11.3		
Approach LOS				B	

Intersection Summary					
Average Delay			1.7		
Intersection Capacity Utilization	28.8%		ICU Level of Service	A	
Analysis Period (min)	15				

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↔↔	↔	↔
Volume (vph)	207	5	266	300	5	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	0.95	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1857		1770	3539	1770	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	1857		1770	3539	1770	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	207	5	266	300	5	26
RTOR Reduction (vph)	1	0	0	0	0	21
Lane Group Flow (vph)	211	0	266	300	5	5
Turn Type			Prot			Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	35.6		17.2	56.8	15.2	15.2
Effective Green, g (s)	35.6		17.2	56.8	15.2	15.2
Actuated g/C Ratio	0.44		0.22	0.71	0.19	0.19
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	826		381	2513	336	301
v/s Ratio Prot	c0.11		c0.15	0.08	0.00	
v/s Ratio Perm						c0.00
v/c Ratio	0.26		0.70	0.12	0.01	0.02
Uniform Delay, d1	13.9		29.0	3.7	26.3	26.3
Progression Factor	0.27		0.72	0.71	1.00	1.00
Incremental Delay, d2	0.7		5.4	0.1	0.0	0.0
Delay (s)	4.5		26.4	2.7	26.3	26.3
Level of Service	A		C	A	C	C
Approach Delay (s)	4.5			13.8	26.3	
Approach LOS	A			B	C	

Intersection Summary

HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↕	↘
Volume (vph)	0	233	0	0	294	567
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		1.00			0.91	0.91
Frt		0.86			0.93	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		1611			3140	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		1611			3140	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	233	0	0	294	567
RTOR Reduction (vph)	0	217	0	0	116	116
Lane Group Flow (vph)	0	16	0	0	462	167
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		5.5			47.3	47.3
Effective Green, g (s)		5.5			47.3	47.3
Actuated g/C Ratio		0.07			0.59	0.59
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		111			1857	852
v/s Ratio Prot		c0.01			c0.15	0.12
v/s Ratio Perm						
v/c Ratio		0.14			0.25	0.20
Uniform Delay, d1		35.0			7.8	7.6
Progression Factor		1.00			2.10	4.36
Incremental Delay, d2		0.6			0.2	0.3
Delay (s)		35.6			16.6	33.3
Level of Service		D			B	C
Approach Delay (s)	35.6			0.0	22.1	
Approach LOS	D			A	C	

Intersection Summary

HCM Average Control Delay	25.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	27.2
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

36: Camille Ln & Bercut Dr

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	5	0	0	5	136	0	0	0	190	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	5	0	0	5	136	0	0	0	190	0	0

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	5	141	0	0	190	0
Volume Left (vph)	0	0	0	0	190	0
Volume Right (vph)	0	136	0	0	0	0
Hadj (s)	0.03	-0.54	0.00	0.00	0.53	0.00
Departure Headway (s)	4.6	3.9	5.0	5.0	5.3	4.8
Degree Utilization, x	0.01	0.15	0.00	0.00	0.28	0.00
Capacity (veh/h)	736	879	709	709	652	744
Control Delay (s)	7.7	7.6	6.8	6.8	9.2	6.6
Approach Delay (s)	7.7	7.6	0.0		9.2	
Approach LOS	A	A	A		A	

Intersection Summary

Delay	8.5
HCM Level of Service	A
Intersection Capacity Utilization	25.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

37: F Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↖						↖↗↘	
Volume (vph)	0	5	5	50	19	0	0	0	0	259	829	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	
Lane Util. Factor		1.00		1.00	1.00						0.91	
Frt		0.93		1.00	1.00						0.99	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1737		1770	1863						4997	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		1737		1770	1863						4997	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	5	5	50	19	0	0	0	0	259	829	47
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	7	0
Lane Group Flow (vph)	0	6	0	50	19	0	0	0	0	0	1128	0
Turn Type				Split							Perm	
Protected Phases		4		8	8							6
Permitted Phases										6		
Actuated Green, G (s)		16.0		25.0	25.0						17.0	
Effective Green, g (s)		16.0		25.0	25.0						17.0	
Actuated g/C Ratio		0.23		0.36	0.36						0.24	
Clearance Time (s)		4.0		4.0	4.0						4.0	
Lane Grp Cap (vph)		397		632	665						1214	
v/s Ratio Prot		c0.00		c0.03	0.01							
v/s Ratio Perm											0.23	
v/c Ratio		0.02		0.08	0.03						0.93	
Uniform Delay, d1		20.9		14.9	14.6						25.9	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		0.1		0.2	0.1						13.6	
Delay (s)		21.0		15.1	14.7						39.6	
Level of Service		C		B	B						D	
Approach Delay (s)		21.0			15.0			0.0			39.6	
Approach LOS		C			B			A			D	

Intersection Summary

HCM Average Control Delay	38.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗	↗		↖↗↘				
Volume (vph)	45	5	0	0	103	782	105	618	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0				
Lane Util. Factor		1.00			0.95	0.95		0.91				
Frt		1.00			0.88	0.85		1.00				
Flt Protected		0.96			1.00	1.00		0.99				
Satd. Flow (prot)		1783			1565	1504		5044				
Flt Permitted		0.66			1.00	1.00		0.99				
Satd. Flow (perm)		1229			1565	1504		5044				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	45	5	0	0	103	782	105	618	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	69	69	0	1	0	0	0	0
Lane Group Flow (vph)	0	50	0	0	378	369	0	727	0	0	0	0
Turn Type	Perm					Perm	Perm					
Protected Phases		4			8			2				
Permitted Phases	4					8	2	2				
Actuated Green, G (s)		23.0			23.0	23.0		19.0				
Effective Green, g (s)		23.0			23.0	23.0		19.0				
Actuated g/C Ratio		0.46			0.46	0.46		0.38				
Clearance Time (s)		4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)		565			720	692		1917				
v/s Ratio Prot					0.24							
v/s Ratio Perm		0.04				c0.25		0.14				
v/c Ratio		0.09			0.52	0.53		0.38				
Uniform Delay, d1		7.6			9.6	9.7		11.2				
Progression Factor		1.00			1.25	1.27		0.32				
Incremental Delay, d2		0.3			0.2	0.3		0.4				
Delay (s)		7.9			12.3	12.5		4.0				
Level of Service		A			B	B		A				
Approach Delay (s)		7.9			12.4			4.0			0.0	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (vph)	5	5	5	127	838	278	473	275	5	5	616	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	
Frt		0.96			0.97		1.00	1.00		1.00	0.99	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750			3403		1770	1858		1770	1846	
Flt Permitted		0.65			0.91		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1150			3128		1770	1858		1770	1846	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	127	838	278	473	275	5	5	616	39
RTOR Reduction (vph)	0	4	0	0	27	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	12	0	0	1216	0	473	280	0	5	653	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		30.0			30.0		24.0	53.0		5.0	34.0	
Effective Green, g (s)		30.0			30.0		24.0	53.0		5.0	34.0	
Actuated g/C Ratio		0.30			0.30		0.24	0.53		0.05	0.34	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		345			938		425	985		89	628	
v/s Ratio Prot							c0.27	0.15		0.00	c0.35	
v/s Ratio Perm		0.01			c0.39							
v/c Ratio		0.03			1.30		1.11	0.28		0.06	1.04	
Uniform Delay, d1		24.7			35.0		38.0	13.0		45.3	33.0	
Progression Factor		1.04			0.76		1.10	0.06		1.00	1.00	
Incremental Delay, d2		0.2			137.9		54.3	0.1		1.2	46.7	
Delay (s)		25.9			164.4		96.0	0.8		46.5	79.7	
Level of Service		C			F		F	A		D	E	
Approach Delay (s)		25.9			164.4			60.6			79.4	
Approach LOS		C			F			E			E	

Intersection Summary

HCM Average Control Delay	113.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	15	301	1326	0	0	0	0	0	598	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.5	4.0
Lane Util. Factor			1.00	0.91	0.91						0.95	1.00
Frbp, ped/bikes			1.00	1.00	1.00						1.00	1.00
Flpb, ped/bikes			1.00	1.00	1.00						1.00	1.00
Frt			0.86	1.00	1.00						1.00	0.85
Flt Protected			1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)			1611	1610	3386						3539	1583
Flt Permitted			1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)			1611	1610	3386						3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	301	1326	0	0	0	0	0	598	238
RTOR Reduction (vph)	0	0	8	87	3	0	0	0	0	0	0	6
Lane Group Flow (vph)	0	0	7	184	1353	0	0	0	0	0	598	232
Confl. Peds. (#/hr)						72						
Turn Type			custom	Perm								Perm
Protected Phases					1						2	
Permitted Phases			1	1								2
Actuated Green, G (s)			22.0	22.0	22.0						20.5	20.5
Effective Green, g (s)			22.0	21.5	22.0						20.0	20.5
Actuated g/C Ratio			0.44	0.43	0.44						0.40	0.41
Clearance Time (s)			3.5	3.5	3.5						4.0	4.0
Lane Grp Cap (vph)			709	692	1490						1416	649
v/s Ratio Prot											c0.17	
v/s Ratio Perm			0.00	0.11	0.40							0.15
v/c Ratio			0.01	0.27	0.91						0.42	0.36
Uniform Delay, d1			7.9	9.2	13.1						10.8	10.2
Progression Factor			1.00	0.72	0.67						1.00	1.00
Incremental Delay, d2			0.0	0.8	8.2						0.9	1.5
Delay (s)			7.9	7.3	16.9						11.8	11.7
Level of Service			A	A	B						B	B
Approach Delay (s)		7.9			15.3			0.0			11.7	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			14.1			HCM Level of Service					B	
HCM Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			50.0			Sum of lost time (s)				8.0		
Intersection Capacity Utilization			75.3%			ICU Level of Service					D	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

41: G Street & 8th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Volume (vph)	0	0	0	0	988	319	653	447	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0				
Lane Util. Factor					0.91			0.91				
Frbp, ped/bikes					0.98			1.00				
Flpb, ped/bikes					1.00			0.97				
Frt					0.96			1.00				
Flt Protected					1.00			0.97				
Satd. Flow (prot)					4825			4788				
Flt Permitted					1.00			0.97				
Satd. Flow (perm)					4825			4788				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	988	319	653	447	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	117	0	0	30	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1190	0	0	1071	0	0	0	0
Confl. Peds. (#/hr)						72	72					
Turn Type								Perm				
Protected Phases					1			2				
Permitted Phases							2					
Actuated Green, G (s)					22.0			21.0				
Effective Green, g (s)					21.5			20.5				
Actuated g/C Ratio					0.43			0.41				
Clearance Time (s)					3.5			3.5				
Lane Grp Cap (vph)					2075			1963				
v/s Ratio Prot					c0.25							
v/s Ratio Perm								0.22				
v/c Ratio					0.57			0.89dl				
Uniform Delay, d1					10.8			11.2				
Progression Factor					0.94			0.40				
Incremental Delay, d2					1.0			0.9				
Delay (s)					11.2			5.3				
Level of Service					B			A				
Approach Delay (s)		0.0			11.2			5.3			0.0	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	8.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	46	495	0	0	0	0	0	1529	522
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.98	
Flpb, ped/bikes					1.00						1.00	
Frt					1.00						0.96	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5039						4794	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5039						4794	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	46	495	0	0	0	0	0	1529	522
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	123	0
Lane Group Flow (vph)	0	0	0	0	519	0	0	0	0	0	1928	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1713						2013	
v/s Ratio Prot											c0.40	
v/s Ratio Perm					0.10							
v/c Ratio					0.30						0.96	
Uniform Delay, d1					12.1						14.1	
Progression Factor					1.00						0.47	
Incremental Delay, d2					0.5						1.7	
Delay (s)					12.6						8.2	
Level of Service					B						A	
Approach Delay (s)		0.0			12.6			0.0			8.2	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM Average Control Delay			9.1		HCM Level of Service					A		
HCM Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			59.6%		ICU Level of Service			B				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

43: H Street & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖						↖↗				
Volume (vph)	5	20	0	0	0	0	20	724	833	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		1.00						0.91				
Frt		1.00						0.92				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1844						4679				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1844						4679				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	20	0	0	0	0	20	724	833	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	405	0	0	0	0
Lane Group Flow (vph)	0	25	0	0	0	0	0	1172	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4					2	2				
Permitted Phases	4											
Actuated Green, G (s)		16.0						21.0				
Effective Green, g (s)		16.0						21.0				
Actuated g/C Ratio		0.32						0.42				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		590						1965				
v/s Ratio Prot								c0.25				
v/s Ratio Perm		0.01										
v/c Ratio		0.04						0.60				
Uniform Delay, d1		11.7						11.2				
Progression Factor		1.00						0.05				
Incremental Delay, d2		0.1						0.7				
Delay (s)		11.9						1.3				
Level of Service		B						A				
Approach Delay (s)		11.9			0.0			1.3			0.0	
Approach LOS		B			A			A			A	

Intersection Summary

HCM Average Control Delay	1.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	376	55	0	0	0	0	972	280	497	230	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0	3.5	4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95	0.95	0.95	0.95	
Frbp, ped/bikes	1.00	0.98						1.00	0.85	1.00	1.00	
Flpb, ped/bikes	0.76	1.00						1.00	1.00	1.00	1.00	
Frt	1.00	0.98						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	0.98	
Satd. Flow (prot)	1345	3404						1755	1274	1681	1737	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	0.98	
Satd. Flow (perm)	1345	3404						1755	1274	1681	1737	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	972	280	497	230	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	1	68	0	0	0
Lane Group Flow (vph)	20	420	0	0	0	0	0	999	184	358	369	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm						Perm Split					
Protected Phases	1						2 6 6					
Permitted Phases	1						2					
Actuated Green, G (s)	15.0	15.0						49.0	49.0	17.0	17.0	
Effective Green, g (s)	15.0	14.5						48.5	49.0	16.5	16.5	
Actuated g/C Ratio	0.15	0.14						0.48	0.49	0.16	0.16	
Clearance Time (s)	3.5	3.5						3.5	3.5	4.0	4.0	
Lane Grp Cap (vph)	202	494						851	624	277	287	
v/s Ratio Prot		c0.12						c0.57		c0.21	0.21	
v/s Ratio Perm	0.01							0.14				
v/c Ratio	0.10	0.85						1.17	0.30	1.29	1.29	
Uniform Delay, d1	36.7	41.7						25.8	15.2	41.8	41.8	
Progression Factor	0.79	0.84						0.79	0.77	0.63	0.63	
Incremental Delay, d2	0.7	13.1						89.4	1.1	134.1	131.1	
Delay (s)	29.7	47.9						109.7	12.7	160.3	157.2	
Level of Service	C	D						F	B	F	F	
Approach Delay (s)		47.1			0.0			90.2			158.7	
Approach LOS		D			A			F			F	

Intersection Summary

HCM Average Control Delay	102.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑								↖	↗↑		
Volume (vph)	0	704	125	0	0	0	0	0	0	254	576	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0								4.0	4.0		
Lane Util. Factor		0.95								0.91	0.91		
Frbp, ped/bikes		0.99								1.00	1.00		
Flpb, ped/bikes		1.00								0.93	1.00		
Frt		0.98								1.00	1.00		
Flt Protected		1.00								0.95	1.00		
Satd. Flow (prot)		3416								1494	3373		
Flt Permitted		1.00								0.95	1.00		
Satd. Flow (perm)		3416								1494	3373		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	704	125	0	0	0	0	0	0	254	576	0	
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	138	6	0	
Lane Group Flow (vph)	0	800	0	0	0	0	0	0	0	91	595	0	
Confl. Peds. (#/hr)			72							72			
Turn Type										Perm			
Protected Phases		1									2		
Permitted Phases										2			
Actuated Green, G (s)		18.5								19.5	19.5		
Effective Green, g (s)		18.0								19.0	19.0		
Actuated g/C Ratio		0.36								0.38	0.38		
Clearance Time (s)		3.5								3.5	3.5		
Lane Grp Cap (vph)		1230								568	1282		
v/s Ratio Prot		0.23											
v/s Ratio Perm										0.06	0.18		
v/c Ratio		0.65								0.16	0.46		
Uniform Delay, d1		13.4								10.2	11.7		
Progression Factor		1.12								5.12	1.75		
Incremental Delay, d2		0.9								0.6	1.1		
Delay (s)		15.9								53.0	21.5		
Level of Service		B								D	C		
Approach Delay (s)		15.9			0.0			0.0			30.2		
Approach LOS		B			A			A			C		
Intersection Summary													
HCM Average Control Delay			23.0		HCM Level of Service						C		
HCM Volume to Capacity ratio			0.55										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)					13.0			
Intersection Capacity Utilization			46.8%		ICU Level of Service					A			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↕↕↕				
Volume (vph)	387	721	0	0	0	0	0	849	130	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.97						1.00				
Frt		1.00						0.98				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		3391						4929				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		3391						4929				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	387	721	0	0	0	0	0	849	130	0	0	0
RTOR Reduction (vph)	0	124	0	0	0	0	0	41	0	0	0	0
Lane Group Flow (vph)	0	984	0	0	0	0	0	938	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		18.5						19.5				
Effective Green, g (s)		18.0						19.0				
Actuated g/C Ratio		0.36						0.38				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1221						1873				
v/s Ratio Prot								c0.19				
v/s Ratio Perm		0.29										
v/c Ratio		0.81						0.50				
Uniform Delay, d1		14.4						11.9				
Progression Factor		0.80						1.00				
Incremental Delay, d2		5.1						1.0				
Delay (s)		16.6						12.8				
Level of Service		B						B				
Approach Delay (s)		16.6			0.0			12.8			0.0	
Approach LOS		B			A			B			A	

Intersection Summary

HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕				↗		↕↕↕				
Volume (vph)	214	268	0	0	0	48	0	1268	23	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	1.00				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	1.00				1.00		1.00				
Satd. Flow (prot)	3221	1681				1611		5060				
Flt Permitted	0.95	1.00				1.00		1.00				
Satd. Flow (perm)	3221	1681				1611		5060				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	214	268	0	0	0	48	0	1268	23	0	0	0
RTOR Reduction (vph)	147	4	0	0	0	43	0	3	0	0	0	0
Lane Group Flow (vph)	46	285	0	0	0	5	0	1288	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	12.5	21.5				5.5		21.5				
Effective Green, g (s)	12.0	21.0				5.0		21.0				
Actuated g/C Ratio	0.24	0.42				0.10		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	773	706				161		2125				
v/s Ratio Prot	0.01	c0.10				0.00		c0.25				
v/s Ratio Perm		0.07										
v/c Ratio	0.06	0.40				0.03		0.61				
Uniform Delay, d1	14.7	10.1				20.3		11.3				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	0.1	1.7				0.3		1.3				
Delay (s)	14.8	11.8				20.7		12.6				
Level of Service	B	B				C		B				
Approach Delay (s)		13.0			20.7			12.6			0.0	
Approach LOS		B			C			B			A	

Intersection Summary

HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	490	157	137	19	160	563
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.89	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1649	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1649	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	490	157	137	19	160	563
RTOR Reduction (vph)	0	0	0	8	75	0
Lane Group Flow (vph)	490	157	137	11	648	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	35.5	42.1	15.2	68.2	53.0	
Effective Green, g (s)	36.0	42.1	15.2	68.2	53.0	
Actuated g/C Ratio	0.31	0.36	0.13	0.59	0.46	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	548	675	244	984	752	
v/s Ratio Prot	c0.28	0.08	c0.07	0.01	c0.39	
v/s Ratio Perm				0.00		
v/c Ratio	0.89	0.23	0.56	0.01	0.86	
Uniform Delay, d1	38.3	25.8	47.4	10.0	28.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	16.8	0.3	4.2	0.0	10.0	
Delay (s)	55.1	26.1	51.6	10.0	38.3	
Level of Service	E	C	D	A	D	
Approach Delay (s)		48.1	46.5		38.3	
Approach LOS		D	D		D	

Intersection Summary

HCM Average Control Delay	43.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	116.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	1040	81	148	1416	0	0	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					0.99		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6145		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6145		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1040	81	148	1416	0	0	0	20
RTOR Reduction (vph)	0	0	0	0	13	0	22	0	0	0	0	10
Lane Group Flow (vph)	0	0	0	0	1108	0	126	1416	0	0	0	10
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					17.0		24.5	24.5				24.5
Effective Green, g (s)					18.0		24.0	24.0				24.5
Actuated g/C Ratio					0.36		0.48	0.48				0.49
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					2212		1648	1614				1366
v/s Ratio Prot					c0.18		0.04	c0.42				
v/s Ratio Perm												0.00
v/c Ratio					0.50		0.08	0.88				0.01
Uniform Delay, d1					12.5		7.0	11.7				6.5
Progression Factor					0.63		0.89	1.07				1.00
Incremental Delay, d2					0.6		0.1	5.3				0.0
Delay (s)					8.5		6.3	17.8				6.5
Level of Service					A		A	B				A
Approach Delay (s)		0.0			8.5			16.7			6.5	
Approach LOS		A			A			B			A	

Intersection Summary

HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	53	837	430	41	505	0	0	29	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.97		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.95		1.00	1.00			0.88	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4675		1610	3389			1558	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4675		1610	3389			1558	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	53	837	430	41	505	0	0	29	255
RTOR Reduction (vph)	0	0	0	0	174	0	0	0	0	0	99	120
Lane Group Flow (vph)	0	0	0	0	1146	0	37	509	0	0	45	20
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom						custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					16.5		15.5	15.5			7.5	7.5
Effective Green, g (s)					16.0		15.0	15.0			7.0	7.0
Actuated g/C Ratio					0.32		0.30	0.30			0.14	0.14
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1496		483	1017			218	211
v/s Ratio Prot							0.02	c0.15			c0.03	0.01
v/s Ratio Perm					0.25							
v/c Ratio					0.77		0.08	0.50			0.21	0.09
Uniform Delay, d1					15.3		12.5	14.4			19.0	18.7
Progression Factor					0.74		1.40	1.35			3.27	4.59
Incremental Delay, d2					3.3		0.3	1.5			0.2	0.1
Delay (s)					14.7		17.8	21.0			62.4	86.1
Level of Service					B		B	C			E	F
Approach Delay (s)		0.0			14.7			20.8			74.1	
Approach LOS		A			B			C			E	

Intersection Summary

HCM Average Control Delay	24.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔						↕	↗
Volume (vph)	0	0	0	377	1064	0	0	0	0	0	517	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.93	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1412	4786						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1412	4786						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	377	1064	0	0	0	0	0	517	250
RTOR Reduction (vph)	0	0	0	171	7	0	0	0	0	0	0	165
Lane Group Flow (vph)	0	0	0	168	1095	0	0	0	0	0	517	85
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1							2
Permitted Phases				1								2
Actuated Green, G (s)				20.5	20.5						17.5	17.5
Effective Green, g (s)				20.0	20.0						17.0	17.0
Actuated g/C Ratio				0.40	0.40						0.34	0.34
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				565	1914						1203	948
v/s Ratio Prot											c0.15	
v/s Ratio Perm				0.12	0.23							0.03
v/c Ratio				0.30	0.57						0.43	0.09
Uniform Delay, d1				10.2	11.7						12.8	11.2
Progression Factor				1.00	1.00						0.45	0.25
Incremental Delay, d2				1.3	1.2						1.0	0.2
Delay (s)				11.6	12.9						6.8	3.0
Level of Service				B	B						A	A
Approach Delay (s)		0.0			12.6			0.0			5.6	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	42.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	9	1830	577	94	129	186	8	1742	459
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.99		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6085		2787	3433	1863	1585	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6085		2787	3433	1863	1585	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	1830	577	94	129	186	8	1742	459
RTOR Reduction (vph)	0	0	0	4	0	0	0	48	0
Lane Group Flow (vph)	0	2416	0	90	129	186	740	1421	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		31.1		11.4	11.4	11.4	46.0	46.0	
Effective Green, g (s)		31.1		10.9	10.9	10.9	46.0	46.0	
Actuated g/C Ratio		0.31		0.11	0.11	0.11	0.46	0.46	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1892		304	374	203	729	1326	
v/s Ratio Prot		c0.40				c0.10	0.47	c0.49	
v/s Ratio Perm				0.03	0.04				
v/c Ratio		1.28		0.29	0.34	0.92	1.02	1.07	
Uniform Delay, d1		34.4		41.0	41.2	44.1	27.0	27.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		128.9		0.2	0.2	39.6	37.2	46.5	
Delay (s)		163.3		41.2	41.4	83.7	64.2	73.5	
Level of Service		F		D	D	F	E	E	
Approach Delay (s)		163.3				66.4	70.4		
Approach LOS		F				E	E		

Intersection Summary

HCM Average Control Delay	114.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	119.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑↑↑	↗					↑↑	↗			
Volume (vph)	1075	2528	111	0	0	0	0	527	371	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.93					0.99	0.94			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.98	0.85			
Flt Protected	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (prot)	1290	5996	1476					3276	1351			
Flt Permitted	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (perm)	1290	5996	1476					3276	1351			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1075	2528	111	0	0	0	0	527	371	0	0	0
RTOR Reduction (vph)	52	19	30	0	0	0	0	2	2	0	0	0
Lane Group Flow (vph)	647	2885	81	0	0	0	0	626	270	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	67.0	67.0	67.0					25.0	25.0			
Effective Green, g (s)	67.0	67.0	67.0					25.0	25.0			
Actuated g/C Ratio	0.67	0.67	0.67					0.25	0.25			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	864	4017	989					819	338			
v/s Ratio Prot	c0.50	0.48						0.19				
v/s Ratio Perm			0.05						c0.20			
v/c Ratio	0.75	0.72	0.08					0.76	0.80			
Uniform Delay, d1	10.9	10.5	5.8					34.8	35.1			
Progression Factor	0.75	0.78	0.80					1.00	1.00			
Incremental Delay, d2	0.6	0.1	0.0					3.8	11.5			
Delay (s)	8.7	8.3	4.7					38.6	46.7			
Level of Service	A	A	A					D	D			
Approach Delay (s)		8.3			0.0			41.0			0.0	
Approach LOS		A			A			D			A	
Intersection Summary												
HCM Average Control Delay			14.6					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			100.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			83.6%					ICU Level of Service			E	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↕↕						↕		↵		
Volume (vph)	621	2115	0	0	0	0	0	27	18	36	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.97		1.00		
Flpb, ped/bikes	0.92	1.00						1.00		0.94		
Frt	1.00	1.00						0.95		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1404	4789						1712		1670		
Flt Permitted	0.95	1.00						1.00		0.73		
Satd. Flow (perm)	1404	4789						1712		1279		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	621	2115	0	0	0	0	0	27	18	36	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	559	2177	0	0	0	0	0	31	0	36	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	71.5	71.5						21.5		21.5		
Effective Green, g (s)	71.0	71.0						21.0		21.0		
Actuated g/C Ratio	0.71	0.71						0.21		0.21		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	997	3400						360		269		
v/s Ratio Prot								0.02				
v/s Ratio Perm	0.40	0.45								c0.03		
v/c Ratio	0.56	0.64						0.09		0.13		
Uniform Delay, d1	7.0	7.7						31.8		32.1		
Progression Factor	1.30	1.30						1.00		0.88		
Incremental Delay, d2	1.6	0.7						0.5		0.8		
Delay (s)	10.7	10.7						32.2		29.0		
Level of Service	B	B						C		C		
Approach Delay (s)		10.7			0.0			32.2			29.0	
Approach LOS		B			A			C			C	

Intersection Summary

HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑								↑↑↑	
Volume (vph)	0	2099	324	0	0	0	0	0	0	172	584	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0								4.0	
Lane Util. Factor		0.86	0.86								0.91	
Frbp, ped/bikes		1.00	0.93								1.00	
Flpb, ped/bikes		1.00	1.00								0.99	
Frt		1.00	0.85								1.00	
Flt Protected		1.00	1.00								0.99	
Satd. Flow (prot)		4790	1265								4959	
Flt Permitted		1.00	1.00								0.99	
Satd. Flow (perm)		4790	1265								4959	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2099	324	0	0	0	0	0	0	172	584	0
RTOR Reduction (vph)	0	1	119	0	0	0	0	0	0	0	53	0
Lane Group Flow (vph)	0	2130	173	0	0	0	0	0	0	0	703	0
Confl. Peds. (#/hr)			36							36		
Turn Type			Perm								Perm	
Protected Phases		1										2
Permitted Phases			1							2		
Actuated Green, G (s)		54.5	54.5								28.5	
Effective Green, g (s)		54.0	54.0								28.0	
Actuated g/C Ratio		0.54	0.54								0.28	
Clearance Time (s)		3.5	3.5								3.5	
Lane Grp Cap (vph)		2587	683								1389	
v/s Ratio Prot		0.44										
v/s Ratio Perm			0.14								0.14	
v/c Ratio		0.82	0.25								0.51	
Uniform Delay, d1		19.0	12.3								30.2	
Progression Factor		0.93	1.96								1.13	
Incremental Delay, d2		2.6	0.7								1.2	
Delay (s)		20.4	24.7								35.4	
Level of Service		C	C								D	
Approach Delay (s)		20.9			0.0			0.0			35.4	
Approach LOS		C			A			A			D	

Intersection Summary

HCM Average Control Delay	24.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/17/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	97	266	332	67	161	59	757	256	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.5	5.0	4.0	3.5	4.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.98	0.85	0.85	1.00	1.00	0.96		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1654	1504	1583	1770	3539	4877		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1654	1504	1583	1770	3539	4877		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	266	332	67	161	59	757	256	29
RTOR Reduction (vph)	0	0	0	40	0	0	3	0	0
Lane Group Flow (vph)	87	326	282	27	161	59	1039	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2					
Actuated Green, G (s)	41.5	41.5	41.5	41.5	18.0	50.5	28.5		
Effective Green, g (s)	41.0	41.0	41.5	41.0	18.0	50.5	28.0		
Actuated g/C Ratio	0.41	0.41	0.42	0.41	0.18	0.50	0.28		
Clearance Time (s)	4.5	4.5	4.5	4.5	4.0	3.5	3.5		
Lane Grp Cap (vph)	689	678	624	649	319	1787	1366		
v/s Ratio Prot					c0.09	0.02	c0.21		
v/s Ratio Perm	0.05	0.20	0.19	0.02					
v/c Ratio	0.13	0.48	0.45	0.04	0.50	0.03	0.76		
Uniform Delay, d1	18.4	21.7	21.1	17.7	37.0	12.5	32.9		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.4	2.4	2.4	0.1	5.6	0.0	4.0		
Delay (s)	18.7	24.1	23.4	17.8	42.6	12.5	37.0		
Level of Service	B	C	C	B	D	B	D		
Approach Delay (s)		22.7				34.5	37.0		
Approach LOS		C				C	D		

Intersection Summary

HCM Average Control Delay	31.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	788	133	103	822	0	0	0	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				4.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.98		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6194		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6194		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	788	133	103	822	0	0	0	103
RTOR Reduction (vph)	0	0	0	0	43	0	31	0	0	0	0	35
Lane Group Flow (vph)	0	0	0	0	878	0	72	822	0	0	0	68
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					25.0		35.5	35.5				35.5
Effective Green, g (s)					26.0		36.0	36.0				36.0
Actuated g/C Ratio					0.37		0.51	0.51				0.51
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					2301		840	2615				1308
v/s Ratio Prot					c0.14			c0.16				
v/s Ratio Perm							0.04					0.03
v/c Ratio					0.38		0.09	0.31				0.05
Uniform Delay, d1					16.1		8.6	9.8				8.5
Progression Factor					1.00		0.85	0.89				1.00
Incremental Delay, d2					0.5		0.1	0.2				0.1
Delay (s)					16.6		7.5	9.0				8.6
Level of Service					B		A	A				A
Approach Delay (s)		0.0			16.6			8.8			8.6	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	212	1112	0	0	0	0	0	402	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.94	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4643	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4643	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	212	1112	0	0	0	0	0	402	301
RTOR Reduction (vph)	0	0	0	148	0	0	0	0	0	0	102	0
Lane Group Flow (vph)	0	0	0	64	1112	0	0	0	0	0	601	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						22.5	
Effective Green, g (s)				15.0	15.0						22.0	
Actuated g/C Ratio				0.30	0.30						0.44	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2043	
v/s Ratio Prot					c0.22						c0.13	
v/s Ratio Perm				0.04								
v/c Ratio				0.13	0.73						0.29	
Uniform Delay, d1				12.7	15.7						9.0	
Progression Factor				1.00	1.00						1.83	
Incremental Delay, d2				0.0	1.5						0.3	
Delay (s)				12.8	17.2						16.8	
Level of Service				B	B						B	
Approach Delay (s)		0.0			16.5			0.0			16.8	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	710	405	0	0	116	76	257	785	36	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.97		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.94		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4627		3433	5032				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4627		3433	5032				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	710	405	0	0	116	76	257	785	36	0	0	0
RTOR Reduction (vph)	0	0	0	0	42	0	0	7	0	0	0	0
Lane Group Flow (vph)	710	405	0	0	150	0	257	814	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		31.0	31.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.44	0.44				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			925		1520	2228				
v/s Ratio Prot	c0.21	c0.11			0.03		0.07	c0.16				
v/s Ratio Perm												
v/c Ratio	1.11	0.26			0.16		0.17	0.37				
Uniform Delay, d1	28.5	12.3			23.1		11.7	13.0				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	70.8	0.4			0.4		0.2	0.5				
Delay (s)	99.3	12.7			23.5		12.0	13.4				
Level of Service	F	B			C		B	B				
Approach Delay (s)		67.8			23.5			13.1			0.0	
Approach LOS		E			C			B			A	

Intersection Summary

HCM Average Control Delay	39.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←						←←	←
Volume (vph)	0	0	0	171	627	0	0	0	0	0	238	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.91	0.91
Frbp, ped/bikes					1.00						0.99	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.98	0.85
Flt Protected					0.99						1.00	1.00
Satd. Flow (prot)					4864						3130	1190
Flt Permitted					0.99						1.00	1.00
Satd. Flow (perm)					4864						3130	1190
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	171	627	0	0	0	0	0	238	152
RTOR Reduction (vph)	0	0	0	0	79	0	0	0	0	0	20	83
Lane Group Flow (vph)	0	0	0	0	719	0	0	0	0	0	251	36
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2627						939	357
v/s Ratio Prot					c0.15						c0.08	
v/s Ratio Perm												0.03
v/c Ratio					0.27						0.27	0.10
Uniform Delay, d1					6.2						13.3	12.6
Progression Factor					1.00						1.86	6.25
Incremental Delay, d2					0.3						0.5	0.4
Delay (s)					6.5						25.2	79.3
Level of Service					A						C	E
Approach Delay (s)		0.0			6.5			0.0			41.7	
Approach LOS		A			A			A			D	

Intersection Summary

HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	2457	423	0	0	0	0	0	0	155	234	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.97	
Frt		0.98									1.00	
Flt Protected		1.00									0.98	
Satd. Flow (prot)		6220									4843	
Flt Permitted		1.00									0.98	
Satd. Flow (perm)		6220									4843	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2457	423	0	0	0	0	0	0	155	234	0
RTOR Reduction (vph)	0	62	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	2818	0	0	0	0	0	0	0	0	388	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3359									1453	
v/s Ratio Prot		c0.45										
v/s Ratio Perm											0.08	
v/c Ratio		0.84									0.27	
Uniform Delay, d1		9.7									13.3	
Progression Factor		1.00									0.70	
Incremental Delay, d2		2.7									0.4	
Delay (s)		12.4									9.8	
Level of Service		B									A	
Approach Delay (s)		12.4				0.0			0.0			9.8
Approach LOS		B				A			A			A

Intersection Summary

HCM Average Control Delay	12.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑					↑	↑	↑
Volume (vph)	0	546	627	711	414	0	0	0	0	529	3	399
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95		0.97	1.00					0.95	0.95	1.00
Frbp, ped/bikes		0.93		1.00	1.00					1.00	1.00	0.86
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	1.00
Frt		0.92		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3038		3433	1863					1681	1686	1365
Flt Permitted		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3038		3433	1863					1681	1686	1365
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	546	627	711	414	0	0	0	0	529	3	399
RTOR Reduction (vph)	0	246	0	0	0	0	0	0	0	0	0	302
Lane Group Flow (vph)	0	927	0	711	414	0	0	0	0	264	268	97
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9	3 12 13					4	4	
Permitted Phases												4
Actuated Green, G (s)		12.5		30.0	45.5					17.0	17.0	17.0
Effective Green, g (s)		12.5		28.5	45.0					17.0	17.0	17.0
Actuated g/C Ratio		0.18		0.41	0.64					0.24	0.24	0.24
Clearance Time (s)		4.0								4.0	4.0	4.0
Vehicle Extension (s)		6.0								5.0	5.0	5.0
Lane Grp Cap (vph)		543		1398	1198					408	409	332
v/s Ratio Prot		c0.31		c0.21	0.22					0.16	c0.16	
v/s Ratio Perm												0.07
v/c Ratio		1.71		0.51	0.35					0.65	0.66	0.29
Uniform Delay, d1		28.8		15.5	5.7					23.8	23.9	21.6
Progression Factor		1.00		0.12	0.13					1.00	1.00	1.00
Incremental Delay, d2		326.4		0.4	0.2					4.8	5.0	1.0
Delay (s)		355.1		2.3	1.0					28.6	28.9	22.6
Level of Service		F		A	A					C	C	C
Approach Delay (s)		355.1			1.8			0.0			26.1	
Approach LOS		F			A			A			C	

Intersection Summary

HCM Average Control Delay	137.2	HCM Level of Service	F
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗↗		↕	↗			
Volume (vph)	355	740	0	0	1073	1669	81	9	956	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	0.88		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.71		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.88	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)	1770	3539			3539	1970		1537	1504			
Flt Permitted	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)	1770	3539			3539	1970		1537	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	355	740	0	0	1073	1669	81	9	956	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	845	0	251	66	0	0	0
Lane Group Flow (vph)	355	740	0	0	1073	824	0	279	450	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot					custom	Split		custom			
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	10.5	30.3			29.0	25.5		19.5	32.7			
Effective Green, g (s)	10.0	29.8			25.5	25.5		19.0	27.7			
Actuated g/C Ratio	0.14	0.43			0.36	0.36		0.27	0.40			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	253	1507			1289	718		417	595			
v/s Ratio Prot	c0.20	0.21			0.30	c0.15		0.18	c0.30			
v/s Ratio Perm						0.27						
v/c Ratio	1.40	0.49			0.83	1.15		0.67	0.76			
Uniform Delay, d1	30.0	14.6			20.3	22.2		22.7	18.2			
Progression Factor	1.13	0.26			0.86	1.82		1.00	1.00			
Incremental Delay, d2	183.6	0.0			0.5	68.2		5.3	6.5			
Delay (s)	217.4	3.9			18.0	108.6		28.0	24.7			
Level of Service	F	A			B	F		C	C			
Approach Delay (s)		73.1			73.2			26.4			0.0	
Approach LOS		E			E			C			A	

Intersection Summary

HCM Average Control Delay	63.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	116.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑		↖	↑↑↑			↑	↗		↑	↗
Volume (vph)	201	1003	532	94	1379	36	1231	66	336	105	65	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.2		5.2	5.2			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.91			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	0.97		1.00	1.00			1.00	0.95		1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.95		1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.97	1.00
Satd. Flow (prot)	1770	3271		1762	5052			1778	1510		1807	1583
Flt Permitted	0.15	1.00		0.17	1.00			0.61	1.00		0.12	1.00
Satd. Flow (perm)	271	3271		317	5052			1139	1510		227	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	201	1003	532	94	1379	36	1231	66	336	105	65	259
RTOR Reduction (vph)	0	99	0	0	4	0	0	0	29	0	0	134
Lane Group Flow (vph)	201	1436	0	94	1411	0	0	1297	307	0	170	125
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8		8	4		4
Actuated Green, G (s)	33.4	33.4		24.0	24.0			28.5	28.5		28.5	28.5
Effective Green, g (s)	32.9	32.8		23.4	23.4			28.0	28.0		28.0	28.0
Actuated g/C Ratio	0.47	0.47		0.33	0.33			0.40	0.40		0.40	0.40
Clearance Time (s)	3.5	4.6		4.6	4.6			3.5	3.5		3.5	3.5
Vehicle Extension (s)	0.2	0.2		0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	243	1533		106	1689			456	604		91	633
v/s Ratio Prot	0.06	c0.44			0.28							
v/s Ratio Perm	0.33			0.30				c1.14	0.20		0.75	0.08
v/c Ratio	0.83	0.94		0.89	0.84			2.84	0.51		1.87	0.20
Uniform Delay, d1	14.1	17.6		22.0	21.5			21.0	15.8		21.0	13.7
Progression Factor	1.00	0.80		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	15.7	9.1		60.7	5.1			836.0	0.2		429.4	0.1
Delay (s)	29.8	23.1		82.7	26.6			857.0	16.1		450.4	13.7
Level of Service	C	C		F	C			F	B		F	B
Approach Delay (s)		23.9			30.1			684.0			186.8	
Approach LOS		C			C			F			F	

Intersection Summary

HCM Average Control Delay	241.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.82		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	152.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Volume (vph)	86	1354	21	9	1568	13	13	5	17	17	5	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.6		4.0	4.6		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.96		1.00	0.96	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.97	1.00		0.96	1.00	
Frt	1.00	1.00		1.00	1.00		1.00	0.88		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3527		1770	3533		1709	1586		1707	1543	
Flt Permitted	0.95	1.00		0.95	1.00		0.73	1.00		0.74	1.00	
Satd. Flow (perm)	1770	3527		1770	3533		1306	1586		1335	1543	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	86	1354	21	9	1568	13	13	5	17	17	5	43
RTOR Reduction (vph)	0	1	0	0	0	0	0	14	0	0	35	0
Lane Group Flow (vph)	86	1374	0	9	1581	0	13	8	0	17	13	0
Confl. Peds. (#/hr)			36			36	36		36	36		36
Turn Type	Prot		Prot		Perm		Perm		Perm		Perm	
Protected Phases	1	6		5	2			8				4
Permitted Phases		6			2		8			4		
Actuated Green, G (s)	8.1	43.8		5.1	40.8		14.8	14.8		14.8	14.8	
Effective Green, g (s)	7.1	43.5		4.1	40.5		14.3	14.3		14.3	14.3	
Actuated g/C Ratio	0.10	0.58		0.06	0.54		0.19	0.19		0.19	0.19	
Clearance Time (s)	3.0	4.3		3.0	4.3		3.5	3.5		3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	169	2059		97	1921		251	304		256	296	
v/s Ratio Prot	c0.05	c0.39		0.01	c0.45			0.01			0.01	
v/s Ratio Perm							0.01			c0.01		
v/c Ratio	0.51	0.67		0.09	0.82		0.05	0.03		0.07	0.04	
Uniform Delay, d1	32.0	10.6		33.4	14.0		24.6	24.4		24.6	24.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	0.6		0.2	2.8		0.0	0.0		0.0	0.0	
Delay (s)	32.9	11.2		33.6	16.9		24.6	24.5		24.7	24.6	
Level of Service	C	B		C	B		C	C		C	C	
Approach Delay (s)		12.5			17.0			24.5			24.6	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	74.5	Sum of lost time (s)	17.2
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	
Volume (vph)	99	959	134	293	1201	28	359	11	550	30	142	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3455		1770	3521		1681	1690	1583	1770	1813	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3455		1770	3521		1681	1690	1583	1770	1813	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	99	959	134	293	1201	28	359	11	550	30	142	31
RTOR Reduction (vph)	0	6	0	0	1	0	0	0	458	0	6	0
Lane Group Flow (vph)	99	1087	0	293	1228	0	183	187	92	30	167	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split			Prot	Split	
Protected Phases	1	6		5	2		8	8	8	7	7	
Permitted Phases												
Actuated Green, G (s)	11.1	41.1		23.5	53.5		19.4	19.4	19.4	15.3	15.3	
Effective Green, g (s)	10.1	41.1		22.5	53.5		18.9	18.9	18.9	14.8	14.8	
Actuated g/C Ratio	0.09	0.36		0.20	0.47		0.17	0.17	0.17	0.13	0.13	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.5	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	158	1253		352	1663		280	282	264	231	237	
v/s Ratio Prot	0.06	c0.31		c0.17	0.35		0.11	c0.11	0.06	0.02	c0.09	
v/s Ratio Perm												
v/c Ratio	0.63	0.87		0.83	0.74		0.65	0.66	0.35	0.13	0.70	
Uniform Delay, d1	49.8	33.6		43.6	24.2		44.1	44.2	41.7	43.6	47.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.5	6.3		14.7	1.5		4.1	4.5	0.3	0.1	7.5	
Delay (s)	55.3	39.9		58.3	25.7		48.3	48.7	42.0	43.6	54.7	
Level of Service	E	D		E	C		D	D	D	D	D	
Approach Delay (s)		41.2			32.0			44.6			53.1	
Approach LOS		D			C			D			D	

Intersection Summary

HCM Average Control Delay	39.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	113.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↗	↖	↖	↗↗		↖	↗	↖	↖	↗	↖
Volume (vph)	26	1368	153	90	1142	20	65	82	183	77	43	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.93	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		0.97	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1467	1770	3526		1715	1863	1583	1770	1863	1483
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.73	1.00	1.00	0.70	1.00	1.00
Satd. Flow (perm)	1770	3539	1467	1770	3526		1316	1863	1583	1311	1863	1483
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	1368	153	90	1142	20	65	82	183	77	43	170
RTOR Reduction (vph)	0	0	24	0	1	0	0	0	146	0	0	136
Lane Group Flow (vph)	26	1368	129	90	1161	0	65	82	37	77	43	34
Confl. Peds. (#/hr)			35			35	35					35
Turn Type	Prot		Perm	Prot			Perm		Perm	Perm		Perm
Protected Phases	1	6		5	2			4				8
Permitted Phases			6				4		4	8		8
Actuated Green, G (s)	2.4	42.9	42.9	7.0	47.5		16.1	16.1	16.1	16.1	16.1	16.1
Effective Green, g (s)	1.9	43.4	43.4	6.5	48.0		15.6	15.6	15.6	15.6	15.6	15.6
Actuated g/C Ratio	0.02	0.56	0.56	0.08	0.62		0.20	0.20	0.20	0.20	0.20	0.20
Clearance Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	3.5	3.5	3.5	3.5	3.5
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2	0.2	2.0	2.0	2.0
Lane Grp Cap (vph)	43	1982	822	148	2184		265	375	319	264	375	299
v/s Ratio Prot	0.01	c0.39		c0.05	0.33			0.04				0.02
v/s Ratio Perm			0.09				0.05		0.02	c0.06		0.02
v/c Ratio	0.60	0.69	0.16	0.61	0.53		0.25	0.22	0.12	0.29	0.11	0.11
Uniform Delay, d1	37.4	12.2	8.2	34.3	8.4		26.0	25.9	25.3	26.3	25.3	25.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	15.3	0.8	0.0	4.8	0.1		0.2	0.1	0.1	0.2	0.0	0.1
Delay (s)	52.8	13.1	8.3	39.0	8.5		26.2	26.0	25.4	26.5	25.4	25.4
Level of Service	D	B	A	D	A		C	C	C	C	C	C
Approach Delay (s)		13.3			10.7			25.7			25.7	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	77.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	67	1475	39	7	997	8	42	23	153	24	28	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00			0.96			0.97	
Flpb, ped/bikes	0.98	1.00		0.99	1.00			0.99			0.99	
Frt	1.00	1.00		1.00	1.00			0.91			0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1734	3515		1758	3532			1598			1654	
Flt Permitted	0.23	1.00		0.12	1.00			0.93			0.92	
Satd. Flow (perm)	417	3515		219	3532			1505			1537	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	67	1475	39	7	997	8	42	23	153	24	28	58
RTOR Reduction (vph)	0	2	0	0	0	0	0	6	0	0	27	0
Lane Group Flow (vph)	67	1512	0	7	1005	0	0	212	0	0	83	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	33.3	33.3		33.3	33.3			18.3			18.3	
Effective Green, g (s)	33.8	33.8		33.8	33.8			17.8			17.8	
Actuated g/C Ratio	0.57	0.57		0.57	0.57			0.30			0.30	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	236	1993		124	2003			449			459	
v/s Ratio Prot		c0.43			0.28							
v/s Ratio Perm	0.16			0.03				c0.14			0.05	
v/c Ratio	0.28	0.76		0.06	0.50			0.47			0.18	
Uniform Delay, d1	6.7	9.8		5.8	7.8			17.1			15.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	3.0	2.8		0.9	0.9			0.3			0.1	
Delay (s)	9.7	12.6		6.6	8.7			17.4			15.6	
Level of Service	A	B		A	A			B			B	
Approach Delay (s)		12.4			8.7			17.4			15.6	
Approach LOS		B			A			B			B	

Intersection Summary

HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

6/17/2007



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	1727	262	50	0	50	59	5226	20	2206	656
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1727	262	50	0	50	59	5226	20	2206	656
RTOR Reduction (vph)	0	77	0	24	0	0	0	4	0	325
Lane Group Flow (vph)	1727	185	0	76	0	59	5226	16	2206	331
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	36.0	36.0		14.9		5.8	69.1	51.1	58.8	58.8
Effective Green, g (s)	36.0	35.0		13.9		5.8	69.1	51.1	58.8	58.8
Actuated g/C Ratio	0.24	0.23		0.09		0.04	0.46	0.34	0.39	0.39
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	824	369		157		68	2952	539	2631	621
v/s Ratio Prot	c0.50	0.12		c0.04		0.03	c0.82		0.33	0.21
v/s Ratio Perm								0.01		
v/c Ratio	2.10	0.50		0.48		0.87	1.77	0.03	0.84	0.53
Uniform Delay, d1	57.0	49.9		64.6		71.7	40.5	32.9	41.3	35.1
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	497.3	1.1		2.3		64.6	348.0	0.1	2.5	0.9
Delay (s)	554.3	51.0		66.9		136.3	388.5	33.0	43.8	35.9
Level of Service	F	D		E		F	F	C	D	D
Approach Delay (s)				66.9			384.3			
Approach LOS				E			F			

Intersection Summary

HCM Average Control Delay	305.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.72		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	153.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	0	80	66	68	0	0	0	0	170	2513	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0		4.0						4.0	
Lane Util. Factor			1.00		1.00						0.86	
Frbp, ped/bikes			0.97		1.00						1.00	
Flpb, ped/bikes			1.00		0.99						1.00	
Frt			0.85		1.00						1.00	
Flt Protected			1.00		0.98						1.00	
Satd. Flow (prot)			1541		1805						6369	
Flt Permitted			1.00		0.84						1.00	
Satd. Flow (perm)			1541		1560						6369	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	80	66	68	0	0	0	0	170	2513	13
RTOR Reduction (vph)	0	0	63	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	17	0	134	0	0	0	0	0	2696	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm						Perm		
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)			13.3		13.3						59.0	
Effective Green, g (s)			12.8		12.8						59.0	
Actuated g/C Ratio			0.13		0.13						0.59	
Clearance Time (s)			3.5		3.5						4.0	
Vehicle Extension (s)			2.0		2.0						5.0	
Lane Grp Cap (vph)			197		200						3758	
v/s Ratio Prot												
v/s Ratio Perm			0.01		0.09						0.42	
v/c Ratio			0.09		0.67						0.72	
Uniform Delay, d1			38.4		41.6						14.6	
Progression Factor			1.00		1.01						1.00	
Incremental Delay, d2			0.1		4.2						1.2	
Delay (s)			38.5		46.3						15.8	
Level of Service			D		D						B	
Approach Delay (s)		38.5			46.3		0.0				15.8	
Approach LOS		D			D		A				B	

Intersection Summary

HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.2
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Basler St & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	31	6	0	0	53	25	119	4591	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.96			1.00				
Flpb, ped/bikes	0.89	0.93			1.00			1.00				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.97			1.00			1.00				
Satd. Flow (prot)	1500	1585			1708			6387				
Flt Permitted	0.71	0.85			1.00			1.00				
Satd. Flow (perm)	1115	1396			1708			6387				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	6	0	0	53	25	119	4591	6	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	18	19	0	0	78	0	0	4716	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			73.0				
Effective Green, g (s)	18.0	18.0			18.0			74.0				
Actuated g/C Ratio	0.18	0.18			0.18			0.74				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	201	251			307			4726				
v/s Ratio Prot					c0.05							
v/s Ratio Perm	0.02	0.01						0.74				
v/c Ratio	0.09	0.08			0.25			1.00				
Uniform Delay, d1	34.2	34.1			35.2			12.9				
Progression Factor	0.88	0.88			1.00			0.45				
Incremental Delay, d2	0.6	0.4			2.0			3.5				
Delay (s)	30.7	30.5			37.2			9.2				
Level of Service	C	C			D			A				
Approach Delay (s)		30.6			37.2			9.2			0.0	
Approach LOS		C			D			A			A	

Intersection Summary

HCM Average Control Delay	9.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

13: Bercut Dr & Bannon St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↙	↘
Volume (veh/h)	75	576	2	689	840	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	75	576	2	689	840	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	512					
pX, platoon unblocked						
vC, conflicting volume			651		1056	363
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			651		1056	363
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		0	100
cM capacity (veh/h)			935		249	682

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	651	691	841
Volume Left	0	2	840
Volume Right	576	0	1
cSH	1700	935	249
Volume to Capacity	0.38	0.00	3.37
Queue Length 95th (ft)	0	0	Err
Control Delay (s)	0.0	0.1	Err
Lane LOS		A	F
Approach Delay (s)	0.0	0.1	Err
Approach LOS			F

Intersection Summary			
Average Delay		3852.1	
Intersection Capacity Utilization		92.8%	ICU Level of Service F
Analysis Period (min)		15	
Description: SB coded as EB			

HCM Signalized Intersection Capacity Analysis

17: N B Street & 5th St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Volume (vph)	70	0	0	126	541	800
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.5	4.5
Lane Util. Factor	1.00			1.00	1.00	0.88
Flt	1.00			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	1863			1863	1770	2787
Flt Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	1863			1863	1770	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	70	0	0	126	541	800
RTOR Reduction (vph)	0	0	0	0	0	213
Lane Group Flow (vph)	70	0	0	126	541	587
Turn Type						Perm
Protected Phases	4			8	2	
Permitted Phases						2
Actuated Green, G (s)	12.8			12.8	58.7	58.7
Effective Green, g (s)	12.8			12.8	58.7	58.7
Actuated g/C Ratio	0.16			0.16	0.73	0.73
Clearance Time (s)	4.0			4.0	4.5	4.5
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	298			298	1299	2045
v/s Ratio Prot	0.04			c0.07	c0.31	
v/s Ratio Perm						0.21
v/c Ratio	0.23			0.42	0.42	0.29
Uniform Delay, d1	29.3			30.3	4.1	3.6
Progression Factor	1.00			0.87	0.86	0.87
Incremental Delay, d2	0.4			0.5	1.0	0.3
Delay (s)	29.7			27.0	4.5	3.5
Level of Service	C			C	A	A
Approach Delay (s)	29.7			27.0	3.9	
Approach LOS	C			C	A	

Intersection Summary

HCM Average Control Delay	6.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

18: North B St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	414	458	127	538	144	159	0	0	0	169	564	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0						4.0	
Lane Util. Factor	0.91	0.91		0.95	0.95						0.95	
Frt	1.00	0.97		1.00	0.95						0.99	
Flt Protected	0.95	0.99		0.95	0.98						0.99	
Satd. Flow (prot)	1610	3271		1681	1652						3469	
Flt Permitted	0.38	0.75		0.34	0.54						0.99	
Satd. Flow (perm)	647	2466		597	911						3469	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	414	458	127	538	144	159	0	0	0	169	564	48
RTOR Reduction (vph)	0	24	0	0	23	0	0	0	0	0	6	0
Lane Group Flow (vph)	298	677	0	344	474	0	0	0	0	0	775	0
Turn Type	Perm			Perm							Perm	
Protected Phases		4			8							6
Permitted Phases	4			8						6		
Actuated Green, G (s)	48.2	48.2		48.2	48.2						23.8	
Effective Green, g (s)	48.2	48.2		48.2	48.2						23.8	
Actuated g/C Ratio	0.60	0.60		0.60	0.60						0.30	
Clearance Time (s)	4.0	4.0		4.0	4.0						4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)	390	1486		360	549						1032	
v/s Ratio Prot												
v/s Ratio Perm	0.46	0.27		0.58	0.52						0.22	
v/c Ratio	0.76	0.46		0.96	0.86						0.75	
Uniform Delay, d1	11.7	8.7		14.9	13.2						25.4	
Progression Factor	0.56	0.59		1.00	1.00						1.00	
Incremental Delay, d2	8.4	0.2		35.6	13.2						5.0	
Delay (s)	15.0	5.3		50.5	26.4						30.5	
Level of Service	B	A		D	C						C	
Approach Delay (s)		8.2			36.2			0.0			30.5	
Approach LOS		A			D			A			C	

Intersection Summary

HCM Average Control Delay	23.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

19: North B St & 10th St

6/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↘	
Volume (veh/h)	66	675	635	141	222	229
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	66	675	635	141	222	229
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		1285	841			
pX, platoon unblocked						
vC, conflicting volume	776				1175	388
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	776				1175	388
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				0	62
cM capacity (veh/h)	836				170	611

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	291	450	423	353	451
Volume Left	66	0	0	0	222
Volume Right	0	0	0	141	229
cSH	836	1700	1700	1700	268
Volume to Capacity	0.08	0.26	0.25	0.21	1.68
Queue Length 95th (ft)	6	0	0	0	718
Control Delay (s)	2.9	0.0	0.0	0.0	355.2
Lane LOS	A				F
Approach Delay (s)	1.1		0.0		355.2
Approach LOS					F

Intersection Summary					
Average Delay			81.8		
Intersection Capacity Utilization			79.0%	ICU Level of Service	D
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis

20: North B St & 12th Street

6/17/2007



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↘↗	
Volume (vph)	135	554	290	101	318	41	4	42	18	55	2189	419
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.99			0.98			0.98	
Flpb, ped/bikes		1.00		0.99	1.00			1.00			0.91	
Frt		0.96		1.00	0.98			0.96			0.98	
Flt Protected		0.99		0.95	1.00			1.00			0.96	
Satd. Flow (prot)		3345		1759	1812			1752			5673	
Flt Permitted		0.57		0.17	1.00			1.00			0.96	
Satd. Flow (perm)		1907		322	1812			1752			5673	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	135	554	290	101	318	41	4	42	18	55	2189	419
RTOR Reduction (vph)	0	46	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	933	0	101	359	0	0	49	0	0	2663	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		23.0		23.0	23.0			11.9			38.1	
Effective Green, g (s)		23.0		23.0	23.0			11.9			41.1	
Actuated g/C Ratio		0.23		0.23	0.23			0.12			0.41	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)		439		74	417			208			2332	
v/s Ratio Prot					0.20							
v/s Ratio Perm		0.49		0.31				0.03			0.47	
v/c Ratio		2.12		1.36	0.86			0.24			1.14	
Uniform Delay, d1		38.5		38.5	37.0			39.9			29.4	
Progression Factor		1.00		1.05	1.05			1.00			0.95	
Incremental Delay, d2		513.8		205.8	11.1			1.2			68.9	
Delay (s)		552.3		246.4	50.0			41.2			97.0	
Level of Service		F		F	D			D			F	
Approach Delay (s)		552.3			93.1			41.2			97.0	
Approach LOS		F			F			D			F	

Intersection Summary

HCM Average Control Delay	202.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: North B St & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	585	61	0	0	95	5	339	4263	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.99			1.00				
Flpb, ped/bikes	0.91	0.92			1.00			1.00				
Frt	1.00	1.00			0.99			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1526	1572			1839			6352				
Flt Permitted	0.67	0.67			1.00			1.00				
Satd. Flow (perm)	1073	1103			1839			6352				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	585	61	0	0	95	5	339	4263	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	316	330	0	0	100	0	0	4612	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	20.0	20.0			20.0			72.0				
Effective Green, g (s)	20.0	20.0			20.0			72.0				
Actuated g/C Ratio	0.20	0.20			0.20			0.72				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	215	221			368			4573				
v/s Ratio Prot					0.05							
v/s Ratio Perm	0.29	c0.30						0.73				
v/c Ratio	1.47	1.49			0.27			1.01				
Uniform Delay, d1	40.0	40.0			33.8			14.0				
Progression Factor	0.78	0.78			1.00			0.95				
Incremental Delay, d2	213.7	224.1			1.8			13.8				
Delay (s)	244.8	255.2			35.7			27.0				
Level of Service	F	F			D			C				
Approach Delay (s)		250.1			35.7			27.0			0.0	
Approach LOS		F			D			C			A	

Intersection Summary

HCM Average Control Delay	54.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

22: South Park St & Bercut Dr

6/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	179	235	320	41	140	142
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	179	235	320	41	140	142
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	179	235	361	140	142	
Volume Left (vph)	179	0	0	140	0	
Volume Right (vph)	0	235	41	0	0	
Hadj (s)	0.53	-0.67	-0.03	0.53	0.03	
Departure Headway (s)	6.9	5.6	5.9	6.8	6.3	
Degree Utilization, x	0.34	0.37	0.59	0.26	0.25	
Capacity (veh/h)	501	607	589	506	546	
Control Delay (s)	12.2	10.7	16.9	11.0	10.1	
Approach Delay (s)	11.3		16.9	10.6		
Approach LOS	B		C	B		
Intersection Summary						
Delay			13.0			
HCM Level of Service			B			
Intersection Capacity Utilization			47.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

23: South Park St & 5th St

6/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	←←			←↑↑		
Volume (vph)	256	0	11	1085	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5			4.5		
Lane Util. Factor	0.97			0.91		
Frt	1.00			1.00		
Flt Protected	0.95			1.00		
Satd. Flow (prot)	3433			5083		
Flt Permitted	0.95			1.00		
Satd. Flow (perm)	3433			5083		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	256	0	11	1085	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	256	0	0	1096	0	0
Turn Type	Perm					
Protected Phases	4			2		
Permitted Phases	4			2		
Actuated Green, G (s)	14.4			56.6		
Effective Green, g (s)	14.4			56.6		
Actuated g/C Ratio	0.18			0.71		
Clearance Time (s)	4.5			4.5		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	618			3596		
v/s Ratio Prot	c0.07					
v/s Ratio Perm				0.22		
v/c Ratio	0.41			0.30		
Uniform Delay, d1	29.1			4.4		
Progression Factor	1.00			0.20		
Incremental Delay, d2	0.5			0.1		
Delay (s)	29.5			1.0		
Level of Service	C			A		
Approach Delay (s)	29.5			1.0		0.0
Approach LOS	C			A		A

Intersection Summary

HCM Average Control Delay	6.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

26: Railyards Blvd & Jibboom St

6/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	878	568	17	252	298	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.87		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	1627		1770	1863
Flt Permitted	0.95	1.00	1.00		0.49	1.00
Satd. Flow (perm)	1770	1583	1627		910	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	878	568	17	252	298	32
RTOR Reduction (vph)	0	261	160	0	0	0
Lane Group Flow (vph)	878	307	109	0	298	32
Turn Type		Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	
Actuated Green, G (s)	46.0	46.0	31.0		31.0	31.0
Effective Green, g (s)	46.0	46.0	31.0		31.0	31.0
Actuated g/C Ratio	0.54	0.54	0.36		0.36	0.36
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	958	857	593		332	679
v/s Ratio Prot	c0.50		0.07			0.02
v/s Ratio Perm		0.19			c0.33	
v/c Ratio	0.92	0.36	0.18		0.90	0.05
Uniform Delay, d1	17.8	11.1	18.4		25.5	17.5
Progression Factor	0.74	0.98	1.00		1.00	1.00
Incremental Delay, d2	10.2	0.7	0.2		29.1	0.1
Delay (s)	23.2	11.6	18.5		54.6	17.6
Level of Service	C	B	B		D	B
Approach Delay (s)	18.7		18.5			51.0
Approach LOS	B		B			D

Intersection Summary

HCM Average Control Delay	23.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/17/2007



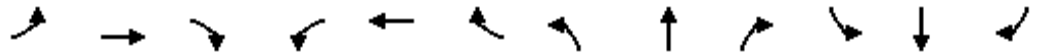
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↕	↗	↖	↗		↖	↗	
Volume (vph)	36	238	277	7	846	109	422	216	5	5	138	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.92		1.00	0.98		1.00	1.00		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1712		1770	3479		1770	1856		1770	1705	
Flt Permitted	0.13	1.00		0.20	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	248	1712		372	3479		1770	1856		1770	1705	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	36	238	277	7	846	109	422	216	5	5	138	178
RTOR Reduction (vph)	0	45	0	0	11	0	0	1	0	0	59	0
Lane Group Flow (vph)	36	470	0	7	944	0	422	220	0	5	257	0
Turn Type	Perm		Perm		Split		Split					
Protected Phases	2		6		3		3		4		4	
Permitted Phases	2		6									
Actuated Green, G (s)	30.7	30.7		30.7	30.7		22.9	22.9		19.4	19.4	
Effective Green, g (s)	30.7	30.7		30.7	30.7		22.9	22.9		19.4	19.4	
Actuated g/C Ratio	0.36	0.36		0.36	0.36		0.27	0.27		0.23	0.23	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	90	618		134	1257		477	500		404	389	
v/s Ratio Prot	c0.27		0.27		c0.24		0.12		0.00		c0.15	
v/s Ratio Perm	0.14		0.02									
v/c Ratio	0.40	0.76		0.05	0.75		0.88	0.44		0.01	0.66	
Uniform Delay, d1	20.3	23.9		17.7	23.8		29.8	25.7		25.4	29.8	
Progression Factor	1.26	1.32		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.2	4.2		0.7	4.2		17.5	0.6		0.0	4.2	
Delay (s)	27.8	35.7		18.4	28.0		47.3	26.4		25.4	34.0	
Level of Service	C	D		B	C		D	C		C	C	
Approach Delay (s)	35.2		27.9		40.1		33.9					
Approach LOS	D		C		D		C					

Intersection Summary

HCM Average Control Delay	33.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 28: Railyards Blvd & Crocker St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↔	↔		↔	↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	32	70	46	155	229	281	194	159	99	69	59	92
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	32	70	46	155	229	281	194	159	99	69	59	92

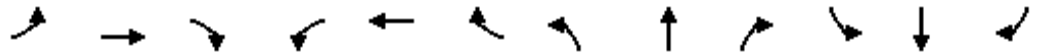
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	67	81	270	396	194	258	69	151
Volume Left (vph)	32	0	155	0	194	0	69	0
Volume Right (vph)	0	46	0	281	0	99	0	92
Hadj (s)	0.27	-0.36	0.32	-0.46	0.53	-0.23	0.53	-0.39
Departure Headway (s)	7.8	7.2	7.1	6.3	7.6	6.9	8.0	7.1
Degree Utilization, x	0.15	0.16	0.53	0.69	0.41	0.49	0.15	0.30
Capacity (veh/h)	430	468	493	552	447	507	424	481
Control Delay (s)	11.0	10.4	16.7	21.2	14.7	15.1	11.3	11.9
Approach Delay (s)	10.7		19.4		14.9		11.7	
Approach LOS	B		C		B		B	

Intersection Summary	
Delay	16.0
HCM Level of Service	C
Intersection Capacity Utilization	57.0%
ICU Level of Service	B
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

29: Railyards Blvd & Stanford St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	195	43	51	548	208	117	19	5	189	23	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.97			0.96		1.00	0.97		1.00	0.97	
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1812			3392		1770	1805		1770	1813	
Flt Permitted	0.95	1.00			1.00		0.74	1.00		0.74	1.00	
Satd. Flow (perm)	1770	1812			3392		1377	1805		1381	1813	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	195	43	51	548	208	117	19	5	189	23	5
RTOR Reduction (vph)	0	10	0	0	40	0	0	4	0	0	4	0
Lane Group Flow (vph)	5	228	0	0	767	0	117	20	0	189	24	0
Turn Type	Split			Split			Perm			Perm		
Protected Phases	1	1		2	2			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	18.7	18.7			30.6		18.7	18.7		18.7	18.7	
Effective Green, g (s)	18.7	18.7			30.6		18.7	18.7		18.7	18.7	
Actuated g/C Ratio	0.23	0.23			0.38		0.23	0.23		0.23	0.23	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	414	424			1297		322	422		323	424	
v/s Ratio Prot	0.00	c0.13			c0.23			0.01			0.01	
v/s Ratio Perm							0.08			c0.14		
v/c Ratio	0.01	0.54			0.59		0.36	0.05		0.59	0.06	
Uniform Delay, d1	23.6	26.9			19.7		25.7	23.8		27.2	23.8	
Progression Factor	1.00	1.00			0.91		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	1.3			1.3		0.7	0.0		2.7	0.1	
Delay (s)	23.6	28.2			19.1		26.4	23.8		29.9	23.9	
Level of Service	C	C			B		C	C		C	C	
Approach Delay (s)		28.1			19.1			25.9			29.1	
Approach LOS		C			B			C			C	

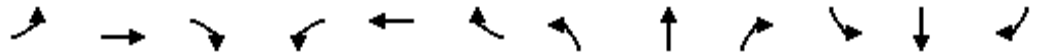
Intersection Summary

HCM Average Control Delay	22.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

30: Railyards Blvd & 5th St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑			↑↑			↖↑↑				
Volume (vph)	5	383	0	0	458	289	349	808	169	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.0				
Lane Util. Factor	1.00	1.00			0.95			0.91				
Frt	1.00	1.00			0.94			0.98				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1770	1863			3334			4923				
Flt Permitted	0.95	1.00			1.00			0.99				
Satd. Flow (perm)	1770	1863			3334			4923				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	383	0	0	458	289	349	808	169	0	0	0
RTOR Reduction (vph)	0	0	0	0	129	0	0	22	0	0	0	0
Lane Group Flow (vph)	5	383	0	0	618	0	0	1304	0	0	0	0
Turn Type	Split						Split					
Protected Phases	4	4			8		2	2				
Permitted Phases					8			2				
Actuated Green, G (s)	20.1	20.1			19.4			27.5				
Effective Green, g (s)	20.1	20.1			19.4			27.5				
Actuated g/C Ratio	0.25	0.25			0.24			0.34				
Clearance Time (s)	4.5	4.5			4.5			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	445	468			808			1692				
v/s Ratio Prot	0.00	c0.21			c0.19			c0.26				
v/s Ratio Perm												
v/c Ratio	0.01	0.82			0.77			0.77				
Uniform Delay, d1	22.5	28.2			28.2			23.4				
Progression Factor	0.37	0.42			1.45			1.00				
Incremental Delay, d2	0.0	9.5			4.2			3.5				
Delay (s)	8.4	21.3			45.1			26.9				
Level of Service	A	C			D			C				
Approach Delay (s)		21.1			45.1			26.9			0.0	
Approach LOS		C			D			C			A	

Intersection Summary

HCM Average Control Delay	31.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

31: Railyards Blvd & Judah St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩		↩	↩↩	↩↩	
Volume (veh/h)	514	38	43	614	133	156
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	514	38	43	614	133	156
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	298			284		
pX, platoon unblocked			0.80		0.81	0.80
vC, conflicting volume			552		926	533
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			319		736	295
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		52	72
cM capacity (veh/h)			994		274	563

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	NB 1
Volume Total	552	43	307	307	289
Volume Left	0	43	0	0	133
Volume Right	38	0	0	0	156
cSH	1700	994	1700	1700	379
Volume to Capacity	0.32	0.04	0.18	0.18	0.76
Queue Length 95th (ft)	0	3	0	0	155
Control Delay (s)	0.0	8.8	0.0	0.0	39.2
Lane LOS		A			E
Approach Delay (s)	0.0	0.6			39.2
Approach LOS					E

Intersection Summary					
Average Delay			7.8		
Intersection Capacity Utilization		59.3%		ICU Level of Service	B
Analysis Period (min)		15			

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩		↩	↩↩	↩	↩
Volume (vph)	665	5	133	379	278	359
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	0.95	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1861		1770	3539	1770	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	1861		1770	3539	1770	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	665	5	133	379	278	359
RTOR Reduction (vph)	0	0	0	0	0	282
Lane Group Flow (vph)	670	0	133	379	278	77
Turn Type			Prot			Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	41.4		9.5	54.9	17.1	17.1
Effective Green, g (s)	41.4		9.5	54.9	17.1	17.1
Actuated g/C Ratio	0.52		0.12	0.69	0.21	0.21
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	963		210	2429	378	338
v/s Ratio Prot	c0.36		c0.08	0.11	c0.16	
v/s Ratio Perm						0.05
v/c Ratio	0.70		0.63	0.16	0.74	0.23
Uniform Delay, d1	14.5		33.6	4.4	29.3	26.0
Progression Factor	0.33		0.68	1.25	1.00	1.00
Incremental Delay, d2	3.4		5.6	0.1	7.3	0.3
Delay (s)	8.3		28.3	5.6	36.6	26.3
Level of Service	A		C	A	D	C
Approach Delay (s)	8.3			11.5	30.8	
Approach LOS	A			B	C	

Intersection Summary

HCM Average Control Delay	17.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↕↗	↗
Volume (vph)	0	1024	0	0	265	512
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		1.00			0.91	0.91
Frt		0.86			0.93	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		1611			3140	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		1611			3140	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1024	0	0	265	512
RTOR Reduction (vph)	0	428	0	0	180	180
Lane Group Flow (vph)	0	596	0	0	341	76
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		29.0			23.8	23.8
Effective Green, g (s)		29.0			23.8	23.8
Actuated g/C Ratio		0.36			0.30	0.30
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		584			934	429
v/s Ratio Prot		c0.37			c0.11	0.05
v/s Ratio Perm						
v/c Ratio		1.02			0.37	0.18
Uniform Delay, d1		25.5			22.1	20.8
Progression Factor		1.99			1.02	1.56
Incremental Delay, d2		37.6			0.7	0.6
Delay (s)		88.5			23.3	33.1
Level of Service		F			C	C
Approach Delay (s)	88.5			0.0	26.5	
Approach LOS	F			A	C	

Intersection Summary

HCM Average Control Delay	61.7	HCM Level of Service	E
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	27.2
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

36: Camille Ln & Bercut Dr

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↘		↗	↘	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	5	0	0	5	427	0	0	0	241	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	5	0	0	5	427	0	0	0	241	0	0

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	5	432	0	0	241	0
Volume Left (vph)	0	0	0	0	241	0
Volume Right (vph)	0	427	0	0	0	0
Hadj (s)	0.03	-0.56	0.00	0.00	0.53	0.00
Departure Headway (s)	5.2	4.1	5.8	5.8	6.0	5.5
Degree Utilization, x	0.01	0.50	0.00	0.00	0.40	0.00
Capacity (veh/h)	630	836	567	567	569	634
Control Delay (s)	8.3	11.1	7.6	7.6	11.8	7.3
Approach Delay (s)	8.3	11.1	0.0		11.8	
Approach LOS	A	B	A		B	

Intersection Summary

Delay	11.3
HCM Level of Service	B
Intersection Capacity Utilization	46.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

37: F Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻↻↻	
Volume (vph)	0	25	23	90	5	0	0	0	0	481	904	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	
Lane Util. Factor		1.00		1.00	1.00						0.91	
Frt		0.94		1.00	1.00						1.00	
Flt Protected		1.00		0.95	1.00						0.98	
Satd. Flow (prot)		1742		1770	1863						4996	
Flt Permitted		1.00		0.95	1.00						0.98	
Satd. Flow (perm)		1742		1770	1863						4996	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	25	23	90	5	0	0	0	0	481	904	5
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	29	0	90	5	0	0	0	0	0	1389	0
Turn Type				Split							Perm	
Protected Phases		4		8	8							6
Permitted Phases										6		
Actuated Green, G (s)		19.0		22.0	22.0						47.0	
Effective Green, g (s)		19.0		22.0	22.0						47.0	
Actuated g/C Ratio		0.19		0.22	0.22						0.47	
Clearance Time (s)		4.0		4.0	4.0						4.0	
Lane Grp Cap (vph)		331		389	410						2348	
v/s Ratio Prot		c0.02		c0.05	0.00							
v/s Ratio Perm											0.28	
v/c Ratio		0.09		0.23	0.01						0.59	
Uniform Delay, d1		33.4		32.1	30.5						19.5	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		0.5		1.4	0.1						1.1	
Delay (s)		33.9		33.4	30.6						20.6	
Level of Service		C		C	C						C	
Approach Delay (s)		33.9			33.3			0.0			20.6	
Approach LOS		C			C			A			C	

Intersection Summary

HCM Average Control Delay	21.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↔	↔		↕↕↕				
Volume (vph)	293	5	0	0	97	1359	60	646	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0				
Lane Util. Factor		1.00			0.95	0.95		0.91				
Frt		1.00			0.87	0.85		1.00				
Flt Protected		0.95			1.00	1.00		1.00				
Satd. Flow (prot)		1775			1539	1504		5059				
Flt Permitted		0.15			1.00	1.00		1.00				
Satd. Flow (perm)		286			1539	1504		5059				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	293	5	0	0	97	1359	60	646	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	36	36	0	1	0	0	0	0
Lane Group Flow (vph)	0	298	0	0	700	684	0	710	0	0	0	0
Turn Type	Perm			Perm			custom					
Protected Phases		4			8							
Permitted Phases	4					8	2	2				
Actuated Green, G (s)		26.0			26.0	26.0		16.0				
Effective Green, g (s)		26.0			26.0	26.0		16.0				
Actuated g/C Ratio		0.52			0.52	0.52		0.32				
Clearance Time (s)		4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)		149			800	782		1619				
v/s Ratio Prot					0.46							
v/s Ratio Perm		c1.04				0.46		c0.14				
v/c Ratio		2.00			0.88	0.88		0.44				
Uniform Delay, d1		12.0			10.6	10.6		13.4				
Progression Factor		1.00			1.68	1.69		0.78				
Incremental Delay, d2		473.0			1.4	1.4		0.8				
Delay (s)		485.0			19.1	19.2		11.2				
Level of Service		F			B	B		B				
Approach Delay (s)		485.0			19.2			11.2			0.0	
Approach LOS		F			B			B			A	

Intersection Summary

HCM Average Control Delay	73.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.41		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕		↕	↕		↕	↕	
Volume (vph)	5	5	5	362	846	495	161	140	5	5	1408	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	
Frt		0.96			0.96		1.00	0.99		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750			3349		1770	1853		1770	1855	
Flt Permitted		0.64			0.88		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1142			2971		1770	1853		1770	1855	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	362	846	495	161	140	5	5	1408	41
RTOR Reduction (vph)	0	4	0	0	45	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	11	0	0	1658	0	161	144	0	5	1448	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		29.0			29.0		9.0	54.0		5.0	50.0	
Effective Green, g (s)		29.0			29.0		9.0	54.0		5.0	50.0	
Actuated g/C Ratio		0.29			0.29		0.09	0.54		0.05	0.50	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		331			862		159	1001		89	928	
v/s Ratio Prot							c0.09	0.08		0.00	c0.78	
v/s Ratio Perm		0.01			c0.56							
v/c Ratio		0.03			1.92		1.01	0.14		0.06	1.56	
Uniform Delay, d1		25.5			35.5		45.5	11.5		45.3	25.0	
Progression Factor		0.79			1.00		0.21	0.72		1.00	1.00	
Incremental Delay, d2		0.1			418.9		24.6	0.0		1.2	257.4	
Delay (s)		20.1			454.6		34.0	8.3		46.5	282.4	
Level of Service		C			F		C	A		D	F	
Approach Delay (s)		20.1			454.6			21.8			281.6	
Approach LOS		C			F			C			F	

Intersection Summary

HCM Average Control Delay	342.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	148.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	15	481	1352	0	0	0	0	0	1007	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.5	4.0
Lane Util. Factor			1.00	0.91	0.91						0.95	1.00
Frbp, ped/bikes			1.00	1.00	1.00						1.00	1.00
Flpb, ped/bikes			1.00	1.00	1.00						1.00	1.00
Frt			0.86	1.00	1.00						1.00	0.85
Flt Protected			1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)			1611	1610	3384						3539	1583
Flt Permitted			1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)			1611	1610	3384						3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	481	1352	0	0	0	0	0	1007	99
RTOR Reduction (vph)	0	0	7	9	5	0	0	0	0	0	0	13
Lane Group Flow (vph)	0	0	8	425	1395	0	0	0	0	0	1007	86
Confl. Peds. (#/hr)						72						
Turn Type			custom	Perm								Perm
Protected Phases					1						2	
Permitted Phases			1	1								2
Actuated Green, G (s)			25.5	25.5	25.5						17.0	17.0
Effective Green, g (s)			25.5	25.0	25.5						16.5	17.0
Actuated g/C Ratio			0.51	0.50	0.51						0.33	0.34
Clearance Time (s)			3.5	3.5	3.5						4.0	4.0
Lane Grp Cap (vph)			822	805	1726						1168	538
v/s Ratio Prot											c0.28	
v/s Ratio Perm			0.00	0.26	0.41							0.05
v/c Ratio			0.01	0.53	0.81						0.86	0.16
Uniform Delay, d1			6.0	8.5	10.2						15.7	11.5
Progression Factor			1.06	0.56	0.59						0.97	1.10
Incremental Delay, d2			0.0	2.4	4.0						7.5	0.6
Delay (s)			6.4	7.1	10.0						22.8	13.2
Level of Service			A	A	B						C	B
Approach Delay (s)		6.4			9.3			0.0			21.9	
Approach LOS		A			A			A			C	
Intersection Summary												
HCM Average Control Delay			14.0			HCM Level of Service					B	
HCM Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			50.0			Sum of lost time (s)				8.0		
Intersection Capacity Utilization			69.1%			ICU Level of Service					C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

41: G Street & 8th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Volume (vph)	0	0	0	0	945	58	416	422	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0				
Lane Util. Factor					0.91			0.91				
Frbp, ped/bikes					1.00			1.00				
Flpb, ped/bikes					1.00			0.97				
Frt					0.99			1.00				
Flt Protected					1.00			0.98				
Satd. Flow (prot)					5023			4835				
Flt Permitted					1.00			0.98				
Satd. Flow (perm)					5023			4835				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	945	58	416	422	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	14	0	0	34	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	989	0	0	804	0	0	0	0
Confl. Peds. (#/hr)						72	72					
Turn Type							Perm					
Protected Phases					1			2				
Permitted Phases							2					
Actuated Green, G (s)					21.9			21.1				
Effective Green, g (s)					21.4			20.6				
Actuated g/C Ratio					0.43			0.41				
Clearance Time (s)					3.5			3.5				
Lane Grp Cap (vph)					2150			1992				
v/s Ratio Prot					c0.20							
v/s Ratio Perm								0.17				
v/c Ratio					0.46			0.40				
Uniform Delay, d1					10.2			10.4				
Progression Factor					0.90			0.47				
Incremental Delay, d2					0.7			0.4				
Delay (s)					9.9			5.3				
Level of Service					A			A				
Approach Delay (s)		0.0			9.9			5.3			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			7.8					HCM Level of Service			A	
HCM Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			69.1%					ICU Level of Service			C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	59	409	0	0	0	0	0	1198	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.99	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.98	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					5017						4941	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					5017						4941	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	59	409	0	0	0	0	0	1198	172
RTOR Reduction (vph)	0	0	0	0	38	0	0	0	0	0	38	0
Lane Group Flow (vph)	0	0	0	0	430	0	0	0	0	0	1332	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1706						2075	
v/s Ratio Prot											c0.27	
v/s Ratio Perm					0.09							
v/c Ratio					0.25						0.64	
Uniform Delay, d1					11.9						11.5	
Progression Factor					1.00						1.60	
Incremental Delay, d2					0.4						0.1	
Delay (s)					12.3						18.6	
Level of Service					B						B	
Approach Delay (s)		0.0			12.3			0.0			18.6	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			17.0		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			43.4%		ICU Level of Service			A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

43: H Street & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖						↗↖↗				
Volume (vph)	5	20	0	0	0	0	20	706	402	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		1.00						0.91				
Frt		1.00						0.95				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1844						4809				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1844						4809				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	20	0	0	0	0	20	706	402	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	193	0	0	0	0
Lane Group Flow (vph)	0	25	0	0	0	0	0	935	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4					2	2				
Permitted Phases	4											
Actuated Green, G (s)		16.0						26.0				
Effective Green, g (s)		16.0						26.0				
Actuated g/C Ratio		0.32						0.52				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		590						2501				
v/s Ratio Prot								c0.19				
v/s Ratio Perm		0.01										
v/c Ratio		0.04						0.37				
Uniform Delay, d1		11.7						7.2				
Progression Factor		1.00						2.61				
Incremental Delay, d2		0.1						0.0				
Delay (s)		11.9						18.7				
Level of Service		B						B				
Approach Delay (s)		11.9			0.0			18.7			0.0	
Approach LOS		B			A			B			A	

Intersection Summary

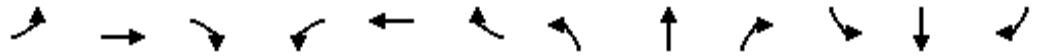
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	319	79	0	0	0	0	427	193	1226	874	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0	3.5	4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95	0.95	0.95	0.95	
Frbp, ped/bikes	1.00	0.97						0.99	0.85	1.00	1.00	
Flpb, ped/bikes	0.76	1.00						1.00	1.00	1.00	1.00	
Frt	1.00	0.97						0.99	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (prot)	1345	3329						1747	1274	1681	1754	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (perm)	1345	3329						1747	1274	1681	1754	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	427	193	1226	874	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	2	66	0	0	0
Lane Group Flow (vph)	4	376	0	0	0	0	0	445	108	1030	1070	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm						Perm Split					
Protected Phases	1						2 6 6					
Permitted Phases	1						2					
Actuated Green, G (s)	16.5	16.5						25.5	25.5	39.0	39.0	
Effective Green, g (s)	16.5	16.0						25.0	25.5	38.5	38.5	
Actuated g/C Ratio	0.16	0.16						0.25	0.26	0.38	0.38	
Clearance Time (s)	3.5	3.5						3.5	3.5	4.0	4.0	
Lane Grp Cap (vph)	222	533						437	325	647	675	
v/s Ratio Prot		c0.11						c0.25		c0.61	0.61	
v/s Ratio Perm	0.00							0.08				
v/c Ratio	0.02	0.71						1.02	0.33	1.59	1.59	
Uniform Delay, d1	35.0	39.8						37.5	30.3	30.8	30.8	
Progression Factor	1.14	1.19						1.14	1.49	0.82	0.82	
Incremental Delay, d2	0.1	7.2						38.6	1.7	267.1	264.0	
Delay (s)	39.9	54.6						81.2	47.0	292.2	289.1	
Level of Service	D	D						F	D	F	F	
Approach Delay (s)		54.5			0.0			71.6			290.6	
Approach LOS		D			A			E			F	

Intersection Summary

HCM Average Control Delay	216.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	106.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑								↘	↙↑		
Volume (vph)	0	1332	323	0	0	0	0	0	0	379	822	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0								4.0	4.0		
Lane Util. Factor		0.95								0.91	0.91		
Frbp, ped/bikes		0.98								1.00	1.00		
Flpb, ped/bikes		1.00								0.93	1.00		
Frt		0.97								1.00	1.00		
Flt Protected		1.00								0.95	1.00		
Satd. Flow (prot)		3380								1494	3372		
Flt Permitted		1.00								0.95	1.00		
Satd. Flow (perm)		3380								1494	3372		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	1332	323	0	0	0	0	0	0	379	822	0	
RTOR Reduction (vph)	0	42	0	0	0	0	0	0	0	98	6	0	
Lane Group Flow (vph)	0	1613	0	0	0	0	0	0	0	243	854	0	
Confl. Peds. (#/hr)			72							72			
Turn Type										Perm			
Protected Phases		1									2		
Permitted Phases										2			
Actuated Green, G (s)		19.5								18.5	18.5		
Effective Green, g (s)		19.0								18.0	18.0		
Actuated g/C Ratio		0.38								0.36	0.36		
Clearance Time (s)		3.5								3.5	3.5		
Lane Grp Cap (vph)		1284								538	1214		
v/s Ratio Prot		c0.48											
v/s Ratio Perm										0.16	0.25		
v/c Ratio		1.26								0.45	0.70		
Uniform Delay, d1		15.5								12.2	13.7		
Progression Factor		1.60								1.93	1.48		
Incremental Delay, d2		115.9								1.7	2.2		
Delay (s)		140.6								25.3	22.5		
Level of Service		F								C	C		
Approach Delay (s)		140.6			0.0			0.0			23.3		
Approach LOS		F			A			A			C		
Intersection Summary													
HCM Average Control Delay			91.3									HCM Level of Service	F
HCM Volume to Capacity ratio			0.99										
Actuated Cycle Length (s)			50.0									Sum of lost time (s)	13.0
Intersection Capacity Utilization			77.5%									ICU Level of Service	D
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

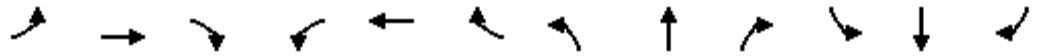
6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Volume (vph)	172	1522	0	0	0	0	0	660	231	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.98				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.96				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		3496						4783				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		3496						4783				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	172	1522	0	0	0	0	0	660	231	0	0	0
RTOR Reduction (vph)	0	17	0	0	0	0	0	96	0	0	0	0
Lane Group Flow (vph)	0	1677	0	0	0	0	0	795	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		22.5						15.5				
Effective Green, g (s)		22.0						15.0				
Actuated g/C Ratio		0.44						0.30				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1538						1435				
v/s Ratio Prot								c0.17				
v/s Ratio Perm		0.48										
v/c Ratio		1.09						0.55				
Uniform Delay, d1		14.0						14.7				
Progression Factor		0.35						1.00				
Incremental Delay, d2		41.8						1.5				
Delay (s)		46.7						16.2				
Level of Service		D						B				
Approach Delay (s)		46.7			0.0			16.2			0.0	
Approach LOS		D			A			B			A	
Intersection Summary												
HCM Average Control Delay			36.2					HCM Level of Service			D	
HCM Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		13.0		
Intersection Capacity Utilization			72.9%					ICU Level of Service			C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 47: H Street & 16th Street

6/17/2007



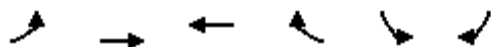
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔				↔		↔↔↔				
Volume (vph)	967	550	0	0	0	48	0	2072	22	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	0.99				1.00		1.00				
Satd. Flow (prot)	3221	1666				1611		5070				
Flt Permitted	0.95	0.99				1.00		1.00				
Satd. Flow (perm)	3221	1666				1611		5070				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	967	550	0	0	0	48	0	2072	22	0	0	0
RTOR Reduction (vph)	31	10	0	0	0	6	0	2	0	0	0	0
Lane Group Flow (vph)	839	637	0	0	0	42	0	2092	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	15.5	21.5				2.5		21.5				
Effective Green, g (s)	15.0	21.0				2.0		21.0				
Actuated g/C Ratio	0.30	0.42				0.04		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	966	700				64		2129				
v/s Ratio Prot	0.26	c0.27				0.03		c0.41				
v/s Ratio Perm		0.11										
v/c Ratio	0.87	0.91				0.66		0.98				
Uniform Delay, d1	16.6	13.6				23.7		14.3				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	10.5	17.9				42.7		15.8				
Delay (s)	27.0	31.5				66.4		30.1				
Level of Service	C	C				E		C				
Approach Delay (s)		29.0			66.4			30.1			0.0	
Approach LOS		C			E			C			A	

Intersection Summary			
HCM Average Control Delay	30.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	687	216	190	71	483	597
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.93	
Flt Protected	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (prot)	1770	1863	1863	1583	1686	
Flt Permitted	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (perm)	1770	1863	1863	1583	1686	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	687	216	190	71	483	597
RTOR Reduction (vph)	0	0	0	10	27	0
Lane Group Flow (vph)	687	216	190	61	1053	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	35.5	45.7	18.8	71.9	53.1	
Effective Green, g (s)	36.0	45.7	18.8	71.9	53.1	
Actuated g/C Ratio	0.30	0.38	0.16	0.60	0.44	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	531	710	292	1002	747	
v/s Ratio Prot	c0.39	0.12	c0.10	0.03	c0.62	
v/s Ratio Perm				0.01		
v/c Ratio	1.29	0.30	0.65	0.06	1.41	
Uniform Delay, d1	42.0	26.0	47.5	10.0	33.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	145.7	0.4	6.2	0.0	192.4	
Delay (s)	187.7	26.4	53.7	10.0	225.8	
Level of Service	F	C	D	A	F	
Approach Delay (s)		149.1	41.8		225.8	
Approach LOS		F	D		F	

Intersection Summary

HCM Average Control Delay	173.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	119.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	121.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↗↘	↑↑				↗↘
Volume (vph)	0	0	0	0	3522	55	566	1003	0	0	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Fr t					1.00		1.00	1.00				0.85
Fl t Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6219		3433	3362				2787
Fl t Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6219		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	3522	55	566	1003	0	0	0	50
RTOR Reduction (vph)	0	0	0	0	2	0	1	0	0	0	0	1
Lane Group Flow (vph)	0	0	0	0	3575	0	565	1003	0	0	0	49
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					65.0		26.5	26.5				26.5
Effective Green, g (s)					66.0		26.0	26.0				26.5
Actuated g/C Ratio					0.66		0.26	0.26				0.26
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					4105		893	874				739
v/s Ratio Prot					c0.57		0.16	c0.30				
v/s Ratio Perm												0.02
v/c Ratio					0.87		0.63	1.15				0.07
Uniform Delay, d1					13.6		32.8	37.0				27.5
Progression Factor					1.55		0.98	0.96				1.00
Incremental Delay, d2					0.3		2.8	77.5				0.2
Delay (s)					21.4		34.8	113.1				27.7
Level of Service					C		C	F				C
Approach Delay (s)		0.0			21.4			84.8			27.7	
Approach LOS		A			C			F			C	

Intersection Summary

HCM Average Control Delay	40.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	107.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑		↑	←↑↑			↑	↑
Volume (vph)	0	0	0	70	2037	155	331	345	0	0	32	1123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes					0.99		1.00	1.00			1.00	1.00
Frt					0.99		1.00	1.00			0.86	0.85
Flt Protected					1.00		0.95	0.99			1.00	1.00
Satd. Flow (prot)					4936		1610	3349			1519	1504
Flt Permitted					1.00		0.95	0.99			1.00	1.00
Satd. Flow (perm)					4936		1610	3349			1519	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	70	2037	155	331	345	0	0	32	1123
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	0	0	15	15
Lane Group Flow (vph)	0	0	0	0	2254	0	218	458	0	0	567	558
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					66.5		13.5	13.5			9.5	9.5
Effective Green, g (s)					66.0		13.0	13.0			9.0	9.0
Actuated g/C Ratio					0.66		0.13	0.13			0.09	0.09
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					3258		209	435			137	135
v/s Ratio Prot							0.14	c0.14			c0.37	0.37
v/s Ratio Perm					0.46							
v/c Ratio					0.69		1.04	1.05			4.14	4.14
Uniform Delay, d1					10.6		43.5	43.5			45.5	45.5
Progression Factor					0.59		1.04	1.04			1.28	1.28
Incremental Delay, d2					0.9		72.2	56.5			1415.4	1413.0
Delay (s)					7.2		117.3	101.7			1473.7	1471.4
Level of Service					A		F	F			F	F
Approach Delay (s)		0.0			7.2			106.7			1472.5	
Approach LOS		A			A			F			F	

Intersection Summary

HCM Average Control Delay	437.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	137.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖↖↖						↗↗	↗↗
Volume (vph)	0	0	0	268	1759	0	0	0	0	0	912	537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.86	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1303	4792						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1303	4792						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	268	1759	0	0	0	0	0	912	537
RTOR Reduction (vph)	0	0	0	108	1	0	0	0	0	0	0	192
Lane Group Flow (vph)	0	0	0	133	1785	0	0	0	0	0	912	345
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				55.5	55.5						27.5	27.5
Effective Green, g (s)				55.0	55.0						27.0	27.0
Actuated g/C Ratio				0.55	0.55						0.27	0.27
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				717	2636						956	752
v/s Ratio Prot											c0.26	
v/s Ratio Perm				0.10	0.37							0.12
v/c Ratio				0.18	0.68						0.95	0.46
Uniform Delay, d1				11.3	16.1						35.9	30.4
Progression Factor				1.00	1.00						1.06	1.17
Incremental Delay, d2				0.6	1.4						16.0	1.5
Delay (s)				11.8	17.5						53.9	36.9
Level of Service				B	B						D	D
Approach Delay (s)		0.0			16.9			0.0			47.6	
Approach LOS		A			B			A			D	
Intersection Summary												
HCM Average Control Delay			29.7		HCM Level of Service						C	
HCM Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			18.0				
Intersection Capacity Utilization			64.8%		ICU Level of Service						C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	6	1114	433	242	368	473	5	671	518
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6038		2787	3433	1863	1586	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6038		2787	3433	1863	1586	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	1114	433	242	368	473	5	671	518
RTOR Reduction (vph)	0	0	0	38	0	0	0	92	0
Lane Group Flow (vph)	0	1553	0	204	368	473	401	701	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		25.0		27.5	27.5	27.5	29.4	29.4	
Effective Green, g (s)		25.0		27.0	27.0	27.0	29.4	29.4	
Actuated g/C Ratio		0.27		0.29	0.29	0.29	0.31	0.31	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1616		806	992	539	499	907	
v/s Ratio Prot		c0.26				c0.25	c0.25	0.24	
v/s Ratio Perm				0.07	0.11				
v/c Ratio		1.03dr		0.25	0.37	0.88	0.80	0.92dr	
Uniform Delay, d1		33.7		25.5	26.4	31.6	29.4	29.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		14.9		0.1	0.1	14.5	9.6	4.4	
Delay (s)		48.6		25.5	26.5	46.1	38.9	33.4	
Level of Service		D		C	C	D	D	C	
Approach Delay (s)		48.6				37.6	35.2		
Approach LOS		D				D	D		

Intersection Summary

HCM Average Control Delay	40.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	93.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.5%	ICU Level of Service	F
Analysis Period (min)	15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖↖↖	↖					↖↖	↖			
Volume (vph)	781	1286	149	0	0	0	0	701	518	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.96					0.99	0.96			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.97	0.85			
Flt Protected	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (prot)	1290	5967	1520					3282	1387			
Flt Permitted	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (perm)	1290	5967	1520					3282	1387			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	781	1286	149	0	0	0	0	701	518	0	0	0
RTOR Reduction (vph)	70	70	86	0	0	0	0	8	8	0	0	0
Lane Group Flow (vph)	328	1599	63	0	0	0	0	838	365	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0			
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0			
Actuated g/C Ratio	0.42	0.42	0.42					0.42	0.42			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	542	2506	638					1378	583			
v/s Ratio Prot	0.25	c0.27						0.26				
v/s Ratio Perm			0.04						c0.26			
v/c Ratio	0.61	0.64	0.10					0.61	0.63			
Uniform Delay, d1	11.3	11.5	8.8					11.3	11.4			
Progression Factor	1.00	1.00	1.00					1.00	1.00			
Incremental Delay, d2	5.0	1.3	0.3					0.5	1.5			
Delay (s)	16.2	12.7	9.1					11.8	12.9			
Level of Service	B	B	A					B	B			
Approach Delay (s)		13.1			0.0			12.2			0.0	
Approach LOS		B			A			B			A	

Intersection Summary

HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	107.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕↕↕						↕		↘		
Volume (vph)	296	1392	0	0	0	0	0	205	202	71	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.98		1.00		
Flpb, ped/bikes	0.96	1.00						1.00		0.99		
Frt	1.00	1.00						0.93		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1463	4797						1702		1744		
Flt Permitted	0.95	1.00						1.00		0.37		
Satd. Flow (perm)	1463	4797						1702		675		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	296	1392	0	0	0	0	0	205	202	71	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	13	0	0	0	0
Lane Group Flow (vph)	266	1422	0	0	0	0	0	394	0	71	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	24.5	24.5						18.5		18.5		
Effective Green, g (s)	24.0	24.0						18.0		18.0		
Actuated g/C Ratio	0.48	0.48						0.36		0.36		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	702	2303						613		243		
v/s Ratio Prot							c0.23					
v/s Ratio Perm	0.18	0.30								0.11		
v/c Ratio	0.38	0.62						0.64		0.29		
Uniform Delay, d1	8.3	9.6						13.3		11.4		
Progression Factor	1.38	1.40						1.00		0.56		
Incremental Delay, d2	1.2	1.0						5.1		0.3		
Delay (s)	12.6	14.4						18.4		6.7		
Level of Service	B								B		A	
Approach Delay (s)	14.1		0.0				18.4				6.7	
Approach LOS	B		A				B				A	

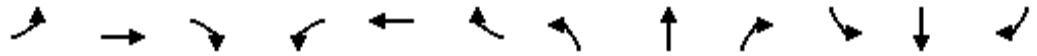
Intersection Summary

HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	137.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↑↑↑									↑↑↑			
Volume (vph)	0	1341	398	0	0	0	0	0	0	156	1052	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		4.0									4.0			
Lane Util. Factor		0.91									0.91			
Frbp, ped/bikes		0.99									1.00			
Flpb, ped/bikes		1.00									1.00			
Frt		0.97									1.00			
Flt Protected		1.00									0.99			
Satd. Flow (prot)		4864									5033			
Flt Permitted		1.00									0.99			
Satd. Flow (perm)		4864									5033			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	0	1341	398	0	0	0	0	0	0	156	1052	0		
RTOR Reduction (vph)	0	103	0	0	0	0	0	0	0	0	39	0		
Lane Group Flow (vph)	0	1636	0	0	0	0	0	0	0	0	1169	0		
Confl. Peds. (#/hr)			36							36				
Turn Type										Perm				
Protected Phases		1									2			
Permitted Phases										2				
Actuated Green, G (s)		21.5									16.5			
Effective Green, g (s)		21.0									16.0			
Actuated g/C Ratio		0.42									0.32			
Clearance Time (s)		3.5									3.5			
Lane Grp Cap (vph)		2043									1611			
v/s Ratio Prot		0.34												
v/s Ratio Perm											0.23			
v/c Ratio		0.80									0.73			
Uniform Delay, d1		12.7									15.1			
Progression Factor		1.60									0.90			
Incremental Delay, d2		2.8									1.7			
Delay (s)		23.1									15.2			
Level of Service		C									B			
Approach Delay (s)		23.1			0.0			0.0			15.2			
Approach LOS		C			A			A			B			
Intersection Summary														
HCM Average Control Delay			19.9									HCM Level of Service	B	
HCM Volume to Capacity ratio			0.77											
Actuated Cycle Length (s)			50.0								13.0		Sum of lost time (s)	
Intersection Capacity Utilization			65.7%										ICU Level of Service	C
Analysis Period (min)			15											
c Critical Lane Group														

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/17/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	398	695	831	148	324	69	775	518	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.0	4.5	4.0	3.5	4.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.98	0.85	0.85	1.00	1.00	0.94		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1661	1504	1583	1770	3539	4760		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1661	1504	1583	1770	3539	4760		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	398	695	831	148	324	69	775	518	58
RTOR Reduction (vph)	0	0	0	60	0	0	5	0	0
Lane Group Flow (vph)	358	835	731	88	324	69	1346	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		6			3	8	4		
Permitted Phases	6	6	6	6					
Actuated Green, G (s)	60.0	60.0	60.0	60.0	11.0	32.5	17.5		
Effective Green, g (s)	59.5	59.5	60.0	59.5	11.0	32.5	17.0		
Actuated g/C Ratio	0.60	0.60	0.60	0.60	0.11	0.32	0.17		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	3.5		
Lane Grp Cap (vph)	1000	988	902	942	195	1150	809		
v/s Ratio Prot					c0.18	0.02	c0.28		
v/s Ratio Perm	0.21	0.50	0.49	0.06					
v/c Ratio	0.36	0.85	0.81	0.09	1.66	0.06	2.06dr		
Uniform Delay, d1	10.4	16.5	15.6	8.7	44.5	23.2	41.5		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	1.0	8.8	7.8	0.2	319.3	0.1	304.2		
Delay (s)	11.4	25.3	23.4	8.9	363.8	23.3	345.7		
Level of Service	B	C	C	A	F	C	F		
Approach Delay (s)		21.1				304.0	345.7		
Approach LOS		C				F	F		

Intersection Summary

HCM Average Control Delay	165.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	1724	150	393	1024	0	0	0	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				4.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6289		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6289		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1724	150	393	1024	0	0	0	78
RTOR Reduction (vph)	0	0	0	0	20	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1854	0	393	1024	0	0	0	78
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					20.0		40.5	40.5				40.5
Effective Green, g (s)					21.0		41.0	41.0				41.0
Actuated g/C Ratio					0.30		0.59	0.59				0.59
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					1887		956	2978				1489
v/s Ratio Prot					c0.29			0.20				
v/s Ratio Perm							c0.24					0.03
v/c Ratio					0.98		0.41	0.34				0.05
Uniform Delay, d1					24.3		7.9	7.5				6.2
Progression Factor					1.00		0.91	0.93				1.00
Incremental Delay, d2					17.0		1.1	0.3				0.1
Delay (s)					41.3		8.3	7.2				6.3
Level of Service					D		A	A				A
Approach Delay (s)		0.0			41.3			7.5			6.3	
Approach LOS		A			D			A			A	

Intersection Summary

HCM Average Control Delay	26.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	↘
Volume (vph)	0	0	0	158	1599	0	0	0	0	0	890	388
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.95	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4770	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4770	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	158	1599	0	0	0	0	0	890	388
RTOR Reduction (vph)	0	0	0	111	0	0	0	0	0	0	99	0
Lane Group Flow (vph)	0	0	0	47	1599	0	0	0	0	0	1179	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						22.5	
Effective Green, g (s)				15.0	15.0						22.0	
Actuated g/C Ratio				0.30	0.30						0.44	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2099	
v/s Ratio Prot					c0.31						c0.25	
v/s Ratio Perm				0.03								
v/c Ratio				0.09	1.05						0.56	
Uniform Delay, d1				12.6	17.5						10.4	
Progression Factor				1.00	1.00						0.90	
Incremental Delay, d2				0.0	36.7						0.7	
Delay (s)				12.6	54.2						10.1	
Level of Service				B	D						B	
Approach Delay (s)		0.0			50.5			0.0			10.1	
Approach LOS		A			D			A			B	

Intersection Summary

HCM Average Control Delay	33.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	554	254	0	0	361	84	340	863	45	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.98		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.97		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4864		3433	5026				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4864		3433	5026				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	554	254	0	0	361	84	340	863	45	0	0	0
RTOR Reduction (vph)	0	0	0	0	37	0	0	8	0	0	0	0
Lane Group Flow (vph)	554	254	0	0	408	0	340	900	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		31.0	31.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.44	0.44				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			973		1520	2226				
v/s Ratio Prot	c0.16	0.07			c0.08		0.10	c0.18				
v/s Ratio Perm												
v/c Ratio	0.87	0.16			0.42		0.22	0.40				
Uniform Delay, d1	27.7	11.7			24.5		12.1	13.2				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	14.9	0.2			1.3		0.3	0.5				
Delay (s)	42.5	11.9			25.8		12.4	13.8				
Level of Service	D	B			C		B	B				
Approach Delay (s)		32.9			25.8			13.4			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑↑
Volume (vph)	0	0	0	174	2470	0	0	0	0	0	617	694
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.86	0.86
Frpb, ped/bikes					1.00						0.99	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.98	0.85
Flt Protected					1.00						1.00	1.00
Satd. Flow (prot)					4900						2960	2374
Flt Permitted					1.00						1.00	1.00
Satd. Flow (perm)					4900						2960	2374
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	174	2470	0	0	0	0	0	617	694
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	1	2
Lane Group Flow (vph)	0	0	0	0	2628	0	0	0	0	0	699	609
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2646						888	712
v/s Ratio Prot					c0.54						0.24	
v/s Ratio Perm												c0.26
v/c Ratio					0.99						0.79	0.86
Uniform Delay, d1					11.4						16.0	16.5
Progression Factor					1.00						1.10	1.18
Incremental Delay, d2					16.0						0.7	1.3
Delay (s)					27.4						18.4	20.8
Level of Service					C						B	C
Approach Delay (s)		0.0			27.4			0.0			19.5	
Approach LOS		A			C			A			B	

Intersection Summary

HCM Average Control Delay	24.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	768	222	0	0	0	0	0	0	241	583	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.98	
Frt		0.97									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6121									4906	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6121									4906	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	768	222	0	0	0	0	0	0	241	583	0
RTOR Reduction (vph)	0	38	0	0	0	0	0	0	0	0	118	0
Lane Group Flow (vph)	0	952	0	0	0	0	0	0	0	0	706	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3305									1472	
v/s Ratio Prot		c0.16										
v/s Ratio Perm											0.14	
v/c Ratio		0.29									0.48	
Uniform Delay, d1		6.3									14.3	
Progression Factor		1.00									0.61	
Incremental Delay, d2		0.2									0.6	
Delay (s)		6.5									9.4	
Level of Service		A									A	
Approach Delay (s)		6.5			0.0			0.0			9.4	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 1: Richard Blvd & I-5 SB Off

Railyards Study
 2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔↔	↑						↑↑	↗
Volume (vph)	0	0	0	655	581	0	0	0	0	0	1138	434
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.94	1.00						0.95	1.00
Frbp, ped/bikes				1.00	1.00						1.00	0.81
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				4990	1863						3539	1285
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				4990	1863						3539	1285
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	655	581	0	0	0	0	0	1138	434
RTOR Reduction (vph)	0	0	0	409	0	0	0	0	0	0	0	153
Lane Group Flow (vph)	0	0	0	246	581	0	0	0	0	0	1138	281
Confl. Peds. (#/hr)			55									55
Turn Type				Prot								Perm
Protected Phases				1 9	3 12 13						4	
Permitted Phases												4
Actuated Green, G (s)				39.1	52.5						40.0	40.0
Effective Green, g (s)				37.6	52.0						40.0	40.0
Actuated g/C Ratio				0.38	0.52						0.40	0.40
Clearance Time (s)											4.0	4.0
Vehicle Extension (s)											5.0	5.0
Lane Grp Cap (vph)				1876	969						1416	514
v/s Ratio Prot				0.05	c0.31						c0.32	
v/s Ratio Perm												0.22
v/c Ratio				0.13	0.60						0.80	0.55
Uniform Delay, d1				20.5	16.7						26.5	23.0
Progression Factor				3.23	1.33						1.00	1.00
Incremental Delay, d2				0.1	1.5						3.9	2.1
Delay (s)				66.2	23.7						30.4	25.1
Level of Service				E	C						C	C
Approach Delay (s)		0.0			46.2			0.0			29.0	
Approach LOS		A			D			A			C	

Intersection Summary

HCM Average Control Delay	36.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑↑	↑	↑				
Volume (vph)	0	0	0	0	1177	764	64	125	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.88	1.00	1.00				
Frbp, ped/bikes					1.00	0.77	1.00	1.00				
Flpb, ped/bikes					1.00	1.00	1.00	1.00				
Frt					1.00	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					5085	2135	1770	1863				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					5085	2135	1770	1863				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1177	764	64	125	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	255	50	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1177	509	14	125	0	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type						custom	Split					
Protected Phases					6 11 15	11	8 16	8 16				
Permitted Phases						6 15						
Actuated Green, G (s)					70.1	66.6	22.4	22.4				
Effective Green, g (s)					66.6	66.6	21.9	21.9				
Actuated g/C Ratio					0.67	0.67	0.22	0.22				
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)					3387	1422	388	408				
v/s Ratio Prot					0.23	c0.07	0.01	c0.07				
v/s Ratio Perm						0.17						
v/c Ratio					0.35	0.36	0.04	0.31				
Uniform Delay, d1					7.3	7.3	30.7	32.7				
Progression Factor					0.43	1.82	1.09	1.00				
Incremental Delay, d2					0.1	0.3	0.1	0.9				
Delay (s)					3.3	13.6	33.7	33.5				
Level of Service					A	B	C	C				
Approach Delay (s)		0.0			7.3			33.6			0.0	
Approach LOS		A			A			C			A	

Intersection Summary

HCM Average Control Delay	9.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑		↘	↑			↑	↗
Volume (vph)	0	0	0	29	1810	32	183	232	0	0	79	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		4.5	4.0			4.0	4.0
Lane Util. Factor				1.00	0.86		1.00	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes				0.87	1.00		1.00	1.00			1.00	1.00
Fr _t				1.00	1.00		1.00	1.00			1.00	0.85
Fl _t Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1534	6374		1770	1863			1863	1583
Fl _t Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1534	6374		1770	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	29	1810	32	183	232	0	0	79	110
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	103
Lane Group Flow (vph)	0	0	0	29	1841	0	183	232	0	0	79	7
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type				Perm			Prot					Perm
Protected Phases					2		3	8			4	
Permitted Phases				2								4
Actuated Green, G (s)				65.0	65.0		15.6	26.9			7.3	7.3
Effective Green, g (s)				64.4	64.4		15.1	26.4			6.8	6.8
Actuated g/C Ratio				0.64	0.64		0.15	0.26			0.07	0.07
Clearance Time (s)				4.6	4.6		4.0	3.5			3.5	3.5
Vehicle Extension (s)				0.2	0.2		3.0	0.2			0.2	0.2
Lane Grp Cap (vph)				988	4105		267	492			127	108
v/s Ratio Prot					c0.29		c0.10	c0.12			0.04	
v/s Ratio Perm				0.02								0.00
v/c Ratio				0.03	0.45		0.69	0.47			0.62	0.07
Uniform Delay, d ₁				6.5	8.9		40.2	30.9			45.3	43.6
Progression Factor				0.52	0.51		0.87	0.94			1.00	1.00
Incremental Delay, d ₂				0.0	0.3		7.0	0.3			6.6	0.1
Delay (s)				3.4	4.8		42.1	29.4			52.0	43.7
Level of Service				A	A		D	C			D	D
Approach Delay (s)		0.0			4.8			35.0			47.2	
Approach LOS		A			A			D			D	

Intersection Summary

HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.7
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
4: Richard Blvd & N 5th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑		↘	↑			↑	↘
Volume (vph)	0	0	0	10	1310	42	17	899	0	0	36	751
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	4.6		4.5	4.0			4.0	3.5
Lane Util. Factor				1.00	0.86		0.97	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.93
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	6360		3433	1863			1863	1480
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770	6360		3433	1863			1863	1480
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	10	1310	42	17	899	0	0	36	751
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	0	34
Lane Group Flow (vph)	0	0	0	10	1348	0	17	899	0	0	36	717
Confl. Peds. (#/hr)			40			40	40		40	40		40
Turn Type				Prot			Prot					Perm
Protected Phases				5	2		3	8			4	
Permitted Phases					2							4
Actuated Green, G (s)				33.8	33.8		1.6	58.4			52.8	52.8
Effective Green, g (s)				32.8	33.5		1.1	57.9			52.3	52.8
Actuated g/C Ratio				0.33	0.34		0.01	0.58			0.52	0.53
Clearance Time (s)				4.3	4.3		4.0	3.5			3.5	3.5
Vehicle Extension (s)				2.0	2.0		3.0	2.0			2.0	2.0
Lane Grp Cap (vph)				581	2131		38	1079			974	781
v/s Ratio Prot				0.01	c0.21		0.00	c0.48			0.02	
v/s Ratio Perm												c0.48
v/c Ratio				0.02	0.63		0.45	0.83			0.04	0.92
Uniform Delay, d1				22.7	28.1		49.1	17.1			11.6	21.6
Progression Factor				0.25	0.24		1.16	0.38			1.00	1.00
Incremental Delay, d2				0.0	0.9		2.1	1.4			0.0	15.2
Delay (s)				5.6	7.7		59.1	8.0			11.6	36.8
Level of Service				A	A		E	A			B	D
Approach Delay (s)		0.0			7.7			8.9			35.7	
Approach LOS		A			A			A			D	

Intersection Summary

HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	135.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑	↗	↙	↗			↑↑	↗
Volume (vph)	0	0	0	264	1159	343	350	528	0	0	910	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	4.0	4.0	4.0	4.0			4.0	3.5
Lane Util. Factor				1.00	0.91	1.00	0.95	0.95			0.95	1.00
Frbp, ped/bikes				1.00	1.00	0.93	1.00	1.00			1.00	1.00
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	5085	1474	1681	1764			3539	1583
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770	5085	1474	1681	1764			3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	264	1159	343	350	528	0	0	910	72
RTOR Reduction (vph)	0	0	0	0	0	250	0	0	0	0	0	49
Lane Group Flow (vph)	0	0	0	264	1159	93	315	563	0	0	910	23
Confl. Peds. (#/hr)			24			24			24			
Turn Type				Prot		Perm	Split					Perm
Protected Phases				5	2		8	8			7	
Permitted Phases						2						7
Actuated Green, G (s)				27.2	27.2	27.2	34.0	34.0			27.8	27.8
Effective Green, g (s)				26.2	27.2	27.2	33.5	33.5			27.3	27.8
Actuated g/C Ratio				0.26	0.27	0.27	0.34	0.34			0.27	0.28
Clearance Time (s)				4.0	4.0	4.0	3.5	3.5			3.5	3.5
Vehicle Extension (s)				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Lane Grp Cap (vph)				464	1383	401	563	591			966	440
v/s Ratio Prot				0.15	c0.23		0.19	c0.32			c0.26	
v/s Ratio Perm						0.06						0.01
v/c Ratio				0.57	0.84	0.23	0.56	0.95			0.94	0.05
Uniform Delay, d1				32.0	34.3	28.3	27.2	32.5			35.6	26.4
Progression Factor				0.61	0.65	1.41	0.59	0.60			1.00	1.00
Incremental Delay, d2				0.7	4.4	0.9	0.5	21.6			16.5	0.0
Delay (s)				20.1	26.8	40.7	16.6	41.0			52.1	26.5
Level of Service				C	C	D	B	D			D	C
Approach Delay (s)		0.0			28.5			32.2			50.2	
Approach LOS		A			C			C			D	

Intersection Summary

HCM Average Control Delay	35.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕		↘	↕	↗	↘	↕	↗
Volume (vph)	0	0	0	182	1760	101	31	23	0	0	11	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	5.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.95		1.00	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.66
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	3510		1770	1863			1863	1044
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770	3510		1770	1863			1863	1044
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	182	1760	101	31	23	0	0	11	36
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	0	35
Lane Group Flow (vph)	0	0	0	182	1858	0	31	23	0	0	11	1
Confl. Peds. (#/hr)			35				35					35
Turn Type				Prot			Split		Perm	Split		Perm
Protected Phases				5	2		7	7		8		8
Permitted Phases									7			8
Actuated Green, G (s)				70.0	70.0		15.8	15.8			2.7	2.7
Effective Green, g (s)				69.5	69.5		15.3	15.3			2.2	2.2
Actuated g/C Ratio				0.70	0.70		0.15	0.15			0.02	0.02
Clearance Time (s)				4.5	4.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)				2.0	2.0		0.2	0.2			2.0	2.0
Lane Grp Cap (vph)				1230	2439		271	285			41	23
v/s Ratio Prot				0.10	c0.53		c0.02	0.01			c0.01	
v/s Ratio Perm												0.00
v/c Ratio				0.15	0.76		0.11	0.08			0.27	0.03
Uniform Delay, d1				5.2	9.9		36.5	36.3			48.1	47.9
Progression Factor				1.00	1.00		1.07	1.08			1.00	1.00
Incremental Delay, d2				0.0	2.3		0.1	0.0			1.3	0.2
Delay (s)				5.2	12.2		39.3	39.1			49.4	48.1
Level of Service				A	B		D	D			D	D
Approach Delay (s)		0.0			11.6			39.2			48.4	
Approach LOS		A			B			D			D	

Intersection Summary

HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	835	50	240	1656	212	37	137	506	104	76	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	0.99		1.00	0.99			0.96			1.00	
Flpb, ped/bikes	1.00	1.00		0.97	1.00			1.00			0.99	
Frt	1.00	0.99		1.00	0.98			0.90			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.97	
Satd. Flow (prot)	1770	3484		1725	3428			1597			1782	
Flt Permitted	0.14	1.00		0.23	1.00			0.98			0.50	
Satd. Flow (perm)	253	3484		423	3428			1565			922	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	16	835	50	240	1656	212	37	137	506	104	76	10
RTOR Reduction (vph)	0	6	0	0	15	0	0	33	0	0	2	0
Lane Group Flow (vph)	16	879	0	240	1853	0	0	647	0	0	188	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	30.0	30.0		30.0	30.0			29.1			29.1	
Effective Green, g (s)	29.5	29.5		29.5	29.5			28.6			28.6	
Actuated g/C Ratio	0.44	0.44		0.44	0.44			0.43			0.43	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	111	1532		186	1507			667			393	
v/s Ratio Prot		0.25			0.54							
v/s Ratio Perm	0.06			c0.57				c0.41			0.20	
v/c Ratio	0.14	0.57		1.29	1.23			0.97			0.48	
Uniform Delay, d1	11.2	14.1		18.8	18.8			18.8			13.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	2.7	1.6		164.8	109.5			26.9			0.3	
Delay (s)	14.0	15.7		183.6	128.3			45.7			14.2	
Level of Service	B	B		F	F			D			B	
Approach Delay (s)		15.6			134.6			45.7			14.2	
Approach LOS		B			F			D			B	

Intersection Summary

HCM Average Control Delay	85.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	67.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	140.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	1022	76	20	0	20	43	2365	50	3914	1594
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1022	76	20	0	20	43	2365	50	3914	1594
RTOR Reduction (vph)	0	38	0	18	0	0	0	23	0	433
Lane Group Flow (vph)	1022	38	0	22	0	43	2365	27	3914	1161
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	28.0	28.0		14.4		4.4	78.1	55.7	68.7	68.7
Effective Green, g (s)	28.0	27.0		13.4		4.4	78.1	55.7	68.7	68.7
Actuated g/C Ratio	0.19	0.18		0.09		0.03	0.52	0.37	0.46	0.46
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	2.0	2.0		2.0		3.0		3.0		
Lane Grp Cap (vph)	641	285		151		52	3336	588	3075	725
v/s Ratio Prot	c0.30	0.02		c0.01		0.02	c0.37		0.58	c0.73
v/s Ratio Perm								0.02		
v/c Ratio	1.59	0.13		0.14		0.83	0.71	0.05	1.27	1.60
Uniform Delay, d1	61.0	51.7		63.0		72.4	27.3	30.2	40.7	40.7
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	274.8	0.1		0.2		64.4	0.7	0.1	125.5	277.4
Delay (s)	335.8	51.8		63.2		136.9	28.0	30.3	166.1	318.0
Level of Service	F	D		E		F	C	C	F	F
Approach Delay (s)				63.2			30.0			
Approach LOS				E			C			

Intersection Summary

HCM Average Control Delay	173.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.41		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	36.0
Intersection Capacity Utilization	122.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	88	66	55	119	0	0	0	0	146	3984	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		1.00	1.00		1.00						0.86	
Frbp, ped/bikes		1.00	0.97		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		0.98						1.00	
Satd. Flow (prot)		1863	1541		1826						6380	
Flt Permitted		1.00	1.00		0.87						1.00	
Satd. Flow (perm)		1863	1541		1612						6380	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	88	66	55	119	0	0	0	0	146	3984	32
RTOR Reduction (vph)	0	0	55	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	88	11	0	174	0	0	0	0	0	4161	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm							Perm	
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)		14.9	14.9		14.9						77.6	
Effective Green, g (s)		14.4	14.4		14.4						77.6	
Actuated g/C Ratio		0.14	0.14		0.14						0.78	
Clearance Time (s)		3.5	3.5		3.5						4.0	
Vehicle Extension (s)		2.0	2.0		2.0						5.0	
Lane Grp Cap (vph)		268	222		232						4951	
v/s Ratio Prot		0.05										
v/s Ratio Perm			0.01		0.11						0.65	
v/c Ratio		0.33	0.05		0.75						0.84	
Uniform Delay, d1		38.5	36.9		41.1						7.2	
Progression Factor		1.00	1.00		0.89						1.00	
Incremental Delay, d2		0.3	0.0		10.2						1.9	
Delay (s)		38.7	36.9		46.9						9.1	
Level of Service		D	D		D						A	
Approach Delay (s)		38.0			46.9			0.0			9.1	
Approach LOS		D			D			A			A	

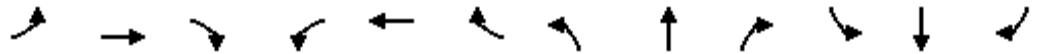
Intersection Summary

HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: Basler St & 16th Street

Railyards Study
 2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	408	5	0	0	15	13	152	1528	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.97			1.00				
Flpb, ped/bikes	0.94	0.94			1.00			0.99				
Frt	1.00	1.00			0.94			1.00				
Flt Protected	0.95	0.95			1.00			1.00				
Satd. Flow (prot)	1584	1592			1689			6326				
Flt Permitted	0.74	0.71			1.00			1.00				
Satd. Flow (perm)	1232	1187			1689			6326				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	408	5	0	0	15	13	152	1528	9	0	0	0
RTOR Reduction (vph)	0	0	0	0	6	0	0	2	0	0	0	0
Lane Group Flow (vph)	208	205	0	0	22	0	0	1687	0	0	0	0
Confl. Peds. (#/hr)	72						72	72		72		
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			23.0				
Effective Green, g (s)	18.0	18.0			18.0			24.0				
Actuated g/C Ratio	0.36	0.36			0.36			0.48				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	444	427			608			3036				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.17	c0.17						0.27				
v/c Ratio	0.47	0.48			0.04			0.56				
Uniform Delay, d1	12.3	12.4			10.4			9.2				
Progression Factor	0.81	0.81			1.00			1.17				
Incremental Delay, d2	3.4	3.7			0.1			0.6				
Delay (s)	13.4	13.7			10.5			11.4				
Level of Service	B	B			B			B				
Approach Delay (s)		13.5			10.5			11.4			0.0	
Approach LOS		B			B			B			A	
Intersection Summary												
HCM Average Control Delay			11.8				HCM Level of Service		B			
HCM Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)		8.0			
Intersection Capacity Utilization			49.4%				ICU Level of Service		A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 11: Bannon St & I-5 SB Off

Railyards Study
 2030 No Project Conditions AM PEAK






















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗							↖	↖	↖
Volume (vph)	0	466	48	0	0	0	0	0	0	1138	603	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5							4.5	4.5	
Lane Util. Factor		1.00	1.00							0.81	0.81	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	0.98	
Satd. Flow (prot)		1863	1583							2867	4441	
Flt Permitted		1.00	1.00							0.95	0.98	
Satd. Flow (perm)		1863	1583							2867	4441	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	466	48	0	0	0	0	0	0	1138	603	0
RTOR Reduction (vph)	0	0	33	0	0	0	0	0	0	219	78	0
Lane Group Flow (vph)	0	466	15	0	0	0	0	0	0	543	901	0
Turn Type			Perm								Split	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		32.1	32.1							58.9	58.9	
Effective Green, g (s)		32.1	32.1							58.9	58.9	
Actuated g/C Ratio		0.32	0.32							0.59	0.59	
Clearance Time (s)		4.5	4.5							4.5	4.5	
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Lane Grp Cap (vph)		598	508							1689	2616	
v/s Ratio Prot		c0.25								0.19	c0.20	
v/s Ratio Perm			0.01									
v/c Ratio		0.78	0.03							0.32	0.34	
Uniform Delay, d1		30.7	23.3							10.4	10.6	
Progression Factor		1.00	1.00							0.37	0.18	
Incremental Delay, d2		6.4	0.0							0.4	0.3	
Delay (s)		37.1	23.3							4.3	2.2	
Level of Service		D	C							A	A	
Approach Delay (s)		35.8			0.0			0.0			3.1	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	10.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			





















HCM Signalized Intersection Capacity Analysis
 12: Bannon St & I-5 NB Off

Railyards Study
 2030 No Project Conditions AM PEAK

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		  							 				
Volume (vph)	125	1479	0	0	0	0	0	41	1780	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5						4.5	4.5				
Lane Util. Factor	1.00	0.91						1.00	0.88				
Frt	1.00	1.00						1.00	0.85				
Flt Protected	0.95	1.00						1.00	1.00				
Satd. Flow (prot)	1770	5085						1863	2787				
Flt Permitted	0.95	1.00						1.00	1.00				
Satd. Flow (perm)	1770	5085						1863	2787				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	125	1479	0	0	0	0	0	41	1780	0	0	0	
RTOR Reduction (vph)	58	0	0	0	0	0	0	0	1	0	0	0	
Lane Group Flow (vph)	67	1479	0	0	0	0	0	41	1779	0	0	0	
Turn Type	Split						Perm						
Protected Phases	4	4						2					
Permitted Phases									2				
Actuated Green, G (s)	30.1	30.1						60.9	60.9				
Effective Green, g (s)	30.1	30.1						60.9	60.9				
Actuated g/C Ratio	0.30	0.30						0.61	0.61				
Clearance Time (s)	4.5	4.5						4.5	4.5				
Vehicle Extension (s)	3.0	3.0						3.0	3.0				
Lane Grp Cap (vph)	533	1531						1135	1697				
v/s Ratio Prot	0.04	c0.29						0.02					
v/s Ratio Perm									c0.64				
v/c Ratio	0.13	0.97						0.04	1.05				
Uniform Delay, d1	25.4	34.4						7.8	19.6				
Progression Factor	0.55	0.79						1.00	1.00				
Incremental Delay, d2	0.4	15.4						0.0	35.8				
Delay (s)	14.5	42.8						7.8	55.3				
Level of Service	B	D						A	E				
Approach Delay (s)		40.6			0.0			54.3			0.0		
Approach LOS		D			A			D			A		
Intersection Summary													
HCM Average Control Delay			47.9									HCM Level of Service	D
HCM Volume to Capacity ratio			1.02										
Actuated Cycle Length (s)			100.0									Sum of lost time (s)	9.0
Intersection Capacity Utilization			98.3%									ICU Level of Service	F
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 13: Bannon St & Bercut Dr

Railyards Study
 2030 No Project Conditions AM PEAK

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		  											
Volume (vph)	217	2657	385	0	0	0	0	106	1	144	400	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0						4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	0.86						1.00	1.00	1.00	1.00		
Frt	1.00	0.98						1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1770	6286						1863	1583	1770	1863		
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1770	6286						1863	1583	1770	1863		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	217	2657	385	0	0	0	0	106	1	144	400	0	
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	1	0	0	0	
Lane Group Flow (vph)	217	3020	0	0	0	0	0	106	0	144	400	0	
Turn Type	Split						Perm			Prot			
Protected Phases	4	4						2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	64.3	64.3						11.1	11.1	12.6	27.7		
Effective Green, g (s)	64.3	64.3						11.1	11.1	12.6	27.7		
Actuated g/C Ratio	0.64	0.64						0.11	0.11	0.13	0.28		
Clearance Time (s)	4.0	4.0						4.0	4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	1138	4042						207	176	223	516		
v/s Ratio Prot	0.12	c0.48						0.06		0.08	c0.21		
v/s Ratio Perm									0.00				
v/c Ratio	0.19	0.75						0.51	0.00	0.65	0.78		
Uniform Delay, d1	7.3	12.3						41.9	39.5	41.6	33.3		
Progression Factor	0.88	0.99						1.00	1.00	0.88	0.92		
Incremental Delay, d2	0.0	0.1						2.1	0.0	6.3	7.2		
Delay (s)	6.4	12.2						44.0	39.5	43.1	37.9		
Level of Service	A	B						D	D	D	D		
Approach Delay (s)		11.8			0.0			44.0			39.3		
Approach LOS		B			A			D			D		
Intersection Summary													
HCM Average Control Delay			16.5		HCM Level of Service						B		
HCM Volume to Capacity ratio			0.76										
Actuated Cycle Length (s)			100.0		Sum of lost time (s)						8.0		
Intersection Capacity Utilization			72.7%		ICU Level of Service						C		
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 14: Bannon St & N 5th Street

Railyards Study
 2030 No Project Conditions AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	1325	1244	0	0	178	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5	
Lane Util. Factor	1.00	0.86			0.97	
Frt	1.00	1.00			1.00	
Flt Protected	0.95	1.00			0.95	
Satd. Flow (prot)	1770	6408			3433	
Flt Permitted	0.95	1.00			0.95	
Satd. Flow (perm)	1770	6408			3433	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1325	1244	0	0	178	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	1325	1244	0	0	178	0
Turn Type	Perm					
Protected Phases		4			6	
Permitted Phases	4					
Actuated Green, G (s)	75.9	75.9			15.1	
Effective Green, g (s)	75.9	75.9			15.1	
Actuated g/C Ratio	0.76	0.76			0.15	
Clearance Time (s)	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0			3.0	
Lane Grp Cap (vph)	1343	4864			518	
v/s Ratio Prot		0.19			c0.05	
v/s Ratio Perm	c0.75					
v/c Ratio	0.99	0.26			0.34	
Uniform Delay, d1	11.6	3.6			38.0	
Progression Factor	0.94	0.15			0.98	
Incremental Delay, d2	16.7	0.0			1.8	
Delay (s)	27.5	0.5			39.2	
Level of Service	C	A			D	
Approach Delay (s)		14.4	0.0		39.2	
Approach LOS		B	A		D	

Intersection Summary			
HCM Average Control Delay		16.0	HCM Level of Service B
HCM Volume to Capacity ratio		0.88	
Actuated Cycle Length (s)		100.0	Sum of lost time (s) 9.0
Intersection Capacity Utilization		157.5%	ICU Level of Service H
Analysis Period (min)		15	
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

15: Bannon St & 7th Street

Railyards Study
2030 No Project Conditions AM PEAK



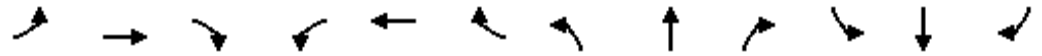
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	216	899	307	0	0	0	0	700	112	431	680	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5		4.5	4.5	
Lane Util. Factor	1.00	0.86						0.95		1.00	1.00	
Frt	1.00	0.96						0.98		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1770	6163						3466		1770	1863	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1770	6163						3466		1770	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	216	899	307	0	0	0	0	700	112	431	680	0
RTOR Reduction (vph)	0	62	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	216	1144	0	0	0	0	0	800	0	431	680	0
Turn Type	Perm						Prot					
Protected Phases	4						2		1		6	
Permitted Phases	4											
Actuated Green, G (s)	22.4	22.4						35.8		28.3	68.6	
Effective Green, g (s)	22.4	22.4						35.8		28.3	68.6	
Actuated g/C Ratio	0.22	0.22						0.36		0.28	0.69	
Clearance Time (s)	4.5	4.5						4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)	396	1381						1241		501	1278	
v/s Ratio Prot		c0.19						c0.23		c0.24	0.37	
v/s Ratio Perm	0.12											
v/c Ratio	0.55	0.83						0.64		0.86	0.53	
Uniform Delay, d1	34.3	37.0						26.8		34.0	7.8	
Progression Factor	0.77	0.80						1.00		1.41	0.27	
Incremental Delay, d2	1.5	4.2						2.6		7.8	0.8	
Delay (s)	28.0	33.7						29.4		55.8	2.9	
Level of Service	C	C						C		E	A	
Approach Delay (s)		32.8			0.0			29.4			23.4	
Approach LOS		C			A			C			C	

Intersection Summary

HCM Average Control Delay	28.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 18: N B Street & 7th Street

Railyards Study
 2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Volume (vph)	58	87	77	489	156	156	123	517	24	249	873	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.5	4.5	4.0	4.5		4.0	4.5	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.95			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.99			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1753			1795	1583	1770	1850		1770	1855	
Flt Permitted		0.99			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1753			1795	1583	1770	1850		1770	1855	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	58	87	77	489	156	156	123	517	24	249	873	24
RTOR Reduction (vph)	0	13	0	0	0	64	0	1	0	0	1	0
Lane Group Flow (vph)	0	209	0	0	645	92	123	540	0	249	896	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		13.0			46.5	46.5	8.0	51.5		22.0	65.5	
Effective Green, g (s)		13.0			46.5	46.5	8.0	51.5		22.0	65.5	
Actuated g/C Ratio		0.09			0.31	0.31	0.05	0.34		0.15	0.44	
Clearance Time (s)		4.0			4.5	4.5	4.0	4.5		4.0	4.5	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		152			556	491	94	635		260	810	
v/s Ratio Prot		c0.12			c0.36		c0.07	0.29		0.14	c0.48	
v/s Ratio Perm						0.06						
v/c Ratio		1.38			1.16	0.19	1.31	0.85		0.96	1.11	
Uniform Delay, d1		68.5			51.7	37.9	71.0	45.7		63.5	42.2	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		205.1			90.7	0.2	196.3	13.4		43.7	65.0	
Delay (s)		273.6			142.4	38.1	267.3	59.1		107.3	107.3	
Level of Service		F			F	D	F	E		F	F	
Approach Delay (s)		273.6			122.1			97.6			107.3	
Approach LOS		F			F			F			F	

Intersection Summary

HCM Average Control Delay	122.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	116.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 19: Water St & 10th St

Railyards Study
 2030 No Project Conditions AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (veh/h)	15	381	1224	32	32	50
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	15	381	1224	32	32	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		1236	908			
pX, platoon unblocked						
vC, conflicting volume	1256				1460	628
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1256				1460	628
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				73	88
cM capacity (veh/h)	550				117	426

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	142	254	816	440	82
Volume Left	15	0	0	0	32
Volume Right	0	0	0	32	50
cSH	550	1700	1700	1700	209
Volume to Capacity	0.03	0.15	0.48	0.26	0.39
Queue Length 95th (ft)	2	0	0	0	44
Control Delay (s)	1.5	0.0	0.0	0.0	32.9
Lane LOS	A				D
Approach Delay (s)	0.6		0.0		32.9
Approach LOS					D

Intersection Summary					
Average Delay			1.7		
Intersection Capacity Utilization			46.4%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis

20: Water St & 12th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↘↗	
Volume (vph)	12	62	182	37	178	277	45	488	34	28	3729	434
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.94			1.00			0.99	
Flpb, ped/bikes		1.00		0.97	1.00			1.00			0.91	
Frt		0.89		1.00	0.91			0.99			0.98	
Flt Protected		1.00		0.95	1.00			1.00			0.96	
Satd. Flow (prot)		3151		1718	1599			1833			5708	
Flt Permitted		0.72		0.54	1.00			1.00			0.96	
Satd. Flow (perm)		2277		969	1599			1833			5708	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	62	182	37	178	277	45	488	34	28	3729	434
RTOR Reduction (vph)	0	65	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	191	0	37	455	0	0	565	0	0	4191	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		23.0		23.0	23.0			17.0			41.0	
Effective Green, g (s)		23.0		23.0	23.0			17.0			44.0	
Actuated g/C Ratio		0.23		0.23	0.23			0.17			0.44	
Clearance Time (s)		4.0		4.0	4.0			4.0				
Vehicle Extension (s)		5.0		5.0	5.0			5.0				
Lane Grp Cap (vph)		524		223	368			312			2512	
v/s Ratio Prot					c0.28							
v/s Ratio Perm		0.08		0.04				0.31			0.73	
v/c Ratio		0.36		0.17	1.24			1.81			1.67	
Uniform Delay, d1		32.4		30.8	38.5			41.5			28.0	
Progression Factor		1.00		1.25	1.23			1.00			1.00	
Incremental Delay, d2		0.9		0.7	126.2			376.7			302.6	
Delay (s)		33.3		39.3	173.5			418.2			330.6	
Level of Service		C		D	F			F			F	
Approach Delay (s)		33.3			163.4			418.2			330.6	
Approach LOS		C			F			F			F	

Intersection Summary

HCM Average Control Delay	310.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	131.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: North B St & 16th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	101	7	0	0	10	4	353	1905	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.97			1.00				
Flpb, ped/bikes	0.91	0.92			1.00			0.99				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.96			1.00			0.99				
Satd. Flow (prot)	1533	1566			1740			6293				
Flt Permitted	0.75	0.79			1.00			0.99				
Satd. Flow (perm)	1207	1292			1740			6293				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	101	7	0	0	10	4	353	1905	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	1	0	0	0	0
Lane Group Flow (vph)	54	54	0	0	11	0	0	2267	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	12.0	12.0			12.0			30.0				
Effective Green, g (s)	12.0	12.0			12.0			30.0				
Actuated g/C Ratio	0.24	0.24			0.24			0.60				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	290	310			418			3776				
v/s Ratio Prot					0.01							
v/s Ratio Perm	c0.04	0.04						0.36				
v/c Ratio	0.19	0.17			0.03			0.60				
Uniform Delay, d1	15.1	15.1			14.5			6.3				
Progression Factor	1.19	1.19			1.00			0.70				
Incremental Delay, d2	0.1	0.1			0.1			0.7				
Delay (s)	18.1	18.1			14.6			5.1				
Level of Service	B	B			B			A				
Approach Delay (s)		18.1			14.6			5.1			0.0	
Approach LOS		B			B			A			A	

Intersection Summary

HCM Average Control Delay	5.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

37: F Street & 7th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕		↖	↗	
Volume (vph)	8	13	0	50	29	226	25	420	3	481	717	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00			1.00		1.00	1.00	
Frt		1.00		1.00	0.87			1.00		1.00	0.99	
Flt Protected		0.98		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1828		1770	1615			1856		1770	1845	
Flt Permitted		0.59		0.95	1.00			0.40		0.95	1.00	
Satd. Flow (perm)		1099		1770	1615			739		1770	1845	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	8	13	0	50	29	226	25	420	3	481	717	48
RTOR Reduction (vph)	0	0	0	0	175	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	21	0	50	80	0	0	448	0	481	762	0
Turn Type	Perm			Prot			Perm			Prot		
Protected Phases		4		3	8			2		1	2	
Permitted Phases	4						2					
Actuated Green, G (s)		12.0		6.7	22.7			37.2		28.1	37.2	
Effective Green, g (s)		12.0		6.7	22.7			37.2		28.1	37.2	
Actuated g/C Ratio		0.12		0.07	0.23			0.37		0.28	0.37	
Clearance Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		132		119	367			275		497	686	
v/s Ratio Prot				c0.03	c0.05					c0.27	0.41	
v/s Ratio Perm		0.02						c0.61				
v/c Ratio		0.16		0.42	0.22			1.63		0.97	1.11	
Uniform Delay, d1		39.5		44.8	31.4			31.4		35.5	31.4	
Progression Factor		1.00		1.00	1.00			1.22		1.00	1.00	
Incremental Delay, d2		0.6		2.4	0.3			297.6		31.9	69.2	
Delay (s)		40.0		47.2	31.7			335.8		67.4	100.6	
Level of Service		D		D	C			F		E	F	
Approach Delay (s)		40.0			34.3			335.8			87.7	
Approach LOS		D			C			F			F	

Intersection Summary

HCM Average Control Delay	134.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙↘	↙				↙
Volume (vph)	521	438	0	0	0	756
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0
Lane Util. Factor	0.97	1.00				1.00
Frbp, ped/bikes	1.00	1.00				1.00
Flpb, ped/bikes	1.00	1.00				1.00
Frt	1.00	0.85				1.00
Flt Protected	0.95	1.00				1.00
Satd. Flow (prot)	3433	1583				1863
Flt Permitted	0.95	1.00				1.00
Satd. Flow (perm)	3433	1583				1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	521	438	0	0	0	756
RTOR Reduction (vph)	118	257	0	0	0	0
Lane Group Flow (vph)	403	181	0	0	0	756
Confl. Peds. (#/hr)		72				
Turn Type		Prot				
Protected Phases	1	1				2
Permitted Phases						
Actuated Green, G (s)	21.2	21.2				21.8
Effective Green, g (s)	20.7	20.7				21.3
Actuated g/C Ratio	0.41	0.41				0.43
Clearance Time (s)	3.5	3.5				3.5
Lane Grp Cap (vph)	1421	655				794
v/s Ratio Prot	c0.12	0.11				c0.41
v/s Ratio Perm						
v/c Ratio	0.28	0.28				0.95
Uniform Delay, d1	9.7	9.7				13.9
Progression Factor	0.77	2.35				0.90
Incremental Delay, d2	0.4	0.9				3.5
Delay (s)	7.9	23.7				16.0
Level of Service	A	C				B
Approach Delay (s)	15.1		0.0			16.0
Approach LOS	B		A			B
Intersection Summary						
HCM Average Control Delay			15.5		HCM Level of Service	B
HCM Volume to Capacity ratio			0.62			
Actuated Cycle Length (s)			50.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			64.8%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

41: G Street & 8th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Volume (vph)	0	0	0	0	802	435	372	539	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0				
Lane Util. Factor					0.91			0.91				
Frbp, ped/bikes					0.98			1.00				
Flpb, ped/bikes					1.00			0.98				
Frt					0.95			1.00				
Flt Protected					1.00			0.98				
Satd. Flow (prot)					4711			4879				
Flt Permitted					1.00			0.98				
Satd. Flow (perm)					4711			4879				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	802	435	372	539	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	118	0	0	50	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1119	0	0	861	0	0	0	0
Confl. Peds. (#/hr)						72	72					
Turn Type							Perm					
Protected Phases					1			2				
Permitted Phases							2					
Actuated Green, G (s)					21.5			21.5				
Effective Green, g (s)					21.0			21.0				
Actuated g/C Ratio					0.42			0.42				
Clearance Time (s)					3.5			3.5				
Lane Grp Cap (vph)					1979			2049				
v/s Ratio Prot					c0.24							
v/s Ratio Perm								0.18				
v/c Ratio					0.57			0.42				
Uniform Delay, d1					11.0			10.2				
Progression Factor					1.04			0.80				
Incremental Delay, d2					1.0			0.5				
Delay (s)					12.5			8.6				
Level of Service					B			A				
Approach Delay (s)		0.0			12.5			8.6			0.0	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM Average Control Delay			10.9				HCM Level of Service				B	
HCM Volume to Capacity ratio			0.49									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)				8.0	
Intersection Capacity Utilization			54.3%				ICU Level of Service				A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	46	476	0	0	0	0	0	1594	467
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.98	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5038						4825	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5038						4825	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	46	476	0	0	0	0	0	1594	467
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	106	0
Lane Group Flow (vph)	0	0	0	0	499	0	0	0	0	0	1955	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1713						2027	
v/s Ratio Prot											c0.41	
v/s Ratio Perm					0.10							
v/c Ratio					0.29						0.96	
Uniform Delay, d1					12.1						14.1	
Progression Factor					1.00						0.59	
Incremental Delay, d2					0.4						1.9	
Delay (s)					12.5						10.3	
Level of Service					B						B	
Approach Delay (s)		0.0			12.5			0.0			10.3	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			10.8		HCM Level of Service						B	
HCM Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			59.2%		ICU Level of Service						B	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	376	55	0	0	0	0	529	632	212	147	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	3.5	4.0	4.0	
Lane Util. Factor	1.00	0.95						0.95	0.95	1.00	1.00	
Frbp, ped/bikes	1.00	0.99						0.99	0.92	1.00	1.00	
Flpb, ped/bikes	0.88	1.00						1.00	1.00	0.98	1.00	
Frt	1.00	0.98						0.98	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1557	3435						1707	1380	1741	1863	
Flt Permitted	0.95	1.00						1.00	1.00	0.21	1.00	
Satd. Flow (perm)	1557	3435						1707	1380	386	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	529	632	212	147	0
RTOR Reduction (vph)	0	23	0	0	0	0	0	13	180	0	0	0
Lane Group Flow (vph)	20	408	0	0	0	0	0	611	357	212	147	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm								Perm	Perm		
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)	18.5	18.5						19.5	19.5	19.5	19.5	
Effective Green, g (s)	18.0	18.0						19.0	19.5	19.0	19.0	
Actuated g/C Ratio	0.36	0.36						0.38	0.39	0.38	0.38	
Clearance Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
Lane Grp Cap (vph)	561	1237						649	538	147	708	
v/s Ratio Prot		c0.12						0.36			0.08	
v/s Ratio Perm	0.01								0.26	c0.55		
v/c Ratio	0.04	0.33						0.94	0.66	1.44	0.21	
Uniform Delay, d1	10.4	11.6						15.0	12.6	15.5	10.4	
Progression Factor	1.33	1.46						0.90	1.33	1.00	1.00	
Incremental Delay, d2	0.1	0.6						13.4	2.9	233.1	0.7	
Delay (s)	13.9	17.6						26.9	19.7	248.6	11.1	
Level of Service	B	B						C	B	F	B	
Approach Delay (s)		17.4			0.0			23.5			151.3	
Approach LOS		B			A			C			F	

Intersection Summary

HCM Average Control Delay	45.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	1146	56	0	0	0	0	0	0	164	1154	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		1.00								1.00	1.00	
Flpb, ped/bikes		1.00								0.95	1.00	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3504								1528	3385	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3504								1528	3385	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1146	56	0	0	0	0	0	0	164	1154	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	92	2	0
Lane Group Flow (vph)	0	1195	0	0	0	0	0	0	0	56	1168	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		18.5								19.5	19.5	
Effective Green, g (s)		18.0								19.0	19.0	
Actuated g/C Ratio		0.36								0.38	0.38	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1261								581	1286	
v/s Ratio Prot		c0.34										
v/s Ratio Perm										0.04	0.35	
v/c Ratio		0.95								0.10	0.91	
Uniform Delay, d1		15.5								10.0	14.7	
Progression Factor		0.87								0.82	0.68	
Incremental Delay, d2		11.1								0.2	8.4	
Delay (s)		24.5								8.4	18.4	
Level of Service		C								A	B	
Approach Delay (s)		24.5			0.0			0.0			17.3	
Approach LOS		C			A			A			B	
Intersection Summary												
HCM Average Control Delay			20.7		HCM Level of Service					C		
HCM Volume to Capacity ratio			0.93									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				13.0			
Intersection Capacity Utilization			64.8%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Volume (vph)	466	681	0	0	0	0	0	447	228	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.98				
Flpb, ped/bikes		0.98						1.00				
Frt		1.00						0.95				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		3396						4726				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		3396						4726				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	466	681	0	0	0	0	0	447	228	0	0	0
RTOR Reduction (vph)	0	223	0	0	0	0	0	141	0	0	0	0
Lane Group Flow (vph)	0	924	0	0	0	0	0	534	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		18.5						19.5				
Effective Green, g (s)		18.0						19.0				
Actuated g/C Ratio		0.36						0.38				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1223						1796				
v/s Ratio Prot								c0.11				
v/s Ratio Perm		0.27										
v/c Ratio		0.76						0.30				
Uniform Delay, d1		14.1						10.8				
Progression Factor		1.16						1.00				
Incremental Delay, d2		2.1						0.4				
Delay (s)		18.4						11.3				
Level of Service		B						B				
Approach Delay (s)		18.4			0.0			11.3			0.0	
Approach LOS		B			A			B			A	

Intersection Summary

HCM Average Control Delay	15.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
47: H Street & 16th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↖				↗		↖↗↘				
Volume (vph)	562	311	0	0	0	40	0	1146	25	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	0.99				1.00		1.00				
Satd. Flow (prot)	3221	1665				1611		5055				
Flt Permitted	0.95	0.99				1.00		1.00				
Satd. Flow (perm)	3221	1665				1611		5055				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	562	311	0	0	0	40	0	1146	25	0	0	0
RTOR Reduction (vph)	214	10	0	0	0	25	0	5	0	0	0	0
Lane Group Flow (vph)	292	357	0	0	0	15	0	1166	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	12.5	21.5				5.5		21.5				
Effective Green, g (s)	12.0	21.0				5.0		21.0				
Actuated g/C Ratio	0.24	0.42				0.10		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	773	699				161		2123				
v/s Ratio Prot	0.09	c0.12				0.01		c0.23				
v/s Ratio Perm		0.09										
v/c Ratio	0.38	0.51				0.09		0.55				
Uniform Delay, d1	15.9	10.7				20.4		10.9				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	1.4	2.7				1.1		1.0				
Delay (s)	17.3	13.4				21.6		12.0				
Level of Service	B	B				C		B				
Approach Delay (s)		15.6			21.6			12.0			0.0	
Approach LOS		B			C			B			A	

Intersection Summary

HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	62.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	521	244	215	40	120	707
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.88	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1636	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1636	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	521	244	215	40	120	707
RTOR Reduction (vph)	0	0	0	16	130	0
Lane Group Flow (vph)	521	244	215	24	697	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	35.6	47.5	20.5	73.6	53.1	
Effective Green, g (s)	35.1	47.5	20.5	73.6	53.1	
Actuated g/C Ratio	0.29	0.39	0.17	0.60	0.44	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	510	727	314	1009	714	
v/s Ratio Prot	c0.29	0.13	c0.12	0.01	c0.43	
v/s Ratio Perm				0.00		
v/c Ratio	1.02	0.34	0.68	0.02	0.98	
Uniform Delay, d1	43.3	26.0	47.6	9.6	33.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	45.4	0.5	7.1	0.0	27.5	
Delay (s)	88.7	26.5	54.6	9.7	61.2	
Level of Service	F	C	D	A	E	
Approach Delay (s)		68.9	47.6		61.2	
Approach LOS		E	D		E	

Intersection Summary

HCM Average Control Delay	62.5	HCM Level of Service	E
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	121.7	Sum of lost time (s)	13.0
Intersection Capacity Utilization	100.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖↗	↑↑				↖↗
Volume (vph)	0	0	0	0	1400	83	259	752	0	0	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6168		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6168		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1400	83	259	752	0	0	0	20
RTOR Reduction (vph)	0	0	0	0	17	0	5	0	0	0	0	3
Lane Group Flow (vph)	0	0	0	0	1466	0	254	752	0	0	0	17
Confl. Peds. (#/hr)							72					
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					17.0		24.5	24.5				24.5
Effective Green, g (s)					18.0		24.0	24.0				24.5
Actuated g/C Ratio					0.36		0.48	0.48				0.49
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					2220		1648	1614				1366
v/s Ratio Prot					c0.24		0.07	c0.22				
v/s Ratio Perm												0.01
v/c Ratio					0.66		0.15	0.47				0.01
Uniform Delay, d1					13.4		7.3	8.7				6.5
Progression Factor					0.50		0.80	0.79				1.00
Incremental Delay, d2					0.5		0.2	0.8				0.0
Delay (s)					7.2		6.0	7.7				6.6
Level of Service					A		A	A				A
Approach Delay (s)		0.0			7.2			7.3			6.6	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	54	1311	349	40	812	0	0	21	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.98		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.97		1.00	1.00			0.88	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4821		1610	3389			1557	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4821		1610	3389			1557	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	54	1311	349	40	812	0	0	21	189
RTOR Reduction (vph)	0	0	0	0	90	0	0	0	0	0	73	89
Lane Group Flow (vph)	0	0	0	0	1624	0	36	816	0	0	33	15
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					16.5		15.5	15.5			7.5	7.5
Effective Green, g (s)					16.0		15.0	15.0			7.0	7.0
Actuated g/C Ratio					0.32		0.30	0.30			0.14	0.14
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1543		483	1017			218	211
v/s Ratio Prot							0.02	c0.24			c0.02	0.01
v/s Ratio Perm					0.34							
v/c Ratio					1.05		0.07	0.80			0.15	0.07
Uniform Delay, d1					17.0		12.5	16.1			18.9	18.7
Progression Factor					0.80		1.27	1.52			0.74	0.95
Incremental Delay, d2					36.2		0.2	4.8			1.4	0.6
Delay (s)					49.8		16.1	29.2			15.4	18.4
Level of Service					D		B	C			B	B
Approach Delay (s)		0.0			49.8			28.7			16.9	
Approach LOS		A			D			C			B	

Intersection Summary

HCM Average Control Delay	40.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔						↕	↗
Volume (vph)	0	0	0	350	1203	0	0	0	0	0	774	506
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.93	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1412	4789						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1412	4789						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	350	1203	0	0	0	0	0	774	506
RTOR Reduction (vph)	0	0	0	122	5	0	0	0	0	0	0	180
Lane Group Flow (vph)	0	0	0	193	1233	0	0	0	0	0	774	326
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				20.5	20.5						17.5	17.5
Effective Green, g (s)				20.0	20.0						17.0	17.0
Actuated g/C Ratio				0.40	0.40						0.34	0.34
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				565	1916						1203	948
v/s Ratio Prot											c0.22	
v/s Ratio Perm				0.14	0.26							0.12
v/c Ratio				0.34	0.64						0.64	0.34
Uniform Delay, d1				10.4	12.1						13.9	12.3
Progression Factor				1.00	1.00						1.00	1.28
Incremental Delay, d2				1.6	1.7						1.3	0.5
Delay (s)				12.1	13.8						15.2	16.2
Level of Service				B	B						B	B
Approach Delay (s)		0.0			13.4			0.0			15.6	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			14.4		HCM Level of Service						B	
HCM Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			13.0				
Intersection Capacity Utilization			51.3%		ICU Level of Service			A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		← ↑ →		← ↑	← ↑	↑	← ↑	← ↑	
Volume (vph)	7	1523	603	100	149	156	3	2077	1019
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6027		2787	3433	1863	1584	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6027		2787	3433	1863	1584	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	7	1523	603	100	149	156	3	2077	1019
RTOR Reduction (vph)	0	0	0	2	0	0	0	57	0
Lane Group Flow (vph)	0	2133	0	98	149	156	1042	2000	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		31.7		10.8	10.8	10.8	46.0	46.0	
Effective Green, g (s)		31.7		10.3	10.3	10.3	46.0	46.0	
Actuated g/C Ratio		0.32		0.10	0.10	0.10	0.46	0.46	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1911		287	354	192	729	1326	
v/s Ratio Prot		c0.35				c0.08	0.66	c0.69	
v/s Ratio Perm				0.04	0.04				
v/c Ratio		1.20dr		0.34	0.42	0.81	1.43	1.51	
Uniform Delay, d1		34.2		41.7	42.1	43.9	27.0	27.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		60.1		0.3	0.3	21.3	201.1	232.6	
Delay (s)		94.3		42.0	42.3	65.2	228.1	259.6	
Level of Service		F		D	D	E	F	F	
Approach Delay (s)		94.3				54.1	249.0		
Approach LOS		F				D	F		

Intersection Summary

HCM Average Control Delay	176.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	140.9%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

Railyards Study

2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	680	2879	111	0	0	0	0	406	309	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.93					0.99	0.94			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.97	0.85			
Flt Protected	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (prot)	1290	6028	1476					3257	1351			
Flt Permitted	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (perm)	1290	6028	1476					3257	1351			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	680	2879	111	0	0	0	0	406	309	0	0	0
RTOR Reduction (vph)	77	2	28	0	0	0	0	1	1	0	0	0
Lane Group Flow (vph)	535	2945	83	0	0	0	0	498	215	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	69.4	69.4	69.4					22.6	22.6			
Effective Green, g (s)	69.4	69.4	69.4					22.6	22.6			
Actuated g/C Ratio	0.69	0.69	0.69					0.23	0.23			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	895	4183	1024					736	305			
v/s Ratio Prot	0.41	c0.49						0.15				
v/s Ratio Perm			0.06						c0.16			
v/c Ratio	0.60	0.70	0.08					0.68	0.71			
Uniform Delay, d1	8.0	9.2	5.0					35.4	35.6			
Progression Factor	1.10	1.01	1.15					1.00	1.00			
Incremental Delay, d2	0.3	0.1	0.0					2.0	6.0			
Delay (s)	9.1	9.3	5.7					37.3	41.6			
Level of Service	A	A	A					D	D			
Approach Delay (s)		9.2			0.0			38.6			0.0	
Approach LOS		A			A			D			A	
Intersection Summary												
HCM Average Control Delay			14.0					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			100.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			86.4%					ICU Level of Service			E	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↔↗↗						↗		↘		
Volume (vph)	942	2083	0	0	0	0	0	32	7	35	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.99		1.00		
Flpb, ped/bikes	0.92	0.99						1.00		0.94		
Frt	1.00	1.00						0.98		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1404	4751						1795		1669		
Flt Permitted	0.95	1.00						1.00		0.73		
Satd. Flow (perm)	1404	4751						1795		1285		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	942	2083	0	0	0	0	0	32	7	35	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	735	2290	0	0	0	0	0	33	0	35	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	71.5	71.5						21.5		21.5		
Effective Green, g (s)	71.0	71.0						21.0		21.0		
Actuated g/C Ratio	0.71	0.71						0.21		0.21		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	997	3373						377		270		
v/s Ratio Prot								0.02				
v/s Ratio Perm	c0.52	0.48								c0.03		
v/c Ratio	0.74	0.68						0.09		0.13		
Uniform Delay, d1	8.8	8.1						31.8		32.1		
Progression Factor	1.00	0.99						1.00		0.75		
Incremental Delay, d2	3.6	0.8						0.5		0.5		
Delay (s)	12.4	8.8						32.3		24.6		
Level of Service	B	A						C		C		
Approach Delay (s)		9.7			0.0			32.3			24.6	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	10.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
56: J St & 7th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑								↑↑↑	
Volume (vph)	0	2050	324	0	0	0	0	0	0	202	785	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0								4.0	
Lane Util. Factor		0.86	0.86								0.91	
Frbp, ped/bikes		1.00	0.93								1.00	
Flpb, ped/bikes		1.00	1.00								0.99	
Frt		1.00	0.85								1.00	
Flt Protected		1.00	1.00								0.99	
Satd. Flow (prot)		4790	1265								4972	
Flt Permitted		1.00	1.00								0.99	
Satd. Flow (perm)		4790	1265								4972	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2050	324	0	0	0	0	0	0	202	785	0
RTOR Reduction (vph)	0	1	119	0	0	0	0	0	0	0	45	0
Lane Group Flow (vph)	0	2081	173	0	0	0	0	0	0	0	942	0
Confl. Peds. (#/hr)			36							36		
Turn Type			Perm								Perm	
Protected Phases		1										2
Permitted Phases			1								2	
Actuated Green, G (s)		54.5	54.5								28.5	
Effective Green, g (s)		54.0	54.0								28.0	
Actuated g/C Ratio		0.54	0.54								0.28	
Clearance Time (s)		3.5	3.5								3.5	
Lane Grp Cap (vph)		2587	683								1392	
v/s Ratio Prot		0.43										
v/s Ratio Perm			0.14								0.19	
v/c Ratio		0.80	0.25								0.68	
Uniform Delay, d1		18.7	12.3								32.0	
Progression Factor		1.12	2.53								1.22	
Incremental Delay, d2		2.2	0.7								2.2	
Delay (s)		23.2	31.7								41.3	
Level of Service		C	C								D	
Approach Delay (s)		24.3			0.0			0.0			41.3	
Approach LOS		C			A			A			D	
Intersection Summary												
HCM Average Control Delay			29.3									HCM Level of Service C
HCM Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			100.0								18.0	Sum of lost time (s)
Intersection Capacity Utilization			68.1%									ICU Level of Service C
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
57: L St & 3rd St

Railyards Study
2030 No Project Conditions AM PEAK



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	257	266	202	61	414	78	1280	379	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.5	5.0	4.5	4.5	5.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.99	0.85	0.85	1.00	1.00	0.96		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1672	1504	1583	1770	3539	4901		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1672	1504	1583	1770	3539	4901		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	257	266	202	61	414	78	1280	379	29
RTOR Reduction (vph)	0	0	0	36	0	0	1	0	0
Lane Group Flow (vph)	231	312	182	25	414	78	1687	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2					
Actuated Green, G (s)	41.5	41.5	41.5	41.5	17.5	49.5	27.5		
Effective Green, g (s)	41.0	41.0	41.5	41.0	17.5	49.5	27.0		
Actuated g/C Ratio	0.41	0.41	0.42	0.41	0.18	0.50	0.27		
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Lane Grp Cap (vph)	689	686	624	649	310	1752	1323		
v/s Ratio Prot					c0.23	0.02	c0.34		
v/s Ratio Perm	0.14	0.19	0.12	0.02					
v/c Ratio	0.34	0.45	0.29	0.04	1.34	0.04	1.27		
Uniform Delay, d1	20.2	21.4	19.5	17.7	41.2	13.0	36.5		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	1.3	2.2	1.2	0.1	171.3	0.0	129.7		
Delay (s)	21.5	23.6	20.7	17.8	212.6	13.1	166.2		
Level of Service	C	C	C	B	F	B	F		
Approach Delay (s)		21.8				181.0	166.2		
Approach LOS		C				F	F		

Intersection Summary

HCM Average Control Delay	130.4	HCM Level of Service	F
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	1083	104	158	669	0	0	0	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		5.0	5.0				5.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6278		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6278		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1083	104	158	669	0	0	0	103
RTOR Reduction (vph)	0	0	0	0	22	0	11	0	0	0	0	12
Lane Group Flow (vph)	0	0	0	0	1165	0	148	669	0	0	0	92
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					25.0		35.5	35.5				35.5
Effective Green, g (s)					26.0		35.0	35.0				35.0
Actuated g/C Ratio					0.37		0.50	0.50				0.50
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					2332		817	2543				1272
v/s Ratio Prot					c0.19			c0.13				
v/s Ratio Perm							0.09					0.04
v/c Ratio					0.50		0.18	0.26				0.07
Uniform Delay, d1					17.0		9.6	10.1				9.1
Progression Factor					1.00		0.76	0.81				1.00
Incremental Delay, d2					0.8		0.4	0.2				0.1
Delay (s)					17.7		7.7	8.3				9.2
Level of Service					B		A	A				A
Approach Delay (s)		0.0			17.7			8.2			9.2	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	50.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
59: L St & 7th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	229	1248	0	0	0	0	0	436	491
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.97	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.92	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4540	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4540	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	229	1248	0	0	0	0	0	436	491
RTOR Reduction (vph)	0	0	0	160	0	0	0	0	0	0	83	0
Lane Group Flow (vph)	0	0	0	69	1248	0	0	0	0	0	844	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						27.5	
Effective Green, g (s)				15.0	15.0						27.0	
Actuated g/C Ratio				0.30	0.30						0.54	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2452	
v/s Ratio Prot					c0.25						c0.19	
v/s Ratio Perm				0.04								
v/c Ratio				0.14	0.82						0.34	
Uniform Delay, d1				12.8	16.2						6.5	
Progression Factor				1.00	1.00						2.04	
Incremental Delay, d2				0.0	3.3						0.3	
Delay (s)				12.8	19.6						13.6	
Level of Service				B	B						B	
Approach Delay (s)		0.0			18.5			0.0			13.6	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
60: Capitol Mall & 5th Street

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕			↖↗↕		↖↗	↖↗↕				
Volume (vph)	531	505	0	0	143	77	308	860	41	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.97		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.95		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4679		3433	5030				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4679		3433	5030				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	531	505	0	0	143	77	308	860	41	0	0	0
RTOR Reduction (vph)	0	0	0	0	35	0	0	7	0	0	0	0
Lane Group Flow (vph)	531	505	0	0	185	0	308	894	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		30.0	30.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.43	0.43				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			936		1471	2156				
v/s Ratio Prot	c0.15	c0.14			0.04		0.09	c0.18				
v/s Ratio Perm												
v/c Ratio	0.83	0.32			0.20		0.21	0.41				
Uniform Delay, d1	27.5	12.7			23.3		12.6	13.9				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	12.1	0.5			0.5		0.3	0.6				
Delay (s)	39.5	13.2			23.8		12.9	14.5				
Level of Service	D	B			C		B	B				
Approach Delay (s)		26.7			23.8			14.1			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	20.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

Railyards Study

2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Volume (vph)	0	0	0	206	1132	0	0	0	0	0	427	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.91	0.91
Frbp, ped/bikes					1.00						1.00	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.99	0.85
Flt Protected					0.99						1.00	1.00
Satd. Flow (prot)					4878						3195	1190
Flt Permitted					0.99						1.00	1.00
Satd. Flow (perm)					4878						3195	1190
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	206	1132	0	0	0	0	0	427	152
RTOR Reduction (vph)	0	0	0	0	52	0	0	0	0	0	5	46
Lane Group Flow (vph)	0	0	0	0	1286	0	0	0	0	0	437	91
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2634						959	357
v/s Ratio Prot					c0.26						c0.14	
v/s Ratio Perm												0.08
v/c Ratio					0.49						0.46	0.25
Uniform Delay, d1					7.2						14.2	13.3
Progression Factor					1.00						1.73	2.41
Incremental Delay, d2					0.6						0.1	0.2
Delay (s)					7.8						24.7	32.2
Level of Service					A						C	C
Approach Delay (s)		0.0			7.8			0.0			26.4	
Approach LOS		A			A			A			C	

Intersection Summary

HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

Railyards Study
2030 No Project Conditions AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	2308	1153	0	0	0	0	0	0	318	327	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frpb, ped/bikes		0.98									1.00	
Flpb, ped/bikes		1.00									0.96	
Frt		0.95									1.00	
Flt Protected		1.00									0.98	
Satd. Flow (prot)		5984									4787	
Flt Permitted		1.00									0.98	
Satd. Flow (perm)		5984									4787	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2308	1153	0	0	0	0	0	0	318	327	0
RTOR Reduction (vph)	0	121	0	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	3340	0	0	0	0	0	0	0	0	643	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3231									1436	
v/s Ratio Prot		c0.56										
v/s Ratio Perm											0.13	
v/c Ratio		1.18dr									0.45	
Uniform Delay, d1		11.5									14.2	
Progression Factor		1.00									0.56	
Incremental Delay, d2		25.3									0.9	
Delay (s)		36.8									8.8	
Level of Service		D									A	
Approach Delay (s)		36.8			0.0			0.0			8.8	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	32.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖↗↘	↖						↖↗	↖
Volume (vph)	0	0	0	846	1116	0	0	0	0	0	514	414
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.94	1.00						0.95	1.00
Frbp, ped/bikes				1.00	1.00						1.00	0.81
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				4990	1863						3539	1285
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				4990	1863						3539	1285
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	846	1116	0	0	0	0	0	514	414
RTOR Reduction (vph)	0	0	0	300	0	0	0	0	0	0	0	104
Lane Group Flow (vph)	0	0	0	546	1116	0	0	0	0	0	514	310
Confl. Peds. (#/hr)			55									55
Turn Type				Prot								Perm
Protected Phases				1 9	3 12 13						4	
Permitted Phases												4
Actuated Green, G (s)				50.5	70.5						22.0	22.0
Effective Green, g (s)				49.0	70.0						22.0	22.0
Actuated g/C Ratio				0.49	0.70						0.22	0.22
Clearance Time (s)											4.0	4.0
Vehicle Extension (s)											5.0	5.0
Lane Grp Cap (vph)				2445	1304						779	283
v/s Ratio Prot				0.11	c0.60						0.15	
v/s Ratio Perm												c0.24
v/c Ratio				0.22	0.86						0.66	1.10
Uniform Delay, d1				14.6	11.2						35.6	39.0
Progression Factor				0.45	1.34						1.00	1.00
Incremental Delay, d2				0.1	5.2						2.7	81.7
Delay (s)				6.6	20.3						38.3	120.7
Level of Service				A	C						D	F
Approach Delay (s)		0.0			14.4			0.0			75.1	
Approach LOS		A			B			A			E	

Intersection Summary

HCM Average Control Delay	33.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑↑	↑	↑				
Volume (vph)	0	0	0	0	1918	1752	52	161	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.88	1.00	1.00				
Frbp, ped/bikes					1.00	0.84	1.00	1.00				
Flpb, ped/bikes					1.00	1.00	1.00	1.00				
Frt					1.00	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					5085	2350	1770	1863				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					5085	2350	1770	1863				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1918	1752	52	161	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	409	13	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1918	1343	39	161	0	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type						custom	Split					
Protected Phases					6 11 15	11	8 16	8 16				
Permitted Phases						6 15						
Actuated Green, G (s)					64.0	56.0	29.0	29.0				
Effective Green, g (s)					64.0	56.0	28.5	28.5				
Actuated g/C Ratio					0.64	0.56	0.28	0.28				
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)					3254	1504	504	531				
v/s Ratio Prot					0.38	c0.26	0.02	c0.09				
v/s Ratio Perm						0.31						
v/c Ratio					0.59	0.89	0.08	0.30				
Uniform Delay, d1					10.4	19.4	26.1	28.0				
Progression Factor					0.24	0.78	0.97	1.03				
Incremental Delay, d2					0.0	0.8	0.1	0.7				
Delay (s)					2.5	15.9	25.6	29.4				
Level of Service					A	B	C	C				
Approach Delay (s)		0.0			8.9			28.5			0.0	
Approach LOS		A			A			C			A	

Intersection Summary

HCM Average Control Delay	10.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑		↘	↑			↑	↗
Volume (vph)	0	0	0	30	3372	36	489	177	0	0	161	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		4.5	4.0			4.0	4.0
Lane Util. Factor				1.00	0.86		1.00	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes				0.87	1.00		1.00	1.00			1.00	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1534	6388		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1534	6388		1770	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	30	3372	36	489	177	0	0	161	259
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	19
Lane Group Flow (vph)	0	0	0	30	3407	0	489	177	0	0	161	240
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type				Perm			Prot					Perm
Protected Phases					2		3	8			4	
Permitted Phases				2								4
Actuated Green, G (s)				51.4	51.4		24.0	40.5			12.5	12.5
Effective Green, g (s)				50.8	50.8		23.5	40.0			12.0	12.0
Actuated g/C Ratio				0.51	0.51		0.24	0.40			0.12	0.12
Clearance Time (s)				4.6	4.6		4.0	3.5			3.5	3.5
Vehicle Extension (s)				0.2	0.2		3.0	0.2			0.2	0.2
Lane Grp Cap (vph)				779	3245		416	745			224	190
v/s Ratio Prot					c0.53		c0.28	0.10			0.09	
v/s Ratio Perm				0.02								c0.15
v/c Ratio				0.04	1.05		1.18	0.24			0.72	1.26
Uniform Delay, d1				12.3	24.6		38.2	19.9			42.4	44.0
Progression Factor				0.52	0.44		1.01	0.84			1.00	1.00
Incremental Delay, d2				0.0	23.4		100.5	0.1			8.8	152.8
Delay (s)				6.4	34.1		138.9	16.8			51.2	196.8
Level of Service				A	C		F	B			D	F
Approach Delay (s)		0.0			33.9			106.5			141.0	
Approach LOS		A			C			F			F	

Intersection Summary

HCM Average Control Delay	54.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & N 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↑↑↑		↔	↑			↑	↔
Volume (vph)	0	0	0	9	2257	58	13	1203	0	0	39	1140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	4.6		4.5	4.0			4.0	3.5
Lane Util. Factor				1.00	0.86		0.97	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.93
Flpb, ped/bikes				1.00	1.00		0.95	1.00			1.00	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	6369		3265	1863			1863	1480
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770	6369		3265	1863			1863	1480
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	9	2257	58	13	1203	0	0	39	1140
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	0	31
Lane Group Flow (vph)	0	0	0	9	2311	0	13	1203	0	0	39	1109
Confl. Peds. (#/hr)			40			40	40		40	40		40
Turn Type				Prot			Prot					Perm
Protected Phases				5	2		3	8			4	
Permitted Phases					2							4
Actuated Green, G (s)				29.5	29.5		0.8	62.7			57.9	57.9
Effective Green, g (s)				28.5	29.2		0.3	62.2			57.4	57.9
Actuated g/C Ratio				0.28	0.29		0.00	0.62			0.57	0.58
Clearance Time (s)				4.3	4.3		4.0	3.5			3.5	3.5
Vehicle Extension (s)				2.0	2.0		3.0	2.0			2.0	2.0
Lane Grp Cap (vph)				504	1860		10	1159			1069	857
v/s Ratio Prot				0.01	c0.36		0.00	c0.65			0.02	
v/s Ratio Perm												c0.75
v/c Ratio				0.02	1.24		1.30	1.04			0.04	1.29
Uniform Delay, d1				25.7	35.4		49.8	18.9			9.3	21.0
Progression Factor				0.29	0.31		0.85	0.57			1.00	1.00
Incremental Delay, d2				0.0	109.7		186.0	20.3			0.0	140.9
Delay (s)				7.5	120.6		228.3	31.0			9.3	162.0
Level of Service				A	F		F	C			A	F
Approach Delay (s)		0.0			120.2			33.1			156.9	
Approach LOS		A			F			C			F	

Intersection Summary

HCM Average Control Delay	106.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.1
Intersection Capacity Utilization	174.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑	↗	↙	↗			↑↑	↗
Volume (vph)	0	0	0	200	1642	565	556	871	0	0	1157	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	4.0	4.0	4.0	4.0			4.0	3.5
Lane Util. Factor				1.00	0.91	1.00	0.95	0.95			0.95	1.00
Frbp, ped/bikes				1.00	1.00	0.93	1.00	1.00			1.00	1.00
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	5085	1474	1681	1764			3539	1583
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770	5085	1474	1681	1764			3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	200	1642	565	556	871	0	0	1157	78
RTOR Reduction (vph)	0	0	0	0	0	298	0	0	0	0	0	42
Lane Group Flow (vph)	0	0	0	200	1642	267	500	927	0	0	1157	36
Confl. Peds. (#/hr)			24			24			24			
Turn Type				Prot		Perm	Split					Perm
Protected Phases				5	2		8	8			7	
Permitted Phases						2						7
Actuated Green, G (s)				28.0	28.0	28.0	39.5	39.5			21.5	21.5
Effective Green, g (s)				27.0	28.0	28.0	39.0	39.0			21.0	21.5
Actuated g/C Ratio				0.27	0.28	0.28	0.39	0.39			0.21	0.22
Clearance Time (s)				4.0	4.0	4.0	3.5	3.5			3.5	3.5
Vehicle Extension (s)				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Lane Grp Cap (vph)				478	1424	413	656	688			743	340
v/s Ratio Prot				0.11	c0.32		0.30	c0.53			c0.33	
v/s Ratio Perm						0.18						0.02
v/c Ratio				0.42	1.15	0.65	0.76	1.35			1.56	0.11
Uniform Delay, d1				30.0	36.0	31.6	26.5	30.5			39.5	31.5
Progression Factor				0.57	0.68	1.10	0.35	0.38			1.00	1.00
Incremental Delay, d2				0.1	74.0	4.5	2.0	160.5			257.3	0.1
Delay (s)				17.4	98.4	39.2	11.4	172.2			296.8	31.6
Level of Service				B	F	D	B	F			F	C
Approach Delay (s)		0.0			77.7			115.9			280.1	
Approach LOS		A			E			F			F	

Intersection Summary

HCM Average Control Delay	137.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	108.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richard Blvd & 10th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↕		↗	↕	↗	↖	↕	↗
Volume (vph)	0	0	0	84	2044	15	50	22	0	0	38	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	5.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.95		1.00	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.81
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	3535		1770	1863			1863	1283
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770	3535		1770	1863			1863	1283
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	84	2044	15	50	22	0	0	38	170
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	160
Lane Group Flow (vph)	0	0	0	84	2059	0	50	22	0	0	38	10
Confl. Peds. (#/hr)			35				35					35
Turn Type				Prot			Split		Perm	Split		Perm
Protected Phases				5	2		7	7		8		8
Permitted Phases									7			8
Actuated Green, G (s)				66.4	66.4		15.8	15.8			6.3	6.3
Effective Green, g (s)				65.9	65.9		15.3	15.3			5.8	5.8
Actuated g/C Ratio				0.66	0.66		0.15	0.15			0.06	0.06
Clearance Time (s)				4.5	4.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)				2.0	2.0		0.2	0.2			2.0	2.0
Lane Grp Cap (vph)				1166	2330		271	285			108	74
v/s Ratio Prot				0.05	c0.58		c0.03	0.01			c0.02	
v/s Ratio Perm												0.01
v/c Ratio				0.07	0.88		0.18	0.08			0.35	0.13
Uniform Delay, d1				6.1	13.9		36.9	36.3			45.3	44.7
Progression Factor				1.00	1.00		0.99	0.98			1.00	1.00
Incremental Delay, d2				0.0	5.3		0.1	0.0			0.7	0.3
Delay (s)				6.1	19.2		36.5	35.7			46.0	45.0
Level of Service				A	B		D	D			D	D
Approach Delay (s)		0.0			18.7			36.3			45.2	
Approach LOS		A			B			D			D	

Intersection Summary

HCM Average Control Delay	21.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	1218	39	98	1789	156	42	17	924	196	107	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	1.00		1.00	0.99			0.95			1.00	
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.99			0.87			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.97	
Satd. Flow (prot)	1770	3508		1752	3460			1533			1777	
Flt Permitted	0.14	1.00		0.14	1.00			0.98			0.24	
Satd. Flow (perm)	253	3508		250	3460			1498			448	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	1218	39	98	1789	156	42	17	924	196	107	22
RTOR Reduction (vph)	0	3	0	0	10	0	0	9	0	0	1	0
Lane Group Flow (vph)	12	1254	0	98	1935	0	0	974	0	0	324	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	30.0	30.0		30.0	30.0			30.0			30.0	
Effective Green, g (s)	29.5	29.5		29.5	29.5			29.5			29.5	
Actuated g/C Ratio	0.43	0.43		0.43	0.43			0.43			0.43	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	110	1522		108	1501			650			194	
v/s Ratio Prot		0.36			c0.56							
v/s Ratio Perm	0.05			0.39				0.65			c0.72	
v/c Ratio	0.11	0.82		0.91	1.29			1.50			1.67	
Uniform Delay, d1	11.4	17.0		18.0	19.2			19.2			19.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	2.0	5.2		64.3	135.4			232.3			322.8	
Delay (s)	13.4	22.1		82.2	154.6			251.6			342.1	
Level of Service	B	C		F	F			F			F	
Approach Delay (s)		22.1			151.1			251.6			342.1	
Approach LOS		C			F			F			F	

Intersection Summary

HCM Average Control Delay	150.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.48		
Actuated Cycle Length (s)	68.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	178.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

6/27/2007



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	1958	262	50	0	50	56	5290	20	2414	1330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1958	262	50	0	50	56	5290	20	2414	1330
RTOR Reduction (vph)	0	69	0	24	0	0	0	4	0	605
Lane Group Flow (vph)	1958	193	0	76	0	56	5290	16	2414	725
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	38.0	38.0		13.3		5.8	68.7	50.7	58.4	58.4
Effective Green, g (s)	38.0	37.0		12.3		5.8	68.7	50.7	58.4	58.4
Actuated g/C Ratio	0.25	0.25		0.08		0.04	0.46	0.34	0.39	0.39
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	870	390		139		68	2935	535	2614	616
v/s Ratio Prot	c0.57	0.12		c0.04		0.03	c0.83		0.36	0.46
v/s Ratio Perm								0.01		
v/c Ratio	2.25	0.50		0.55		0.82	1.80	0.03	0.92	1.18
Uniform Delay, d1	56.0	48.5		66.2		71.6	40.7	33.2	43.7	45.8
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	566.5	1.0		4.4		52.8	362.4	0.1	6.1	96.1
Delay (s)	622.5	49.5		70.5		124.4	403.1	33.3	49.8	141.9
Level of Service	F	D		E		F	F	C	D	F
Approach Delay (s)				70.5			398.8			
Approach LOS				E			F			

Intersection Summary

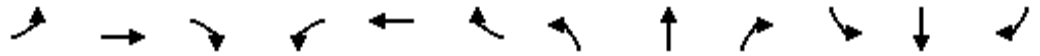
HCM Average Control Delay	322.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.82		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	161.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Volume (vph)	0	2	82	84	180	0	0	0	0	170	2704	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0						4.0	
Lane Util. Factor		1.00	1.00		1.00						0.86	
Frbp, ped/bikes		1.00	0.97		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						1.00	
Flt Protected		1.00	1.00		0.98						1.00	
Satd. Flow (prot)		1863	1541		1825						6366	
Flt Permitted		1.00	1.00		0.90						1.00	
Satd. Flow (perm)		1863	1541		1661						6366	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2	82	84	180	0	0	0	0	170	2704	27
RTOR Reduction (vph)	0	0	57	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	2	25	0	264	0	0	0	0	0	2900	0
Confl. Peds. (#/hr)			10	10						10		10
Turn Type			Perm	Perm						Perm		
Protected Phases		4			4							2
Permitted Phases			4	4						2		
Actuated Green, G (s)		19.7	19.7		19.7						59.0	
Effective Green, g (s)		19.2	19.2		19.2						59.0	
Actuated g/C Ratio		0.19	0.19		0.19						0.59	
Clearance Time (s)		3.5	3.5		3.5						4.0	
Vehicle Extension (s)		2.0	2.0		2.0						5.0	
Lane Grp Cap (vph)		358	296		319						3756	
v/s Ratio Prot		0.00										
v/s Ratio Perm			0.02		0.16						0.46	
v/c Ratio		0.01	0.08		0.83						0.77	
Uniform Delay, d1		32.7	33.2		38.8						15.4	
Progression Factor		1.00	1.00		1.07						1.00	
Incremental Delay, d2		0.0	0.0		6.8						1.6	
Delay (s)		32.7	33.2		48.3						17.0	
Level of Service		C	C		D						B	
Approach Delay (s)		33.2			48.3			0.0			17.0	
Approach LOS		C			D			A			B	

Intersection Summary

HCM Average Control Delay	20.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	21.8
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Basler St & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	31	7	0	0	53	25	267	4602	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.96			1.00				
Flpb, ped/bikes	0.89	0.93			1.00			1.00				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.97			1.00			1.00				
Satd. Flow (prot)	1500	1599			1708			6366				
Flt Permitted	0.71	0.86			1.00			1.00				
Satd. Flow (perm)	1115	1425			1708			6366				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	7	0	0	53	25	267	4602	6	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	19	19	0	0	78	0	0	4875	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			73.0				
Effective Green, g (s)	18.0	18.0			18.0			74.0				
Actuated g/C Ratio	0.18	0.18			0.18			0.74				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	201	257			307			4711				
v/s Ratio Prot					c0.05							
v/s Ratio Perm	0.02	0.01						0.77				
v/c Ratio	0.09	0.07			0.25			1.03				
Uniform Delay, d1	34.2	34.1			35.2			13.0				
Progression Factor	0.96	0.96			1.00			0.31				
Incremental Delay, d2	0.6	0.3			2.0			16.6				
Delay (s)	33.4	33.1			37.2			20.6				
Level of Service	C	C			D			C				
Approach Delay (s)		33.3			37.2			20.6			0.0	
Approach LOS		C			D			C			A	

Intersection Summary

HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	92.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Bannon St & I-5 SB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗							↙↘	↖↗	
Volume (vph)	0	848	340	0	0	0	0	0	0	511	980	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5							4.5	4.5	
Lane Util. Factor		1.00	1.00							0.81	0.81	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		1863	1583							2867	4515	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		1863	1583							2867	4515	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	848	340	0	0	0	0	0	0	511	980	0
RTOR Reduction (vph)	0	0	6	0	0	0	0	0	0	180	4	0
Lane Group Flow (vph)	0	848	334	0	0	0	0	0	0	280	1027	0
Turn Type		Perm								Split		
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		55.2	55.2							35.8	35.8	
Effective Green, g (s)		55.2	55.2							35.8	35.8	
Actuated g/C Ratio		0.55	0.55							0.36	0.36	
Clearance Time (s)		4.5	4.5							4.5	4.5	
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Lane Grp Cap (vph)		1028	874							1026	1616	
v/s Ratio Prot		c0.46								0.10	c0.23	
v/s Ratio Perm			0.21									
v/c Ratio		0.82	0.38							0.27	0.64	
Uniform Delay, d1		18.4	12.7							22.8	26.7	
Progression Factor		1.00	1.00							0.66	0.77	
Incremental Delay, d2		5.5	0.3							0.6	1.8	
Delay (s)		23.9	13.0							15.6	22.4	
Level of Service		C	B							B	C	
Approach Delay (s)		20.8			0.0			0.0			20.3	
Approach LOS		C			A			A			C	

Intersection Summary

HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	143.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

12: Bannon St & I-5 NB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑						↑	↗↘			
Volume (vph)	152	1208	0	0	0	0	0	8	1410	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5	4.5			
Lane Util. Factor	1.00	0.91						1.00	0.88			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	5085						1863	2787			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	5085						1863	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	152	1208	0	0	0	0	0	8	1410	0	0	0
RTOR Reduction (vph)	85	0	0	0	0	0	0	0	4	0	0	0
Lane Group Flow (vph)	67	1208	0	0	0	0	0	8	1406	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	33.3	33.3						57.7	57.7			
Effective Green, g (s)	33.3	33.3						57.7	57.7			
Actuated g/C Ratio	0.33	0.33						0.58	0.58			
Clearance Time (s)	4.5	4.5						4.5	4.5			
Vehicle Extension (s)	3.0	3.0						3.0	3.0			
Lane Grp Cap (vph)	589	1693						1075	1608			
v/s Ratio Prot	0.04	c0.24						0.00				
v/s Ratio Perm									c0.50			
v/c Ratio	0.11	0.71						0.01	0.87			
Uniform Delay, d1	23.1	29.2						9.0	18.1			
Progression Factor	1.59	1.18						1.00	1.00			
Incremental Delay, d2	0.3	2.0						0.0	5.6			
Delay (s)	37.2	36.4						9.0	23.7			
Level of Service	D	D						A	C			
Approach Delay (s)		36.5			0.0			23.6			0.0	
Approach LOS		D			A			C			A	

Intersection Summary

HCM Average Control Delay	29.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	162	2283	172	0	0	0	0	322	1	178	243	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.86						1.00	1.00	1.00	1.00	
Frt	1.00	0.99						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	6341						1863	1583	1770	1863	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	6341						1863	1583	1770	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	162	2283	172	0	0	0	0	322	1	178	243	0
RTOR Reduction (vph)	0	10	0	0	0	0	0	0	1	0	0	0
Lane Group Flow (vph)	162	2445	0	0	0	0	0	322	0	178	243	0
Turn Type	Split							Perm		Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	52.7	52.7						21.4	21.4	13.9	39.3	
Effective Green, g (s)	52.7	52.7						21.4	21.4	13.9	39.3	
Actuated g/C Ratio	0.53	0.53						0.21	0.21	0.14	0.39	
Clearance Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	933	3342						399	339	246	732	
v/s Ratio Prot	0.09	c0.39						c0.17		c0.10	0.13	
v/s Ratio Perm									0.00			
v/c Ratio	0.17	0.73						0.81	0.00	0.72	0.33	
Uniform Delay, d1	12.3	18.2						37.3	30.9	41.2	21.2	
Progression Factor	0.92	0.99						1.00	1.00	0.95	1.30	
Incremental Delay, d2	0.2	0.9						11.3	0.0	9.8	0.3	
Delay (s)	11.5	18.9						48.7	30.9	48.8	27.7	
Level of Service	B	B						D	C	D	C	
Approach Delay (s)		18.4			0.0			48.6			36.6	
Approach LOS		B			A			D			D	

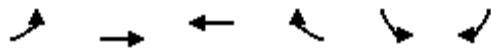
Intersection Summary

HCM Average Control Delay	23.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

14: Bannon St & N 5th Street

6/27/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↑↑↑			↶↷	
Volume (vph)	1400	1190	0	0	443	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5	
Lane Util. Factor	1.00	0.86			0.97	
Frt	1.00	1.00			1.00	
Flt Protected	0.95	1.00			0.95	
Satd. Flow (prot)	1770	6408			3433	
Flt Permitted	0.95	1.00			0.95	
Satd. Flow (perm)	1770	6408			3433	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1400	1190	0	0	443	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	1400	1190	0	0	443	0
Turn Type	Perm					
Protected Phases		4			6	
Permitted Phases	4					
Actuated Green, G (s)	75.5	75.5			15.5	
Effective Green, g (s)	75.5	75.5			15.5	
Actuated g/C Ratio	0.76	0.76			0.16	
Clearance Time (s)	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0			3.0	
Lane Grp Cap (vph)	1336	4838			532	
v/s Ratio Prot		0.19			c0.13	
v/s Ratio Perm	c0.79					
v/c Ratio	1.05	0.25			0.83	
Uniform Delay, d1	12.2	3.7			41.0	
Progression Factor	1.20	0.10			1.01	
Incremental Delay, d2	34.6	0.0			14.2	
Delay (s)	49.3	0.4			55.5	
Level of Service	D	A			E	
Approach Delay (s)		26.8	0.0		55.5	
Approach LOS		C	A		E	

Intersection Summary

HCM Average Control Delay	31.0	HCM Level of Service	C
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	196.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

15: Bannon St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑↑						↑↑		↖	↑	
Volume (vph)	146	1163	323	0	0	0	0	1116	309	621	796	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5		4.5	4.5	
Lane Util. Factor	1.00	0.86						0.95		1.00	1.00	
Frt	1.00	0.97						0.97		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1770	6199						3424		1770	1863	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1770	6199						3424		1770	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	146	1163	323	0	0	0	0	1116	309	621	796	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	25	0	0	0	0
Lane Group Flow (vph)	146	1436	0	0	0	0	0	1400	0	621	796	0
Turn Type	Perm						Prot					
Protected Phases	4						2		1		6	
Permitted Phases	4											
Actuated Green, G (s)	19.5	19.5						37.5		29.5	71.5	
Effective Green, g (s)	19.5	19.5						37.5		29.5	71.5	
Actuated g/C Ratio	0.20	0.20						0.38		0.30	0.72	
Clearance Time (s)	4.5	4.5						4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)	345	1209						1284		522	1332	
v/s Ratio Prot		c0.23						c0.41		c0.35	0.43	
v/s Ratio Perm	0.08											
v/c Ratio	0.42	1.19						1.09		1.19	0.60	
Uniform Delay, d1	35.3	40.2						31.2		35.2	7.1	
Progression Factor	0.84	0.84						1.00		1.65	1.17	
Incremental Delay, d2	0.8	92.5						53.5		87.2	0.2	
Delay (s)	30.3	126.4						84.8		145.4	8.5	
Level of Service	C	F						F		F	A	
Approach Delay (s)		117.8			0.0			84.8			68.5	
Approach LOS		F			A			F			E	

Intersection Summary

HCM Average Control Delay	91.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	108.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

18: N B Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Volume (vph)	133	172	139	321	179	261	201	1244	205	261	637	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.5	4.5	4.0	4.5		4.0	4.5	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.96			1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected		0.99			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1758			1805	1583	1770	1823		1770	1855	
Flt Permitted		0.99			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1758			1805	1583	1770	1823		1770	1855	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	133	172	139	321	179	261	201	1244	205	261	637	18
RTOR Reduction (vph)	0	11	0	0	0	138	0	4	0	0	1	0
Lane Group Flow (vph)	0	433	0	0	500	123	201	1445	0	261	654	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	7	7		8	8		5	2		1	6	
Permitted Phases						8						
Actuated Green, G (s)		13.0			42.5	42.5	13.0	55.5		22.0	64.5	
Effective Green, g (s)		13.0			42.5	42.5	13.0	55.5		22.0	64.5	
Actuated g/C Ratio		0.09			0.28	0.28	0.09	0.37		0.15	0.43	
Clearance Time (s)		4.0			4.5	4.5	4.0	4.5		4.0	4.5	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		152			511	449	153	675		260	798	
v/s Ratio Prot		c0.25			c0.28		c0.11	c0.79		c0.15	0.35	
v/s Ratio Perm						0.08						
v/c Ratio		2.85			0.98	0.27	1.31	2.14		1.00	0.82	
Uniform Delay, d1		68.5			53.3	41.8	68.5	47.2		64.0	37.6	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		849.9			33.9	0.3	179.8	518.4		56.8	9.2	
Delay (s)		918.4			87.2	42.1	248.3	565.7		120.8	46.9	
Level of Service		F			F	D	F	F		F	D	
Approach Delay (s)		918.4			71.7			527.0			67.9	
Approach LOS		F			E			F			E	

Intersection Summary

HCM Average Control Delay	369.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.67		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	158.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

19: Water St & 10th St

6/27/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↘	
Volume (veh/h)	21	1365	1286	11	67	122
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	21	1365	1286	11	67	122
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		1236	908			
pX, platoon unblocked						
vC, conflicting volume	1297				2016	648
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1297				2016	648
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				0	70
cM capacity (veh/h)	530				49	413

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	476	910	857	440	189
Volume Left	21	0	0	0	67
Volume Right	0	0	0	11	122
cSH	530	1700	1700	1700	113
Volume to Capacity	0.04	0.54	0.50	0.26	1.67
Queue Length 95th (ft)	3	0	0	0	360
Control Delay (s)	1.2	0.0	0.0	0.0	402.6
Lane LOS	A				F
Approach Delay (s)	0.4		0.0		402.6
Approach LOS					F

Intersection Summary					
Average Delay			26.7		
Intersection Capacity Utilization			70.5%	ICU Level of Service	C
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis

20: Water St & 12th Street

6/27/2007



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↘↗	
Volume (vph)	37	377	312	58	232	109	57	529	18	97	2977	373
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.97			1.00			0.99	
Flpb, ped/bikes		1.00		0.99	1.00			1.00			0.91	
Frt		0.94		1.00	0.95			1.00			0.98	
Flt Protected		1.00		0.95	1.00			1.00			0.96	
Satd. Flow (prot)		3297		1751	1722			1843			5705	
Flt Permitted		0.74		0.17	1.00			1.00			0.96	
Satd. Flow (perm)		2462		321	1722			1843			5705	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	37	377	312	58	232	109	57	529	18	97	2977	373
RTOR Reduction (vph)	0	64	0	0	0	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	662	0	58	341	0	0	603	0	0	3447	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		23.0		23.0	23.0			17.0			33.0	
Effective Green, g (s)		23.0		23.0	23.0			17.0			36.0	
Actuated g/C Ratio		0.23		0.23	0.23			0.17			0.36	
Clearance Time (s)		4.0		4.0	4.0			4.0				
Vehicle Extension (s)		5.0		5.0	5.0			5.0				
Lane Grp Cap (vph)		566		74	396			313			2054	
v/s Ratio Prot					0.20							
v/s Ratio Perm		c0.27		0.18				0.33			0.60	
v/c Ratio		1.17		0.78	0.86			1.93			1.68	
Uniform Delay, d1		38.5		36.2	37.0			41.5			32.0	
Progression Factor		1.00		1.10	1.09			1.00			1.00	
Incremental Delay, d2		94.2		30.4	12.0			428.8			307.3	
Delay (s)		132.7		70.0	52.3			470.3			339.3	
Level of Service		F		E	D			F			F	
Approach Delay (s)		132.7			54.9			470.3			339.3	
Approach LOS		F			D			F			F	

Intersection Summary

HCM Average Control Delay	303.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	137.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: North B St & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	430	60	0	0	7	0	293	4580	16	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			1.00			1.00				
Flpb, ped/bikes	0.89	0.92			1.00			1.00				
Frt	1.00	1.00			1.00			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1501	1568			1863			6360				
Flt Permitted	0.75	0.77			1.00			1.00				
Satd. Flow (perm)	1190	1260			1863			6360				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	430	60	0	0	7	0	293	4580	16	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	245	245	0	0	7	0	0	4889	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	20.0	20.0			20.0			72.0				
Effective Green, g (s)	20.0	20.0			20.0			72.0				
Actuated g/C Ratio	0.20	0.20			0.20			0.72				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	238	252			373			4579				
v/s Ratio Prot					0.00							
v/s Ratio Perm	0.21	0.19						0.77				
v/c Ratio	1.03	0.97			0.02			1.07				
Uniform Delay, d1	40.0	39.7			32.1			14.0				
Progression Factor	0.80	0.80			1.00			0.95				
Incremental Delay, d2	25.6	11.6			0.1			34.7				
Delay (s)	57.7	43.6			32.2			47.9				
Level of Service	E	D			C			D				
Approach Delay (s)		50.6			32.2			47.9			0.0	
Approach LOS		D			C			D			A	

Intersection Summary

HCM Average Control Delay	48.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

37: F Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕		↖	↗	
Volume (vph)	37	35	23	90	18	463	0	708	23	253	568	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00			1.00		1.00	1.00	
Frt		0.97		1.00	0.86			1.00		1.00	1.00	
Flt Protected		0.98		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1767		1770	1594			1855		1770	1861	
Flt Permitted		0.26		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (perm)		468		1770	1594			1855		1770	1861	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	37	35	23	90	18	463	0	708	23	253	568	3
RTOR Reduction (vph)	0	11	0	0	340	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	84	0	90	141	0	0	730	0	253	571	0
Turn Type	Perm			Prot			Perm			Prot		
Protected Phases		4		3	8			2		1	2	
Permitted Phases	4						2					
Actuated Green, G (s)		10.7		6.4	21.1			43.6		23.3	43.6	
Effective Green, g (s)		10.7		6.4	21.1			43.6		23.3	43.6	
Actuated g/C Ratio		0.11		0.06	0.21			0.44		0.23	0.44	
Clearance Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		50		113	336			809		412	811	
v/s Ratio Prot				c0.05	0.09			c0.39		c0.14	0.31	
v/s Ratio Perm		c0.18										
v/c Ratio		1.69		0.80	0.42			0.90		0.61	0.70	
Uniform Delay, d1		44.6		46.2	34.1			26.2		34.3	22.9	
Progression Factor		1.00		1.00	1.00			1.22		1.00	1.00	
Incremental Delay, d2		380.4		31.0	0.8			12.1		2.7	2.8	
Delay (s)		425.0		77.2	35.0			44.1		37.0	25.7	
Level of Service		F		E	C			D		D	C	
Approach Delay (s)		425.0			41.6			44.1			29.2	
Approach LOS		F			D			D			C	

Intersection Summary

HCM Average Control Delay	54.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	116.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

38: 12th Street & Ahern St

6/27/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				←↑↑↑	←	
Volume (veh/h)	0	0	0	32	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	0	0	32	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	111					
pX, platoon unblocked						
vC, conflicting volume	0			8	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0			8	0	
tC, single (s)	4.1			6.8	6.9	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	100			100	100	
cM capacity (veh/h)	1622			1011	1084	

Direction, Lane #	WB 1	WB 2	WB 3	WB 4	NB 1
Volume Total	5	9	9	9	0
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	0
cSH	1622	1700	1700	1700	1700
Volume to Capacity	0.00	0.01	0.01	0.01	0.00
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					A
Approach Delay (s)	0.0				0.0
Approach LOS					A

Intersection Summary						
Average Delay	0.0					
Intersection Capacity Utilization	6.7%			ICU Level of Service	A	
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/27/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔↔	↔				↑
Volume (vph)	537	594	0	0	0	806
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0
Lane Util. Factor	0.97	1.00				1.00
Frbp, ped/bikes	1.00	1.00				1.00
Flpb, ped/bikes	1.00	1.00				1.00
Frt	1.00	0.85				1.00
Flt Protected	0.95	1.00				1.00
Satd. Flow (prot)	3433	1583				1863
Flt Permitted	0.95	1.00				1.00
Satd. Flow (perm)	3433	1583				1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	537	594	0	0	0	806
RTOR Reduction (vph)	96	345	0	0	0	0
Lane Group Flow (vph)	441	249	0	0	0	806
Confl. Peds. (#/hr)		72				
Turn Type		Prot				
Protected Phases	1	1				2
Permitted Phases						
Actuated Green, G (s)	21.5	21.5				21.5
Effective Green, g (s)	21.0	21.0				21.0
Actuated g/C Ratio	0.42	0.42				0.42
Clearance Time (s)	3.5	3.5				3.5
Lane Grp Cap (vph)	1442	665				782
v/s Ratio Prot	0.13	c0.16				c0.43
v/s Ratio Perm						
v/c Ratio	0.31	0.38				1.03
Uniform Delay, d1	9.7	10.0				14.5
Progression Factor	0.60	2.29				0.81
Incremental Delay, d2	0.5	1.4				37.2
Delay (s)	6.3	24.2				48.9
Level of Service	A	C				D
Approach Delay (s)	15.7		0.0			48.9
Approach LOS	B		A			D
Intersection Summary						
HCM Average Control Delay			29.5		HCM Level of Service	C
HCM Volume to Capacity ratio			0.70			
Actuated Cycle Length (s)			50.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			74.0%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

41: G Street & 8th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↑↑↑			↑↑↑					
Volume (vph)	0	0	0	0	861	312	260	686	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)					4.0			4.0					
Lane Util. Factor					0.91			0.91					
Frbp, ped/bikes					0.98			1.00					
Flpb, ped/bikes					1.00			0.99					
Frt					0.96			1.00					
Flt Protected					1.00			0.99					
Satd. Flow (prot)					4801			4945					
Flt Permitted					1.00			0.99					
Satd. Flow (perm)					4801			4945					
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	0	861	312	260	686	0	0	0	0	
RTOR Reduction (vph)	0	0	0	0	73	0	0	41	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	1100	0	0	905	0	0	0	0	
Confl. Peds. (#/hr)						72	72						
Turn Type								Perm					
Protected Phases					1			2					
Permitted Phases							2						
Actuated Green, G (s)					21.5			21.5					
Effective Green, g (s)					21.0			21.0					
Actuated g/C Ratio					0.42			0.42					
Clearance Time (s)					3.5			3.5					
Lane Grp Cap (vph)					2016			2077					
v/s Ratio Prot					c0.23								
v/s Ratio Perm								0.18					
v/c Ratio					0.55			0.44					
Uniform Delay, d1					10.9			10.3					
Progression Factor					0.80			0.56					
Incremental Delay, d2					1.0			0.5					
Delay (s)					9.8			6.2					
Level of Service					A			A					
Approach Delay (s)		0.0			9.8			6.2			0.0		
Approach LOS		A			A			A			A		
Intersection Summary													
HCM Average Control Delay			8.2		HCM Level of Service				A				
HCM Volume to Capacity ratio			0.49										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			50.1%		ICU Level of Service				A				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

6/27/2007



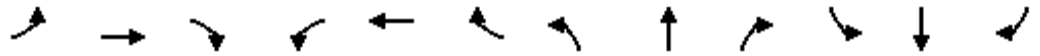
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	60	545	0	0	0	0	0	1302	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.99	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.98	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5032						4937	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5032						4937	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	60	545	0	0	0	0	0	1302	192
RTOR Reduction (vph)	0	0	0	0	26	0	0	0	0	0	39	0
Lane Group Flow (vph)	0	0	0	0	579	0	0	0	0	0	1455	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1711						2074	
v/s Ratio Prot											c0.29	
v/s Ratio Perm					0.11							
v/c Ratio					0.34						0.70	
Uniform Delay, d1					12.3						11.9	
Progression Factor					1.00						1.52	
Incremental Delay, d2					0.5						0.2	
Delay (s)					12.8						18.3	
Level of Service					B						B	
Approach Delay (s)		0.0			12.8			0.0			18.3	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			16.7		HCM Level of Service						B	
HCM Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			48.5%		ICU Level of Service			A				
Analysis Period (min)			15									
c Critical Lane Group												

Intersection Sign configuration not allowed in HCM analysis.

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕						↕	↙	↙	↕	
Volume (vph)	4	319	79	0	0	0	0	534	772	355	276	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	3.5	4.0	4.0	
Lane Util. Factor	1.00	0.95						0.95	0.95	1.00	1.00	
Frbp, ped/bikes	1.00	0.98						0.98	0.92	1.00	1.00	
Flpb, ped/bikes	0.88	1.00						1.00	1.00	0.99	1.00	
Frt	1.00	0.97						0.97	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1557	3378						1675	1380	1745	1863	
Flt Permitted	0.95	1.00						1.00	1.00	0.27	1.00	
Satd. Flow (perm)	1557	3378						1675	1380	490	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	534	772	355	276	0
RTOR Reduction (vph)	0	44	0	0	0	0	0	22	259	0	0	0
Lane Group Flow (vph)	4	354	0	0	0	0	0	674	351	355	276	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm								Perm	Perm		
Protected Phases		1						2			2	
Permitted Phases	1								2	2		
Actuated Green, G (s)	22.5	22.5						15.5	15.5	15.5	15.5	
Effective Green, g (s)	22.0	22.0						15.0	15.5	15.0	15.0	
Actuated g/C Ratio	0.44	0.44						0.30	0.31	0.30	0.30	
Clearance Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
Lane Grp Cap (vph)	685	1486						503	428	147	559	
v/s Ratio Prot		c0.10						0.40			0.15	
v/s Ratio Perm	0.00								0.25	c0.72		
v/c Ratio	0.01	0.24						1.34	0.82	2.41	0.49	
Uniform Delay, d1	7.9	8.8						17.5	16.0	17.5	14.4	
Progression Factor	0.78	0.55						1.88	4.36	1.00	1.00	
Incremental Delay, d2	0.0	0.3						154.5	1.7	657.0	3.1	
Delay (s)	6.2	5.2						187.4	71.3	674.5	17.5	
Level of Service	A	A						F	E	F	B	
Approach Delay (s)		5.2			0.0			133.2			387.1	
Approach LOS		A			A			F			F	

Intersection Summary

HCM Average Control Delay	179.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	87.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	1321	100	0	0	0	0	0	0	194	1275	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.99								1.00	1.00	
Flpb, ped/bikes		1.00								0.93	1.00	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3482								1494	3384	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3482								1494	3384	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1321	100	0	0	0	0	0	0	194	1275	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	98	2	0
Lane Group Flow (vph)	0	1410	0	0	0	0	0	0	0	77	1292	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		19.5								18.5	18.5	
Effective Green, g (s)		19.0								18.0	18.0	
Actuated g/C Ratio		0.38								0.36	0.36	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1323								538	1218	
v/s Ratio Prot		c0.40										
v/s Ratio Perm										0.05	0.38	
v/c Ratio		1.07								0.14	1.06	
Uniform Delay, d1		15.5								10.8	16.0	
Progression Factor		1.58								1.20	0.88	
Incremental Delay, d2		31.4								0.4	39.9	
Delay (s)		55.9								13.4	53.9	
Level of Service		E								B	D	
Approach Delay (s)		55.9			0.0			0.0			49.1	
Approach LOS		E			A			A			D	
Intersection Summary												
HCM Average Control Delay			52.5								HCM Level of Service	D
HCM Volume to Capacity ratio			1.06									
Actuated Cycle Length (s)			50.0							13.0	Sum of lost time (s)	
Intersection Capacity Utilization			74.0%								ICU Level of Service	D
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Volume (vph)	389	868	0	0	0	0	0	496	482	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.96				
Flpb, ped/bikes		0.98						1.00				
Frt		1.00						0.93				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		3408						4518				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		3408						4518				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	389	868	0	0	0	0	0	496	482	0	0	0
RTOR Reduction (vph)	0	102	0	0	0	0	0	139	0	0	0	0
Lane Group Flow (vph)	0	1155	0	0	0	0	0	839	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		22.5						15.5				
Effective Green, g (s)		22.0						15.0				
Actuated g/C Ratio		0.44						0.30				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1500						1355				
v/s Ratio Prot								c0.19				
v/s Ratio Perm		0.34										
v/c Ratio		0.77						0.62				
Uniform Delay, d1		11.9						15.0				
Progression Factor		0.81						1.00				
Incremental Delay, d2		1.1						2.1				
Delay (s)		10.7						17.2				
Level of Service		B						B				
Approach Delay (s)		10.7			0.0			17.2			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			13.5					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		13.0		
Intersection Capacity Utilization			64.8%					ICU Level of Service		C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1025	810	0	0	0	46	0	2072	28	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	0.99				1.00		1.00				
Satd. Flow (prot)	3221	1673				1611		5066				
Flt Permitted	0.95	0.99				1.00		1.00				
Satd. Flow (perm)	3221	1673				1611		5066				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1025	810	0	0	0	46	0	2072	28	0	0	0
RTOR Reduction (vph)	33	8	0	0	0	5	0	3	0	0	0	0
Lane Group Flow (vph)	889	905	0	0	0	41	0	2097	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	15.5	21.5				2.5		21.5				
Effective Green, g (s)	15.0	21.0				2.0		21.0				
Actuated g/C Ratio	0.30	0.42				0.04		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	966	703				64		2128				
v/s Ratio Prot	0.28	c0.39				0.03		c0.41				
v/s Ratio Perm		0.15										
v/c Ratio	0.92	1.29				0.64		0.99				
Uniform Delay, d1	16.9	14.5				23.6		14.3				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	15.1	140.2				40.6		16.4				
Delay (s)	32.1	154.7				64.2		30.7				
Level of Service	C	F				E		C				
Approach Delay (s)		93.1			64.2			30.7			0.0	
Approach LOS		F			E			C			A	

Intersection Summary

HCM Average Control Delay	59.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/27/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↑	↗	↘	↘
Volume (vph)	798	351	193	120	143	669
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.89	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1641	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1641	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	798	351	193	120	143	669
RTOR Reduction (vph)	0	0	0	5	102	0
Lane Group Flow (vph)	798	351	193	115	710	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	35.5	45.9	19.0	72.1	53.1	
Effective Green, g (s)	35.0	45.9	19.0	72.1	53.1	
Actuated g/C Ratio	0.29	0.38	0.16	0.60	0.44	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	516	712	295	1003	726	
v/s Ratio Prot	c0.45	0.19	c0.10	0.05	c0.43	
v/s Ratio Perm				0.02		
v/c Ratio	1.55	0.49	0.65	0.11	0.98	
Uniform Delay, d1	42.5	28.2	47.5	10.3	32.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	255.4	0.9	6.2	0.1	27.6	
Delay (s)	298.0	29.2	53.7	10.4	60.5	
Level of Service	F	C	D	B	E	
Approach Delay (s)		215.9	37.1		60.5	
Approach LOS		F	D		E	

Intersection Summary

HCM Average Control Delay	135.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	120.1	Sum of lost time (s)	13.0
Intersection Capacity Utilization	113.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖↗	↑↑				↖↗
Volume (vph)	0	0	0	0	3418	57	1123	347	0	0	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					1.00		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6218		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6218		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	3418	57	1123	347	0	0	0	50
RTOR Reduction (vph)	0	0	0	0	2	0	1	0	0	0	0	1
Lane Group Flow (vph)	0	0	0	0	3473	0	1122	347	0	0	0	49
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					65.0		26.5	26.5				26.5
Effective Green, g (s)					66.0		26.0	26.0				26.5
Actuated g/C Ratio					0.66		0.26	0.26				0.26
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					4104		893	874				739
v/s Ratio Prot					c0.56		c0.33	0.10				
v/s Ratio Perm												0.02
v/c Ratio					0.85		1.26	0.40				0.07
Uniform Delay, d1					13.1		37.0	30.5				27.5
Progression Factor					0.87		1.00	1.04				1.00
Incremental Delay, d2					0.2		122.2	1.0				0.2
Delay (s)					11.6		159.1	32.8				27.7
Level of Service					B		F	C				C
Approach Delay (s)		0.0			11.6			129.3			27.7	
Approach LOS		A			B			F			C	

Intersection Summary

HCM Average Control Delay	46.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	100.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	64	2464	356	348	890	0	0	16	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.98		1.00	1.00			1.00	1.00
Flpb, ped/bikes					0.99		1.00	1.00			1.00	1.00
Frt					0.98		1.00	1.00			0.86	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4865		1610	3384			1519	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4865		1610	3384			1519	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	64	2464	356	348	890	0	0	16	560
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	0	0	8	8
Lane Group Flow (vph)	0	0	0	0	2866	0	313	925	0	0	282	278
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					66.5		13.5	13.5			9.5	9.5
Effective Green, g (s)					66.0		13.0	13.0			9.0	9.0
Actuated g/C Ratio					0.66		0.13	0.13			0.09	0.09
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					3211		209	440			137	135
v/s Ratio Prot							0.19	c0.27			c0.19	0.18
v/s Ratio Perm					0.59							
v/c Ratio					0.89		1.50	2.10			2.06	2.06
Uniform Delay, d1					14.1		43.5	43.5			45.5	45.5
Progression Factor					0.73		1.09	1.09			0.88	0.88
Incremental Delay, d2					2.4		242.6	502.0			499.4	500.1
Delay (s)					12.7		290.1	549.5			539.7	540.3
Level of Service					B		F	F			F	F
Approach Delay (s)		0.0			12.7			483.9			540.0	
Approach LOS		A			B			F			F	

Intersection Summary

HCM Average Control Delay	201.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	134.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔						↕	↗
Volume (vph)	0	0	0	238	2150	0	0	0	0	0	890	749
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.86	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1303	4796						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1303	4796						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	238	2150	0	0	0	0	0	890	749
RTOR Reduction (vph)	0	0	0	96	1	0	0	0	0	0	0	182
Lane Group Flow (vph)	0	0	0	118	2173	0	0	0	0	0	890	567
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				55.5	55.5						27.5	27.5
Effective Green, g (s)				55.0	55.0						27.0	27.0
Actuated g/C Ratio				0.55	0.55						0.27	0.27
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				717	2638						956	752
v/s Ratio Prot											c0.25	
v/s Ratio Perm				0.09	0.45							0.20
v/c Ratio				0.16	0.82						0.93	0.75
Uniform Delay, d1				11.1	18.5						35.6	33.5
Progression Factor				1.00	1.00						1.18	1.29
Incremental Delay, d2				0.5	3.1						8.6	3.1
Delay (s)				11.6	21.6						50.7	46.3
Level of Service				B	C						D	D
Approach Delay (s)		0.0			20.7			0.0			48.7	
Approach LOS		A			C			A			D	

Intersection Summary

HCM Average Control Delay	32.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑→		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	1	1002	433	309	489	370	1	816	754
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.95		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6009		2787	3433	1863	1584	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6009		2787	3433	1863	1584	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	1002	433	309	489	370	1	816	754
RTOR Reduction (vph)	0	0	0	23	0	0	0	116	0
Lane Group Flow (vph)	0	1436	0	286	489	370	523	932	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		24.6		22.6	22.6	22.6	34.6	34.6	
Effective Green, g (s)		24.6		22.1	22.1	22.1	34.6	34.6	
Actuated g/C Ratio		0.26		0.24	0.24	0.24	0.37	0.37	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1584		660	813	441	587	1069	
v/s Ratio Prot		c0.24				c0.20	c0.33	0.32	
v/s Ratio Perm				0.10	0.14				
v/c Ratio		1.04dr		0.43	0.60	0.84	0.89	1.12dr	
Uniform Delay, d1		33.2		30.3	31.7	33.9	27.6	27.3	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		9.1		0.2	0.9	12.6	16.0	8.2	
Delay (s)		42.3		30.4	32.5	46.5	43.6	35.5	
Level of Service		D		C	C	D	D	D	
Approach Delay (s)		42.3				38.5	38.2		
Approach LOS		D				D	D		

Intersection Summary

HCM Average Control Delay	39.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	93.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.8%	ICU Level of Service	G
Analysis Period (min)	15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑↑↑	↗					↑↑	↗			
Volume (vph)	428	1952	130	0	0	0	0	983	434	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.96					1.00	0.96			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.99	0.85			
Flt Protected	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (prot)	1290	6029	1520					3364	1387			
Flt Permitted	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (perm)	1290	6029	1520					3364	1387			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	428	1952	130	0	0	0	0	983	434	0	0	0
RTOR Reduction (vph)	27	5	75	0	0	0	0	1	1	0	0	0
Lane Group Flow (vph)	358	1990	55	0	0	0	0	1025	390	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0			
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0			
Actuated g/C Ratio	0.42	0.42	0.42					0.42	0.42			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	542	2532	638					1413	583			
v/s Ratio Prot	0.28	c0.33						c0.30				
v/s Ratio Perm			0.04						0.28			
v/c Ratio	0.66	0.79	0.09					0.73	0.67			
Uniform Delay, d1	11.6	12.6	8.7					12.1	11.7			
Progression Factor	1.00	1.00	1.00					1.00	1.00			
Incremental Delay, d2	6.2	2.5	0.3					1.6	2.3			
Delay (s)	17.8	15.1	9.0					13.7	14.0			
Level of Service	B	B	A					B	B			
Approach Delay (s)		15.2			0.0			13.8			0.0	
Approach LOS		B			A			B			A	

Intersection Summary

HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	100.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕↕↕						↕		↘		
Volume (vph)	830	1362	0	0	0	0	0	228	192	149	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.98		1.00		
Flpb, ped/bikes	0.96	0.99						1.00		0.99		
Frt	1.00	1.00						0.94		1.00		
Flt Protected	0.95	0.99						1.00		0.95		
Satd. Flow (prot)	1463	4730						1715		1745		
Flt Permitted	0.95	0.99						1.00		0.35		
Satd. Flow (perm)	1463	4730						1715		647		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	830	1362	0	0	0	0	0	228	192	149	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	531	1661	0	0	0	0	0	405	0	149	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	24.5	24.5						18.5		18.5		
Effective Green, g (s)	24.0	24.0						18.0		18.0		
Actuated g/C Ratio	0.48	0.48						0.36		0.36		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	702	2270						617		233		
v/s Ratio Prot							c0.24					
v/s Ratio Perm	c0.36	0.35								0.23		
v/c Ratio	0.76	0.73						0.66		0.64		
Uniform Delay, d1	10.6	10.4						13.4		13.3		
Progression Factor	1.55	1.58						1.00		0.93		
Incremental Delay, d2	4.7	1.3						5.4		10.4		
Delay (s)	21.1	17.8						18.8		22.8		
Level of Service	C		B				B		C			
Approach Delay (s)	18.6				0.0		18.8				22.8	
Approach LOS	B				A		B				C	

Intersection Summary

HCM Average Control Delay	18.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	134.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑									↑↑↑		
Volume (vph)	0	1422	329	0	0	0	0	0	0	120	1067	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0									4.0		
Lane Util. Factor		0.91									0.91		
Frbp, ped/bikes		0.99									1.00		
Flpb, ped/bikes		1.00									1.00		
Frt		0.97									1.00		
Flt Protected		1.00									0.99		
Satd. Flow (prot)		4904									5044		
Flt Permitted		1.00									0.99		
Satd. Flow (perm)		4904									5044		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	1422	329	0	0	0	0	0	0	120	1067	0	
RTOR Reduction (vph)	0	76	0	0	0	0	0	0	0	0	27	0	
Lane Group Flow (vph)	0	1675	0	0	0	0	0	0	0	0	1160	0	
Confl. Peds. (#/hr)			36							36			
Turn Type										Perm			
Protected Phases		1									2		
Permitted Phases										2			
Actuated Green, G (s)		21.5									16.5		
Effective Green, g (s)		21.0									16.0		
Actuated g/C Ratio		0.42									0.32		
Clearance Time (s)		3.5									3.5		
Lane Grp Cap (vph)		2060									1614		
v/s Ratio Prot		0.34											
v/s Ratio Perm											0.23		
v/c Ratio		0.81									0.72		
Uniform Delay, d1		12.8									15.0		
Progression Factor		1.55									0.89		
Incremental Delay, d2		2.6									1.8		
Delay (s)		22.3									15.1		
Level of Service		C									B		
Approach Delay (s)		22.3			0.0			0.0			15.1		
Approach LOS		C			A			A			B		
Intersection Summary													
HCM Average Control Delay			19.4		HCM Level of Service							B	
HCM Volume to Capacity ratio			0.77										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)					13.0			
Intersection Capacity Utilization			65.1%		ICU Level of Service							C	
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/27/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	642	763	531	67	553	78	1039	350	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.0	4.5	4.0	3.5	4.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.99	0.85	0.85	1.00	1.00	0.96		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1674	1504	1583	1770	3539	4881		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1674	1504	1583	1770	3539	4881		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	642	763	531	67	553	78	1039	350	29
RTOR Reduction (vph)	0	0	0	27	0	0	2	0	0
Lane Group Flow (vph)	578	880	478	40	553	78	1416	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		6			3	8	4		
Permitted Phases	6	6	6	6					
Actuated Green, G (s)	60.0	60.0	60.0	60.0	11.0	32.5	17.5		
Effective Green, g (s)	59.5	59.5	60.0	59.5	11.0	32.5	17.0		
Actuated g/C Ratio	0.60	0.60	0.60	0.60	0.11	0.32	0.17		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	3.5		
Lane Grp Cap (vph)	1000	996	902	942	195	1150	830		
v/s Ratio Prot					c0.31	0.02	c0.29		
v/s Ratio Perm	0.34	0.53	0.32	0.03					
v/c Ratio	0.58	0.88	0.53	0.04	2.84	0.07	1.71		
Uniform Delay, d1	12.5	17.3	11.7	8.4	44.5	23.3	41.5		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	2.4	11.3	2.2	0.1	840.2	0.1	322.6		
Delay (s)	14.9	28.6	14.0	8.5	884.7	23.4	364.1		
Level of Service	B	C	B	A	F	C	F		
Approach Delay (s)		20.5				778.2	364.1		
Approach LOS		C				F	F		

Intersection Summary

HCM Average Control Delay	258.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	112.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	1702	438	525	919	0	0	0	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		5.0	5.0				5.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.98		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.97		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6106		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6106		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1702	438	525	919	0	0	0	63
RTOR Reduction (vph)	0	0	0	0	67	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	2074	0	525	919	0	0	0	63
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					20.0		40.5	40.5				40.5
Effective Green, g (s)					21.0		40.0	40.0				40.0
Actuated g/C Ratio					0.30		0.57	0.57				0.57
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					1832		933	2906				1453
v/s Ratio Prot					c0.34			0.18				
v/s Ratio Perm							c0.32					0.02
v/c Ratio					1.13		0.56	0.32				0.04
Uniform Delay, d1					24.5		9.5	7.8				6.6
Progression Factor					1.00		1.00	1.00				1.00
Incremental Delay, d2					66.8		2.5	0.3				0.1
Delay (s)					91.3		11.9	8.1				6.6
Level of Service					F		B	A				A
Approach Delay (s)		0.0			91.3			9.5			6.6	
Approach LOS		A			F			A			A	

Intersection Summary

HCM Average Control Delay	57.5	HCM Level of Service	E
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	282	1693	0	0	0	0	0	927	459
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.95	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4742	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4742	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	282	1693	0	0	0	0	0	927	459
RTOR Reduction (vph)	0	0	0	130	0	0	0	0	0	0	99	0
Lane Group Flow (vph)	0	0	0	152	1693	0	0	0	0	0	1287	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						22.5	
Effective Green, g (s)				15.0	15.0						22.0	
Actuated g/C Ratio				0.30	0.30						0.44	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2086	
v/s Ratio Prot					c0.33						c0.27	
v/s Ratio Perm				0.09								
v/c Ratio				0.30	1.11						0.62	
Uniform Delay, d1				13.5	17.5						10.8	
Progression Factor				1.00	1.00						0.89	
Incremental Delay, d2				0.1	59.2						0.9	
Delay (s)				13.6	76.7						10.5	
Level of Service				B	E						B	
Approach Delay (s)		0.0			67.7			0.0			10.5	
Approach LOS		A			E			A			B	

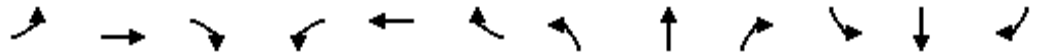
Intersection Summary

HCM Average Control Delay	44.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
60: Capitol Mall & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	325	377	0	0	556	142	435	988	55	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.98		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.97		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4844		3433	5021				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4844		3433	5021				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	325	377	0	0	556	142	435	988	55	0	0	0
RTOR Reduction (vph)	0	0	0	0	37	0	0	8	0	0	0	0
Lane Group Flow (vph)	325	377	0	0	661	0	435	1035	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	35.0			18.0		30.5	30.5				
Effective Green, g (s)	13.0	34.5			17.5		30.0	30.0				
Actuated g/C Ratio	0.18	0.47			0.24		0.41	0.41				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	607	1661			1153		1401	2049				
v/s Ratio Prot	c0.09	0.11			c0.14		0.13	c0.21				
v/s Ratio Perm												
v/c Ratio	0.54	0.23			0.57		0.31	0.50				
Uniform Delay, d1	27.5	11.6			24.7		14.7	16.2				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	3.4	0.3			2.1		0.6	0.9				
Delay (s)	30.9	11.9			26.8		15.3	17.1				
Level of Service	C	B			C		B	B				
Approach Delay (s)		20.7			26.8			16.6			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	73.5	Sum of lost time (s)	13.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑↑
Volume (vph)	0	0	0	173	2726	0	0	0	0	0	847	745
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.86	0.86
Frbp, ped/bikes					1.00						0.99	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.99	0.85
Flt Protected					1.00						1.00	1.00
Satd. Flow (prot)					4901						2986	2374
Flt Permitted					1.00						1.00	1.00
Satd. Flow (perm)					4901						2986	2374
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	173	2726	0	0	0	0	0	847	745
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	1	1
Lane Group Flow (vph)	0	0	0	0	2888	0	0	0	0	0	921	669
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2647						896	712
v/s Ratio Prot					c0.59						c0.31	
v/s Ratio Perm												0.28
v/c Ratio					1.09						1.03	0.94
Uniform Delay, d1					11.5						17.5	17.1
Progression Factor					1.00						1.27	1.20
Incremental Delay, d2					47.9						17.5	3.2
Delay (s)					59.4						39.7	23.7
Level of Service					E						D	C
Approach Delay (s)		0.0			59.4			0.0			33.0	
Approach LOS		A			E			A			C	

Intersection Summary

HCM Average Control Delay	50.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	1077	529	0	0	0	0	0	0	304	753	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.98									1.00	
Flpb, ped/bikes		1.00									0.98	
Frt		0.95									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		5989									4909	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		5989									4909	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1077	529	0	0	0	0	0	0	304	753	0
RTOR Reduction (vph)	0	17	0	0	0	0	0	0	0	0	54	0
Lane Group Flow (vph)	0	1589	0	0	0	0	0	0	0	0	1003	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3234									1473	
v/s Ratio Prot		c0.27										
v/s Ratio Perm											0.20	
v/c Ratio		0.49									0.68	
Uniform Delay, d1		7.2									15.4	
Progression Factor		1.00									0.62	
Incremental Delay, d2		0.5									0.2	
Delay (s)		7.7									9.8	
Level of Service		A									A	
Approach Delay (s)		7.7			0.0			0.0			9.8	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				←←←	←						→→	↗
Volume (vph)	0	0	0	607	464	0	0	0	0	0	1662	501
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.94	1.00						0.95	1.00
Frbp, ped/bikes				1.00	1.00						1.00	0.81
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				4990	1863						3539	1285
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				4990	1863						3539	1285
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	607	464	0	0	0	0	0	1662	501
RTOR Reduction (vph)	0	0	0	371	0	0	0	0	0	0	0	206
Lane Group Flow (vph)	0	0	0	236	464	0	0	0	0	0	1662	295
Confl. Peds. (#/hr)			55									55
Turn Type				Prot								Perm
Protected Phases				1	9	3	12	13			4	
Permitted Phases												4
Actuated Green, G (s)				40.4	52.5						40.0	40.0
Effective Green, g (s)				38.9	52.0						40.0	40.0
Actuated g/C Ratio				0.39	0.52						0.40	0.40
Clearance Time (s)											4.0	4.0
Vehicle Extension (s)											5.0	5.0
Lane Grp Cap (vph)				1941	969						1416	514
v/s Ratio Prot				0.05	c0.25						c0.47	
v/s Ratio Perm												0.23
v/c Ratio				0.12	0.48						1.17	0.57
Uniform Delay, d1				19.6	15.3						30.0	23.4
Progression Factor				3.27	1.15						1.00	1.00
Incremental Delay, d2				0.1	0.8						86.0	2.5
Delay (s)				64.2	18.4						116.0	25.8
Level of Service				E	B						F	C
Approach Delay (s)		0.0			44.3			0.0			95.1	
Approach LOS		A			D			A			F	

Intersection Summary

HCM Average Control Delay	78.3	HCM Level of Service	E
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑↑	↑	↑				
Volume (vph)	0	0	0	0	1008	858	68	101	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.88	1.00	1.00				
Frbp, ped/bikes					1.00	0.77	1.00	1.00				
Flpb, ped/bikes					1.00	1.00	1.00	1.00				
Frt					1.00	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					5085	2148	1770	1863				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					5085	2148	1770	1863				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1008	858	68	101	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	275	54	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1008	583	14	101	0	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type						custom	Split					
Protected Phases					6 11 15	11	8 16	8 16				
Permitted Phases						6 15						
Actuated Green, G (s)					71.4	67.9	21.1	21.1				
Effective Green, g (s)					67.9	67.9	20.6	20.6				
Actuated g/C Ratio					0.68	0.68	0.21	0.21				
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)					3453	1458	365	384				
v/s Ratio Prot					0.20	c0.08	0.01	c0.05				
v/s Ratio Perm						0.19						
v/c Ratio					0.29	0.40	0.04	0.26				
Uniform Delay, d1					6.4	7.1	31.8	33.3				
Progression Factor					0.58	3.99	1.05	0.95				
Incremental Delay, d2					0.1	0.3	0.1	0.8				
Delay (s)					3.8	28.5	33.5	32.4				
Level of Service					A	C	C	C				
Approach Delay (s)		0.0			15.2			32.8			0.0	
Approach LOS		A			B			C			A	

Intersection Summary

HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↑↑↑		↖	↑			↑	↗
Volume (vph)	0	0	0	101	1597	32	287	234	0	0	89	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		4.5	4.0			4.0	4.0
Lane Util. Factor				1.00	0.86		1.00	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes				0.87	1.00		1.00	1.00			1.00	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1534	6370		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1534	6370		1770	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	101	1597	32	287	234	0	0	89	110
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	73
Lane Group Flow (vph)	0	0	0	101	1627	0	287	234	0	0	89	37
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type				Perm			Prot					Perm
Protected Phases					2		3	8			4	
Permitted Phases				2								4
Actuated Green, G (s)				59.0	59.0		21.2	32.9			7.7	7.7
Effective Green, g (s)				58.4	58.4		20.7	32.4			7.2	7.2
Actuated g/C Ratio				0.58	0.58		0.21	0.32			0.07	0.07
Clearance Time (s)				4.6	4.6		4.0	3.5			3.5	3.5
Vehicle Extension (s)				0.2	0.2		3.0	0.2			0.2	0.2
Lane Grp Cap (vph)				896	3720		366	604			134	114
v/s Ratio Prot					c0.26		c0.16	0.13			c0.05	
v/s Ratio Perm				0.07								0.02
v/c Ratio				0.11	0.44		0.78	0.39			0.66	0.32
Uniform Delay, d1				9.3	11.6		37.5	26.1			45.2	44.1
Progression Factor				0.87	0.81		0.91	1.08			1.00	1.00
Incremental Delay, d2				0.2	0.3		9.9	0.1			9.2	0.6
Delay (s)				8.2	9.7		44.0	28.3			54.4	44.7
Level of Service				A	A		D	C			D	D
Approach Delay (s)		0.0			9.6			36.9			49.0	
Approach LOS		A			A			D			D	

Intersection Summary

HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & N 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑				↔↔
Volume (vph)	0	0	0	0	1020	99	118	1280	0	0	0	1084
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.6		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	1.00				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.93
Flpb, ped/bikes					1.00		0.95	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6272		3246	1863				2604
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6272		3246	1863				2604
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1020	99	118	1280	0	0	0	1084
RTOR Reduction (vph)	0	0	0	0	16	0	37	0	0	0	0	158
Lane Group Flow (vph)	0	0	0	0	1103	0	81	1280	0	0	0	926
Confl. Peds. (#/hr)			40			40	40		40	40		40
Turn Type							Perm					custom
Protected Phases					2			8				
Permitted Phases					2		8					4
Actuated Green, G (s)					28.7		53.5	53.5				53.5
Effective Green, g (s)					28.4		53.0	53.0				53.5
Actuated g/C Ratio					0.28		0.53	0.53				0.54
Clearance Time (s)					4.3		3.5	3.5				3.5
Vehicle Extension (s)					2.0		2.0	2.0				2.0
Lane Grp Cap (vph)					1781		1720	987				1393
v/s Ratio Prot					c0.18			c0.69				
v/s Ratio Perm							0.03					0.36
v/c Ratio					0.62		0.05	1.30				0.67
Uniform Delay, d1					31.1		11.3	23.5				16.8
Progression Factor					0.44		1.01	0.97				1.00
Incremental Delay, d2					1.5		0.0	136.5				0.9
Delay (s)					15.3		11.5	159.4				17.7
Level of Service					B		B	F				B
Approach Delay (s)		0.0			15.3			146.9			17.7	
Approach LOS		A			B			F			B	

Intersection Summary

HCM Average Control Delay	67.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	142.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↗	↗					↗	↖
Volume (vph)	0	0	0	179	824	290	0	0	0	0	1249	293
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	4.0	4.0					4.0	3.5
Lane Util. Factor				1.00	0.91	1.00					0.95	1.00
Frbp, ped/bikes				1.00	1.00	0.93					1.00	1.00
Flpb, ped/bikes				1.00	1.00	1.00					1.00	1.00
Fr t				1.00	1.00	0.85					1.00	0.85
Fl t Protected				0.95	1.00	1.00					1.00	1.00
Satd. Flow (prot)				1770	5085	1474					3539	1583
Fl t Permitted				0.95	1.00	1.00					1.00	1.00
Satd. Flow (perm)				1770	5085	1474					3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	179	824	290	0	0	0	0	1249	293
RTOR Reduction (vph)	0	0	0	120	0	227	0	0	0	0	0	111
Lane Group Flow (vph)	0	0	0	59	824	63	0	0	0	0	1249	182
Confl. Peds. (#/hr)			24			24			24			
Turn Type				Prot		Perm						Perm
Protected Phases				5	2						7	
Permitted Phases						2						7
Actuated Green, G (s)				21.7	21.7	21.7					44.0	44.0
Effective Green, g (s)				20.7	21.7	21.7					43.5	44.0
Actuated g/C Ratio				0.21	0.22	0.22					0.44	0.44
Clearance Time (s)				4.0	4.0	4.0					3.5	3.5
Vehicle Extension (s)				2.0	2.0	2.0					2.0	2.0
Lane Grp Cap (vph)				366	1103	320					1539	697
v/s Ratio Prot				0.03	c0.16						c0.35	
v/s Ratio Perm						0.04						0.11
v/c Ratio				0.16	0.75	0.20					0.81	0.26
Uniform Delay, d1				32.5	36.6	32.0					24.7	17.7
Progression Factor				0.93	1.02	1.10					1.00	1.00
Incremental Delay, d2				0.0	2.4	0.7					3.2	0.1
Delay (s)				30.3	39.9	35.8					27.9	17.8
Level of Service				C	D	D					C	B
Approach Delay (s)		0.0			37.6			0.0			25.9	
Approach LOS		A			D			A			C	

Intersection Summary

HCM Average Control Delay	31.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	34.8
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richards Blvd & 10th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑		↘	↑↑			↑	↗
Volume (vph)	0	0	0	182	609	101	1249	23	0	0	11	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	4.0		4.5	4.0			4.0	4.0
Lane Util. Factor				1.00	0.86		1.00	0.95			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.64
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Fr _t				1.00	0.98		1.00	1.00			1.00	0.85
Fl _t Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	6271		1770	3539			1863	1020
Fl _t Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770	6271		1770	3539			1863	1020
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	182	609	101	1249	23	0	0	11	36
RTOR Reduction (vph)	0	0	0	0	33	0	0	0	0	0	0	35
Lane Group Flow (vph)	0	0	0	182	677	0	1249	23	0	0	11	1
Confl. Peds. (#/hr)			35				35					35
Turn Type				Perm			Prot					Perm
Protected Phases					6		3	8			4	
Permitted Phases				6								4
Actuated Green, G (s)				19.1	19.1		66.5	72.9			2.4	2.4
Effective Green, g (s)				18.6	19.6		66.0	72.4			1.9	1.9
Actuated g/C Ratio				0.19	0.20		0.66	0.72			0.02	0.02
Clearance Time (s)				4.5	4.5		4.0	3.5			3.5	3.5
Vehicle Extension (s)				2.0	2.0		3.0	0.2			2.0	2.0
Lane Grp Cap (vph)				329	1229		1168	2562			35	19
v/s Ratio Prot					c0.11		c0.71	0.01			c0.01	
v/s Ratio Perm				0.10								0.00
v/c Ratio				0.55	0.55		1.07	0.01			0.31	0.04
Uniform Delay, d ₁				36.9	36.2		17.0	3.8			48.4	48.2
Progression Factor				0.87	0.85		1.08	1.07			1.00	1.00
Incremental Delay, d ₂				5.7	1.5		47.0	0.0			1.9	0.3
Delay (s)				37.7	32.3		65.4	4.1			50.3	48.4
Level of Service				D	C		E	A			D	D
Approach Delay (s)		0.0			33.4			64.3			48.9	
Approach LOS		A			C			E			D	

Intersection Summary

HCM Average Control Delay	51.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	100.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	644	50	187	1427	201	35	157	77	99	76	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	0.99		1.00	0.99			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		0.97	1.00			1.00			0.99	
Frt	1.00	0.99		1.00	0.98			0.96			1.00	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1770	3472		1709	3425			1747			1780	
Flt Permitted	0.13	1.00		0.37	1.00			0.95			0.70	
Satd. Flow (perm)	243	3472		659	3425			1666			1288	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	644	50	187	1427	201	35	157	77	99	76	5
RTOR Reduction (vph)	0	7	0	0	13	0	0	26	0	0	2	0
Lane Group Flow (vph)	5	687	0	187	1615	0	0	243	0	0	178	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	31.2	31.2		31.2	31.2			17.8			17.8	
Effective Green, g (s)	30.7	30.7		30.7	30.7			17.3			17.3	
Actuated g/C Ratio	0.54	0.54		0.54	0.54			0.30			0.30	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	131	1870		355	1845			506			391	
v/s Ratio Prot		0.20			c0.47							
v/s Ratio Perm	0.02			0.28				c0.15			0.14	
v/c Ratio	0.04	0.37		0.53	0.88			0.48			0.46	
Uniform Delay, d1	6.2	7.6		8.5	11.5			16.2			16.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	0.6		5.5	6.2			0.3			0.3	
Delay (s)	6.7	8.1		14.0	17.6			16.4			16.3	
Level of Service	A	A		B	B			B			B	
Approach Delay (s)		8.1			17.3			16.4			16.3	
Approach LOS		A			B			B			B	

Intersection Summary

HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	57.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	112.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↑↑↑			↑↑↑	
Volume (vph)	0	0	70	0	0	5	0	956	2	0	4268	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0			4.0	
Lane Util. Factor			1.00			1.00		0.91			0.86	
Frbp, ped/bikes			1.00			0.93		1.00			1.00	
Flpb, ped/bikes			1.00			1.00		1.00			1.00	
Frt			0.86			0.86		1.00			1.00	
Flt Protected			1.00			1.00		1.00			1.00	
Satd. Flow (prot)			1611			1497		5082			6405	
Flt Permitted			1.00			1.00		1.00			1.00	
Satd. Flow (perm)			1611			1497		5082			6405	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	70	0	0	5	0	956	2	0	4268	11
RTOR Reduction (vph)	0	0	59	0	0	5	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	11	0	0	0	0	958	0	0	4279	0
Confl. Peds. (#/hr)				36		36			36	36		
Turn Type			custom			custom						
Protected Phases								2			2	
Permitted Phases			4			8						
Actuated Green, G (s)			7.6			7.1		84.9			84.9	
Effective Green, g (s)			7.1			7.1		84.9			84.9	
Actuated g/C Ratio			0.07			0.07		0.85			0.85	
Clearance Time (s)			3.5			4.0		4.0			4.0	
Vehicle Extension (s)			2.0			3.0		5.0			5.0	
Lane Grp Cap (vph)			114			106		4315			5438	
v/s Ratio Prot								0.19			c0.67	
v/s Ratio Perm			c0.01			0.00						
v/c Ratio			0.10			0.00		0.22			0.79	
Uniform Delay, d1			43.5			43.2		1.4			3.4	
Progression Factor			1.00			1.00		0.08			1.00	
Incremental Delay, d2			0.1			0.0		0.1			1.2	
Delay (s)			43.6			43.2		0.2			4.6	
Level of Service			D			D		A			A	
Approach Delay (s)		43.6			43.2			0.2			4.6	
Approach LOS		D			D			A			A	

Intersection Summary

HCM Average Control Delay	4.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	D
Analysis Period (min)	15		
Description: 8 seconds additional lost time represents LRT			
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Basler St & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	408	5	0	0	5	13	54	1086	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.95			1.00				
Flpb, ped/bikes	0.94	0.94			1.00			1.00				
Frt	1.00	1.00			0.90			1.00				
Flt Protected	0.95	0.95			1.00			1.00				
Satd. Flow (prot)	1583	1591			1595			6357				
Flt Permitted	0.75	0.72			1.00			1.00				
Satd. Flow (perm)	1242	1199			1595			6357				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	408	5	0	0	5	13	54	1086	9	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	2	0	0	0	0
Lane Group Flow (vph)	208	205	0	0	10	0	0	1147	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			23.0				
Effective Green, g (s)	18.0	18.0			18.0			24.0				
Actuated g/C Ratio	0.36	0.36			0.36			0.48				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	447	432			574			3051				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.17	c0.17						0.18				
v/c Ratio	0.47	0.47			0.02			0.38				
Uniform Delay, d1	12.3	12.3			10.3			8.2				
Progression Factor	1.00	1.00			1.00			1.44				
Incremental Delay, d2	3.5	3.7			0.1			0.3				
Delay (s)	15.8	16.1			10.4			12.2				
Level of Service	B	B			B			B				
Approach Delay (s)		15.9			10.4			12.2			0.0	
Approach LOS		B			B			B			A	
Intersection Summary												
HCM Average Control Delay			13.1					HCM Level of Service		B		
HCM Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		8.0		
Intersection Capacity Utilization			43.9%					ICU Level of Service		A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Bannon St & I-5 SB Off

6/17/2007






















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗							↖↗	↖↖↗	
Volume (vph)	0	147	59	0	0	0	0	0	0	1662	555	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5							4.5	4.5	
Lane Util. Factor		1.00	1.00							0.81	0.81	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	0.98	
Satd. Flow (prot)		1863	1583							2867	4417	
Flt Permitted		1.00	1.00							0.95	0.98	
Satd. Flow (perm)		1863	1583							2867	4417	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	147	59	0	0	0	0	0	0	1662	555	0
RTOR Reduction (vph)	0	0	51	0	0	0	0	0	0	250	67	0
Lane Group Flow (vph)	0	147	8	0	0	0	0	0	0	864	1036	0
Turn Type			Perm								Split	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		13.4	13.4							77.6	77.6	
Effective Green, g (s)		13.4	13.4							77.6	77.6	
Actuated g/C Ratio		0.13	0.13							0.78	0.78	
Clearance Time (s)		4.5	4.5							4.5	4.5	
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Lane Grp Cap (vph)		250	212							2225	3428	
v/s Ratio Prot		c0.08								c0.30	0.23	
v/s Ratio Perm			0.00									
v/c Ratio		0.59	0.04							0.39	0.30	
Uniform Delay, d1		40.7	37.7							3.6	3.3	
Progression Factor		1.00	1.00							0.00	0.01	
Incremental Delay, d2		3.5	0.1							0.2	0.1	
Delay (s)		44.2	37.8							0.2	0.1	
Level of Service		D	D							A	A	
Approach Delay (s)		42.4			0.0			0.0			0.1	
Approach LOS		D			A			A			A	
Intersection Summary												
HCM Average Control Delay			3.7								HCM Level of Service	A
HCM Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			100.0								Sum of lost time (s)	9.0
Intersection Capacity Utilization			77.0%								ICU Level of Service	D
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

12: Bannon St & I-5 NB Off





















6/17/2007

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  							 			
Volume (vph)	101	1709	0	0	0	0	0	45	1777	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5	4.5			
Lane Util. Factor	1.00	0.91						1.00	0.88			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	5085						1863	2787			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	5085						1863	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	101	1709	0	0	0	0	0	45	1777	0	0	0
RTOR Reduction (vph)	41	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	60	1709	0	0	0	0	0	45	1777	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	30.1	30.1						60.9	60.9			
Effective Green, g (s)	30.1	30.1						60.9	60.9			
Actuated g/C Ratio	0.30	0.30						0.61	0.61			
Clearance Time (s)	4.5	4.5						4.5	4.5			
Vehicle Extension (s)	3.0	3.0						3.0	3.0			
Lane Grp Cap (vph)	533	1531						1135	1697			
v/s Ratio Prot	0.03	c0.34						0.02				
v/s Ratio Perm									c0.64			
v/c Ratio	0.11	1.12						0.04	1.05			
Uniform Delay, d1	25.3	35.0						7.8	19.6			
Progression Factor	0.31	0.60						1.00	1.00			
Incremental Delay, d2	0.4	61.4						0.0	35.3			
Delay (s)	8.4	82.2						7.8	54.8			
Level of Service	A	F						A	D			
Approach Delay (s)		78.1			0.0			53.7			0.0	
Approach LOS		E			A			D			A	
Intersection Summary												
HCM Average Control Delay			65.8		HCM Level of Service				E			
HCM Volume to Capacity ratio			1.07									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			102.7%		ICU Level of Service				G			
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/17/2007

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  										
Volume (vph)	204	2541	740	0	0	0	0	226	160	146	400	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.86						1.00	1.00	1.00	1.00	
Frt	1.00	0.97						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	6191						1863	1583	1770	1863	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	6191						1863	1583	1770	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	204	2541	740	0	0	0	0	226	160	146	400	0
RTOR Reduction (vph)	0	49	0	0	0	0	0	0	56	0	0	0
Lane Group Flow (vph)	204	3232	0	0	0	0	0	226	104	146	400	0
Turn Type	Split						Perm			Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	60.0	60.0						15.3	15.3	12.7	32.0	
Effective Green, g (s)	60.0	60.0						15.3	15.3	12.7	32.0	
Actuated g/C Ratio	0.60	0.60						0.15	0.15	0.13	0.32	
Clearance Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1062	3715						285	242	225	596	
v/s Ratio Prot	0.12	c0.52						c0.12		0.08	c0.21	
v/s Ratio Perm									0.07			
v/c Ratio	0.19	0.87						0.79	0.43	0.65	0.67	
Uniform Delay, d1	9.0	16.7						40.8	38.4	41.5	29.4	
Progression Factor	0.85	1.00						1.00	1.00	0.99	0.87	
Incremental Delay, d2	0.0	0.3						14.0	1.2	6.3	3.0	
Delay (s)	7.7	16.9						54.8	39.6	47.5	28.7	
Level of Service	A	B						D	D	D	C	
Approach Delay (s)		16.4			0.0			48.5			33.7	
Approach LOS		B			A			D			C	
Intersection Summary												
HCM Average Control Delay			21.4		HCM Level of Service					C		
HCM Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				12.0			
Intersection Capacity Utilization			79.2%		ICU Level of Service				D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Bannon St & N 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑↑						↑↑↑				
Volume (vph)	1387	1359	0	0	0	0	0	415	41	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.0				
Lane Util. Factor	1.00	0.86						0.91				
Frt	1.00	1.00						0.99				
Flt Protected	0.95	1.00						1.00				
Satd. Flow (prot)	1770	6408						5017				
Flt Permitted	0.95	1.00						1.00				
Satd. Flow (perm)	1770	6408						5017				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1387	1359	0	0	0	0	0	415	41	0	0	0
RTOR Reduction (vph)	8	0	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	1379	1359	0	0	0	0	0	444	0	0	0	0
Turn Type	Perm											
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)	75.5	75.5						16.0				
Effective Green, g (s)	75.5	75.5						16.0				
Actuated g/C Ratio	0.76	0.76						0.16				
Clearance Time (s)	4.5	4.5						4.0				
Vehicle Extension (s)	3.0	3.0						3.0				
Lane Grp Cap (vph)	1336	4838						803				
v/s Ratio Prot		0.21						c0.09				
v/s Ratio Perm	c0.78											
v/c Ratio	1.03	0.28						0.55				
Uniform Delay, d1	12.2	3.8						38.7				
Progression Factor	2.19	1.93						1.00				
Incremental Delay, d2	26.7	0.0						2.7				
Delay (s)	53.5	7.3						41.4				
Level of Service	D	A						D				
Approach Delay (s)		30.6			0.0			41.4			0.0	
Approach LOS		C			A			D			A	

Intersection Summary

HCM Average Control Delay	32.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	142.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

15: Bannon St & 7th Street

6/17/2007

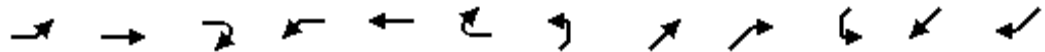


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑↑								↘	↑↑		
Volume (vph)	0	1066	335	0	0	0	0	0	0	232	1134	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.5								4.5	4.5		
Lane Util. Factor		0.86								1.00	0.95		
Frt		0.96								1.00	1.00		
Flt Protected		1.00								0.95	1.00		
Satd. Flow (prot)		6178								1770	3539		
Flt Permitted		1.00								0.95	1.00		
Satd. Flow (perm)		6178								1770	3539		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	1066	335	0	0	0	0	0	0	232	1134	0	
RTOR Reduction (vph)	0	59	0	0	0	0	0	0	0	92	0	0	
Lane Group Flow (vph)	0	1342	0	0	0	0	0	0	0	140	1134	0	
Turn Type										Prot			
Protected Phases		4								1	6		
Permitted Phases													
Actuated Green, G (s)		29.2								49.5	49.5		
Effective Green, g (s)		29.2								49.5	49.5		
Actuated g/C Ratio		0.29								0.50	0.50		
Clearance Time (s)		4.5								4.5	4.5		
Vehicle Extension (s)		3.0								3.0	3.0		
Lane Grp Cap (vph)		1804								876	1752		
v/s Ratio Prot		c0.22								0.08	c0.32		
v/s Ratio Perm													
v/c Ratio		0.74								0.16	0.65		
Uniform Delay, d1		32.0								13.8	18.8		
Progression Factor		0.39								0.04	0.17		
Incremental Delay, d2		1.7								0.3	1.4		
Delay (s)		14.2								0.9	4.7		
Level of Service		B								A	A		
Approach Delay (s)		14.2			0.0			0.0			4.0		
Approach LOS		B			A			A			A		
Intersection Summary													
HCM Average Control Delay			9.2		HCM Level of Service						A		
HCM Volume to Capacity ratio			0.68										
Actuated Cycle Length (s)			100.0		Sum of lost time (s)					21.3			
Intersection Capacity Utilization			61.2%		ICU Level of Service					B			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

16: Richards & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔↔	↑↑	↔					↔↔↔	↔	↔↔	↑↑↑	
Volume (vph)	486	28	522	0	0	0	0	564	4	28	3322	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Lane Util. Factor	0.97	0.95	1.00					0.86	0.86	0.97	0.91	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	1583					4806	1362	3433	5085	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	1583					4806	1362	3433	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	486	28	522	0	0	0	0	564	4	28	3322	0
RTOR Reduction (vph)	0	0	69	0	0	0	0	0	2	0	0	0
Lane Group Flow (vph)	486	28	453	0	0	0	0	564	2	28	3322	0
Turn Type	custom		Perm						Perm		Prot	
Protected Phases	4	4						2		1	6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	38.0	38.0	38.0					63.5	63.5	23.5	91.5	
Effective Green, g (s)	38.0	38.0	38.0					63.5	63.5	23.5	91.5	
Actuated g/C Ratio	0.25	0.25	0.25					0.42	0.42	0.16	0.61	
Clearance Time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	870	897	401					2035	577	538	3102	
v/s Ratio Prot	0.14	0.01						0.12		0.01	c0.65	
v/s Ratio Perm			c0.29						0.00			
v/c Ratio	0.56	0.03	1.13					0.28	0.00	0.05	1.07	
Uniform Delay, d1	48.7	42.1	56.0					28.3	25.0	53.8	29.2	
Progression Factor	1.00	1.00	1.00					0.10	0.02	1.00	1.00	
Incremental Delay, d2	0.8	0.0	85.4					0.0	0.0	0.0	39.1	
Delay (s)	49.5	42.2	141.4					3.0	0.4	53.8	68.3	
Level of Service	D	D	F					A	A	D	E	
Approach Delay (s)		95.6			0.0			2.9			68.2	
Approach LOS		F			A			A			E	

Intersection Summary

HCM Average Control Delay	66.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	103.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

17: N B Street &

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	97	359	0	0	0	0	133	457	610	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.5	4.5			
Lane Util. Factor	1.00	1.00						0.91	0.91			
Frt	1.00	1.00						0.96	0.85			
Flt Protected	0.95	1.00						0.99	1.00			
Satd. Flow (prot)	1770	1863						3218	1441			
Flt Permitted	0.95	1.00						0.99	1.00			
Satd. Flow (perm)	1770	1863						3218	1441			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	359	0	0	0	0	133	457	610	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	86	182	0	0	0
Lane Group Flow (vph)	97	359	0	0	0	0	0	742	190	0	0	0
Turn Type	Perm						Split		Perm			
Protected Phases	4						2		2			
Permitted Phases	4								2			
Actuated Green, G (s)	12.8		12.8				18.7		18.7			
Effective Green, g (s)	12.8		12.8				18.7		18.7			
Actuated g/C Ratio	0.32		0.32				0.47		0.47			
Clearance Time (s)	4.0		4.0				4.5		4.5			
Vehicle Extension (s)	3.0		3.0				3.0		3.0			
Lane Grp Cap (vph)	566		596				1504		674			
v/s Ratio Prot	c0.19						c0.23					
v/s Ratio Perm	0.05								0.13			
v/c Ratio	0.17		0.60				0.49		0.28			
Uniform Delay, d1	9.8		11.5				7.4		6.5			
Progression Factor	1.00		1.00				0.79		1.12			
Incremental Delay, d2	0.1		1.7				1.1		1.0			
Delay (s)	9.9		13.2				6.9		8.4			
Level of Service	A		B				A		A			
Approach Delay (s)			12.5		0.0		7.4				0.0	
Approach LOS			B		A		A				A	

Intersection Summary

HCM Average Control Delay	8.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

18: N B Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑							↑↑↑	
Volume (vph)	0	721	160	634	0	0	0	0	0	43	1611	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0							4.0	
Lane Util. Factor		0.95		0.97							0.91	
Frt		0.97		1.00							1.00	
Flt Protected		1.00		0.95							1.00	
Satd. Flow (prot)		3443		3433							5079	
Flt Permitted		1.00		0.95							1.00	
Satd. Flow (perm)		3443		3433							5079	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	721	160	634	0	0	0	0	0	43	1611	0
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	862	0	634	0	0	0	0	0	0	1654	0
Turn Type				Prot							Split	
Protected Phases		4		3							1	1
Permitted Phases		4										
Actuated Green, G (s)		25.0		19.0							34.0	
Effective Green, g (s)		25.0		19.0							34.0	
Actuated g/C Ratio		0.25		0.19							0.34	
Clearance Time (s)		4.0		4.0							4.0	
Vehicle Extension (s)		3.0		3.0							3.0	
Lane Grp Cap (vph)		861		652							1727	
v/s Ratio Prot		c0.25		c0.18							c0.33	
v/s Ratio Perm												
v/c Ratio		1.00		0.97							0.96	
Uniform Delay, d1		37.5		40.2							32.3	
Progression Factor		1.00		1.00							0.67	
Incremental Delay, d2		31.0		28.3							11.2	
Delay (s)		68.5		68.5							32.8	
Level of Service		E		E							C	
Approach Delay (s)		68.5			68.5			0.0			32.8	
Approach LOS		E			E			A			C	

Intersection Summary

HCM Average Control Delay	49.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	85.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

19: Water St & 10th St

6/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↘	
Volume (veh/h)	58	612	511	152	156	50
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	58	612	511	152	156	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		1236	821			
pX, platoon unblocked					0.89	
vC, conflicting volume	663				1009	332
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	663				761	332
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				45	92
cM capacity (veh/h)	922				285	664

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	262	408	341	322	206
Volume Left	58	0	0	0	156
Volume Right	0	0	0	152	50
cSH	922	1700	1700	1700	330
Volume to Capacity	0.06	0.24	0.20	0.19	0.62
Queue Length 95th (ft)	5	0	0	0	99
Control Delay (s)	2.5	0.0	0.0	0.0	32.3
Lane LOS	A				D
Approach Delay (s)	1.0		0.0		32.3
Approach LOS					D

Intersection Summary					
Average Delay			4.8		
Intersection Capacity Utilization			59.3%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis

20: N B Street & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	568	66	150	37	178	29	0	0	0	28	3505	497
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		4.0	4.0						3.5	5.0
Lane Util. Factor	0.91	0.91		1.00	1.00						0.81	0.81
Frbp, ped/bikes	1.00	0.96		1.00	1.00						1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Frt	1.00	0.96		1.00	0.98						1.00	0.85
Flt Protected	0.95	0.97		0.95	1.00						1.00	1.00
Satd. Flow (prot)	1610	3037		1770	1824						6020	1282
Flt Permitted	0.95	0.97		0.95	1.00						1.00	1.00
Satd. Flow (perm)	1610	3037		1770	1824						6020	1282
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	568	66	150	37	178	29	0	0	0	28	3505	497
RTOR Reduction (vph)	0	29	0	0	4	0	0	0	0	0	1	71
Lane Group Flow (vph)	284	471	0	37	203	0	0	0	0	0	3582	376
Confl. Peds. (#/hr)			36	36								
Turn Type	custom			custom							Perm	Perm
Protected Phases	3	3		4	4						2 10	
Permitted Phases	3			4						2 10		2 10
Actuated Green, G (s)	24.0	24.0		11.0	11.0						84.5	84.5
Effective Green, g (s)	24.0	24.0		11.0	11.0						87.5	84.5
Actuated g/C Ratio	0.16	0.16		0.07	0.07						0.58	0.56
Clearance Time (s)	5.0	5.0		4.0	4.0							
Vehicle Extension (s)	5.0	5.0		5.0	5.0							
Lane Grp Cap (vph)	258	486		130	134						3512	722
v/s Ratio Prot	c0.18	0.16		0.02	c0.11							
v/s Ratio Perm											0.59	0.29
v/c Ratio	1.10	0.97		0.28	1.52						1.02	0.52
Uniform Delay, d1	63.0	62.6		65.8	69.5						31.2	20.2
Progression Factor	1.00	1.00		1.00	1.00						1.04	1.05
Incremental Delay, d2	85.7	33.4		2.5	267.0						10.9	0.2
Delay (s)	148.7	96.1		68.3	336.5						43.3	21.4
Level of Service	F	F		E	F						D	C
Approach Delay (s)		115.1			295.9			0.0			40.9	
Approach LOS		F			F			A			D	

Intersection Summary

HCM Average Control Delay	64.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	92.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: N B Street & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔			↔↔↔				
Volume (vph)	103	7	0	0	10	5	184	2271	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.97			1.00				
Flpb, ped/bikes	0.91	0.92			1.00			1.00				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1533	1565			1720			6361				
Flt Permitted	0.75	0.79			1.00			1.00				
Satd. Flow (perm)	1207	1289			1720			6361				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	103	7	0	0	10	5	184	2271	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	1	0	0	0	0
Lane Group Flow (vph)	55	55	0	0	12	0	0	2464	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	12.0	12.0			12.0			30.0				
Effective Green, g (s)	12.0	12.0			12.0			30.0				
Actuated g/C Ratio	0.24	0.24			0.24			0.60				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	290	309			413			3817				
v/s Ratio Prot					0.01							
v/s Ratio Perm	c0.05	0.04						0.39				
v/c Ratio	0.19	0.18			0.03			0.65				
Uniform Delay, d1	15.1	15.1			14.5			6.5				
Progression Factor	1.00	1.00			1.00			0.44				
Incremental Delay, d2	1.4	1.3			0.1			0.8				
Delay (s)	16.6	16.3			14.7			3.7				
Level of Service	B	B			B			A				
Approach Delay (s)		16.5			14.7			3.7			0.0	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM Average Control Delay			4.3				HCM Level of Service		A			
HCM Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)		8.0			
Intersection Capacity Utilization			52.6%				ICU Level of Service		A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
 22: South Park St & Bercut Dr

6/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	70	75	222	163	178	277
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	70	75	222	163	178	277
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	70	75	385	178	277	
Volume Left (vph)	70	0	0	178	0	
Volume Right (vph)	0	75	163	0	0	
Hadj (s)	0.53	-0.67	-0.22	0.53	0.03	
Departure Headway (s)	7.0	5.8	5.1	5.9	5.4	
Degree Utilization, x	0.14	0.12	0.54	0.29	0.41	
Capacity (veh/h)	470	561	694	593	651	
Control Delay (s)	9.9	8.4	13.9	10.1	11.0	
Approach Delay (s)	9.2		13.9	10.6		
Approach LOS	A		B	B		
Intersection Summary						
Delay			11.7			
HCM Level of Service			B			
Intersection Capacity Utilization			45.4%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

23: South Park St & 5th St

6/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔↔			↔↔↔		
Volume (vph)	292	0	5	908	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5			4.5		
Lane Util. Factor	0.97			0.91		
Frt	1.00			1.00		
Flt Protected	0.95			1.00		
Satd. Flow (prot)	3433			5084		
Flt Permitted	0.95			1.00		
Satd. Flow (perm)	3433			5084		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	292	0	5	908	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	292	0	0	913	0	0
Turn Type	Perm					
Protected Phases	4			2		
Permitted Phases	4			2		
Actuated Green, G (s)	14.5			56.5		
Effective Green, g (s)	14.5			56.5		
Actuated g/C Ratio	0.18			0.71		
Clearance Time (s)	4.5			4.5		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	622			3591		
v/s Ratio Prot	c0.09					
v/s Ratio Perm				0.18		
v/c Ratio	0.47			0.25		
Uniform Delay, d1	29.3			4.2		
Progression Factor	1.00			0.24		
Incremental Delay, d2	0.6			0.2		
Delay (s)	29.9			1.2		
Level of Service	C			A		
Approach Delay (s)	29.9			1.2		0.0
Approach LOS	C			A		A

Intersection Summary

HCM Average Control Delay	8.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	33.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

26: Railyards Blvd & Jibboom St

6/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	226	15	63	455	108	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.88		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	1642		1770	1863
Flt Permitted	0.95	1.00	1.00		0.39	1.00
Satd. Flow (perm)	1770	1583	1642		722	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	226	15	63	455	108	255
RTOR Reduction (vph)	0	11	177	0	0	0
Lane Group Flow (vph)	226	4	341	0	108	255
Turn Type		Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	
Actuated Green, G (s)	25.0	25.0	52.0		52.0	52.0
Effective Green, g (s)	25.0	25.0	52.0		52.0	52.0
Actuated g/C Ratio	0.29	0.29	0.61		0.61	0.61
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	521	466	1005		442	1140
v/s Ratio Prot	c0.13		c0.21			0.14
v/s Ratio Perm		0.00			0.15	
v/c Ratio	0.43	0.01	0.34		0.24	0.22
Uniform Delay, d1	24.3	21.2	8.1		7.5	7.4
Progression Factor	0.90	0.99	1.00		1.00	1.00
Incremental Delay, d2	2.6	0.0	0.2		1.3	0.5
Delay (s)	24.3	21.0	8.3		8.8	7.9
Level of Service	C	C	A		A	A
Approach Delay (s)	24.1		8.3			8.2
Approach LOS	C		A			A

Intersection Summary

HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/17/2007



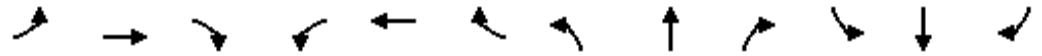
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↕		↖	↗		↖	↗	
Volume (vph)	313	110	139	5	96	11	74	60	5	76	202	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.92		1.00	0.98		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1707		1770	3485		1770	1841		1770	1791	
Flt Permitted	0.68	1.00		0.54	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1275	1707		1010	3485		1770	1841		1770	1791	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	313	110	139	5	96	11	74	60	5	76	202	70
RTOR Reduction (vph)	0	43	0	0	6	0	0	4	0	0	15	0
Lane Group Flow (vph)	313	206	0	5	101	0	74	61	0	76	257	0
Turn Type	Perm		Perm		Split		Split					
Protected Phases	2		6		3		3		4		4	
Permitted Phases	2		6									
Actuated Green, G (s)	36.6	36.6		36.6	36.6		16.8	16.8		19.6	19.6	
Effective Green, g (s)	36.6	36.6		36.6	36.6		16.8	16.8		19.6	19.6	
Actuated g/C Ratio	0.43	0.43		0.43	0.43		0.20	0.20		0.23	0.23	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	549	735		435	1501		350	364		408	413	
v/s Ratio Prot		0.12			0.03		c0.04	0.03		0.04	c0.14	
v/s Ratio Perm	c0.25			0.00								
v/c Ratio	0.57	0.28		0.01	0.07		0.21	0.17		0.19	0.62	
Uniform Delay, d1	18.3	15.7		13.8	14.2		28.6	28.3		26.3	29.4	
Progression Factor	0.89	0.81		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	0.2		0.0	0.1		0.3	0.2		0.2	2.9	
Delay (s)	17.5	12.9		13.9	14.3		28.9	28.5		26.5	32.3	
Level of Service	B	B		B	B		C	C		C	C	
Approach Delay (s)		15.5			14.3			28.7			31.0	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	21.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 28: Railyards Blvd & Crocker St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↔	↔		↔	↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	17	78	57	36	15	67	26	191	6	54	58	26
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	17	78	57	36	15	67	26	191	6	54	58	26

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	56	96	44	75	26	197	54	84
Volume Left (vph)	17	0	36	0	26	0	54	0
Volume Right (vph)	0	57	0	67	0	6	0	26
Hadj (s)	0.19	-0.38	0.45	-0.60	0.53	0.01	0.53	-0.18
Departure Headway (s)	5.7	5.2	6.1	5.0	5.9	5.4	6.0	5.2
Degree Utilization, x	0.09	0.14	0.07	0.10	0.04	0.29	0.09	0.12
Capacity (veh/h)	586	652	558	671	585	645	572	650
Control Delay (s)	8.1	7.8	8.3	7.4	7.9	9.4	8.3	7.8
Approach Delay (s)	7.9		7.7		9.2		8.0	
Approach LOS	A		A		A		A	

Intersection Summary	
Delay	8.4
HCM Level of Service	A
Intersection Capacity Utilization	35.2%
ICU Level of Service	A
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

29: Railyards Blvd & Stanford St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	89	48	61	105	40	13	91	5	63	23	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.95			0.97		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1765			3386		1770	1848		1770	1813	
Flt Permitted	0.95	1.00			0.99		0.74	1.00		0.69	1.00	
Satd. Flow (perm)	1770	1765			3386		1377	1848		1294	1813	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	89	48	61	105	40	13	91	5	63	23	5
RTOR Reduction (vph)	0	26	0	0	22	0	0	2	0	0	4	0
Lane Group Flow (vph)	5	111	0	0	184	0	13	94	0	63	24	0
Turn Type	Split			Split			Perm			Perm		
Protected Phases	1	1		2	2			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	17.9	17.9			33.3		16.8	16.8		16.8	16.8	
Effective Green, g (s)	17.9	17.9			33.3		16.8	16.8		16.8	16.8	
Actuated g/C Ratio	0.22	0.22			0.42		0.21	0.21		0.21	0.21	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	396	395			1409		289	388		272	381	
v/s Ratio Prot	0.00	c0.06			c0.05			c0.05			0.01	
v/s Ratio Perm							0.01			0.05		
v/c Ratio	0.01	0.28			0.13		0.04	0.24		0.23	0.06	
Uniform Delay, d1	24.2	25.7			14.4		25.2	26.3		26.2	25.3	
Progression Factor	1.00	1.00			0.29		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.4			0.2		0.1	0.3		0.4	0.1	
Delay (s)	24.2	26.1			4.4		25.3	26.6		26.7	25.4	
Level of Service	C	C			A		C	C		C	C	
Approach Delay (s)		26.1			4.4			26.5			26.3	
Approach LOS		C			A			C			C	

Intersection Summary

HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.20		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

30: Railyards Blvd & 5th St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑			↑↑			↖↖				
Volume (vph)	5	152	0	0	207	140	5	767	19	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.0				
Lane Util. Factor	1.00	1.00			0.95			0.91				
Frt	1.00	1.00			0.94			1.00				
Flt Protected	0.95	1.00			1.00			1.00				
Satd. Flow (prot)	1770	1863			3325			5065				
Flt Permitted	0.95	1.00			1.00			1.00				
Satd. Flow (perm)	1770	1863			3325			5065				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	152	0	0	207	140	5	767	19	0	0	0
RTOR Reduction (vph)	0	0	0	0	115	0	0	2	0	0	0	0
Lane Group Flow (vph)	5	152	0	0	232	0	0	789	0	0	0	0
Turn Type	Split			Split								
Protected Phases	4	4			8			2	2			
Permitted Phases					8			2	2			
Actuated Green, G (s)	14.3	14.3			14.1			38.6				
Effective Green, g (s)	14.3	14.3			14.1			38.6				
Actuated g/C Ratio	0.18	0.18			0.18			0.48				
Clearance Time (s)	4.5	4.5			4.5			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	316	333			586			2444				
v/s Ratio Prot	0.00	c0.08			c0.07			c0.16				
v/s Ratio Perm												
v/c Ratio	0.02	0.46			0.40			0.32				
Uniform Delay, d1	27.1	29.4			29.2			12.7				
Progression Factor	0.49	0.63			1.11			1.00				
Incremental Delay, d2	0.0	1.0			0.4			0.4				
Delay (s)	13.3	19.6			32.8			13.0				
Level of Service	B	B			C			B				
Approach Delay (s)		19.4			32.8			13.0			0.0	
Approach LOS		B			C			B			A	

Intersection Summary

HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

31: Railyards Blvd & Judah St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→		↙	↑↑	↘	
Volume (veh/h)	142	29	47	254	93	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	142	29	47	254	93	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	298			284		
pX, platoon unblocked				0.93	0.93	0.93
vC, conflicting volume				171	378	156
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol				77	298	62
tC, single (s)				4.1	6.8	6.9
tC, 2 stage (s)						
tF (s)				2.2	3.5	3.3
p0 queue free %				97	85	99
cM capacity (veh/h)				1419	604	925

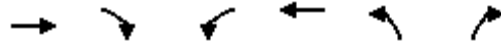
Direction, Lane #	EB 1	WB 1	WB 2	WB 3	NB 1
Volume Total	171	47	127	127	101
Volume Left	0	47	0	0	93
Volume Right	29	0	0	0	8
cSH	1700	1419	1700	1700	621
Volume to Capacity	0.10	0.03	0.07	0.07	0.16
Queue Length 95th (ft)	0	3	0	0	14
Control Delay (s)	0.0	7.6	0.0	0.0	11.9
Lane LOS	A			B	
Approach Delay (s)	0.0	1.2	11.9		
Approach LOS				B	

Intersection Summary					
Average Delay			2.7		
Intersection Capacity Utilization			28.2%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↵	↑↑	↵	↵
Volume (vph)	145	5	344	251	97	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	0.95	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1854		1770	3539	1770	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	1854		1770	3539	1770	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	145	5	344	251	97	27
RTOR Reduction (vph)	1	0	0	0	0	22
Lane Group Flow (vph)	149	0	344	251	97	5
Turn Type			Prot			Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	32.7		20.1	56.8	15.2	15.2
Effective Green, g (s)	32.7		20.1	56.8	15.2	15.2
Actuated g/C Ratio	0.41		0.25	0.71	0.19	0.19
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	758		445	2513	336	301
v/s Ratio Prot	c0.08		c0.19	0.07	c0.05	
v/s Ratio Perm						0.00
v/c Ratio	0.20		0.77	0.10	0.29	0.02
Uniform Delay, d1	15.2		27.8	3.6	27.8	26.3
Progression Factor	0.15		0.90	0.80	1.00	1.00
Incremental Delay, d2	0.6		6.7	0.1	0.5	0.0
Delay (s)	2.9		31.9	3.0	28.2	26.4
Level of Service	A		C	A	C	C
Approach Delay (s)	2.9			19.7	27.8	
Approach LOS	A			B	C	

Intersection Summary

HCM Average Control Delay	17.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↕	↘
Volume (vph)	0	173	0	0	1183	596
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		1.00			0.91	0.91
Frt		0.86			0.99	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		1611			3363	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		1611			3363	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	173	0	0	1183	596
RTOR Reduction (vph)	0	164	0	0	5	285
Lane Group Flow (vph)	0	9	0	0	1244	245
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		4.0			37.0	37.0
Effective Green, g (s)		4.0			37.0	37.0
Actuated g/C Ratio		0.05			0.46	0.46
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		81			1555	666
v/s Ratio Prot		c0.01			c0.37	0.17
v/s Ratio Perm						
v/c Ratio		0.11			0.80	0.37
Uniform Delay, d1		36.3			18.3	13.9
Progression Factor		1.00			1.00	1.00
Incremental Delay, d2		0.6			4.4	1.6
Delay (s)		36.9			22.8	15.5
Level of Service		D			C	B
Approach Delay (s)	36.9			0.0	20.6	
Approach LOS	D			A	C	

Intersection Summary

HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	39.0
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

36: Camille Ln & Bercut Dr

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↘		↗	↘	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	5	0	0	5	138	0	0	0	296	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	5	0	0	5	138	0	0	0	296	0	0

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	5	143	0	0	296	0
Volume Left (vph)	0	0	0	0	296	0
Volume Right (vph)	0	138	0	0	0	0
Hadj (s)	0.03	-0.55	0.00	0.00	0.53	0.00
Departure Headway (s)	5.0	4.2	5.1	5.1	5.4	4.8
Degree Utilization, x	0.01	0.17	0.00	0.00	0.44	0.00
Capacity (veh/h)	666	793	678	678	652	743
Control Delay (s)	8.0	8.1	6.9	6.9	11.3	6.6
Approach Delay (s)	8.0	8.1	0.0		11.3	
Approach LOS	A	A	A		B	

Intersection Summary	
Delay	10.3
HCM Level of Service	B
Intersection Capacity Utilization	31.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

37: F Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻↻↻	
Volume (vph)	0	8	5	52	43	0	0	0	0	526	1227	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	
Lane Util. Factor		1.00		1.00	1.00						0.91	
Frt		0.95		1.00	1.00						1.00	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1766		1770	1863						4989	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		1766		1770	1863						4989	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	8	5	52	43	0	0	0	0	526	1227	57
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	9	0	52	43	0	0	0	0	0	1807	0
Turn Type				Prot							Perm	
Protected Phases		4		3	8						6	
Permitted Phases										6		
Actuated Green, G (s)		16.0		8.0	28.0						54.0	
Effective Green, g (s)		16.0		8.0	28.0						54.0	
Actuated g/C Ratio		0.16		0.08	0.28						0.54	
Clearance Time (s)		4.0		4.0	4.0						4.0	
Lane Grp Cap (vph)		283		142	522						2694	
v/s Ratio Prot		0.00		c0.03	c0.02							
v/s Ratio Perm											0.36	
v/c Ratio		0.03		0.37	0.08						0.67	
Uniform Delay, d1		35.5		43.6	26.5						16.6	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		0.2		7.1	0.3						1.3	
Delay (s)		35.7		50.7	26.8						17.9	
Level of Service		D		D	C						B	
Approach Delay (s)		35.7			39.9			0.0			17.9	
Approach LOS		D			D			A			B	

Intersection Summary

HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↔	↔		↕↕↕				
Volume (vph)	42	5	0	0	113	929	87	651	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0				
Lane Util. Factor		1.00			0.95	0.95		0.91				
Frt		1.00			0.88	0.85		1.00				
Flt Protected		0.96			1.00	1.00		0.99				
Satd. Flow (prot)		1783			1561	1504		5051				
Flt Permitted		0.64			1.00	1.00		0.99				
Satd. Flow (perm)		1201			1561	1504		5051				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	5	0	0	113	929	87	651	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	61	61	0	1	0	0	0	0
Lane Group Flow (vph)	0	47	0	0	470	450	0	742	0	0	0	0
Turn Type	Perm					Perm	Perm					
Protected Phases		4			8			2				
Permitted Phases	4					8	2	2				
Actuated Green, G (s)		23.0			23.0	23.0		19.0				
Effective Green, g (s)		23.0			23.0	23.0		19.0				
Actuated g/C Ratio		0.46			0.46	0.46		0.38				
Clearance Time (s)		4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)		552			718	692		1919				
v/s Ratio Prot					c0.30							
v/s Ratio Perm		0.04				0.30		0.15				
v/c Ratio		0.09			0.65	0.65		0.39				
Uniform Delay, d1		7.6			10.4	10.4		11.3				
Progression Factor		1.00			1.37	1.38		0.31				
Incremental Delay, d2		0.3			0.4	0.4		0.4				
Delay (s)		7.9			14.7	14.8		3.9				
Level of Service		A			B	B		A				
Approach Delay (s)		7.9			14.7			3.9			0.0	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕		↕	↕		↕	↕	
Volume (vph)	5	5	5	161	1044	291	408	271	5	5	603	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	
Frt		0.96			0.97		1.00	1.00		1.00	0.99	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750			3418		1770	1858		1770	1849	
Flt Permitted		0.65			0.91		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1150			3136		1770	1858		1770	1849	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	161	1044	291	408	271	5	5	603	31
RTOR Reduction (vph)	0	4	0	0	21	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	12	0	0	1475	0	408	276	0	5	632	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		30.0			30.0		24.0	53.0		5.0	34.0	
Effective Green, g (s)		30.0			30.0		24.0	53.0		5.0	34.0	
Actuated g/C Ratio		0.30			0.30		0.24	0.53		0.05	0.34	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		345			941		425	985		89	629	
v/s Ratio Prot							c0.23	0.15		0.00	c0.34	
v/s Ratio Perm		0.01			c0.47							
v/c Ratio		0.03			1.57		0.96	0.28		0.06	1.00	
Uniform Delay, d1		24.7			35.0		37.5	13.0		45.3	33.0	
Progression Factor		1.03			0.87		1.10	0.06		1.00	1.00	
Incremental Delay, d2		0.2			257.5		6.7	0.1		1.2	37.1	
Delay (s)		25.7			287.9		47.8	0.9		46.5	70.1	
Level of Service		C			F		D	A		D	E	
Approach Delay (s)		25.7			287.9			28.9			69.9	
Approach LOS		C			F			C			E	

Intersection Summary

HCM Average Control Delay	174.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	109.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↗
Volume (vph)	0	0	15	300	1464	0	0	0	0	0	961	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.0	3.5
Lane Util. Factor			1.00	0.91	0.91						0.95	1.00
Frbp, ped/bikes			1.00	1.00	1.00						1.00	1.00
Flpb, ped/bikes			1.00	1.00	1.00						1.00	1.00
Frt			0.86	1.00	1.00						1.00	0.85
Flt Protected			1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)			1611	1610	3387						3539	1583
Flt Permitted			1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)			1611	1610	3387						3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	300	1464	0	0	0	0	0	961	335
RTOR Reduction (vph)	0	0	14	135	1	0	0	0	0	0	0	162
Lane Group Flow (vph)	0	0	1	135	1493	0	0	0	0	0	961	173
Confl. Peds. (#/hr)						72						
Turn Type			custom	Perm								Perm
Protected Phases			1		2						4	
Permitted Phases			1	2								4
Actuated Green, G (s)			5.5	44.5	44.5						29.5	29.5
Effective Green, g (s)			5.5	44.0	44.5						29.0	29.5
Actuated g/C Ratio			0.06	0.44	0.44						0.29	0.30
Clearance Time (s)			3.5	3.5	3.5						3.5	3.5
Lane Grp Cap (vph)			89	708	1507						1026	467
v/s Ratio Prot			c0.00								c0.27	
v/s Ratio Perm				0.08	0.44							0.11
v/c Ratio			0.01	0.19	0.99						0.94	0.37
Uniform Delay, d1			44.7	17.1	27.5						34.6	27.9
Progression Factor			1.00	1.30	0.93						0.72	0.67
Incremental Delay, d2			0.2	0.5	18.4						13.3	1.7
Delay (s)			44.9	22.8	44.0						38.2	20.3
Level of Service			D	C	D						D	C
Approach Delay (s)		44.9			40.8		0.0				33.5	
Approach LOS		D			D		A				C	

Intersection Summary

HCM Average Control Delay	37.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	21.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

41: G Street &

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Volume (vph)	0	0	0	0	1064	347	733	447	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0				
Lane Util. Factor					0.91			0.91				
Frbp, ped/bikes					0.98			1.00				
Flpb, ped/bikes					1.00			0.97				
Frt					0.96			1.00				
Flt Protected					1.00			0.97				
Satd. Flow (prot)					4823			4775				
Flt Permitted					1.00			0.97				
Satd. Flow (perm)					4823			4775				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1064	347	733	447	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	118	0	0	23	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1293	0	0	1157	0	0	0	0
Confl. Peds. (#/hr)						72	72					
Turn Type								Perm				
Protected Phases					1			2				
Permitted Phases							2					
Actuated Green, G (s)					22.0			21.0				
Effective Green, g (s)					21.5			20.5				
Actuated g/C Ratio					0.43			0.41				
Clearance Time (s)					3.5			3.5				
Lane Grp Cap (vph)					2074			1958				
v/s Ratio Prot					c0.27							
v/s Ratio Perm								0.24				
v/c Ratio					0.62			1.01dl				
Uniform Delay, d1					11.1			11.5				
Progression Factor					0.87			0.48				
Incremental Delay, d2					1.3			1.0				
Delay (s)					11.0			6.5				
Level of Service					B			A				
Approach Delay (s)		0.0			11.0			6.5			0.0	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	9.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	46	550	0	0	0	0	0	1570	403
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.98	
Flpb, ped/bikes					1.00						1.00	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5044						4851	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5044						4851	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	46	550	0	0	0	0	0	1570	403
RTOR Reduction (vph)	0	0	0	0	19	0	0	0	0	0	90	0
Lane Group Flow (vph)	0	0	0	0	577	0	0	0	0	0	1883	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1715						2037	
v/s Ratio Prot											c0.39	
v/s Ratio Perm					0.11							
v/c Ratio					0.34						0.92	
Uniform Delay, d1					12.3						13.7	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.5						8.6	
Delay (s)					12.8						22.3	
Level of Service					B						C	
Approach Delay (s)		0.0			12.8			0.0			22.3	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM Average Control Delay			20.1		HCM Level of Service						C	
HCM Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			58.6%		ICU Level of Service			B				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

43: H Street & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4						4				
Volume (vph)	5	20	0	0	0	0	20	738	833	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		1.00						0.91				
Frt		1.00						0.92				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1844						4683				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1844						4683				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	20	0	0	0	0	20	738	833	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	397	0	0	0	0
Lane Group Flow (vph)	0	25	0	0	0	0	0	1194	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4					2	2				
Permitted Phases	4											
Actuated Green, G (s)		16.0						21.0				
Effective Green, g (s)		16.0						21.0				
Actuated g/C Ratio		0.32						0.42				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		590						1967				
v/s Ratio Prot								c0.25				
v/s Ratio Perm		0.01										
v/c Ratio		0.04						0.61				
Uniform Delay, d1		11.7						11.3				
Progression Factor		1.00						0.04				
Incremental Delay, d2		0.1						0.6				
Delay (s)		11.9						1.1				
Level of Service		B						A				
Approach Delay (s)		11.9			0.0			1.1			0.0	
Approach LOS		B			A			A			A	

Intersection Summary

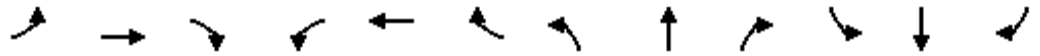
HCM Average Control Delay	1.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑						↑	↗	↘	↑	
Volume (vph)	20	376	55	0	0	0	0	883	280	460	282	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0	3.5	4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95	0.95	0.95	0.95	
Frbp, ped/bikes	1.00	0.98						1.00	0.85	1.00	1.00	
Flpb, ped/bikes	0.76	1.00						1.00	1.00	1.00	1.00	
Frt	1.00	0.98						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (prot)	1345	3404						1753	1274	1681	1747	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (perm)	1345	3404						1753	1274	1681	1747	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	883	280	460	282	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	1	69	0	0	0
Lane Group Flow (vph)	20	420	0	0	0	0	0	910	183	363	379	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm						Perm Split					
Protected Phases	1						2 6 6					
Permitted Phases	1						2					
Actuated Green, G (s)	15.0	15.0						49.0	49.0	17.0	17.0	
Effective Green, g (s)	15.0	14.5						48.5	49.0	16.5	16.5	
Actuated g/C Ratio	0.15	0.14						0.48	0.49	0.16	0.16	
Clearance Time (s)	3.5	3.5						3.5	3.5	4.0	4.0	
Lane Grp Cap (vph)	202	494						850	624	277	288	
v/s Ratio Prot		c0.12						c0.52		0.22	c0.22	
v/s Ratio Perm	0.01								0.14			
v/c Ratio	0.10	0.85						1.07	0.29	1.31	1.32	
Uniform Delay, d1	36.7	41.7						25.8	15.2	41.8	41.8	
Progression Factor	0.78	0.80						0.78	0.73	0.68	0.68	
Incremental Delay, d2	0.7	12.9						44.2	0.6	142.1	144.5	
Delay (s)	29.3	46.4						64.3	11.7	170.4	172.8	
Level of Service	C	D						E	B	F	F	
Approach Delay (s)		45.7			0.0			52.9			171.6	
Approach LOS		D			A			D			F	

Intersection Summary

HCM Average Control Delay	88.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	96.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑								↘	↙↑		
Volume (vph)	0	957	118	0	0	0	0	0	0	310	863	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0								4.0	4.0		
Lane Util. Factor		0.95								0.91	0.91		
Frbp, ped/bikes		0.99								1.00	1.00		
Flpb, ped/bikes		1.00								0.95	1.00		
Frt		0.98								1.00	1.00		
Flt Protected		1.00								0.95	1.00		
Satd. Flow (prot)		3457								1528	3378		
Flt Permitted		1.00								0.95	1.00		
Satd. Flow (perm)		3457								1528	3378		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	957	118	0	0	0	0	0	0	310	863	0	
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	110	5	0	
Lane Group Flow (vph)	0	1056	0	0	0	0	0	0	0	169	889	0	
Confl. Peds. (#/hr)			72							72			
Turn Type										Perm			
Protected Phases		1									2		
Permitted Phases										2			
Actuated Green, G (s)		18.5								19.5	19.5		
Effective Green, g (s)		18.0								19.0	19.0		
Actuated g/C Ratio		0.36								0.38	0.38		
Clearance Time (s)		3.5								3.5	3.5		
Lane Grp Cap (vph)		1245								581	1284		
v/s Ratio Prot		c0.31											
v/s Ratio Perm										0.11	0.26		
v/c Ratio		0.85								0.29	0.69		
Uniform Delay, d1		14.7								10.8	13.0		
Progression Factor		1.22								0.89	1.17		
Incremental Delay, d2		2.7								0.7	1.8		
Delay (s)		20.7								10.4	17.0		
Level of Service		C								B	B		
Approach Delay (s)		20.7			0.0			0.0			15.4		
Approach LOS		C			A			A			B		
Intersection Summary													
HCM Average Control Delay			18.0		HCM Level of Service						B		
HCM Volume to Capacity ratio			0.77										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)					13.0			
Intersection Capacity Utilization			61.3%		ICU Level of Service					B			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

46: H Street &

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↔↔↔				
Volume (vph)	391	851	0	0	0	0	0	810	205	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.98						1.00				
Frt		1.00						0.97				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		3428						4869				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		3428						4869				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	391	851	0	0	0	0	0	810	205	0	0	0
RTOR Reduction (vph)	0	107	0	0	0	0	0	89	0	0	0	0
Lane Group Flow (vph)	0	1135	0	0	0	0	0	926	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		18.5						19.5				
Effective Green, g (s)		18.0						19.0				
Actuated g/C Ratio		0.36						0.38				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1234						1850				
v/s Ratio Prot								c0.19				
v/s Ratio Perm		0.33										
v/c Ratio		0.92						0.50				
Uniform Delay, d1		15.3						11.9				
Progression Factor		1.07						1.00				
Incremental Delay, d2		8.7						1.0				
Delay (s)		25.0						12.8				
Level of Service		C						B				
Approach Delay (s)		25.0			0.0			12.8			0.0	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM Average Control Delay			19.6					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		13.0		
Intersection Capacity Utilization			62.8%					ICU Level of Service		B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕				↗		↕↕↕				
Volume (vph)	343	353	0	0	0	40	0	1313	23	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	1.00				1.00		1.00				
Satd. Flow (prot)	3221	1678				1611		5061				
Flt Permitted	0.95	1.00				1.00		1.00				
Satd. Flow (perm)	3221	1678				1611		5061				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	343	353	0	0	0	40	0	1313	23	0	0	0
RTOR Reduction (vph)	201	5	0	0	0	36	0	3	0	0	0	0
Lane Group Flow (vph)	108	382	0	0	0	4	0	1333	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	12.5	21.5				5.5		21.5				
Effective Green, g (s)	12.0	21.0				5.0		21.0				
Actuated g/C Ratio	0.24	0.42				0.10		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	773	705				161		2126				
v/s Ratio Prot	0.03	c0.13				0.00		c0.26				
v/s Ratio Perm		0.10										
v/c Ratio	0.14	0.54				0.02		0.63				
Uniform Delay, d1	14.9	10.9				20.3		11.4				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	0.4	3.0				0.3		1.4				
Delay (s)	15.3	13.9				20.6		12.8				
Level of Service	B	B				C		B				
Approach Delay (s)		14.5			20.6			12.8			0.0	
Approach LOS		B			C			B			A	

Intersection Summary

HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	653	205	174	36	146	754
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.89	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1639	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1639	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	653	205	174	36	146	754
RTOR Reduction (vph)	0	0	0	13	112	0
Lane Group Flow (vph)	653	205	174	23	788	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	35.5	44.6	17.7	70.8	53.1	
Effective Green, g (s)	36.0	44.6	17.7	70.8	53.1	
Actuated g/C Ratio	0.30	0.38	0.15	0.60	0.45	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	536	699	278	997	733	
v/s Ratio Prot	c0.37	0.11	c0.09	0.01	c0.48	
v/s Ratio Perm				0.00		
v/c Ratio	1.22	0.29	0.63	0.02	1.08	
Uniform Delay, d1	41.4	26.0	47.4	9.8	32.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	114.3	0.4	5.5	0.0	55.4	
Delay (s)	155.7	26.4	52.9	9.8	88.2	
Level of Service	F	C	D	A	F	
Approach Delay (s)		124.8	45.6		88.2	
Approach LOS		F	D		F	

Intersection Summary

HCM Average Control Delay	99.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	118.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	110.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	1356	108	192	1492	0	0	0	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					0.99		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6143		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6143		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1356	108	192	1492	0	0	0	34
RTOR Reduction (vph)	0	0	0	0	10	0	6	0	0	0	0	3
Lane Group Flow (vph)	0	0	0	0	1454	0	186	1492	0	0	0	31
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					17.0		24.5	24.5				24.5
Effective Green, g (s)					18.0		24.0	24.0				24.5
Actuated g/C Ratio					0.36		0.48	0.48				0.49
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					2211		1648	1614				1366
v/s Ratio Prot					c0.24		0.05	c0.44				
v/s Ratio Perm												0.01
v/c Ratio					0.66		0.11	0.92				0.02
Uniform Delay, d1					13.4		7.1	12.2				6.6
Progression Factor					0.57		0.89	0.93				1.00
Incremental Delay, d2					0.8		0.1	7.0				0.0
Delay (s)					8.5		6.4	18.3				6.6
Level of Service					A		A	B				A
Approach Delay (s)		0.0			8.5			16.9			6.6	
Approach LOS		A			A			B			A	

Intersection Summary

HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	54	1164	333	34	807	0	0	27	318
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.98		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.97		1.00	1.00			0.87	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4806		1610	3390			1546	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4806		1610	3390			1546	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	54	1164	333	34	807	0	0	27	318
RTOR Reduction (vph)	0	0	0	0	99	0	0	0	0	0	126	148
Lane Group Flow (vph)	0	0	0	0	1452	0	31	810	0	0	47	24
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					16.5		15.5	15.5			7.5	7.5
Effective Green, g (s)					16.0		15.0	15.0			7.0	7.0
Actuated g/C Ratio					0.32		0.30	0.30			0.14	0.14
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1538		483	1017			216	211
v/s Ratio Prot							0.02	c0.24			c0.03	0.02
v/s Ratio Perm					0.30							
v/c Ratio					0.94		0.06	0.80			0.22	0.11
Uniform Delay, d1					16.6		12.5	16.1			19.1	18.8
Progression Factor					0.68		1.38	1.45			3.74	5.19
Incremental Delay, d2					11.0		0.2	4.7			0.2	0.1
Delay (s)					22.3		17.4	28.0			71.6	97.6
Level of Service					C		B	C			E	F
Approach Delay (s)		0.0			22.3			27.6			84.5	
Approach LOS		A			C			C			F	

Intersection Summary

HCM Average Control Delay	31.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔						↕	↗
Volume (vph)	0	0	0	369	1275	0	0	0	0	0	780	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.93	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1412	4789						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1412	4789						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	369	1275	0	0	0	0	0	780	270
RTOR Reduction (vph)	0	0	0	122	5	0	0	0	0	0	0	176
Lane Group Flow (vph)	0	0	0	210	1307	0	0	0	0	0	780	94
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				20.5	20.5						17.5	17.5
Effective Green, g (s)				20.0	20.0						17.0	17.0
Actuated g/C Ratio				0.40	0.40						0.34	0.34
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				565	1916						1203	948
v/s Ratio Prot											c0.22	
v/s Ratio Perm				0.15	0.27							0.03
v/c Ratio				0.37	0.68						0.65	0.10
Uniform Delay, d1				10.6	12.4						14.0	11.3
Progression Factor				1.00	1.00						0.93	2.58
Incremental Delay, d2				1.9	2.0						2.0	0.2
Delay (s)				12.4	14.4						15.0	29.3
Level of Service				B	B						B	C
Approach Delay (s)		0.0			14.0			0.0			18.7	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	6	1675	600	102	184	146	2	2058	1085
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6053		2787	3433	1863	1584	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6053		2787	3433	1863	1584	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	1675	600	102	184	146	2	2058	1085
RTOR Reduction (vph)	0	0	0	2	0	0	0	61	0
Lane Group Flow (vph)	0	2281	0	100	184	146	1052	2032	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom		Perm			Prot
Protected Phases	2	2					1	3	3
Permitted Phases				1	1				
Actuated Green, G (s)		31.9		10.6	10.6	10.6	46.0	46.0	
Effective Green, g (s)		31.9		10.1	10.1	10.1	46.0	46.0	
Actuated g/C Ratio		0.32		0.10	0.10	0.10	0.46	0.46	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1931		281	347	188	729	1326	
v/s Ratio Prot		c0.38				c0.08	0.66	c0.71	
v/s Ratio Perm				0.04	0.05				
v/c Ratio		1.18		0.36	0.53	0.78	1.44	1.53	
Uniform Delay, d1		34.1		41.9	42.7	43.8	27.0	27.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		87.2		0.3	0.8	16.6	207.1	243.4	
Delay (s)		121.3		42.2	43.5	60.4	234.1	270.4	
Level of Service		F		D	D	E	F	F	
Approach Delay (s)		121.3				51.0	258.3		
Approach LOS		F				D	F		

Intersection Summary

HCM Average Control Delay	189.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	145.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖↖↖	↖					↖↖	↖			
Volume (vph)	1081	2701	111	0	0	0	0	668	432	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.93					0.99	0.94			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.98	0.85			
Flt Protected	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (prot)	1290	6001	1476					3298	1351			
Flt Permitted	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (perm)	1290	6001	1476					3298	1351			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1081	2701	111	0	0	0	0	668	432	0	0	0
RTOR Reduction (vph)	34	17	31	0	0	0	0	1	1	0	0	0
Lane Group Flow (vph)	701	3030	80	0	0	0	0	766	332	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	63.8	63.8	63.8					28.2	28.2			
Effective Green, g (s)	63.8	63.8	63.8					28.2	28.2			
Actuated g/C Ratio	0.64	0.64	0.64					0.28	0.28			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	823	3829	942					930	381			
v/s Ratio Prot	c0.54	0.50						0.23				
v/s Ratio Perm			0.05						c0.25			
v/c Ratio	0.85	0.79	0.08					0.82	0.87			
Uniform Delay, d1	14.4	13.2	6.9					33.6	34.2			
Progression Factor	0.89	0.90	1.05					1.00	1.00			
Incremental Delay, d2	1.1	0.2	0.0					5.7	18.6			
Delay (s)	14.0	12.0	7.3					39.3	52.8			
Level of Service	B	B	A					D	D			
Approach Delay (s)		12.3			0.0			43.4			0.0	
Approach LOS		B			A			D			A	

Intersection Summary

HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↕↕↕						↕		↰		
Volume (vph)	911	2059	0	0	0	0	0	35	7	35	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.99		1.00		
Flpb, ped/bikes	0.92	0.99						1.00		0.94		
Frt	1.00	1.00						0.98		1.00		
Flt Protected	0.95	1.00						1.00		0.95		
Satd. Flow (prot)	1404	4754						1799		1669		
Flt Permitted	0.95	1.00						1.00		0.73		
Satd. Flow (perm)	1404	4754						1799		1282		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	911	2059	0	0	0	0	0	35	7	35	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	720	2250	0	0	0	0	0	36	0	35	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	71.5	71.5						21.5		21.5		
Effective Green, g (s)	71.0	71.0						21.0		21.0		
Actuated g/C Ratio	0.71	0.71						0.21		0.21		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	997	3375						378		269		
v/s Ratio Prot								0.02				
v/s Ratio Perm	c0.51	0.47								c0.03		
v/c Ratio	0.72	0.67						0.10		0.13		
Uniform Delay, d1	8.6	8.0						31.9		32.1		
Progression Factor	1.10	1.15						1.00		0.85		
Incremental Delay, d2	2.8	0.6						0.5		0.6		
Delay (s)	12.3	9.8						32.4		27.8		
Level of Service	B	A						C		C		
Approach Delay (s)		10.4			0.0			32.4				27.8
Approach LOS		B			A			C				C

Intersection Summary

HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑								↑↑↑	
Volume (vph)	0	2037	324	0	0	0	0	0	0	215	789	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0								4.0	
Lane Util. Factor		0.86	0.86								0.91	
Frbp, ped/bikes		1.00	0.93								1.00	
Flpb, ped/bikes		1.00	1.00								0.99	
Frt		1.00	0.85								1.00	
Flt Protected		1.00	1.00								0.99	
Satd. Flow (prot)		4789	1265								4967	
Flt Permitted		1.00	1.00								0.99	
Satd. Flow (perm)		4789	1265								4967	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2037	324	0	0	0	0	0	0	215	789	0
RTOR Reduction (vph)	0	1	119	0	0	0	0	0	0	0	49	0
Lane Group Flow (vph)	0	2068	173	0	0	0	0	0	0	0	955	0
Confl. Peds. (#/hr)			36								36	
Turn Type			Perm								Perm	
Protected Phases		1										2
Permitted Phases			1								2	
Actuated Green, G (s)		54.5	54.5								28.5	
Effective Green, g (s)		54.0	54.0								28.0	
Actuated g/C Ratio		0.54	0.54								0.28	
Clearance Time (s)		3.5	3.5								3.5	
Lane Grp Cap (vph)		2586	683								1391	
v/s Ratio Prot		0.43										
v/s Ratio Perm			0.14								0.19	
v/c Ratio		0.80	0.25								0.69	
Uniform Delay, d1		18.6	12.3								32.1	
Progression Factor		1.02	2.06								1.17	
Incremental Delay, d2		2.2	0.7								2.2	
Delay (s)		21.3	25.9								39.8	
Level of Service		C	C								D	
Approach Delay (s)		21.8			0.0			0.0			39.8	
Approach LOS		C			A			A			D	
Intersection Summary												
HCM Average Control Delay			27.2									HCM Level of Service C
HCM Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			100.0								18.0	Sum of lost time (s)
Intersection Capacity Utilization			68.2%									ICU Level of Service C
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/17/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	200	345	161	61	485	78	1309	339	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.5	5.0	4.5	4.5	5.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.99	0.85	0.85	1.00	1.00	0.97		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1680	1504	1583	1770	3539	4915		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1680	1504	1583	1770	3539	4915		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	200	345	161	61	485	78	1309	339	38
RTOR Reduction (vph)	0	0	0	36	0	0	2	0	0
Lane Group Flow (vph)	180	381	145	25	485	78	1684	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2					
Actuated Green, G (s)	41.5	41.5	41.5	41.5	17.5	49.5	27.5		
Effective Green, g (s)	41.0	41.0	41.5	41.0	17.5	49.5	27.0		
Actuated g/C Ratio	0.41	0.41	0.42	0.41	0.18	0.50	0.27		
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Lane Grp Cap (vph)	689	689	624	649	310	1752	1327		
v/s Ratio Prot					c0.27	0.02	c0.34		
v/s Ratio Perm	0.11	0.23	0.10	0.02					
v/c Ratio	0.26	0.55	0.23	0.04	1.56	0.04	1.27		
Uniform Delay, d1	19.5	22.5	18.9	17.7	41.2	13.0	36.5		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.9	3.2	0.9	0.1	269.2	0.0	127.1		
Delay (s)	20.4	25.7	19.8	17.8	310.5	13.1	163.6		
Level of Service	C	C	B	B	F	B	F		
Approach Delay (s)		22.7				269.3	163.6		
Approach LOS		C				F	F		

Intersection Summary

HCM Average Control Delay	147.5	HCM Level of Service	F
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑↑				↗
Volume (vph)	0	0	0	0	1060	128	133	1029	0	0	0	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		5.0	5.0				5.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.98		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6248		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6248		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1060	128	133	1029	0	0	0	103
RTOR Reduction (vph)	0	0	0	0	30	0	12	0	0	0	0	13
Lane Group Flow (vph)	0	0	0	0	1158	0	122	1029	0	0	0	91
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					25.0		35.5	35.5				35.5
Effective Green, g (s)					26.0		35.0	35.0				35.0
Actuated g/C Ratio					0.37		0.50	0.50				0.50
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					2321		817	2543				1272
v/s Ratio Prot					c0.19			c0.20				
v/s Ratio Perm							0.07					0.04
v/c Ratio					0.50		0.15	0.40				0.07
Uniform Delay, d1					17.0		9.5	11.0				9.1
Progression Factor					1.00		0.77	0.82				1.00
Incremental Delay, d2					0.8		0.2	0.3				0.1
Delay (s)					17.7		7.5	9.3				9.2
Level of Service					B		A	A				A
Approach Delay (s)		0.0			17.7			9.1			9.2	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	227	1215	0	0	0	0	0	426	501
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.97	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.92	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4529	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4529	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	227	1215	0	0	0	0	0	426	501
RTOR Reduction (vph)	0	0	0	159	0	0	0	0	0	0	83	0
Lane Group Flow (vph)	0	0	0	68	1215	0	0	0	0	0	844	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						27.5	
Effective Green, g (s)				15.0	15.0						27.0	
Actuated g/C Ratio				0.30	0.30						0.54	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2446	
v/s Ratio Prot					c0.24						c0.19	
v/s Ratio Perm				0.04								
v/c Ratio				0.14	0.80						0.35	
Uniform Delay, d1				12.8	16.1						6.5	
Progression Factor				1.00	1.00						1.97	
Incremental Delay, d2				0.0	2.8						0.3	
Delay (s)				12.8	18.9						13.1	
Level of Service				B	B						B	
Approach Delay (s)		0.0			17.9			0.0			13.1	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	16.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	755	388	0	0	141	78	355	976	37	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.97		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.95		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4672		3433	5041				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4672		3433	5041				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	755	388	0	0	141	78	355	976	37	0	0	0
RTOR Reduction (vph)	0	0	0	0	21	0	0	6	0	0	0	0
Lane Group Flow (vph)	755	388	0	0	198	0	355	1007	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		30.0	30.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.43	0.43				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			934		1471	2160				
v/s Ratio Prot	c0.22	c0.11			0.04		0.10	c0.20				
v/s Ratio Perm												
v/c Ratio	1.18	0.25			0.21		0.24	0.47				
Uniform Delay, d1	28.5	12.2			23.4		12.7	14.3				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	97.9	0.4			0.5		0.4	0.7				
Delay (s)	126.4	12.6			23.9		13.1	15.0				
Level of Service	F	B			C		B	B				
Approach Delay (s)		87.7			23.9			14.5			0.0	
Approach LOS		F			C			B			A	

Intersection Summary

HCM Average Control Delay	45.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Volume (vph)	0	0	0	200	1076	0	0	0	0	0	405	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.91	0.91
Frbp, ped/bikes					1.00						1.00	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.99	0.85
Flt Protected					0.99						1.00	1.00
Satd. Flow (prot)					4878						3194	1190
Flt Permitted					0.99						1.00	1.00
Satd. Flow (perm)					4878						3194	1190
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	200	1076	0	0	0	0	0	405	152
RTOR Reduction (vph)	0	0	0	0	54	0	0	0	0	0	5	54
Lane Group Flow (vph)	0	0	0	0	1222	0	0	0	0	0	415	83
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2634						958	357
v/s Ratio Prot					c0.25						c0.13	
v/s Ratio Perm												0.07
v/c Ratio					0.46						0.43	0.23
Uniform Delay, d1					7.1						14.1	13.2
Progression Factor					1.00						1.76	2.77
Incremental Delay, d2					0.6						0.1	0.1
Delay (s)					7.6						24.9	36.7
Level of Service					A						C	D
Approach Delay (s)		0.0			7.6			0.0			27.8	
Approach LOS		A			A			A			C	

Intersection Summary

HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑									↑↑↑		
Volume (vph)	0	2435	1019	0	0	0	0	0	0	279	334	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0									4.0		
Lane Util. Factor		0.86									0.91		
Frpb, ped/bikes		0.98									1.00		
Flpb, ped/bikes		1.00									0.97		
Frt		0.96									1.00		
Flt Protected		1.00									0.98		
Satd. Flow (prot)		6032									4809		
Flt Permitted		1.00									0.98		
Satd. Flow (perm)		6032									4809		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	2435	1019	0	0	0	0	0	0	279	334	0	
RTOR Reduction (vph)	0	118	0	0	0	0	0	0	0	0	1	0	
Lane Group Flow (vph)	0	3336	0	0	0	0	0	0	0	0	612	0	
Confl. Peds. (#/hr)			72							72			
Parking (#/hr)										0		0	
Turn Type										Perm			
Protected Phases		2									1		
Permitted Phases										1			
Actuated Green, G (s)		27.5									15.5		
Effective Green, g (s)		27.0									15.0		
Actuated g/C Ratio		0.54									0.30		
Clearance Time (s)		3.5									3.5		
Lane Grp Cap (vph)		3257									1443		
v/s Ratio Prot		c0.55											
v/s Ratio Perm											0.13		
v/c Ratio		1.05dr									0.42		
Uniform Delay, d1		11.5									14.0		
Progression Factor		1.00									0.57		
Incremental Delay, d2		22.3									0.8		
Delay (s)		33.8									8.9		
Level of Service		C									A		
Approach Delay (s)		33.8			0.0			0.0			8.9		
Approach LOS		C			A			A			A		
Intersection Summary													
HCM Average Control Delay			30.1		HCM Level of Service							C	
HCM Volume to Capacity ratio			0.81										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)						8.0		
Intersection Capacity Utilization			76.0%		ICU Level of Service						D		
Analysis Period (min)			15										
dr Defacto Right Lane. Recode with 1 though lane as a right lane.													
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

63: Richards Blvd & Dos Rios St

6/17/2007

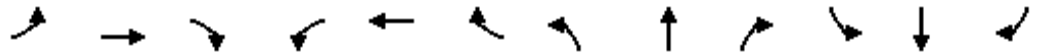


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	1267	193	0	8	0	0	239	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5			4.5			4.5	
Lane Util. Factor					0.86			1.00			1.00	
Frt					0.98			1.00			0.99	
Flt Protected					1.00			1.00			1.00	
Satd. Flow (prot)					6281			1863			1842	
Flt Permitted					1.00			1.00			1.00	
Satd. Flow (perm)					6281			1863			1842	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1267	193	0	8	0	0	239	21
RTOR Reduction (vph)	0	0	0	0	55	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	0	0	0	1405	0	0	8	0	0	254	0
Turn Type				Prot				Perm				
Protected Phases				2				4			8	
Permitted Phases					2		4					
Actuated Green, G (s)					21.5			19.5			19.5	
Effective Green, g (s)					21.5			19.5			19.5	
Actuated g/C Ratio					0.43			0.39			0.39	
Clearance Time (s)					4.5			4.5			4.5	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					2701			727			718	
v/s Ratio Prot								0.00			c0.14	
v/s Ratio Perm					c0.22							
v/c Ratio					0.52			0.01			0.35	
Uniform Delay, d1					10.5			9.3			10.8	
Progression Factor					0.68			1.00			1.00	
Incremental Delay, d2					0.6			0.0			1.4	
Delay (s)					7.7			9.4			12.2	
Level of Service					A			A			B	
Approach Delay (s)		0.0			7.7			9.4			12.2	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM Average Control Delay			8.4		HCM Level of Service						A	
HCM Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)						9.0	
Intersection Capacity Utilization			42.9%		ICU Level of Service						A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

64: Richards Blvd & 12th Street

6/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔	↑↑	↗	↔↔	↑↑↑			↑↑↑	↔↔
Volume (vph)	0	0	0	46	908	95	5	1051	0	0	3304	552
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.97	0.95	1.00	0.97	0.91			0.91	0.88
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				3433	3539	1583	3433	5085			5085	2787
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				3433	3539	1583	3433	5085			5085	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	46	908	95	5	1051	0	0	3304	552
RTOR Reduction (vph)	0	0	0	0	0	65	0	0	0	0	0	139
Lane Group Flow (vph)	0	0	0	46	908	30	5	1051	0	0	3304	413
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					4		5	2			6	
Permitted Phases				4		4						6
Actuated Green, G (s)				31.6	31.6	31.6	1.0	60.4			55.4	55.4
Effective Green, g (s)				31.6	31.6	31.6	1.0	60.4			55.4	55.4
Actuated g/C Ratio				0.32	0.32	0.32	0.01	0.60			0.55	0.55
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				1085	1118	500	34	3071			2817	1544
v/s Ratio Prot					c0.26		0.00	c0.21			c0.65	
v/s Ratio Perm				0.01		0.02						0.15
v/c Ratio				0.04	0.81	0.06	0.15	0.34			1.17	0.27
Uniform Delay, d1				23.7	31.5	23.8	49.1	9.9			22.3	11.7
Progression Factor				1.00	1.00	1.00	1.00	1.00			0.93	1.17
Incremental Delay, d2				0.0	4.6	0.1	2.0	0.3			80.4	0.3
Delay (s)				23.7	36.1	23.9	51.1	10.2			101.2	14.0
Level of Service				C	D	C	D	B			F	B
Approach Delay (s)		0.0			34.4			10.4			88.7	
Approach LOS		A			C			B			F	

Intersection Summary

HCM Average Control Delay	65.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔↔	↑						↑↑	↔
Volume (vph)	0	0	0	711	707	0	0	0	0	0	663	598
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.94	1.00						0.95	1.00
Frbp, ped/bikes				1.00	1.00						1.00	0.81
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				4990	1863						3539	1285
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				4990	1863						3539	1285
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	711	707	0	0	0	0	0	663	598
RTOR Reduction (vph)	0	0	0	331	0	0	0	0	0	0	0	229
Lane Group Flow (vph)	0	0	0	380	707	0	0	0	0	0	663	369
Confl. Peds. (#/hr)			55									55
Turn Type				Prot								Perm
Protected Phases				1 9	3 12 13						4	
Permitted Phases												4
Actuated Green, G (s)				55.0	70.5						22.0	22.0
Effective Green, g (s)				53.5	70.0						22.0	22.0
Actuated g/C Ratio				0.54	0.70						0.22	0.22
Clearance Time (s)											4.0	4.0
Vehicle Extension (s)											5.0	5.0
Lane Grp Cap (vph)				2670	1304						779	283
v/s Ratio Prot				0.08	c0.38						0.19	
v/s Ratio Perm												c0.29
v/c Ratio				0.14	0.54						0.85	1.30
Uniform Delay, d1				11.7	7.3						37.4	39.0
Progression Factor				1.78	1.00						1.00	1.00
Incremental Delay, d2				0.0	0.8						9.7	159.6
Delay (s)				20.9	8.0						47.1	198.6
Level of Service				C	A						D	F
Approach Delay (s)		0.0			14.5			0.0			119.0	
Approach LOS		A			B			A			F	

Intersection Summary

HCM Average Control Delay	63.7	HCM Level of Service	E
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑↑	↑	↑				
Volume (vph)	0	0	0	0	1339	2293	56	120	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.88	1.00	1.00				
Frbp, ped/bikes					1.00	0.83	1.00	1.00				
Flpb, ped/bikes					1.00	1.00	1.00	1.00				
Frt					1.00	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					5085	2316	1770	1863				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					5085	2316	1770	1863				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1339	2293	56	120	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	443	43	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1339	1850	13	120	0	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type						custom	Split					
Protected Phases					6 11 15	11	8 16	8 16				
Permitted Phases						6 15						
Actuated Green, G (s)					68.5	60.5	24.5	24.5				
Effective Green, g (s)					68.5	60.5	24.0	24.0				
Actuated g/C Ratio					0.68	0.60	0.24	0.24				
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)					3483	1586	425	447				
v/s Ratio Prot					0.26	c0.34	0.01	c0.06				
v/s Ratio Perm						0.46						
v/c Ratio					0.38	1.17	0.03	0.27				
Uniform Delay, d1					6.7	19.8	29.1	30.9				
Progression Factor					0.32	0.89	0.80	0.97				
Incremental Delay, d2					0.0	75.7	0.1	0.7				
Delay (s)					2.2	93.3	23.3	30.6				
Level of Service					A	F	C	C				
Approach Delay (s)		0.0			59.7			28.3			0.0	
Approach LOS		A			E			C			A	

Intersection Summary

HCM Average Control Delay	58.3	HCM Level of Service	E
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↑↑↑		↖	↑			↑	↗
Volume (vph)	0	0	0	270	3003	36	718	186	0	0	186	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		4.5	4.0			4.0	4.0
Lane Util. Factor				1.00	0.86		1.00	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes				0.87	1.00		1.00	1.00			1.00	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1534	6385		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1534	6385		1770	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	270	3003	36	718	186	0	0	186	259
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	4
Lane Group Flow (vph)	0	0	0	270	3038	0	718	186	0	0	186	255
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type				Perm			Prot					Perm
Protected Phases					2		3	8			4	
Permitted Phases				2								4
Actuated Green, G (s)				50.6	50.6		24.8	41.3			12.5	12.5
Effective Green, g (s)				50.0	50.0		24.3	40.8			12.0	12.0
Actuated g/C Ratio				0.50	0.50		0.24	0.41			0.12	0.12
Clearance Time (s)				4.6	4.6		4.0	3.5			3.5	3.5
Vehicle Extension (s)				0.2	0.2		3.0	0.2			0.2	0.2
Lane Grp Cap (vph)				767	3193		430	760			224	190
v/s Ratio Prot					c0.48		c0.41	0.10			0.10	
v/s Ratio Perm				0.18								c0.16
v/c Ratio				0.35	0.95		1.67	0.24			0.83	1.34
Uniform Delay, d1				15.2	23.8		37.9	19.5			43.0	44.0
Progression Factor				0.58	0.46		0.99	0.79			1.00	1.00
Incremental Delay, d2				0.1	0.9		307.7	0.0			21.3	184.0
Delay (s)				8.9	11.9		345.0	15.4			64.3	228.0
Level of Service				A	B		F	B			E	F
Approach Delay (s)		0.0			11.7			277.2			159.6	
Approach LOS		A			B			F			F	

Intersection Summary

HCM Average Control Delay	77.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	111.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & N 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖↗	↑				↖↗
Volume (vph)	0	0	0	0	2279	235	38	1721	0	0	0	1183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.6		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	1.00				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.93
Flpb, ped/bikes					1.00		0.95	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6265		3246	1863				2604
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6265		3246	1863				2604
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	2279	235	38	1721	0	0	0	1183
RTOR Reduction (vph)	0	0	0	0	17	0	9	0	0	0	0	150
Lane Group Flow (vph)	0	0	0	0	2497	0	29	1721	0	0	0	1033
Confl. Peds. (#/hr)			40			40	40		40	40		40
Turn Type							Perm					custom
Protected Phases					2			8				
Permitted Phases					2		8					4
Actuated Green, G (s)					32.7		49.5	49.5				49.5
Effective Green, g (s)					32.4		49.0	49.0				49.5
Actuated g/C Ratio					0.32		0.49	0.49				0.50
Clearance Time (s)					4.3		3.5	3.5				3.5
Vehicle Extension (s)					2.0		2.0	2.0				2.0
Lane Grp Cap (vph)					2030		1591	913				1289
v/s Ratio Prot					c0.40			c0.92				
v/s Ratio Perm							0.01					0.40
v/c Ratio					1.23		0.02	1.88				0.80
Uniform Delay, d1					33.8		13.1	25.5				21.1
Progression Factor					0.57		0.95	0.99				1.00
Incremental Delay, d2					107.6		0.0	398.6				3.5
Delay (s)					127.0		12.5	423.9				24.6
Level of Service					F		B	F				C
Approach Delay (s)		0.0			127.0			415.0			24.6	
Approach LOS		A			F			F			C	

Intersection Summary

HCM Average Control Delay	197.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	173.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑	↗					↑↑	↗
Volume (vph)	0	0	0	171	1496	582	0	0	0	0	1087	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	4.0	4.0					4.0	3.5
Lane Util. Factor				1.00	0.91	1.00					0.95	1.00
Frbp, ped/bikes				1.00	1.00	0.93					1.00	1.00
Flpb, ped/bikes				1.00	1.00	1.00					1.00	1.00
Fr _t				1.00	1.00	0.85					1.00	0.85
Fl _t Protected				0.95	1.00	1.00					1.00	1.00
Satd. Flow (prot)				1770	5085	1474					3539	1583
Fl _t Permitted				0.95	1.00	1.00					1.00	1.00
Satd. Flow (perm)				1770	5085	1474					3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	171	1496	582	0	0	0	0	1087	229
RTOR Reduction (vph)	0	0	0	105	0	368	0	0	0	0	0	93
Lane Group Flow (vph)	0	0	0	66	1496	214	0	0	0	0	1087	136
Confl. Peds. (#/hr)			24			24			24			
Turn Type				Prot		Perm						Perm
Protected Phases				5	2						7	
Permitted Phases						2						7
Actuated Green, G (s)				36.8	36.8	36.8					36.8	36.8
Effective Green, g (s)				35.8	36.8	36.8					36.3	36.8
Actuated g/C Ratio				0.36	0.37	0.37					0.36	0.37
Clearance Time (s)				4.0	4.0	4.0					3.5	3.5
Vehicle Extension (s)				2.0	2.0	2.0					2.0	2.0
Lane Grp Cap (vph)				634	1871	542					1285	583
v/s Ratio Prot				0.04	c0.29						c0.31	
v/s Ratio Perm						0.15						0.09
v/c Ratio				0.10	0.80	0.40					0.85	0.23
Uniform Delay, d ₁				21.4	28.3	23.4					29.3	21.8
Progression Factor				0.60	0.93	0.79					1.00	1.00
Incremental Delay, d ₂				0.0	0.3	0.2					5.1	0.1
Delay (s)				12.9	26.8	18.7					34.4	21.9
Level of Service				B	C	B					C	C
Approach Delay (s)		0.0			23.6			0.0			32.2	
Approach LOS		A			C			A			C	

Intersection Summary

HCM Average Control Delay	26.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	26.9
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richards Blvd & 10th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑		↘	↑↑			↑	↗
Volume (vph)	0	0	0	84	1019	15	1241	22	0	0	38	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	4.0		4.5	4.0			4.0	4.0
Lane Util. Factor				1.00	0.86		1.00	0.95			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.69
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Fr _t				1.00	1.00		1.00	1.00			1.00	0.85
Fl _t Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	6394		1770	3539			1863	1099
Fl _t Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770	6394		1770	3539			1863	1099
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	84	1019	15	1241	22	0	0	38	170
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	44
Lane Group Flow (vph)	0	0	0	84	1032	0	1241	22	0	0	38	126
Confl. Peds. (#/hr)			35				35					35
Turn Type				Perm			Prot					Perm
Protected Phases					6		3	8			4	
Permitted Phases				6								4
Actuated Green, G (s)				23.0	23.0		61.0	69.0			4.0	4.0
Effective Green, g (s)				22.5	23.5		60.5	68.5			3.5	3.5
Actuated g/C Ratio				0.22	0.24		0.60	0.68			0.04	0.04
Clearance Time (s)				4.5	4.5		4.0	3.5			3.5	3.5
Vehicle Extension (s)				2.0	2.0		3.0	0.2			2.0	2.0
Lane Grp Cap (vph)				398	1503		1071	2424			65	38
v/s Ratio Prot					c0.16		c0.70	0.01			0.02	
v/s Ratio Perm				0.05								c0.11
v/c Ratio				0.21	0.69		1.16	0.01			0.58	3.31
Uniform Delay, d ₁				31.5	34.9		19.8	5.0			47.5	48.2
Progression Factor				0.47	0.45		0.97	1.00			1.00	1.00
Incremental Delay, d ₂				1.1	2.3		82.1	0.0			8.4	1101.5
Delay (s)				15.8	18.0		101.2	5.0			55.9	1149.7
Level of Service				B	B		F	A			E	F
Approach Delay (s)		0.0			17.8			99.5			949.9	
Approach LOS		A			B			F			F	

Intersection Summary

HCM Average Control Delay	132.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	107.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Volume (vph)	5	701	46	103	1246	129	42	126	395	184	110	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	0.99		1.00	0.99			0.96			1.00	
Flpb, ped/bikes	1.00	1.00		0.97	1.00			1.00			0.99	
Frt	1.00	0.99		1.00	0.99			0.91			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.97	
Satd. Flow (prot)	1770	3480		1711	3449			1611			1784	
Flt Permitted	0.13	1.00		0.31	1.00			0.96			0.41	
Satd. Flow (perm)	251	3480		559	3449			1552			757	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	701	46	103	1246	129	42	126	395	184	110	5
RTOR Reduction (vph)	0	6	0	0	11	0	0	54	0	0	1	0
Lane Group Flow (vph)	5	741	0	103	1364	0	0	509	0	0	298	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	30.2	30.2		30.2	30.2			26.0			26.0	
Effective Green, g (s)	29.7	29.7		29.7	29.7			25.5			25.5	
Actuated g/C Ratio	0.46	0.46		0.46	0.46			0.40			0.40	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	116	1610		259	1596			616			301	
v/s Ratio Prot		0.21			c0.40							
v/s Ratio Perm	0.02			0.18				0.33			c0.39	
v/c Ratio	0.04	0.46		0.40	0.85			0.83			0.99	
Uniform Delay, d1	9.5	11.8		11.4	15.3			17.4			19.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.7	0.9		4.5	6.1			8.5			48.3	
Delay (s)	10.2	12.7		15.9	21.4			25.9			67.5	
Level of Service	B	B		B	C			C			E	
Approach Delay (s)		12.7			21.0			25.9			67.5	
Approach LOS		B			C			C			E	

Intersection Summary

HCM Average Control Delay	24.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	64.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	136.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

6/27/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Volume (veh/h)	0	262	0	2487	2780	892
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	262	0	2487	2780	892
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				1019		
pX, platoon unblocked	0.83					
vC, conflicting volume	3609	927	2780			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	3423	927	2780			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	3	100			
cM capacity (veh/h)	4	270	139			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	262	829	829	829	927	927	927	892
Volume Left	0	0	0	0	0	0	0	0
Volume Right	262	0	0	0	0	0	0	892
cSH	270	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.97	0.49	0.49	0.49	0.55	0.55	0.55	0.52
Queue Length 95th (ft)	235	0	0	0	0	0	0	0
Control Delay (s)	88.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F							
Approach Delay (s)	88.0	0.0			0.0			
Approach LOS	F							

Intersection Summary			
Average Delay		3.6	
Intersection Capacity Utilization	76.6%		ICU Level of Service D
Analysis Period (min)		15	

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↑↑↑			↑↑↑	
Volume (vph)	0	0	81	0	0	5	0	2487	3	0	3128	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0			4.0	
Lane Util. Factor			1.00			1.00		0.91			0.86	
Frbp, ped/bikes			1.00			0.93		1.00			1.00	
Flpb, ped/bikes			1.00			1.00		1.00			1.00	
Frt			0.86			0.86		1.00			1.00	
Flt Protected			1.00			1.00		1.00			1.00	
Satd. Flow (prot)			1611			1497		5084			6404	
Flt Permitted			1.00			1.00		1.00			1.00	
Satd. Flow (perm)			1611			1497		5084			6404	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	81	0	0	5	0	2487	3	0	3128	13
RTOR Reduction (vph)	0	0	59	0	0	5	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	22	0	0	0	0	2490	0	0	3141	0
Confl. Peds. (#/hr)				36		36				36	36	
Turn Type			custom			custom						
Protected Phases								2			2	
Permitted Phases			4			8						
Actuated Green, G (s)			7.8			7.3		84.7			84.7	
Effective Green, g (s)			7.3			7.3		84.7			84.7	
Actuated g/C Ratio			0.07			0.07		0.85			0.85	
Clearance Time (s)			3.5			4.0		4.0			4.0	
Vehicle Extension (s)			2.0			3.0		5.0			5.0	
Lane Grp Cap (vph)			118			109		4306			5424	
v/s Ratio Prot								0.49			c0.49	
v/s Ratio Perm			c0.01			0.00						
v/c Ratio			0.18			0.00		0.58			0.58	
Uniform Delay, d1			43.6			43.0		2.3			2.3	
Progression Factor			1.00			1.00		0.06			1.00	
Incremental Delay, d2			0.3			0.0		0.3			0.5	
Delay (s)			43.8			43.0		0.5			2.8	
Level of Service			D			D		A			A	
Approach Delay (s)		43.8			43.0			0.5			2.8	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM Average Control Delay			2.4			HCM Level of Service					A	
HCM Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)				8.0		
Intersection Capacity Utilization			66.5%			ICU Level of Service					C	
Analysis Period (min)			15									
Description: 8 seconds additional lost time represents LRT												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Basler St & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	31	6	0	0	53	25	45	4166	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.96			1.00				
Flpb, ped/bikes	0.89	0.93			1.00			1.00				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.97			1.00			1.00				
Satd. Flow (prot)	1500	1585			1708			6398				
Flt Permitted	0.71	0.85			1.00			1.00				
Satd. Flow (perm)	1115	1396			1708			6398				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	6	0	0	53	25	45	4166	6	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	18	19	0	0	78	0	0	4217	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			73.0				
Effective Green, g (s)	18.0	18.0			18.0			74.0				
Actuated g/C Ratio	0.18	0.18			0.18			0.74				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	201	251			307			4735				
v/s Ratio Prot					c0.05							
v/s Ratio Perm	0.02	0.01						0.66				
v/c Ratio	0.09	0.08			0.25			0.89				
Uniform Delay, d1	34.2	34.1			35.2			9.9				
Progression Factor	1.02	1.02			1.00			0.29				
Incremental Delay, d2	0.9	0.6			2.0			0.3				
Delay (s)	35.8	35.4			37.2			3.1				
Level of Service	D	D			D			A				
Approach Delay (s)		35.6			37.2			3.1			0.0	
Approach LOS		D			D			A			A	

Intersection Summary

HCM Average Control Delay	4.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Bannon St & I-5 SB Off

6/27/2007





















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗							↖↗	↖↖↖	
Volume (vph)	0	613	814	0	0	0	0	0	0	660	821	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5							4.5	4.5	
Lane Util. Factor		1.00	1.00							0.81	0.81	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		1863	1583							2867	4505	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		1863	1583							2867	4505	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	613	814	0	0	0	0	0	0	660	821	0
RTOR Reduction (vph)	0	0	12	0	0	0	0	0	0	316	11	0
Lane Group Flow (vph)	0	613	802	0	0	0	0	0	0	258	896	0
Turn Type			Perm								Split	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		57.6	57.6							33.4	33.4	
Effective Green, g (s)		57.6	57.6							33.4	33.4	
Actuated g/C Ratio		0.58	0.58							0.33	0.33	
Clearance Time (s)		4.5	4.5							4.5	4.5	
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Lane Grp Cap (vph)		1073	912							958	1505	
v/s Ratio Prot		0.33								0.09	c0.20	
v/s Ratio Perm			c0.51									
v/c Ratio		0.57	0.88							0.27	0.60	
Uniform Delay, d1		13.4	18.2							24.4	27.7	
Progression Factor		1.00	1.00							1.64	0.85	
Incremental Delay, d2		0.7	9.7							0.6	1.5	
Delay (s)		14.1	27.9							40.6	25.0	
Level of Service		B	C							D	C	
Approach Delay (s)		22.0			0.0			0.0			31.0	
Approach LOS		C			A			A			C	
Intersection Summary												
HCM Average Control Delay			26.6								HCM Level of Service	C
HCM Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			100.0								Sum of lost time (s)	9.0
Intersection Capacity Utilization			85.1%								ICU Level of Service	E
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

12: Bannon St & I-5 NB Off





















6/27/2007

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		  							 				
Volume (vph)	111	1162	0	0	0	0	0	21	1784	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5						4.5	4.5				
Lane Util. Factor	1.00	0.91						1.00	0.88				
Frt	1.00	1.00						1.00	0.85				
Flt Protected	0.95	1.00						1.00	1.00				
Satd. Flow (prot)	1770	5085						1863	2787				
Flt Permitted	0.95	1.00						1.00	1.00				
Satd. Flow (perm)	1770	5085						1863	2787				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	111	1162	0	0	0	0	0	21	1784	0	0	0	
RTOR Reduction (vph)	66	0	0	0	0	0	0	0	5	0	0	0	
Lane Group Flow (vph)	45	1162	0	0	0	0	0	21	1779	0	0	0	
Turn Type	Split						Perm						
Protected Phases	4	4						2					
Permitted Phases									2				
Actuated Green, G (s)	31.5	31.5						59.5	59.5				
Effective Green, g (s)	31.5	31.5						59.5	59.5				
Actuated g/C Ratio	0.32	0.32						0.60	0.60				
Clearance Time (s)	4.5	4.5						4.5	4.5				
Vehicle Extension (s)	3.0	3.0						3.0	3.0				
Lane Grp Cap (vph)	558	1602						1108	1658				
v/s Ratio Prot	0.03	c0.23						0.01					
v/s Ratio Perm									c0.64				
v/c Ratio	0.08	0.73						0.02	1.07				
Uniform Delay, d1	24.1	30.4						8.3	20.2				
Progression Factor	1.14	1.04						1.00	1.00				
Incremental Delay, d2	0.2	2.5						0.0	44.6				
Delay (s)	27.8	34.2						8.3	64.9				
Level of Service	C	C						A	E				
Approach Delay (s)		33.7			0.0			64.2			0.0		
Approach LOS		C			A			E			A		
Intersection Summary													
HCM Average Control Delay			51.6		HCM Level of Service					D			
HCM Volume to Capacity ratio			0.95										
Actuated Cycle Length (s)			100.0		Sum of lost time (s)					9.0			
Intersection Capacity Utilization			97.4%		ICU Level of Service					F			
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/27/2007

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		  											
Volume (vph)	157	2296	493	0	0	0	0	580	212	176	248	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0						4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	0.86						1.00	1.00	1.00	1.00		
Frt	1.00	0.97						1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1770	6238						1863	1583	1770	1863		
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1770	6238						1863	1583	1770	1863		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	157	2296	493	0	0	0	0	580	212	176	248	0	
RTOR Reduction (vph)	0	39	0	0	0	0	0	0	49	0	0	0	
Lane Group Flow (vph)	157	2750	0	0	0	0	0	580	163	176	248	0	
Turn Type	Split						Perm			Prot			
Protected Phases	4	4						2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	47.0	47.0						27.1	27.1	13.9	45.0		
Effective Green, g (s)	47.0	47.0						27.1	27.1	13.9	45.0		
Actuated g/C Ratio	0.47	0.47						0.27	0.27	0.14	0.45		
Clearance Time (s)	4.0	4.0						4.0	4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	832	2932						505	429	246	838		
v/s Ratio Prot	0.09	c0.44						c0.31		c0.10	0.13		
v/s Ratio Perm									0.10				
v/c Ratio	0.19	0.94						1.15	0.38	0.72	0.30		
Uniform Delay, d1	15.4	25.1						36.5	29.6	41.2	17.4		
Progression Factor	1.04	1.06						1.00	1.00	1.08	1.27		
Incremental Delay, d2	0.2	2.9						87.8	0.6	8.1	0.2		
Delay (s)	16.2	29.5						124.3	30.2	52.5	22.3		
Level of Service	B	C						F	C	D	C		
Approach Delay (s)		28.7			0.0			99.1			34.8		
Approach LOS		C			A			F			C		
Intersection Summary													
HCM Average Control Delay			42.7									HCM Level of Service	D
HCM Volume to Capacity ratio			0.97										
Actuated Cycle Length (s)			100.0									Sum of lost time (s)	12.0
Intersection Capacity Utilization			111.4%									ICU Level of Service	H
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Bannon St & N 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑↑						↑↑↑				
Volume (vph)	1342	1705	0	0	0	0	0	671	545	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.0				
Lane Util. Factor	1.00	0.86						0.91				
Frt	1.00	1.00						0.93				
Flt Protected	0.95	1.00						1.00				
Satd. Flow (prot)	1770	6408						4743				
Flt Permitted	0.95	1.00						1.00				
Satd. Flow (perm)	1770	6408						4743				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1342	1705	0	0	0	0	0	671	545	0	0	0
RTOR Reduction (vph)	7	0	0	0	0	0	0	29	0	0	0	0
Lane Group Flow (vph)	1335	1705	0	0	0	0	0	1187	0	0	0	0
Turn Type	Perm											
Protected Phases	4						2					
Permitted Phases	4											
Actuated Green, G (s)	68.5	68.5						23.0				
Effective Green, g (s)	68.5	68.5						23.0				
Actuated g/C Ratio	0.68	0.68						0.23				
Clearance Time (s)	4.5	4.5						4.0				
Vehicle Extension (s)	3.0	3.0						3.0				
Lane Grp Cap (vph)	1212	4389						1091				
v/s Ratio Prot		0.27						c0.25				
v/s Ratio Perm	c0.75											
v/c Ratio	1.10	0.39						1.36dr				
Uniform Delay, d1	15.8	6.8						38.5				
Progression Factor	1.45	0.90						1.00				
Incremental Delay, d2	54.1	0.0						54.3				
Delay (s)	76.9	6.1						92.8				
Level of Service	E	A						F				
Approach Delay (s)		37.3			0.0			92.8			0.0	
Approach LOS		D			A			F			A	

Intersection Summary

HCM Average Control Delay	53.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	173.8%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

15: Bannon St & 7th Street

6/27/2007

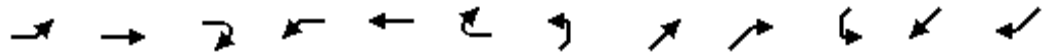


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑								↘	↑↑	
Volume (vph)	0	2009	242	0	0	0	0	0	0	304	1013	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5								4.5	4.5	
Lane Util. Factor		0.86								1.00	0.95	
Frt		0.98								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		6305								1770	3539	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		6305								1770	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2009	242	0	0	0	0	0	0	304	1013	0
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	70	0	0
Lane Group Flow (vph)	0	2230	0	0	0	0	0	0	0	234	1013	0
Turn Type										Prot		
Protected Phases		4								1	6	
Permitted Phases												
Actuated Green, G (s)		41.5								49.5	49.5	
Effective Green, g (s)		41.5								49.5	49.5	
Actuated g/C Ratio		0.42								0.50	0.50	
Clearance Time (s)		4.5								4.5	4.5	
Vehicle Extension (s)		3.0								3.0	3.0	
Lane Grp Cap (vph)		2617								876	1752	
v/s Ratio Prot		c0.35								0.13	c0.29	
v/s Ratio Perm												
v/c Ratio		0.85								0.27	0.58	
Uniform Delay, d1		26.5								14.7	17.9	
Progression Factor		0.40								0.04	0.20	
Incremental Delay, d2		2.4								0.6	1.1	
Delay (s)		13.0								1.2	4.7	
Level of Service		B								A	A	
Approach Delay (s)		13.0			0.0			0.0			3.9	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM Average Control Delay			9.6		HCM Level of Service					A		
HCM Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)					9.0		
Intersection Capacity Utilization			68.7%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

16: Richards & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖↗	↑↑	↖					↑↑↑	↖	↖↗	↑↑↑	
Volume (vph)	1441	35	790	0	0	0	0	1081	7	46	3139	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Lane Util. Factor	0.97	0.95	1.00					0.86	0.86	0.97	0.91	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	1583					4805	1362	3433	5085	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	1583					4805	1362	3433	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1441	35	790	0	0	0	0	1081	7	46	3139	0
RTOR Reduction (vph)	0	0	71	0	0	0	0	0	2	0	0	0
Lane Group Flow (vph)	1441	35	719	0	0	0	0	1082	4	46	3139	0
Turn Type	custom		Perm						Perm		Prot	
Protected Phases	4	4						2		1	6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	53.5	53.5	53.5					59.0	59.0	24.5	88.0	
Effective Green, g (s)	53.5	53.5	53.5					59.0	59.0	24.5	88.0	
Actuated g/C Ratio	0.36	0.36	0.36					0.39	0.39	0.16	0.59	
Clearance Time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1224	1262	565					1890	536	561	2983	
v/s Ratio Prot	0.42	0.01						0.23		0.01	c0.62	
v/s Ratio Perm			c0.45						0.00			
v/c Ratio	1.18	0.03	1.27					0.57	0.01	0.08	1.05	
Uniform Delay, d1	48.2	31.4	48.2					35.6	27.7	53.2	31.0	
Progression Factor	1.00	1.00	1.00					0.49	0.19	1.00	1.00	
Incremental Delay, d2	88.6	0.0	136.2					0.1	0.0	0.1	32.4	
Delay (s)	136.8	31.4	184.5					17.7	5.1	53.3	63.4	
Level of Service	F	C	F					B	A	D	E	
Approach Delay (s)		151.8			0.0			17.6			63.2	
Approach LOS		F			A			B			E	

Intersection Summary

HCM Average Control Delay	86.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	143.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

17: N B Street &

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	227	424	0	0	0	0	342	1214	1082	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0						4.5	4.5				
Lane Util. Factor	1.00	1.00						0.91	0.91				
Frt	1.00	1.00						0.98	0.85				
Flt Protected	0.95	1.00						0.99	1.00				
Satd. Flow (prot)	1770	1863						3282	1441				
Flt Permitted	0.95	1.00						0.99	1.00				
Satd. Flow (perm)	1770	1863						3282	1441				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	227	424	0	0	0	0	342	1214	1082	0	0	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	17	53	0	0	0	
Lane Group Flow (vph)	227	424	0	0	0	0	0	1820	748	0	0	0	
Turn Type	Perm						Split		Perm				
Protected Phases	4						2	2					
Permitted Phases	4								2				
Actuated Green, G (s)	20.9	20.9					50.6		50.6				
Effective Green, g (s)	20.9	20.9					50.6		50.6				
Actuated g/C Ratio	0.26	0.26					0.63		0.63				
Clearance Time (s)	4.0	4.0					4.5		4.5				
Vehicle Extension (s)	3.0	3.0					3.0		3.0				
Lane Grp Cap (vph)	462	487					2076		911				
v/s Ratio Prot	c0.23						c0.55						
v/s Ratio Perm	0.13									0.52			
v/c Ratio	0.49	0.87					0.88		0.82				
Uniform Delay, d1	25.0	28.3					12.1		11.2				
Progression Factor	1.00	1.00					0.34		0.39				
Incremental Delay, d2	0.8	15.5					4.6		6.8				
Delay (s)	25.9	43.8					8.7		11.2				
Level of Service	C	D					A		B				
Approach Delay (s)	37.6				0.0		9.5				0.0		
Approach LOS	D				A		A				A		

Intersection Summary

HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

18: N B Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑							↑↑↑	
Volume (vph)	0	1259	316	485	0	0	0	0	0	54	1069	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.5							4.0	
Lane Util. Factor		0.95		0.97							0.91	
Fr _t		0.97		1.00							1.00	
Fl _t Protected		1.00		0.95							1.00	
Satd. Flow (prot)		3433		3433							5073	
Fl _t Permitted		1.00		0.95							1.00	
Satd. Flow (perm)		3433		3433							5073	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1259	316	485	0	0	0	0	0	54	1069	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1553	0	485	0	0	0	0	0	0	1123	0
Turn Type				Prot							Split	
Protected Phases		4		3							1	1
Permitted Phases												
Actuated Green, G (s)		44.3		16.2							17.0	
Effective Green, g (s)		44.3		16.2							17.0	
Actuated g/C Ratio		0.44		0.16							0.17	
Clearance Time (s)		4.0		4.5							4.0	
Vehicle Extension (s)		3.0		3.0							3.0	
Lane Grp Cap (vph)		1521		556							862	
v/s Ratio Prot		c0.45		c0.14							c0.22	
v/s Ratio Perm												
v/c Ratio		1.02		0.87							1.30	
Uniform Delay, d ₁		27.9		40.9							41.5	
Progression Factor		1.00		1.00							0.66	
Incremental Delay, d ₂		28.5		14.1							142.9	
Delay (s)		56.3		55.0							170.2	
Level of Service		E		D							F	
Approach Delay (s)		56.3			55.0			0.0			170.2	
Approach LOS		E			D			A			F	

Intersection Summary

HCM Average Control Delay	96.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.5
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

19: Water St & 10th St

6/27/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (veh/h)	66	1244	543	165	191	122
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	66	1244	543	165	191	122
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		1236	821			
pX, platoon unblocked					0.64	
vC, conflicting volume	708				1380	354
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	708				484	354
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				37	81
cM capacity (veh/h)	887				305	642

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	481	829	362	346	313
Volume Left	66	0	0	0	191
Volume Right	0	0	0	165	122
cSH	887	1700	1700	1700	384
Volume to Capacity	0.07	0.49	0.21	0.20	0.82
Queue Length 95th (ft)	6	0	0	0	182
Control Delay (s)	2.1	0.0	0.0	0.0	44.8
Lane LOS	A				E
Approach Delay (s)	0.8		0.0		44.8
Approach LOS					E

Intersection Summary					
Average Delay			6.5		
Intersection Capacity Utilization			84.6%	ICU Level of Service	E
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis

20: N B Street & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1063	313	179	58	225	54	0	0	0	90	3055	456
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		4.0	4.0						3.5	5.0
Lane Util. Factor	0.91	0.91		1.00	1.00						0.81	0.81
Frbp, ped/bikes	1.00	0.98		1.00	1.00						1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Frt	1.00	0.97		1.00	0.97						1.00	0.85
Flt Protected	0.95	0.97		0.95	1.00						1.00	1.00
Satd. Flow (prot)	1610	3151		1770	1809						6014	1282
Flt Permitted	0.95	0.97		0.95	1.00						1.00	1.00
Satd. Flow (perm)	1610	3151		1770	1809						6014	1282
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1063	313	179	58	225	54	0	0	0	90	3055	456
RTOR Reduction (vph)	0	11	0	0	5	0	0	0	0	0	1	63
Lane Group Flow (vph)	531	1013	0	58	274	0	0	0	0	0	3190	347
Confl. Peds. (#/hr)			36	36								
Turn Type	custom			custom							Perm	Perm
Protected Phases	3	3		4	4						2 10	
Permitted Phases	3			4						2 10		2 10
Actuated Green, G (s)	41.0	41.0		16.0	16.0						74.5	74.5
Effective Green, g (s)	41.0	41.0		16.0	16.0						77.5	74.5
Actuated g/C Ratio	0.27	0.27		0.11	0.11						0.52	0.50
Clearance Time (s)	5.0	5.0		4.0	4.0							
Vehicle Extension (s)	5.0	5.0		5.0	5.0							
Lane Grp Cap (vph)	440	861		189	193						3107	637
v/s Ratio Prot	c0.33	0.32		0.03	c0.15							
v/s Ratio Perm											0.53	0.27
v/c Ratio	1.21	1.18		0.31	1.42						1.03	0.54
Uniform Delay, d1	54.5	54.5		61.9	67.0						36.2	26.1
Progression Factor	1.00	1.00		1.00	1.00						0.66	0.58
Incremental Delay, d2	112.8	91.6		1.9	215.6						13.8	0.3
Delay (s)	167.3	146.1		63.8	282.6						37.6	15.3
Level of Service	F	F		E	F						D	B
Approach Delay (s)		153.3			245.0			0.0			35.0	
Approach LOS		F			F			A			D	

Intersection Summary

HCM Average Control Delay	81.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	104.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: N B Street & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	390	54	0	0	7	5	235	4813	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.95			1.00				
Flpb, ped/bikes	0.89	0.92			1.00			1.00				
Frt	1.00	1.00			0.94			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1503	1568			1672			6380				
Flt Permitted	0.75	0.77			1.00			1.00				
Satd. Flow (perm)	1186	1254			1672			6380				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	54	0	0	7	5	235	4813	8	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	222	222	0	0	12	0	0	5056	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	20.0	20.0			20.0			72.0				
Effective Green, g (s)	20.0	20.0			20.0			72.0				
Actuated g/C Ratio	0.20	0.20			0.20			0.72				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	237	251			334			4594				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.19	0.18						0.79				
v/c Ratio	0.94	0.88			0.04			1.10				
Uniform Delay, d1	39.4	38.9			32.2			14.0				
Progression Factor	1.00	1.00			1.00			0.93				
Incremental Delay, d2	44.1	33.4			0.2			48.6				
Delay (s)	83.5	72.3			32.4			61.6				
Level of Service	F	E			C			E				
Approach Delay (s)		77.9			32.4			61.6			0.0	
Approach LOS		E			C			E			A	

Intersection Summary

HCM Average Control Delay	62.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 22: South Park St & Bercut Dr

6/27/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	120	161	443	104	185	363
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	120	161	443	104	185	363
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	120	161	547	185	363	
Volume Left (vph)	120	0	0	185	0	
Volume Right (vph)	0	161	104	0	0	
Hadj (s)	0.53	-0.67	-0.08	0.53	0.03	
Departure Headway (s)	7.8	6.6	5.9	6.8	6.3	
Degree Utilization, x	0.26	0.30	0.90	0.35	0.63	
Capacity (veh/h)	445	525	593	517	553	
Control Delay (s)	12.4	11.2	40.1	12.2	18.3	
Approach Delay (s)	11.7		40.1	16.2		
Approach LOS	B		E	C		
Intersection Summary						
Delay			24.8			
HCM Level of Service			C			
Intersection Capacity Utilization			56.5%	ICU Level of Service		B
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

23: South Park St & 5th St

6/27/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	←←			←↑↑		
Volume (vph)	586	0	7	2051	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5			4.5		
Lane Util. Factor	0.97			0.91		
Frt	1.00			1.00		
Flt Protected	0.95			1.00		
Satd. Flow (prot)	3433			5084		
Flt Permitted	0.95			1.00		
Satd. Flow (perm)	3433			5084		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	586	0	7	2051	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	586	0	0	2058	0	0
Turn Type	Perm					
Protected Phases	4			2		
Permitted Phases	4			2		
Actuated Green, G (s)	19.1			51.9		
Effective Green, g (s)	19.1			51.9		
Actuated g/C Ratio	0.24			0.65		
Clearance Time (s)	4.5			4.5		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	820			3298		
v/s Ratio Prot	c0.17					
v/s Ratio Perm				0.40		
v/c Ratio	0.71			0.62		
Uniform Delay, d1	27.9			8.3		
Progression Factor	1.00			0.60		
Incremental Delay, d2	3.0			0.1		
Delay (s)	30.9			5.0		
Level of Service	C			A		
Approach Delay (s)	30.9			5.0		0.0
Approach LOS	C			A		A

Intersection Summary

HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

26: Railyards Blvd & Jibboom St

6/27/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	867	384	25	504	177	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.87		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	1623		1770	1863
Flt Permitted	0.95	1.00	1.00		0.19	1.00
Satd. Flow (perm)	1770	1583	1623		352	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	867	384	25	504	177	32
RTOR Reduction (vph)	0	176	320	0	0	0
Lane Group Flow (vph)	867	208	209	0	177	32
Turn Type		Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	
Actuated Green, G (s)	46.0	46.0	31.0		31.0	31.0
Effective Green, g (s)	46.0	46.0	31.0		31.0	31.0
Actuated g/C Ratio	0.54	0.54	0.36		0.36	0.36
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	958	857	592		128	679
v/s Ratio Prot	c0.49		0.13			0.02
v/s Ratio Perm		0.13			c0.50	
v/c Ratio	0.91	0.24	0.35		1.38	0.05
Uniform Delay, d1	17.5	10.3	19.7		27.0	17.5
Progression Factor	0.78	1.23	1.00		1.00	1.00
Incremental Delay, d2	10.1	0.5	0.4		213.3	0.1
Delay (s)	23.8	13.1	20.0		240.3	17.6
Level of Service	C	B	C		F	B
Approach Delay (s)	20.5		20.0			206.2
Approach LOS	C		C			F

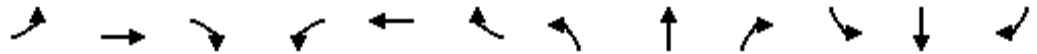
Intersection Summary

HCM Average Control Delay	39.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↕	↗	↖	↗		↖	↗	
Volume (vph)	210	228	244	12	687	114	376	223	7	71	225	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.92		1.00	0.98		1.00	1.00		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1718		1770	3464		1770	1854		1770	1736	
Flt Permitted	0.20	1.00		0.23	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	364	1718		429	3464		1770	1854		1770	1736	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	210	228	244	12	687	114	376	223	7	71	225	187
RTOR Reduction (vph)	0	42	0	0	14	0	0	1	0	0	36	0
Lane Group Flow (vph)	210	430	0	12	787	0	376	229	0	71	376	0
Turn Type	Perm		Perm		Split		Split					
Protected Phases	2		6		3		3		4		4	
Permitted Phases	2		6									
Actuated Green, G (s)	29.5	29.5		29.5	29.5		21.8	21.8		21.7	21.7	
Effective Green, g (s)	29.5	29.5		29.5	29.5		21.8	21.8		21.7	21.7	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.26	0.26		0.26	0.26	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	126	596		149	1202		454	475		452	443	
v/s Ratio Prot		0.25			0.23		c0.21	0.12		0.04	c0.22	
v/s Ratio Perm	c0.58		0.03									
v/c Ratio	1.67	0.72		0.08	0.65		0.83	0.48		0.16	0.85	
Uniform Delay, d1	27.8	24.2		18.6	23.4		29.8	26.8		24.6	30.1	
Progression Factor	1.15	1.18		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	319.8	2.6		1.1	2.8		11.8	0.8		0.2	14.0	
Delay (s)	351.6	31.0		19.7	26.2		41.6	27.6		24.7	44.1	
Level of Service	F	C		B	C		D	C		C	D	
Approach Delay (s)		129.7			26.1			36.3			41.2	
Approach LOS		F			C			D			D	

Intersection Summary

HCM Average Control Delay	58.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

28: Railyards Blvd & Crocker St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↔	↔		↔	↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	35	84	77	160	221	269	158	246	118	80	46	79
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	35	84	77	160	221	269	158	246	118	80	46	79

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	77	119	271	380	158	364	80	125
Volume Left (vph)	35	0	160	0	158	0	80	0
Volume Right (vph)	0	77	0	269	0	118	0	79
Hadj (s)	0.26	-0.42	0.33	-0.46	0.53	-0.19	0.53	-0.41
Departure Headway (s)	8.1	7.4	7.4	6.6	7.8	7.0	8.3	7.4
Degree Utilization, x	0.17	0.24	0.56	0.70	0.34	0.71	0.19	0.26
Capacity (veh/h)	421	460	473	527	449	495	409	460
Control Delay (s)	11.5	11.5	18.1	22.3	13.5	24.4	12.0	11.7
Approach Delay (s)	11.5		20.5		21.1		11.8	
Approach LOS	B		C		C		B	

Intersection Summary

Delay	18.5
HCM Level of Service	C
Intersection Capacity Utilization	63.1%
ICU Level of Service	B
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

29: Railyards Blvd & Stanford St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔		↖	↗		↖	↗	
Volume (vph)	5	224	56	61	489	324	162	106	5	104	19	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.97			0.94		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1807			3331		1770	1850		1770	1805	
Flt Permitted	0.95	1.00			1.00		0.74	1.00		0.68	1.00	
Satd. Flow (perm)	1770	1807			3331		1381	1850		1274	1805	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	224	56	61	489	324	162	106	5	104	19	5
RTOR Reduction (vph)	0	11	0	0	98	0	0	2	0	0	4	0
Lane Group Flow (vph)	5	269	0	0	776	0	162	109	0	104	20	0
Turn Type	Split		Split				Perm		Perm			
Protected Phases	1	1		2	2			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	18.9	18.9			30.6		18.5	18.5		18.5	18.5	
Effective Green, g (s)	18.9	18.9			30.6		18.5	18.5		18.5	18.5	
Actuated g/C Ratio	0.24	0.24			0.38		0.23	0.23		0.23	0.23	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	418	427			1274		319	428		295	417	
v/s Ratio Prot	0.00	c0.15			c0.23			0.06			0.01	
v/s Ratio Perm							c0.12			0.08		
v/c Ratio	0.01	0.63			0.61		0.51	0.25		0.35	0.05	
Uniform Delay, d1	23.4	27.4			19.9		26.8	25.1		25.7	23.9	
Progression Factor	1.00	1.00			0.92		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	2.9			0.2		1.3	0.3		0.7	0.0	
Delay (s)	23.4	30.3			18.4		28.1	25.4		26.5	24.0	
Level of Service	C	C			B		C	C		C	C	
Approach Delay (s)		30.2			18.4			27.0			26.0	
Approach LOS		C			B			C			C	

Intersection Summary

HCM Average Control Delay	22.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

30: Railyards Blvd & 5th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑			↑↑			↖↗				
Volume (vph)	5	332	0	0	534	548	341	1510	145	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.0				
Lane Util. Factor	1.00	1.00			0.95			0.91				
Frt	1.00	1.00			0.92			0.99				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1770	1863			3270			4987				
Flt Permitted	0.95	1.00			1.00			0.99				
Satd. Flow (perm)	1770	1863			3270			4987				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	332	0	0	534	548	341	1510	145	0	0	0
RTOR Reduction (vph)	0	0	0	0	220	0	0	11	0	0	0	0
Lane Group Flow (vph)	5	332	0	0	862	0	0	1985	0	0	0	0
Turn Type	Split			Split								
Protected Phases	4	4			8		2	2				
Permitted Phases					8			2				
Actuated Green, G (s)	18.6	18.6			24.1			24.3				
Effective Green, g (s)	18.6	18.6			24.1			24.3				
Actuated g/C Ratio	0.23	0.23			0.30			0.30				
Clearance Time (s)	4.5	4.5			4.5			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	412	433			985			1515				
v/s Ratio Prot	0.00	c0.18			c0.26			c0.40				
v/s Ratio Perm												
v/c Ratio	0.01	0.77			0.88			1.31				
Uniform Delay, d1	23.6	28.7			26.5			27.9				
Progression Factor	0.51	0.44			1.67			1.00				
Incremental Delay, d2	0.0	7.1			6.8			144.4				
Delay (s)	12.1	19.8			51.1			172.3				
Level of Service	B	B			D			F				
Approach Delay (s)		19.7			51.1			172.3			0.0	
Approach LOS		B			D			F			A	

Intersection Summary

HCM Average Control Delay	118.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

31: Railyards Blvd & Judah St

6/27/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→		←	→	←	→
Volume (veh/h)	439	38	43	847	235	122
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	439	38	43	847	235	122
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	298			284		
pX, platoon unblocked			0.83		0.84	0.83
vC, conflicting volume			477		968	458
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			270		795	247
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		10	81
cM capacity (veh/h)			1073		262	626

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	NB 1
Volume Total	477	43	424	424	357
Volume Left	0	43	0	0	235
Volume Right	38	0	0	0	122
cSH	1700	1073	1700	1700	327
Volume to Capacity	0.28	0.04	0.25	0.25	1.09
Queue Length 95th (ft)	0	3	0	0	340
Control Delay (s)	0.0	8.5	0.0	0.0	113.1
Lane LOS		A			F
Approach Delay (s)	0.0	0.4			113.1
Approach LOS					F

Intersection Summary					
Average Delay			23.6		
Intersection Capacity Utilization			59.2%	ICU Level of Service	B
Analysis Period (min)			15		

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/27/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↔↔	↔	↔
Volume (vph)	556	5	198	408	573	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	0.95	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1861		1770	3539	1770	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	1861		1770	3539	1770	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	556	5	198	408	573	321
RTOR Reduction (vph)	1	0	0	0	0	241
Lane Group Flow (vph)	560	0	198	408	573	80
Turn Type			Prot			Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	38.0		10.0	52.0	20.0	20.0
Effective Green, g (s)	38.0		10.0	52.0	20.0	20.0
Actuated g/C Ratio	0.48		0.12	0.65	0.25	0.25
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	884		221	2300	443	396
v/s Ratio Prot	c0.30		c0.11	0.12	c0.32	
v/s Ratio Perm						0.05
v/c Ratio	0.63		0.90	0.18	1.29	0.20
Uniform Delay, d1	15.8		34.5	5.5	30.0	23.7
Progression Factor	0.31		0.83	1.61	1.00	1.00
Incremental Delay, d2	2.6		26.0	0.1	148.0	0.3
Delay (s)	7.4		54.8	9.0	178.0	24.0
Level of Service	A		D	A	F	C
Approach Delay (s)	7.4			24.0	122.7	
Approach LOS	A			C	F	

Intersection Summary

HCM Average Control Delay	62.3	HCM Level of Service	E
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/27/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↕	↗
Volume (vph)	0	876	0	0	925	606
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		1.00			0.91	0.91
Frt		0.86			0.98	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		1611			3321	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		1611			3321	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	876	0	0	925	606
RTOR Reduction (vph)	0	426	0	0	14	317
Lane Group Flow (vph)	0	450	0	0	1056	144
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		16.0			25.0	25.0
Effective Green, g (s)		16.0			25.0	25.0
Actuated g/C Ratio		0.20			0.31	0.31
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		322			1038	450
v/s Ratio Prot		c0.28			c0.32	0.10
v/s Ratio Perm						
v/c Ratio		1.40			1.02	0.32
Uniform Delay, d1		32.0			27.5	21.0
Progression Factor		2.26			1.00	1.00
Incremental Delay, d2		193.1			32.2	1.9
Delay (s)		265.3			59.7	22.9
Level of Service		F			E	C
Approach Delay (s)	265.3			0.0	48.6	
Approach LOS	F			A	D	

Intersection Summary

HCM Average Control Delay	127.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	39.0
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

36: Camille Ln & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	5	0	0	5	381	0	0	0	294	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	5	0	0	5	381	0	0	0	294	0	0

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	5	386	0	0	294	0
Volume Left (vph)	0	0	0	0	294	0
Volume Right (vph)	0	381	0	0	0	0
Hadj (s)	0.03	-0.56	0.00	0.00	0.53	0.00
Departure Headway (s)	5.4	4.3	5.8	5.8	5.9	5.4
Degree Utilization, x	0.01	0.46	0.00	0.00	0.48	0.00
Capacity (veh/h)	609	798	571	571	581	648
Control Delay (s)	8.4	10.9	7.6	7.6	13.2	7.2
Approach Delay (s)	8.4	10.9	0.0		13.2	
Approach LOS	A	B	A		B	

Intersection Summary

Delay	11.9
HCM Level of Service	B
Intersection Capacity Utilization	46.8%
ICU Level of Service	A
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

37: F Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻↻↻	
Volume (vph)	0	27	34	182	30	0	0	0	0	502	1086	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	
Lane Util. Factor		1.00		1.00	1.00						0.91	
Frt		0.92		1.00	1.00						1.00	
Flt Protected		1.00		0.95	1.00						0.98	
Satd. Flow (prot)		1723		1770	1863						4997	
Flt Permitted		1.00		0.95	1.00						0.98	
Satd. Flow (perm)		1723		1770	1863						4997	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	27	34	182	30	0	0	0	0	502	1086	21
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	32	0	182	30	0	0	0	0	0	1608	0
Turn Type				Prot							Perm	
Protected Phases		4		3	8						6	
Permitted Phases										6		
Actuated Green, G (s)		16.0		18.0	38.0						44.0	
Effective Green, g (s)		16.0		18.0	38.0						44.0	
Actuated g/C Ratio		0.16		0.18	0.38						0.44	
Clearance Time (s)		4.0		4.0	4.0						4.0	
Lane Grp Cap (vph)		276		319	708						2199	
v/s Ratio Prot		c0.02		c0.10	0.02							
v/s Ratio Perm											0.32	
v/c Ratio		0.12		0.57	0.04						0.73	
Uniform Delay, d1		36.0		37.5	19.5						23.1	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		0.9		7.2	0.1						2.2	
Delay (s)		36.8		44.7	19.6						25.3	
Level of Service		D		D	B						C	
Approach Delay (s)		36.8			41.1			0.0			25.3	
Approach LOS		D			D			A			C	

Intersection Summary

HCM Average Control Delay	27.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↔	↗		↕↕↕				
Volume (vph)	284	5	0	0	102	1947	51	693	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0				
Lane Util. Factor		1.00			0.95	0.95		0.91				
Frt		1.00			0.86	0.85		1.00				
Flt Protected		0.95			1.00	1.00		1.00				
Satd. Flow (prot)		1776			1530	1504		5063				
Flt Permitted		0.15			1.00	1.00		1.00				
Satd. Flow (perm)		284			1530	1504		5063				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	284	5	0	0	102	1947	51	693	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	29	29	0	1	0	0	0	0
Lane Group Flow (vph)	0	289	0	0	1008	983	0	748	0	0	0	0
Turn Type		Perm				Perm	custom					
Protected Phases		4			8							
Permitted Phases	4					8	2	2				
Actuated Green, G (s)		26.0			26.0	26.0		16.0				
Effective Green, g (s)		26.0			26.0	26.0		16.0				
Actuated g/C Ratio		0.52			0.52	0.52		0.32				
Clearance Time (s)		4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)		148			796	782		1620				
v/s Ratio Prot					0.66							
v/s Ratio Perm		c1.02				0.65		c0.15				
v/c Ratio		1.95			1.27	1.26		0.46				
Uniform Delay, d1		12.0			12.0	12.0		13.6				
Progression Factor		1.00			2.02	2.01		1.00				
Incremental Delay, d2		452.3			120.9	116.8		0.9				
Delay (s)		464.3			145.1	141.0		14.5				
Level of Service		F			F	F		B				
Approach Delay (s)		464.3			143.1			14.5			0.0	
Approach LOS		F			F			B			A	

Intersection Summary

HCM Average Control Delay	141.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	120.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (vph)	5	5	5	306	1310	505	317	279	5	5	1272	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	
Frt		0.95			0.96		1.00	1.00		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750			3388		1770	1858		1770	1856	
Flt Permitted		0.64			0.90		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1142			3071		1770	1858		1770	1856	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	306	1310	505	317	279	5	5	1272	30
RTOR Reduction (vph)	0	4	0	0	30	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	11	0	0	2091	0	317	284	0	5	1301	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		29.0			29.0		9.0	54.0		5.0	50.0	
Effective Green, g (s)		29.0			29.0		9.0	54.0		5.0	50.0	
Actuated g/C Ratio		0.29			0.29		0.09	0.54		0.05	0.50	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		331			891		159	1003		89	928	
v/s Ratio Prot							c0.18	0.15		0.00	c0.70	
v/s Ratio Perm		0.01			c0.68							
v/c Ratio		0.03			2.35		1.99	0.28		0.06	1.40	
Uniform Delay, d1		25.5			35.5		45.5	12.5		45.3	25.0	
Progression Factor		1.02			0.79		0.21	0.90		1.00	1.00	
Incremental Delay, d2		0.1			606.5		449.2	0.1		1.2	187.4	
Delay (s)		26.0			634.6		458.6	11.3		46.5	212.4	
Level of Service		C			F		F	B		D	F	
Approach Delay (s)		26.0			634.6			247.2			211.8	
Approach LOS		C			F			F			F	

Intersection Summary

HCM Average Control Delay	438.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	157.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↗
Volume (vph)	0	0	15	481	1726	0	0	0	0	0	1308	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.5	4.0
Lane Util. Factor			1.00	0.91	0.91						0.95	1.00
Frbp, ped/bikes			1.00	1.00	1.00						1.00	1.00
Flpb, ped/bikes			1.00	1.00	1.00						1.00	1.00
Frt			0.86	1.00	1.00						1.00	0.85
Flt Protected			1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)			1611	1610	3386						3539	1583
Flt Permitted			1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)			1611	1610	3386						3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	481	1726	0	0	0	0	0	1308	158
RTOR Reduction (vph)	0	0	14	162	2	0	0	0	0	0	0	91
Lane Group Flow (vph)	0	0	1	271	1772	0	0	0	0	0	1308	67
Confl. Peds. (#/hr)						72						
Turn Type			custom	Split								Perm
Protected Phases			1	2	2						4	
Permitted Phases												4
Actuated Green, G (s)			6.5	42.5	42.5						30.0	30.0
Effective Green, g (s)			6.5	42.0	42.5						29.5	30.0
Actuated g/C Ratio			0.06	0.42	0.42						0.29	0.30
Clearance Time (s)			3.5	3.5	3.5						4.0	4.0
Lane Grp Cap (vph)			105	676	1439						1044	475
v/s Ratio Prot			c0.00	0.17	c0.52						c0.37	
v/s Ratio Perm												0.04
v/c Ratio			0.01	0.40	1.23						1.25	0.14
Uniform Delay, d1			43.7	20.2	28.8						35.2	25.6
Progression Factor			1.00	0.73	0.77						0.63	0.17
Incremental Delay, d2			0.2	1.6	110.0						120.2	0.5
Delay (s)			43.9	16.4	132.1						142.3	4.8
Level of Service			D	B	F						F	A
Approach Delay (s)		43.9			109.4			0.0			127.5	
Approach LOS		D			F			A			F	
Intersection Summary												
HCM Average Control Delay			116.3			HCM Level of Service					F	
HCM Volume to Capacity ratio			1.14									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			21.5			
Intersection Capacity Utilization			83.6%			ICU Level of Service					E	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

41: G Street &

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↑↑↑			↑↑↑					
Volume (vph)	0	0	0	0	1283	79	414	479	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)					4.0			4.0					
Lane Util. Factor					0.91			0.91					
Frbp, ped/bikes					1.00			1.00					
Flpb, ped/bikes					1.00			0.98					
Frt					0.99			1.00					
Flt Protected					1.00			0.98					
Satd. Flow (prot)					5023			4852					
Flt Permitted					1.00			0.98					
Satd. Flow (perm)					5023			4852					
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	0	1283	79	414	479	0	0	0	0	
RTOR Reduction (vph)	0	0	0	0	14	0	0	11	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	1348	0	0	882	0	0	0	0	
Confl. Peds. (#/hr)						72	72						
Turn Type								Perm					
Protected Phases					1			2					
Permitted Phases							2						
Actuated Green, G (s)					21.9			21.1					
Effective Green, g (s)					21.4			20.6					
Actuated g/C Ratio					0.43			0.41					
Clearance Time (s)					3.5			3.5					
Lane Grp Cap (vph)					2150			1999					
v/s Ratio Prot					0.27								
v/s Ratio Perm								0.18					
v/c Ratio					0.63			0.44					
Uniform Delay, d1					11.2			10.6					
Progression Factor					0.75			0.57					
Incremental Delay, d2					1.3			0.5					
Delay (s)					9.7			6.5					
Level of Service					A			A					
Approach Delay (s)		0.0			9.7			6.5			0.0		
Approach LOS		A			A			A			A		
Intersection Summary													
HCM Average Control Delay			8.4		HCM Level of Service				A				
HCM Volume to Capacity ratio			0.54										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			82.7%		ICU Level of Service				E				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	62	710	0	0	0	0	0	1341	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.99	
Flpb, ped/bikes					1.00						1.00	
Frt					1.00						0.98	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5042						4954	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5042						4954	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	62	710	0	0	0	0	0	1341	172
RTOR Reduction (vph)	0	0	0	0	20	0	0	0	0	0	32	0
Lane Group Flow (vph)	0	0	0	0	752	0	0	0	0	0	1481	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1714						2081	
v/s Ratio Prot											c0.30	
v/s Ratio Perm					0.15							
v/c Ratio					0.44						0.71	
Uniform Delay, d1					12.8						12.0	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.8						2.1	
Delay (s)					13.6						14.1	
Level of Service					B						B	
Approach Delay (s)		0.0			13.6			0.0			14.1	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			13.9		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			52.0%		ICU Level of Service			A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

43: H Street & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖						↖↗				
Volume (vph)	5	20	0	0	0	0	20	744	402	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		1.00						0.91				
Frt		1.00						0.95				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1844						4818				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1844						4818				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	20	0	0	0	0	20	744	402	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	180	0	0	0	0
Lane Group Flow (vph)	0	25	0	0	0	0	0	986	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4					2	2				
Permitted Phases	4											
Actuated Green, G (s)		16.0						26.0				
Effective Green, g (s)		16.0						26.0				
Actuated g/C Ratio		0.30						0.49				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		557						2364				
v/s Ratio Prot								c0.20				
v/s Ratio Perm		0.01										
v/c Ratio		0.04						0.42				
Uniform Delay, d1		13.1						8.6				
Progression Factor		1.00						1.00				
Incremental Delay, d2		0.2						0.5				
Delay (s)		13.2						9.2				
Level of Service		B						A				
Approach Delay (s)		13.2			0.0			9.2			0.0	
Approach LOS		B			A			A			A	

Intersection Summary

HCM Average Control Delay	9.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	53.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔						↔	↔	↔	↔	
Volume (vph)	4	319	79	0	0	0	0	641	355	1035	778	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0	3.5	4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95	0.95	0.95	0.95	
Frbp, ped/bikes	1.00	0.97						0.99	0.85	1.00	1.00	
Flpb, ped/bikes	0.76	1.00						1.00	1.00	1.00	1.00	
Frt	1.00	0.97						0.99	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (prot)	1345	3329						1741	1274	1681	1756	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (perm)	1345	3329						1741	1274	1681	1756	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	641	355	1035	778	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	2	73	0	0	0
Lane Group Flow (vph)	4	376	0	0	0	0	0	675	246	890	923	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm						Perm Split					
Protected Phases	1						2 6 6					
Permitted Phases	1						2					
Actuated Green, G (s)	16.5	16.5						25.5	25.5	39.0	39.0	
Effective Green, g (s)	16.5	16.0						25.0	25.5	38.5	38.5	
Actuated g/C Ratio	0.16	0.16						0.25	0.26	0.38	0.38	
Clearance Time (s)	3.5	3.5						3.5	3.5	4.0	4.0	
Lane Grp Cap (vph)	222	533						435	325	647	676	
v/s Ratio Prot		c0.11						c0.39		c0.53	0.53	
v/s Ratio Perm	0.00								0.19			
v/c Ratio	0.02	0.71						1.55	0.76	1.38	1.37	
Uniform Delay, d1	35.0	39.8						37.5	34.4	30.8	30.8	
Progression Factor	1.00	1.00						1.26	1.61	0.81	0.80	
Incremental Delay, d2	0.1	7.7						249.1	1.5	169.9	165.3	
Delay (s)	35.1	47.4						296.3	56.9	194.7	190.1	
Level of Service	D	D						F	E	F	F	
Approach Delay (s)		47.3			0.0			219.6			192.3	
Approach LOS		D			A			F			F	

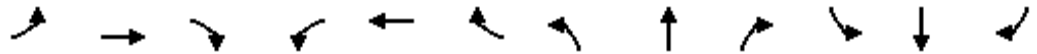
Intersection Summary

HCM Average Control Delay	182.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	113.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	1306	371	0	0	0	0	0	0	363	1097	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.98								1.00	1.00	
Flpb, ped/bikes		1.00								0.93	1.00	
Frt		0.97								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3359								1494	3377	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3359								1494	3377	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1306	371	0	0	0	0	0	0	363	1097	0
RTOR Reduction (vph)	0	52	0	0	0	0	0	0	0	99	4	0
Lane Group Flow (vph)	0	1625	0	0	0	0	0	0	0	228	1129	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		19.5								18.5	18.5	
Effective Green, g (s)		19.0								18.0	18.0	
Actuated g/C Ratio		0.38								0.36	0.36	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1276								538	1216	
v/s Ratio Prot		c0.48										
v/s Ratio Perm										0.15	0.33	
v/c Ratio		1.27								0.42	0.93	
Uniform Delay, d1		15.5								12.1	15.4	
Progression Factor		1.43								2.43	2.19	
Incremental Delay, d2		123.6								0.2	1.6	
Delay (s)		145.8								29.6	35.4	
Level of Service		F								C	D	
Approach Delay (s)		145.8			0.0			0.0			34.1	
Approach LOS		F			A			A			C	
Intersection Summary												
HCM Average Control Delay			93.8		HCM Level of Service					F		
HCM Volume to Capacity ratio			1.11									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				13.0			
Intersection Capacity Utilization			86.0%		ICU Level of Service					E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street &

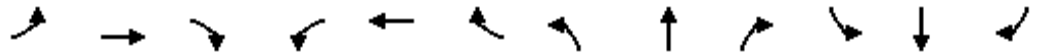
6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Volume (vph)	184	1375	0	0	0	0	0	689	323	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.97				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.95				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		3489						4714				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		3489						4714				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	184	1375	0	0	0	0	0	689	323	0	0	0
RTOR Reduction (vph)	0	21	0	0	0	0	0	99	0	0	0	0
Lane Group Flow (vph)	0	1538	0	0	0	0	0	913	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		22.5						15.5				
Effective Green, g (s)		22.0						15.0				
Actuated g/C Ratio		0.44						0.30				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1535						1414				
v/s Ratio Prot								c0.19				
v/s Ratio Perm		0.44										
v/c Ratio		1.00						0.65				
Uniform Delay, d1		14.0						15.2				
Progression Factor		0.46						1.00				
Incremental Delay, d2		7.4						2.3				
Delay (s)		13.8						17.5				
Level of Service		B						B				
Approach Delay (s)		13.8			0.0			17.5			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			15.3					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		13.0		
Intersection Capacity Utilization			72.2%					ICU Level of Service			C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 47: H Street & 16th Street

6/27/2007



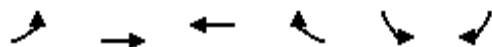
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔				↔		↑↑↑				
Volume (vph)	839	851	0	0	0	50	0	2108	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	1.00				1.00		1.00				
Satd. Flow (prot)	3221	1677				1611		5072				
Flt Permitted	0.95	1.00				1.00		1.00				
Satd. Flow (perm)	3221	1677				1611		5072				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	839	851	0	0	0	50	0	2108	20	0	0	0
RTOR Reduction (vph)	29	6	0	0	0	11	0	2	0	0	0	0
Lane Group Flow (vph)	726	929	0	0	0	39	0	2126	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	15.5	21.5				2.5		21.5				
Effective Green, g (s)	15.0	21.0				2.0		21.0				
Actuated g/C Ratio	0.30	0.42				0.04		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	966	704				64		2130				
v/s Ratio Prot	0.23	c0.40				0.02		c0.42				
v/s Ratio Perm		0.16										
v/c Ratio	0.75	1.32				0.62		1.00				
Uniform Delay, d1	15.8	14.5				23.6		14.5				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	5.4	153.8				37.2		19.1				
Delay (s)	21.2	168.3				60.8		33.6				
Level of Service	C	F				E		C				
Approach Delay (s)		102.6			60.8			33.6			0.0	
Approach LOS		F			E			C			A	

Intersection Summary			
HCM Average Control Delay	64.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/27/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↑	↗	↖	↗
Volume (vph)	908	273	205	170	393	689
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.91	
Flt Protected	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (prot)	1770	1863	1863	1583	1672	
Flt Permitted	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (perm)	1770	1863	1863	1583	1672	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	908	273	205	170	393	689
RTOR Reduction (vph)	0	0	0	3	39	0
Lane Group Flow (vph)	908	273	205	167	1043	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	35.5	46.7	19.8	72.9	53.1	
Effective Green, g (s)	36.0	46.7	19.8	72.9	53.1	
Actuated g/C Ratio	0.30	0.39	0.16	0.60	0.44	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	527	720	305	1007	734	
v/s Ratio Prot	c0.51	0.15	c0.11	0.07	c0.62	
v/s Ratio Perm				0.03		
v/c Ratio	1.72	0.38	0.67	0.17	1.42	
Uniform Delay, d1	42.5	26.7	47.5	10.6	33.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	333.3	0.6	6.8	0.1	197.6	
Delay (s)	375.7	27.3	54.3	10.7	231.5	
Level of Service	F	C	D	B	F	
Approach Delay (s)		295.2	34.5		231.5	
Approach LOS		F	C		F	

Intersection Summary

HCM Average Control Delay	232.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.38		
Actuated Cycle Length (s)	120.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	135.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖↗	↑↑				↖↗
Volume (vph)	0	0	0	0	3798	85	1082	1087	0	0	0	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					1.00		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6207		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6207		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	3798	85	1082	1087	0	0	0	80
RTOR Reduction (vph)	0	0	0	0	1	0	1	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	3882	0	1081	1087	0	0	0	80
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					65.0		26.5	26.5				26.5
Effective Green, g (s)					66.0		26.0	26.0				26.5
Actuated g/C Ratio					0.66		0.26	0.26				0.26
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					4097		893	874				739
v/s Ratio Prot					c0.63		0.31	c0.32				
v/s Ratio Perm												0.03
v/c Ratio					0.95		1.21	1.24				0.11
Uniform Delay, d1					15.4		37.0	37.0				27.8
Progression Factor					1.24		1.03	1.03				1.00
Incremental Delay, d2					0.7		100.4	114.8				0.3
Delay (s)					19.9		138.5	152.9				28.1
Level of Service					B		F	F				C
Approach Delay (s)		0.0			19.9			145.7			28.1	
Approach LOS		A			B			F			C	

Intersection Summary

HCM Average Control Delay	64.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	130.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	71	2482	114	304	814	0	0	44	1031
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes					0.99		1.00	1.00			1.00	1.00
Frt					0.99		1.00	1.00			0.86	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4981		1610	3384			1526	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4981		1610	3384			1526	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	71	2482	114	304	814	0	0	44	1031
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	0	0	11	11
Lane Group Flow (vph)	0	0	0	0	2662	0	274	844	0	0	528	525
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					66.5		13.5	13.5			9.5	9.5
Effective Green, g (s)					66.0		13.0	13.0			9.0	9.0
Actuated g/C Ratio					0.66		0.13	0.13			0.09	0.09
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					3287		209	440			137	135
v/s Ratio Prot							0.17	c0.25			0.35	c0.35
v/s Ratio Perm					0.53							
v/c Ratio					0.81		1.31	1.92			3.85	3.89
Uniform Delay, d1					12.4		43.5	43.5			45.5	45.5
Progression Factor					0.53		1.07	1.07			1.27	1.27
Incremental Delay, d2					1.4		166.1	420.4			1286.2	1301.9
Delay (s)					8.0		212.5	466.8			1343.8	1359.5
Level of Service					A		F	F			F	F
Approach Delay (s)		0.0			8.0			404.5			1351.6	
Approach LOS		A			A			F			F	

Intersection Summary

HCM Average Control Delay	396.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	146.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔						↕	↗
Volume (vph)	0	0	0	235	2149	0	0	0	0	0	1208	537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.86	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1303	4796						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1303	4796						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	235	2149	0	0	0	0	0	1208	537
RTOR Reduction (vph)	0	0	0	95	1	0	0	0	0	0	0	182
Lane Group Flow (vph)	0	0	0	116	2172	0	0	0	0	0	1208	355
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1							2
Permitted Phases				1								2
Actuated Green, G (s)				55.5	55.5						27.5	27.5
Effective Green, g (s)				55.0	55.0						27.0	27.0
Actuated g/C Ratio				0.55	0.55						0.27	0.27
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				717	2638						956	752
v/s Ratio Prot											c0.34	
v/s Ratio Perm				0.09	0.45							0.13
v/c Ratio				0.16	0.82						1.26	0.47
Uniform Delay, d1				11.1	18.5						36.5	30.5
Progression Factor				1.00	1.00						1.04	1.18
Incremental Delay, d2				0.5	3.1						122.9	1.1
Delay (s)				11.6	21.6						160.8	37.2
Level of Service				B	C						F	D
Approach Delay (s)		0.0			20.7			0.0			122.7	
Approach LOS		A			C			A			F	
Intersection Summary												
HCM Average Control Delay			63.8		HCM Level of Service						E	
HCM Volume to Capacity ratio			0.97									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				18.0			
Intersection Capacity Utilization			78.1%		ICU Level of Service						D	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	1	1144	433	305	527	370	2	810	990
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6044		2787	3433	1863	1584	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6044		2787	3433	1863	1584	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	1144	433	305	527	370	2	810	990
RTOR Reduction (vph)	0	0	0	23	0	0	0	116	0
Lane Group Flow (vph)	0	1578	0	282	527	370	601	1085	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		24.6		22.6	22.6	22.6	34.6	34.6	
Effective Green, g (s)		24.6		22.1	22.1	22.1	34.6	34.6	
Actuated g/C Ratio		0.26		0.24	0.24	0.24	0.37	0.37	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1594		660	813	441	587	1069	
v/s Ratio Prot		c0.26				c0.20	c0.38	0.38	
v/s Ratio Perm				0.10	0.15				
v/c Ratio		1.04dr		0.43	0.65	0.84	1.02	1.47dr	
Uniform Delay, d1		34.2		30.2	32.1	33.9	29.3	29.3	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		20.3		0.2	1.3	12.6	43.3	31.2	
Delay (s)		54.5		30.4	33.4	46.5	72.7	60.6	
Level of Service		D		C	C	D	E	E	
Approach Delay (s)		54.5				38.8	64.6		
Approach LOS		D				D	E		

Intersection Summary

HCM Average Control Delay	53.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	93.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.1%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↙	↘					↕	↘			
Volume (vph)	855	1676	130	0	0	0	0	1226	462	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.96					1.00	0.96			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.99	0.85			
Flt Protected	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (prot)	1290	5981	1520					3367	1387			
Flt Permitted	0.95	0.99	1.00					1.00	1.00			
Satd. Flow (perm)	1290	5981	1520					3367	1387			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	855	1676	130	0	0	0	0	1226	462	0	0	0
RTOR Reduction (vph)	12	12	75	0	0	0	0	2	2	0	0	0
Lane Group Flow (vph)	475	2032	55	0	0	0	0	1270	414	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0			
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0			
Actuated g/C Ratio	0.42	0.42	0.42					0.42	0.42			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	542	2512	638					1414	583			
v/s Ratio Prot	c0.37	0.34						c0.38				
v/s Ratio Perm			0.04						0.30			
v/c Ratio	0.88	0.81	0.09					0.90	0.71			
Uniform Delay, d1	13.3	12.7	8.7					13.5	12.0			
Progression Factor	1.00	1.00	1.00					1.00	1.00			
Incremental Delay, d2	17.8	2.9	0.3					7.7	3.4			
Delay (s)	31.1	15.7	9.0					21.2	15.4			
Level of Service	C	B	A					C	B			
Approach Delay (s)		18.2			0.0			19.8			0.0	
Approach LOS		B			A			B			A	

Intersection Summary

HCM Average Control Delay	18.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	130.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕↕↕						↕		↘		
Volume (vph)	637	1308	0	0	0	0	0	251	192	165	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.98		1.00		
Flpb, ped/bikes	0.96	1.00						1.00		0.99		
Frt	1.00	1.00						0.94		1.00		
Flt Protected	0.95	0.99						1.00		0.95		
Satd. Flow (prot)	1463	4758						1722		1746		
Flt Permitted	0.95	0.99						1.00		0.32		
Satd. Flow (perm)	1463	4758						1722		597		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	637	1308	0	0	0	0	0	251	192	165	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	471	1474	0	0	0	0	0	426	0	165	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	24.5	24.5						18.5		18.5		
Effective Green, g (s)	24.0	24.0						18.0		18.0		
Actuated g/C Ratio	0.48	0.48						0.36		0.36		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	702	2284						620		215		
v/s Ratio Prot								0.25				
v/s Ratio Perm	c0.32	0.31								c0.28		
v/c Ratio	0.67	0.65						0.69		0.77		
Uniform Delay, d1	10.0	9.8						13.6		14.1		
Progression Factor	1.45	1.49						1.00		0.88		
Incremental Delay, d2	3.0	0.8						6.1		2.4		
Delay (s)	17.5	15.4						19.7		14.8		
Level of Service	B	B						B		B		
Approach Delay (s)		15.9			0.0			19.7			14.8	
Approach LOS		B			A			B			B	

Intersection Summary

HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	146.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↑↑↑									↑↑↑			
Volume (vph)	0	1370	324	0	0	0	0	0	0	124	1338	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		4.0									4.0			
Lane Util. Factor		0.91									0.91			
Frbp, ped/bikes		0.99									1.00			
Flpb, ped/bikes		1.00									1.00			
Frt		0.97									1.00			
Flt Protected		1.00									1.00			
Satd. Flow (prot)		4900									5051			
Flt Permitted		1.00									1.00			
Satd. Flow (perm)		4900									5051			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	0	1370	324	0	0	0	0	0	0	124	1338	0		
RTOR Reduction (vph)	0	78	0	0	0	0	0	0	0	0	22	0		
Lane Group Flow (vph)	0	1616	0	0	0	0	0	0	0	0	1440	0		
Confl. Peds. (#/hr)			36							36				
Turn Type										Perm				
Protected Phases		1										2		
Permitted Phases										2				
Actuated Green, G (s)		21.5									16.5			
Effective Green, g (s)		21.0									16.0			
Actuated g/C Ratio		0.42									0.32			
Clearance Time (s)		3.5									3.5			
Lane Grp Cap (vph)		2058									1616			
v/s Ratio Prot		0.33												
v/s Ratio Perm											0.29			
v/c Ratio		0.79									0.89			
Uniform Delay, d1		12.5									16.2			
Progression Factor		1.52									1.20			
Incremental Delay, d2		2.3									0.8			
Delay (s)		21.4									20.2			
Level of Service		C									C			
Approach Delay (s)		21.4			0.0			0.0			20.2			
Approach LOS		C			A			A			C			
Intersection Summary														
HCM Average Control Delay			20.9									HCM Level of Service	C	
HCM Volume to Capacity ratio			0.83											
Actuated Cycle Length (s)			50.0								13.0		Sum of lost time (s)	
Intersection Capacity Utilization			69.3%										ICU Level of Service	C
Analysis Period (min)			15											
c Critical Lane Group														

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/27/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	681	851	444	196	716	81	1189	348	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.0	4.5	4.0	3.5	4.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.99	0.85	0.85	1.00	1.00	0.96		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1678	1504	1583	1770	3539	4898		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1678	1504	1583	1770	3539	4898		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	681	851	444	196	716	81	1189	348	39
RTOR Reduction (vph)	0	0	0	79	0	0	2	0	0
Lane Group Flow (vph)	613	963	400	117	716	81	1574	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		6			3	8	4		
Permitted Phases	6	6	6	6					
Actuated Green, G (s)	60.0	60.0	60.0	60.0	11.0	32.5	17.5		
Effective Green, g (s)	59.5	59.5	60.0	59.5	11.0	32.5	17.0		
Actuated g/C Ratio	0.60	0.60	0.60	0.60	0.11	0.32	0.17		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	3.5		
Lane Grp Cap (vph)	1000	998	902	942	195	1150	833		
v/s Ratio Prot					c0.40	0.02	c0.32		
v/s Ratio Perm	0.36	0.57	0.27	0.07					
v/c Ratio	0.61	0.96	0.44	0.12	3.67	0.07	1.89		
Uniform Delay, d1	12.9	19.3	10.9	8.9	44.5	23.3	41.5		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	2.8	21.2	1.6	0.3	1214.9	0.1	404.6		
Delay (s)	15.7	40.4	12.5	9.1	1259.4	23.4	446.1		
Level of Service	B	D	B	A	F	C	F		
Approach Delay (s)		25.5				1133.8	446.1		
Approach LOS		C				F	F		

Intersection Summary

HCM Average Control Delay	365.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	127.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔	↑↑↑				↔
Volume (vph)	0	0	0	0	1703	438	507	1191	0	0	0	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		5.0	5.0				5.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.98		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.97		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6106		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6106		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1703	438	507	1191	0	0	0	62
RTOR Reduction (vph)	0	0	0	0	48	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	2093	0	507	1191	0	0	0	62
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					20.0		40.5	40.5				40.5
Effective Green, g (s)					21.0		40.0	40.0				40.0
Actuated g/C Ratio					0.30		0.57	0.57				0.57
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					1832		933	2906				1453
v/s Ratio Prot					c0.34			0.23				
v/s Ratio Perm							c0.31					0.02
v/c Ratio					1.14		0.54	0.41				0.04
Uniform Delay, d1					24.5		9.3	8.4				6.6
Progression Factor					1.00		1.00	1.00				1.00
Incremental Delay, d2					71.3		2.3	0.4				0.1
Delay (s)					95.8		11.6	8.8				6.6
Level of Service					F		B	A				A
Approach Delay (s)		0.0			95.8			9.7			6.6	
Approach LOS		A			F			A			A	

Intersection Summary

HCM Average Control Delay	56.9	HCM Level of Service	E
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	283	1662	0	0	0	0	0	1132	499
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.95	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4767	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4767	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	283	1662	0	0	0	0	0	1132	499
RTOR Reduction (vph)	0	0	0	111	0	0	0	0	0	0	99	0
Lane Group Flow (vph)	0	0	0	172	1662	0	0	0	0	0	1532	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						22.5	
Effective Green, g (s)				15.0	15.0						22.0	
Actuated g/C Ratio				0.30	0.30						0.44	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2097	
v/s Ratio Prot					c0.33						c0.32	
v/s Ratio Perm				0.10								
v/c Ratio				0.34	1.09						0.73	
Uniform Delay, d1				13.7	17.5						11.6	
Progression Factor				1.00	1.00						0.79	
Incremental Delay, d2				0.1	51.4						1.1	
Delay (s)				13.8	68.9						10.2	
Level of Service				B	E						B	
Approach Delay (s)		0.0			60.8			0.0			10.2	
Approach LOS		A			E			A			B	

Intersection Summary

HCM Average Control Delay	37.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	418	313	0	0	561	135	452	1149	49	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.98		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.97		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4855		3433	5035				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4855		3433	5035				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	418	313	0	0	561	135	452	1149	49	0	0	0
RTOR Reduction (vph)	0	0	0	0	19	0	0	6	0	0	0	0
Lane Group Flow (vph)	418	313	0	0	677	0	452	1192	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	35.0			18.0		30.5	30.5				
Effective Green, g (s)	13.0	34.5			17.5		30.0	30.0				
Actuated g/C Ratio	0.18	0.47			0.24		0.41	0.41				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	607	1661			1156		1401	2055				
v/s Ratio Prot	c0.12	0.09			c0.14		0.13	c0.24				
v/s Ratio Perm												
v/c Ratio	0.69	0.19			0.59		0.32	0.58				
Uniform Delay, d1	28.4	11.4			24.8		14.8	16.9				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	6.3	0.3			2.2		0.6	1.2				
Delay (s)	34.6	11.6			27.0		15.4	18.1				
Level of Service	C	B			C		B	B				
Approach Delay (s)		24.8			27.0			17.3			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	21.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	73.5	Sum of lost time (s)	13.0
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←						→→	→→
Volume (vph)	0	0	0	175	2730	0	0	0	0	0	909	765
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.86	0.86
Frbp, ped/bikes					1.00						0.99	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.99	0.85
Flt Protected					1.00						1.00	1.00
Satd. Flow (prot)					4901						2989	2374
Flt Permitted					1.00						1.00	1.00
Satd. Flow (perm)					4901						2989	2374
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	175	2730	0	0	0	0	0	909	765
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	0	0	1	1
Lane Group Flow (vph)	0	0	0	0	2897	0	0	0	0	0	985	687
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2647						897	712
v/s Ratio Prot					c0.59						c0.33	
v/s Ratio Perm												0.29
v/c Ratio					1.09						1.10	0.97
Uniform Delay, d1					11.5						17.5	17.2
Progression Factor					1.00						1.33	1.23
Incremental Delay, d2					49.3						46.2	4.8
Delay (s)					60.8						69.5	26.1
Level of Service					E						E	C
Approach Delay (s)		0.0			60.8			0.0			51.7	
Approach LOS		A			E			A			D	

Intersection Summary

HCM Average Control Delay	57.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑									↑↑↑↑	
Volume (vph)	0	1019	606	0	0	0	0	0	0	330	791	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.98									1.00	
Flpb, ped/bikes		1.00									0.98	
Frt		0.94									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		5934									4905	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		5934									4905	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1019	606	0	0	0	0	0	0	330	791	0
RTOR Reduction (vph)	0	14	0	0	0	0	0	0	0	0	62	0
Lane Group Flow (vph)	0	1611	0	0	0	0	0	0	0	0	1059	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3204									1472	
v/s Ratio Prot		c0.27										
v/s Ratio Perm											0.22	
v/c Ratio		0.50									0.72	
Uniform Delay, d1		7.3									15.6	
Progression Factor		1.00									0.61	
Incremental Delay, d2		0.6									0.3	
Delay (s)		7.8									9.8	
Level of Service		A									A	
Approach Delay (s)		7.8			0.0			0.0			9.8	
Approach LOS		A			A			A			A	

Intersection Summary

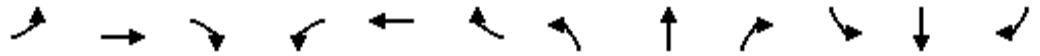
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

63: Richards Blvd & Dos Rios St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	0	0	0	1073	206	0	287	0	0	237	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)					4.5			4.5			4.5		
Lane Util. Factor					0.86			1.00			1.00		
Frt					0.98			1.00			0.99		
Flt Protected					1.00			1.00			1.00		
Satd. Flow (prot)					6253			1863			1848		
Flt Permitted					1.00			1.00			1.00		
Satd. Flow (perm)					6253			1863			1848		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	0	1073	206	0	287	0	0	237	15	
RTOR Reduction (vph)	0	0	0	0	70	0	0	0	0	0	4	0	
Lane Group Flow (vph)	0	0	0	0	1209	0	0	287	0	0	248	0	
Turn Type				Prot			Perm						
Protected Phases				2			4				8		
Permitted Phases					2		4						
Actuated Green, G (s)					21.5			19.5			19.5		
Effective Green, g (s)					21.5			19.5			19.5		
Actuated g/C Ratio					0.43			0.39			0.39		
Clearance Time (s)					4.5			4.5			4.5		
Vehicle Extension (s)					3.0			3.0			3.0		
Lane Grp Cap (vph)					2689			727			721		
v/s Ratio Prot								c0.15			0.13		
v/s Ratio Perm					c0.19								
v/c Ratio					0.45			0.39			0.34		
Uniform Delay, d1					10.1			11.0			10.7		
Progression Factor					0.62			1.00			1.00		
Incremental Delay, d2					0.5			1.6			1.3		
Delay (s)					6.7			12.6			12.0		
Level of Service					A			B			B		
Approach Delay (s)		0.0			6.7			12.6			12.0		
Approach LOS		A			A			B			B		
Intersection Summary													
HCM Average Control Delay			8.4		HCM Level of Service				A				
HCM Volume to Capacity ratio			0.42										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				9.0				
Intersection Capacity Utilization			39.9%		ICU Level of Service				A				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

64: Richards Blvd & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔	↑↑	↗	↔↔	↑↑↑			↑↑↑	↔↔
Volume (vph)	0	0	0	93	743	162	9	2513	0	0	3091	528
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.97	0.95	1.00	0.97	0.91			0.91	0.88
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				3433	3539	1583	3433	5085			5085	2787
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				3433	3539	1583	3433	5085			5085	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	93	743	162	9	2513	0	0	3091	528
RTOR Reduction (vph)	0	0	0	0	0	61	0	0	0	0	0	137
Lane Group Flow (vph)	0	0	0	93	743	101	9	2513	0	0	3091	391
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				29.8	29.8	29.8	1.3	62.2			56.9	56.9
Effective Green, g (s)				29.8	29.8	29.8	1.3	62.2			56.9	56.9
Actuated g/C Ratio				0.30	0.30	0.30	0.01	0.62			0.57	0.57
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				1023	1055	472	45	3163			2893	1586
v/s Ratio Prot					c0.21		0.00	c0.49			c0.61	
v/s Ratio Perm				0.03		0.06						0.14
v/c Ratio				0.09	0.70	0.21	0.20	0.79			1.07	0.25
Uniform Delay, d1				25.3	31.2	26.3	48.8	14.1			21.6	10.8
Progression Factor				1.00	1.00	1.00	1.00	1.00			0.89	0.84
Incremental Delay, d2				0.2	3.9	1.0	2.2	2.2			37.8	0.3
Delay (s)				25.5	35.1	27.4	51.0	16.3			57.0	9.4
Level of Service				C	D	C	D	B			E	A
Approach Delay (s)		0.0			33.0			16.4			50.1	
Approach LOS		A			C			B			D	

Intersection Summary

HCM Average Control Delay	35.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	143.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔↔	↑						↑↑	↗
Volume (vph)	0	0	0	676	241	0	0	0	0	0	1448	662
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.94	1.00						0.95	1.00
Frbp, ped/bikes				1.00	1.00						1.00	0.81
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				4990	1863						3539	1285
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				4990	1863						3539	1285
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	676	241	0	0	0	0	0	1448	662
RTOR Reduction (vph)	0	0	0	403	0	0	0	0	0	0	0	362
Lane Group Flow (vph)	0	0	0	273	241	0	0	0	0	0	1448	300
Confl. Peds. (#/hr)			55									55
Turn Type				Prot								Perm
Protected Phases				1 9	3 12 13						4	
Permitted Phases												4
Actuated Green, G (s)				41.9	52.5						40.0	40.0
Effective Green, g (s)				40.4	52.0						40.0	40.0
Actuated g/C Ratio				0.40	0.52						0.40	0.40
Clearance Time (s)											4.0	4.0
Vehicle Extension (s)											5.0	5.0
Lane Grp Cap (vph)				2016	969						1416	514
v/s Ratio Prot				0.05	c0.13						c0.41	
v/s Ratio Perm												0.23
v/c Ratio				0.14	0.25						1.02	0.58
Uniform Delay, d1				18.8	13.2						30.0	23.5
Progression Factor				2.13	0.84						1.00	1.00
Incremental Delay, d2				0.1	0.3						29.8	2.6
Delay (s)				40.1	11.4						59.8	26.1
Level of Service				D	B						E	C
Approach Delay (s)		0.0			32.6			0.0			49.2	
Approach LOS		A			C			A			D	

Intersection Summary

HCM Average Control Delay	44.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑↑	↑	↑				
Volume (vph)	0	0	0	0	827	1138	95	37	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.88	1.00	1.00				
Frbp, ped/bikes					1.00	0.78	1.00	1.00				
Flpb, ped/bikes					1.00	1.00	1.00	1.00				
Frt					1.00	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					5085	2162	1770	1863				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					5085	2162	1770	1863				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	827	1138	95	37	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	347	77	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	827	791	18	37	0	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type						custom	Split					
Protected Phases					6 11 15	11	8 16	8 16				
Permitted Phases						6 15						
Actuated Green, G (s)					73.0	69.5	19.5	19.5				
Effective Green, g (s)					69.5	69.5	19.0	19.0				
Actuated g/C Ratio					0.70	0.70	0.19	0.19				
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)					3534	1503	336	354				
v/s Ratio Prot					0.16	c0.11	0.01	c0.02				
v/s Ratio Perm						0.25						
v/c Ratio					0.23	0.53	0.05	0.10				
Uniform Delay, d1					5.6	7.3	33.1	33.5				
Progression Factor					0.60	8.73	0.69	0.87				
Incremental Delay, d2					0.1	0.5	0.1	0.3				
Delay (s)					3.4	64.5	23.1	29.2				
Level of Service					A	E	C	C				
Approach Delay (s)		0.0			38.8			24.8			0.0	
Approach LOS		A			D			C			A	

Intersection Summary

HCM Average Control Delay	37.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑		↘	↑			↑	↗
Volume (vph)	0	0	0	279	1615	32	368	221	0	0	94	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		4.5	4.0			4.0	4.0
Lane Util. Factor				1.00	0.86		1.00	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes				0.87	1.00		1.00	1.00			1.00	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1534	6370		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1534	6370		1770	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	279	1615	32	368	221	0	0	94	110
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	47
Lane Group Flow (vph)	0	0	0	279	1645	0	368	221	0	0	94	63
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type				Perm			Prot					Perm
Protected Phases					2		3	8			4	
Permitted Phases				2								4
Actuated Green, G (s)				53.2	53.2		26.7	38.7			8.0	8.0
Effective Green, g (s)				52.6	52.6		26.2	38.2			7.5	7.5
Actuated g/C Ratio				0.53	0.53		0.26	0.38			0.08	0.08
Clearance Time (s)				4.6	4.6		4.0	3.5			3.5	3.5
Vehicle Extension (s)				0.2	0.2		3.0	0.2			0.2	0.2
Lane Grp Cap (vph)				807	3351		464	712			140	119
v/s Ratio Prot					c0.26		c0.21	0.12			c0.05	
v/s Ratio Perm				0.18								0.04
v/c Ratio				0.35	0.49		0.79	0.31			0.67	0.53
Uniform Delay, d1				13.7	15.1		34.4	21.7			45.0	44.5
Progression Factor				0.69	0.66		1.03	1.35			1.00	1.00
Incremental Delay, d2				0.9	0.4		7.8	0.1			9.5	1.9
Delay (s)				10.4	10.5		43.4	29.3			54.6	46.5
Level of Service				B	B		D	C			D	D
Approach Delay (s)		0.0			10.5			38.1			50.2	
Approach LOS		A			B			D			D	

Intersection Summary

HCM Average Control Delay	19.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & N 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖↗	↑				↖↗
Volume (vph)	0	0	0	0	1304	102	303	1182	0	0	0	777
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.6		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	1.00				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.93
Flpb, ped/bikes					1.00		0.95	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6297		3246	1863				2604
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6297		3246	1863				2604
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1304	102	303	1182	0	0	0	777
RTOR Reduction (vph)	0	0	0	0	12	0	102	0	0	0	0	155
Lane Group Flow (vph)	0	0	0	0	1394	0	201	1182	0	0	0	622
Confl. Peds. (#/hr)			40			40	40		40	40		40
Turn Type							Perm					custom
Protected Phases					2			8				
Permitted Phases					2		8					4
Actuated Green, G (s)					28.7		53.5	53.5				53.5
Effective Green, g (s)					28.4		53.0	53.0				53.5
Actuated g/C Ratio					0.28		0.53	0.53				0.54
Clearance Time (s)					4.3		3.5	3.5				3.5
Vehicle Extension (s)					2.0		2.0	2.0				2.0
Lane Grp Cap (vph)					1788		1720	987				1393
v/s Ratio Prot					c0.22			c0.63				
v/s Ratio Perm							0.06					0.24
v/c Ratio					0.78		0.12	1.20				0.45
Uniform Delay, d1					32.9		11.8	23.5				14.2
Progression Factor					0.56		0.67	0.91				1.00
Incremental Delay, d2					2.9		0.0	93.3				0.1
Delay (s)					21.2		7.9	114.8				14.3
Level of Service					C		A	F				B
Approach Delay (s)		0.0			21.2			93.0			14.3	
Approach LOS		A			C			F			B	

Intersection Summary

HCM Average Control Delay	48.8	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	128.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↑↑↑	↗					↑↑	↖
Volume (vph)	0	0	0	616	990	290	0	0	0	0	933	382
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	4.0	4.0					4.0	3.5
Lane Util. Factor				1.00	0.91	1.00					0.95	1.00
Frbp, ped/bikes				1.00	1.00	0.93					1.00	1.00
Flpb, ped/bikes				1.00	1.00	1.00					1.00	1.00
Fr _t				1.00	1.00	0.85					1.00	0.85
Fl _t Protected				0.95	1.00	1.00					1.00	1.00
Satd. Flow (prot)				1770	5085	1474					3539	1583
Fl _t Permitted				0.95	1.00	1.00					1.00	1.00
Satd. Flow (perm)				1770	5085	1474					3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	616	990	290	0	0	0	0	933	382
RTOR Reduction (vph)	0	0	0	147	0	207	0	0	0	0	0	124
Lane Group Flow (vph)	0	0	0	469	990	83	0	0	0	0	933	258
Confl. Peds. (#/hr)			24			24			24			
Turn Type				Prot		Perm						Perm
Protected Phases				5	2						7	
Permitted Phases						2						7
Actuated Green, G (s)				28.7	28.7	28.7					34.5	34.5
Effective Green, g (s)				27.7	28.7	28.7					34.0	34.5
Actuated g/C Ratio				0.28	0.29	0.29					0.34	0.34
Clearance Time (s)				4.0	4.0	4.0					3.5	3.5
Vehicle Extension (s)				2.0	2.0	2.0					2.0	2.0
Lane Grp Cap (vph)				490	1459	423					1203	546
v/s Ratio Prot				c0.27	0.19						c0.26	
v/s Ratio Perm						0.06						0.16
v/c Ratio				0.96	0.68	0.20					0.78	0.47
Uniform Delay, d1				35.6	31.6	26.9					29.6	25.6
Progression Factor				0.86	0.91	1.00					1.00	1.00
Incremental Delay, d2				5.3	0.2	0.1					2.9	0.2
Delay (s)				36.0	28.8	27.0					32.5	25.9
Level of Service				D	C	C					C	C
Approach Delay (s)		0.0			30.9			0.0			30.6	
Approach LOS		A			C			A			C	

Intersection Summary

HCM Average Control Delay	30.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	38.3
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richards Blvd & 10th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑				↗
Volume (vph)	0	0	0	0	609	101	1121	175	0	0	0	712
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0		4.5	4.0				4.0
Lane Util. Factor					0.86		1.00	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				0.69
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.98		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6271		1770	3539				1934
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6271		1770	3539				1934
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	609	101	1121	175	0	0	0	712
RTOR Reduction (vph)	0	0	0	0	33	0	16	0	0	0	0	117
Lane Group Flow (vph)	0	0	0	0	677	0	1105	175	0	0	0	595
Confl. Peds. (#/hr)			35				35					35
Turn Type							Prot					custom
Protected Phases					6		3	8				
Permitted Phases												4
Actuated Green, G (s)					20.3		63.7	71.7				4.0
Effective Green, g (s)					19.8		63.2	71.2				3.5
Actuated g/C Ratio					0.20		0.63	0.71				0.04
Clearance Time (s)					4.5		4.0	3.5				3.5
Vehicle Extension (s)					2.0		3.0	0.2				2.0
Lane Grp Cap (vph)					1242		1119	2520				68
v/s Ratio Prot					c0.11		c0.62	0.05				
v/s Ratio Perm												c0.31
v/c Ratio					0.55		0.99	0.07				8.75
Uniform Delay, d1					36.1		18.0	4.4				48.2
Progression Factor					0.91		0.94	0.96				1.00
Incremental Delay, d2					1.6		23.7	0.0				3518.7
Delay (s)					34.5		40.7	4.2				3566.9
Level of Service					C		D	A				F
Approach Delay (s)		0.0			34.5			35.8			3566.9	
Approach LOS		A			C			D			F	

Intersection Summary

HCM Average Control Delay	960.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	106.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	835	50	198	1513	191	35	147	56	103	69	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	0.99		1.00	0.99			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		0.98	1.00			1.00			0.99	
Frt	1.00	0.99		1.00	0.98			0.97			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1770	3487		1726	3435			1762			1767	
Flt Permitted	0.13	1.00		0.28	1.00			0.94			0.72	
Satd. Flow (perm)	240	3487		506	3435			1669			1309	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	16	835	50	198	1513	191	35	147	56	103	69	10
RTOR Reduction (vph)	0	5	0	0	11	0	0	20	0	0	4	0
Lane Group Flow (vph)	16	880	0	198	1693	0	0	218	0	0	178	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	31.6	31.6		31.6	31.6			17.6			17.6	
Effective Green, g (s)	31.1	31.1		31.1	31.1			17.1			17.1	
Actuated g/C Ratio	0.54	0.54		0.54	0.54			0.30			0.30	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	130	1896		275	1868			499			391	
v/s Ratio Prot		0.25			c0.49							
v/s Ratio Perm	0.07			0.39				0.13			c0.14	
v/c Ratio	0.12	0.46		0.72	0.91			0.44			0.46	
Uniform Delay, d1	6.4	8.0		9.8	11.7			16.2			16.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.9	0.8		15.0	7.8			0.2			0.3	
Delay (s)	8.3	8.8		24.8	19.6			16.4			16.6	
Level of Service	A	A		C	B			B			B	
Approach Delay (s)		8.8			20.1			16.4			16.6	
Approach LOS		A			C			B			B	

Intersection Summary

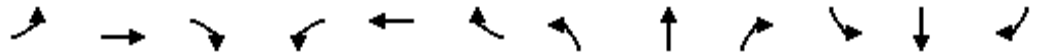
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↑↑↑			↑↑↑	
Volume (vph)	0	0	68	0	0	5	0	1177	1	0	4285	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0			4.0	
Lane Util. Factor			1.00			1.00		0.91			0.86	
Frbp, ped/bikes			1.00			0.93		1.00			1.00	
Flpb, ped/bikes			1.00			1.00		1.00			1.00	
Frt			0.86			0.86		1.00			1.00	
Flt Protected			1.00			1.00		1.00			1.00	
Satd. Flow (prot)			1611			1497		5084			6405	
Flt Permitted			1.00			1.00		1.00			1.00	
Satd. Flow (perm)			1611			1497		5084			6405	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	68	0	0	5	0	1177	1	0	4285	11
RTOR Reduction (vph)	0	0	59	0	0	5	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	9	0	0	0	0	1178	0	0	4296	0
Confl. Peds. (#/hr)				36		36				36	36	
Turn Type			custom			custom						
Protected Phases								2			2	
Permitted Phases			4			8						
Actuated Green, G (s)			7.6			7.1		84.9			84.9	
Effective Green, g (s)			7.1			7.1		84.9			84.9	
Actuated g/C Ratio			0.07			0.07		0.85			0.85	
Clearance Time (s)			3.5			4.0		4.0			4.0	
Vehicle Extension (s)			2.0			3.0		5.0			5.0	
Lane Grp Cap (vph)			114			106		4316			5438	
v/s Ratio Prot								0.23			c0.67	
v/s Ratio Perm			c0.01			0.00						
v/c Ratio			0.08			0.00		0.27			0.79	
Uniform Delay, d1			43.4			43.2		1.5			3.5	
Progression Factor			1.00			1.00		0.06			1.00	
Incremental Delay, d2			0.1			0.0		0.1			1.2	
Delay (s)			43.5			43.2		0.2			4.7	
Level of Service			D			D		A			A	
Approach Delay (s)		43.5			43.2			0.2			4.7	
Approach LOS		D			D			A			A	

Intersection Summary

HCM Average Control Delay	4.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		
Description: 8 seconds additional lost time represents LRT			
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: Basler St & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷			↷			↶↷↶				
Volume (vph)	408	5	0	0	5	13	54	1142	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.95			1.00				
Flpb, ped/bikes	0.94	0.94			1.00			1.00				
Frt	1.00	1.00			0.90			1.00				
Flt Protected	0.95	0.95			1.00			1.00				
Satd. Flow (prot)	1583	1591			1595			6375				
Flt Permitted	0.75	0.72			1.00			1.00				
Satd. Flow (perm)	1242	1199			1595			6375				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	408	5	0	0	5	13	54	1142	9	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	2	0	0	0	0
Lane Group Flow (vph)	208	205	0	0	10	0	0	1203	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			23.0				
Effective Green, g (s)	18.0	18.0			18.0			24.0				
Actuated g/C Ratio	0.36	0.36			0.36			0.48				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	447	432			574			3060				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.17	c0.17						0.19				
v/c Ratio	0.47	0.47			0.02			0.39				
Uniform Delay, d1	12.3	12.3			10.3			8.3				
Progression Factor	1.00	1.00			1.00			1.43				
Incremental Delay, d2	3.5	3.7			0.1			0.3				
Delay (s)	15.8	16.1			10.4			12.2				
Level of Service	B	B			B			B				
Approach Delay (s)		15.9			10.4			12.2			0.0	
Approach LOS		B			B			B			A	

Intersection Summary

HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Bannon St & I-5 SB Off

6/27/2007






















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗							↙↘	↖↗	
Volume (vph)	0	82	104	0	0	0	0	0	0	1446	625	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5							4.5	4.5	
Lane Util. Factor		1.00	1.00							0.81	0.81	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	0.98	
Satd. Flow (prot)		1863	1583							2867	4431	
Flt Permitted		1.00	1.00							0.95	0.98	
Satd. Flow (perm)		1863	1583							2867	4431	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	82	104	0	0	0	0	0	0	1446	625	0
RTOR Reduction (vph)	0	0	93	0	0	0	0	0	0	188	45	0
Lane Group Flow (vph)	0	82	11	0	0	0	0	0	0	781	1057	0
Turn Type			Perm								Split	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		10.4	10.4							80.6	80.6	
Effective Green, g (s)		10.4	10.4							80.6	80.6	
Actuated g/C Ratio		0.10	0.10							0.81	0.81	
Clearance Time (s)		4.5	4.5							4.5	4.5	
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Lane Grp Cap (vph)		194	165							2311	3571	
v/s Ratio Prot		c0.04								c0.27	0.24	
v/s Ratio Perm			0.01									
v/c Ratio		0.42	0.07							0.34	0.30	
Uniform Delay, d1		42.0	40.4							2.6	2.5	
Progression Factor		1.00	1.00							0.00	0.14	
Incremental Delay, d2		1.5	0.2							0.2	0.1	
Delay (s)		43.5	40.6							0.2	0.5	
Level of Service		D	D							A	A	
Approach Delay (s)		41.9			0.0			0.0			0.4	
Approach LOS		D			A			A			A	
Intersection Summary												
HCM Average Control Delay			3.8								HCM Level of Service	A
HCM Volume to Capacity ratio			0.35									
Actuated Cycle Length (s)			100.0								Sum of lost time (s)	9.0
Intersection Capacity Utilization			64.7%								ICU Level of Service	C
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

12: Bannon St & I-5 NB Off





















6/27/2007

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  							 			
Volume (vph)	37	1491	0	0	0	0	0	72	1827	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5	4.5			
Lane Util. Factor	1.00	0.91						1.00	0.88			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	5085						1863	2787			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	5085						1863	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	37	1491	0	0	0	0	0	72	1827	0	0	0
RTOR Reduction (vph)	17	0	0	0	0	0	0	0	1	0	0	0
Lane Group Flow (vph)	20	1491	0	0	0	0	0	72	1826	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	30.1	30.1						60.9	60.9			
Effective Green, g (s)	30.1	30.1						60.9	60.9			
Actuated g/C Ratio	0.30	0.30						0.61	0.61			
Clearance Time (s)	4.5	4.5						4.5	4.5			
Vehicle Extension (s)	3.0	3.0						3.0	3.0			
Lane Grp Cap (vph)	533	1531						1135	1697			
v/s Ratio Prot	0.01	c0.29						0.04				
v/s Ratio Perm									c0.66			
v/c Ratio	0.04	0.97						0.06	1.08			
Uniform Delay, d1	24.7	34.6						8.0	19.6			
Progression Factor	0.39	0.62						1.00	1.00			
Incremental Delay, d2	0.1	17.1						0.0	45.5			
Delay (s)	9.8	38.5						8.0	65.1			
Level of Service	A	D						A	E			
Approach Delay (s)		37.8			0.0			62.9			0.0	
Approach LOS		D			A			E			A	
Intersection Summary												
HCM Average Control Delay			51.7		HCM Level of Service				D			
HCM Volume to Capacity ratio			1.04									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			100.2%		ICU Level of Service				G			
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/27/2007

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  										
Volume (vph)	192	2584	542	0	0	0	0	307	115	148	400	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.86						1.00	1.00	1.00	1.00	
Frt	1.00	0.97						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	6241						1863	1583	1770	1863	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	6241						1863	1583	1770	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	192	2584	542	0	0	0	0	307	115	148	400	0
RTOR Reduction (vph)	0	38	0	0	0	0	0	0	53	0	0	0
Lane Group Flow (vph)	192	3088	0	0	0	0	0	307	62	148	400	0
Turn Type	Split						Perm			Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	57.0	57.0						18.3	18.3	12.7	35.0	
Effective Green, g (s)	57.0	57.0						18.3	18.3	12.7	35.0	
Actuated g/C Ratio	0.57	0.57						0.18	0.18	0.13	0.35	
Clearance Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1009	3557						341	290	225	652	
v/s Ratio Prot	0.11	c0.49						c0.16		0.08	c0.21	
v/s Ratio Perm									0.04			
v/c Ratio	0.19	0.87						0.90	0.21	0.66	0.61	
Uniform Delay, d1	10.4	18.3						40.0	34.7	41.6	26.9	
Progression Factor	0.90	1.01						1.00	1.00	1.18	1.03	
Incremental Delay, d2	0.0	0.3						25.5	0.4	6.7	1.7	
Delay (s)	9.4	18.8						65.5	35.1	55.7	29.5	
Level of Service	A	B						E	D	E	C	
Approach Delay (s)		18.3			0.0			57.2			36.6	
Approach LOS		B			A			E			D	
Intersection Summary												
HCM Average Control Delay			24.5		HCM Level of Service					C		
HCM Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				12.0			
Intersection Capacity Utilization			80.9%		ICU Level of Service				D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Bannon St & N 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1252	1333	0	0	0	0	0	619	45	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.0				
Lane Util. Factor	1.00	0.86						0.91				
Frt	1.00	1.00						0.99				
Flt Protected	0.95	1.00						1.00				
Satd. Flow (prot)	1770	6408						5034				
Flt Permitted	0.95	1.00						1.00				
Satd. Flow (perm)	1770	6408						5034				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1252	1333	0	0	0	0	0	619	45	0	0	0
RTOR Reduction (vph)	1	0	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	1251	1333	0	0	0	0	0	656	0	0	0	0
Turn Type	Perm											
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)	75.5	75.5						16.0				
Effective Green, g (s)	75.5	75.5						16.0				
Actuated g/C Ratio	0.76	0.76						0.16				
Clearance Time (s)	4.5	4.5						4.0				
Vehicle Extension (s)	3.0	3.0						3.0				
Lane Grp Cap (vph)	1336	4838						805				
v/s Ratio Prot		0.21						c0.13				
v/s Ratio Perm	c0.71											
v/c Ratio	0.94	0.28						0.81				
Uniform Delay, d1	10.2	3.8						40.6				
Progression Factor	2.50	2.24						0.81				
Incremental Delay, d2	7.4	0.0						7.9				
Delay (s)	33.0	8.5						41.0				
Level of Service	C	A						D				
Approach Delay (s)		20.4			0.0			41.0			0.0	
Approach LOS		C			A			D			A	

Intersection Summary

HCM Average Control Delay	24.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	128.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

15: Bannon St & 7th Street

6/27/2007

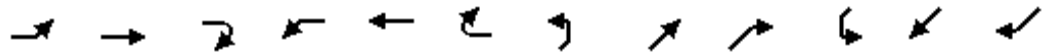


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑								↘	↑↑	
Volume (vph)	0	1006	372	0	0	0	0	0	0	293	1194	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5								4.5	4.5	
Lane Util. Factor		0.86								1.00	0.95	
Frt		0.96								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		6148								1770	3539	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		6148								1770	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1006	372	0	0	0	0	0	0	293	1194	0
RTOR Reduction (vph)	0	69	0	0	0	0	0	0	0	71	0	0
Lane Group Flow (vph)	0	1309	0	0	0	0	0	0	0	222	1194	0
Turn Type										Prot		
Protected Phases		4								1	6	
Permitted Phases												
Actuated Green, G (s)		29.0								62.0	62.0	
Effective Green, g (s)		29.0								62.0	62.0	
Actuated g/C Ratio		0.29								0.62	0.62	
Clearance Time (s)		4.5								4.5	4.5	
Vehicle Extension (s)		3.0								3.0	3.0	
Lane Grp Cap (vph)		1783								1097	2194	
v/s Ratio Prot		c0.21								0.13	c0.34	
v/s Ratio Perm												
v/c Ratio		0.73								0.20	0.54	
Uniform Delay, d1		32.0								8.3	10.9	
Progression Factor		0.31								0.13	0.24	
Incremental Delay, d2		1.6								0.3	0.7	
Delay (s)		11.5								1.3	3.3	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			2.9	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM Average Control Delay			7.1		HCM Level of Service					A		
HCM Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)					9.0		
Intersection Capacity Utilization			67.4%		ICU Level of Service					C		
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

16: Richards & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔↔	↑↑	↔					↔↔↔	↔	↔↔	↑↑↑	
Volume (vph)	363	25	709	0	0	0	0	871	9	31	3458	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Lane Util. Factor	0.97	0.95	1.00					0.86	0.86	0.97	0.91	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	1583					4805	1362	3433	5085	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	1583					4805	1362	3433	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	363	25	709	0	0	0	0	871	9	31	3458	0
RTOR Reduction (vph)	0	0	69	0	0	0	0	0	4	0	0	0
Lane Group Flow (vph)	363	25	640	0	0	0	0	872	4	31	3458	0
Turn Type	custom		Perm						Perm		Prot	
Protected Phases	4	4						2		1	6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	38.0	38.0	38.0					69.4	69.4	29.6	103.5	
Effective Green, g (s)	38.0	38.0	38.0					69.4	69.4	29.6	103.5	
Actuated g/C Ratio	0.25	0.25	0.25					0.46	0.46	0.20	0.69	
Clearance Time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	870	897	401					2223	630	677	3509	
v/s Ratio Prot	0.11	0.01						0.18		0.01	c0.68	
v/s Ratio Perm			c0.40						0.00			
v/c Ratio	0.42	0.03	1.60					0.39	0.01	0.05	0.99	
Uniform Delay, d1	46.8	42.1	56.0					26.5	21.7	48.8	22.5	
Progression Factor	1.00	1.00	1.00					0.51	0.17	1.00	1.00	
Incremental Delay, d2	0.3	0.0	280.1					0.0	0.0	0.0	12.2	
Delay (s)	47.1	42.1	336.1					13.6	3.6	48.8	34.7	
Level of Service	D	D	F					B	A	D	C	
Approach Delay (s)		233.7			0.0			13.5			34.8	
Approach LOS		F			A			B			C	

Intersection Summary

HCM Average Control Delay	71.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	117.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

17: N B Street & 5th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	97	549	0	0	0	0	156	663	14	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.5	4.5			
Lane Util. Factor	1.00	1.00						0.91	0.91			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						0.99	1.00			
Satd. Flow (prot)	1770	1863						3358	1441			
Flt Permitted	0.95	1.00						0.99	1.00			
Satd. Flow (perm)	1770	1863						3358	1441			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	549	0	0	0	0	156	663	14	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	7	0	0	0
Lane Group Flow (vph)	97	549	0	0	0	0	0	820	6	0	0	0
Turn Type	Perm						Split		Perm			
Protected Phases	4						2		2			
Permitted Phases	4								2			
Actuated Green, G (s)	19.2						22.3		22.3			
Effective Green, g (s)	19.2						22.3		22.3			
Actuated g/C Ratio	0.38						0.45		0.45			
Clearance Time (s)	4.0						4.5		4.5			
Vehicle Extension (s)	3.0						3.0		3.0			
Lane Grp Cap (vph)	680		715				1498		643			
v/s Ratio Prot	c0.29						c0.24					
v/s Ratio Perm	0.05								0.00			
v/c Ratio	0.14		0.77				0.55		0.01			
Uniform Delay, d1	10.0		13.5				10.2		7.7			
Progression Factor	1.00		1.00				1.00		1.00			
Incremental Delay, d2	0.1		5.0				1.4		0.0			
Delay (s)	10.1		18.4				11.6		7.7			
Level of Service	B		B				B		A			
Approach Delay (s)			17.2		0.0		11.5				0.0	
Approach LOS			B		A		B				A	

Intersection Summary

HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

18: N B Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	662	76	0	0	0	0	0	0	201	1510	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5									4.5	
Lane Util. Factor		0.91									0.91	
Frt		0.98									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		5007									5056	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		5007									5056	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	662	76	0	0	0	0	0	0	201	1510	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	0	0	0	34	0
Lane Group Flow (vph)	0	708	0	0	0	0	0	0	0	0	1677	0
Turn Type										Perm		
Protected Phases		4									1	
Permitted Phases										1		
Actuated Green, G (s)		13.9									19.9	
Effective Green, g (s)		13.9									19.9	
Actuated g/C Ratio		0.28									0.40	
Clearance Time (s)		4.5									4.5	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		1392									2012	
v/s Ratio Prot		0.14										
v/s Ratio Perm											0.33	
v/c Ratio		0.51									0.83	
Uniform Delay, d1		15.2									13.6	
Progression Factor		1.00									0.94	
Incremental Delay, d2		0.3									3.7	
Delay (s)		15.5									16.4	
Level of Service		B									B	
Approach Delay (s)		15.5			0.0			0.0			16.4	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM Average Control Delay			16.1		HCM Level of Service						B	
HCM Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				16.2			
Intersection Capacity Utilization			55.2%		ICU Level of Service						B	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: N B Street & 10th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑				
Volume (vph)	98	969	22	0	0	0	0	164	258	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.91						0.95				
Frt		1.00						0.91				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		5047						3215				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		5047						3215				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	98	969	22	0	0	0	0	164	258	0	0	0
RTOR Reduction (vph)	0	27	0	0	0	0	0	32	0	0	0	0
Lane Group Flow (vph)	0	1062	0	0	0	0	0	390	0	0	0	0
Turn Type	Perm											
Protected Phases		2						4				
Permitted Phases	2											
Actuated Green, G (s)		21.5						19.5				
Effective Green, g (s)		21.5						19.5				
Actuated g/C Ratio		0.43						0.39				
Clearance Time (s)		4.5						4.5				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		2170						1254				
v/s Ratio Prot								c0.12				
v/s Ratio Perm		0.21										
v/c Ratio		0.49						0.31				
Uniform Delay, d1		10.3						10.6				
Progression Factor		1.00						1.00				
Incremental Delay, d2		0.8						0.6				
Delay (s)		11.1						11.2				
Level of Service		B						B				
Approach Delay (s)		11.1			0.0			11.2			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			11.1					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		9.0		
Intersection Capacity Utilization			111.8%					ICU Level of Service		H		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: N B Street & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↔		↵	↔						↔↔↔	
Volume (vph)	879	62	246	217	0	29	0	0	0	28	4446	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		4.0	4.0							3.5
Lane Util. Factor	0.91	0.91		0.95	0.95							0.86
Frbp, ped/bikes	1.00	0.97		1.00	1.00							1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00							1.00
Frt	1.00	0.95		1.00	0.96							1.00
Flt Protected	0.95	0.97		0.95	0.96							1.00
Satd. Flow (prot)	1610	3032		1681	1643							6406
Flt Permitted	0.95	0.97		0.95	0.96							1.00
Satd. Flow (perm)	1610	3032		1681	1643							6406
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	879	62	246	217	0	29	0	0	0	28	4446	0
RTOR Reduction (vph)	0	36	0	0	8	0	0	0	0	0	0	0
Lane Group Flow (vph)	439	712	0	126	112	0	0	0	0	0	4474	0
Confl. Peds. (#/hr)			36	36								
Turn Type	Split		Split								Perm	
Protected Phases	3	3		4	4							2 10
Permitted Phases										2 10		
Actuated Green, G (s)	25.0	25.0		14.9	14.9							78.5
Effective Green, g (s)	25.0	25.0		14.9	14.9							81.5
Actuated g/C Ratio	0.17	0.17		0.10	0.10							0.54
Clearance Time (s)	5.0	5.0		4.0	4.0							
Vehicle Extension (s)	5.0	5.0		3.0	3.0							
Lane Grp Cap (vph)	268	505		167	163							3481
v/s Ratio Prot	c0.27	0.23		c0.07	0.07							
v/s Ratio Perm												0.70
v/c Ratio	1.64	1.43dl		0.75	0.69							1.29
Uniform Delay, d1	62.5	62.5		65.8	65.3							34.2
Progression Factor	1.00	1.00		1.00	1.00							1.25
Incremental Delay, d2	303.4	196.1		17.4	11.4							128.6
Delay (s)	365.9	258.6		83.2	76.7							171.5
Level of Service	F	F		F	E							F
Approach Delay (s)		298.3			80.0			0.0				171.5
Approach LOS		F			F			A				F

Intersection Summary

HCM Average Control Delay	193.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	29.1
Intersection Capacity Utilization	106.9%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: N B Street & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	112	7	0	0	10	5	184	2270	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.98			1.00				
Flpb, ped/bikes	0.95	0.95			1.00			1.00				
Frt	1.00	1.00			0.95			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1592	1616			1740			6370				
Flt Permitted	0.75	0.78			1.00			1.00				
Satd. Flow (perm)	1253	1318			1740			6370				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	112	7	0	0	10	5	184	2270	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	1	0	0	0	0
Lane Group Flow (vph)	59	60	0	0	12	0	0	2463	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	12.0	12.0			12.0			30.0				
Effective Green, g (s)	12.0	12.0			12.0			30.0				
Actuated g/C Ratio	0.24	0.24			0.24			0.60				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	301	316			418			3822				
v/s Ratio Prot					0.01							
v/s Ratio Perm	c0.05	0.05						0.39				
v/c Ratio	0.20	0.19			0.03			0.64				
Uniform Delay, d1	15.2	15.1			14.5			6.5				
Progression Factor	1.00	1.00			1.00			0.46				
Incremental Delay, d2	1.5	1.3			0.1			0.8				
Delay (s)	16.6	16.5			14.7			3.8				
Level of Service	B	B			B			A				
Approach Delay (s)		16.5			14.7			3.8			0.0	
Approach LOS		B			B			A			A	

Intersection Summary

HCM Average Control Delay	4.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 22: South Park St & Bercut Dr

6/27/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	74	64	267	47	129	315
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	74	64	267	47	129	315
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	74	64	314	129	315	
Volume Left (vph)	74	0	0	129	0	
Volume Right (vph)	0	64	47	0	0	
Hadj (s)	0.53	-0.67	-0.06	0.53	0.03	
Departure Headway (s)	6.9	5.6	5.2	5.8	5.3	
Degree Utilization, x	0.14	0.10	0.45	0.21	0.46	
Capacity (veh/h)	482	577	675	602	664	
Control Delay (s)	9.8	8.1	12.4	9.1	11.6	
Approach Delay (s)	9.0		12.4	10.8		
Approach LOS	A		B	B		
Intersection Summary						
Delay			11.1			
HCM Level of Service			B			
Intersection Capacity Utilization			38.2%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

23: South Park St & 5th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷						↶↷↶				
Volume (vph)	71	69	0	0	0	0	5	438	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5				
Lane Util. Factor	0.95	0.95						0.91				
Frt	1.00	1.00						1.00				
Flt Protected	0.95	1.00						1.00				
Satd. Flow (prot)	1681	1761						5082				
Flt Permitted	0.95	1.00						1.00				
Satd. Flow (perm)	1681	1761						5082				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	71	69	0	0	0	0	5	438	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	64	76	0	0	0	0	0	443	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases	4						2					
Permitted Phases	4						2					
Actuated Green, G (s)	10.9	10.9						30.1				
Effective Green, g (s)	10.9	10.9						30.1				
Actuated g/C Ratio	0.22	0.22						0.60				
Clearance Time (s)	4.5	4.5						4.5				
Vehicle Extension (s)	3.0	3.0						3.0				
Lane Grp Cap (vph)	366	384						3059				
v/s Ratio Prot												
v/s Ratio Perm	0.04	0.04						0.09				
v/c Ratio	0.17	0.20						0.14				
Uniform Delay, d1	15.9	16.0						4.3				
Progression Factor	1.00	1.00						0.70				
Incremental Delay, d2	0.2	0.3						0.1				
Delay (s)	16.1	16.2						3.1				
Level of Service	B	B						A				
Approach Delay (s)		16.2			0.0			3.1			0.0	
Approach LOS		B			A			A			A	

Intersection Summary

HCM Average Control Delay	6.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.16		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

24: North Park St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔						↑↑↑	
Volume (vph)	0	0	0	20	141	0	0	0	0	0	938	414
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5						4.0	
Lane Util. Factor					1.00						0.91	
Frt					1.00						0.95	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					1851						4852	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					1851						4852	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	20	141	0	0	0	0	0	938	414
RTOR Reduction (vph)	0	0	0	0	12	0	0	0	0	0	105	0
Lane Group Flow (vph)	0	0	0	0	149	0	0	0	0	0	1247	0
Turn Type					Perm							
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					11.2						30.3	
Effective Green, g (s)					11.2						30.3	
Actuated g/C Ratio					0.22						0.61	
Clearance Time (s)					4.5						4.0	
Vehicle Extension (s)					3.0						3.0	
Lane Grp Cap (vph)					415						2940	
v/s Ratio Prot											c0.26	
v/s Ratio Perm					0.08							
v/c Ratio					0.36						0.42	
Uniform Delay, d1					16.4						5.2	
Progression Factor					1.00						0.70	
Incremental Delay, d2					0.5						0.2	
Delay (s)					16.9						3.9	
Level of Service					B						A	
Approach Delay (s)		0.0			16.9			0.0			3.9	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	5.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

25: South Park St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔									↑↑↑	
Volume (vph)	0	341	199	0	0	0	0	0	0	20	940	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5									4.0	
Lane Util. Factor		1.00									0.91	
Frt		0.95									1.00	
Flt Protected		1.00									1.00	
Satd. Flow (prot)		1770									5080	
Flt Permitted		1.00									1.00	
Satd. Flow (perm)		1770									5080	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	341	199	0	0	0	0	0	0	20	940	0
RTOR Reduction (vph)	0	44	0	0	0	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	496	0	0	0	0	0	0	0	0	956	0
Turn Type											Perm	
Protected Phases		4										2
Permitted Phases										2		
Actuated Green, G (s)		16.9									24.6	
Effective Green, g (s)		16.9									24.6	
Actuated g/C Ratio		0.34									0.49	
Clearance Time (s)		4.5									4.0	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		598									2499	
v/s Ratio Prot		c0.28										
v/s Ratio Perm											0.19	
v/c Ratio		0.83									0.38	
Uniform Delay, d1		15.2									7.9	
Progression Factor		1.00									0.56	
Incremental Delay, d2		9.3									0.4	
Delay (s)		24.5									4.9	
Level of Service		C									A	
Approach Delay (s)		24.5			0.0			0.0			4.9	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

26: Railyards Blvd & Jibboom St

6/27/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	5	25	63	5	127	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	1844		1770	1863
Flt Permitted	0.95	1.00	1.00		0.71	1.00
Satd. Flow (perm)	1770	1583	1844		1328	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	25	63	5	127	119
RTOR Reduction (vph)	0	18	2	0	0	0
Lane Group Flow (vph)	5	7	66	0	127	119
Turn Type		Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	
Actuated Green, G (s)	25.0	25.0	52.0		52.0	52.0
Effective Green, g (s)	25.0	25.0	52.0		52.0	52.0
Actuated g/C Ratio	0.29	0.29	0.61		0.61	0.61
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	521	466	1128		812	1140
v/s Ratio Prot	0.00		0.04			0.06
v/s Ratio Perm		c0.00			c0.10	
v/c Ratio	0.01	0.02	0.06		0.16	0.10
Uniform Delay, d1	21.2	21.3	6.6		7.1	6.8
Progression Factor	0.82	0.80	1.00		1.00	1.00
Incremental Delay, d2	0.0	0.1	0.0		0.4	0.2
Delay (s)	17.4	17.1	6.7		7.5	7.0
Level of Service	B	B	A		A	A
Approach Delay (s)	17.1		6.7			7.3
Approach LOS	B		A			A

Intersection Summary

HCM Average Control Delay	8.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.11		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	24.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↕		↖	↗		↖	↗	
Volume (vph)	5	108	19	13	24	41	5	273	39	23	367	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.91		1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1821		1770	3204		1770	1828		1770	1859	
Flt Permitted	0.71	1.00		0.67	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1327	1821		1256	3204		1770	1828		1770	1859	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	108	19	13	24	41	5	273	39	23	367	5
RTOR Reduction (vph)	0	7	0	0	26	0	0	6	0	0	1	0
Lane Group Flow (vph)	5	120	0	13	39	0	5	306	0	23	371	0
Turn Type	Perm		Perm		Split		Split					
Protected Phases	2		6		3		3		4		4	
Permitted Phases	2		6									
Actuated Green, G (s)	31.4	31.4		31.4	31.4		20.1	20.1		21.5	21.5	
Effective Green, g (s)	31.4	31.4		31.4	31.4		20.1	20.1		21.5	21.5	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.24	0.24		0.25	0.25	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	490	673		464	1184		419	432		448	470	
v/s Ratio Prot	c0.07				0.01		0.00		c0.17		0.01	
v/s Ratio Perm	0.00		0.01									
v/c Ratio	0.01	0.18		0.03	0.03		0.01	0.71		0.05	0.79	
Uniform Delay, d1	17.0	18.1		17.1	17.1		24.8	29.8		24.0	29.6	
Progression Factor	0.64	0.68		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.1		0.1	0.1		0.0	5.2		0.0	8.6	
Delay (s)	10.8	12.5		17.2	17.2		24.9	35.0		24.1	38.2	
Level of Service	B	B		B	B		C	D		C	D	
Approach Delay (s)	12.4		17.2				34.8				37.4	
Approach LOS	B		B				C				D	

Intersection Summary

HCM Average Control Delay	31.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

28: Railyards Blvd & Crocker St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↔	↔		↔	↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	23	42	31	250	9	78	11	146	189	69	47	8
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	23	42	31	250	9	78	11	146	189	69	47	8

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	44	52	255	83	11	335	69	55
Volume Left (vph)	23	0	250	0	11	0	69	0
Volume Right (vph)	0	31	0	78	0	189	0	8
Hadj (s)	0.30	-0.38	0.53	-0.63	0.53	-0.36	0.53	-0.07
Departure Headway (s)	6.6	5.9	6.5	5.3	6.5	5.6	6.7	6.1
Degree Utilization, x	0.08	0.09	0.46	0.12	0.02	0.52	0.13	0.09
Capacity (veh/h)	502	558	534	639	531	624	500	547
Control Delay (s)	9.0	8.3	13.6	7.8	8.4	13.2	9.5	8.6
Approach Delay (s)	8.6		12.2		13.0		9.1	
Approach LOS	A		B		B		A	

Intersection Summary

Delay	11.7
HCM Level of Service	B
Intersection Capacity Utilization	53.6%
ICU Level of Service	A
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

29: Railyards Blvd & Stanford St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔		↖	↗		↖	↗	
Volume (vph)	5	261	39	75	330	56	7	81	6	56	18	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98			0.98		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1826			3447		1770	1843		1770	1802	
Flt Permitted	0.95	1.00			0.99		0.74	1.00		0.69	1.00	
Satd. Flow (perm)	1770	1826			3447		1383	1843		1287	1802	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	261	39	75	330	56	7	81	6	56	18	5
RTOR Reduction (vph)	0	6	0	0	8	0	0	3	0	0	4	0
Lane Group Flow (vph)	5	294	0	0	453	0	7	84	0	56	19	0
Turn Type	Split		Split		Perm		Perm		Perm		Perm	
Protected Phases	1	1		2	2			8		8		4
Permitted Phases							8			4		
Actuated Green, G (s)	22.0	22.0			49.2		16.8	16.8		16.8	16.8	
Effective Green, g (s)	22.0	22.0			49.2		16.8	16.8		16.8	16.8	
Actuated g/C Ratio	0.22	0.22			0.49		0.17	0.17		0.17	0.17	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	389	402			1696		232	310		216	303	
v/s Ratio Prot	0.00	c0.16			c0.13			c0.05			0.01	
v/s Ratio Perm							0.01			0.04		
v/c Ratio	0.01	0.73			0.27		0.03	0.27		0.26	0.06	
Uniform Delay, d1	30.5	36.2			14.9		34.8	36.3		36.2	35.0	
Progression Factor	1.00	1.00			0.16		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	6.7			0.3		0.1	0.5		0.6	0.1	
Delay (s)	30.5	42.9			2.6		34.8	36.7		36.8	35.1	
Level of Service	C	D			A		C	D		D	D	
Approach Delay (s)		42.7			2.6			36.6			36.3	
Approach LOS		D			A			D			D	

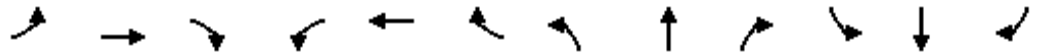
Intersection Summary

HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

30: Railyards Blvd & 5th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↖↗↕				
Volume (vph)	5	322	0	0	452	5	9	438	78	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.0				
Lane Util. Factor	0.95	0.95			0.95			0.91				
Frt	1.00	1.00			1.00			0.98				
Flt Protected	0.95	1.00			1.00			1.00				
Satd. Flow (prot)	1681	1769			3533			4968				
Flt Permitted	0.95	1.00			1.00			1.00				
Satd. Flow (perm)	1681	1769			3533			4968				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	322	0	0	452	5	9	438	78	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	18	0	0	0	0
Lane Group Flow (vph)	4	323	0	0	456	0	0	507	0	0	0	0
Turn Type	Split						Split					
Protected Phases	4	4			8			2	2			
Permitted Phases					8			2	2			
Actuated Green, G (s)	23.9	23.9			18.4			44.7				
Effective Green, g (s)	23.9	23.9			18.4			44.7				
Actuated g/C Ratio	0.24	0.24			0.18			0.45				
Clearance Time (s)	4.5	4.5			4.5			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	402	423			650			2221				
v/s Ratio Prot	0.00	c0.18			c0.13			c0.10				
v/s Ratio Perm												
v/c Ratio	0.01	0.76			0.70			0.23				
Uniform Delay, d1	29.0	35.4			38.2			17.0				
Progression Factor	0.19	0.32			0.90			1.00				
Incremental Delay, d2	0.0	7.4			3.4			0.2				
Delay (s)	5.7	18.8			37.7			17.3				
Level of Service	A	B			D			B				
Approach Delay (s)		18.7			37.7			17.3			0.0	
Approach LOS		B			D			B			A	

Intersection Summary

HCM Average Control Delay	24.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	30.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

31: Railyards Blvd & Judas St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	114	170	5	22	186	34	5	42	22	5	61	264
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98			0.96		1.00	0.88	
Flt Protected	0.95	1.00		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)	1770	1855		1770	3457			1776		1770	1636	
Flt Permitted	0.61	1.00		0.64	1.00			0.98		0.71	1.00	
Satd. Flow (perm)	1144	1855		1201	3457			1751		1326	1636	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	114	170	5	22	186	34	5	42	22	5	61	264
RTOR Reduction (vph)	0	2	0	0	26	0	0	9	0	0	108	0
Lane Group Flow (vph)	114	173	0	22	195	0	0	60	0	5	217	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	12.5	12.5		12.5	12.5			29.5		29.5	29.5	
Effective Green, g (s)	12.5	12.5		12.5	12.5			29.5		29.5	29.5	
Actuated g/C Ratio	0.25	0.25		0.25	0.25			0.59		0.59	0.59	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	286	464		300	864			1033		782	965	
v/s Ratio Prot		0.09			0.06						c0.13	
v/s Ratio Perm	c0.10			0.02				0.03		0.00		
v/c Ratio	0.40	0.37		0.07	0.23			0.06		0.01	0.22	
Uniform Delay, d1	15.6	15.5		14.3	14.9			4.4		4.2	4.8	
Progression Factor	1.13	1.14		0.50	0.59			1.00		1.00	1.00	
Incremental Delay, d2	0.8	0.5		0.1	0.1			0.1		0.0	0.5	
Delay (s)	18.5	18.1		7.2	8.9			4.5		4.2	5.4	
Level of Service	B	B		A	A			A		A	A	
Approach Delay (s)		18.3			8.8			4.5			5.4	
Approach LOS		B			A			A			A	

Intersection Summary

HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	114	192	5	360	208	5	34	555	33	19	434	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	1.00		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1856		1770	3527		1770	1847		1770	1860	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1856		1770	3527		1770	1847		1770	1860	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	114	192	5	360	208	5	34	555	33	19	434	5
RTOR Reduction (vph)	0	1	0	0	1	0	0	2	0	0	1	0
Lane Group Flow (vph)	114	196	0	360	212	0	34	586	0	19	438	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Actuated Green, G (s)	10.9	19.8		25.0	33.9		3.8	37.6		1.6	35.4	
Effective Green, g (s)	10.9	19.8		25.0	33.9		3.8	37.6		1.6	35.4	
Actuated g/C Ratio	0.11	0.20		0.25	0.34		0.04	0.38		0.02	0.35	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	193	367		443	1196		67	694		28	658	
v/s Ratio Prot	0.06	c0.11		c0.20	0.06		c0.02	c0.32		0.01	0.24	
v/s Ratio Perm												
v/c Ratio	0.59	0.53		0.81	0.18		0.51	0.84		0.68	0.67	
Uniform Delay, d1	42.4	36.0		35.3	23.2		47.2	28.5		48.9	27.3	
Progression Factor	1.09	1.23		0.43	0.25		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.8	5.5		5.1	0.1		5.9	12.0		49.7	5.3	
Delay (s)	50.9	49.6		20.2	5.9		53.1	40.6		98.6	32.6	
Level of Service	D	D		C	A		D	D		F	C	
Approach Delay (s)		50.1			14.9			41.2			35.3	
Approach LOS		D			B			D			D	

Intersection Summary

HCM Average Control Delay	33.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/27/2007

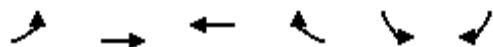


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	244	915	542	0	0	0	0	0	757	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.5	4.0	4.0						4.0	
Lane Util. Factor			1.00	0.91	0.91						0.91	
Fr _t			0.86	1.00	1.00						0.99	
Fl _t Protected			1.00	0.95	0.98						1.00	
Satd. Flow (prot)			1611	1610	3316						5056	
Fl _t Permitted			1.00	0.95	0.98						1.00	
Satd. Flow (perm)			1611	1610	3316						5056	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	244	915	542	0	0	0	0	0	757	30
RTOR Reduction (vph)	0	0	230	342	146	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	14	134	835	0	0	0	0	0	784	0
Turn Type			custom	Split								
Protected Phases			4	3	3						2	
Permitted Phases												
Actuated Green, G (s)			5.6	28.2	28.2						33.4	
Effective Green, g (s)			5.6	28.2	28.2						33.4	
Actuated g/C Ratio			0.06	0.28	0.28						0.33	
Clearance Time (s)			4.5	4.0	4.0						4.0	
Vehicle Extension (s)			3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)			90	454	935						1689	
v/s Ratio Prot			c0.01	0.08	c0.25						c0.15	
v/s Ratio Perm												
v/c Ratio			0.15	0.30	0.89						0.46	
Uniform Delay, d ₁			44.9	28.1	34.5						26.2	
Progression Factor			99.79	1.00	1.00						1.10	
Incremental Delay, d ₂			0.7	0.4	10.8						0.8	
Delay (s)			4485.3	28.5	45.3						29.8	
Level of Service			F	C	D						C	
Approach Delay (s)		4485.3			39.8			0.0			29.8	
Approach LOS		F			D			A			C	
Intersection Summary												
HCM Average Control Delay			472.6		HCM Level of Service			F				
HCM Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			32.8				
Intersection Capacity Utilization			68.5%		ICU Level of Service			C				
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

34: Railyards Blvd &

6/27/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↗
Volume (vph)	0	0	1013	143	0	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0
Lane Util. Factor			0.95			1.00
Frt			0.98			0.86
Flt Protected			1.00			1.00
Satd. Flow (prot)			3474			1611
Flt Permitted			1.00			1.00
Satd. Flow (perm)			3474			1611
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	1013	143	0	68
RTOR Reduction (vph)	0	0	17	0	0	50
Lane Group Flow (vph)	0	0	1139	0	0	18
Turn Type						custom
Protected Phases			2			
Permitted Phases						4
Actuated Green, G (s)			30.1			11.9
Effective Green, g (s)			30.1			11.9
Actuated g/C Ratio			0.60			0.24
Clearance Time (s)			4.0			4.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			2091			383
v/s Ratio Prot			c0.33			
v/s Ratio Perm						c0.01
v/c Ratio			0.54			0.05
Uniform Delay, d1			5.9			14.7
Progression Factor			1.00			1.00
Incremental Delay, d2			1.0			0.1
Delay (s)			6.9			14.7
Level of Service			A			B
Approach Delay (s)		0.0	6.9		14.7	
Approach LOS		A	A		B	
Intersection Summary						
HCM Average Control Delay			7.4		HCM Level of Service	A
HCM Volume to Capacity ratio			0.40			
Actuated Cycle Length (s)			50.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			43.4%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Unsignalized Intersection Capacity Analysis

35: Camille Ln & Jibboom St

6/27/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	0	63	0	0	119	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	63	0	0	119	0
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	63	0	119			
Volume Left (vph)	0	0	119			
Volume Right (vph)	63	0	0			
Hadj (s)	-0.57	0.00	0.23			
Departure Headway (s)	3.6	4.1	4.3			
Degree Utilization, x	0.06	0.00	0.14			
Capacity (veh/h)	963	863	831			
Control Delay (s)	6.8	7.1	8.0			
Approach Delay (s)	6.8	0.0	8.0			
Approach LOS	A	A	A			
Intersection Summary						
Delay			7.6			
HCM Level of Service			A			
Intersection Capacity Utilization			17.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

36: Camille Ln & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (vph)	0	247	121	443	5	47	7	290	400	12	362	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.96			0.99		1.00	0.91		1.00	1.00	
Flt Protected		1.00			0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1780			1760		1770	1701		1770	1863	
Flt Permitted		1.00			0.47		0.38	1.00		0.20	1.00	
Satd. Flow (perm)		1780			867		707	1701		373	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	247	121	443	5	47	7	290	400	12	362	0
RTOR Reduction (vph)	0	29	0	0	6	0	0	83	0	0	0	0
Lane Group Flow (vph)	0	339	0	0	489	0	7	607	0	12	362	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			8			4	
Permitted Phases	2			2			8			4		
Actuated Green, G (s)		32.0			32.0		20.0	20.0		20.0	20.0	
Effective Green, g (s)		32.0			32.0		20.0	20.0		20.0	20.0	
Actuated g/C Ratio		0.53			0.53		0.33	0.33		0.33	0.33	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		949			462		236	567		124	621	
v/s Ratio Prot		0.19						c0.36			0.19	
v/s Ratio Perm					c0.56		0.01			0.03		
v/c Ratio		0.36			1.06		0.03	1.07		0.10	0.58	
Uniform Delay, d1		8.1			14.0		13.5	20.0		13.8	16.5	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.0			58.1		0.1	58.3		0.3	1.4	
Delay (s)		9.1			72.1		13.5	78.3		14.1	17.9	
Level of Service		A			E		B	E		B	B	
Approach Delay (s)		9.1			72.1			77.6			17.8	
Approach LOS		A			E			E			B	

Intersection Summary

HCM Average Control Delay	51.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

37: F Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻↻↻	
Volume (vph)	0	21	5	52	61	0	0	0	0	535	1488	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	
Lane Util. Factor		1.00		1.00	1.00						0.91	
Frt		0.97		1.00	1.00						0.99	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1814		1770	1863						4980	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		1814		1770	1863						4980	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	21	5	52	61	0	0	0	0	535	1488	120
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	22	0	52	61	0	0	0	0	0	2137	0
Turn Type				Prot							Perm	
Protected Phases		4		3	8							6
Permitted Phases										6		
Actuated Green, G (s)		16.0		8.0	28.0						54.0	
Effective Green, g (s)		16.0		8.0	28.0						54.0	
Actuated g/C Ratio		0.16		0.08	0.28						0.54	
Clearance Time (s)		4.0		4.0	4.0						4.0	
Lane Grp Cap (vph)		290		142	522						2689	
v/s Ratio Prot		0.01		c0.03	c0.03							
v/s Ratio Perm											0.43	
v/c Ratio		0.08		0.37	0.12						0.79	
Uniform Delay, d1		35.7		43.6	26.8						18.5	
Progression Factor		1.00		1.00	1.00						0.88	
Incremental Delay, d2		0.5		7.1	0.5						2.1	
Delay (s)		36.2		50.7	27.3						18.4	
Level of Service		D		D	C						B	
Approach Delay (s)		36.2			38.1			0.0			18.4	
Approach LOS		D			D			A			B	

Intersection Summary

HCM Average Control Delay	19.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗	↗		↖↗↘				
Volume (vph)	43	5	0	0	127	1164	75	661	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0				
Lane Util. Factor		1.00			0.95	0.95		0.91				
Frt		1.00			0.88	0.85		1.00				
Flt Protected		0.96			1.00	1.00		0.99				
Satd. Flow (prot)		1783			1556	1504		5055				
Flt Permitted		0.54			1.00	1.00		0.99				
Satd. Flow (perm)		1004			1556	1504		5055				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	43	5	0	0	127	1164	75	661	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	59	59	0	1	0	0	0	0
Lane Group Flow (vph)	0	48	0	0	592	581	0	740	0	0	0	0
Turn Type	Perm					Perm	Perm					
Protected Phases		4			8			2				
Permitted Phases	4					8	2	2				
Actuated Green, G (s)		23.0			23.0	23.0		19.0				
Effective Green, g (s)		23.0			23.0	23.0		19.0				
Actuated g/C Ratio		0.46			0.46	0.46		0.38				
Clearance Time (s)		4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)		462			716	692		1921				
v/s Ratio Prot					0.38							
v/s Ratio Perm		0.05				c0.39		0.15				
v/c Ratio		0.10			0.83	0.84		0.39				
Uniform Delay, d1		7.7			11.8	11.9		11.3				
Progression Factor		1.00			1.45	1.48		0.33				
Incremental Delay, d2		0.5			1.1	1.2		0.5				
Delay (s)		8.1			18.1	18.7		4.2				
Level of Service		A			B	B		A				
Approach Delay (s)		8.1			18.4			4.2			0.0	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕		↕	↕		↕	↕	
Volume (vph)	5	5	5	133	1209	481	485	514	5	5	664	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	
Frt		0.95			0.96		1.00	1.00		1.00	0.99	
Flt Protected		0.98			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750			3387		1770	1860		1770	1845	
Flt Permitted		0.65			0.93		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1150			3146		1770	1860		1770	1845	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	133	1209	481	485	514	5	5	664	44
RTOR Reduction (vph)	0	4	0	0	36	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	12	0	0	1787	0	485	519	0	5	705	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		30.0			30.0		24.0	53.0		5.0	34.0	
Effective Green, g (s)		30.0			30.0		24.0	53.0		5.0	34.0	
Actuated g/C Ratio		0.30			0.30		0.24	0.53		0.05	0.34	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		345			944		425	986		89	627	
v/s Ratio Prot							c0.27	0.28		0.00	c0.38	
v/s Ratio Perm		0.01			c0.57							
v/c Ratio		0.03			1.89		1.14	0.53		0.06	1.12	
Uniform Delay, d1		24.7			35.0		38.0	15.3		45.3	33.0	
Progression Factor		1.03			0.94		1.11	0.04		1.00	1.00	
Incremental Delay, d2		0.2			402.0		66.5	0.2		1.2	75.5	
Delay (s)		25.8			435.0		108.6	0.8		46.5	108.5	
Level of Service		C			F		F	A		D	F	
Approach Delay (s)		25.8			435.0			52.9			108.1	
Approach LOS		C			F			D			F	

Intersection Summary

HCM Average Control Delay	259.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	127.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↗
Volume (vph)	0	0	15	300	1757	0	0	0	0	0	1162	371
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.0	3.5
Lane Util. Factor			1.00	0.91	0.91						0.95	1.00
Frbp, ped/bikes			1.00	1.00	1.00						1.00	1.00
Flpb, ped/bikes			1.00	1.00	1.00						1.00	1.00
Frt			0.86	1.00	1.00						1.00	0.85
Flt Protected			1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)			1611	1610	3387						3539	1583
Flt Permitted			1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)			1611	1610	3387						3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	300	1757	0	0	0	0	0	1162	371
RTOR Reduction (vph)	0	0	14	113	1	0	0	0	0	0	0	159
Lane Group Flow (vph)	0	0	1	157	1786	0	0	0	0	0	1162	212
Confl. Peds. (#/hr)						72						
Turn Type			custom	Perm								Perm
Protected Phases			1		2						4	
Permitted Phases			1	2								4
Actuated Green, G (s)			5.5	44.5	44.5						29.5	29.5
Effective Green, g (s)			5.5	44.0	44.5						29.0	29.5
Actuated g/C Ratio			0.06	0.44	0.44						0.29	0.29
Clearance Time (s)			3.5	3.5	3.5						3.5	3.5
Lane Grp Cap (vph)			89	708	1507						1026	467
v/s Ratio Prot			c0.00								c0.33	
v/s Ratio Perm				0.10	0.53							0.13
v/c Ratio			0.01	0.22	1.19						1.13	0.45
Uniform Delay, d1			44.7	17.4	27.8						35.5	28.7
Progression Factor			1.00	1.10	0.93						0.89	1.06
Incremental Delay, d2			0.2	0.5	88.7						67.6	1.9
Delay (s)			44.9	19.7	114.5						99.1	32.3
Level of Service			D	B	F						F	C
Approach Delay (s)		44.9			102.1			0.0			82.9	
Approach LOS		D			F			A			F	
Intersection Summary												
HCM Average Control Delay			93.7		HCM Level of Service			F				
HCM Volume to Capacity ratio			1.08									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			21.0				
Intersection Capacity Utilization			91.4%		ICU Level of Service			F				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

41: G Street &

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Volume (vph)	0	0	0	0	1206	357	773	447	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0				
Lane Util. Factor					0.91			0.91				
Frbp, ped/bikes					0.99			1.00				
Flpb, ped/bikes					1.00			0.97				
Frt					0.97			1.00				
Flt Protected					1.00			0.97				
Satd. Flow (prot)					4841			4769				
Flt Permitted					1.00			0.97				
Satd. Flow (perm)					4841			4769				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1206	357	773	447	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	107	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1456	0	0	1206	0	0	0	0
Confl. Peds. (#/hr)						72	72					
Turn Type								Perm				
Protected Phases					1			2				
Permitted Phases							2					
Actuated Green, G (s)					22.0			21.0				
Effective Green, g (s)					21.5			20.5				
Actuated g/C Ratio					0.43			0.41				
Clearance Time (s)					3.5			3.5				
Lane Grp Cap (vph)					2082			1955				
v/s Ratio Prot					c0.30							
v/s Ratio Perm								0.25				
v/c Ratio					0.70			1.08dl				
Uniform Delay, d1					11.6			11.6				
Progression Factor					0.86			0.44				
Incremental Delay, d2					1.9			1.1				
Delay (s)					11.8			6.2				
Level of Service					B			A				
Approach Delay (s)		0.0			11.8			6.2			0.0	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	9.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	46	613	0	0	0	0	0	1636	403
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.98	
Flpb, ped/bikes					1.00						1.00	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5048						4858	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5048						4858	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	46	613	0	0	0	0	0	1636	403
RTOR Reduction (vph)	0	0	0	0	17	0	0	0	0	0	84	0
Lane Group Flow (vph)	0	0	0	0	642	0	0	0	0	0	1955	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1716						2040	
v/s Ratio Prot											c0.40	
v/s Ratio Perm					0.13							
v/c Ratio					0.37						0.96	
Uniform Delay, d1					12.5						14.1	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.6						12.3	
Delay (s)					13.1						26.3	
Level of Service					B						C	
Approach Delay (s)		0.0			13.1			0.0			26.3	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM Average Control Delay			23.1								HCM Level of Service	C
HCM Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			50.0							12.0		
Intersection Capacity Utilization			61.0%								ICU Level of Service	B
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

43: H Street & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖						↖↗				
Volume (vph)	5	20	0	0	0	0	20	700	833	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		1.00						0.91				
Frt		1.00						0.92				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1844						4673				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1844						4673				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	20	0	0	0	0	20	700	833	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	416	0	0	0	0
Lane Group Flow (vph)	0	25	0	0	0	0	0	1137	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4					2	2				
Permitted Phases	4											
Actuated Green, G (s)		16.0						21.0				
Effective Green, g (s)		16.0						21.0				
Actuated g/C Ratio		0.32						0.42				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		590						1963				
v/s Ratio Prot								c0.24				
v/s Ratio Perm		0.01										
v/c Ratio		0.04						0.58				
Uniform Delay, d1		11.7						11.1				
Progression Factor		1.00						0.05				
Incremental Delay, d2		0.1						0.5				
Delay (s)		11.9						1.0				
Level of Service		B						A				
Approach Delay (s)		11.9			0.0			1.0			0.0	
Approach LOS		B			A			A			A	

Intersection Summary

HCM Average Control Delay	1.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	376	55	0	0	0	0	1189	280	462	296	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0	3.5	4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95	0.95	0.95	0.95	
Frbp, ped/bikes	1.00	0.98						1.00	0.85	1.00	1.00	
Flpb, ped/bikes	0.76	1.00						1.00	1.00	1.00	1.00	
Frt	1.00	0.98						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (prot)	1345	3404						1757	1274	1681	1750	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (perm)	1345	3404						1757	1274	1681	1750	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	1189	280	462	296	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	1	69	0	0	0
Lane Group Flow (vph)	20	420	0	0	0	0	0	1216	183	374	384	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm						Perm Split					
Protected Phases	1						2 6 6					
Permitted Phases	1						2					
Actuated Green, G (s)	15.0	15.0						49.0	49.0	17.0	17.0	
Effective Green, g (s)	15.0	14.5						48.5	49.0	16.5	16.5	
Actuated g/C Ratio	0.15	0.14						0.48	0.49	0.16	0.16	
Clearance Time (s)	3.5	3.5						3.5	3.5	4.0	4.0	
Lane Grp Cap (vph)	202	494						852	624	277	289	
v/s Ratio Prot		c0.12						c0.69		c0.22	0.22	
v/s Ratio Perm	0.01								0.14			
v/c Ratio	0.10	0.85						1.43	0.29	1.35	1.33	
Uniform Delay, d1	36.7	41.7						25.8	15.2	41.8	41.8	
Progression Factor	0.78	0.82						0.82	0.77	0.61	0.61	
Incremental Delay, d2	0.7	13.2						196.4	0.7	159.8	150.2	
Delay (s)	29.3	47.4						217.5	12.4	185.4	175.8	
Level of Service	C	D						F	B	F	F	
Approach Delay (s)		46.6			0.0			182.3			180.6	
Approach LOS		D			A			F			F	

Intersection Summary

HCM Average Control Delay	159.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	112.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↑↑								↘	↙↑			
Volume (vph)	0	798	112	0	0	0	0	0	0	334	944	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		4.0								4.0	4.0			
Lane Util. Factor		0.95								0.91	0.91			
Frbp, ped/bikes		0.99								1.00	1.00			
Flpb, ped/bikes		1.00								0.93	1.00			
Frt		0.98								1.00	1.00			
Flt Protected		1.00								0.95	1.00			
Satd. Flow (prot)		3439								1494	3376			
Flt Permitted		1.00								0.95	1.00			
Satd. Flow (perm)		3439								1494	3376			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	0	798	112	0	0	0	0	0	0	334	944	0		
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	124	5	0		
Lane Group Flow (vph)	0	888	0	0	0	0	0	0	0	177	972	0		
Confl. Peds. (#/hr)			72							72				
Turn Type										Perm				
Protected Phases		1									2			
Permitted Phases										2				
Actuated Green, G (s)		18.5								19.5	19.5			
Effective Green, g (s)		18.0								19.0	19.0			
Actuated g/C Ratio		0.36								0.38	0.38			
Clearance Time (s)		3.5								3.5	3.5			
Lane Grp Cap (vph)		1238								568	1283			
v/s Ratio Prot		0.26												
v/s Ratio Perm										0.12	0.29			
v/c Ratio		0.72								0.31	0.76			
Uniform Delay, d1		13.8								10.9	13.5			
Progression Factor		1.13								1.15	1.31			
Incremental Delay, d2		1.1								0.4	1.2			
Delay (s)		16.7								12.9	18.9			
Level of Service		B								B	B			
Approach Delay (s)		16.7			0.0			0.0			17.5			
Approach LOS		B			A			A			B			
Intersection Summary														
HCM Average Control Delay			17.2									HCM Level of Service	B	
HCM Volume to Capacity ratio			0.74											
Actuated Cycle Length (s)			50.0								13.0		Sum of lost time (s)	
Intersection Capacity Utilization			59.0%										ICU Level of Service	B
Analysis Period (min)			15											
c Critical Lane Group														

HCM Signalized Intersection Capacity Analysis

46: H Street &

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Volume (vph)	387	809	0	0	0	0	0	905	225	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.98				
Flpb, ped/bikes		0.98						1.00				
Frt		1.00						0.97				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		3402						4852				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		3402						4852				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	387	809	0	0	0	0	0	905	225	0	0	0
RTOR Reduction (vph)	0	115	0	0	0	0	0	86	0	0	0	0
Lane Group Flow (vph)	0	1081	0	0	0	0	0	1044	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		18.5						19.5				
Effective Green, g (s)		18.0						19.0				
Actuated g/C Ratio		0.36						0.38				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1225						1844				
v/s Ratio Prot								c0.22				
v/s Ratio Perm		0.32										
v/c Ratio		0.88						0.57				
Uniform Delay, d1		15.0						12.2				
Progression Factor		0.92						1.00				
Incremental Delay, d2		7.6						1.3				
Delay (s)		21.4						13.5				
Level of Service		C						B				
Approach Delay (s)		21.4			0.0			13.5			0.0	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM Average Control Delay			17.6					HCM Level of Service		B		
HCM Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		13.0		
Intersection Capacity Utilization			63.8%					ICU Level of Service		B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↖				↗		↖↗↘				
Volume (vph)	372	373	0	0	0	40	0	1308	23	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	1.00				1.00		1.00				
Satd. Flow (prot)	3221	1677				1611		5061				
Flt Permitted	0.95	1.00				1.00		1.00				
Satd. Flow (perm)	3221	1677				1611		5061				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	372	373	0	0	0	40	0	1308	23	0	0	0
RTOR Reduction (vph)	201	5	0	0	0	36	0	3	0	0	0	0
Lane Group Flow (vph)	134	405	0	0	0	4	0	1328	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	12.5	21.5				5.5		21.5				
Effective Green, g (s)	12.0	21.0				5.0		21.0				
Actuated g/C Ratio	0.24	0.42				0.10		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	773	704				161		2126				
v/s Ratio Prot	0.04	c0.14				0.00		c0.26				
v/s Ratio Perm		0.10										
v/c Ratio	0.17	0.57				0.02		0.62				
Uniform Delay, d1	15.1	11.1				20.3		11.4				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	0.5	3.4				0.3		1.4				
Delay (s)	15.6	14.5				20.6		12.8				
Level of Service	B	B				C		B				
Approach Delay (s)		15.0			20.6			12.8			0.0	
Approach LOS		B			C			B			A	

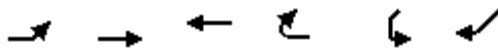
Intersection Summary

HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/27/2007



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	727	154	197	0	348	750
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	1.00		0.91	
Flt Protected	0.95	1.00	1.00		0.98	
Satd. Flow (prot)	1770	1863	1863		1665	
Flt Permitted	0.95	1.00	1.00		0.98	
Satd. Flow (perm)	1770	1863	1863		1665	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	727	154	197	0	348	750
RTOR Reduction (vph)	0	0	0	0	52	0
Lane Group Flow (vph)	727	154	197	0	1046	0
Turn Type	Prot					
Protected Phases	7	4	8		6	
Permitted Phases						
Actuated Green, G (s)	50.5	54.9	13.0		74.0	
Effective Green, g (s)	51.0	54.9	13.0		74.0	
Actuated g/C Ratio	0.34	0.37	0.09		0.49	
Clearance Time (s)	4.5	4.0	4.0		4.0	
Vehicle Extension (s)	2.5	4.5	4.5		3.0	
Lane Grp Cap (vph)	602	682	161		821	
v/s Ratio Prot	c0.41	0.08	c0.11		c0.63	
v/s Ratio Perm						
v/c Ratio	1.21	0.23	1.22		1.27	
Uniform Delay, d1	49.5	32.9	68.5		38.0	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	108.4	0.3	143.5		133.0	
Delay (s)	157.9	33.2	212.0		171.0	
Level of Service	F	C	F		F	
Approach Delay (s)		136.1	212.0		171.0	
Approach LOS		F	F		F	

Intersection Summary

HCM Average Control Delay	160.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

49: I Street & 3rd St

6/27/2007



Movement	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations	↗	↖	↑	↗			↘	↑	↗		
Volume (vph)	97	257	160	560	5	278	169	218	26	2	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5			4.5	4.5	4.5		
Lane Util. Factor	1.00	1.00	1.00	0.88			1.00	1.00	1.00		
Frt	0.86	1.00	1.00	0.85			1.00	1.00	0.95		
Flt Protected	1.00	0.95	1.00	1.00			0.95	1.00	1.00		
Satd. Flow (prot)	1611	1770	1863	2787			1770	1863	1771		
Flt Permitted	1.00	0.95	1.00	1.00			0.95	1.00	1.00		
Satd. Flow (perm)	1611	1770	1863	2787			1770	1863	1771		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	257	160	560	5	278	169	218	26	2	13
RTOR Reduction (vph)	89	0	0	1	0	0	0	0	12	0	0
Lane Group Flow (vph)	8	257	160	564	0	0	447	218	29	0	0
Turn Type	custom	Prot		Prot		Prot	Prot				
Protected Phases	4	3	8	8		5	5	2	6		
Permitted Phases	4										
Actuated Green, G (s)	5.0	11.5	21.0	21.0			19.5	30.0	6.0		
Effective Green, g (s)	5.0	11.5	21.0	21.0			19.5	30.0	6.0		
Actuated g/C Ratio	0.08	0.19	0.35	0.35			0.32	0.50	0.10		
Clearance Time (s)	4.5	4.5	4.5	4.5			4.5	4.5	4.5		
Lane Grp Cap (vph)	134	339	652	975			575	932	177		
v/s Ratio Prot	0.01	c0.15	0.09	c0.20			c0.25	c0.12	0.02		
v/s Ratio Perm											
v/c Ratio	0.06	0.76	0.25	0.58			0.78	0.23	0.17		
Uniform Delay, d1	25.3	22.9	13.9	15.9			18.3	8.5	24.7		
Progression Factor	1.00	1.00	1.00	1.00			1.00	1.00	1.00		
Incremental Delay, d2	0.9	14.7	0.9	2.5			9.9	0.6	2.0		
Delay (s)	26.2	37.6	14.8	18.4			28.2	9.1	26.7		
Level of Service	C	D	B	B			C	A	C		
Approach Delay (s)			22.8					22.0	26.7		
Approach LOS			C					C	C		

Intersection Summary

HCM Average Control Delay	22.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	1386	98	148	1472	0	0	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					0.99		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6154		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6154		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1386	98	148	1472	0	0	0	20
RTOR Reduction (vph)	0	0	0	0	11	0	5	0	0	0	0	3
Lane Group Flow (vph)	0	0	0	0	1473	0	143	1472	0	0	0	17
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					17.0		24.5	24.5				24.5
Effective Green, g (s)					18.0		24.0	24.0				24.5
Actuated g/C Ratio					0.36		0.48	0.48				0.49
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					2215		1648	1614				1366
v/s Ratio Prot					c0.24		0.04	c0.44				
v/s Ratio Perm												0.01
v/c Ratio					0.67		0.09	0.91				0.01
Uniform Delay, d1					13.5		7.1	12.0				6.5
Progression Factor					0.57		0.86	0.98				1.00
Incremental Delay, d2					0.8		0.1	7.2				0.0
Delay (s)					8.5		6.1	18.9				6.6
Level of Service					A		A	B				A
Approach Delay (s)		0.0			8.5			17.8			6.6	
Approach LOS		A			A			B			A	

Intersection Summary

HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑		↑	←↑↑			↑	↑
Volume (vph)	0	0	0	56	1160	400	35	876	0	0	26	333
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.98		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.96		1.00	1.00			0.87	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4768		1610	3389			1542	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4768		1610	3389			1542	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	56	1160	400	35	876	0	0	26	333
RTOR Reduction (vph)	0	0	0	0	118	0	0	0	0	0	135	151
Lane Group Flow (vph)	0	0	0	0	1498	0	31	880	0	0	48	25
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom						custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					16.5		15.5	15.5			7.5	7.5
Effective Green, g (s)					16.0		15.0	15.0			7.0	7.0
Actuated g/C Ratio					0.32		0.30	0.30			0.14	0.14
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1526		483	1017			216	211
v/s Ratio Prot							0.02	c0.26			c0.03	0.02
v/s Ratio Perm					0.31							
v/c Ratio					0.98		0.06	0.87			0.22	0.12
Uniform Delay, d1					16.9		12.5	16.5			19.1	18.8
Progression Factor					0.67		1.36	1.57			3.95	5.28
Incremental Delay, d2					16.3		0.2	7.1			0.2	0.1
Delay (s)					27.6		17.1	33.1			75.6	99.3
Level of Service					C		B	C			E	F
Approach Delay (s)		0.0			27.6			32.5			87.2	
Approach LOS		A			C			C			F	

Intersection Summary

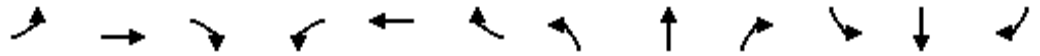
HCM Average Control Delay	36.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖↖↖						↗↗	↗↗
Volume (vph)	0	0	0	384	1340	0	0	0	0	0	854	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.93	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1412	4790						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1412	4790						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	384	1340	0	0	0	0	0	854	272
RTOR Reduction (vph)	0	0	0	115	5	0	0	0	0	0	0	173
Lane Group Flow (vph)	0	0	0	231	1373	0	0	0	0	0	854	99
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1							2
Permitted Phases				1								2
Actuated Green, G (s)				20.5	20.5						17.5	17.5
Effective Green, g (s)				20.0	20.0						17.0	17.0
Actuated g/C Ratio				0.40	0.40						0.34	0.34
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				565	1916						1203	948
v/s Ratio Prot											c0.24	
v/s Ratio Perm				0.16	0.29							0.04
v/c Ratio				0.41	0.72						0.71	0.10
Uniform Delay, d1				10.8	12.6						14.4	11.3
Progression Factor				1.00	1.00						0.95	2.45
Incremental Delay, d2				2.2	2.3						2.5	0.2
Delay (s)				13.0	14.9						16.2	27.8
Level of Service				B	B						B	C
Approach Delay (s)		0.0			14.5			0.0			19.0	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM Average Control Delay	16.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	390	1656	554	108	171	190	268	1954	1090
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.99		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.97		0.85	1.00	1.00	0.89	0.85	
Flt Protected		0.99		1.00	0.95	1.00	0.99	1.00	
Satd. Flow (prot)		6075		2787	3433	1863	1630	2882	
Flt Permitted		0.99		1.00	0.95	1.00	0.99	1.00	
Satd. Flow (perm)		6075		2787	3433	1863	1630	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	1656	554	108	171	190	268	1954	1090
RTOR Reduction (vph)	0	0	0	3	0	0	0	57	0
Lane Group Flow (vph)	0	2600	0	105	171	190	1128	2127	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom		Perm			Prot
Protected Phases	2	2					1	3	3
Permitted Phases				1	1				
Actuated Green, G (s)		31.0		11.5	11.5	11.5	46.0	46.0	
Effective Green, g (s)		31.0		11.0	11.0	11.0	46.0	46.0	
Actuated g/C Ratio		0.31		0.11	0.11	0.11	0.46	0.46	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1883		307	378	205	750	1326	
v/s Ratio Prot		c0.43				c0.10	0.69	c0.74	
v/s Ratio Perm				0.04	0.05				
v/c Ratio		1.38		0.34	0.45	0.93	1.50	1.60	
Uniform Delay, d1		34.5		41.2	41.7	44.1	27.0	27.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		174.7		0.2	0.3	41.9	233.7	275.5	
Delay (s)		209.2		41.4	42.0	86.0	260.7	302.5	
Level of Service		F		D	D	F	F	F	
Approach Delay (s)		209.2				65.2	288.3		
Approach LOS		F				E	F		

Intersection Summary

HCM Average Control Delay	239.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.44		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	147.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖↖↖	↖					↖↖	↖			
Volume (vph)	860	2808	111	0	0	0	0	654	388	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.93					0.99	0.94			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.98	0.85			
Flt Protected	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (prot)	1290	6020	1476					3317	1351			
Flt Permitted	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (perm)	1290	6020	1476					3317	1351			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	860	2808	111	0	0	0	0	654	388	0	0	0
RTOR Reduction (vph)	35	6	31	0	0	0	0	1	1	0	0	0
Lane Group Flow (vph)	670	2957	80	0	0	0	0	727	313	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	64.7	64.7	64.7					27.3	27.3			
Effective Green, g (s)	64.7	64.7	64.7					27.3	27.3			
Actuated g/C Ratio	0.65	0.65	0.65					0.27	0.27			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	835	3895	955					906	369			
v/s Ratio Prot	c0.52	0.49						0.22				
v/s Ratio Perm			0.05						c0.23			
v/c Ratio	0.80	0.76	0.08					0.80	0.85			
Uniform Delay, d1	13.0	12.2	6.6					33.8	34.4			
Progression Factor	0.86	0.87	1.00					1.00	1.00			
Incremental Delay, d2	0.8	0.1	0.0					4.9	15.8			
Delay (s)	12.0	10.8	6.6					38.7	50.2			
Level of Service	B	B	A					D	D			
Approach Delay (s)		10.9			0.0			42.2			0.0	
Approach LOS		B			A			D			A	

Intersection Summary

HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕↕↕						↕		↘		
Volume (vph)	982	2054	0	0	0	0	0	30	7	35	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.99		1.00		
Flpb, ped/bikes	0.92	0.99						1.00		0.94		
Frt	1.00	1.00						0.97		1.00		
Flt Protected	0.95	0.99						1.00		0.95		
Satd. Flow (prot)	1404	4741						1791		1669		
Flt Permitted	0.95	0.99						1.00		0.73		
Satd. Flow (perm)	1404	4741						1791		1288		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	982	2054	0	0	0	0	0	30	7	35	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	736	2300	0	0	0	0	0	31	0	35	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	71.5	71.5						21.5		21.5		
Effective Green, g (s)	71.0	71.0						21.0		21.0		
Actuated g/C Ratio	0.71	0.71						0.21		0.21		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	997	3366						376		270		
v/s Ratio Prot								0.02				
v/s Ratio Perm	c0.52	0.49								c0.03		
v/c Ratio	0.74	0.68						0.08		0.13		
Uniform Delay, d1	8.8	8.2						31.8		32.1		
Progression Factor	1.14	1.17						1.00		0.85		
Incremental Delay, d2	3.2	0.7						0.4		0.5		
Delay (s)	13.2	10.3						32.2		27.9		
Level of Service	B	B						C		C		
Approach Delay (s)		11.0			0.0			32.2				27.9
Approach LOS		B			A			C				C

Intersection Summary

HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑	↑								↑↑↑		
Volume (vph)	0	2046	324	0	0	0	0	0	0	227	867	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0	4.0								4.0		
Lane Util. Factor		0.86	0.86								0.91		
Frbp, ped/bikes		1.00	0.93								1.00		
Flpb, ped/bikes		1.00	1.00								0.99		
Frt		1.00	0.85								1.00		
Flt Protected		1.00	1.00								0.99		
Satd. Flow (prot)		4790	1265								4970		
Flt Permitted		1.00	1.00								0.99		
Satd. Flow (perm)		4790	1265								4970		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	2046	324	0	0	0	0	0	0	227	867	0	
RTOR Reduction (vph)	0	1	115	0	0	0	0	0	0	0	47	0	
Lane Group Flow (vph)	0	2077	177	0	0	0	0	0	0	0	1047	0	
Confl. Peds. (#/hr)			36								36		
Turn Type			Perm								Perm		
Protected Phases		1										2	
Permitted Phases			1								2		
Actuated Green, G (s)		54.5	54.5								28.5		
Effective Green, g (s)		54.0	54.0								28.0		
Actuated g/C Ratio		0.54	0.54								0.28		
Clearance Time (s)		3.5	3.5								3.5		
Lane Grp Cap (vph)		2587	683								1392		
v/s Ratio Prot		0.43											
v/s Ratio Perm			0.14								0.21		
v/c Ratio		0.80	0.26								0.75		
Uniform Delay, d1		18.7	12.3								32.8		
Progression Factor		1.02	2.08								1.17		
Incremental Delay, d2		2.2	0.7								2.9		
Delay (s)		21.3	26.4								41.3		
Level of Service		C	C								D		
Approach Delay (s)		21.9			0.0			0.0			41.3		
Approach LOS		C			A			A			D		
Intersection Summary													
HCM Average Control Delay			28.0		HCM Level of Service							C	
HCM Volume to Capacity ratio			0.79										
Actuated Cycle Length (s)			100.0		Sum of lost time (s)						18.0		
Intersection Capacity Utilization			70.1%		ICU Level of Service						C		
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/27/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	206	403	151	65	521	77	1294	302	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.5	5.0	4.0	3.5	4.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.99	0.85	0.85	1.00	1.00	0.97		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1682	1504	1583	1770	3539	4928		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1682	1504	1583	1770	3539	4928		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	206	403	151	65	521	77	1294	302	33
RTOR Reduction (vph)	0	0	0	38	0	0	2	0	0
Lane Group Flow (vph)	185	439	136	27	521	77	1627	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2					
Actuated Green, G (s)	41.5	41.5	41.5	41.5	18.0	50.5	28.5		
Effective Green, g (s)	41.0	41.0	41.5	41.0	18.0	50.5	28.0		
Actuated g/C Ratio	0.41	0.41	0.42	0.41	0.18	0.50	0.28		
Clearance Time (s)	4.5	4.5	4.5	4.5	4.0	3.5	3.5		
Lane Grp Cap (vph)	689	690	624	649	319	1787	1380		
v/s Ratio Prot					c0.29	0.02	c0.33		
v/s Ratio Perm	0.11	0.26	0.09	0.02					
v/c Ratio	0.27	0.64	0.22	0.04	1.63	0.04	1.18		
Uniform Delay, d1	19.6	23.5	18.8	17.7	41.0	12.5	36.0		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	1.0	4.4	0.8	0.1	298.8	0.0	88.3		
Delay (s)	20.5	28.0	19.6	17.8	339.8	12.6	124.3		
Level of Service	C	C	B	B	F	B	F		
Approach Delay (s)		24.1				297.7	124.3		
Approach LOS		C				F	F		

Intersection Summary

HCM Average Control Delay	131.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	93.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔	↑↑↑				↔
Volume (vph)	0	0	0	0	1100	137	172	961	0	0	0	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		5.0	5.0				5.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Frt					0.98		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6244		1633	5085				2543
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6244		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1100	137	172	961	0	0	0	103
RTOR Reduction (vph)	0	0	0	0	31	0	10	0	0	0	0	11
Lane Group Flow (vph)	0	0	0	0	1206	0	163	961	0	0	0	92
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					25.0		35.5	35.5				35.5
Effective Green, g (s)					26.0		35.0	35.0				35.0
Actuated g/C Ratio					0.37		0.50	0.50				0.50
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					2319		817	2543				1272
v/s Ratio Prot					c0.19			c0.19				
v/s Ratio Perm							0.10					0.04
v/c Ratio					0.52		0.20	0.38				0.07
Uniform Delay, d1					17.1		9.7	10.8				9.1
Progression Factor					1.00		0.76	0.80				1.00
Incremental Delay, d2					0.8		0.4	0.3				0.1
Delay (s)					18.0		7.8	8.9				9.2
Level of Service					B		A	A				A
Approach Delay (s)		0.0			18.0			8.7			9.2	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	13.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Volume (vph)	0	0	0	231	1200	0	0	0	0	0	458	557
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.97	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.92	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4521	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4521	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	231	1200	0	0	0	0	0	458	557
RTOR Reduction (vph)	0	0	0	162	0	0	0	0	0	0	101	0
Lane Group Flow (vph)	0	0	0	69	1200	0	0	0	0	0	914	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						22.5	
Effective Green, g (s)				15.0	15.0						22.0	
Actuated g/C Ratio				0.30	0.30						0.44	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						1989	
v/s Ratio Prot					c0.24						c0.20	
v/s Ratio Perm				0.04								
v/c Ratio				0.14	0.79						0.46	
Uniform Delay, d1				12.8	16.0						9.8	
Progression Factor				1.00	1.00						1.82	
Incremental Delay, d2				0.0	2.5						0.6	
Delay (s)				12.8	18.6						18.4	
Level of Service				B	B						B	
Approach Delay (s)		0.0			17.6			0.0			18.4	
Approach LOS		A			B			A			B	

Intersection Summary

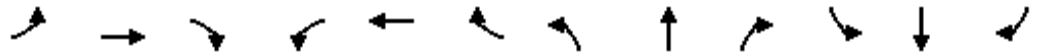
HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	665	455	0	0	137	79	338	1030	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.97		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.95		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4661		3433	5040				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4661		3433	5040				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	665	455	0	0	137	79	338	1030	40	0	0	0
RTOR Reduction (vph)	0	0	0	0	18	0	0	6	0	0	0	0
Lane Group Flow (vph)	665	455	0	0	198	0	338	1064	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot					custom						
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		30.0	30.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.43	0.43				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			932		1471	2160				
v/s Ratio Prot	c0.19	c0.13			0.04		0.10	c0.21				
v/s Ratio Perm												
v/c Ratio	1.04	0.29			0.21		0.23	0.49				
Uniform Delay, d1	28.5	12.5			23.4		12.7	14.5				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	47.1	0.5			0.5		0.4	0.8				
Delay (s)	75.6	12.9			23.9		13.0	15.3				
Level of Service	E	B			C		B	B				
Approach Delay (s)		50.2			23.9			14.8			0.0	
Approach LOS		D			C			B			A	

Intersection Summary

HCM Average Control Delay	29.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Volume (vph)	0	0	0	192	1078	0	0	0	0	0	466	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.91	0.91
Frbp, ped/bikes					1.00						1.00	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						1.00	0.85
Flt Protected					0.99						1.00	1.00
Satd. Flow (prot)					4879						3197	1190
Flt Permitted					0.99						1.00	1.00
Satd. Flow (perm)					4879						3197	1190
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	192	1078	0	0	0	0	0	466	152
RTOR Reduction (vph)	0	0	0	0	51	0	0	0	0	0	4	53
Lane Group Flow (vph)	0	0	0	0	1219	0	0	0	0	0	477	84
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2635						959	357
v/s Ratio Prot					c0.25						c0.15	
v/s Ratio Perm												0.07
v/c Ratio					0.46						0.50	0.23
Uniform Delay, d1					7.1						14.4	13.2
Progression Factor					1.00						1.85	2.66
Incremental Delay, d2					0.6						0.2	0.1
Delay (s)					7.6						26.8	35.2
Level of Service					A						C	D
Approach Delay (s)		0.0			7.6			0.0			28.7	
Approach LOS		A			A			A			C	

Intersection Summary

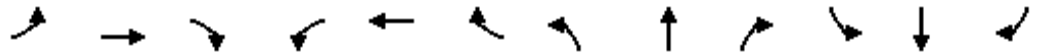
HCM Average Control Delay	14.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

6/27/2007



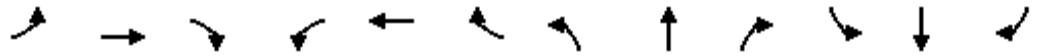
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	2457	947	0	0	0	0	0	0	273	393	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frpb, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.97	
Frt		0.96									1.00	
Flt Protected		1.00									0.98	
Satd. Flow (prot)		6053									4836	
Flt Permitted		1.00									0.98	
Satd. Flow (perm)		6053									4836	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2457	947	0	0	0	0	0	0	273	393	0
RTOR Reduction (vph)	0	90	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	3314	0	0	0	0	0	0	0	0	665	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3269									1451	
v/s Ratio Prot		c0.55										
v/s Ratio Perm											0.14	
v/c Ratio		1.01									0.46	
Uniform Delay, d1		11.5									14.2	
Progression Factor		1.00									0.51	
Incremental Delay, d2		19.2									0.9	
Delay (s)		30.7									8.2	
Level of Service		C									A	
Approach Delay (s)		30.7			0.0			0.0			8.2	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM Average Control Delay	27.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 63: Richards Blvd & Dos Rios St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↑↑↑			↔			↔	
Volume (vph)	0	0	0	0	1067	170	0	0	0	0	262	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5						4.5	
Lane Util. Factor					0.86						1.00	
Frt					0.98						1.00	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					6276						1861	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					6276						1861	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1067	170	0	0	0	0	262	2
RTOR Reduction (vph)	0	0	0	0	58	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	0	1179	0	0	0	0	0	263	0
Turn Type				Prot			Perm					
Protected Phases				2			4				8	
Permitted Phases					2		4					
Actuated Green, G (s)					21.5						19.5	
Effective Green, g (s)					21.5						19.5	
Actuated g/C Ratio					0.43						0.39	
Clearance Time (s)					4.5						4.5	
Lane Grp Cap (vph)					2699						726	
v/s Ratio Prot											c0.14	
v/s Ratio Perm					c0.19							
v/c Ratio					0.44						0.36	
Uniform Delay, d1					10.0						10.8	
Progression Factor					0.60						1.00	
Incremental Delay, d2					0.4						1.4	
Delay (s)					6.5						12.2	
Level of Service					A						B	
Approach Delay (s)		0.0			6.5			0.0			12.2	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

64: Richards Blvd & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔	↑↑	↗	↔↔	↑↑↑			↑↑↑	↔↔
Volume (vph)	0	0	0	5	868	88	0	1234	0	0	3484	369
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0		4.0			4.0	4.0
Lane Util. Factor				0.97	0.95	1.00		0.91			0.91	0.88
Frt				1.00	1.00	0.85		1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)				3433	3539	1583		5085			5085	2787
Flt Permitted				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)				3433	3539	1583		5085			5085	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	5	868	88	0	1234	0	0	3484	369
RTOR Reduction (vph)	0	0	0	0	0	60	0	0	0	0	0	78
Lane Group Flow (vph)	0	0	0	5	868	28	0	1234	0	0	3484	291
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					4		5	2			6	
Permitted Phases				4		4						6
Actuated Green, G (s)				31.4	31.4	31.4		60.6			60.6	60.6
Effective Green, g (s)				31.4	31.4	31.4		60.6			60.6	60.6
Actuated g/C Ratio				0.31	0.31	0.31		0.61			0.61	0.61
Clearance Time (s)				4.0	4.0	4.0		4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)				1078	1111	497		3082			3082	1689
v/s Ratio Prot					c0.25			0.24			c0.69	
v/s Ratio Perm				0.00		0.02						0.10
v/c Ratio				0.00	0.78	0.06		0.40			1.13	0.17
Uniform Delay, d1				23.6	31.2	23.9		10.2			19.7	8.7
Progression Factor				1.00	1.00	1.00		1.00			0.90	1.12
Incremental Delay, d2				0.0	3.6	0.0		0.4			61.7	0.1
Delay (s)				23.6	34.8	24.0		10.6			79.5	9.8
Level of Service				C	C	C		B			E	A
Approach Delay (s)		0.0			33.8			10.6			72.8	
Approach LOS		A			C			B			E	

Intersection Summary

HCM Average Control Delay	53.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	117.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔↔	↑						↑↑	↔
Volume (vph)	0	0	0	711	737	0	0	0	0	0	629	700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.94	1.00						0.95	1.00
Frbp, ped/bikes				1.00	1.00						1.00	0.79
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				4990	1863						3539	1258
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				4990	1863						3539	1258
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	711	737	0	0	0	0	0	629	700
RTOR Reduction (vph)	0	0	0	317	0	0	0	0	0	0	0	183
Lane Group Flow (vph)	0	0	0	394	737	0	0	0	0	0	629	517
Confl. Peds. (#/hr)			55									55
Turn Type				Prot								Perm
Protected Phases				1 9	3 12 13						4	
Permitted Phases												4
Actuated Green, G (s)				56.8	72.5						30.0	30.0
Effective Green, g (s)				55.3	72.0						30.0	30.0
Actuated g/C Ratio				0.50	0.65						0.27	0.27
Clearance Time (s)											4.0	4.0
Vehicle Extension (s)											5.0	5.0
Lane Grp Cap (vph)				2509	1219						965	343
v/s Ratio Prot				0.08	c0.40						0.18	
v/s Ratio Perm												c0.41
v/c Ratio				0.16	0.60						0.65	1.51
Uniform Delay, d1				14.8	10.9						35.4	40.0
Progression Factor				1.17	1.06						1.00	1.00
Incremental Delay, d2				0.1	1.2						2.1	242.6
Delay (s)				17.4	12.7						37.5	282.6
Level of Service				B	B						D	F
Approach Delay (s)		0.0			15.0			0.0			166.6	
Approach LOS		A			B			A			F	

Intersection Summary

HCM Average Control Delay	87.6	HCM Level of Service	F
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑↑	↑	↑				
Volume (vph)	0	0	0	0	1261	2420	139	78	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.88	1.00	1.00				
Frbp, ped/bikes					1.00	0.81	1.00	1.00				
Flpb, ped/bikes					1.00	1.00	1.00	1.00				
Frt					1.00	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					5085	2269	1770	1863				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					5085	2269	1770	1863				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1261	2420	139	78	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	478	67	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1261	1942	72	78	0	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type						custom	Split					
Protected Phases					6 11 15	11	8 16	8 16				
Permitted Phases						6 15						
Actuated Green, G (s)					78.3	70.3	24.7	24.7				
Effective Green, g (s)					78.3	70.3	24.2	24.2				
Actuated g/C Ratio					0.71	0.64	0.22	0.22				
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)					3620	1615	389	410				
v/s Ratio Prot					0.25	c0.34	0.04	c0.04				
v/s Ratio Perm						0.52						
v/c Ratio					0.35	1.20	0.18	0.19				
Uniform Delay, d1					6.1	19.9	34.9	34.9				
Progression Factor					0.36	1.30	1.13	1.02				
Incremental Delay, d2					0.0	91.6	0.5	0.5				
Delay (s)					2.2	117.4	40.0	36.2				
Level of Service					A	F	D	D				
Approach Delay (s)		0.0			78.0			38.6			0.0	
Approach LOS		A			E			D			A	

Intersection Summary

HCM Average Control Delay	75.8	HCM Level of Service	E
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↑↑↑		↖	↑			↑	↗
Volume (vph)	0	0	0	307	3079	36	701	184	0	0	192	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		4.5	4.0			4.0	4.0
Lane Util. Factor				1.00	0.86		1.00	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes				0.85	1.00		1.00	1.00			1.00	1.00
Fr _t				1.00	1.00		1.00	1.00			1.00	0.85
Fl _t Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1510	6385		1770	1863			1863	1583
Fl _t Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1510	6385		1770	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	307	3079	36	701	184	0	0	192	259
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	6
Lane Group Flow (vph)	0	0	0	307	3114	0	701	184	0	0	192	253
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type				Perm			Prot					Perm
Protected Phases					2		3	8			4	
Permitted Phases				2								4
Actuated Green, G (s)				56.7	56.7		27.7	45.2			13.5	13.5
Effective Green, g (s)				56.1	56.1		27.2	44.7			13.0	13.0
Actuated g/C Ratio				0.51	0.51		0.25	0.41			0.12	0.12
Clearance Time (s)				4.6	4.6		4.0	3.5			3.5	3.5
Vehicle Extension (s)				0.2	0.2		3.0	0.2			0.2	0.2
Lane Grp Cap (vph)				770	3256		438	757			220	187
v/s Ratio Prot					c0.49		c0.40	0.10			0.10	
v/s Ratio Perm				0.20								c0.16
v/c Ratio				0.40	0.96		1.60	0.24			0.87	1.35
Uniform Delay, d ₁				16.6	25.8		41.4	21.5			47.7	48.5
Progression Factor				1.00	1.00		0.78	0.99			1.00	1.00
Incremental Delay, d ₂				1.5	8.5		276.0	0.0			28.6	189.3
Delay (s)				18.1	34.2		308.3	21.2			76.3	237.8
Level of Service				B	C		F	C			E	F
Approach Delay (s)		0.0			32.8			248.6			169.1	
Approach LOS		A			C			F			F	

Intersection Summary

HCM Average Control Delay	85.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	111.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & N 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖↗	↑				↖↗
Volume (vph)	0	0	0	0	2333	227	117	1733	0	0	0	1082
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.6		4.5	4.0				3.5
Lane Util. Factor					0.86		0.97	1.00				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.93
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6272		3433	1863				2604
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6272		3433	1863				2604
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	2333	227	117	1733	0	0	0	1082
RTOR Reduction (vph)	0	0	0	0	13	0	27	0	0	0	0	1
Lane Group Flow (vph)	0	0	0	0	2547	0	90	1733	0	0	0	1081
Confl. Peds. (#/hr)			40			40	40		40	40		40
Turn Type							Prot					custom
Protected Phases					2		3	8				
Permitted Phases					2							4
Actuated Green, G (s)					30.7		4.0	61.5				53.5
Effective Green, g (s)					30.4		3.5	61.0				53.5
Actuated g/C Ratio					0.30		0.04	0.61				0.54
Clearance Time (s)					4.3		4.0	3.5				3.5
Vehicle Extension (s)					2.0		3.0	2.0				2.0
Lane Grp Cap (vph)					1907		120	1136				1393
v/s Ratio Prot					c0.41		0.03	c0.93				
v/s Ratio Perm												0.42
v/c Ratio					1.34		0.75	1.53				0.78
Uniform Delay, d1					34.8		47.8	19.5				18.5
Progression Factor					0.89		1.27	0.94				1.00
Incremental Delay, d2					154.5		2.4	236.9				2.5
Delay (s)					185.6		63.0	255.2				21.0
Level of Service					F		E	F				C
Approach Delay (s)		0.0			185.6			243.0			21.0	
Approach LOS		A			F			F			C	

Intersection Summary

HCM Average Control Delay	172.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.6
Intersection Capacity Utilization	168.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑	↗					↑↑	↗
Volume (vph)	0	0	0	616	1665	539	0	0	0	0	831	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	4.0	4.0					4.0	3.5
Lane Util. Factor				1.00	0.91	1.00					0.95	1.00
Frbp, ped/bikes				1.00	1.00	0.93					1.00	1.00
Flpb, ped/bikes				1.00	1.00	1.00					1.00	1.00
Frt				1.00	1.00	0.85					1.00	0.85
Flt Protected				0.95	1.00	1.00					1.00	1.00
Satd. Flow (prot)				1770	5085	1474					3539	1583
Flt Permitted				0.95	1.00	1.00					1.00	1.00
Satd. Flow (perm)				1770	5085	1474					3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	616	1665	539	0	0	0	0	831	141
RTOR Reduction (vph)	0	0	0	42	0	203	0	0	0	0	0	3
Lane Group Flow (vph)	0	0	0	574	1665	336	0	0	0	0	831	138
Confl. Peds. (#/hr)			24			24			24			
Turn Type				Prot		Perm						Perm
Protected Phases				5	2						7	
Permitted Phases						2						7
Actuated Green, G (s)				62.4	62.4	62.4					30.1	30.1
Effective Green, g (s)				61.4	62.4	62.4					29.6	30.1
Actuated g/C Ratio				0.61	0.62	0.62					0.30	0.30
Clearance Time (s)				4.0	4.0	4.0					3.5	3.5
Vehicle Extension (s)				2.0	2.0	2.0					2.0	2.0
Lane Grp Cap (vph)				1087	3173	920					1048	476
v/s Ratio Prot				0.32	c0.33						c0.23	
v/s Ratio Perm						0.23						0.09
v/c Ratio				0.53	0.52	0.37					0.79	0.29
Uniform Delay, d1				11.0	10.5	9.2					32.4	26.8
Progression Factor				0.95	0.94	1.16					1.00	1.00
Incremental Delay, d2				0.0	0.1	0.1					3.9	0.1
Delay (s)				10.5	10.0	10.7					36.3	26.9
Level of Service				B	A	B					D	C
Approach Delay (s)		0.0			10.2			0.0			34.9	
Approach LOS		A			B			A			C	

Intersection Summary

HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richards Blvd & 10th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖	↑↑				↗
Volume (vph)	0	0	0	0	1019	15	1254	499	0	0	0	765
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0		4.5	4.0				4.0
Lane Util. Factor					0.86		1.00	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				0.69
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					1.00		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6394		1770	3539				1934
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6394		1770	3539				1934
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1019	15	1254	499	0	0	0	765
RTOR Reduction (vph)	0	0	0	0	2	0	1	0	0	0	0	75
Lane Group Flow (vph)	0	0	0	0	1032	0	1253	499	0	0	0	690
Confl. Peds. (#/hr)			35				35					35
Turn Type							Prot					custom
Protected Phases					6		3	8				
Permitted Phases												4
Actuated Green, G (s)					22.6		61.4	69.4				4.0
Effective Green, g (s)					22.1		60.9	68.9				3.5
Actuated g/C Ratio					0.22		0.61	0.69				0.04
Clearance Time (s)					4.5		4.0	3.5				3.5
Vehicle Extension (s)					2.0		3.0	0.2				2.0
Lane Grp Cap (vph)					1413		1078	2438				68
v/s Ratio Prot					c0.16		c0.71	0.14				
v/s Ratio Perm												c0.36
v/c Ratio					0.73		1.16	0.20				10.14
Uniform Delay, d1					36.2		19.6	5.6				48.2
Progression Factor					0.79		0.96	0.97				1.00
Incremental Delay, d2					3.0		83.4	0.0				4143.5
Delay (s)					31.7		102.1	5.5				4191.8
Level of Service					C		F	A				F
Approach Delay (s)		0.0			31.7			74.6			4191.8	
Approach LOS		A			C			E			F	

Intersection Summary

HCM Average Control Delay	948.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	108.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Richard Blvd & Dos Rios St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	1218	44	106	1405	128	42	131	105	182	98	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frbp, ped/bikes	1.00	1.00		1.00	0.99			0.98			1.00	
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00			0.99	
Frt	1.00	0.99		1.00	0.99			0.95			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1770	3506		1749	3461			1714			1757	
Flt Permitted	0.13	1.00		0.13	1.00			0.93			0.62	
Satd. Flow (perm)	248	3506		246	3461			1597			1114	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	1218	44	106	1405	128	42	131	105	182	98	22
RTOR Reduction (vph)	0	3	0	0	9	0	0	11	0	0	5	0
Lane Group Flow (vph)	12	1259	0	106	1524	0	0	267	0	0	297	0
Confl. Peds. (#/hr)	60		60	60		60	60		60	60		60
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		1			1			2			2	
Permitted Phases	1			1			2			2		
Actuated Green, G (s)	30.6	30.6		30.6	30.6			20.4			20.4	
Effective Green, g (s)	30.1	30.1		30.1	30.1			19.9			19.9	
Actuated g/C Ratio	0.51	0.51		0.51	0.51			0.34			0.34	
Clearance Time (s)	4.5	4.5		4.5	4.5			3.5			3.5	
Vehicle Extension (s)	0.2	0.2		0.2	0.2			2.0			2.0	
Lane Grp Cap (vph)	127	1789		126	1766			539			376	
v/s Ratio Prot		0.36			c0.44							
v/s Ratio Perm	0.05			0.43				0.17			c0.27	
v/c Ratio	0.09	0.70		0.84	0.86			0.50			0.79	
Uniform Delay, d1	7.4	11.0		12.4	12.6			15.6			17.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.5	2.3		46.0	5.9			0.3			10.1	
Delay (s)	8.9	13.4		58.4	18.5			15.8			27.8	
Level of Service	A	B		E	B			B			C	
Approach Delay (s)		13.3			21.1			15.8			27.8	
Approach LOS		B			C			B			C	

Intersection Summary

HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	59.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	125.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 8: Richard Blvd & 12th Street

6/27/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Volume (veh/h)	0	0	0	2609	0	2802
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	0	0	2609	0	2802
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				1019		
pX, platoon unblocked	0.79					
vC, conflicting volume	870	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0	0	0			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	808	1084	1622			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	0	870	870	870	0	0	0	2802
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	0	2802
cSH	1700	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.00	0.51	0.51	0.51	0.00	0.00	0.00	1.65
Queue Length 95th (ft)	0	0	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A							
Approach Delay (s)	0.0	0.0			0.0			
Approach LOS	A							

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization	176.8%		ICU Level of Service H
Analysis Period (min)		15	

HCM Signalized Intersection Capacity Analysis

9: Sunbeam Ave & 12th Street

6/27/2007

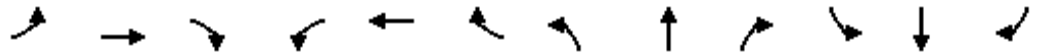


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↑↑↑			↑↑↑	
Volume (vph)	0	0	82	0	0	5	0	2609	2	0	3150	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0			4.0	
Lane Util. Factor			1.00			1.00		0.91			0.86	
Frbp, ped/bikes			1.00			0.93		1.00			1.00	
Flpb, ped/bikes			1.00			1.00		1.00			1.00	
Frt			0.86			0.86		1.00			1.00	
Flt Protected			1.00			1.00		1.00			1.00	
Satd. Flow (prot)			1611			1497		5084			6404	
Flt Permitted			1.00			1.00		1.00			1.00	
Satd. Flow (perm)			1611			1497		5084			6404	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	82	0	0	5	0	2609	2	0	3150	13
RTOR Reduction (vph)	0	0	59	0	0	5	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	23	0	0	0	0	2611	0	0	3163	0
Confl. Peds. (#/hr)				36		36				36	36	
Turn Type			custom			custom						
Protected Phases								2			2	
Permitted Phases			4			8						
Actuated Green, G (s)			7.8			7.3		84.7			84.7	
Effective Green, g (s)			7.3			7.3		84.7			84.7	
Actuated g/C Ratio			0.07			0.07		0.85			0.85	
Clearance Time (s)			3.5			4.0		4.0			4.0	
Vehicle Extension (s)			2.0			3.0		5.0			5.0	
Lane Grp Cap (vph)			118			109		4306			5424	
v/s Ratio Prot								c0.51			0.49	
v/s Ratio Perm			c0.01			0.00						
v/c Ratio			0.19			0.00		0.61			0.58	
Uniform Delay, d1			43.6			43.0		2.4			2.3	
Progression Factor			1.00			1.00		0.61			1.00	
Incremental Delay, d2			0.3			0.0		0.3			0.5	
Delay (s)			43.9			43.0		1.8			2.8	
Level of Service			D			D		A			A	
Approach Delay (s)		43.9			43.0			1.8			2.8	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM Average Control Delay			3.0			HCM Level of Service					A	
HCM Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			8.0			
Intersection Capacity Utilization			68.9%			ICU Level of Service					C	
Analysis Period (min)			15									
Description: 8 seconds additional lost time represents LRT												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Basler St & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	31	6	0	0	53	25	45	4055	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.96			1.00				
Flpb, ped/bikes	0.89	0.93			1.00			1.00				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.97			1.00			1.00				
Satd. Flow (prot)	1500	1585			1708			6398				
Flt Permitted	0.71	0.85			1.00			1.00				
Satd. Flow (perm)	1115	1396			1708			6398				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	6	0	0	53	25	45	4055	6	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	18	19	0	0	78	0	0	4106	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Actuated Green, G (s)	18.0	18.0			18.0			73.0				
Effective Green, g (s)	18.0	18.0			18.0			74.0				
Actuated g/C Ratio	0.18	0.18			0.18			0.74				
Clearance Time (s)	4.0	4.0			4.0			5.0				
Lane Grp Cap (vph)	201	251			307			4735				
v/s Ratio Prot					c0.05							
v/s Ratio Perm	0.02	0.01						0.64				
v/c Ratio	0.09	0.08			0.25			0.87				
Uniform Delay, d1	34.2	34.1			35.2			9.4				
Progression Factor	1.02	1.02			1.00			0.28				
Incremental Delay, d2	0.9	0.6			2.0			0.2				
Delay (s)	35.8	35.4			37.2			2.9				
Level of Service	D	D			D			A				
Approach Delay (s)		35.6			37.2			2.9			0.0	
Approach LOS		D			D			A			A	

Intersection Summary

HCM Average Control Delay	3.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

11: Bannon St & I-5 SB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗							↖	↖	↖
Volume (vph)	0	437	762	0	0	0	0	0	0	626	797	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5							4.5	4.5	
Lane Util. Factor		1.00	1.00							0.81	0.81	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		1863	1583							2867	4509	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		1863	1583							2867	4509	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	437	762	0	0	0	0	0	0	626	797	0
RTOR Reduction (vph)	0	0	9	0	0	0	0	0	0	372	7	0
Lane Group Flow (vph)	0	437	753	0	0	0	0	0	0	185	859	0
Turn Type			Perm								Split	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		64.4	64.4							36.6	36.6	
Effective Green, g (s)		64.4	64.4							36.6	36.6	
Actuated g/C Ratio		0.59	0.59							0.33	0.33	
Clearance Time (s)		4.5	4.5							4.5	4.5	
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Lane Grp Cap (vph)		1091	927							954	1500	
v/s Ratio Prot		0.23								0.06	c0.19	
v/s Ratio Perm			c0.48									
v/c Ratio		0.40	0.81							0.19	0.57	
Uniform Delay, d1		12.3	18.0							26.2	30.3	
Progression Factor		1.00	1.00							3.44	0.86	
Incremental Delay, d2		0.2	5.5							0.4	1.5	
Delay (s)		12.6	23.5							90.4	27.6	
Level of Service		B	C							F	C	
Approach Delay (s)		19.5			0.0			0.0			52.2	
Approach LOS		B			A			A			D	
Intersection Summary												
HCM Average Control Delay			37.2								HCM Level of Service	D
HCM Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			110.0								Sum of lost time (s)	9.0
Intersection Capacity Utilization			93.0%								ICU Level of Service	F
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

12: Bannon St & I-5 NB Off






















6/27/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 							 			
Volume (vph)	69	994	0	0	0	0	0	104	2022	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5	4.5			
Lane Util. Factor	1.00	0.91						1.00	0.88			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	5085						1863	2787			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	5085						1863	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	69	994	0	0	0	0	0	104	2022	0	0	0
RTOR Reduction (vph)	43	0	0	0	0	0	0	0	9	0	0	0
Lane Group Flow (vph)	26	994	0	0	0	0	0	104	2014	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	33.5	33.5						67.5	67.5			
Effective Green, g (s)	33.5	33.5						67.5	67.5			
Actuated g/C Ratio	0.30	0.30						0.61	0.61			
Clearance Time (s)	4.5	4.5						4.5	4.5			
Vehicle Extension (s)	3.0	3.0						3.0	3.0			
Lane Grp Cap (vph)	539	1549						1143	1710			
v/s Ratio Prot	0.01	c0.20						0.06				
v/s Ratio Perm									c0.72			
v/c Ratio	0.05	0.64						0.09	1.18			
Uniform Delay, d1	27.0	33.1						8.7	21.2			
Progression Factor	1.24	1.09						1.00	1.00			
Incremental Delay, d2	0.2	1.9						0.0	86.3			
Delay (s)	33.6	37.9						8.7	107.6			
Level of Service	C	D						A	F			
Approach Delay (s)		37.6			0.0			102.7			0.0	
Approach LOS		D			A			F			A	
Intersection Summary												
HCM Average Control Delay			81.0		HCM Level of Service				F			
HCM Volume to Capacity ratio			1.00									
Actuated Cycle Length (s)			110.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			99.7%		ICU Level of Service				F			
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/27/2007

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		   											
Volume (vph)	150	2384	482	0	0	0	0	567	164	179	288	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0						4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	0.86						1.00	1.00	1.00	1.00		
Frt	1.00	0.97						1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1770	6246						1863	1583	1770	1863		
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1770	6246						1863	1583	1770	1863		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	150	2384	482	0	0	0	0	567	164	179	288	0	
RTOR Reduction (vph)	0	33	0	0	0	0	0	0	32	0	0	0	
Lane Group Flow (vph)	150	2833	0	0	0	0	0	567	132	179	288	0	
Turn Type	Split						Perm			Prot			
Protected Phases	4	4						2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	57.0	57.0						26.9	26.9	14.1	45.0		
Effective Green, g (s)	57.0	57.0						26.9	26.9	14.1	45.0		
Actuated g/C Ratio	0.52	0.52						0.24	0.24	0.13	0.41		
Clearance Time (s)	4.0	4.0						4.0	4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	917	3237						456	387	227	762		
v/s Ratio Prot	0.08	c0.45						c0.30		c0.10	0.15		
v/s Ratio Perm									0.08				
v/c Ratio	0.16	0.88						1.24	0.34	0.79	0.38		
Uniform Delay, d1	14.0	23.4						41.5	34.3	46.5	22.7		
Progression Factor	1.09	1.09						1.00	1.00	1.22	0.89		
Incremental Delay, d2	0.0	0.3						126.9	0.5	13.8	0.3		
Delay (s)	15.2	25.7						168.5	34.8	70.8	20.4		
Level of Service	B	C						F	C	E	C		
Approach Delay (s)		25.2			0.0			138.5			39.7		
Approach LOS		C			A			F			D		
Intersection Summary													
HCM Average Control Delay			46.5									HCM Level of Service	D
HCM Volume to Capacity ratio			0.96										
Actuated Cycle Length (s)			110.0									Sum of lost time (s)	12.0
Intersection Capacity Utilization			111.5%									ICU Level of Service	H
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Bannon St & N 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1296	1638	0	0	0	0	0	826	414	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.0				
Lane Util. Factor	1.00	0.86						0.91				
Frt	1.00	1.00						0.95				
Flt Protected	0.95	1.00						1.00				
Satd. Flow (prot)	1770	6408						4831				
Flt Permitted	0.95	1.00						1.00				
Satd. Flow (perm)	1770	6408						4831				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1296	1638	0	0	0	0	0	826	414	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	50	0	0	0	0
Lane Group Flow (vph)	1296	1638	0	0	0	0	0	1190	0	0	0	0
Turn Type	Perm											
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)	75.5	75.5						16.0				
Effective Green, g (s)	75.5	75.5						16.0				
Actuated g/C Ratio	0.76	0.76						0.16				
Clearance Time (s)	4.5	4.5						4.0				
Vehicle Extension (s)	3.0	3.0						3.0				
Lane Grp Cap (vph)	1336	4838						773				
v/s Ratio Prot		0.26						c0.25				
v/s Ratio Perm	c0.73											
v/c Ratio	0.97	0.34						1.54				
Uniform Delay, d1	11.2	4.0						42.0				
Progression Factor	1.00	1.00						0.75				
Incremental Delay, d2	17.6	0.0						245.7				
Delay (s)	28.9	4.1						277.3				
Level of Service	C	A						F				
Approach Delay (s)		15.0			0.0			277.3			0.0	
Approach LOS		B			A			F			A	

Intersection Summary

HCM Average Control Delay	92.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	168.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

15: Bannon St & 7th Street

6/27/2007

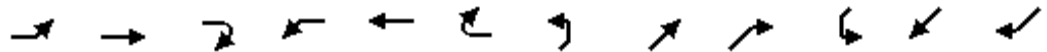


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑								↘	↑↑		
Volume (vph)	0	1705	347	0	0	0	0	0	0	488	1018	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.5								4.5	4.5		
Lane Util. Factor		0.86								1.00	0.95		
Frt		0.97								1.00	1.00		
Flt Protected		1.00								0.95	1.00		
Satd. Flow (prot)		6245								1770	3539		
Flt Permitted		1.00								0.95	1.00		
Satd. Flow (perm)		6245								1770	3539		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	1705	347	0	0	0	0	0	0	488	1018	0	
RTOR Reduction (vph)	0	36	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	2016	0	0	0	0	0	0	0	488	1018	0	
Turn Type											Prot		
Protected Phases		4									1	6	
Permitted Phases													
Actuated Green, G (s)		22.5								68.5	68.5		
Effective Green, g (s)		22.5								68.5	68.5		
Actuated g/C Ratio		0.22								0.68	0.68		
Clearance Time (s)		4.5								4.5	4.5		
Vehicle Extension (s)		3.0								3.0	3.0		
Lane Grp Cap (vph)		1405								1212	2424		
v/s Ratio Prot		c0.32								0.28	c0.29		
v/s Ratio Perm													
v/c Ratio		1.43								0.40	0.42		
Uniform Delay, d1		38.8								6.9	7.0		
Progression Factor		1.18								1.14	1.09		
Incremental Delay, d2		199.0								0.9	0.5		
Delay (s)		244.6								8.7	8.1		
Level of Service		F								A	A		
Approach Delay (s)		244.6			0.0			0.0			8.3		
Approach LOS		F			A			A			A		
Intersection Summary													
HCM Average Control Delay			144.6		HCM Level of Service						F		
HCM Volume to Capacity ratio			0.67										
Actuated Cycle Length (s)			100.0		Sum of lost time (s)					9.0			
Intersection Capacity Utilization			66.1%		ICU Level of Service					C			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

16: Richards & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔↔	↑↑	↔					↔↔↔	↔	↔↔	↑↑↑	
Volume (vph)	1038	40	894	0	0	0	0	1597	15	42	3225	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Lane Util. Factor	0.97	0.95	1.00					0.86	0.86	0.97	0.91	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	1583					4805	1362	3433	5085	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	1583					4805	1362	3433	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1038	40	894	0	0	0	0	1597	15	42	3225	0
RTOR Reduction (vph)	0	0	35	0	0	0	0	0	4	0	0	0
Lane Group Flow (vph)	1038	40	859	0	0	0	0	1599	9	42	3225	0
Turn Type	custom		Perm						Perm		Prot	
Protected Phases	4	4						2		1	6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	42.5	42.5	42.5					78.2	78.2	16.3	99.0	
Effective Green, g (s)	42.5	42.5	42.5					78.2	78.2	16.3	99.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.52	0.52	0.11	0.66	
Clearance Time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	973	1003	449					2505	710	373	3356	
v/s Ratio Prot	0.30	0.01						0.33		0.01	c0.63	
v/s Ratio Perm			c0.54						0.01			
v/c Ratio	1.07	0.04	1.91					0.64	0.01	0.11	0.96	
Uniform Delay, d1	53.8	39.0	53.8					25.8	17.3	60.3	23.7	
Progression Factor	1.00	1.00	1.00					1.58	1.59	1.00	1.00	
Incremental Delay, d2	48.4	0.0	419.0					0.1	0.0	0.1	8.8	
Delay (s)	102.2	39.0	472.8					40.7	27.5	60.5	32.5	
Level of Service	F	D	F					D	C	E	C	
Approach Delay (s)		268.9			0.0			40.6			32.9	
Approach LOS		F			A			D			C	

Intersection Summary

HCM Average Control Delay	102.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	124.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

17: N B Street & 5th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	227	569	0	0	0	0	651	1201	129	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.5	4.5			
Lane Util. Factor	1.00	1.00						0.91	0.91			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						0.98	1.00			
Satd. Flow (prot)	1770	1863						3329	1441			
Flt Permitted	0.95	1.00						0.98	1.00			
Satd. Flow (perm)	1770	1863						3329	1441			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	227	569	0	0	0	0	651	1201	129	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	45	0	0	0
Lane Group Flow (vph)	227	569	0	0	0	0	0	1865	71	0	0	0
Turn Type	Perm						Split		Perm			
Protected Phases	4						2	2				
Permitted Phases	4								2			
Actuated Green, G (s)	32.4	32.4						59.1	59.1			
Effective Green, g (s)	32.4	32.4						59.1	59.1			
Actuated g/C Ratio	0.32	0.32						0.59	0.59			
Clearance Time (s)	4.0	4.0						4.5	4.5			
Vehicle Extension (s)	3.0	3.0						3.0	3.0			
Lane Grp Cap (vph)	573	604						1967	852			
v/s Ratio Prot	c0.31							c0.56				
v/s Ratio Perm	0.13								0.05			
v/c Ratio	0.40	0.94						0.95	0.08			
Uniform Delay, d1	26.2	32.9						19.0	8.8			
Progression Factor	1.00	1.00						1.00	1.00			
Incremental Delay, d2	0.5	23.2						11.3	0.2			
Delay (s)	26.7	56.1						30.3	9.0			
Level of Service	C	E						C	A			
Approach Delay (s)		47.7			0.0			29.0		0.0		
Approach LOS		D			A			C		A		

Intersection Summary

HCM Average Control Delay	34.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

18: N B Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	1601	192	0	0	0	0	0	0	234	918	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5									4.5	
Lane Util. Factor		0.91									0.91	
Frt		0.98									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		5004									5034	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		5004									5034	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1601	192	0	0	0	0	0	0	234	918	0
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	39	0
Lane Group Flow (vph)	0	1764	0	0	0	0	0	0	0	0	1113	0
Turn Type										Perm		
Protected Phases		4									1	
Permitted Phases										1		
Actuated Green, G (s)		20.1									15.7	
Effective Green, g (s)		20.1									15.7	
Actuated g/C Ratio		0.40									0.31	
Clearance Time (s)		4.5									4.5	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		2012									1581	
v/s Ratio Prot		0.35										
v/s Ratio Perm											0.22	
v/c Ratio		0.88									0.70	
Uniform Delay, d1		13.8									15.1	
Progression Factor		1.00									1.16	
Incremental Delay, d2		4.6									1.9	
Delay (s)		18.4									19.4	
Level of Service		B									B	
Approach Delay (s)		18.4			0.0			0.0			19.4	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM Average Control Delay			18.8		HCM Level of Service						B	
HCM Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			14.2				
Intersection Capacity Utilization			65.2%		ICU Level of Service						C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: N B Street & 10th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑				
Volume (vph)	120	1678	55	0	0	0	0	148	294	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.91						0.95				
Frt		1.00						0.90				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		5046						3186				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		5046						3186				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	120	1678	55	0	0	0	0	148	294	0	0	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	1831	0	0	0	0	0	435	0	0	0	0
Turn Type	Perm											
Protected Phases		2						4				
Permitted Phases	2											
Actuated Green, G (s)		24.7						16.3				
Effective Green, g (s)		24.7						16.3				
Actuated g/C Ratio		0.49						0.33				
Clearance Time (s)		4.5						4.5				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		2493						1039				
v/s Ratio Prot								c0.14				
v/s Ratio Perm		0.36										
v/c Ratio		0.73						0.42				
Uniform Delay, d1		10.0						13.2				
Progression Factor		1.00						1.00				
Incremental Delay, d2		2.0						1.2				
Delay (s)		12.0						14.4				
Level of Service		B						B				
Approach Delay (s)		12.0			0.0			14.4			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay		12.5			HCM Level of Service			B				
HCM Volume to Capacity ratio		0.61										
Actuated Cycle Length (s)		50.0			Sum of lost time (s)			9.0				
Intersection Capacity Utilization		125.6%			ICU Level of Service			H				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: N B Street & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↔		↖	↔						↔	
Volume (vph)	1541	313	179	382	0	100	0	0	0	92	3732	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		4.0	4.0						3.5	
Lane Util. Factor	0.91	0.91		0.95	0.95						0.86	
Frbp, ped/bikes	1.00	0.99		1.00	1.00						1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	
Frt	1.00	0.98		1.00	0.94						1.00	
Flt Protected	0.95	0.97		0.95	0.97						1.00	
Satd. Flow (prot)	1610	3176		1681	1610						6400	
Flt Permitted	0.95	0.97		0.95	0.97						1.00	
Satd. Flow (perm)	1610	3176		1681	1610						6400	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1541	313	179	382	0	100	0	0	0	92	3732	0
RTOR Reduction (vph)	0	8	0	0	18	0	0	0	0	0	0	0
Lane Group Flow (vph)	770	1255	0	248	216	0	0	0	0	0	3824	0
Confl. Peds. (#/hr)			36	36								
Turn Type	Split		Split								Perm	
Protected Phases	3	3		4	4							2 10
Permitted Phases											2 10	
Actuated Green, G (s)	39.0	39.0		16.0	16.0							64.5
Effective Green, g (s)	39.0	39.0		16.0	16.0							67.5
Actuated g/C Ratio	0.26	0.26		0.11	0.11							0.45
Clearance Time (s)	5.0	5.0		4.0	4.0							
Vehicle Extension (s)	5.0	5.0		5.0	5.0							
Lane Grp Cap (vph)	419	826		179	172							2880
v/s Ratio Prot	c0.48	0.40		c0.15	0.13							
v/s Ratio Perm												0.60
v/c Ratio	1.84	1.76dl		1.39	1.26							1.33
Uniform Delay, d1	55.5	55.5		67.0	67.0							41.2
Progression Factor	1.00	1.00		1.00	1.00							1.14
Incremental Delay, d2	386.2	239.9		204.2	153.9							147.7
Delay (s)	441.7	295.4		271.2	220.9							194.6
Level of Service	F	F		F	F							F
Approach Delay (s)		350.8			246.8			0.0				194.6
Approach LOS		F			F			A				F

Intersection Summary

HCM Average Control Delay	248.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.50		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	122.6%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: N B Street & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	390	54	0	0	7	5	355	4820	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.95			1.00				
Flpb, ped/bikes	0.89	0.92			1.00			1.00				
Frt	1.00	1.00			0.94			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1503	1568			1672			6367				
Flt Permitted	0.75	0.77			1.00			1.00				
Satd. Flow (perm)	1186	1254			1672			6367				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	54	0	0	7	5	355	4820	8	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	222	222	0	0	12	0	0	5183	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	20.0	20.0			20.0			72.0				
Effective Green, g (s)	20.0	20.0			20.0			72.0				
Actuated g/C Ratio	0.20	0.20			0.20			0.72				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	237	251			334			4584				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.19	0.18						0.81				
v/c Ratio	0.94	0.88			0.04			1.13				
Uniform Delay, d1	39.4	38.9			32.2			14.0				
Progression Factor	1.00	1.00			1.00			0.92				
Incremental Delay, d2	44.1	33.4			0.2			61.5				
Delay (s)	83.5	72.3			32.4			74.4				
Level of Service	F	E			C			E				
Approach Delay (s)		77.9			32.4			74.4			0.0	
Approach LOS		E			C			E			A	

Intersection Summary

HCM Average Control Delay	74.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	100.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 22: South Park St & Bercut Dr

6/27/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	191	146	437	107	149	390
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	191	146	437	107	149	390
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	191	146	544	149	390	
Volume Left (vph)	191	0	0	149	0	
Volume Right (vph)	0	146	107	0	0	
Hadj (s)	0.53	-0.67	-0.08	0.53	0.03	
Departure Headway (s)	7.9	6.7	6.2	7.1	6.6	
Degree Utilization, x	0.42	0.27	0.93	0.29	0.71	
Capacity (veh/h)	446	523	574	495	532	
Control Delay (s)	15.3	11.0	47.0	11.8	23.0	
Approach Delay (s)	13.4		47.0	19.9		
Approach LOS	B		E	C		
Intersection Summary						
Delay			28.8			
HCM Level of Service			D			
Intersection Capacity Utilization			58.3%	ICU Level of Service		B
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

23: South Park St & 5th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗						↖↗↘				
Volume (vph)	462	406	0	0	0	0	5	1140	170	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5				
Lane Util. Factor	0.95	0.95						0.91				
Frt	1.00	1.00						0.98				
Flt Protected	0.95	0.99						1.00				
Satd. Flow (prot)	1681	1761						4986				
Flt Permitted	0.95	0.99						1.00				
Satd. Flow (perm)	1681	1761						4986				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	462	406	0	0	0	0	5	1140	170	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	35	0	0	0	0
Lane Group Flow (vph)	416	452	0	0	0	0	0	1280	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases	4						2					
Permitted Phases	4						2					
Actuated Green, G (s)	18.4	18.4						22.6				
Effective Green, g (s)	18.4	18.4						22.6				
Actuated g/C Ratio	0.37	0.37						0.45				
Clearance Time (s)	4.5	4.5						4.5				
Vehicle Extension (s)	3.0	3.0						3.0				
Lane Grp Cap (vph)	619	648						2254				
v/s Ratio Prot												
v/s Ratio Perm	0.25	0.26						0.26				
v/c Ratio	0.67	0.70						0.57				
Uniform Delay, d1	13.3	13.4						10.1				
Progression Factor	1.00	1.00						0.88				
Incremental Delay, d2	2.9	3.3						0.5				
Delay (s)	16.1	16.7						9.4				
Level of Service	B	B						A				
Approach Delay (s)		16.4			0.0			9.4			0.0	
Approach LOS		B			A			A			A	

Intersection Summary

HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

24: North Park St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔						↑↑↑	
Volume (vph)	0	0	0	20	138	0	0	0	0	0	1100	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5						4.0	
Lane Util. Factor					1.00						0.91	
Frt					1.00						0.97	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					1851						4948	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					1851						4948	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	20	138	0	0	0	0	0	1100	242
RTOR Reduction (vph)	0	0	0	0	12	0	0	0	0	0	45	0
Lane Group Flow (vph)	0	0	0	0	146	0	0	0	0	0	1297	0
Turn Type					Perm							
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					11.1						30.4	
Effective Green, g (s)					11.1						30.4	
Actuated g/C Ratio					0.22						0.61	
Clearance Time (s)					4.5						4.0	
Vehicle Extension (s)					3.0						3.0	
Lane Grp Cap (vph)					411						3008	
v/s Ratio Prot											c0.26	
v/s Ratio Perm					0.08							
v/c Ratio					0.35						0.43	
Uniform Delay, d1					16.4						5.2	
Progression Factor					1.00						0.35	
Incremental Delay, d2					0.5						0.4	
Delay (s)					17.0						2.2	
Level of Service					B						A	
Approach Delay (s)		0.0			17.0			0.0			2.2	
Approach LOS		A			B			A			A	

Intersection Summary

HCM Average Control Delay	3.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	42.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

25: South Park St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔									↔↔↔	
Volume (vph)	0	492	202	0	0	0	0	0	0	20	1102	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5									4.0	
Lane Util. Factor		1.00									0.91	
Frt		0.96									1.00	
Flt Protected		1.00									1.00	
Satd. Flow (prot)		1790									5081	
Flt Permitted		1.00									1.00	
Satd. Flow (perm)		1790									5081	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	492	202	0	0	0	0	0	0	20	1102	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	664	0	0	0	0	0	0	0	0	1119	0
Turn Type											Perm	
Protected Phases		4										2
Permitted Phases										2		
Actuated Green, G (s)		18.5									23.0	
Effective Green, g (s)		18.5									23.0	
Actuated g/C Ratio		0.37									0.46	
Clearance Time (s)		4.5									4.0	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		662									2337	
v/s Ratio Prot		c0.37										
v/s Ratio Perm											0.22	
v/c Ratio		1.00									0.48	
Uniform Delay, d1		15.8									9.3	
Progression Factor		1.00									0.24	
Incremental Delay, d2		35.9									0.7	
Delay (s)		51.6									2.9	
Level of Service		D									A	
Approach Delay (s)		51.6			0.0			0.0			2.9	
Approach LOS		D			A			A			A	

Intersection Summary

HCM Average Control Delay	21.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

26: Railyards Blvd & Jibboom St

6/27/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	5	354	17	5	122	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	1806		1770	1863
Flt Permitted	0.95	1.00	1.00		0.74	1.00
Satd. Flow (perm)	1770	1583	1806		1384	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	354	17	5	122	32
RTOR Reduction (vph)	0	162	3	0	0	0
Lane Group Flow (vph)	5	192	19	0	122	32
Turn Type		Perm			Perm	
Protected Phases	4		2			6
Permitted Phases		4			6	
Actuated Green, G (s)	46.0	46.0	31.0		31.0	31.0
Effective Green, g (s)	46.0	46.0	31.0		31.0	31.0
Actuated g/C Ratio	0.54	0.54	0.36		0.36	0.36
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	958	857	659		505	679
v/s Ratio Prot	0.00		0.01			0.02
v/s Ratio Perm		c0.12			c0.09	
v/c Ratio	0.01	0.22	0.03		0.24	0.05
Uniform Delay, d1	9.0	10.2	17.3		18.8	17.5
Progression Factor	0.32	0.54	1.00		1.00	1.00
Incremental Delay, d2	0.0	0.5	0.0		1.1	0.1
Delay (s)	2.9	6.0	17.4		19.9	17.6
Level of Service	A	A	B		B	B
Approach Delay (s)	5.9		17.4			19.5
Approach LOS	A		B			B

Intersection Summary

HCM Average Control Delay	10.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/27/2007



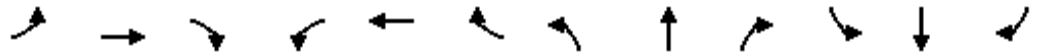
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↕	↗	↖	↗		↖	↗	
Volume (vph)	5	122	5	337	274	155	12	389	81	63	450	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.95		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1852		1770	3347		1770	1815		1770	1826	
Flt Permitted	0.41	1.00		0.66	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	763	1852		1231	3347		1770	1815		1770	1826	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	122	5	337	274	155	12	389	81	63	450	68
RTOR Reduction (vph)	0	1	0	0	92	0	0	9	0	0	6	0
Lane Group Flow (vph)	5	126	0	337	337	0	12	461	0	63	512	0
Turn Type	Perm		Perm		Split		Split					
Protected Phases	2		6		3		3		4		4	
Permitted Phases	2		6									
Actuated Green, G (s)	25.0	25.0		25.0	25.0		23.3	23.3		24.7	24.7	
Effective Green, g (s)	25.0	25.0		25.0	25.0		23.3	23.3		24.7	24.7	
Actuated g/C Ratio	0.29	0.29		0.29	0.29		0.27	0.27		0.29	0.29	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	224	545		362	984		485	498		514	531	
v/s Ratio Prot		0.07			0.10		0.01	c0.25		0.04	c0.28	
v/s Ratio Perm	0.01			c0.27								
v/c Ratio	0.02	0.23		0.93	0.34		0.02	0.93		0.12	0.96	
Uniform Delay, d1	21.3	22.7		29.2	23.5		22.5	30.0		22.2	29.7	
Progression Factor	1.62	1.64		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.2		32.7	0.9		0.0	23.3		0.1	29.8	
Delay (s)	34.7	37.5		61.8	24.5		22.6	53.3		22.3	59.5	
Level of Service	C	D		E	C		C	D		C	E	
Approach Delay (s)		37.4			40.9			52.5			55.4	
Approach LOS		D			D			D			E	

Intersection Summary

HCM Average Control Delay	47.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		
c	Critical Lane Group		

HCM Unsignalized Intersection Capacity Analysis
 28: Railyards Blvd & Crocker St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔		↖	↗		↖	↗	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	18	69	37	284	346	269	94	229	272	16	54	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	18	69	37	284	346	269	94	229	272	16	54	50

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	53	72	457	442	94	501	16	104
Volume Left (vph)	18	0	284	0	94	0	16	0
Volume Right (vph)	0	37	0	269	0	272	0	50
Hadj (s)	0.21	-0.33	0.34	-0.39	0.53	-0.35	0.53	-0.30
Departure Headway (s)	8.3	7.8	7.4	6.6	7.9	7.0	8.7	7.8
Degree Utilization, x	0.12	0.15	0.94	0.81	0.21	0.97	0.04	0.23
Capacity (veh/h)	412	442	477	535	445	501	397	441
Control Delay (s)	11.3	11.0	52.1	31.2	11.7	58.5	10.8	11.9
Approach Delay (s)	11.1		41.9		51.1		11.8	
Approach LOS	B		E		F		B	

Intersection Summary	
Delay	40.8
HCM Level of Service	E
Intersection Capacity Utilization	65.2%
ICU Level of Service	C
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis

29: Railyards Blvd & Stanford St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	289	37	71	795	169	104	166	157	12	16	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98			0.98		1.00	0.93		1.00	0.96	
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1831			3441		1770	1727		1770	1796	
Flt Permitted	0.95	1.00			1.00		0.74	1.00		0.21	1.00	
Satd. Flow (perm)	1770	1831			3441		1385	1727		396	1796	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	289	37	71	795	169	104	166	157	12	16	5
RTOR Reduction (vph)	0	5	0	0	14	0	0	35	0	0	4	0
Lane Group Flow (vph)	31	321	0	0	1021	0	104	288	0	12	17	0
Turn Type	Split			Split			Perm			Perm		
Protected Phases	1	1		2	2			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)	22.1	22.1			44.7		21.2	21.2		21.2	21.2	
Effective Green, g (s)	22.1	22.1			44.7		21.2	21.2		21.2	21.2	
Actuated g/C Ratio	0.22	0.22			0.45		0.21	0.21		0.21	0.21	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	391	405			1538		294	366		84	381	
v/s Ratio Prot	0.02	c0.18			c0.30			c0.17			0.01	
v/s Ratio Perm							0.08			0.03		
v/c Ratio	0.08	0.79			0.66		0.35	0.79		0.14	0.04	
Uniform Delay, d1	30.9	36.8			21.7		33.6	37.3		32.0	31.3	
Progression Factor	1.00	1.00			0.66		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	10.2			1.1		0.7	10.6		0.8	0.0	
Delay (s)	31.0	47.0			15.5		34.3	47.8		32.8	31.4	
Level of Service	C	D			B		C	D		C	C	
Approach Delay (s)		45.6			15.5			44.5			31.9	
Approach LOS		D			B			D			C	

Intersection Summary

HCM Average Control Delay	28.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

30: Railyards Blvd & 5th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕				
Volume (vph)	116	342	0	0	612	5	423	1294	323	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.0				
Lane Util. Factor	1.00	1.00			0.95			0.91				
Frt	1.00	1.00			1.00			0.98				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1770	1863			3535			4914				
Flt Permitted	0.95	1.00			1.00			0.99				
Satd. Flow (perm)	1770	1863			3535			4914				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	116	342	0	0	612	5	423	1294	323	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	0	0	26	0	0	0	0
Lane Group Flow (vph)	116	342	0	0	616	0	0	2014	0	0	0	0
Turn Type	Split						Split					
Protected Phases	4	4			8			2	2			
Permitted Phases					8			2	2			
Actuated Green, G (s)	21.1	21.1			20.5			45.4				
Effective Green, g (s)	21.1	21.1			20.5			45.4				
Actuated g/C Ratio	0.21	0.21			0.20			0.45				
Clearance Time (s)	4.5	4.5			4.5			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	373	393			725			2231				
v/s Ratio Prot	0.07	c0.18			c0.17			c0.41				
v/s Ratio Perm												
v/c Ratio	0.31	0.87			0.85			0.90				
Uniform Delay, d1	33.3	38.1			38.3			25.3				
Progression Factor	0.34	0.43			1.08			1.00				
Incremental Delay, d2	0.4	14.4			8.9			6.5				
Delay (s)	11.5	30.7			50.2			31.8				
Level of Service	B	C			D			C				
Approach Delay (s)		25.8			50.2			31.8			0.0	
Approach LOS		C			D			C			A	

Intersection Summary

HCM Average Control Delay	34.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

31: Railyards Blvd & Judas St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	281	5	27	328	224	31	131	131	5	49	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.94			0.94		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00			0.99		0.95	1.00	
Satd. Flow (prot)	1770	1858		1770	3324			1741		1770	1629	
Flt Permitted	0.38	1.00		0.51	1.00			0.95		0.60	1.00	
Satd. Flow (perm)	713	1858		944	3324			1667		1110	1629	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	191	281	5	27	328	224	31	131	131	5	49	252
RTOR Reduction (vph)	0	1	0	0	148	0	0	47	0	0	125	0
Lane Group Flow (vph)	191	285	0	27	404	0	0	246	0	5	176	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.9	16.9		16.9	16.9			25.1		25.1	25.1	
Effective Green, g (s)	16.9	16.9		16.9	16.9			25.1		25.1	25.1	
Actuated g/C Ratio	0.34	0.34		0.34	0.34			0.50		0.50	0.50	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	241	628		319	1124			837		557	818	
v/s Ratio Prot		0.15			0.12						0.11	
v/s Ratio Perm	c0.27			0.03				c0.15		0.00		
v/c Ratio	0.79	0.45		0.08	0.36			0.29		0.01	0.21	
Uniform Delay, d1	15.0	12.9		11.3	12.5			7.3		6.2	6.9	
Progression Factor	1.24	1.21		1.38	1.94			1.00		1.00	1.00	
Incremental Delay, d2	8.4	0.3		0.1	0.2			0.9		0.0	0.6	
Delay (s)	27.1	15.9		15.7	24.4			8.2		6.3	7.5	
Level of Service	C	B		B	C			A		A	A	
Approach Delay (s)		20.4			23.9			8.2			7.5	
Approach LOS		C			C			A			A	

Intersection Summary

HCM Average Control Delay	17.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↕		↖	↗		↖	↗	
Volume (vph)	191	411	5	140	343	15	234	1029	248	11	138	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.97		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1859		1770	3517		1770	1808		1770	1853	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1859		1770	3517		1770	1808		1770	1853	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	191	411	5	140	343	15	234	1029	248	11	138	5
RTOR Reduction (vph)	0	1	0	0	3	0	0	8	0	0	1	0
Lane Group Flow (vph)	191	415	0	140	355	0	234	1269	0	11	142	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Actuated Green, G (s)	11.8	22.6		6.0	16.8		21.4	54.6		0.8	34.0	
Effective Green, g (s)	11.8	22.6		6.0	16.8		21.4	54.6		0.8	34.0	
Actuated g/C Ratio	0.12	0.23		0.06	0.17		0.21	0.55		0.01	0.34	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	209	420		106	591		379	987		14	630	
v/s Ratio Prot	0.11	c0.22		c0.08	0.10		c0.13	c0.70		0.01	0.08	
v/s Ratio Perm												
v/c Ratio	0.91	0.99		1.32	0.60		0.62	1.29		0.79	0.22	
Uniform Delay, d1	43.6	38.6		47.0	38.5		35.6	22.7		49.5	23.6	
Progression Factor	0.95	0.83		0.39	0.19		1.00	1.00		1.00	1.00	
Incremental Delay, d2	38.6	40.9		150.4	0.4		3.0	136.2		130.6	0.8	
Delay (s)	80.0	73.0		168.8	7.7		38.6	158.9		180.1	24.4	
Level of Service	E	E		F	A		D	F		F	C	
Approach Delay (s)		75.2			53.0			140.3			35.5	
Approach LOS		E			D			F			D	

Intersection Summary

HCM Average Control Delay	104.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	115.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↗
Volume (vph)	0	0	671	582	499	0	0	0	0	0	676	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.5	4.0	4.0						4.0	
Lane Util. Factor			1.00	0.91	0.91						0.91	
Fr _t			0.86	1.00	1.00						1.00	
Fl _t Protected			1.00	0.95	0.98						1.00	
Satd. Flow (prot)			1611	1610	3338						5080	
Fl _t Permitted			1.00	0.95	0.98						1.00	
Satd. Flow (perm)			1611	1610	3338						5080	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	671	582	499	0	0	0	0	0	676	5
RTOR Reduction (vph)	0	0	369	288	46	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	302	67	680	0	0	0	0	0	680	0
Turn Type			custom	Split								
Protected Phases			4	3	3						2	
Permitted Phases												
Actuated Green, G (s)			18.1	19.0	19.0						30.1	
Effective Green, g (s)			18.1	19.0	19.0						30.1	
Actuated g/C Ratio			0.18	0.19	0.19						0.30	
Clearance Time (s)			4.5	4.0	4.0						4.0	
Vehicle Extension (s)			3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)			292	306	634						1529	
v/s Ratio Prot			c0.19	0.04	c0.20						c0.13	
v/s Ratio Perm												
v/c Ratio			1.04	0.22	1.07						0.44	
Uniform Delay, d ₁			41.0	34.2	40.5						28.2	
Progression Factor			0.73	1.00	1.00						1.08	
Incremental Delay, d ₂			26.0	0.4	56.7						0.8	
Delay (s)			55.8	34.6	97.2						31.3	
Level of Service			E	C	F						C	
Approach Delay (s)		55.8			76.6			0.0			31.3	
Approach LOS		E			E			A			C	

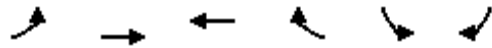
Intersection Summary

HCM Average Control Delay	58.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	32.8
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

34: Railyards Blvd &

6/27/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↗
Volume (vph)	0	0	955	175	0	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0
Lane Util. Factor			0.95			1.00
Frt			0.98			0.86
Flt Protected			1.00			1.00
Satd. Flow (prot)			3457			1611
Flt Permitted			1.00			1.00
Satd. Flow (perm)			3457			1611
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	955	175	0	54
RTOR Reduction (vph)	0	0	22	0	0	42
Lane Group Flow (vph)	0	0	1108	0	0	12
Turn Type						custom
Protected Phases			2			
Permitted Phases						4
Actuated Green, G (s)			31.2			10.8
Effective Green, g (s)			31.2			10.8
Actuated g/C Ratio			0.62			0.22
Clearance Time (s)			4.0			4.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			2157			348
v/s Ratio Prot			c0.32			
v/s Ratio Perm						c0.01
v/c Ratio			0.51			0.03
Uniform Delay, d1			5.2			15.5
Progression Factor			1.00			1.00
Incremental Delay, d2			0.9			0.0
Delay (s)			6.1			15.5
Level of Service			A			B
Approach Delay (s)		0.0	6.1		15.5	
Approach LOS		A	A		B	

Intersection Summary

HCM Average Control Delay	6.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

35: Camille Ln & Jibboom St

6/27/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	0	17	0	0	32	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	17	0	0	32	0
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total (vph)	17	0	32			
Volume Left (vph)	0	0	32			
Volume Right (vph)	17	0	0			
Hadj (s)	-0.57	0.00	0.23			
Departure Headway (s)	3.4	4.0	4.2			
Degree Utilization, x	0.02	0.00	0.04			
Capacity (veh/h)	1039	900	856			
Control Delay (s)	6.5	7.0	7.3			
Approach Delay (s)	6.5	0.0	7.3			
Approach LOS	A	A	A			
Intersection Summary						
Delay			7.0			
HCM Level of Service			A			
Intersection Capacity Utilization			13.3%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

36: Camille Ln & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (vph)	36	114	46	810	5	74	14	323	559	22	754	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.99		1.00	0.90		1.00	1.00	
Flt Protected		0.99			0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1787			1762		1770	1686		1770	1863	
Flt Permitted		0.90			0.67		0.22	1.00		0.22	1.00	
Satd. Flow (perm)		1630			1226		414	1686		414	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	36	114	46	810	5	74	14	323	559	22	754	0
RTOR Reduction (vph)	0	24	0	0	8	0	0	139	0	0	0	0
Lane Group Flow (vph)	0	172	0	0	881	0	14	743	0	22	754	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			8			4	
Permitted Phases	2			2			8			4		
Actuated Green, G (s)		19.0			19.0		18.0	18.0		18.0	18.0	
Effective Green, g (s)		19.0			19.0		18.0	18.0		18.0	18.0	
Actuated g/C Ratio		0.42			0.42		0.40	0.40		0.40	0.40	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		688			518		166	674		166	745	
v/s Ratio Prot								c0.44			0.40	
v/s Ratio Perm		0.11			c0.72		0.03			0.05		
v/c Ratio		0.25			1.70		0.08	1.10		0.13	1.01	
Uniform Delay, d1		8.4			13.0		8.4	13.5		8.6	13.5	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9			324.0		0.2	66.3		0.4	36.0	
Delay (s)		9.3			337.0		8.6	79.8		8.9	49.5	
Level of Service		A			F		A	E		A	D	
Approach Delay (s)		9.3			337.0			78.7			48.4	
Approach LOS		A			F			E			D	

Intersection Summary

HCM Average Control Delay	148.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.41		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	121.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

37: F Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻↻↻	
Volume (vph)	0	74	31	177	15	0	0	0	0	441	1177	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	
Lane Util. Factor		1.00		1.00	1.00						0.91	
Frt		0.96		1.00	1.00						1.00	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1789		1770	1863						5005	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		1789		1770	1863						5005	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	74	31	177	15	0	0	0	0	441	1177	28
RTOR Reduction (vph)	0	15	0	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	90	0	177	15	0	0	0	0	0	1644	0
Turn Type				Split							Perm	
Protected Phases		4		8	8							6
Permitted Phases										6		
Actuated Green, G (s)		19.0		22.0	22.0						47.0	
Effective Green, g (s)		19.0		22.0	22.0						47.0	
Actuated g/C Ratio		0.19		0.22	0.22						0.47	
Clearance Time (s)		4.0		4.0	4.0						4.0	
Lane Grp Cap (vph)		340		389	410						2352	
v/s Ratio Prot		c0.05		c0.10	0.01							
v/s Ratio Perm											0.33	
v/c Ratio		0.26		0.46	0.04						0.70	
Uniform Delay, d1		34.5		33.8	30.7						20.9	
Progression Factor		1.00		1.00	1.00						0.95	
Incremental Delay, d2		1.9		3.8	0.2						1.1	
Delay (s)		36.4		37.6	30.8						21.0	
Level of Service		D		D	C						C	
Approach Delay (s)		36.4			37.1			0.0			21.0	
Approach LOS		D			D			A			C	

Intersection Summary

HCM Average Control Delay	23.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗	↗		↖↗↘				
Volume (vph)	274	5	0	0	93	2092	51	703	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0				
Lane Util. Factor		1.00			0.95	0.95		0.91				
Frt		1.00			0.86	0.85		1.00				
Flt Protected		0.95			1.00	1.00		1.00				
Satd. Flow (prot)		1776			1527	1504		5063				
Flt Permitted		0.15			1.00	1.00		1.00				
Satd. Flow (perm)		284			1527	1504		5063				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	274	5	0	0	93	2092	51	703	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	28	28	0	1	0	0	0	0
Lane Group Flow (vph)	0	279	0	0	1069	1060	0	758	0	0	0	0
Turn Type	Perm					Perm	custom					
Protected Phases		4			8							
Permitted Phases	4					8	2	2				
Actuated Green, G (s)		26.0			26.0	26.0		16.0				
Effective Green, g (s)		26.0			26.0	26.0		16.0				
Actuated g/C Ratio		0.52			0.52	0.52		0.32				
Clearance Time (s)		4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)		148			794	782		1620				
v/s Ratio Prot					0.70							
v/s Ratio Perm		c0.98				0.70		c0.15				
v/c Ratio		1.89			1.35	1.36		0.47				
Uniform Delay, d1		12.0			12.0	12.0		13.6				
Progression Factor		1.00			2.17	2.18		1.00				
Incremental Delay, d2		422.7			156.7	160.9		1.0				
Delay (s)		434.7			182.8	187.0		14.6				
Level of Service		F			F	F		B				
Approach Delay (s)		434.7			184.9			14.6			0.0	
Approach LOS		F			F			B			A	

Intersection Summary

HCM Average Control Delay	166.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.35		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	126.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (vph)	5	5	5	294	1546	469	222	395	5	5	1284	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00		1.00	1.00	
Frt		0.95			0.97		1.00	1.00		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750			3410		1770	1859		1770	1858	
Flt Permitted		0.64			0.91		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1142			3108		1770	1859		1770	1858	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	294	1546	469	222	395	5	5	1284	22
RTOR Reduction (vph)	0	4	0	0	23	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	11	0	0	2286	0	222	400	0	5	1306	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		29.0			29.0		9.0	54.0		5.0	50.0	
Effective Green, g (s)		29.0			29.0		9.0	54.0		5.0	50.0	
Actuated g/C Ratio		0.29			0.29		0.09	0.54		0.05	0.50	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		331			901		159	1004		89	929	
v/s Ratio Prot							c0.13	0.21		0.00	c0.70	
v/s Ratio Perm		0.01			c0.74							
v/c Ratio		0.03			2.54		1.40	0.40		0.06	1.41	
Uniform Delay, d1		25.5			35.5		45.5	13.5		45.3	25.0	
Progression Factor		1.01			0.97		0.21	1.06		1.00	1.00	
Incremental Delay, d2		0.1			693.1		181.8	0.1		1.2	188.9	
Delay (s)		25.9			727.6		191.2	14.3		46.5	213.9	
Level of Service		C			F		F	B		D	F	
Approach Delay (s)		25.9			727.6			77.5			213.2	
Approach LOS		C			F			E			F	

Intersection Summary

HCM Average Control Delay	471.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	157.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↗
Volume (vph)	0	0	15	481	1861	0	0	0	0	0	1346	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.5	4.0
Lane Util. Factor			1.00	0.91	0.91						0.95	1.00
Frbp, ped/bikes			1.00	1.00	1.00						1.00	1.00
Flpb, ped/bikes			1.00	1.00	1.00						1.00	1.00
Frt			0.86	1.00	1.00						1.00	0.85
Flt Protected			1.00	0.95	1.00						1.00	1.00
Satd. Flow (prot)			1611	1610	3386						3539	1583
Flt Permitted			1.00	0.95	1.00						1.00	1.00
Satd. Flow (perm)			1611	1610	3386						3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	481	1861	0	0	0	0	0	1346	207
RTOR Reduction (vph)	0	0	2	2	2	0	0	0	0	0	0	3
Lane Group Flow (vph)	0	0	13	431	1907	0	0	0	0	0	1346	204
Confl. Peds. (#/hr)						72						
Turn Type			custom	Perm								Perm
Protected Phases					1						2	
Permitted Phases			1	1								2
Actuated Green, G (s)			25.5	25.5	25.5						17.0	17.0
Effective Green, g (s)			25.5	25.0	25.5						16.5	17.0
Actuated g/C Ratio			0.51	0.50	0.51						0.33	0.34
Clearance Time (s)			3.5	3.5	3.5						4.0	4.0
Lane Grp Cap (vph)			822	805	1727						1168	538
v/s Ratio Prot											c0.38	
v/s Ratio Perm			0.01	0.27	0.56							0.13
v/c Ratio			0.02	0.54	1.10						1.15	0.38
Uniform Delay, d1			6.1	8.5	12.2						16.8	12.5
Progression Factor			0.39	0.73	0.74						1.12	1.12
Incremental Delay, d2			0.0	2.4	55.5						77.0	1.6
Delay (s)			2.4	8.6	64.6						95.8	15.7
Level of Service			A	A	E						F	B
Approach Delay (s)		2.4			54.2			0.0			85.2	
Approach LOS		A			D			A			F	
Intersection Summary												
HCM Average Control Delay			66.3		HCM Level of Service			E				
HCM Volume to Capacity ratio			1.12									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			8.0				
Intersection Capacity Utilization			87.9%		ICU Level of Service			E				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

41: G Street &

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↑↑↑			↑↑↑					
Volume (vph)	0	0	0	0	1238	79	483	465	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)					4.0			4.0					
Lane Util. Factor					0.91			0.91					
Frbp, ped/bikes					1.00			1.00					
Flpb, ped/bikes					1.00			0.97					
Frt					0.99			1.00					
Flt Protected					1.00			0.98					
Satd. Flow (prot)					5021			4829					
Flt Permitted					1.00			0.98					
Satd. Flow (perm)					5021			4829					
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	0	1238	79	483	465	0	0	0	0	
RTOR Reduction (vph)	0	0	0	0	14	0	0	12	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	1303	0	0	936	0	0	0	0	
Confl. Peds. (#/hr)						72	72						
Turn Type							Perm						
Protected Phases					1			2					
Permitted Phases							2						
Actuated Green, G (s)					21.9			21.1					
Effective Green, g (s)					21.4			20.6					
Actuated g/C Ratio					0.43			0.41					
Clearance Time (s)					3.5			3.5					
Lane Grp Cap (vph)					2149			1990					
v/s Ratio Prot					c0.26								
v/s Ratio Perm								0.19					
v/c Ratio					0.61			0.47					
Uniform Delay, d1					11.0			10.7					
Progression Factor					0.69			0.59					
Incremental Delay, d2					1.2			0.5					
Delay (s)					8.8			6.8					
Level of Service					A			A					
Approach Delay (s)		0.0			8.8			6.8			0.0		
Approach LOS		A			A			A			A		
Intersection Summary													
HCM Average Control Delay			8.0		HCM Level of Service				A				
HCM Volume to Capacity ratio			0.54										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			87.9%		ICU Level of Service				E				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

42: G Street & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	64	759	0	0	0	0	0	1472	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frbp, ped/bikes					1.00						0.99	
Flpb, ped/bikes					1.00						1.00	
Frt					1.00						0.98	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5043						4965	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5043						4965	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	64	759	0	0	0	0	0	1472	172
RTOR Reduction (vph)	0	0	0	0	19	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	0	0	0	804	0	0	0	0	0	1615	0
Confl. Peds. (#/hr)				72								72
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)					17.5						21.5	
Effective Green, g (s)					17.0						21.0	
Actuated g/C Ratio					0.34						0.42	
Clearance Time (s)					3.5						3.5	
Lane Grp Cap (vph)					1715						2085	
v/s Ratio Prot											c0.33	
v/s Ratio Perm					0.16							
v/c Ratio					0.47						0.77	
Uniform Delay, d1					13.0						12.5	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.9						2.9	
Delay (s)					13.9						15.3	
Level of Service					B						B	
Approach Delay (s)		0.0			13.9			0.0			15.3	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			14.9		HCM Level of Service						B	
HCM Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			55.4%		ICU Level of Service			B				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

43: H Street & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖						↖↗				
Volume (vph)	5	20	0	0	0	0	20	624	402	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		1.00						0.91				
Frt		1.00						0.94				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1844						4788				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1844						4788				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	20	0	0	0	0	20	624	402	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	205	0	0	0	0
Lane Group Flow (vph)	0	25	0	0	0	0	0	841	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4					2	2				
Permitted Phases	4											
Actuated Green, G (s)		16.0						26.0				
Effective Green, g (s)		16.0						26.0				
Actuated g/C Ratio		0.30						0.49				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		557						2349				
v/s Ratio Prot								c0.18				
v/s Ratio Perm		0.01										
v/c Ratio		0.04						0.36				
Uniform Delay, d1		13.1						8.3				
Progression Factor		1.00						1.00				
Incremental Delay, d2		0.2						0.4				
Delay (s)		13.2						8.8				
Level of Service		B						A				
Approach Delay (s)		13.2			0.0			8.8			0.0	
Approach LOS		B			A			A			A	

Intersection Summary

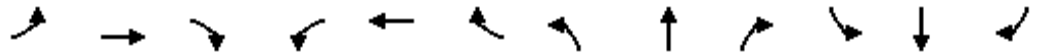
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	53.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	319	79	0	0	0	0	646	419	1075	725	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0	3.5	4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95	0.95	0.95	0.95	
Frbp, ped/bikes	1.00	0.97						0.99	0.85	1.00	1.00	
Flpb, ped/bikes	0.76	1.00						1.00	1.00	1.00	1.00	
Frt	1.00	0.97						0.99	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (prot)	1345	3329						1737	1274	1681	1751	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	0.99	
Satd. Flow (perm)	1345	3329						1737	1274	1681	1751	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	646	419	1075	725	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	2	72	0	0	0
Lane Group Flow (vph)	4	376	0	0	0	0	0	686	305	881	919	0
Confl. Peds. (#/hr)	72		72						72	72		
Turn Type	Perm						Perm			Split		
Protected Phases	1						2			6 6		
Permitted Phases	1						2					
Actuated Green, G (s)	16.5	16.5						25.5	25.5	39.0	39.0	
Effective Green, g (s)	16.5	16.0						25.0	25.5	38.5	38.5	
Actuated g/C Ratio	0.16	0.16						0.25	0.26	0.38	0.38	
Clearance Time (s)	3.5	3.5						3.5	3.5	4.0	4.0	
Lane Grp Cap (vph)	222	533						434	325	647	674	
v/s Ratio Prot		c0.11						c0.39		0.52	c0.52	
v/s Ratio Perm	0.00								0.24			
v/c Ratio	0.02	0.71						1.58	0.94	1.36	1.36	
Uniform Delay, d1	35.0	39.8						37.5	36.5	30.8	30.8	
Progression Factor	1.00	1.00						1.26	1.56	0.80	0.80	
Incremental Delay, d2	0.1	7.7						262.0	6.3	163.7	164.5	
Delay (s)	35.1	47.4						309.5	63.4	188.2	189.0	
Level of Service	D	D						F	E	F	F	
Approach Delay (s)		47.3			0.0			222.4			188.6	
Approach LOS		D			A			F			F	

Intersection Summary

HCM Average Control Delay	182.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	115.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	1425	356	0	0	0	0	0	0	305	1101	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.98								1.00	1.00	
Flpb, ped/bikes		1.00								0.93	1.00	
Frt		0.97								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3376								1494	3379	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3376								1494	3379	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1425	356	0	0	0	0	0	0	305	1101	0
RTOR Reduction (vph)	0	44	0	0	0	0	0	0	0	97	4	0
Lane Group Flow (vph)	0	1737	0	0	0	0	0	0	0	177	1128	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		19.5								18.5	18.5	
Effective Green, g (s)		19.0								18.0	18.0	
Actuated g/C Ratio		0.38								0.36	0.36	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1283								538	1216	
v/s Ratio Prot		0.51										
v/s Ratio Perm										0.12	0.33	
v/c Ratio		1.35								0.33	0.93	
Uniform Delay, d1		15.5								11.6	15.4	
Progression Factor		1.40								2.39	1.52	
Incremental Delay, d2		159.7								0.4	3.9	
Delay (s)		181.4								28.2	27.3	
Level of Service		F								C	C	
Approach Delay (s)		181.4			0.0			0.0			27.4	
Approach LOS		F			A			A			C	
Intersection Summary												
HCM Average Control Delay			113.5									F
HCM Volume to Capacity ratio			1.15									
Actuated Cycle Length (s)			50.0							13.0		
Intersection Capacity Utilization			88.9%									E
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street &

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↑↑↑				
Volume (vph)	201	1421	0	0	0	0	0	728	327	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.97				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.95				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		3486						4725				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		3486						4725				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	201	1421	0	0	0	0	0	728	327	0	0	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	98	0	0	0	0
Lane Group Flow (vph)	0	1600	0	0	0	0	0	957	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		22.5						15.5				
Effective Green, g (s)		22.0						15.0				
Actuated g/C Ratio		0.44						0.30				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1534						1418				
v/s Ratio Prot								c0.20				
v/s Ratio Perm		0.46										
v/c Ratio		1.04						0.67				
Uniform Delay, d1		14.0						15.4				
Progression Factor		0.24						1.00				
Incremental Delay, d2		21.5						2.6				
Delay (s)		25.0						17.9				
Level of Service		C						B				
Approach Delay (s)		25.0			0.0			17.9			0.0	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM Average Control Delay			22.2					HCM Level of Service			C	
HCM Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		13.0		
Intersection Capacity Utilization			74.7%					ICU Level of Service			D	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	858	933	0	0	0	50	0	2102	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	1.00				1.00		1.00				
Satd. Flow (prot)	3221	1678				1611		5072				
Flt Permitted	0.95	1.00				1.00		1.00				
Satd. Flow (perm)	3221	1678				1611		5072				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	858	933	0	0	0	50	0	2102	20	0	0	0
RTOR Reduction (vph)	29	5	0	0	0	7	0	2	0	0	0	0
Lane Group Flow (vph)	743	1014	0	0	0	43	0	2120	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	14.5	20.5				2.5		22.5				
Effective Green, g (s)	14.0	20.0				2.0		22.0				
Actuated g/C Ratio	0.28	0.40				0.04		0.44				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	902	671				64		2232				
v/s Ratio Prot	0.23	c0.42				0.03		c0.42				
v/s Ratio Perm		0.18										
v/c Ratio	0.82	1.51				0.68		0.95				
Uniform Delay, d1	16.8	15.0				23.7		13.5				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	8.4	237.4				44.9		10.5				
Delay (s)	25.3	252.4				68.6		23.9				
Level of Service	C	F				E		C				
Approach Delay (s)		154.5			68.6			23.9			0.0	
Approach LOS		F			E			C			A	

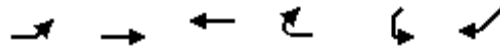
Intersection Summary

HCM Average Control Delay	83.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	102.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/27/2007



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	1125	164	220	0	920	697
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	1.00		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1770	1863	1863		1706	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1770	1863	1863		1706	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1125	164	220	0	920	697
RTOR Reduction (vph)	0	0	0	0	18	0
Lane Group Flow (vph)	1125	164	220	0	1599	0
Turn Type	Prot					
Protected Phases	7	4	8		1	
Permitted Phases						
Actuated Green, G (s)	52.0	50.0	13.0		73.0	
Effective Green, g (s)	52.5	50.0	13.0		73.0	
Actuated g/C Ratio	0.35	0.33	0.09		0.49	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Vehicle Extension (s)	4.5	4.5	4.5		3.0	
Lane Grp Cap (vph)	620	621	161		830	
v/s Ratio Prot	c0.64	0.09	c0.12		c0.94	
v/s Ratio Perm						
v/c Ratio	1.81	0.26	1.37		1.93	
Uniform Delay, d1	48.8	36.6	68.5		38.5	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	372.9	0.4	199.4		421.4	
Delay (s)	421.6	36.9	267.9		459.9	
Level of Service	F	D	F		F	
Approach Delay (s)		372.7	267.9		459.9	
Approach LOS		F	F		F	

Intersection Summary

HCM Average Control Delay	410.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.83		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	177.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

49: I Street & 3rd St

6/27/2007



Movement	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations											
Volume (vph)	241	295	180	1390	5	247	293	51	147	9	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5			4.5	4.5	4.5		
Lane Util. Factor	1.00	1.00	1.00	0.88			1.00	1.00	1.00		
Frt	0.86	1.00	1.00	0.85			1.00	1.00	0.94		
Flt Protected	1.00	0.95	1.00	1.00			0.95	1.00	1.00		
Satd. Flow (prot)	1611	1770	1863	2787			1770	1863	1751		
Flt Permitted	1.00	0.95	1.00	1.00			0.95	1.00	1.00		
Satd. Flow (perm)	1611	1770	1863	2787			1770	1863	1751		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	241	295	180	1390	5	247	293	51	147	9	109
RTOR Reduction (vph)	209	0	0	0	0	0	0	0	25	0	0
Lane Group Flow (vph)	32	295	180	1395	0	0	540	51	240	0	0
Turn Type	custom	Prot		Prot		Prot	Prot				
Protected Phases	4	3	8	8		5	5	2	6		
Permitted Phases	4										
Actuated Green, G (s)	13.2	26.8	44.5	44.5			27.5	46.5	14.5		
Effective Green, g (s)	13.2	26.8	44.5	44.5			27.5	46.5	14.5		
Actuated g/C Ratio	0.13	0.27	0.44	0.44			0.28	0.46	0.14		
Clearance Time (s)	4.5	4.5	4.5	4.5			4.5	4.5	4.5		
Lane Grp Cap (vph)	213	474	829	1240			487	866	254		
v/s Ratio Prot	0.02	0.17	0.10	c0.50			c0.31	0.03	c0.14		
v/s Ratio Perm											
v/c Ratio	0.15	0.62	0.22	1.12			1.11	0.06	0.95		
Uniform Delay, d1	38.4	32.2	17.0	27.8			36.2	14.7	42.4		
Progression Factor	1.00	0.79	0.70	0.73			1.00	1.00	1.00		
Incremental Delay, d2	1.5	2.4	0.2	60.9			73.9	0.1	44.0		
Delay (s)	39.9	27.7	12.1	81.2			110.2	14.8	86.4		
Level of Service	D	C	B	F			F	B	F		
Approach Delay (s)			66.1					101.9	86.4		
Approach LOS			E					F	F		

Intersection Summary

HCM Average Control Delay	72.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	104.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	3639	63	914	974	0	0	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Fr t					1.00		1.00	1.00				0.85
Fl t Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6216		3433	3362				2787
Fl t Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6216		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	3639	63	914	974	0	0	0	50
RTOR Reduction (vph)	0	0	0	0	2	0	1	0	0	0	0	1
Lane Group Flow (vph)	0	0	0	0	3700	0	913	974	0	0	0	49
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					65.0		26.5	26.5				26.5
Effective Green, g (s)					66.0		26.0	26.0				26.5
Actuated g/C Ratio					0.66		0.26	0.26				0.26
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					4103		893	874				739
v/s Ratio Prot					c0.60		0.27	c0.29				
v/s Ratio Perm												0.02
v/c Ratio					0.90		1.02	1.11				0.07
Uniform Delay, d1					14.3		37.0	37.0				27.5
Progression Factor					1.24		1.05	1.05				1.00
Incremental Delay, d2					0.4		28.2	60.8				0.2
Delay (s)					18.1		67.0	99.5				27.7
Level of Service					B		E	F				C
Approach Delay (s)		0.0			18.1			83.8			27.7	
Approach LOS		A			B			F			C	

Intersection Summary

HCM Average Control Delay	40.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑		↑	←↑↑			↑	↑
Volume (vph)	0	0	0	72	2392	115	301	882	0	0	77	944
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes					0.99		1.00	1.00			1.00	1.00
Frt					0.99		1.00	1.00			0.87	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4976		1610	3385			1543	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4976		1610	3385			1543	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	72	2392	115	301	882	0	0	77	944
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	0	0	12	12
Lane Group Flow (vph)	0	0	0	0	2574	0	271	912	0	0	509	488
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					66.5		13.5	13.5			9.5	9.5
Effective Green, g (s)					66.0		13.0	13.0			9.0	9.0
Actuated g/C Ratio					0.66		0.13	0.13			0.09	0.09
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					3284		209	440			139	135
v/s Ratio Prot							0.17	c0.27			c0.33	0.32
v/s Ratio Perm					0.52							
v/c Ratio					0.78		1.30	2.07			3.66	3.62
Uniform Delay, d1					12.0		43.5	43.5			45.5	45.5
Progression Factor					0.52		1.07	1.08			1.26	1.27
Incremental Delay, d2					1.2		159.8	489.3			1200.0	1178.9
Delay (s)					7.4		206.6	536.1			1257.5	1236.5
Level of Service					A		F	F			F	F
Approach Delay (s)		0.0			7.4			460.6			1247.2	
Approach LOS		A			A			F			F	

Intersection Summary

HCM Average Control Delay	384.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	141.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔						↕	↗
Volume (vph)	0	0	0	242	2145	0	0	0	0	0	1255	537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.86	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1303	4796						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1303	4796						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	242	2145	0	0	0	0	0	1255	537
RTOR Reduction (vph)	0	0	0	98	1	0	0	0	0	0	0	182
Lane Group Flow (vph)	0	0	0	120	2168	0	0	0	0	0	1255	355
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				55.5	55.5						27.5	27.5
Effective Green, g (s)				55.0	55.0						27.0	27.0
Actuated g/C Ratio				0.55	0.55						0.27	0.27
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				717	2638						956	752
v/s Ratio Prot											c0.35	
v/s Ratio Perm				0.09	0.45							0.13
v/c Ratio				0.17	0.82						1.31	0.47
Uniform Delay, d1				11.2	18.5						36.5	30.5
Progression Factor				1.00	1.00						1.11	1.26
Incremental Delay, d2				0.5	3.0						144.7	1.1
Delay (s)				11.7	21.5						185.2	39.5
Level of Service				B	C						F	D
Approach Delay (s)		0.0			20.6			0.0			141.6	
Approach LOS		A			C			A			F	
Intersection Summary												
HCM Average Control Delay			72.5		HCM Level of Service						E	
HCM Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				18.0			
Intersection Capacity Utilization			79.4%		ICU Level of Service						D	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	203	1034	433	316	537	370	358	711	1046
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.92	0.85	
Flt Protected		0.99		1.00	0.95	1.00	0.98	1.00	
Satd. Flow (prot)		6028		2787	3433	1863	1679	2882	
Flt Permitted		0.99		1.00	0.95	1.00	0.98	1.00	
Satd. Flow (perm)		6028		2787	3433	1863	1679	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	203	1034	433	316	537	370	358	711	1046
RTOR Reduction (vph)	0	0	0	35	0	0	0	116	0
Lane Group Flow (vph)	0	1670	0	281	537	370	735	1264	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		24.6		22.6	22.6	22.6	34.6	34.6	
Effective Green, g (s)		24.6		22.1	22.1	22.1	34.6	34.6	
Actuated g/C Ratio		0.26		0.24	0.24	0.24	0.37	0.37	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1589		660	813	441	623	1069	
v/s Ratio Prot		c0.28				c0.20	0.44	c0.44	
v/s Ratio Perm				0.10	0.16				
v/c Ratio		1.05		0.43	0.66	0.84	1.18	1.55dr	
Uniform Delay, d1		34.3		30.2	32.2	33.9	29.3	29.3	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		37.3		0.2	1.6	12.6	96.8	91.7	
Delay (s)		71.7		30.4	33.8	46.5	126.1	121.0	
Level of Service		E		C	C	D	F	F	
Approach Delay (s)		71.7				39.0	122.8		
Approach LOS		E				D	F		

Intersection Summary

HCM Average Control Delay	84.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	93.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	115.0%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

54: J St & 5th Street

6/27/2007

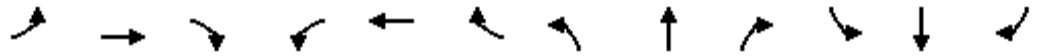


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↶↶↶↶	↶					↶↶	↶			
Volume (vph)	600	1697	151	0	0	0	0	1208	475	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0			
Lane Util. Factor	0.81	0.81	1.00					0.91	0.91			
Frbp, ped/bikes	1.00	1.00	0.96					1.00	0.96			
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00			
Frt	1.00	1.00	0.85					0.99	0.85			
Flt Protected	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (prot)	1290	6010	1520					3366	1387			
Flt Permitted	0.95	1.00	1.00					1.00	1.00			
Satd. Flow (perm)	1290	6010	1520					3366	1387			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	600	1697	151	0	0	0	0	1208	475	0	0	0
RTOR Reduction (vph)	13	13	88	0	0	0	0	2	2	0	0	0
Lane Group Flow (vph)	431	1840	63	0	0	0	0	1254	425	0	0	0
Confl. Peds. (#/hr)	36		36						36			
Parking (#/hr)	0											
Turn Type	Split		Perm						Perm			
Protected Phases	1	1						2				
Permitted Phases			1						2			
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0			
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0			
Actuated g/C Ratio	0.42	0.42	0.42					0.42	0.42			
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0			
Vehicle Extension (s)	0.2	0.2	0.2					0.2	0.2			
Lane Grp Cap (vph)	542	2524	638					1414	583			
v/s Ratio Prot	c0.33	0.31						c0.37				
v/s Ratio Perm			0.04						0.31			
v/c Ratio	0.80	0.73	0.10					0.89	0.73			
Uniform Delay, d1	12.6	12.1	8.8					13.4	12.1			
Progression Factor	1.00	1.00	1.00					1.00	1.00			
Incremental Delay, d2	11.5	1.9	0.3					6.9	3.9			
Delay (s)	24.1	14.0	9.1					20.3	16.0			
Level of Service	C	B	A					C	B			
Approach Delay (s)		15.5			0.0			19.2			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			17.0					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			98.3%					ICU Level of Service			F	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

55: J St & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰↰↰						↰		↰		
Volume (vph)	713	1291	0	0	0	0	0	249	192	207	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0		4.0		
Lane Util. Factor	0.86	0.86						1.00		1.00		
Frbp, ped/bikes	1.00	1.00						0.98		1.00		
Flpb, ped/bikes	0.96	0.99						1.00		0.99		
Frt	1.00	1.00						0.94		1.00		
Flt Protected	0.95	0.99						1.00		0.95		
Satd. Flow (prot)	1463	4742						1722		1746		
Flt Permitted	0.95	0.99						1.00		0.33		
Satd. Flow (perm)	1463	4742						1722		601		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	713	1291	0	0	0	0	0	249	192	207	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	19	0	0	0	0
Lane Group Flow (vph)	485	1519	0	0	0	0	0	422	0	207	0	0
Confl. Peds. (#/hr)	36								36	36		
Turn Type	Perm						D.Pm					
Protected Phases	1						2					
Permitted Phases	1						2					
Actuated Green, G (s)	24.5	24.5						18.5		18.5		
Effective Green, g (s)	24.0	24.0						18.0		18.0		
Actuated g/C Ratio	0.48	0.48						0.36		0.36		
Clearance Time (s)	3.5	3.5						3.5		3.5		
Lane Grp Cap (vph)	702	2276						620		216		
v/s Ratio Prot								0.25				
v/s Ratio Perm	c0.33	0.32								c0.34		
v/c Ratio	0.69	0.67						0.68		0.96		
Uniform Delay, d1	10.1	9.9						13.6		15.6		
Progression Factor	1.50	1.53						1.00		0.93		
Incremental Delay, d2	3.7	1.0						6.0		10.9		
Delay (s)	18.8	16.3						19.5		25.4		
Level of Service	B	B						B		C		
Approach Delay (s)		16.9			0.0			19.5			25.4	
Approach LOS		B			A			B			C	

Intersection Summary

HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	141.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

56: J St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑									↑↑↑		
Volume (vph)	0	1328	366	0	0	0	0	0	0	129	1390	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0									4.0		
Lane Util. Factor		0.91									0.91		
Frbp, ped/bikes		0.99									1.00		
Flpb, ped/bikes		1.00									1.00		
Frt		0.97									1.00		
Flt Protected		1.00									1.00		
Satd. Flow (prot)		4876									5051		
Flt Permitted		1.00									1.00		
Satd. Flow (perm)		4876									5051		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	1328	366	0	0	0	0	0	0	129	1390	0	
RTOR Reduction (vph)	0	99	0	0	0	0	0	0	0	0	22	0	
Lane Group Flow (vph)	0	1595	0	0	0	0	0	0	0	0	1497	0	
Confl. Peds. (#/hr)			36							36			
Turn Type										Perm			
Protected Phases		1									2		
Permitted Phases										2			
Actuated Green, G (s)		21.5									16.5		
Effective Green, g (s)		21.0									16.0		
Actuated g/C Ratio		0.42									0.32		
Clearance Time (s)		3.5									3.5		
Lane Grp Cap (vph)		2048									1616		
v/s Ratio Prot		0.33											
v/s Ratio Perm											0.30		
v/c Ratio		0.78									0.93		
Uniform Delay, d1		12.5									16.4		
Progression Factor		1.51									1.25		
Incremental Delay, d2		2.1									1.2		
Delay (s)		21.0									21.7		
Level of Service		C									C		
Approach Delay (s)		21.0			0.0			0.0			21.7		
Approach LOS		C			A			A			C		
Intersection Summary													
HCM Average Control Delay			21.3		HCM Level of Service							C	
HCM Volume to Capacity ratio			0.84										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)					13.0			
Intersection Capacity Utilization			70.6%		ICU Level of Service							C	
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/27/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	738	845	449	203	708	84	1172	351	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.0	4.5	4.0	3.5	4.0		
Lane Util. Factor	0.95	0.91	0.95	1.00	1.00	0.95	0.91		
Frt	1.00	0.99	0.85	0.85	1.00	1.00	0.96		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (prot)	1681	1677	1504	1583	1770	3539	4895		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00		
Satd. Flow (perm)	1681	1677	1504	1583	1770	3539	4895		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	738	845	449	203	708	84	1172	351	39
RTOR Reduction (vph)	0	0	0	82	0	0	2	0	0
Lane Group Flow (vph)	664	964	404	121	708	84	1560	0	0
Turn Type	Perm		Perm	Perm	Prot				
Protected Phases		6			3	8	4		
Permitted Phases	6	6	6	6					
Actuated Green, G (s)	60.0	60.0	60.0	60.0	11.0	32.5	17.5		
Effective Green, g (s)	59.5	59.5	60.0	59.5	11.0	32.5	17.0		
Actuated g/C Ratio	0.60	0.60	0.60	0.60	0.11	0.32	0.17		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	3.5		
Lane Grp Cap (vph)	1000	998	902	942	195	1150	832		
v/s Ratio Prot					c0.40	0.02	c0.32		
v/s Ratio Perm	0.39	0.57	0.27	0.08					
v/c Ratio	0.66	0.97	0.45	0.13	3.63	0.07	1.87		
Uniform Delay, d1	13.6	19.3	10.9	8.9	44.5	23.3	41.5		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	3.5	21.4	1.6	0.3	1196.5	0.1	398.1		
Delay (s)	17.0	40.6	12.5	9.2	1241.0	23.5	439.6		
Level of Service	B	D	B	A	F	C	F		
Approach Delay (s)		25.7				1111.8	439.6		
Approach LOS		C				F	F		

Intersection Summary

HCM Average Control Delay	354.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	128.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

58: L St & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↘	↑↑↑				↗
Volume (vph)	0	0	0	0	1700	456	505	1170	0	0	0	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		5.0	5.0				5.0
Lane Util. Factor					0.86		1.00	0.91				0.88
Frbp, ped/bikes					0.98		1.00	1.00				0.91
Flpb, ped/bikes					1.00		0.92	1.00				1.00
Fr _t					0.97		1.00	1.00				0.85
Fl _t Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6096		1633	5085				2543
Fl _t Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6096		1633	5085				2543
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1700	456	505	1170	0	0	0	91
RTOR Reduction (vph)	0	0	0	0	50	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	2106	0	505	1170	0	0	0	91
Confl. Peds. (#/hr)						55	55					55
Turn Type							Perm					custom
Protected Phases					2			1				
Permitted Phases							1					1
Actuated Green, G (s)					20.0		40.5	40.5				40.5
Effective Green, g (s)					21.0		40.0	40.0				40.0
Actuated g/C Ratio					0.30		0.57	0.57				0.57
Clearance Time (s)					5.0		4.5	4.5				4.5
Vehicle Extension (s)					0.2		0.2	0.2				0.2
Lane Grp Cap (vph)					1829		933	2906				1453
v/s Ratio Prot					c0.35			0.23				
v/s Ratio Perm							c0.31					0.04
v/c Ratio					1.15		0.54	0.40				0.06
Uniform Delay, d ₁					24.5		9.3	8.3				6.7
Progression Factor					1.00		1.00	1.00				1.00
Incremental Delay, d ₂					75.0		2.3	0.4				0.1
Delay (s)					99.5		11.6	8.8				6.7
Level of Service					F		B	A				A
Approach Delay (s)		0.0			99.5			9.6			6.7	
Approach LOS		A			F			A			A	

Intersection Summary

HCM Average Control Delay	59.0	HCM Level of Service	E
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

59: L St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	↘
Volume (vph)	0	0	0	303	1614	0	0	0	0	0	1166	555
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	
Lane Util. Factor				1.00	0.91						0.91	
Frbp, ped/bikes				1.00	1.00						0.98	
Flpb, ped/bikes				0.95	1.00						1.00	
Frt				1.00	1.00						0.95	
Flt Protected				0.95	1.00						1.00	
Satd. Flow (prot)				1678	5085						4750	
Flt Permitted				0.95	1.00						1.00	
Satd. Flow (perm)				1678	5085						4750	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	303	1614	0	0	0	0	0	1166	555
RTOR Reduction (vph)	0	0	0	109	0	0	0	0	0	0	99	0
Lane Group Flow (vph)	0	0	0	195	1614	0	0	0	0	0	1622	0
Confl. Peds. (#/hr)				55								55
Turn Type				Perm								
Protected Phases					4						2	
Permitted Phases				4								
Actuated Green, G (s)				15.5	15.5						22.5	
Effective Green, g (s)				15.0	15.0						22.0	
Actuated g/C Ratio				0.30	0.30						0.44	
Clearance Time (s)				3.5	3.5						3.5	
Vehicle Extension (s)				0.2	0.2						0.2	
Lane Grp Cap (vph)				503	1526						2090	
v/s Ratio Prot					c0.32						c0.34	
v/s Ratio Perm				0.12								
v/c Ratio				0.39	1.06						0.78	
Uniform Delay, d1				13.9	17.5						11.9	
Progression Factor				1.00	1.00						0.81	
Incremental Delay, d2				0.2	40.0						1.2	
Delay (s)				14.0	57.5						10.9	
Level of Service				B	E						B	
Approach Delay (s)		0.0			50.6			0.0			10.9	
Approach LOS		A			D			A			B	

Intersection Summary

HCM Average Control Delay	31.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	416	325	0	0	540	135	425	1137	50	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.98		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.97		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4848		3433	5034				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4848		3433	5034				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	416	325	0	0	540	135	425	1137	50	0	0	0
RTOR Reduction (vph)	0	0	0	0	20	0	0	7	0	0	0	0
Lane Group Flow (vph)	416	325	0	0	655	0	425	1180	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	35.0			18.0		30.5	30.5				
Effective Green, g (s)	13.0	34.5			17.5		30.0	30.0				
Actuated g/C Ratio	0.18	0.47			0.24		0.41	0.41				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	607	1661			1154		1401	2055				
v/s Ratio Prot	c0.12	0.09			c0.14		0.12	c0.23				
v/s Ratio Perm												
v/c Ratio	0.69	0.20			0.57		0.30	0.57				
Uniform Delay, d1	28.3	11.4			24.7		14.7	16.8				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	6.2	0.3			2.0		0.6	1.2				
Delay (s)	34.5	11.7			26.7		15.2	18.0				
Level of Service	C	B			C		B	B				
Approach Delay (s)		24.5			26.7			17.3			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	73.5	Sum of lost time (s)	13.0
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑↑
Volume (vph)	0	0	0	163	2769	0	0	0	0	0	1003	772
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.86	0.86
Frbp, ped/bikes					1.00						0.99	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.99	0.85
Flt Protected					1.00						1.00	1.00
Satd. Flow (prot)					4902						2993	2374
Flt Permitted					1.00						1.00	1.00
Satd. Flow (perm)					4902						2993	2374
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	163	2769	0	0	0	0	0	1003	772
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	0	0	1	1
Lane Group Flow (vph)	0	0	0	0	2927	0	0	0	0	0	1079	694
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2647						898	712
v/s Ratio Prot					c0.60						c0.36	
v/s Ratio Perm												0.29
v/c Ratio					1.11						1.20	0.98
Uniform Delay, d1					11.5						17.5	17.3
Progression Factor					1.00						1.30	1.19
Incremental Delay, d2					53.9						91.9	5.9
Delay (s)					65.4						114.7	26.5
Level of Service					E						F	C
Approach Delay (s)		0.0			65.4			0.0			80.2	
Approach LOS		A			E			A			F	

Intersection Summary

HCM Average Control Delay	70.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

62: Q St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	1061	575	0	0	0	0	0	0	359	843	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frbp, ped/bikes		0.98									1.00	
Flpb, ped/bikes		1.00									0.98	
Frt		0.95									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		5961									4903	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		5961									4903	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1061	575	0	0	0	0	0	0	359	843	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	0	56	0
Lane Group Flow (vph)	0	1625	0	0	0	0	0	0	0	0	1146	0
Confl. Peds. (#/hr)			72							72		
Parking (#/hr)										0		0
Turn Type										Perm		
Protected Phases		2									1	
Permitted Phases										1		
Actuated Green, G (s)		27.5									15.5	
Effective Green, g (s)		27.0									15.0	
Actuated g/C Ratio		0.54									0.30	
Clearance Time (s)		3.5									3.5	
Lane Grp Cap (vph)		3219									1471	
v/s Ratio Prot		c0.27										
v/s Ratio Perm											0.23	
v/c Ratio		0.50									0.78	
Uniform Delay, d1		7.3									16.0	
Progression Factor		1.00									0.60	
Incremental Delay, d2		0.6									0.4	
Delay (s)		7.8									10.0	
Level of Service		A									A	
Approach Delay (s)		7.8			0.0			0.0			10.0	
Approach LOS		A			A			A			A	

Intersection Summary

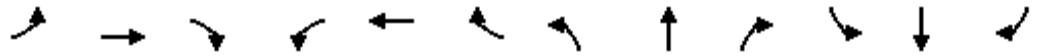
HCM Average Control Delay	8.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

63: Richards Blvd & Dos Rios St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↑↑↑			↔			↔	
Volume (vph)	0	0	0	0	1173	198	1	10	0	0	241	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5			4.5			4.5	
Lane Util. Factor					0.86			1.00			1.00	
Frt					0.98			1.00			1.00	
Flt Protected					1.00			1.00			1.00	
Satd. Flow (prot)					6269			1854			1862	
Flt Permitted					1.00			0.98			1.00	
Satd. Flow (perm)					6269			1828			1862	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1173	198	1	10	0	0	241	1
RTOR Reduction (vph)	0	0	0	0	61	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1310	0	0	11	0	0	242	0
Turn Type				Prot			Perm					
Protected Phases				2			4				8	
Permitted Phases					2		4					
Actuated Green, G (s)					21.5			19.5			19.5	
Effective Green, g (s)					21.5			19.5			19.5	
Actuated g/C Ratio					0.43			0.39			0.39	
Clearance Time (s)					4.5			4.5			4.5	
Lane Grp Cap (vph)					2696			713			726	
v/s Ratio Prot											c0.13	
v/s Ratio Perm					c0.21			0.01				
v/c Ratio					0.49			0.02			0.33	
Uniform Delay, d1					10.3			9.4			10.7	
Progression Factor					0.90			1.00			1.00	
Incremental Delay, d2					0.5			0.0			1.2	
Delay (s)					9.7			9.4			11.9	
Level of Service					A			A			B	
Approach Delay (s)		0.0			9.7			9.4			11.9	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	10.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

64: Richards Blvd & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔	↑↑	↗	↔↔	↑↑↑			↑↑↑	↔↔
Volume (vph)	0	0	0	95	878	143	58	2577	0	0	3172	435
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.97	0.95	1.00	0.97	0.91			0.91	0.88
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				3433	3539	1583	3433	5085			5085	2787
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				3433	3539	1583	3433	5085			5085	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	95	878	143	58	2577	0	0	3172	435
RTOR Reduction (vph)	0	0	0	0	0	58	0	0	0	0	0	129
Lane Group Flow (vph)	0	0	0	95	878	85	58	2577	0	0	3172	306
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				32.2	32.2	32.2	6.0	59.8			49.8	49.8
Effective Green, g (s)				32.2	32.2	32.2	6.0	59.8			49.8	49.8
Actuated g/C Ratio				0.32	0.32	0.32	0.06	0.60			0.50	0.50
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				1105	1140	510	206	3041			2532	1388
v/s Ratio Prot					c0.25		0.02	c0.51			c0.62	
v/s Ratio Perm				0.03		0.05						0.11
v/c Ratio				0.09	0.77	0.17	0.28	0.85			1.25	0.22
Uniform Delay, d1				23.6	30.6	24.3	44.9	16.4			25.1	14.2
Progression Factor				1.00	1.00	1.00	1.00	1.00			0.91	0.61
Incremental Delay, d2				0.2	5.0	0.7	0.8	3.1			116.7	0.3
Delay (s)				23.8	35.6	25.0	45.7	19.5			139.6	9.0
Level of Service				C	D	C	D	B			F	A
Approach Delay (s)		0.0			33.2			20.1			123.9	
Approach LOS		A			C			C			F	

Intersection Summary

HCM Average Control Delay	73.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	124.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑					↑	↑	↑
Volume (vph)	0	452	67	421	203	0	0	0	0	788	0	619
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95		0.97	1.00					0.95	0.95	1.00
Frbp, ped/bikes		0.98		1.00	1.00					1.00	1.00	0.85
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	1.00
Frt		0.98		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3407		3433	1863					1681	1681	1338
Flt Permitted		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3407		3433	1863					1681	1681	1338
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	452	67	421	203	0	0	0	0	788	0	619
RTOR Reduction (vph)	0	15	0	0	0	0	0	0	0	0	0	464
Lane Group Flow (vph)	0	504	0	421	203	0	0	0	0	394	394	155
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9 3 12 13						4	4	
Permitted Phases												4
Actuated Green, G (s)		20.1		29.4	52.5					20.0	20.0	20.0
Effective Green, g (s)		20.1		27.9	52.0					20.0	20.0	20.0
Actuated g/C Ratio		0.25		0.35	0.65					0.25	0.25	0.25
Clearance Time (s)		4.0								4.0	4.0	4.0
Vehicle Extension (s)		6.0								5.0	5.0	5.0
Lane Grp Cap (vph)		856		1197	1211					420	420	335
v/s Ratio Prot		c0.15		c0.12	0.11					c0.23	0.23	
v/s Ratio Perm												0.12
v/c Ratio		0.59		0.35	0.17					0.94	0.94	0.46
Uniform Delay, d1		26.3		19.3	5.5					29.4	29.4	25.4
Progression Factor		1.00		0.22	0.38					1.00	1.00	1.00
Incremental Delay, d2		2.0		0.3	0.1					29.4	29.4	2.1
Delay (s)		28.3		4.6	2.2					58.8	58.8	27.5
Level of Service		C		A	A					E	E	C
Approach Delay (s)		28.3			3.8			0.0			45.0	
Approach LOS		C			A			A			D	

Intersection Summary

HCM Average Control Delay	31.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	120.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	183	1066	0	0	581	432	44	0	1111	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	0.88		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.79		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.86	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	3539			3539	2204		1519	1504			
Flt Permitted	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1770	3539			3539	2204		1519	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	183	1066	0	0	581	432	44	0	1111	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	287	0	206	19	0	0	0
Lane Group Flow (vph)	183	1066	0	0	581	145	0	371	559	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot						custom	Split	custom			
Protected Phases	5 14	7 14 15					6 11 15	11	8 16	8 16	8 11 16	
Permitted Phases							6 15					
Actuated Green, G (s)	11.5	33.3					30.4	26.9	27.1	39.7		
Effective Green, g (s)	11.0	32.8					26.9	26.9	26.6	34.7		
Actuated g/C Ratio	0.14	0.41					0.34	0.34	0.33	0.43		
Clearance Time (s)							4.0					
Vehicle Extension (s)							5.0					
Lane Grp Cap (vph)	243	1451					1190	741	505	652		
v/s Ratio Prot	c0.10	c0.30					0.16	0.02	0.24	c0.37		
v/s Ratio Perm							0.04					
v/c Ratio	0.75	0.73					0.49	0.20	0.73	0.86		
Uniform Delay, d1	33.2	19.9					21.1	18.9	23.6	20.4		
Progression Factor	1.24	0.25					1.15	2.47	1.00	1.00		
Incremental Delay, d2	8.8	1.4					0.6	0.3	6.6	11.8		
Delay (s)	49.9	6.4					24.9	46.9	30.2	32.2		
Level of Service	D	A					C	D	C	C		
Approach Delay (s)	12.7						34.3	31.2			0.0	
Approach LOS	B						C	C			A	

Intersection Summary

HCM Average Control Delay	25.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	120.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	206	1387	712	42	526	32	438	60	102	28	45	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.6	4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		0.95	0.95			1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.92	1.00	0.99		1.00	0.98			1.00	1.00
Flpb, ped/bikes	0.99	1.00	1.00	0.99	1.00		1.00	1.00			0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98			0.98	1.00
Satd. Flow (prot)	1744	3539	1456	1756	5006		1681	1613			1812	1583
Flt Permitted	0.38	1.00	1.00	0.16	1.00		0.71	0.82			0.81	1.00
Satd. Flow (perm)	702	3539	1456	302	5006		1256	1350			1498	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	206	1387	712	42	526	32	438	60	102	28	45	110
RTOR Reduction (vph)	0	0	254	0	7	0	0	21	0	0	0	80
Lane Group Flow (vph)	206	1387	458	42	551	0	302	277	0	0	73	30
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt		Perm	Perm			Perm			Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6		6	2			8		4			4
Actuated Green, G (s)	49.8	49.8	49.8	40.1	40.1		22.1	22.1			22.1	22.1
Effective Green, g (s)	49.3	50.4	49.8	40.7	40.7		21.6	21.6			21.6	21.6
Actuated g/C Ratio	0.62	0.63	0.62	0.51	0.51		0.27	0.27			0.27	0.27
Clearance Time (s)	3.5	4.6	4.6	4.6	4.6		3.5	3.5			3.5	3.5
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	0.2			0.2	0.2
Lane Grp Cap (vph)	507	2230	906	154	2547		339	365			404	427
v/s Ratio Prot	0.03	c0.39			0.11							
v/s Ratio Perm	0.22		0.31	0.14			c0.24	0.21			0.05	0.02
v/c Ratio	0.41	0.62	0.51	0.27	0.22		0.89	0.76			0.18	0.07
Uniform Delay, d1	6.9	9.0	8.3	11.2	10.8		28.1	26.8			22.4	21.7
Progression Factor	0.90	0.92	0.81	1.00	1.00		0.38	0.28			1.00	1.00
Incremental Delay, d2	0.1	0.3	0.1	4.3	0.2		22.2	7.3			0.1	0.0
Delay (s)	6.4	8.5	6.8	15.5	11.0		32.8	14.8			22.5	21.7
Level of Service	A	A	A	B	B		C	B			C	C
Approach Delay (s)		7.8			11.4			23.9			22.0	
Approach LOS		A			B			C			C	

Intersection Summary

HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	
Volume (vph)	38	1156	256	409	562	16	91	48	258	7	23	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	3.5	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.98	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3415		1770	3517		1681	1741	1560	1770	1772	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.98	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3415		1770	3517		1681	1741	1560	1770	1772	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	1156	256	409	562	16	91	48	258	7	23	11
RTOR Reduction (vph)	0	14	0	0	1	0	0	0	72	0	11	0
Lane Group Flow (vph)	38	1398	0	409	577	0	68	71	186	7	23	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split		pm+ov	Split		
Protected Phases	1	6		5	2		8	8	5	7	7	
Permitted Phases									8			
Actuated Green, G (s)	3.7	50.1		28.8	75.2		14.4	14.4	43.2	3.2	3.2	
Effective Green, g (s)	2.7	50.1		27.8	75.2		13.9	13.9	42.2	2.7	2.7	
Actuated g/C Ratio	0.02	0.45		0.25	0.68		0.13	0.13	0.38	0.02	0.02	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.0	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	43	1548		445	2393		211	219	596	43	43	
v/s Ratio Prot	0.02	c0.41		c0.23	0.16		0.04	c0.04	0.08	0.00	c0.01	
v/s Ratio Perm									0.04			
v/c Ratio	0.88	0.90		0.92	0.24		0.32	0.32	0.31	0.16	0.54	
Uniform Delay, d1	53.7	28.0		40.3	6.7		44.0	44.0	24.0	52.8	53.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	91.0	7.6		23.4	0.0		0.3	0.3	0.1	0.7	7.2	
Delay (s)	144.8	35.5		63.7	6.8		44.3	44.3	24.1	53.4	60.5	
Level of Service	F	D		E	A		D	D	C	D	E	
Approach Delay (s)		38.4			30.4			31.2			59.3	
Approach LOS		D			C			C			E	

Intersection Summary

HCM Average Control Delay	34.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	110.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

6/23/2007



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	750	76	20	0	20	47	1660	50	3280	864
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	750	76	20	0	20	47	1660	50	3280	864
RTOR Reduction (vph)	0	52	0	19	0	0	0	31	0	287
Lane Group Flow (vph)	750	24	0	21	0	47	1660	19	3280	577
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	30.0	30.0		8.0		4.4	84.5	43.0	75.1	75.1
Effective Green, g (s)	30.0	29.0		7.0		4.4	84.5	43.0	75.1	75.1
Actuated g/C Ratio	0.20	0.19		0.05		0.03	0.56	0.29	0.50	0.50
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	2.0	2.0		2.0		3.0		3.0		
Lane Grp Cap (vph)	687	306		79		52	3610	454	3361	793
v/s Ratio Prot	c0.22	0.02		c0.01		c0.03	0.26		c0.49	0.36
v/s Ratio Perm								0.01		
v/c Ratio	1.09	0.08		0.26		0.90	0.46	0.04	0.98	0.73
Uniform Delay, d1	60.0	49.6		69.0		72.6	19.3	38.6	36.6	29.4
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	62.0	0.0		0.7		89.2	0.1	0.2	10.5	3.3
Delay (s)	122.0	49.6		69.7		161.8	19.4	38.8	47.1	32.8
Level of Service	F	D		E		F	B	D	D	C
Approach Delay (s)				69.7			23.8			
Approach LOS				E			C			

Intersection Summary

HCM Average Control Delay	47.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	33.5
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/23/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	1	109	426	1	102	617
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.87		1.00		1.00	1.00
Flt Protected	1.00		1.00		0.95	1.00
Satd. Flow (prot)	1613		1862		1770	1863
Flt Permitted	1.00		1.00		0.95	1.00
Satd. Flow (perm)	1613		1862		1770	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	109	426	1	102	617
RTOR Reduction (vph)	100	0	0	0	0	0
Lane Group Flow (vph)	10	0	427	0	102	617
Turn Type					Prot	
Protected Phases	8		2		1	6
Permitted Phases						
Actuated Green, G (s)	6.9		24.0		37.1	65.1
Effective Green, g (s)	6.9		24.0		37.1	65.1
Actuated g/C Ratio	0.09		0.30		0.46	0.81
Clearance Time (s)	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	139		559		821	1516
v/s Ratio Prot	c0.01		c0.23		0.06	c0.33
v/s Ratio Perm						
v/c Ratio	0.07		0.76		0.12	0.41
Uniform Delay, d1	33.6		25.4		12.2	2.1
Progression Factor	1.00		1.00		1.06	1.15
Incremental Delay, d2	0.2		6.1		0.3	0.1
Delay (s)	33.8		31.6		13.2	2.5
Level of Service	C		C		B	A
Approach Delay (s)	33.8		31.6			4.1
Approach LOS	C		C			A

Intersection Summary

HCM Average Control Delay	16.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

20: North B St & 12th Street

6/23/2007



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↖↗	
Volume (vph)	12	78	60	45	211	29	8	16	36	32	2676	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.98			0.94			0.98	
Flpb, ped/bikes		1.00		0.95	1.00			1.00			0.86	
Frt		0.94		1.00	0.98			0.92			0.98	
Flt Protected		1.00		0.95	1.00			0.99			0.96	
Satd. Flow (prot)		3299		1680	1801			1603			5374	
Flt Permitted		0.82		0.61	1.00			0.99			0.96	
Satd. Flow (perm)		2722		1075	1801			1603			5374	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	78	60	45	211	29	8	16	36	32	2676	351
RTOR Reduction (vph)	0	50	0	0	0	0	0	33	0	0	0	0
Lane Group Flow (vph)	0	100	0	45	240	0	0	27	0	0	3059	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		24.0		24.0	24.0			13.6			93.4	
Effective Green, g (s)		24.0		24.0	24.0			13.6			96.4	
Actuated g/C Ratio		0.16		0.16	0.16			0.09			0.64	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)		436		172	288			145			3454	
v/s Ratio Prot					c0.13							
v/s Ratio Perm		0.04		0.04				0.02			0.57	
v/c Ratio		0.23		0.26	0.83			0.19			0.89	
Uniform Delay, d1		54.9		55.2	61.1			63.1			22.2	
Progression Factor		1.00		1.00	1.00			1.00			0.43	
Incremental Delay, d2		0.6		1.7	20.1			1.3			3.5	
Delay (s)		55.5		56.9	81.2			64.4			13.1	
Level of Service		E		E	F			E			B	
Approach Delay (s)		55.5			77.3			64.4			13.1	
Approach LOS		E			E			E			B	

Intersection Summary

HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	93.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/23/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		TT			TT	T
Volume (vph)	0	193	0	0	385	544
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		0.88			0.91	0.91
Frt		0.85			0.94	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		2787			3187	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		2787			3187	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	193	0	0	385	544
RTOR Reduction (vph)	0	180	0	0	95	131
Lane Group Flow (vph)	0	13	0	0	546	157
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		5.5			43.5	43.5
Effective Green, g (s)		5.5			43.5	43.5
Actuated g/C Ratio		0.07			0.54	0.54
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		192			1733	784
v/s Ratio Prot		c0.00			c0.17	0.11
v/s Ratio Perm						
v/c Ratio		0.07			0.31	0.20
Uniform Delay, d1		34.9			10.0	9.3
Progression Factor		1.00			1.05	2.29
Incremental Delay, d2		0.2			0.4	0.5
Delay (s)		35.0			11.0	21.9
Level of Service		D			B	C
Approach Delay (s)	35.0			0.0	14.4	
Approach LOS	D			A	B	

Intersection Summary

HCM Average Control Delay	17.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	29.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗		↖↗↘				
Volume (vph)	45	5	0	0	105	658	105	621	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.95	0.95			0.95	0.95		0.91				
Frt	1.00	1.00			0.89	0.85		1.00				
Flt Protected	0.95	0.96			1.00	1.00		0.99				
Satd. Flow (prot)	1681	1702			1576	1504		5044				
Flt Permitted	0.95	0.96			1.00	1.00		0.99				
Satd. Flow (perm)	1681	1702			1576	1504		5044				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	45	5	0	0	105	658	105	621	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	97	202	0	1	0	0	0	0
Lane Group Flow (vph)	25	25	0	0	291	173	0	730	0	0	0	0
Turn Type	Split				Perm		Perm					
Protected Phases	4	4			8			2				
Permitted Phases						8	2	2				
Actuated Green, G (s)	18.0	18.0			41.0	41.0		29.0				
Effective Green, g (s)	18.0	18.0			41.0	41.0		29.0				
Actuated g/C Ratio	0.18	0.18			0.41	0.41		0.29				
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)	303	306			646	617		1463				
v/s Ratio Prot	c0.01	0.01			c0.18							
v/s Ratio Perm						0.12		0.14				
v/c Ratio	0.08	0.08			0.45	0.28		0.50				
Uniform Delay, d1	34.1	34.1			21.4	19.7		29.5				
Progression Factor	1.00	1.00			0.46	0.64		0.75				
Incremental Delay, d2	0.5	0.5			0.8	0.4		0.9				
Delay (s)	34.7	34.6			10.7	13.1		22.9				
Level of Service	C	C			B	B		C				
Approach Delay (s)		34.7			11.9			22.9			0.0	
Approach LOS		C			B			C			A	

Intersection Summary

HCM Average Control Delay	17.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Volume (vph)	5	5	5	119	714	236	469	316	5	5	600	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00			0.95	
Frt		0.96			0.97		1.00	1.00			0.99	
Flt Protected		0.98			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1750			3403		1770	1858			3501	
Flt Permitted		0.80			0.91		0.95	1.00			0.95	
Satd. Flow (perm)		1416			3118		1770	1858			3336	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	119	714	236	469	316	5	5	600	45
RTOR Reduction (vph)	0	3	0	0	26	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	12	0	0	1043	0	469	321	0	0	645	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)		35.0			35.0		30.0	57.0			23.0	
Effective Green, g (s)		35.0			35.0		30.0	57.0			23.0	
Actuated g/C Ratio		0.35			0.35		0.30	0.57			0.23	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		496			1091		531	1059			767	
v/s Ratio Prot							c0.27	0.17				
v/s Ratio Perm		0.01			c0.33						c0.19	
v/c Ratio		0.02			0.96		0.88	0.30			0.84	
Uniform Delay, d1		21.3			31.7		33.3	11.2			36.7	
Progression Factor		0.42			0.67		0.77	0.03			1.00	
Incremental Delay, d2		0.1			12.8		9.2	0.3			10.8	
Delay (s)		8.9			34.1		35.0	0.7			47.5	
Level of Service		A			C		C	A			D	
Approach Delay (s)		8.9			34.1			21.0			47.5	
Approach LOS		A			C			C			D	

Intersection Summary

HCM Average Control Delay	33.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷						↷		↶	↷	
Volume (vph)	20	376	55	0	0	0	0	1010	280	449	253	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0		4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95		0.95	0.95	
Frbp, ped/bikes	1.00	0.98						0.97		1.00	1.00	
Flpb, ped/bikes	0.86	1.00						1.00		1.00	1.00	
Frt	1.00	0.98						0.97		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (prot)	1515	3404						3310		1681	1744	
Flt Permitted	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (perm)	1515	3404						3310		1681	1744	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	1010	280	449	253	0
RTOR Reduction (vph)	0	12	0	0	0	0	0	26	0	0	0	0
Lane Group Flow (vph)	20	419	0	0	0	0	0	1264	0	346	356	0
Confl. Peds. (#/hr)	72		72							72	72	
Turn Type	Perm						Split					
Protected Phases	1						2					
Permitted Phases	1						6					
Actuated Green, G (s)	15.5	15.5						42.5		23.0	23.0	
Effective Green, g (s)	15.5	15.0						42.0		22.5	22.5	
Actuated g/C Ratio	0.16	0.15						0.42		0.22	0.22	
Clearance Time (s)	3.5	3.5						3.5		4.0	4.0	
Lane Grp Cap (vph)	235	511						1390		378	392	
v/s Ratio Prot		c0.12						c0.38		c0.21	0.20	
v/s Ratio Perm	0.01											
v/c Ratio	0.09	0.82						0.91		0.92	0.91	
Uniform Delay, d1	36.2	41.2						27.2		37.8	37.7	
Progression Factor	0.88	0.87						0.79		0.53	0.53	
Incremental Delay, d2	0.5	10.7						9.4		17.4	16.1	
Delay (s)	32.3	46.4						30.9		37.3	35.9	
Level of Service	C	D						C		D	D	
Approach Delay (s)		45.8			0.0			30.9			36.6	
Approach LOS		D			A			C			D	

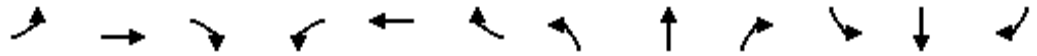
Intersection Summary

HCM Average Control Delay	35.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑								↘	↙↑		
Volume (vph)	0	667	106	0	0	0	0	0	0	240	444	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0								4.0	4.0		
Lane Util. Factor		0.95								0.91	0.91		
Frbp, ped/bikes		0.99								1.00	1.00		
Flpb, ped/bikes		1.00								0.95	1.00		
Frt		0.98								1.00	1.00		
Flt Protected		1.00								0.95	1.00		
Satd. Flow (prot)		3437								1528	3373		
Flt Permitted		1.00								0.95	1.00		
Satd. Flow (perm)		3437								1528	3373		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	667	106	0	0	0	0	0	0	240	444	0	
RTOR Reduction (vph)	0	26	0	0	0	0	0	0	0	134	7	0	
Lane Group Flow (vph)	0	747	0	0	0	0	0	0	0	82	461	0	
Confl. Peds. (#/hr)			72							72			
Turn Type										Perm			
Protected Phases		1									2		
Permitted Phases										2			
Actuated Green, G (s)		18.5								19.5	19.5		
Effective Green, g (s)		18.0								19.0	19.0		
Actuated g/C Ratio		0.36								0.38	0.38		
Clearance Time (s)		3.5								3.5	3.5		
Lane Grp Cap (vph)		1237								581	1282		
v/s Ratio Prot		0.22											
v/s Ratio Perm										0.05	0.14		
v/c Ratio		0.60								0.14	0.36		
Uniform Delay, d1		13.1								10.2	11.1		
Progression Factor		1.08								3.63	1.24		
Incremental Delay, d2		1.0								0.5	0.8		
Delay (s)		15.1								37.3	14.6		
Level of Service		B								D	B		
Approach Delay (s)		15.1			0.0			0.0			21.8		
Approach LOS		B			A			A			C		
Intersection Summary													
HCM Average Control Delay			18.2		HCM Level of Service						B		
HCM Volume to Capacity ratio			0.48										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)					13.0			
Intersection Capacity Utilization			42.0%		ICU Level of Service					A			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/23/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	462	154	94	15	115	481
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.89	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1644	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1644	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	462	154	94	15	115	481
RTOR Reduction (vph)	0	0	0	8	105	0
Lane Group Flow (vph)	462	154	94	7	491	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	36.2	39.5	12.1	45.9	33.8	
Effective Green, g (s)	36.7	39.5	12.1	45.9	33.8	
Actuated g/C Ratio	0.39	0.42	0.13	0.49	0.36	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	687	778	238	835	587	
v/s Ratio Prot	c0.26	0.08	c0.05	0.00	c0.30	
v/s Ratio Perm				0.00		
v/c Ratio	0.67	0.20	0.39	0.01	0.84	
Uniform Delay, d1	24.0	17.5	37.9	12.6	27.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.4	0.2	1.9	0.0	10.0	
Delay (s)	26.3	17.7	39.8	12.6	37.9	
Level of Service	C	B	D	B	D	
Approach Delay (s)		24.2	36.0		37.9	
Approach LOS		C	D		D	

Intersection Summary

HCM Average Control Delay	31.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	94.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	839	86	148	1423	0	0	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					0.99		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6116		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6116		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	839	86	148	1423	0	0	0	20
RTOR Reduction (vph)	0	0	0	0	12	0	48	0	0	0	0	10
Lane Group Flow (vph)	0	0	0	0	913	0	100	1423	0	0	0	10
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					17.0		24.5	24.5				24.5
Effective Green, g (s)					18.0		24.0	24.0				24.5
Actuated g/C Ratio					0.36		0.48	0.48				0.49
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					2202		1648	1614				1366
v/s Ratio Prot					c0.15		0.03	c0.42				
v/s Ratio Perm												0.00
v/c Ratio					0.41		0.06	0.88				0.01
Uniform Delay, d1					12.0		7.0	11.7				6.5
Progression Factor					0.57		0.86	0.96				1.00
Incremental Delay, d2					0.4		0.1	5.6				0.0
Delay (s)					7.3		6.1	16.8				6.5
Level of Service					A		A	B				A
Approach Delay (s)		0.0			7.3			15.8			6.5	
Approach LOS		A			A			B			A	

Intersection Summary

HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑		↑	←↑↑			↑	↑
Volume (vph)	0	0	0	53	833	453	34	509	0	0	26	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.97		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.95		1.00	1.00			0.88	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4661		1610	3389			1549	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4661		1610	3389			1549	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	53	833	453	34	509	0	0	26	281
RTOR Reduction (vph)	0	0	0	0	184	0	0	0	0	0	111	131
Lane Group Flow (vph)	0	0	0	0	1155	0	31	512	0	0	44	21
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom						custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					16.5		15.5	15.5			7.5	7.5
Effective Green, g (s)					16.0		15.0	15.0			7.0	7.0
Actuated g/C Ratio					0.32		0.30	0.30			0.14	0.14
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1492		483	1017			217	211
v/s Ratio Prot							0.02	c0.15			c0.03	0.01
v/s Ratio Perm					0.25							
v/c Ratio					0.77		0.06	0.50			0.20	0.10
Uniform Delay, d1					15.4		12.5	14.4			19.0	18.8
Progression Factor					0.65		1.40	1.35			3.35	4.66
Incremental Delay, d2					3.6		0.2	1.5			0.9	0.4
Delay (s)					13.6		17.7	20.9			64.6	87.8
Level of Service					B		B	C			E	F
Approach Delay (s)		0.0			13.6			20.7			76.1	
Approach LOS		A			B			C			E	

Intersection Summary

HCM Average Control Delay	24.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/23/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		↑↑↑	↑	↑↑	↑	↑↑	↑	↑↑	
Volume (vph)	1	1881	554	84	93	114	4	1618	307
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.91	1.00	0.88	1.00	0.95	1.00	0.91	
Frbp, ped/bikes		1.00	0.94	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85	0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		5085	1485	2787	1770	3539	1585	2882	
Flt Permitted		1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		5085	1485	2787	1770	3539	1585	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	1881	554	84	93	114	4	1618	307
RTOR Reduction (vph)	0	0	0	5	0	0	0	28	0
Lane Group Flow (vph)	0	1882	554	79	93	114	651	1250	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split		Perm	custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases			2	1	1				
Actuated Green, G (s)		40.0	40.0	6.5	6.5	6.5	42.0	42.0	
Effective Green, g (s)		40.0	40.0	6.0	6.0	6.0	42.0	42.0	
Actuated g/C Ratio		0.40	0.40	0.06	0.06	0.06	0.42	0.42	
Clearance Time (s)		4.0	4.0	3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		2034	594	167	106	212	666	1210	
v/s Ratio Prot		0.37				0.03	0.41	c0.43	
v/s Ratio Perm			c0.37	0.03	c0.05				
v/c Ratio		0.93	0.93	0.47	0.88	0.54	0.98	1.03	
Uniform Delay, d1		28.6	28.7	45.5	46.6	45.7	28.5	29.0	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		8.7	23.6	0.8	49.2	1.3	29.1	34.8	
Delay (s)		37.3	52.3	46.3	95.8	47.0	57.6	63.8	
Level of Service		D	D	D	F	D	E	E	
Approach Delay (s)		40.7				68.9	61.7		
Approach LOS		D				E	E		

Intersection Summary

HCM Average Control Delay	50.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/23/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	93	185	201	60	126	45	651	160	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.5	5.0	4.5	4.5	5.0	4.5	
Lane Util. Factor	0.95	0.86	0.91	0.95	0.97	1.00	0.95	1.00	
Frt	1.00	0.98	0.85	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1681	1574	1441	1504	3433	1863	3539	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)	1681	1574	1441	1504	3433	1863	3539	1583	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	93	185	201	60	126	45	651	160	18
RTOR Reduction (vph)	0	0	1	36	0	0	0	4	0
Lane Group Flow (vph)	84	216	184	18	126	45	651	174	0
Turn Type	Perm		Perm	Perm	Prot			Perm	
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2				4	
Actuated Green, G (s)	34.5	34.5	34.5	34.5	12.5	56.5	39.5	39.5	
Effective Green, g (s)	34.0	34.0	34.5	34.0	12.5	56.5	39.0	39.5	
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.12	0.56	0.39	0.40	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lane Grp Cap (vph)	572	535	497	511	429	1053	1380	625	
v/s Ratio Prot					c0.04	0.02	c0.18		
v/s Ratio Perm	0.05	0.14	0.13	0.01				0.11	
v/c Ratio	0.15	0.40	0.37	0.04	0.29	0.04	0.47	0.28	
Uniform Delay, d1	22.9	25.2	24.6	22.0	39.7	9.7	22.8	20.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	2.3	2.1	0.1	1.7	0.1	1.2	1.1	
Delay (s)	23.5	27.5	26.7	22.2	41.5	9.8	24.0	21.7	
Level of Service	C	C	C	C	D	A	C	C	
Approach Delay (s)		26.1				33.1	23.5		
Approach LOS		C				C	C		

Intersection Summary

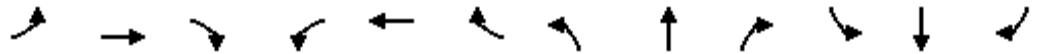
HCM Average Control Delay	25.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	688	312	0	0	102	76	163	655	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.96		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.94		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4591		3433	5024				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4591		3433	5024				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	688	312	0	0	102	76	163	655	35	0	0	0
RTOR Reduction (vph)	0	0	0	0	33	0	0	8	0	0	0	0
Lane Group Flow (vph)	688	312	0	0	145	0	163	682	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot					custom						
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	23.5	45.5			18.5		16.5	16.5				
Effective Green, g (s)	23.0	45.0			18.0		17.0	17.0				
Actuated g/C Ratio	0.33	0.64			0.26		0.24	0.24				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	1128	2275			1181		834	1220				
v/s Ratio Prot	c0.20	c0.09			0.03		0.05	c0.14				
v/s Ratio Perm												
v/c Ratio	0.61	0.14			0.12		0.20	0.56				
Uniform Delay, d1	19.7	4.9			19.9		21.1	23.2				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	2.5	0.1			0.2		0.5	1.9				
Delay (s)	22.2	5.0			20.2		21.6	25.1				
Level of Service	C	A			C		C	C				
Approach Delay (s)		16.8			20.2			24.4			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	20.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑					↑	↑	↑
Volume (vph)	0	546	669	711	414	0	0	0	0	453	3	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95		0.97	1.00					0.95	0.95	1.00
Frbp, ped/bikes		0.91		1.00	1.00					1.00	1.00	0.83
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	1.00
Frt		0.92		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		2965		3433	1863					1681	1686	1312
Flt Permitted		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		2965		3433	1863					1681	1686	1312
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	546	669	711	414	0	0	0	0	453	3	375
RTOR Reduction (vph)	0	163	0	0	0	0	0	0	0	0	0	308
Lane Group Flow (vph)	0	1052	0	711	414	0	0	0	0	226	230	67
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9 3 12 13						4	4	
Permitted Phases												4
Actuated Green, G (s)		24.0		39.5	66.5					16.0	16.0	16.0
Effective Green, g (s)		24.0		38.0	66.0					16.0	16.0	16.0
Actuated g/C Ratio		0.27		0.42	0.73					0.18	0.18	0.18
Clearance Time (s)		4.0								4.0	4.0	4.0
Vehicle Extension (s)		6.0								5.0	5.0	5.0
Lane Grp Cap (vph)		791		1449	1366					299	300	233
v/s Ratio Prot		c0.35		c0.21	0.22					0.13	c0.14	
v/s Ratio Perm												0.05
v/c Ratio		1.33		0.49	0.30					0.76	0.77	0.29
Uniform Delay, d1		33.0		18.9	4.1					35.1	35.2	32.1
Progression Factor		1.00		0.05	0.03					1.00	1.00	1.00
Incremental Delay, d2		157.3		0.4	0.2					12.2	13.0	1.4
Delay (s)		190.3		1.3	0.3					47.4	48.2	33.5
Level of Service		F		A	A					D	D	C
Approach Delay (s)		190.3			1.0			0.0			41.3	
Approach LOS		F			A			A			D	

Intersection Summary

HCM Average Control Delay	84.1	HCM Level of Service	F
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗↗		↕	↗			
Volume (vph)	355	660	0	0	1073	1662	53	9	857	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	0.88		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.86		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.87	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)	1770	3539			3539	2406		1531	1504			
Flt Permitted	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)	1770	3539			3539	2406		1531	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	355	660	0	0	1073	1662	53	9	857	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	928	0	281	36	0	0	0
Lane Group Flow (vph)	355	660	0	0	1073	734	0	184	418	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot					custom	Split		custom			
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	16.4	34.2			36.5	33.0		26.1	48.8			
Effective Green, g (s)	15.9	33.7			33.0	33.0		25.6	43.8			
Actuated g/C Ratio	0.18	0.37			0.37	0.37		0.28	0.49			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	313	1325			1298	882		435	732			
v/s Ratio Prot	c0.20	0.19			0.30	c0.17		0.12	c0.28			
v/s Ratio Perm						0.13						
v/c Ratio	1.13	0.50			0.83	0.83		0.42	0.57			
Uniform Delay, d1	37.0	21.6			25.9	26.0		26.2	16.4			
Progression Factor	1.07	0.26			0.75	1.46		1.00	1.00			
Incremental Delay, d2	64.5	0.1			0.5	0.7		1.4	1.7			
Delay (s)	104.0	5.8			20.0	38.7		27.6	18.1			
Level of Service	F	A			C	D		C	B			
Approach Delay (s)		40.1			31.4			22.9			0.0	
Approach LOS		D			C			C			A	

Intersection Summary

HCM Average Control Delay	31.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	113.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑↑		↘	↕			↖	↗
Volume (vph)	199	801	606	82	1379	36	1319	75	206	74	70	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.6	4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		0.95	0.95			1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.91	1.00	1.00		1.00	0.99			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	0.98	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.97			0.97	1.00
Satd. Flow (prot)	1770	3539	1444	1733	5048		1681	1624			1816	1583
Flt Permitted	0.14	1.00	1.00	0.29	1.00		0.67	0.72			0.35	1.00
Satd. Flow (perm)	267	3539	1444	531	5048		1177	1206			658	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	199	801	606	82	1379	36	1319	75	206	74	70	259
RTOR Reduction (vph)	0	0	381	0	3	0	0	14	0	0	0	94
Lane Group Flow (vph)	199	801	225	82	1412	0	805	781	0	0	144	165
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt		Perm	Perm			Perm			Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6		6	2			8		4			4
Actuated Green, G (s)	33.4	33.4	33.4	24.4	24.4		48.5	48.5			48.5	48.5
Effective Green, g (s)	32.9	34.0	33.4	25.0	25.0		48.0	48.0			48.0	48.0
Actuated g/C Ratio	0.37	0.38	0.37	0.28	0.28		0.53	0.53			0.53	0.53
Clearance Time (s)	3.5	4.6	4.6	4.6	4.6		3.5	3.5			3.5	3.5
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	0.2			0.2	0.2
Lane Grp Cap (vph)	181	1337	536	148	1402		628	643			351	844
v/s Ratio Prot	c0.06	0.23			0.28							
v/s Ratio Perm	c0.34		0.16	0.15			c0.68	0.65			0.22	0.10
v/c Ratio	1.10	0.60	0.42	0.55	1.01		1.28	1.21			0.41	0.20
Uniform Delay, d1	28.1	22.5	21.1	27.7	32.5		21.0	21.0			12.5	10.9
Progression Factor	0.88	0.87	0.73	1.00	1.00		0.86	0.85			1.00	1.00
Incremental Delay, d2	92.0	0.4	0.2	14.1	25.8		132.0	102.8			0.3	0.0
Delay (s)	116.6	20.1	15.5	41.9	58.3		150.1	120.6			12.8	11.0
Level of Service	F	C	B	D	E		F	F			B	B
Approach Delay (s)		30.3			57.4			135.4			11.6	
Approach LOS		C			E			F			B	

Intersection Summary

HCM Average Control Delay	69.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	105.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	779	135	137	1201	18	352	11	651	10	116	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	3.5	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3441		1770	3528		1681	1690	1548	1770	1804	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3441		1770	3528		1681	1690	1548	1770	1804	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	48	779	135	137	1201	18	352	11	651	10	116	31
RTOR Reduction (vph)	0	8	0	0	1	0	0	0	326	0	7	0
Lane Group Flow (vph)	48	906	0	137	1218	0	180	183	325	10	140	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split		pm+ov	Split		
Protected Phases	1	6		5	2		8	8	5	7	7	
Permitted Phases									8			
Actuated Green, G (s)	7.3	38.3		12.6	43.6		16.3	16.3	28.9	12.3	12.3	
Effective Green, g (s)	6.3	38.3		11.6	43.6		15.8	15.8	27.9	11.8	11.8	
Actuated g/C Ratio	0.07	0.41		0.12	0.47		0.17	0.17	0.30	0.13	0.13	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.0	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	119	1410		220	1645		284	286	462	223	228	
v/s Ratio Prot	0.03	0.26		0.08	c0.35		0.11	0.11	c0.09	0.01	c0.08	
v/s Ratio Perm									0.12			
v/c Ratio	0.40	0.64		0.62	0.74		0.63	0.64	0.70	0.04	0.61	
Uniform Delay, d1	41.8	22.1		38.9	20.3		36.2	36.2	29.1	35.9	38.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8	0.8		3.9	1.6		3.4	3.4	3.9	0.0	3.4	
Delay (s)	42.6	22.9		42.8	21.9		39.5	39.6	33.1	35.9	42.1	
Level of Service	D	C		D	C		D	D	C	D	D	
Approach Delay (s)		23.9			24.0			35.4			41.7	
Approach LOS		C			C			D			D	

Intersection Summary

HCM Average Control Delay	28.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	93.5	Sum of lost time (s)	11.0
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

6/23/2007



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	1535	262	50	0	50	63	4622	20	1886	523
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1535	262	50	0	50	63	4622	20	1886	523
RTOR Reduction (vph)	0	87	0	24	0	0	0	4	0	268
Lane Group Flow (vph)	1535	175	0	76	0	63	4622	16	1886	255
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	36.0	36.0		14.9		7.3	81.1	63.1	69.3	69.3
Effective Green, g (s)	36.0	35.0		13.9		7.3	81.1	63.1	69.3	69.3
Actuated g/C Ratio	0.24	0.23		0.09		0.05	0.54	0.42	0.46	0.46
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	824	369		157		86	3465	666	3101	731
v/s Ratio Prot	c0.45	0.11		c0.04		0.04	c0.72		0.28	0.16
v/s Ratio Perm								0.01		
v/c Ratio	1.86	0.47		0.48		0.73	1.33	0.02	0.61	0.35
Uniform Delay, d1	57.0	49.6		64.6		70.4	34.5	25.4	30.2	25.9
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	392.9	1.0		2.3		27.2	152.3	0.1	0.3	0.3
Delay (s)	449.9	50.5		66.9		97.6	186.8	25.5	30.5	26.2
Level of Service	F	D		E		F	F	C	C	C
Approach Delay (s)				66.9			184.9			
Approach LOS				E			F			

Intersection Summary

HCM Average Control Delay	183.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	139.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/23/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	2	678	820	1	42	676
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.87		1.00		1.00	1.00
Flt Protected	1.00		1.00		0.95	1.00
Satd. Flow (prot)	1612		1862		1770	1863
Flt Permitted	1.00		1.00		0.95	1.00
Satd. Flow (perm)	1612		1862		1770	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2	678	820	1	42	676
RTOR Reduction (vph)	138	0	0	0	0	0
Lane Group Flow (vph)	542	0	821	0	42	676
Turn Type					Prot	
Protected Phases	8		2		1	6
Permitted Phases						
Actuated Green, G (s)	31.0		42.0		5.0	51.0
Effective Green, g (s)	31.0		42.0		5.0	51.0
Actuated g/C Ratio	0.34		0.47		0.06	0.57
Clearance Time (s)	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	555		869		98	1056
v/s Ratio Prot	c0.34		c0.44		0.02	c0.36
v/s Ratio Perm						
v/c Ratio	0.98		0.94		0.43	0.64
Uniform Delay, d1	29.1		22.9		41.1	13.3
Progression Factor	1.00		1.00		1.01	0.99
Incremental Delay, d2	31.8		19.7		10.3	1.0
Delay (s)	61.0		42.6		51.9	14.2
Level of Service	E		D		D	B
Approach Delay (s)	61.0		42.6			16.4
Approach LOS	E		D			B

Intersection Summary

HCM Average Control Delay	39.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	92.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

20: North B St & 12th Street

6/23/2007



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↘↗	
Volume (vph)	37	325	179	131	149	31	4	27	19	55	2013	425
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.98			0.96			0.97	
Flpb, ped/bikes		1.00		0.98	1.00			1.00			0.87	
Frt		0.95		1.00	0.97			0.95			0.97	
Flt Protected		1.00		0.95	1.00			1.00			0.96	
Satd. Flow (prot)		3336		1734	1775			1696			5343	
Flt Permitted		0.89		0.23	1.00			1.00			0.96	
Satd. Flow (perm)		2990		424	1775			1696			5343	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	37	325	179	131	149	31	4	27	19	55	2013	425
RTOR Reduction (vph)	0	40	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	501	0	131	180	0	0	35	0	0	2493	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		36.0		36.0	36.0			13.6			69.4	
Effective Green, g (s)		36.0		36.0	36.0			13.6			72.4	
Actuated g/C Ratio		0.24		0.24	0.24			0.09			0.48	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)		718		102	426			154			2579	
v/s Ratio Prot					0.10							
v/s Ratio Perm		0.17		0.31				0.02			0.47	
v/c Ratio		0.70		1.28	0.42			0.22			0.97	
Uniform Delay, d1		52.0		57.0	48.2			63.3			37.6	
Progression Factor		1.00		1.00	1.00			1.00			0.43	
Incremental Delay, d2		3.8		183.5	1.4			1.5			10.2	
Delay (s)		55.8		240.5	49.6			64.9			26.3	
Level of Service		E		F	D			E			C	
Approach Delay (s)		55.8			130.0			64.9			26.3	
Approach LOS		E			F			E			C	

Intersection Summary

HCM Average Control Delay	41.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	95.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/23/2007



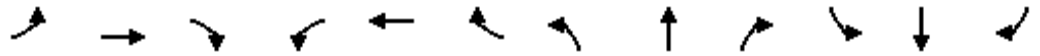
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		TT			TT	T
Volume (vph)	0	993	0	0	50	454
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		0.88			0.91	0.91
Frt		0.85			0.88	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		2787			2973	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		2787			2973	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	993	0	0	50	454
RTOR Reduction (vph)	0	902	0	0	109	109
Lane Group Flow (vph)	0	91	0	0	168	118
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		7.3			41.7	41.7
Effective Green, g (s)		7.3			41.7	41.7
Actuated g/C Ratio		0.09			0.52	0.52
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		254			1550	751
v/s Ratio Prot		c0.03			0.06	c0.08
v/s Ratio Perm						
v/c Ratio		0.36			0.11	0.16
Uniform Delay, d1		34.1			9.7	10.0
Progression Factor		1.00			1.23	1.65
Incremental Delay, d2		0.7			0.1	0.4
Delay (s)		34.8			12.1	16.9
Level of Service		C			B	B
Approach Delay (s)	34.8			0.0	14.2	
Approach LOS	C			A	B	

Intersection Summary			
HCM Average Control Delay	27.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.19		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔			↔	↔		↔↔↔				
Volume (vph)	293	5	0	0	96	1182	61	661	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.95	0.95			0.95	0.95		0.91				
Frt	1.00	1.00			0.87	0.85		1.00				
Flt Protected	0.95	0.95			1.00	1.00		1.00				
Satd. Flow (prot)	1681	1688			1543	1504		5059				
Flt Permitted	0.95	0.95			1.00	1.00		1.00				
Satd. Flow (perm)	1681	1688			1543	1504		5059				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	293	5	0	0	96	1182	61	661	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	34	34	0	1	0	0	0	0
Lane Group Flow (vph)	149	149	0	0	619	593	0	726	0	0	0	0
Turn Type	Split				Perm		Perm					
Protected Phases	4	4			8			2				
Permitted Phases						8	2	2				
Actuated Green, G (s)	18.0	18.0			50.0	50.0		20.0				
Effective Green, g (s)	18.0	18.0			50.0	50.0		20.0				
Actuated g/C Ratio	0.18	0.18			0.50	0.50		0.20				
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)	303	304			772	752		1012				
v/s Ratio Prot	c0.09	0.09			c0.40							
v/s Ratio Perm						0.39		0.14				
v/c Ratio	0.49	0.49			0.80	0.79		0.72				
Uniform Delay, d1	36.9	36.9			20.9	20.6		37.4				
Progression Factor	1.00	1.00			0.95	0.95		1.30				
Incremental Delay, d2	5.6	5.6			4.7	4.5		4.0				
Delay (s)	42.5	42.4			24.5	24.1		52.6				
Level of Service	D	D			C	C		D				
Approach Delay (s)		42.5			24.3			52.6			0.0	
Approach LOS		D			C			D			A	

Intersection Summary

HCM Average Control Delay	35.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Volume (vph)	5	5	5	353	568	437	251	198	5	5	1399	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00			0.95	
Frt		0.95			0.95		1.00	1.00			0.99	
Flt Protected		0.98			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1750			3325		1770	1856			3520	
Flt Permitted		0.67			0.86		0.95	1.00			0.95	
Satd. Flow (perm)		1195			2904		1770	1856			3360	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	353	568	437	251	198	5	5	1399	50
RTOR Reduction (vph)	0	3	0	0	57	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	12	0	0	1301	0	251	202	0	0	1452	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)		37.0			37.0		11.0	55.0			40.0	
Effective Green, g (s)		37.0			37.0		11.0	55.0			40.0	
Actuated g/C Ratio		0.37			0.37		0.11	0.55			0.40	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		442			1074		195	1021			1344	
v/s Ratio Prot							c0.14	0.11				
v/s Ratio Perm		0.01			c0.45						c0.43	
v/c Ratio		0.03			1.21		1.29	0.20			1.08	
Uniform Delay, d1		20.0			31.5		44.5	11.4			30.0	
Progression Factor		1.35			1.05		0.25	0.78			1.00	
Incremental Delay, d2		0.1			103.1		132.9	0.0			49.2	
Delay (s)		27.1			136.4		143.8	8.9			79.2	
Level of Service		C			F		F	A			E	
Approach Delay (s)		27.1			136.4			83.5			79.2	
Approach LOS		C			F			F			E	

Intersection Summary

HCM Average Control Delay	103.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	107.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑						↑↑		↰	↱	
Volume (vph)	4	319	79	0	0	0	0	556	193	1197	866	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0		4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95		0.95	0.95	
Frbp, ped/bikes	1.00	0.97						0.96		1.00	1.00	
Flpb, ped/bikes	0.86	1.00						1.00		1.00	1.00	
Frt	1.00	0.97						0.96		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (prot)	1515	3329						3268		1681	1754	
Flt Permitted	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (perm)	1515	3329						3268		1681	1754	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	556	193	1197	866	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	34	0	0	0	0
Lane Group Flow (vph)	4	376	0	0	0	0	0	715	0	1005	1058	0
Confl. Peds. (#/hr)	72		72							72	72	
Turn Type	Perm						Split					
Protected Phases		1						2		6	6	
Permitted Phases	1											
Actuated Green, G (s)	16.5	16.5						18.5		46.0	46.0	
Effective Green, g (s)	16.5	16.0						18.0		45.5	45.5	
Actuated g/C Ratio	0.16	0.16						0.18		0.46	0.46	
Clearance Time (s)	3.5	3.5						3.5		4.0	4.0	
Lane Grp Cap (vph)	250	533						588		765	798	
v/s Ratio Prot		c0.11						c0.22		0.60	c0.60	
v/s Ratio Perm	0.00											
v/c Ratio	0.02	0.71						1.22		1.31	1.33	
Uniform Delay, d1	35.0	39.8						41.0		27.2	27.2	
Progression Factor	1.48	1.50						0.79		0.43	0.43	
Incremental Delay, d2	0.1	7.2						106.6		144.5	149.7	
Delay (s)	51.8	66.8						138.8		156.3	161.5	
Level of Service	D	E						F		F	F	
Approach Delay (s)		66.6			0.0			138.8			159.0	
Approach LOS		E			A			F			F	

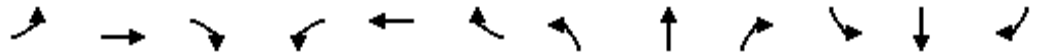
Intersection Summary

HCM Average Control Delay	142.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	101.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	1273	335	0	0	0	0	0	0	386	622	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.98								1.00	1.00	
Flpb, ped/bikes		1.00								0.93	0.99	
Frt		0.97								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3370								1494	3353	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3370								1494	3353	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1273	335	0	0	0	0	0	0	386	622	0
RTOR Reduction (vph)	0	47	0	0	0	0	0	0	0	103	14	0
Lane Group Flow (vph)	0	1561	0	0	0	0	0	0	0	221	670	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		22.5								15.5	15.5	
Effective Green, g (s)		22.0								15.0	15.0	
Actuated g/C Ratio		0.44								0.30	0.30	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1483								448	1006	
v/s Ratio Prot		0.46										
v/s Ratio Perm										0.15	0.20	
v/c Ratio		1.05								0.49	0.67	
Uniform Delay, d1		14.0								14.4	15.3	
Progression Factor		1.12								0.83	0.80	
Incremental Delay, d2		25.7								3.2	2.9	
Delay (s)		41.4								15.0	15.0	
Level of Service		D								B	B	
Approach Delay (s)		41.4			0.0			0.0			15.0	
Approach LOS		D			A			A			B	
Intersection Summary												
HCM Average Control Delay			31.2									HCM Level of Service C
HCM Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			50.0							13.0		Sum of lost time (s)
Intersection Capacity Utilization			72.5%									ICU Level of Service C
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/23/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	594	164	179	56	490	546
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.93	
Flt Protected	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (prot)	1770	1863	1863	1583	1690	
Flt Permitted	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (perm)	1770	1863	1863	1583	1690	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	594	164	179	56	490	546
RTOR Reduction (vph)	0	0	0	22	29	0
Lane Group Flow (vph)	594	164	179	34	1007	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	42.5	44.9	11.0	85.0	74.0	
Effective Green, g (s)	43.0	44.9	11.0	85.0	74.0	
Actuated g/C Ratio	0.31	0.32	0.08	0.61	0.53	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	544	597	146	1006	893	
v/s Ratio Prot	c0.34	0.09	c0.10	0.02	c0.60	
v/s Ratio Perm				0.00		
v/c Ratio	1.09	0.27	1.23	0.03	1.13	
Uniform Delay, d1	48.5	35.4	64.5	11.0	33.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	66.0	0.4	147.7	0.0	71.8	
Delay (s)	114.5	35.9	212.2	11.0	104.8	
Level of Service	F	D	F	B	F	
Approach Delay (s)		97.5	164.3		104.8	
Approach LOS		F	F		F	

Intersection Summary

HCM Average Control Delay	109.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	3241	55	448	1022	0	0	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					1.00		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6217		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6217		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	3241	55	448	1022	0	0	0	50
RTOR Reduction (vph)	0	0	0	0	2	0	1	0	0	0	0	1
Lane Group Flow (vph)	0	0	0	0	3294	0	447	1022	0	0	0	49
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					64.0		27.5	27.5				27.5
Effective Green, g (s)					65.0		27.0	27.0				27.5
Actuated g/C Ratio					0.65		0.27	0.27				0.28
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					4041		927	908				766
v/s Ratio Prot					c0.53		0.13	c0.30				
v/s Ratio Perm												0.02
v/c Ratio					0.82		0.48	1.13				0.06
Uniform Delay, d1					13.0		30.6	36.5				26.8
Progression Factor					0.66		0.97	0.98				1.00
Incremental Delay, d2					0.5		1.5	68.7				0.2
Delay (s)					9.0		31.2	104.3				26.9
Level of Service					A		C	F				C
Approach Delay (s)		0.0			9.0			82.0			26.9	
Approach LOS		A			A			F			C	

Intersection Summary

HCM Average Control Delay	31.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	41	2019	268	292	339	0	0	21	1126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.86		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.98		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.98		1.00	1.00			0.86	0.85
Flt Protected					1.00		0.95	0.99			1.00	1.00
Satd. Flow (prot)					6155		1610	3356			1514	1504
Flt Permitted					1.00		0.95	0.99			1.00	1.00
Satd. Flow (perm)					6155		1610	3356			1514	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	41	2019	268	292	339	0	0	21	1126
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	12	12
Lane Group Flow (vph)	0	0	0	0	2305	0	204	427	0	0	561	562
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					38.7		14.3	14.3			36.5	36.5
Effective Green, g (s)					38.2		13.8	13.8			36.0	36.0
Actuated g/C Ratio					0.38		0.14	0.14			0.36	0.36
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					2351		222	463			545	541
v/s Ratio Prot							0.13	c0.13			0.37	c0.37
v/s Ratio Perm					0.37							
v/c Ratio					0.98		0.92	0.92			1.03	1.04
Uniform Delay, d1					30.5		42.5	42.6			32.0	32.0
Progression Factor					0.78		1.16	1.17			1.44	1.44
Incremental Delay, d2					12.6		41.2	25.5			20.4	23.8
Delay (s)					36.4		90.7	75.1			66.4	69.7
Level of Service					D		F	E			E	E
Approach Delay (s)		0.0			36.4			80.1			68.0	
Approach LOS		A			D			F			E	

Intersection Summary

HCM Average Control Delay	52.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	123.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/23/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NEL2
Lane Configurations		↑↑↑	↑	↑↑	↑	↑↑	↑	↑↑	
Volume (vph)	1	1187	433	229	294	425	2	491	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.91	1.00	0.88	1.00	0.95	1.00	0.91	
Frbp, ped/bikes		1.00	0.94	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85	0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		5085	1486	2787	1770	3539	1585	2882	
Flt Permitted		1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		5085	1486	2787	1770	3539	1585	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	1187	433	229	294	425	2	491	450
RTOR Reduction (vph)	0	0	0	48	0	0	0	146	0
Lane Group Flow (vph)	0	1188	433	181	294	425	316	481	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split		Perm	custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases			2	1	1				
Actuated Green, G (s)		41.8	41.8	19.8	19.8	19.8	25.3	25.3	
Effective Green, g (s)		41.8	41.8	19.3	19.3	19.3	25.3	25.3	
Actuated g/C Ratio		0.42	0.42	0.20	0.20	0.20	0.26	0.26	
Clearance Time (s)		4.0	4.0	3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		2160	631	547	347	694	408	741	
v/s Ratio Prot		0.23				0.12	c0.20	0.17	
v/s Ratio Perm			c0.29	0.06	c0.17				
v/c Ratio		0.55	0.69	0.33	0.85	0.61	0.77	0.65	
Uniform Delay, d1		21.2	23.0	34.0	38.1	36.1	33.9	32.6	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.0	6.0	0.1	16.5	1.1	9.4	2.2	
Delay (s)		22.3	29.0	34.1	54.6	37.3	43.3	34.8	
Level of Service		C	C	C	D	D	D	C	
Approach Delay (s)		24.0				44.4	37.6		
Approach LOS		C				D	D		

Intersection Summary

HCM Average Control Delay	32.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	98.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/23/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	398	584	725	132	272	58	593	465	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.0	4.5	4.0	3.5	4.0	3.5	
Lane Util. Factor	0.95	0.91	0.95	1.00	0.97	1.00	0.95	1.00	
Frt	1.00	0.98	0.85	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1681	1657	1504	1583	3433	1863	3539	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)	1681	1657	1504	1583	3433	1863	3539	1583	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	398	584	725	132	272	58	593	465	52
RTOR Reduction (vph)	0	0	0	73	0	0	0	4	0
Lane Group Flow (vph)	358	718	631	59	272	58	593	513	0
Turn Type	Perm		Perm	Perm	Prot			Perm	
Protected Phases		6			3	8	4		
Permitted Phases	6	6	6	6				4	
Actuated Green, G (s)	45.0	45.0	45.0	45.0	9.0	47.5	34.5	34.5	
Effective Green, g (s)	44.5	44.5	45.0	44.5	9.0	47.5	34.0	34.5	
Actuated g/C Ratio	0.44	0.44	0.45	0.44	0.09	0.48	0.34	0.34	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	
Lane Grp Cap (vph)	748	737	677	704	309	885	1203	546	
v/s Ratio Prot					c0.08	0.03	0.17		
v/s Ratio Perm	0.21	0.43	0.42	0.04				c0.32	
v/c Ratio	0.48	0.97	0.93	0.08	0.88	0.07	0.49	0.94	
Uniform Delay, d1	19.6	27.2	26.1	16.0	45.0	14.2	26.2	31.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	27.4	21.4	0.2	28.1	0.1	1.4	26.2	
Delay (s)	21.8	54.6	47.5	16.2	73.1	14.4	27.6	57.9	
Level of Service	C	D	D	B	E	B	C	E	
Approach Delay (s)		43.0				62.8	41.7		
Approach LOS		D				E	D		

Intersection Summary

HCM Average Control Delay	44.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/23/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	428	209	0	0	344	83	279	762	44	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.98		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.97		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4858		3433	5020				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4858		3433	5020				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	428	209	0	0	344	83	279	762	44	0	0	0
RTOR Reduction (vph)	0	0	0	0	56	0	0	9	0	0	0	0
Lane Group Flow (vph)	428	209	0	0	371	0	279	797	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		31.0	31.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.44	0.44				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			972		1520	2223				
v/s Ratio Prot	c0.12	0.06			c0.08		0.08	c0.16				
v/s Ratio Perm												
v/c Ratio	0.67	0.13			0.38		0.18	0.36				
Uniform Delay, d1	26.5	11.5			24.3		11.8	12.9				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	5.5	0.2			1.1		0.3	0.5				
Delay (s)	32.1	11.7			25.4		12.1	13.4				
Level of Service	C	B			C		B	B				
Approach Delay (s)		25.4			25.4			13.0			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	19.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑					↑	↑	↑
Volume (vph)	0	452	92	389	203	0	0	0	0	897	0	686
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95		0.97	1.00					0.95	0.95	1.00
Frbp, ped/bikes		0.98		1.00	1.00					1.00	1.00	0.85
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	1.00
Frt		0.97		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3367		3433	1863					1681	1681	1338
Flt Permitted		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3367		3433	1863					1681	1681	1338
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	452	92	389	203	0	0	0	0	897	0	686
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	0	506
Lane Group Flow (vph)	0	523	0	389	203	0	0	0	0	448	449	180
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9 3 12 13						4	4	
Permitted Phases												4
Actuated Green, G (s)		19.7		28.8	51.5					21.0	21.0	21.0
Effective Green, g (s)		19.7		27.3	51.0					21.0	21.0	21.0
Actuated g/C Ratio		0.25		0.34	0.64					0.26	0.26	0.26
Clearance Time (s)		4.0								4.0	4.0	4.0
Vehicle Extension (s)		6.0								5.0	5.0	5.0
Lane Grp Cap (vph)		829		1172	1188					441	441	351
v/s Ratio Prot		c0.16		c0.11	0.11					0.27	c0.27	
v/s Ratio Perm												0.13
v/c Ratio		0.63		0.33	0.17					1.02	1.02	0.51
Uniform Delay, d1		26.9		19.6	5.9					29.5	29.5	25.1
Progression Factor		1.00		0.54	1.32					1.00	1.00	1.00
Incremental Delay, d2		2.6		0.3	0.1					46.9	47.5	2.5
Delay (s)		29.5		10.9	7.9					76.4	77.0	27.7
Level of Service		C		B	A					E	E	C
Approach Delay (s)		29.5			9.9			0.0			55.5	
Approach LOS		C			A			A			E	

Intersection Summary

HCM Average Control Delay	40.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	127.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗↗		↕	↗			
Volume (vph)	183	1087	0	0	535	463	61	0	1143	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	0.88		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.69		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.86	0.85			
Flt Protected	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)	1770	3539			3539	1922		1523	1504			
Flt Permitted	0.95	1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)	1770	3539			3539	1922		1523	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	183	1087	0	0	535	463	61	0	1143	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	346	0	205	20	0	0	0
Lane Group Flow (vph)	183	1087	0	0	535	117	0	405	574	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot					custom	Split		custom			
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	11.0	34.3			23.8	20.3		26.7	38.7			
Effective Green, g (s)	10.0	33.8			20.3	20.3		26.2	33.7			
Actuated g/C Ratio	0.12	0.42			0.25	0.25		0.33	0.42			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	221	1495			898	488		499	634			
v/s Ratio Prot	0.10	c0.31			0.15	0.02		0.27	c0.38			
v/s Ratio Perm						0.04						
v/c Ratio	0.83	0.73			0.60	0.24		0.81	0.91			
Uniform Delay, d1	34.2	19.3			26.2	23.7		24.6	21.7			
Progression Factor	0.78	0.24			1.27	4.60		1.00	1.00			
Incremental Delay, d2	11.9	1.0			1.5	0.5		10.9	17.4			
Delay (s)	38.4	5.6			34.9	109.5		35.5	39.1			
Level of Service	D	A			C	F		D	D			
Approach Delay (s)		10.4			69.5			37.3			0.0	
Approach LOS		B			E			D			A	

Intersection Summary

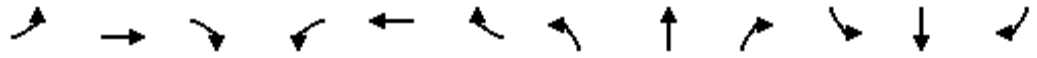
HCM Average Control Delay	36.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	127.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑	↘	↗	↑↑↑		↗	↕			↖	↘
Volume (vph)	206	1435	703	80	526	57	413	60	127	37	64	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.2	4.6	5.2	5.2		4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		0.95	0.95			1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.92	1.00	0.99		1.00	0.98			1.00	1.00
Flpb, ped/bikes	0.98	1.00	1.00	0.99	1.00		1.00	1.00			0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.94			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98			0.98	1.00
Satd. Flow (prot)	1737	3539	1456	1759	4950		1681	1592			1815	1583
Flt Permitted	0.42	1.00	1.00	0.11	1.00		0.69	0.83			0.72	1.00
Satd. Flow (perm)	771	3539	1456	209	4950		1224	1355			1336	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	206	1435	703	80	526	57	413	60	127	37	64	110
RTOR Reduction (vph)	0	0	259	0	15	0	0	24	0	0	0	81
Lane Group Flow (vph)	206	1435	444	80	568	0	297	279	0	0	101	29
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt		Perm	Perm			Perm			Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6		6	2			8		4			4
Actuated Green, G (s)	51.6	50.5	50.5	43.0	43.0		21.4	21.4			21.4	21.4
Effective Green, g (s)	51.1	49.9	50.5	42.4	42.4		20.9	20.9			20.9	20.9
Actuated g/C Ratio	0.64	0.62	0.63	0.53	0.53		0.26	0.26			0.26	0.26
Clearance Time (s)	3.5	4.6	4.6	4.6	4.6		3.5	3.5			3.5	3.5
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	0.2			0.2	0.2
Lane Grp Cap (vph)	535	2207	919	111	2624		320	354			349	414
v/s Ratio Prot	0.02	c0.41			0.11							
v/s Ratio Perm	0.23		0.30	c0.38			c0.24	0.21			0.08	0.02
v/c Ratio	0.39	0.65	0.48	0.72	0.22		0.93	0.79			0.29	0.07
Uniform Delay, d1	7.1	9.5	7.8	14.3	10.0		28.8	27.5			23.6	22.2
Progression Factor	0.78	0.80	0.79	1.00	1.00		0.58	0.52			1.00	1.00
Incremental Delay, d2	0.1	0.3	0.1	33.1	0.2		29.9	9.5			0.2	0.0
Delay (s)	5.7	7.9	6.3	47.4	10.2		46.7	23.8			23.8	22.3
Level of Service	A	A	A	D	B		D	C			C	C
Approach Delay (s)		7.2			14.7			35.1			23.0	
Approach LOS		A			B			D			C	

Intersection Summary

HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	1238	252	580	641	22	91	48	260	22	88	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	3.5	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.98	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3423		1770	3513		1681	1741	1560	1770	1774	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.98	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3423		1770	3513		1681	1741	1560	1770	1774	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	39	1238	252	580	641	22	91	48	260	22	88	41
RTOR Reduction (vph)	0	13	0	0	2	0	0	0	53	0	14	0
Lane Group Flow (vph)	39	1477	0	580	661	0	68	71	207	22	115	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split		pm+ov	Split		
Protected Phases	1	6		5	2		8	8	5	7	7	
Permitted Phases									8			
Actuated Green, G (s)	3.9	47.4		30.3	73.8		14.9	14.9	45.2	6.6	6.6	
Effective Green, g (s)	2.9	47.4		29.3	73.8		14.4	14.4	44.2	6.1	6.1	
Actuated g/C Ratio	0.03	0.42		0.26	0.65		0.13	0.13	0.39	0.05	0.05	
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.0	3.5	3.5	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	45	1433		458	2290		214	221	609	95	96	
v/s Ratio Prot	0.02	c0.43		c0.33	0.19		0.04	0.04	c0.09	0.01	c0.06	
v/s Ratio Perm									0.04			
v/c Ratio	0.87	1.03		1.27	0.29		0.32	0.32	0.34	0.23	1.20	
Uniform Delay, d1	55.0	32.9		42.0	8.4		44.9	45.0	24.2	51.3	53.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	82.1	31.9		136.3	0.0		0.3	0.3	0.1	0.5	153.8	
Delay (s)	137.1	64.8		178.3	8.5		45.2	45.3	24.4	51.8	207.3	
Level of Service	F	E		F	A		D	D	C	D	F	
Approach Delay (s)		66.7			87.7			31.6			184.7	
Approach LOS		E			F			C			F	

Intersection Summary

HCM Average Control Delay	75.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	113.2	Sum of lost time (s)	15.5
Intersection Capacity Utilization	108.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

6/26/2007



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	891	76	20	0	20	62	1947	50	3692	1299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	891	76	20	0	20	62	1947	50	3692	1299
RTOR Reduction (vph)	0	43	0	18	0	0	0	26	0	375
Lane Group Flow (vph)	891	33	0	22	0	62	1947	24	3692	924
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	28.0	28.0		13.6		5.5	78.4	61.4	68.4	68.4
Effective Green, g (s)	28.0	27.0		12.6		5.5	78.4	61.4	68.4	68.4
Actuated g/C Ratio	0.19	0.18		0.08		0.04	0.52	0.41	0.46	0.46
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	641	285		142		65	3349	648	3061	722
v/s Ratio Prot	c0.26	0.02		c0.01		c0.04	0.30		0.55	c0.58
v/s Ratio Perm								0.02		
v/c Ratio	1.39	0.11		0.15		0.95	0.58	0.04	1.21	1.28
Uniform Delay, d1	61.0	51.5		63.7		72.1	24.5	26.6	40.8	40.8
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	185.0	0.2		0.5		94.7	0.3	0.1	96.1	136.5
Delay (s)	246.0	51.7		64.2		166.8	24.8	26.7	136.9	177.3
Level of Service	F	D		E		F	C	C	F	F
Approach Delay (s)				64.2			29.1			
Approach LOS				E			C			

Intersection Summary

HCM Average Control Delay	126.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/26/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T		L	R
Volume (vph)	2	123	411	1	147	617
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.87		1.00		1.00	1.00
Flt Protected	1.00		1.00		0.95	1.00
Satd. Flow (prot)	1614		1862		1770	1863
Flt Permitted	1.00		1.00		0.95	1.00
Satd. Flow (perm)	1614		1862		1770	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2	123	411	1	147	617
RTOR Reduction (vph)	112	0	0	0	0	0
Lane Group Flow (vph)	13	0	412	0	147	617
Turn Type					Prot	
Protected Phases	8		2		1	6
Permitted Phases						
Actuated Green, G (s)	6.9		23.3		37.8	65.1
Effective Green, g (s)	6.9		23.3		37.8	65.1
Actuated g/C Ratio	0.09		0.29		0.47	0.81
Clearance Time (s)	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	139		542		836	1516
v/s Ratio Prot	c0.01		c0.22		0.08	c0.33
v/s Ratio Perm						
v/c Ratio	0.09		0.76		0.18	0.41
Uniform Delay, d1	33.7		25.8		12.1	2.1
Progression Factor	1.00		1.00		0.99	0.87
Incremental Delay, d2	0.3		6.2		0.4	0.1
Delay (s)	33.9		32.0		12.4	1.9
Level of Service	C		C		B	A
Approach Delay (s)	33.9		32.0			4.0
Approach LOS	C		C			A

Intersection Summary

HCM Average Control Delay	15.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

19: North B St & 10th St

6/26/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	87	111	635	271	88	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	
Lane Util. Factor		0.95	0.95		1.00	
Frt		1.00	0.96		0.93	
Flt Protected		0.98	1.00		0.98	
Satd. Flow (prot)		3463	3380		1687	
Flt Permitted		0.66	1.00		0.98	
Satd. Flow (perm)		2351	3380		1687	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	87	111	635	271	88	107
RTOR Reduction (vph)	0	0	72	0	80	0
Lane Group Flow (vph)	0	198	834	0	115	0
Turn Type	Perm					
Protected Phases		2	6		4	
Permitted Phases	2					
Actuated Green, G (s)		29.4	29.4		12.6	
Effective Green, g (s)		29.4	29.4		12.6	
Actuated g/C Ratio		0.59	0.59		0.25	
Clearance Time (s)		4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0		3.0	
Lane Grp Cap (vph)		1382	1987		425	
v/s Ratio Prot			c0.25		c0.07	
v/s Ratio Perm		0.08				
v/c Ratio		0.14	0.42		0.27	
Uniform Delay, d1		4.6	5.6		15.0	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.7		0.3	
Delay (s)		4.9	6.3		15.4	
Level of Service		A	A		B	
Approach Delay (s)		4.9	6.3		15.4	
Approach LOS		A	A		B	

Intersection Summary

HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

20: North B St & 12th Street

6/26/2007



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↘↗	
Volume (vph)	12	82	105	37	433	29	10	60	34	28	2994	503
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.99			0.97			0.97	
Flpb, ped/bikes		1.00		0.95	1.00			1.00			0.86	
Frt		0.92		1.00	0.99			0.96			0.98	
Flt Protected		1.00		0.95	1.00			1.00			0.96	
Satd. Flow (prot)		3244		1689	1831			1717			5358	
Flt Permitted		0.67		0.53	1.00			1.00			0.96	
Satd. Flow (perm)		2171		948	1831			1717			5358	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	12	82	105	37	433	29	10	60	34	28	2994	503
RTOR Reduction (vph)	0	88	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	112	0	37	462	0	0	92	0	0	3525	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		25.0		25.0	25.0			15.6			90.4	
Effective Green, g (s)		25.0		25.0	25.0			15.6			93.4	
Actuated g/C Ratio		0.17		0.17	0.17			0.10			0.62	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)		362		158	305			179			3336	
v/s Ratio Prot					c0.25							
v/s Ratio Perm		0.05		0.04				0.05			0.66	
v/c Ratio		0.31		0.23	1.51			0.52			1.06	
Uniform Delay, d1		54.9		54.2	62.5			63.6			28.3	
Progression Factor		1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2		1.0		1.6	247.9			4.9			33.2	
Delay (s)		55.9		55.8	310.4			68.6			61.5	
Level of Service		E		E	F			E			E	
Approach Delay (s)		55.9			291.5			68.6			61.5	
Approach LOS		E			F			E			E	

Intersection Summary

HCM Average Control Delay	88.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	105.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: North B St & 16th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	97	12	0	0	16	5	403	1399	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.98			1.00				
Flpb, ped/bikes	0.95	0.96			1.00			0.99				
Frt	1.00	1.00			0.97			1.00				
Flt Protected	0.95	0.96			1.00			0.99				
Satd. Flow (prot)	1593	1633			1775			6287				
Flt Permitted	0.74	0.81			1.00			0.99				
Satd. Flow (perm)	1247	1371			1775			6287				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	12	0	0	16	5	403	1399	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	4	0	0	1	0	0	0	0
Lane Group Flow (vph)	54	55	0	0	17	0	0	1811	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	12.0	12.0			12.0			30.0				
Effective Green, g (s)	12.0	12.0			12.0			30.0				
Actuated g/C Ratio	0.24	0.24			0.24			0.60				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	299	329			426			3772				
v/s Ratio Prot					0.01							
v/s Ratio Perm	c0.04	0.04						0.29				
v/c Ratio	0.18	0.17			0.04			0.48				
Uniform Delay, d1	15.1	15.0			14.6			5.6				
Progression Factor	1.00	1.00			1.00			0.30				
Incremental Delay, d2	1.3	1.1			0.2			0.4				
Delay (s)	16.4	16.1			14.8			2.1				
Level of Service	B	B			B			A				
Approach Delay (s)		16.3			14.8			2.1			0.0	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM Average Control Delay			3.0				HCM Level of Service		A			
HCM Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)		8.0			
Intersection Capacity Utilization			71.7%				ICU Level of Service		C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/26/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		TT			TT	T
Volume (vph)	0	233	0	0	294	567
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		0.88			0.91	0.91
Frt		0.85			0.93	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		2787			3140	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		2787			3140	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	233	0	0	294	567
RTOR Reduction (vph)	0	216	0	0	139	139
Lane Group Flow (vph)	0	17	0	0	439	144
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		5.5			38.0	38.0
Effective Green, g (s)		5.5			38.0	38.0
Actuated g/C Ratio		0.07			0.51	0.51
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		206			1602	735
v/s Ratio Prot		c0.01			c0.14	0.10
v/s Ratio Perm						
v/c Ratio		0.08			0.27	0.20
Uniform Delay, d1		32.2			10.4	9.9
Progression Factor		1.00			1.00	1.00
Incremental Delay, d2		0.2			0.4	0.6
Delay (s)		32.3			10.8	10.5
Level of Service		C			B	B
Approach Delay (s)	32.3			0.0	10.7	
Approach LOS	C			A	B	

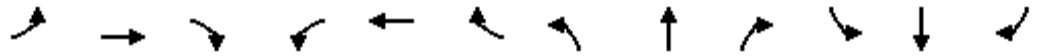
Intersection Summary

HCM Average Control Delay	15.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	74.5	Sum of lost time (s)	31.0
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

37: F Street & 7th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑						↔↔↔	
Volume (vph)	0	5	5	50	19	0	0	0	0	259	829	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	
Lane Util. Factor		1.00		1.00	1.00						0.91	
Frt		0.93		1.00	1.00						0.99	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		1737		1770	1863						4997	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		1737		1770	1863						4997	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	5	5	50	19	0	0	0	0	259	829	47
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	0	0	7	0
Lane Group Flow (vph)	0	6	0	50	19	0	0	0	0	0	1128	0
Turn Type				Split							Perm	
Protected Phases		4		8	8							6
Permitted Phases										6		
Actuated Green, G (s)		16.0		24.0	24.0						18.0	
Effective Green, g (s)		16.0		24.0	24.0						18.0	
Actuated g/C Ratio		0.23		0.34	0.34						0.26	
Clearance Time (s)		4.0		4.0	4.0						4.0	
Lane Grp Cap (vph)		397		607	639						1285	
v/s Ratio Prot		c0.00		c0.03	0.01							
v/s Ratio Perm											0.23	
v/c Ratio		0.02		0.08	0.03						0.88	
Uniform Delay, d1		20.9		15.6	15.3						24.9	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		0.1		0.3	0.1						8.7	
Delay (s)		21.0		15.8	15.4						33.7	
Level of Service		C		B	B						C	
Approach Delay (s)		21.0			15.7			0.0			33.7	
Approach LOS		C			B			A			C	

Intersection Summary

HCM Average Control Delay	32.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗		↖↗↘				
Volume (vph)	45	5	0	0	103	782	105	618	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.95	0.95			0.95	0.95		0.91				
Frt	1.00	1.00			0.88	0.85		1.00				
Flt Protected	0.95	0.96			1.00	1.00		0.99				
Satd. Flow (prot)	1681	1702			1565	1504		5044				
Flt Permitted	0.95	0.96			1.00	1.00		0.99				
Satd. Flow (perm)	1681	1702			1565	1504		5044				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	45	5	0	0	103	782	105	618	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	120	202	0	1	0	0	0	0
Lane Group Flow (vph)	25	25	0	0	327	236	0	727	0	0	0	0
Turn Type	Split				Perm		Perm					
Protected Phases	4	4			8			2				
Permitted Phases						8	2	2				
Actuated Green, G (s)	18.0	18.0			41.0	41.0		29.0				
Effective Green, g (s)	18.0	18.0			41.0	41.0		29.0				
Actuated g/C Ratio	0.18	0.18			0.41	0.41		0.29				
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)	303	306			642	617		1463				
v/s Ratio Prot	c0.01	0.01			c0.21							
v/s Ratio Perm						0.16		0.14				
v/c Ratio	0.08	0.08			0.51	0.38		0.50				
Uniform Delay, d1	34.1	34.1			22.0	20.6		29.5				
Progression Factor	1.00	1.00			0.46	0.61		0.75				
Incremental Delay, d2	0.5	0.5			0.7	0.4		0.9				
Delay (s)	34.7	34.6			10.7	13.1		23.1				
Level of Service	C	C			B	B		C				
Approach Delay (s)		34.7			11.9			23.1			0.0	
Approach LOS		C			B			C			A	

Intersection Summary

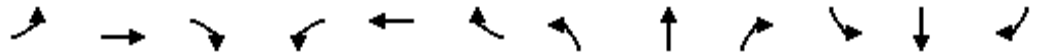
HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Volume (vph)	5	5	5	127	838	278	473	275	5	5	616	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00			0.95	
Frt		0.95			0.97		1.00	1.00			0.99	
Flt Protected		0.98			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1750			3403		1770	1858			3507	
Flt Permitted		0.75			0.91		0.95	1.00			0.95	
Satd. Flow (perm)		1333			3127		1770	1858			3342	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	127	838	278	473	275	5	5	616	39
RTOR Reduction (vph)	0	3	0	0	27	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	12	0	0	1216	0	473	280	0	0	655	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)		38.0			38.0		28.0	54.0			22.0	
Effective Green, g (s)		38.0			38.0		28.0	54.0			22.0	
Actuated g/C Ratio		0.38			0.38		0.28	0.54			0.22	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		507			1188		496	1003			735	
v/s Ratio Prot							c0.27	0.15				
v/s Ratio Perm		0.01			c0.39						c0.20	
v/c Ratio		0.02			1.02		0.95	0.28			0.89	
Uniform Delay, d1		19.4			31.0		35.4	12.5			37.8	
Progression Factor		0.38			0.70		0.82	0.05			1.00	
Incremental Delay, d2		0.1			25.4		17.5	0.3			15.3	
Delay (s)		7.5			47.3		46.3	0.9			53.2	
Level of Service		A			D		D	A			D	
Approach Delay (s)		7.5			47.3			29.4			53.2	
Approach LOS		A			D			C			D	

Intersection Summary

HCM Average Control Delay	43.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑						↑↑		↖	↗	
Volume (vph)	20	376	55	0	0	0	0	972	280	497	230	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0		4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95		0.95	0.95	
Frbp, ped/bikes	1.00	0.98						0.97		1.00	1.00	
Flpb, ped/bikes	0.86	1.00						1.00		1.00	1.00	
Frt	1.00	0.98						0.97		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	0.98	
Satd. Flow (prot)	1515	3404						3303		1681	1737	
Flt Permitted	0.95	1.00						1.00		0.95	0.98	
Satd. Flow (perm)	1515	3404						3303		1681	1737	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	972	280	497	230	0
RTOR Reduction (vph)	0	12	0	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	20	419	0	0	0	0	0	1225	0	358	369	0
Confl. Peds. (#/hr)	72		72							72	72	
Turn Type	Perm						Split					
Protected Phases		1						2		6	6	
Permitted Phases	1											
Actuated Green, G (s)	15.5	15.5						41.5		24.0	24.0	
Effective Green, g (s)	15.5	15.0						41.0		23.5	23.5	
Actuated g/C Ratio	0.16	0.15						0.41		0.24	0.24	
Clearance Time (s)	3.5	3.5						3.5		4.0	4.0	
Lane Grp Cap (vph)	235	511						1354		395	408	
v/s Ratio Prot		c0.12						c0.37		c0.21	0.21	
v/s Ratio Perm	0.01											
v/c Ratio	0.09	0.82						0.91		0.91	0.90	
Uniform Delay, d1	36.2	41.2						27.7		37.2	37.2	
Progression Factor	1.25	1.27						0.81		0.36	0.36	
Incremental Delay, d2	0.5	10.7						9.3		13.4	12.8	
Delay (s)	45.6	63.1						31.6		26.7	26.1	
Level of Service	D	E						C		C	C	
Approach Delay (s)		62.3			0.0			31.6			26.4	
Approach LOS		E			A			C			C	

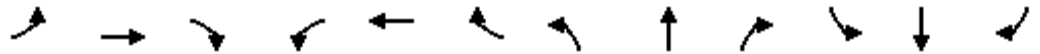
Intersection Summary

HCM Average Control Delay	35.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	79.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↖	↗↑	
Volume (vph)	0	704	125	0	0	0	0	0	0	254	576	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.99								1.00	1.00	
Flpb, ped/bikes		1.00								0.93	1.00	
Frt		0.98								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3416								1494	3373	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3416								1494	3373	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	704	125	0	0	0	0	0	0	254	576	0
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	138	6	0
Lane Group Flow (vph)	0	800	0	0	0	0	0	0	0	91	595	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		18.5								19.5	19.5	
Effective Green, g (s)		18.0								19.0	19.0	
Actuated g/C Ratio		0.36								0.38	0.38	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1230								568	1282	
v/s Ratio Prot		0.23										
v/s Ratio Perm										0.06	0.18	
v/c Ratio		0.65								0.16	0.46	
Uniform Delay, d1		13.4								10.2	11.7	
Progression Factor		1.05								5.10	1.74	
Incremental Delay, d2		1.2								0.6	1.1	
Delay (s)		15.3								52.7	21.4	
Level of Service		B								D	C	
Approach Delay (s)		15.3			0.0			0.0			30.1	
Approach LOS		B			A			A			C	
Intersection Summary												
HCM Average Control Delay			22.7									HCM Level of Service C
HCM Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			50.0							13.0		Sum of lost time (s)
Intersection Capacity Utilization			46.8%									ICU Level of Service A
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↕↕↕				
Volume (vph)	387	721	0	0	0	0	0	849	130	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.99				
Flpb, ped/bikes		0.97						1.00				
Frt		1.00						0.98				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		3391						4929				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		3391						4929				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	387	721	0	0	0	0	0	849	130	0	0	0
RTOR Reduction (vph)	0	124	0	0	0	0	0	41	0	0	0	0
Lane Group Flow (vph)	0	984	0	0	0	0	0	938	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		18.5						19.5				
Effective Green, g (s)		18.0						19.0				
Actuated g/C Ratio		0.36						0.38				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1221						1873				
v/s Ratio Prot								c0.19				
v/s Ratio Perm		0.29										
v/c Ratio		0.81						0.50				
Uniform Delay, d1		14.4						11.9				
Progression Factor		0.76						1.00				
Incremental Delay, d2		5.1						1.0				
Delay (s)		16.1						12.8				
Level of Service		B						B				
Approach Delay (s)		16.1			0.0			12.8			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM Average Control Delay			14.6					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		13.0		
Intersection Capacity Utilization			57.8%					ICU Level of Service		B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/26/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↑	↗	↖	↗
Volume (vph)	490	157	137	19	160	563
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.89	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1649	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1649	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	490	157	137	19	160	563
RTOR Reduction (vph)	0	0	0	10	195	0
Lane Group Flow (vph)	490	157	137	9	528	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	19.6	19.0	8.2	31.8	23.6	
Effective Green, g (s)	20.1	19.0	8.2	31.8	23.6	
Actuated g/C Ratio	0.31	0.30	0.13	0.50	0.37	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	557	554	239	887	609	
v/s Ratio Prot	c0.28	0.08	c0.07	0.00	c0.32	
v/s Ratio Perm				0.00		
v/c Ratio	0.88	0.28	0.57	0.01	0.87	
Uniform Delay, d1	20.8	17.2	26.2	8.1	18.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	14.6	0.5	4.6	0.0	12.4	
Delay (s)	35.4	17.7	30.8	8.1	31.1	
Level of Service	D	B	C	A	C	
Approach Delay (s)		31.1	28.0		31.1	
Approach LOS		C	C		C	

Intersection Summary

HCM Average Control Delay	30.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	63.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	1040	81	148	1416	0	0	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					0.99		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6145		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6145		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1040	81	148	1416	0	0	0	20
RTOR Reduction (vph)	0	0	0	0	13	0	22	0	0	0	0	10
Lane Group Flow (vph)	0	0	0	0	1108	0	126	1416	0	0	0	10
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					17.0		24.5	24.5				24.5
Effective Green, g (s)					18.0		24.0	24.0				24.5
Actuated g/C Ratio					0.36		0.48	0.48				0.49
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					2212		1648	1614				1366
v/s Ratio Prot					c0.18		0.04	c0.42				
v/s Ratio Perm												0.00
v/c Ratio					0.50		0.08	0.88				0.01
Uniform Delay, d1					12.5		7.0	11.7				6.5
Progression Factor					0.64		0.83	0.94				1.00
Incremental Delay, d2					0.6		0.1	5.3				0.0
Delay (s)					8.6		5.9	16.3				6.5
Level of Service					A		A	B				A
Approach Delay (s)		0.0			8.6			15.3			6.5	
Approach LOS		A			A			B			A	

Intersection Summary

HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑		↑	←↑			↑	↑
Volume (vph)	0	0	0	53	837	430	41	505	0	0	29	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.97		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.95		1.00	1.00			0.88	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4675		1610	3389			1558	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4675		1610	3389			1558	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	53	837	430	41	505	0	0	29	255
RTOR Reduction (vph)	0	0	0	0	174	0	0	0	0	0	99	120
Lane Group Flow (vph)	0	0	0	0	1146	0	37	509	0	0	45	20
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom						custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					16.5		15.5	15.5			7.5	7.5
Effective Green, g (s)					16.0		15.0	15.0			7.0	7.0
Actuated g/C Ratio					0.32		0.30	0.30			0.14	0.14
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1496		483	1017			218	211
v/s Ratio Prot							0.02	c0.15			c0.03	0.01
v/s Ratio Perm					0.25							
v/c Ratio					0.77		0.08	0.50			0.21	0.09
Uniform Delay, d1					15.3		12.5	14.4			19.0	18.7
Progression Factor					0.74		1.40	1.34			2.49	3.60
Incremental Delay, d2					3.3		0.3	1.5			0.9	0.4
Delay (s)					14.7		17.8	20.9			48.4	67.8
Level of Service					B		B	C			D	E
Approach Delay (s)		0.0			14.7			20.7			58.0	
Approach LOS		A			B			C			E	

Intersection Summary

HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/26/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		↑↑↑	↑	↑↑	↑	↑↑	↑	↑↑	
Volume (vph)	9	1830	577	94	129	186	8	1742	459
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.91	1.00	0.88	1.00	0.95	1.00	0.91	
Frbp, ped/bikes		1.00	0.94	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85	0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		5084	1485	2787	1770	3539	1585	2882	
Flt Permitted		1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		5084	1485	2787	1770	3539	1585	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	1830	577	94	129	186	8	1742	459
RTOR Reduction (vph)	0	0	0	4	0	0	0	48	0
Lane Group Flow (vph)	0	1839	577	90	129	186	740	1421	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split		Perm	custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases			2	1	1				
Actuated Green, G (s)		36.4	36.4	8.1	8.1	8.1	44.0	44.0	
Effective Green, g (s)		36.4	36.4	7.6	7.6	7.6	44.0	44.0	
Actuated g/C Ratio		0.36	0.36	0.08	0.08	0.08	0.44	0.44	
Clearance Time (s)		4.0	4.0	3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1851	541	212	135	269	697	1268	
v/s Ratio Prot		0.36				0.05	0.47	c0.49	
v/s Ratio Perm			c0.39	0.03	c0.07				
v/c Ratio		0.99	1.07	0.43	0.96	0.69	1.06	1.12	
Uniform Delay, d1		31.7	31.8	44.1	46.0	45.1	28.0	28.0	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		19.4	57.6	0.5	62.9	6.1	51.6	65.4	
Delay (s)		51.1	89.4	44.6	109.0	51.1	79.6	93.4	
Level of Service		D	F	D	F	D	E	F	
Approach Delay (s)		60.3				74.8	88.8		
Approach LOS		E				E	F		

Intersection Summary

HCM Average Control Delay	73.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	121.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/26/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations	↶	↷	↷	↷	↶	↷	↷	↷	↷
Volume (vph)	97	266	332	67	161	59	757	256	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.5	5.0	4.5	4.5	5.0	4.5	
Lane Util. Factor	0.95	0.86	0.91	0.95	0.97	1.00	0.95	1.00	
Frt	1.00	0.98	0.85	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1681	1561	1441	1504	3433	1863	3539	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)	1681	1561	1441	1504	3433	1863	3539	1583	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	266	332	67	161	59	757	256	29
RTOR Reduction (vph)	0	0	1	40	0	0	0	4	0
Lane Group Flow (vph)	87	329	285	20	161	59	757	281	0
Turn Type	Perm		Perm	Perm	Prot			Perm	
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2				4	
Actuated Green, G (s)	34.5	34.5	34.5	34.5	12.5	56.5	39.5	39.5	
Effective Green, g (s)	34.0	34.0	34.5	34.0	12.5	56.5	39.0	39.5	
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.12	0.56	0.39	0.40	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lane Grp Cap (vph)	572	531	497	511	429	1053	1380	625	
v/s Ratio Prot					c0.05	0.03	c0.21		
v/s Ratio Perm	0.05	0.21	0.20	0.01				0.18	
v/c Ratio	0.15	0.62	0.57	0.04	0.38	0.06	0.55	0.45	
Uniform Delay, d1	23.0	27.6	26.7	22.1	40.2	9.8	23.7	22.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	5.4	4.8	0.1	2.5	0.1	1.6	2.3	
Delay (s)	23.5	32.9	31.5	22.2	42.7	9.9	25.2	24.6	
Level of Service	C	C	C	C	D	A	C	C	
Approach Delay (s)		30.5				33.9	25.1		
Approach LOS		C				C	C		

Intersection Summary

HCM Average Control Delay	28.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	710	405	0	0	116	76	257	785	36	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.97		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.94		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4627		3433	5032				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4627		3433	5032				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	710	405	0	0	116	76	257	785	36	0	0	0
RTOR Reduction (vph)	0	0	0	0	20	0	0	7	0	0	0	0
Lane Group Flow (vph)	710	405	0	0	173	0	257	814	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	19.5	41.0			18.0		21.0	21.0				
Effective Green, g (s)	19.0	40.5			17.5		21.5	21.5				
Actuated g/C Ratio	0.27	0.58			0.25		0.31	0.31				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	932	2048			1157		1054	1546				
v/s Ratio Prot	c0.21	c0.11			0.04		0.07	c0.16				
v/s Ratio Perm												
v/c Ratio	0.76	0.20			0.15		0.24	0.53				
Uniform Delay, d1	23.4	7.0			20.4		18.2	20.0				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	5.9	0.2			0.3		0.5	1.3				
Delay (s)	29.3	7.2			20.7		18.7	21.3				
Level of Service	C	A			C		B	C				
Approach Delay (s)		21.3			20.7		20.7				0.0	
Approach LOS		C			C		C				A	

Intersection Summary

HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑					↑	↑	↑
Volume (vph)	0	546	627	711	414	0	0	0	0	529	3	399
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95		0.97	1.00					0.95	0.95	1.00
Frbp, ped/bikes		0.92		1.00	1.00					1.00	1.00	0.83
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	1.00
Frt		0.92		1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		2981		3433	1863					1681	1686	1312
Flt Permitted		1.00		0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		2981		3433	1863					1681	1686	1312
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	546	627	711	414	0	0	0	0	529	3	399
RTOR Reduction (vph)	0	168	0	0	0	0	0	0	0	0	0	328
Lane Group Flow (vph)	0	1006	0	711	414	0	0	0	0	264	268	71
Confl. Peds. (#/hr)			55									55
Turn Type				Prot						Split		Perm
Protected Phases		2		1 9	3 12 13					4	4	
Permitted Phases												4
Actuated Green, G (s)		23.0		40.5	66.5					16.0	16.0	16.0
Effective Green, g (s)		23.0		39.0	66.0					16.0	16.0	16.0
Actuated g/C Ratio		0.26		0.43	0.73					0.18	0.18	0.18
Clearance Time (s)		4.0								4.0	4.0	4.0
Vehicle Extension (s)		6.0								5.0	5.0	5.0
Lane Grp Cap (vph)		762		1488	1366					299	300	233
v/s Ratio Prot		c0.34		c0.21	0.22					0.16	c0.16	
v/s Ratio Perm												0.05
v/c Ratio		1.32		0.48	0.30					0.88	0.89	0.30
Uniform Delay, d1		33.5		18.2	4.1					36.1	36.2	32.2
Progression Factor		1.00		0.10	0.05					1.00	1.00	1.00
Incremental Delay, d2		153.0		0.3	0.2					26.5	28.1	1.5
Delay (s)		186.5		2.2	0.4					62.6	64.3	33.7
Level of Service		F		A	A					E	E	C
Approach Delay (s)		186.5			1.5			0.0			50.7	
Approach LOS		F			A			A			D	

Intersection Summary

HCM Average Control Delay	82.9	HCM Level of Service	F
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗↗		↕	↗			
Volume (vph)	355	740	0	0	1073	1669	81	9	956	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95	0.88		0.95	0.95			
Frbp, ped/bikes	1.00	1.00			1.00	0.78		1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00			
Frt	1.00	1.00			1.00	0.85		0.88	0.85			
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)	1770	3539			3539	2172		1537	1504			
Flt Permitted	0.95	1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)	1770	3539			3539	2172		1537	1504			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	355	740	0	0	1073	1669	81	9	956	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	905	0	202	24	0	0	0
Lane Group Flow (vph)	355	740	0	0	1073	764	0	328	492	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type	Prot					custom	Split		custom			
Protected Phases	5 14	7 14 15			6 11 15	11	8 16	8 16	8 11 16			
Permitted Phases						6 15						
Actuated Green, G (s)	13.5	31.3			37.5	34.0		28.0	51.7			
Effective Green, g (s)	13.0	30.8			34.0	34.0		27.5	46.7			
Actuated g/C Ratio	0.14	0.34			0.38	0.38		0.31	0.52			
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)	256	1211			1337	821		470	780			
v/s Ratio Prot	c0.20	0.21			0.30	c0.20		c0.21	0.33			
v/s Ratio Perm						0.15						
v/c Ratio	1.39	0.61			0.80	0.93		0.70	0.63			
Uniform Delay, d1	38.5	24.6			25.0	26.9		27.6	15.5			
Progression Factor	1.12	0.29			0.73	1.37		1.00	1.00			
Incremental Delay, d2	176.3	0.1			0.4	2.3		5.7	2.3			
Delay (s)	219.2	7.2			18.6	39.0		33.2	17.8			
Level of Service	F	A			B	D		C	B			
Approach Delay (s)		75.9			31.0			25.6			0.0	
Approach LOS		E			C			C			A	

Intersection Summary

HCM Average Control Delay	39.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	116.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	201	1003	532	94	1379	36	1231	66	336	105	65	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.2	4.6	5.2	5.2		4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91		0.95	0.95			1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.91	1.00	1.00		1.00	0.98			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.94			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98			0.97	1.00
Satd. Flow (prot)	1770	3539	1444	1745	5048		1681	1581			1807	1583
Flt Permitted	0.14	1.00	1.00	0.17	1.00		0.64	0.75			0.25	1.00
Satd. Flow (perm)	267	3539	1444	315	5048		1141	1214			468	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	201	1003	532	94	1379	36	1231	66	336	105	65	259
RTOR Reduction (vph)	0	0	282	0	3	0	0	9	0	0	0	94
Lane Group Flow (vph)	201	1003	250	94	1412	0	825	799	0	0	170	165
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type	pm+pt		Perm	Perm			Perm			Perm		Perm
Protected Phases	1	6			2			8			4	
Permitted Phases	6		6	2			8		4			4
Actuated Green, G (s)	33.4	33.4	33.4	24.4	24.4		48.5	48.5			48.5	48.5
Effective Green, g (s)	32.9	32.8	33.4	23.8	23.8		48.0	48.0			48.0	48.0
Actuated g/C Ratio	0.37	0.36	0.37	0.26	0.26		0.53	0.53			0.53	0.53
Clearance Time (s)	3.5	4.6	4.6	4.6	4.6		3.5	3.5			3.5	3.5
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2		0.2	0.2			0.2	0.2
Lane Grp Cap (vph)	181	1290	536	83	1335		609	647			250	844
v/s Ratio Prot	c0.06	0.28			0.28							
v/s Ratio Perm	c0.34		0.17	0.30			c0.72	0.66			0.36	0.10
v/c Ratio	1.11	0.78	0.47	1.13	1.06		1.35	1.24			0.68	0.20
Uniform Delay, d1	28.0	25.4	21.5	33.1	33.1		21.0	21.0			15.4	10.9
Progression Factor	0.89	0.90	0.65	1.00	1.00		0.78	0.77			1.00	1.00
Incremental Delay, d2	92.0	2.2	0.2	139.1	41.5		163.7	111.0			5.9	0.0
Delay (s)	116.8	25.0	14.3	172.2	74.6		180.2	127.2			21.3	11.0
Level of Service	F	C	B	F	E		F	F			C	B
Approach Delay (s)		32.3			80.6			154.0			15.1	
Approach LOS		C			F			F			B	

Intersection Summary

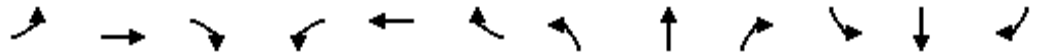
HCM Average Control Delay	82.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	115.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Richard Blvd & 7th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	
Volume (vph)	99	959	134	293	1201	28	359	11	550	30	142	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	3.5	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.95	0.95	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3459		1770	3522		1681	1690	1555	1770	1813	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3459		1770	3522		1681	1690	1555	1770	1813	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	99	959	134	293	1201	28	359	11	550	30	142	31
RTOR Reduction (vph)	0	12	0	0	2	0	0	0	118	0	9	0
Lane Group Flow (vph)	99	1081	0	293	1227	0	183	187	432	30	164	0
Confl. Peds. (#/hr)			24			24			24			
Turn Type	Prot			Prot			Split		pm+ov		Split	
Protected Phases	1	6		5	2		8	8	5		7	7
Permitted Phases									8			
Actuated Green, G (s)	7.0	28.3		15.1	36.4		15.4	15.4	30.5		9.0	9.0
Effective Green, g (s)	6.0	28.3		14.1	36.4		14.9	14.9	29.5		8.5	8.5
Actuated g/C Ratio	0.07	0.35		0.17	0.44		0.18	0.18	0.36		0.10	0.10
Clearance Time (s)	3.0	4.0		3.0	4.0		3.5	3.5	3.0		3.5	3.5
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	130	1197		305	1567		306	308	561		184	188
v/s Ratio Prot	0.06	c0.31		c0.17	0.35		0.11	0.11	c0.14		0.02	c0.09
v/s Ratio Perm									0.14			
v/c Ratio	0.76	0.90		0.96	0.78		0.60	0.61	0.77		0.16	0.87
Uniform Delay, d1	37.2	25.4		33.6	19.3		30.7	30.8	23.2		33.4	36.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	20.7	9.5		40.6	2.4		2.1	2.3	5.9		0.2	32.2
Delay (s)	57.9	34.9		74.2	21.8		32.8	33.1	29.1		33.6	68.3
Level of Service	E	C		E	C		C	C	C		C	E
Approach Delay (s)		36.8			31.9			30.6				63.2
Approach LOS		D			C			C				E

Intersection Summary

HCM Average Control Delay	34.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	81.8	Sum of lost time (s)	15.5
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

8: Richard Blvd & 12th Street

6/26/2007



Movement	EBL	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	SBR	SBR2
Lane Configurations										
Volume (vph)	1727	262	50	0	50	59	5226	20	2206	656
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		5.0		4.5	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00		1.00		1.00	0.86	1.00	*0.91	1.00
Frbp, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85		0.93		1.00	1.00	0.85	0.99	0.85
Flt Protected	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583		1695		1770	6408	1583	6713	1583
Flt Permitted	0.95	1.00		0.98		0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583		1695		1770	6408	1583	6713	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1727	262	50	0	50	59	5226	20	2206	656
RTOR Reduction (vph)	0	77	0	24	0	0	0	4	0	325
Lane Group Flow (vph)	1727	185	0	76	0	59	5226	16	2206	331
Confl. Peds. (#/hr)		36								36
Turn Type	Prot	custom	Split			Prot		custom	custom	custom
Protected Phases	4	4	3	3		5	2 10		6 14	6 14
Permitted Phases								2		6
Actuated Green, G (s)	36.0	36.0		14.9		5.8	69.1	51.1	58.8	58.8
Effective Green, g (s)	36.0	35.0		13.9		5.8	69.1	51.1	58.8	58.8
Actuated g/C Ratio	0.24	0.23		0.09		0.04	0.46	0.34	0.39	0.39
Clearance Time (s)	4.0	4.0		4.0		4.5		5.0		
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	824	369		157		68	2952	539	2631	621
v/s Ratio Prot	c0.50	0.12		c0.04		0.03	c0.82		0.33	0.21
v/s Ratio Perm								0.01		
v/c Ratio	2.10	0.50		0.48		0.87	1.77	0.03	0.84	0.53
Uniform Delay, d1	57.0	49.9		64.6		71.7	40.5	32.9	41.3	35.1
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	497.3	1.1		2.3		64.6	348.0	0.1	2.5	0.9
Delay (s)	554.3	51.0		66.9		136.3	388.5	33.0	43.8	35.9
Level of Service	F	D		E		F	F	C	D	D
Approach Delay (s)				66.9			384.3			
Approach LOS				E			F			

Intersection Summary

HCM Average Control Delay	305.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.72		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	31.0
Intersection Capacity Utilization	153.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/26/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	2	689	840	1	75	576
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.87		1.00		1.00	1.00
Flt Protected	1.00		1.00		0.95	1.00
Satd. Flow (prot)	1612		1862		1770	1863
Flt Permitted	1.00		1.00		0.95	1.00
Satd. Flow (perm)	1612		1862		1770	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2	689	840	1	75	576
RTOR Reduction (vph)	163	0	0	0	0	0
Lane Group Flow (vph)	528	0	841	0	75	576
Turn Type					Prot	
Protected Phases	8		2		1	6
Permitted Phases						
Actuated Green, G (s)	29.2		42.0		6.8	52.8
Effective Green, g (s)	29.2		42.0		6.8	52.8
Actuated g/C Ratio	0.32		0.47		0.08	0.59
Clearance Time (s)	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	523		869		134	1093
v/s Ratio Prot	c0.33		c0.45		0.04	c0.31
v/s Ratio Perm						
v/c Ratio	1.01		0.97		0.56	0.53
Uniform Delay, d1	30.4		23.3		40.2	11.1
Progression Factor	1.00		1.00		1.06	1.07
Incremental Delay, d2	41.5		23.6		11.0	0.3
Delay (s)	71.9		47.0		53.5	12.3
Level of Service	E		D		D	B
Approach Delay (s)	71.9		47.0			17.0
Approach LOS	E		D			B

Intersection Summary

HCM Average Control Delay	45.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

19: North B St & 10th St

6/26/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (vph)	66	675	635	141	222	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	
Lane Util. Factor		0.95	0.95		1.00	
Frt		1.00	0.97		0.93	
Flt Protected		1.00	1.00		0.98	
Satd. Flow (prot)		3524	3443		1693	
Flt Permitted		0.84	1.00		0.98	
Satd. Flow (perm)		2973	3443		1693	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	66	675	635	141	222	229
RTOR Reduction (vph)	0	0	30	0	90	0
Lane Group Flow (vph)	0	741	746	0	361	0
Turn Type	Perm					
Protected Phases		2	6		4	
Permitted Phases	2					
Actuated Green, G (s)		25.9	25.9		16.1	
Effective Green, g (s)		25.9	25.9		16.1	
Actuated g/C Ratio		0.52	0.52		0.32	
Clearance Time (s)		4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0		3.0	
Lane Grp Cap (vph)		1540	1783		545	
v/s Ratio Prot			0.22		c0.21	
v/s Ratio Perm		c0.25				
v/c Ratio		0.48	0.42		0.66	
Uniform Delay, d1		7.7	7.4		14.6	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		1.1	0.7		3.0	
Delay (s)		8.8	8.1		17.6	
Level of Service		A	A		B	
Approach Delay (s)		8.8	8.1		17.6	
Approach LOS		A	A		B	

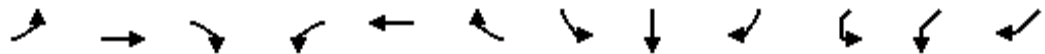
Intersection Summary

HCM Average Control Delay	10.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

20: North B St & 12th Street

6/26/2007



Movement	EBL2	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations		↑↑		↖	↗			↕			↖↗	
Volume (vph)	135	554	290	101	318	41	4	42	18	55	2189	419
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00			0.91	
Frbp, ped/bikes		1.00		1.00	0.99			0.97			0.97	
Flpb, ped/bikes		1.00		1.00	1.00			1.00			0.87	
Frt		0.96		1.00	0.98			0.96			0.98	
Flt Protected		0.99		0.95	1.00			1.00			0.96	
Satd. Flow (prot)		3343		1770	1805			1738			5350	
Flt Permitted		0.55		0.11	1.00			1.00			0.96	
Satd. Flow (perm)		1864		207	1805			1738			5350	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	135	554	290	101	318	41	4	42	18	55	2189	419
RTOR Reduction (vph)	0	31	0	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	0	948	0	101	359	0	0	54	0	0	2663	0
Confl. Peds. (#/hr)	36			36		36			36	36		36
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			1			2 3	
Permitted Phases	4			4			1			2 3		
Actuated Green, G (s)		36.0		36.0	36.0			13.6			69.4	
Effective Green, g (s)		36.0		36.0	36.0			13.6			72.4	
Actuated g/C Ratio		0.24		0.24	0.24			0.09			0.48	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)		447		50	433			158			2582	
v/s Ratio Prot					0.20							
v/s Ratio Perm		0.51		0.49				0.03			0.50	
v/c Ratio		2.12		2.02	0.83			0.34			1.03	
Uniform Delay, d1		57.0		57.0	54.1			64.0			38.8	
Progression Factor		1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2		511.7		521.7	13.8			2.7			26.4	
Delay (s)		568.7		578.7	67.8			66.7			65.2	
Level of Service		F		F	E			E			E	
Approach Delay (s)		568.7			180.0			66.7			65.2	
Approach LOS		F			F			E			E	

Intersection Summary

HCM Average Control Delay	196.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.28		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: North B St & 16th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	585	61	0	0	95	5	339	4263	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.99			1.00				
Flpb, ped/bikes	0.91	0.92			1.00			1.00				
Frt	1.00	1.00			0.99			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1526	1572			1839			6352				
Flt Permitted	0.67	0.67			1.00			1.00				
Satd. Flow (perm)	1073	1103			1839			6352				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	585	61	0	0	95	5	339	4263	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	316	330	0	0	100	0	0	4612	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	20.0	20.0			20.0			72.0				
Effective Green, g (s)	20.0	20.0			20.0			72.0				
Actuated g/C Ratio	0.20	0.20			0.20			0.72				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	215	221			368			4573				
v/s Ratio Prot					0.05							
v/s Ratio Perm	0.29	0.30						0.73				
v/c Ratio	1.47	1.49			0.27			1.01				
Uniform Delay, d1	40.0	40.0			33.8			14.0				
Progression Factor	1.00	1.00			1.00			0.95				
Incremental Delay, d2	235.0	244.3			1.8			13.8				
Delay (s)	275.0	284.3			35.7			27.0				
Level of Service	F	F			D			C				
Approach Delay (s)		279.8			35.7			27.0			0.0	
Approach LOS		F			D			C			A	

Intersection Summary

HCM Average Control Delay	57.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/26/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		TT			TT	T
Volume (vph)	0	1024	0	0	265	512
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		0.88			0.91	0.91
Frt		0.85			0.93	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		2787			3140	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		2787			3140	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1024	0	0	265	512
RTOR Reduction (vph)	0	886	0	0	167	167
Lane Group Flow (vph)	0	138	0	0	354	89
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		8.1			21.0	21.0
Effective Green, g (s)		8.1			21.0	21.0
Actuated g/C Ratio		0.13			0.35	0.35
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		376			1097	504
v/s Ratio Prot		c0.05			c0.11	0.06
v/s Ratio Perm						
v/c Ratio		0.37			0.32	0.18
Uniform Delay, d1		23.7			14.3	13.6
Progression Factor		1.00			1.00	1.00
Incremental Delay, d2		0.6			0.8	0.8
Delay (s)		24.3			15.1	14.3
Level of Service		C			B	B
Approach Delay (s)	24.3			0.0	14.9	
Approach LOS	C			A	B	

Intersection Summary

HCM Average Control Delay	20.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	60.1	Sum of lost time (s)	31.0
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

37: F Street & 7th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻↻↻	
Volume (vph)	0	25	23	90	5	0	0	0	0	481	904	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	
Lane Util. Factor		1.00		1.00	1.00						0.91	
Frt		0.94		1.00	1.00						1.00	
Flt Protected		1.00		0.95	1.00						0.98	
Satd. Flow (prot)		1742		1770	1863						4996	
Flt Permitted		1.00		0.95	1.00						0.98	
Satd. Flow (perm)		1742		1770	1863						4996	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	25	23	90	5	0	0	0	0	481	904	5
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	29	0	90	5	0	0	0	0	0	1389	0
Turn Type				Split							Perm	
Protected Phases		4		8	8							6
Permitted Phases										6		
Actuated Green, G (s)		19.0		22.0	22.0						47.0	
Effective Green, g (s)		19.0		22.0	22.0						47.0	
Actuated g/C Ratio		0.19		0.22	0.22						0.47	
Clearance Time (s)		4.0		4.0	4.0						4.0	
Lane Grp Cap (vph)		331		389	410						2348	
v/s Ratio Prot		c0.02		c0.05	0.00							
v/s Ratio Perm											0.28	
v/c Ratio		0.09		0.23	0.01						0.59	
Uniform Delay, d1		33.4		32.1	30.5						19.5	
Progression Factor		1.00		1.00	1.00						1.00	
Incremental Delay, d2		0.5		1.4	0.1						1.1	
Delay (s)		33.9		33.4	30.6						20.6	
Level of Service		C		C	C						C	
Approach Delay (s)		33.9			33.3			0.0			20.6	
Approach LOS		C			C			A			C	

Intersection Summary

HCM Average Control Delay	21.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗		↖↗↘				
Volume (vph)	293	5	0	0	97	1359	60	646	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.95	0.95			0.95	0.95		0.91				
Frt	1.00	1.00			0.87	0.85		1.00				
Flt Protected	0.95	0.95			1.00	1.00		1.00				
Satd. Flow (prot)	1681	1688			1539	1504		5059				
Flt Permitted	0.95	0.95			1.00	1.00		1.00				
Satd. Flow (perm)	1681	1688			1539	1504		5059				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	293	5	0	0	97	1359	60	646	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	34	34	0	1	0	0	0	0
Lane Group Flow (vph)	149	149	0	0	703	687	0	710	0	0	0	0
Turn Type	Split				Perm		Perm					
Protected Phases	4	4			8			2				
Permitted Phases						8	2	2				
Actuated Green, G (s)	18.0	18.0			50.0	50.0		20.0				
Effective Green, g (s)	18.0	18.0			50.0	50.0		20.0				
Actuated g/C Ratio	0.18	0.18			0.50	0.50		0.20				
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)	303	304			770	752		1012				
v/s Ratio Prot	c0.09	0.09			c0.46							
v/s Ratio Perm						0.46		0.14				
v/c Ratio	0.49	0.49			0.91	0.91		0.70				
Uniform Delay, d1	36.9	36.9			23.0	23.0		37.2				
Progression Factor	1.00	1.00			0.84	0.84		1.39				
Incremental Delay, d2	5.6	5.6			8.0	8.2		3.8				
Delay (s)	42.5	42.4			27.2	27.4		55.7				
Level of Service	D	D			C	C		E				
Approach Delay (s)		42.5			27.3			55.7			0.0	
Approach LOS		D			C			E			A	

Intersection Summary

HCM Average Control Delay	37.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Volume (vph)	5	5	5	362	846	495	161	140	5	5	1408	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00			0.95	
Frt		0.96			0.96		1.00	0.99			1.00	
Flt Protected		0.98			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1750			3349		1770	1853			3524	
Flt Permitted		0.69			0.88		0.95	1.00			0.95	
Satd. Flow (perm)		1226			2964		1770	1853			3363	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	362	846	495	161	140	5	5	1408	41
RTOR Reduction (vph)	0	3	0	0	44	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	12	0	0	1659	0	161	144	0	0	1452	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)		44.0			44.0		7.0	48.0			37.0	
Effective Green, g (s)		44.0			44.0		7.0	48.0			37.0	
Actuated g/C Ratio		0.44			0.44		0.07	0.48			0.37	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		539			1304		124	889			1244	
v/s Ratio Prot							c0.09	0.08				
v/s Ratio Perm		0.01			c0.56						c0.43	
v/c Ratio		0.02			1.27		1.30	0.16			1.17	
Uniform Delay, d1		15.8			28.0		46.5	14.7			31.5	
Progression Factor		1.56			0.90		0.40	1.05			1.00	
Incremental Delay, d2		0.1			127.1		139.7	0.0			84.3	
Delay (s)		24.8			152.3		158.4	15.5			115.8	
Level of Service		C			F		F	B			F	
Approach Delay (s)		24.8			152.3			90.7			115.8	
Approach LOS		C			F			F			F	

Intersection Summary

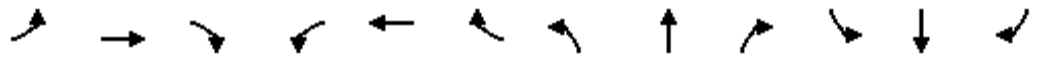
HCM Average Control Delay	131.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗						↖	↗	↖	↗	
Volume (vph)	4	319	79	0	0	0	0	427	193	1226	874	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0		4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95		0.95	0.95	
Frbp, ped/bikes	1.00	0.97						0.95		1.00	1.00	
Flpb, ped/bikes	0.86	1.00						1.00		1.00	1.00	
Frt	1.00	0.97						0.95		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (prot)	1515	3329						3213		1681	1754	
Flt Permitted	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (perm)	1515	3329						3213		1681	1754	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	427	193	1226	874	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	52	0	0	0	0
Lane Group Flow (vph)	4	376	0	0	0	0	0	568	0	1030	1070	0
Confl. Peds. (#/hr)	72		72							72	72	
Turn Type	Perm						Split					
Protected Phases	1						2		6		6	
Permitted Phases	1											
Actuated Green, G (s)	16.5	16.5						15.5		49.0	49.0	
Effective Green, g (s)	16.5	16.0						15.0		48.5	48.5	
Actuated g/C Ratio	0.16	0.16						0.15		0.48	0.48	
Clearance Time (s)	3.5	3.5						3.5		4.0	4.0	
Lane Grp Cap (vph)	250	533						482		815	851	
v/s Ratio Prot		c0.11						c0.18		c0.61	0.61	
v/s Ratio Perm	0.00											
v/c Ratio	0.02	0.71						1.18		1.26	1.26	
Uniform Delay, d1	35.0	39.8						42.5		25.8	25.8	
Progression Factor	1.28	1.32						1.35		0.34	0.34	
Incremental Delay, d2	0.1	7.2						93.7		119.7	116.7	
Delay (s)	44.8	59.7						151.3		128.4	125.5	
Level of Service	D	E						F		F	F	
Approach Delay (s)		59.5			0.0			151.3			126.9	
Approach LOS		E			A			F			F	

Intersection Summary

HCM Average Control Delay	123.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	99.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	1332	323	0	0	0	0	0	0	379	822	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.98								1.00	1.00	
Flpb, ped/bikes		1.00								0.93	1.00	
Frt		0.97								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3380								1494	3372	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3380								1494	3372	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1332	323	0	0	0	0	0	0	379	822	0
RTOR Reduction (vph)	0	43	0	0	0	0	0	0	0	101	6	0
Lane Group Flow (vph)	0	1612	0	0	0	0	0	0	0	240	854	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		22.9								15.1	15.1	
Effective Green, g (s)		22.4								14.6	14.6	
Actuated g/C Ratio		0.45								0.29	0.29	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1514								436	985	
v/s Ratio Prot		0.48										
v/s Ratio Perm										0.16	0.25	
v/c Ratio		1.07								0.55	0.87	
Uniform Delay, d1		13.8								14.9	16.8	
Progression Factor		1.53								1.31	1.18	
Incremental Delay, d2		30.9								3.1	6.7	
Delay (s)		52.0								22.8	26.5	
Level of Service		D								C	C	
Approach Delay (s)		52.0			0.0			0.0			25.5	
Approach LOS		D			A			A			C	
Intersection Summary												
HCM Average Control Delay			40.9				HCM Level of Service			D		
HCM Volume to Capacity ratio			0.99									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)		13.0			
Intersection Capacity Utilization			77.5%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

46: H Street & 8th Street

6/26/2007

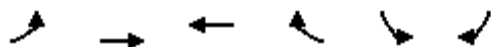


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↔↔↔				
Volume (vph)	172	1522	0	0	0	0	0	660	231	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.91				
Frbp, ped/bikes		1.00						0.98				
Flpb, ped/bikes		0.99						1.00				
Frt		1.00						0.96				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		3496						4783				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		3496						4783				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	172	1522	0	0	0	0	0	660	231	0	0	0
RTOR Reduction (vph)	0	17	0	0	0	0	0	96	0	0	0	0
Lane Group Flow (vph)	0	1677	0	0	0	0	0	795	0	0	0	0
Confl. Peds. (#/hr)	72								72			
Turn Type	Perm											
Protected Phases		1						2				
Permitted Phases	1											
Actuated Green, G (s)		23.0						15.0				
Effective Green, g (s)		22.5						14.5				
Actuated g/C Ratio		0.45						0.29				
Clearance Time (s)		3.5						3.5				
Lane Grp Cap (vph)		1573						1387				
v/s Ratio Prot								c0.17				
v/s Ratio Perm		0.48										
v/c Ratio		1.07						0.57				
Uniform Delay, d1		13.8						15.1				
Progression Factor		0.50						1.00				
Incremental Delay, d2		34.2						1.7				
Delay (s)		41.1						16.8				
Level of Service		D						B				
Approach Delay (s)		41.1			0.0			16.8			0.0	
Approach LOS		D			A			B			A	
Intersection Summary												
HCM Average Control Delay			32.7					HCM Level of Service			C	
HCM Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			50.0					Sum of lost time (s)		13.0		
Intersection Capacity Utilization			72.9%					ICU Level of Service		C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/26/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↷	↶	↷	↶	↷
Volume (vph)	687	216	190	71	483	597
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.93	
Flt Protected	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (prot)	1770	1863	1863	1583	1686	
Flt Permitted	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (perm)	1770	1863	1863	1583	1686	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	687	216	190	71	483	597
RTOR Reduction (vph)	0	0	0	27	30	0
Lane Group Flow (vph)	687	216	190	44	1050	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	48.5	51.9	12.0	89.0	77.0	
Effective Green, g (s)	49.0	51.9	12.0	89.0	77.0	
Actuated g/C Ratio	0.33	0.35	0.08	0.59	0.51	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	578	645	149	981	865	
v/s Ratio Prot	c0.39	0.12	c0.10	0.02	c0.62	
v/s Ratio Perm				0.00		
v/c Ratio	1.19	0.33	1.28	0.05	1.21	
Uniform Delay, d1	50.5	36.3	69.0	12.7	36.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	101.3	0.5	165.7	0.0	107.0	
Delay (s)	151.8	36.8	234.7	12.8	143.5	
Level of Service	F	D	F	B	F	
Approach Delay (s)		124.3	174.3		143.5	
Approach LOS		F	F		F	

Intersection Summary

HCM Average Control Delay	139.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	121.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↔↔	↑↑				↔↔
Volume (vph)	0	0	0	0	3522	55	566	1003	0	0	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					1.00		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6219		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6219		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	3522	55	566	1003	0	0	0	50
RTOR Reduction (vph)	0	0	0	0	2	0	1	0	0	0	0	1
Lane Group Flow (vph)	0	0	0	0	3575	0	565	1003	0	0	0	49
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					65.0		26.5	26.5				26.5
Effective Green, g (s)					66.0		26.0	26.0				26.5
Actuated g/C Ratio					0.66		0.26	0.26				0.26
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					4105		893	874				739
v/s Ratio Prot					c0.57		0.16	c0.30				
v/s Ratio Perm												0.02
v/c Ratio					0.87		0.63	1.15				0.07
Uniform Delay, d1					13.6		32.8	37.0				27.5
Progression Factor					0.47		0.97	0.98				1.00
Incremental Delay, d2					0.8		2.8	77.5				0.2
Delay (s)					7.3		34.7	113.9				27.7
Level of Service					A		C	F				C
Approach Delay (s)		0.0			7.3			85.3			27.7	
Approach LOS		A			A			F			C	

Intersection Summary

HCM Average Control Delay	31.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	107.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	70	2037	155	331	345	0	0	32	1123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.86		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes					0.99		1.00	1.00			1.00	1.00
Frt					0.99		1.00	1.00			0.86	0.85
Flt Protected					1.00		0.95	0.99			1.00	1.00
Satd. Flow (prot)					6219		1610	3349			1519	1504
Flt Permitted					1.00		0.95	0.99			1.00	1.00
Satd. Flow (perm)					6219		1610	3349			1519	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	70	2037	155	331	345	0	0	32	1123
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	10	10
Lane Group Flow (vph)	0	0	0	0	2251	0	218	458	0	0	572	563
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm			custom					custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					37.5		15.3	15.3			36.7	36.7
Effective Green, g (s)					37.0		14.8	14.8			36.2	36.2
Actuated g/C Ratio					0.37		0.15	0.15			0.36	0.36
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					2301		238	496			550	544
v/s Ratio Prot							0.14	c0.14			c0.38	0.37
v/s Ratio Perm					0.36							
v/c Ratio					0.98		0.92	0.92			1.04	1.03
Uniform Delay, d1					31.1		42.0	42.0			31.9	31.9
Progression Factor					0.72		0.89	0.89			1.10	1.11
Incremental Delay, d2					11.9		38.6	24.3			23.7	21.9
Delay (s)					34.4		76.0	61.7			58.9	57.2
Level of Service					C		E	E			E	E
Approach Delay (s)		0.0			34.4			66.3			58.0	
Approach LOS		A			C			E			E	

Intersection Summary

HCM Average Control Delay	46.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	125.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/26/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		↑↑↑	↑	↑↑	↑	↑↑	↑	↑↑	
Volume (vph)	6	1114	433	242	368	473	5	671	518
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.91	1.00	0.88	1.00	0.95	1.00	0.91	
Frbp, ped/bikes		1.00	0.94	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85	0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		5084	1483	2787	1770	3539	1586	2882	
Flt Permitted		1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		5084	1483	2787	1770	3539	1586	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	1114	433	242	368	473	5	671	518
RTOR Reduction (vph)	0	0	0	28	0	0	0	119	0
Lane Group Flow (vph)	0	1120	433	214	368	473	401	674	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split		Perm	custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases			2	1	1				
Actuated Green, G (s)		37.7	37.7	23.8	23.8	23.8	28.6	28.6	
Effective Green, g (s)		37.7	37.7	23.3	23.3	23.3	28.6	28.6	
Actuated g/C Ratio		0.37	0.37	0.23	0.23	0.23	0.28	0.28	
Clearance Time (s)		4.0	4.0	3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0	3.0	2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1886	550	639	406	812	446	811	
v/s Ratio Prot		0.22				0.13	c0.25	0.23	
v/s Ratio Perm			c0.29	0.08	c0.21				
v/c Ratio		0.59	0.79	0.34	0.91	0.58	0.90	0.96dr	
Uniform Delay, d1		25.8	28.4	32.7	38.1	34.8	35.1	34.2	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.4	10.9	0.1	22.8	0.7	20.9	7.6	
Delay (s)		27.2	39.3	32.8	60.9	35.5	56.0	41.8	
Level of Service		C	D	C	E	D	E	D	
Approach Delay (s)		30.5				46.6	46.6		
Approach LOS		C				D	D		

Intersection Summary

HCM Average Control Delay	39.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	101.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.1%	ICU Level of Service	F
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/26/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	398	695	831	148	324	69	775	518	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.0	4.5	4.0	3.5	4.0	3.5	
Lane Util. Factor	0.95	0.86	0.91	0.95	0.97	1.00	0.95	1.00	
Frt	1.00	0.98	0.85	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1681	1567	1441	1504	3433	1863	3539	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)	1681	1567	1441	1504	3433	1863	3539	1583	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	398	695	831	148	324	69	775	518	58
RTOR Reduction (vph)	0	0	1	71	0	0	0	4	0
Lane Group Flow (vph)	358	843	737	62	324	69	775	572	0
Turn Type	Perm		Perm	Perm	Prot			Perm	
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2				4	
Actuated Green, G (s)	47.0	47.0	47.0	47.0	7.0	45.5	34.5	34.5	
Effective Green, g (s)	46.5	46.5	47.0	46.5	7.0	45.5	34.0	34.5	
Actuated g/C Ratio	0.46	0.46	0.47	0.46	0.07	0.46	0.34	0.34	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	
Lane Grp Cap (vph)	782	729	677	699	240	848	1203	546	
v/s Ratio Prot					c0.09	0.04	0.22		
v/s Ratio Perm	0.21	0.54	0.51	0.04				c0.36	
v/c Ratio	0.46	1.16	1.09	0.09	1.35	0.08	0.64	1.05	
Uniform Delay, d1	18.2	26.7	26.5	14.9	46.5	15.4	27.9	32.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.9	85.4	61.4	0.2	182.5	0.2	2.7	51.6	
Delay (s)	20.1	112.2	87.9	15.2	229.0	15.6	30.6	84.4	
Level of Service	C	F	F	B	F	B	C	F	
Approach Delay (s)		81.4				191.5	53.5		
Approach LOS		F				F	D		

Intersection Summary

HCM Average Control Delay	82.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/26/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	554	254	0	0	361	84	340	863	45	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.98		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.97		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4864		3433	5026				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4864		3433	5026				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	554	254	0	0	361	84	340	863	45	0	0	0
RTOR Reduction (vph)	0	0	0	0	37	0	0	8	0	0	0	0
Lane Group Flow (vph)	554	254	0	0	408	0	340	900	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	31.5			14.5		30.5	30.5				
Effective Green, g (s)	13.0	31.0			14.0		31.0	31.0				
Actuated g/C Ratio	0.19	0.44			0.20		0.44	0.44				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	638	1567			973		1520	2226				
v/s Ratio Prot	c0.16	0.07			c0.08		0.10	c0.18				
v/s Ratio Perm												
v/c Ratio	0.87	0.16			0.42		0.22	0.40				
Uniform Delay, d1	27.7	11.7			24.5		12.1	13.2				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	14.9	0.2			1.3		0.3	0.5				
Delay (s)	42.5	11.9			25.8		12.4	13.8				
Level of Service	D	B			C		B	B				
Approach Delay (s)		32.9			25.8			13.4			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔↔	↑						↑↑	↗
Volume (vph)	0	0	0	607	464	0	0	0	0	0	1662	501
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.94	1.00						0.95	1.00
Frbp, ped/bikes				1.00	1.00						1.00	0.81
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				4990	1863						3539	1285
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				4990	1863						3539	1285
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	607	464	0	0	0	0	0	1662	501
RTOR Reduction (vph)	0	0	0	326	0	0	0	0	0	0	0	123
Lane Group Flow (vph)	0	0	0	281	464	0	0	0	0	0	1662	379
Confl. Peds. (#/hr)			55									55
Turn Type				Prot								Perm
Protected Phases				1 9	3 12 13						4	
Permitted Phases												4
Actuated Green, G (s)				30.7	41.5						51.0	51.0
Effective Green, g (s)				29.2	41.0						51.0	51.0
Actuated g/C Ratio				0.29	0.41						0.51	0.51
Clearance Time (s)											4.0	4.0
Vehicle Extension (s)											5.0	5.0
Lane Grp Cap (vph)				1457	764						1805	655
v/s Ratio Prot				0.06	c0.25						c0.47	
v/s Ratio Perm												0.29
v/c Ratio				0.19	0.61						0.92	0.58
Uniform Delay, d1				26.6	23.2						22.6	17.0
Progression Factor				1.40	1.06						1.00	1.00
Incremental Delay, d2				0.1	2.0						8.6	2.0
Delay (s)				37.4	26.5						31.2	19.0
Level of Service				D	C						C	B
Approach Delay (s)		0.0			32.7			0.0			28.4	
Approach LOS		A			C			A			C	

Intersection Summary

HCM Average Control Delay	29.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑↑	↑	↑				
Volume (vph)	0	0	0	0	1008	858	68	101	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.88	1.00	1.00				
Frbp, ped/bikes					1.00	0.72	1.00	1.00				
Flpb, ped/bikes					1.00	1.00	1.00	1.00				
Frt					1.00	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					5085	2017	1770	1863				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					5085	2017	1770	1863				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1008	858	68	101	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	264	55	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1008	594	13	101	0	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type						custom	Split					
Protected Phases					6 11 15	11	8 16	8 16				
Permitted Phases						6 15						
Actuated Green, G (s)					72.7	69.2	19.8	19.8				
Effective Green, g (s)					69.2	69.2	19.3	19.3				
Actuated g/C Ratio					0.69	0.69	0.19	0.19				
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)					3519	1396	342	360				
v/s Ratio Prot					0.20	c0.04	0.01	c0.05				
v/s Ratio Perm						0.25						
v/c Ratio					0.29	0.43	0.04	0.28				
Uniform Delay, d1					5.9	6.7	32.8	34.4				
Progression Factor					0.53	6.43	0.55	0.81				
Incremental Delay, d2					0.1	0.4	0.1	0.9				
Delay (s)					3.2	43.6	18.3	28.7				
Level of Service					A	D	B	C				
Approach Delay (s)		0.0			21.8			24.5			0.0	
Approach LOS		A			C			C			A	

Intersection Summary

HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↑↑↑↑		↖	↗			↑	↗
Volume (vph)	0	0	0	101	1597	32	287	234	0	0	89	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		4.5	4.5			4.0	4.0
Lane Util. Factor				1.00	0.81		0.95	0.95			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes				0.87	1.00		1.00	1.00			1.00	1.00
Fr t				1.00	1.00		1.00	1.00			1.00	0.85
Fl t Protected				0.95	1.00		0.95	0.99			1.00	1.00
Satd. Flow (prot)				1534	7500		1681	1759			1863	1583
Fl t Permitted				0.95	1.00		0.95	0.99			1.00	1.00
Satd. Flow (perm)				1534	7500		1681	1759			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	101	1597	32	287	234	0	0	89	110
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	102
Lane Group Flow (vph)	0	0	0	101	1627	0	255	266	0	0	89	8
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type				Perm			Split					Perm
Protected Phases					2		3	3			4	
Permitted Phases				2								4
Actuated Green, G (s)				59.3	59.3		20.9	20.9			7.7	7.7
Effective Green, g (s)				58.7	58.7		20.4	20.4			7.2	7.2
Actuated g/C Ratio				0.59	0.59		0.20	0.20			0.07	0.07
Clearance Time (s)				4.6	4.6		4.0	4.0			3.5	3.5
Vehicle Extension (s)				0.2	0.2		3.0	3.0			0.2	0.2
Lane Grp Cap (vph)				900	4403		343	359			134	114
v/s Ratio Prot					c0.22		c0.15	0.15			c0.05	
v/s Ratio Perm				0.07								0.01
v/c Ratio				0.11	0.37		0.74	0.74			0.66	0.07
Uniform Delay, d1				9.1	10.9		37.3	37.3			45.2	43.3
Progression Factor				0.73	0.73		0.81	0.81			1.00	1.00
Incremental Delay, d2				0.2	0.2		8.0	7.6			9.2	0.1
Delay (s)				6.9	8.1		38.3	37.9			54.4	43.4
Level of Service				A	A		D	D			D	D
Approach Delay (s)		0.0			8.0			38.1			48.3	
Approach LOS		A			A			D			D	

Intersection Summary

HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & N 5th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↖	↑↑				↗↗
Volume (vph)	0	0	0	0	1020	99	118	1280	0	0	0	1084
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.6		4.0	4.0				3.5
Lane Util. Factor					0.81		1.00	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				0.93
Flpb, ped/bikes					1.00		0.95	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					7408		1673	3539				2604
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					7408		1673	3539				2604
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1020	99	118	1280	0	0	0	1084
RTOR Reduction (vph)	0	0	0	0	18	0	66	0	0	0	0	184
Lane Group Flow (vph)	0	0	0	0	1101	0	52	1280	0	0	0	900
Confl. Peds. (#/hr)			40			40	40		40	40		40
Turn Type							Perm					custom
Protected Phases					2			8				
Permitted Phases					2		8					4
Actuated Green, G (s)					29.7		44.5	44.5				44.5
Effective Green, g (s)					29.4		44.0	44.0				44.5
Actuated g/C Ratio					0.29		0.44	0.44				0.44
Clearance Time (s)					4.3		3.5	3.5				3.5
Vehicle Extension (s)					2.0		2.0	2.0				2.0
Lane Grp Cap (vph)					2178		736	1557				1159
v/s Ratio Prot					c0.15			c0.36				
v/s Ratio Perm							0.03					0.35
v/c Ratio					0.51		0.07	0.82				0.78
Uniform Delay, d1					29.3		16.2	24.6				23.5
Progression Factor					0.45		0.89	0.75				1.00
Incremental Delay, d2					0.8		0.0	3.0				3.0
Delay (s)					14.1		14.4	21.3				26.6
Level of Service					B		B	C				C
Approach Delay (s)		0.0			14.1			20.7			26.6	
Approach LOS		A			B			C			C	

Intersection Summary

HCM Average Control Delay	20.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	26.6
Intersection Capacity Utilization	98.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richards Blvd & 10th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑		↘	↑			↑	↗
Volume (vph)	0	0	0	182	609	101	1249	23	0	0	11	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	4.0		4.5	4.0			4.0	4.0
Lane Util. Factor				1.00	0.86		0.97	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.69
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Fr _t				1.00	0.98		1.00	1.00			1.00	0.85
Fl _t Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	6271		3433	1863			1863	1093
Fl _t Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770	6271		3433	1863			1863	1093
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	182	609	101	1249	23	0	0	11	36
RTOR Reduction (vph)	0	0	0	0	25	0	0	0	0	0	0	35
Lane Group Flow (vph)	0	0	0	182	685	0	1249	23	0	0	11	1
Confl. Peds. (#/hr)			35				35					35
Turn Type				Perm			Prot					Perm
Protected Phases					6		3	8			4	
Permitted Phases				6								4
Actuated Green, G (s)				39.1	39.1		45.1	52.9			3.8	3.8
Effective Green, g (s)				38.6	39.6		44.6	52.4			3.3	3.3
Actuated g/C Ratio				0.39	0.40		0.45	0.52			0.03	0.03
Clearance Time (s)				4.5	4.5		4.0	3.5			3.5	3.5
Vehicle Extension (s)				2.0	2.0		3.0	0.2			2.0	2.0
Lane Grp Cap (vph)				683	2483		1531	976			61	36
v/s Ratio Prot					c0.11		c0.36	0.01			c0.01	
v/s Ratio Perm				0.10								0.00
v/c Ratio				0.27	0.28		0.82	0.02			0.18	0.03
Uniform Delay, d ₁				21.0	20.5		24.1	11.5			47.0	46.8
Progression Factor				0.79	0.76		0.98	0.99			1.00	1.00
Incremental Delay, d ₂				0.8	0.2		3.5	0.0			0.5	0.1
Delay (s)				17.5	15.8		27.0	11.4			47.6	46.9
Level of Service				B	B		C	B			D	D
Approach Delay (s)		0.0			16.1			26.8			47.1	
Approach LOS		A			B			C			D	

Intersection Summary

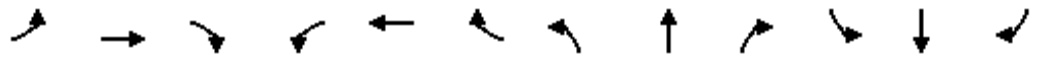
HCM Average Control Delay	22.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Bannon St & I-5 NB Off

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑↑↑						↑	↗↘			
Volume (vph)	101	1709	0	0	0	0	0	45	1777	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5	4.5			
Lane Util. Factor	1.00	0.86						1.00	0.88			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	6408						1863	2787			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	6408						1863	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	101	1709	0	0	0	0	0	45	1777	0	0	0
RTOR Reduction (vph)	51	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	50	1709	0	0	0	0	0	45	1777	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	28.5	28.5						62.5	62.5			
Effective Green, g (s)	28.5	28.5						62.5	62.5			
Actuated g/C Ratio	0.28	0.28						0.62	0.62			
Clearance Time (s)	4.5	4.5						4.5	4.5			
Vehicle Extension (s)	3.0	3.0						3.0	3.0			
Lane Grp Cap (vph)	504	1826						1164	1742			
v/s Ratio Prot	0.03	c0.27						0.02				
v/s Ratio Perm									c0.64			
v/c Ratio	0.10	0.94						0.04	1.02			
Uniform Delay, d1	26.3	34.9						7.2	18.8			
Progression Factor	0.50	0.66						1.00	1.00			
Incremental Delay, d2	0.4	10.0						0.0	26.8			
Delay (s)	13.5	33.1						7.2	45.5			
Level of Service	B	C						A	D			
Approach Delay (s)		32.0			0.0			44.6			0.0	
Approach LOS		C			A			D			A	

Intersection Summary

HCM Average Control Delay	38.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑↑						↑	↗	↘	↑	
Volume (vph)	204	2541	740	0	0	0	0	226	160	146	400	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.86						1.00	1.00	1.00	1.00	
Frt	1.00	0.97						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	6191						1863	1583	1770	1863	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	6191						1863	1583	1770	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	204	2541	740	0	0	0	0	226	160	146	400	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	0	34	0	0	0
Lane Group Flow (vph)	204	3231	0	0	0	0	0	226	126	146	400	0
Turn Type	Split							Perm		Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	61.2	61.2						15.5	15.5	11.3	30.8	
Effective Green, g (s)	61.2	61.2						15.5	15.5	11.3	30.8	
Actuated g/C Ratio	0.61	0.61						0.16	0.16	0.11	0.31	
Clearance Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1083	3789						289	245	200	574	
v/s Ratio Prot	0.12	c0.52						0.12		0.08	c0.21	
v/s Ratio Perm									0.08			
v/c Ratio	0.19	0.85						0.78	0.52	0.73	0.70	
Uniform Delay, d1	8.5	15.7						40.6	38.8	42.9	30.5	
Progression Factor	0.78	0.92						1.00	1.00	0.90	0.89	
Incremental Delay, d2	0.1	0.7						12.9	1.8	12.8	3.7	
Delay (s)	6.8	15.2						53.5	40.6	51.5	30.9	
Level of Service	A	B						D	D	D	C	
Approach Delay (s)		14.7			0.0			48.2			36.4	
Approach LOS		B			A			D			D	

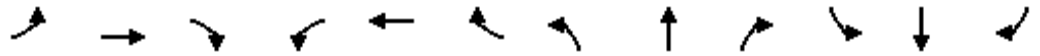
Intersection Summary

HCM Average Control Delay	20.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

14: Bannon St & N 5th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↘	↘↘↘						↑↑↑					
Volume (vph)	1387	1359	0	0	0	0	0	415	41	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5						4.0					
Lane Util. Factor	0.81	0.81						0.91					
Frt	1.00	1.00						0.99					
Flt Protected	0.95	0.98						1.00					
Satd. Flow (prot)	1433	5935						5017					
Flt Permitted	0.95	0.98						1.00					
Satd. Flow (perm)	1433	5935						5017					
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	1387	1359	0	0	0	0	0	415	41	0	0	0	
RTOR Reduction (vph)	20	20	0	0	0	0	0	11	0	0	0	0	
Lane Group Flow (vph)	673	2033	0	0	0	0	0	445	0	0	0	0	
Turn Type	Perm												
Protected Phases							4						
Permitted Phases	4						2						
Actuated Green, G (s)	66.7	66.7							24.8				
Effective Green, g (s)	66.7	66.7							24.8				
Actuated g/C Ratio	0.67	0.67							0.25				
Clearance Time (s)	4.5	4.5							4.0				
Vehicle Extension (s)	3.0	3.0							3.0				
Lane Grp Cap (vph)	956	3959							1244				
v/s Ratio Prot							c0.09						
v/s Ratio Perm	c0.47	0.34											
v/c Ratio	0.70	0.51							0.36				
Uniform Delay, d1	10.5	8.4							31.0				
Progression Factor	1.01	0.72							1.00				
Incremental Delay, d2	1.3	0.1							0.8				
Delay (s)	11.8	6.2							31.8				
Level of Service	B	A							C				
Approach Delay (s)	7.6		0.0				31.8		0.0				
Approach LOS	A		A				C		A				

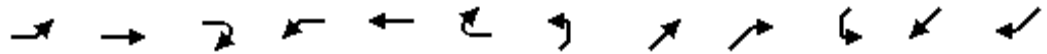
Intersection Summary

HCM Average Control Delay	11.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	98.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

16: Richards & 12th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔↔	↑↑	↔					↔↔↔	↔	↔↔	↑↑↑	
Volume (vph)	486	28	522	0	0	0	0	564	4	28	3322	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Lane Util. Factor	0.97	0.95	1.00					0.86	0.86	0.97	0.91	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	1583					4806	1362	3433	5085	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	1583					4806	1362	3433	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	486	28	522	0	0	0	0	564	4	28	3322	0
RTOR Reduction (vph)	0	0	69	0	0	0	0	0	2	0	0	0
Lane Group Flow (vph)	486	28	453	0	0	0	0	564	2	28	3322	0
Turn Type	custom		Perm						Perm		Prot	
Protected Phases	4	4						2		1	6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	38.0	38.0	38.0					63.5	63.5	23.5	91.5	
Effective Green, g (s)	38.0	38.0	38.0					63.5	63.5	23.5	91.5	
Actuated g/C Ratio	0.25	0.25	0.25					0.42	0.42	0.16	0.61	
Clearance Time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	870	897	401					2035	577	538	3102	
v/s Ratio Prot	0.14	0.01						0.12		0.01	c0.65	
v/s Ratio Perm			c0.29						0.00			
v/c Ratio	0.56	0.03	1.13					0.28	0.00	0.05	1.07	
Uniform Delay, d1	48.7	42.1	56.0					28.3	25.0	53.8	29.2	
Progression Factor	1.00	1.00	1.00					0.10	0.02	0.81	0.41	
Incremental Delay, d2	0.8	0.0	85.4					0.0	0.0	0.0	35.0	
Delay (s)	49.5	42.2	141.4					3.0	0.4	43.5	47.0	
Level of Service	D	D	F					A	A	D	D	
Approach Delay (s)		95.6			0.0			2.9			46.9	
Approach LOS		F			A			A			D	

Intersection Summary

HCM Average Control Delay	52.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	103.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

21: N B Street & 16th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	103	7	0	0	10	5	184	2271	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.97			1.00				
Flpb, ped/bikes	0.91	0.92			1.00			1.00				
Frt	1.00	1.00			0.96			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1533	1565			1720			6361				
Flt Permitted	0.75	0.79			1.00			1.00				
Satd. Flow (perm)	1207	1289			1720			6361				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	103	7	0	0	10	5	184	2271	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	1	0	0	0	0
Lane Group Flow (vph)	55	55	0	0	12	0	0	2464	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	12.0	12.0			12.0			30.0				
Effective Green, g (s)	12.0	12.0			12.0			30.0				
Actuated g/C Ratio	0.24	0.24			0.24			0.60				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	290	309			413			3817				
v/s Ratio Prot					0.01							
v/s Ratio Perm	c0.05	0.04						0.39				
v/c Ratio	0.19	0.18			0.03			0.65				
Uniform Delay, d1	15.1	15.1			14.5			6.5				
Progression Factor	1.00	1.00			1.00			0.44				
Incremental Delay, d2	1.4	1.3			0.1			0.8				
Delay (s)	16.6	16.3			14.7			3.7				
Level of Service	B	B			B			A				
Approach Delay (s)		16.5			14.7			3.7			0.0	
Approach LOS		B			B			A			A	

Intersection Summary

HCM Average Control Delay	4.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 26: Railyards Blvd & Jibboom St

6/25/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WT		T		T	T
Volume (vph)	226	15	63	455	108	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0	4.0
Lane Util. Factor	0.97		1.00		1.00	1.00
Frt	0.99		0.88		1.00	1.00
Flt Protected	0.96		1.00		0.95	1.00
Satd. Flow (prot)	3420		1642		1770	1863
Flt Permitted	0.96		1.00		0.39	1.00
Satd. Flow (perm)	3420		1642		731	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	226	15	63	455	108	255
RTOR Reduction (vph)	6	0	171	0	0	0
Lane Group Flow (vph)	235	0	347	0	108	255
Turn Type					Perm	
Protected Phases	4		2			6
Permitted Phases					6	
Actuated Green, G (s)	24.0		53.0		53.0	53.0
Effective Green, g (s)	24.0		53.0		53.0	53.0
Actuated g/C Ratio	0.28		0.62		0.62	0.62
Clearance Time (s)	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	966		1024		456	1162
v/s Ratio Prot	c0.07		c0.21			0.14
v/s Ratio Perm					0.15	
v/c Ratio	0.24		0.34		0.24	0.22
Uniform Delay, d1	23.5		7.6		7.1	7.0
Progression Factor	0.77		1.00		1.00	1.00
Incremental Delay, d2	0.6		0.2		1.2	0.4
Delay (s)	18.6		7.8		8.3	7.4
Level of Service	B		A		A	A
Approach Delay (s)	18.6		7.8			7.7
Approach LOS	B		A			A

Intersection Summary			
HCM Average Control Delay		10.1	HCM Level of Service B
HCM Volume to Capacity ratio		0.31	
Actuated Cycle Length (s)		85.0	Sum of lost time (s) 8.0
Intersection Capacity Utilization		54.3%	ICU Level of Service A
Analysis Period (min)		15	
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	313	110	139	5	96	11	74	60	5	76	202	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95		0.95	0.95			1.00	1.00
Frt	1.00	0.92		1.00	0.98		1.00	0.99			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	1.00
Satd. Flow (prot)	1770	1707		1770	3485		1681	1743			1838	1583
Flt Permitted	0.68	1.00		0.54	1.00		0.95	1.00			0.99	1.00
Satd. Flow (perm)	1275	1707		1008	3485		1681	1743			1838	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	313	110	139	5	96	11	74	60	5	76	202	70
RTOR Reduction (vph)	0	44	0	0	6	0	0	3	0	0	0	54
Lane Group Flow (vph)	313	205	0	5	101	0	67	69	0	0	278	16
Turn Type	Perm			Perm			Split			Split		Perm
Protected Phases		2			6		3	3		4	4	
Permitted Phases	2			6								4
Actuated Green, G (s)	36.3	36.3		36.3	36.3		16.8	16.8			19.9	19.9
Effective Green, g (s)	36.3	36.3		36.3	36.3		16.8	16.8			19.9	19.9
Actuated g/C Ratio	0.43	0.43		0.43	0.43		0.20	0.20			0.23	0.23
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	545	729		430	1488		332	344			430	371
v/s Ratio Prot		0.12			0.03		c0.04	0.04			c0.15	
v/s Ratio Perm	c0.25			0.00								0.01
v/c Ratio	0.57	0.28		0.01	0.07		0.20	0.20			0.65	0.04
Uniform Delay, d1	18.5	15.9		14.0	14.4		28.5	28.5			29.4	25.2
Progression Factor	0.89	0.82		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	1.4	0.2		0.0	0.1		0.3	0.3			3.3	0.0
Delay (s)	17.9	13.3		14.1	14.5		28.8	28.8			32.7	25.2
Level of Service	B	B		B	B		C	C			C	C
Approach Delay (s)		15.8			14.4			28.8			31.2	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

30: Railyards Blvd & 5th St

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕				
Volume (vph)	5	152	0	0	207	140	5	767	19	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.0				
Lane Util. Factor	1.00	1.00			0.95			0.91				
Frt	1.00	1.00			0.94			1.00				
Flt Protected	0.95	1.00			1.00			1.00				
Satd. Flow (prot)	1770	1863			3325			5065				
Flt Permitted	0.95	1.00			1.00			1.00				
Satd. Flow (perm)	1770	1863			3325			5065				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	152	0	0	207	140	5	767	19	0	0	0
RTOR Reduction (vph)	0	0	0	0	115	0	0	2	0	0	0	0
Lane Group Flow (vph)	5	152	0	0	232	0	0	789	0	0	0	0
Turn Type	Split						Split					
Protected Phases	4	4			8		2	2				
Permitted Phases					8			2				
Actuated Green, G (s)	14.3	14.3			14.1			38.6				
Effective Green, g (s)	14.3	14.3			14.1			38.6				
Actuated g/C Ratio	0.18	0.18			0.18			0.48				
Clearance Time (s)	4.5	4.5			4.5			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	316	333			586			2444				
v/s Ratio Prot	0.00	c0.08			c0.07			c0.16				
v/s Ratio Perm												
v/c Ratio	0.02	0.46			0.40			0.32				
Uniform Delay, d1	27.1	29.4			29.2			12.7				
Progression Factor	0.49	0.63			1.01			1.00				
Incremental Delay, d2	0.0	1.0			0.4			0.4				
Delay (s)	13.3	19.6			30.0			13.0				
Level of Service	B	B			C			B				
Approach Delay (s)		19.4			30.0			13.0			0.0	
Approach LOS		B			C			B			A	

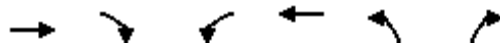
Intersection Summary

HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/25/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↷		↶	↷↷	↶	↷
Volume (vph)	145	5	344	251	97	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	0.95	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1854		1770	3539	1770	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	1854		1770	3539	1770	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	145	5	344	251	97	27
RTOR Reduction (vph)	1	0	0	0	0	22
Lane Group Flow (vph)	149	0	344	251	97	5
Turn Type			Prot			Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	32.7		20.1	56.8	15.2	15.2
Effective Green, g (s)	32.7		20.1	56.8	15.2	15.2
Actuated g/C Ratio	0.41		0.25	0.71	0.19	0.19
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	758		445	2513	336	301
v/s Ratio Prot	c0.08		c0.19	0.07	c0.05	
v/s Ratio Perm						0.00
v/c Ratio	0.20		0.77	0.10	0.29	0.02
Uniform Delay, d1	15.2		27.8	3.6	27.8	26.3
Progression Factor	0.15		0.84	0.64	1.00	1.00
Incremental Delay, d2	0.6		7.7	0.1	0.5	0.0
Delay (s)	2.9		31.1	2.4	28.2	26.4
Level of Service	A		C	A	C	C
Approach Delay (s)	2.9			19.0	27.8	
Approach LOS	A			B	C	

Intersection Summary

HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/25/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		TT			TT	T
Volume (vph)	0	233	0	0	294	567
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		0.88			0.91	0.91
Frt		0.85			0.93	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		2787			3140	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		2787			3140	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	233	0	0	294	567
RTOR Reduction (vph)	0	217	0	0	167	166
Lane Group Flow (vph)	0	16	0	0	411	117
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		5.5			33.0	33.0
Effective Green, g (s)		5.5			33.0	33.0
Actuated g/C Ratio		0.07			0.41	0.41
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		192			1295	594
v/s Ratio Prot		c0.01			c0.13	0.08
v/s Ratio Perm						
v/c Ratio		0.08			0.32	0.20
Uniform Delay, d1		34.9			15.9	15.0
Progression Factor		1.00			1.00	1.00
Incremental Delay, d2		0.2			0.6	0.7
Delay (s)		35.1			16.5	15.8
Level of Service		D			B	B
Approach Delay (s)	35.1			0.0	16.3	
Approach LOS	D			A	B	

Intersection Summary

HCM Average Control Delay	20.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	41.5
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗		↖↗↘				
Volume (vph)	42	5	0	0	113	929	87	651	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.95	0.95			0.95	0.95		0.91				
Frt	1.00	1.00			0.88	0.85		1.00				
Flt Protected	0.95	0.96			1.00	1.00		0.99				
Satd. Flow (prot)	1681	1703			1561	1504		5051				
Flt Permitted	0.95	0.96			1.00	1.00		0.99				
Satd. Flow (perm)	1681	1703			1561	1504		5051				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	5	0	0	113	929	87	651	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	133	197	0	1	0	0	0	0
Lane Group Flow (vph)	24	23	0	0	398	314	0	742	0	0	0	0
Turn Type	Split					Perm	Perm					
Protected Phases	4	4			8			2				
Permitted Phases						8	2	2				
Actuated Green, G (s)	18.0	18.0			45.0	45.0		25.0				
Effective Green, g (s)	18.0	18.0			45.0	45.0		25.0				
Actuated g/C Ratio	0.18	0.18			0.45	0.45		0.25				
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)	303	307			702	677		1263				
v/s Ratio Prot	c0.01	0.01			c0.25							
v/s Ratio Perm						0.21		0.15				
v/c Ratio	0.08	0.07			0.57	0.46		0.59				
Uniform Delay, d1	34.1	34.1			20.3	19.1		33.0				
Progression Factor	1.00	1.00			0.54	0.51		0.92				
Incremental Delay, d2	0.5	0.5			0.3	0.2		1.5				
Delay (s)	34.6	34.6			11.2	10.0		31.7				
Level of Service	C	C			B	A		C				
Approach Delay (s)		34.6			10.6			31.7			0.0	
Approach LOS		C			B			C			A	

Intersection Summary

HCM Average Control Delay	19.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Volume (vph)	5	5	5	161	1044	291	408	271	5	5	603	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00			0.95	
Frt		0.96			0.97		1.00	1.00			0.99	
Flt Protected		0.98			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1750			3418		1770	1858			3512	
Flt Permitted		0.74			0.91		0.95	1.00			0.95	
Satd. Flow (perm)		1317			3131		1770	1858			3347	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	161	1044	291	408	271	5	5	603	31
RTOR Reduction (vph)	0	3	0	0	21	0	0	1	0	0	4	0
Lane Group Flow (vph)	0	12	0	0	1475	0	408	275	0	0	635	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)		45.0			45.0		23.0	47.0			20.0	
Effective Green, g (s)		45.0			45.0		23.0	47.0			20.0	
Actuated g/C Ratio		0.45			0.45		0.23	0.47			0.20	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		593			1409		407	873			669	
v/s Ratio Prot							c0.23	0.15				
v/s Ratio Perm		0.01			c0.47						c0.19	
v/c Ratio		0.02			1.05		1.00	0.32			0.95	
Uniform Delay, d1		15.3			27.5		38.5	16.5			39.5	
Progression Factor		0.98			0.72		0.52	0.17			1.00	
Incremental Delay, d2		0.1			28.7		32.2	0.5			24.3	
Delay (s)		15.1			48.5		52.2	3.4			63.8	
Level of Service		B			D		D	A			E	
Approach Delay (s)		15.1			48.5			32.5			63.8	
Approach LOS		B			D			C			E	

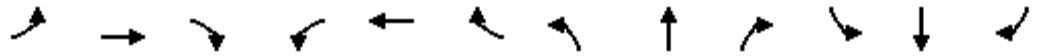
Intersection Summary

HCM Average Control Delay	47.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 40: G Street & 7th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	15	300	1464	0	0	0	0	0	961	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.0	
Lane Util. Factor			1.00	0.91	0.91						0.91	
Frbp, ped/bikes			1.00	1.00	1.00						1.00	
Flpb, ped/bikes			1.00	1.00	1.00						1.00	
Frt			0.86	1.00	1.00						0.96	
Flt Protected			1.00	0.95	1.00						1.00	
Satd. Flow (prot)			1611	1610	3387						4888	
Flt Permitted			1.00	0.95	1.00						1.00	
Satd. Flow (perm)			1611	1610	3387						4888	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	300	1464	0	0	0	0	0	961	335
RTOR Reduction (vph)	0	0	14	135	2	0	0	0	0	0	63	0
Lane Group Flow (vph)	0	0	1	135	1492	0	0	0	0	0	1233	0
Confl. Peds. (#/hr)						72						
Turn Type			custom	Perm								
Protected Phases			1		2						4	
Permitted Phases			1	2								
Actuated Green, G (s)			4.5	47.5	47.5						27.5	
Effective Green, g (s)			4.5	47.0	47.5						27.0	
Actuated g/C Ratio			0.04	0.47	0.48						0.27	
Clearance Time (s)			3.5	3.5	3.5						3.5	
Lane Grp Cap (vph)			72	757	1609						1320	
v/s Ratio Prot			c0.00								c0.25	
v/s Ratio Perm				0.08	0.44							
v/c Ratio			0.01	0.18	0.93						0.93	
Uniform Delay, d1			45.6	15.3	24.6						35.6	
Progression Factor			1.00	1.78	1.07						0.56	
Incremental Delay, d2			0.2	0.4	8.8						10.7	
Delay (s)			45.8	27.7	35.1						30.5	
Level of Service			D	C	D						C	
Approach Delay (s)		45.8			34.0			0.0			30.5	
Approach LOS		D			C			A			C	
Intersection Summary												
HCM Average Control Delay			32.6		HCM Level of Service			C				
HCM Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			21.0				
Intersection Capacity Utilization			81.6%		ICU Level of Service			D				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	376	55	0	0	0	0	883	280	460	282	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0		4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95		0.95	0.95	
Frbp, ped/bikes	1.00	0.98						0.96		1.00	1.00	
Flpb, ped/bikes	0.86	1.00						1.00		1.00	1.00	
Frt	1.00	0.98						0.96		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (prot)	1515	3404						3286		1681	1747	
Flt Permitted	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (perm)	1515	3404						3286		1681	1747	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	883	280	460	282	0
RTOR Reduction (vph)	0	12	0	0	0	0	0	31	0	0	0	0
Lane Group Flow (vph)	20	419	0	0	0	0	0	1132	0	363	379	0
Confl. Peds. (#/hr)	72		72							72	72	
Turn Type	Perm						Split					
Protected Phases	1						2					
Permitted Phases	1						6					
Actuated Green, G (s)	15.5	15.5						40.5		25.0	25.0	
Effective Green, g (s)	15.5	15.0						40.0		24.5	24.5	
Actuated g/C Ratio	0.16	0.15						0.40		0.24	0.24	
Clearance Time (s)	3.5	3.5						3.5		4.0	4.0	
Lane Grp Cap (vph)	235	511						1314		412	428	
v/s Ratio Prot		c0.12						c0.34		0.22	c0.22	
v/s Ratio Perm	0.01											
v/c Ratio	0.09	0.82						0.86		0.88	0.89	
Uniform Delay, d1	36.2	41.2						27.5		36.3	36.4	
Progression Factor	0.81	0.81						0.68		0.48	0.48	
Incremental Delay, d2	0.5	10.6						4.1		8.4	8.4	
Delay (s)	30.0	43.8						22.9		26.0	26.0	
Level of Service	C	D						C		C	C	
Approach Delay (s)		43.2			0.0			22.9			26.0	
Approach LOS		D			A			C			C	

Intersection Summary

HCM Average Control Delay	27.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	77.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/25/2007

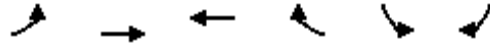


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑								↘	↙↑		
Volume (vph)	0	957	118	0	0	0	0	0	0	310	863	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0								4.0	4.0		
Lane Util. Factor		0.95								0.91	0.91		
Frbp, ped/bikes		0.99								1.00	1.00		
Flpb, ped/bikes		1.00								0.95	1.00		
Frt		0.98								1.00	1.00		
Flt Protected		1.00								0.95	1.00		
Satd. Flow (prot)		3457								1528	3378		
Flt Permitted		1.00								0.95	1.00		
Satd. Flow (perm)		3457								1528	3378		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	957	118	0	0	0	0	0	0	310	863	0	
RTOR Reduction (vph)	0	19	0	0	0	0	0	0	0	110	5	0	
Lane Group Flow (vph)	0	1056	0	0	0	0	0	0	0	169	889	0	
Confl. Peds. (#/hr)			72							72			
Turn Type										Perm			
Protected Phases		1									2		
Permitted Phases										2			
Actuated Green, G (s)		18.5								19.5	19.5		
Effective Green, g (s)		18.0								19.0	19.0		
Actuated g/C Ratio		0.36								0.38	0.38		
Clearance Time (s)		3.5								3.5	3.5		
Lane Grp Cap (vph)		1245								581	1284		
v/s Ratio Prot		c0.31											
v/s Ratio Perm										0.11	0.26		
v/c Ratio		0.85								0.29	0.69		
Uniform Delay, d1		14.7								10.8	13.0		
Progression Factor		1.17								0.64	0.68		
Incremental Delay, d2		3.7								0.7	1.8		
Delay (s)		20.9								7.6	10.7		
Level of Service		C								A	B		
Approach Delay (s)		20.9			0.0			0.0			10.0		
Approach LOS		C			A			A			A		
Intersection Summary													
HCM Average Control Delay			15.2		HCM Level of Service						B		
HCM Volume to Capacity ratio			0.77										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)					13.0			
Intersection Capacity Utilization			61.3%		ICU Level of Service					B			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/25/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	653	205	174	36	146	754
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.89	
Flt Protected	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (prot)	1770	1863	1863	1583	1639	
Flt Permitted	0.95	1.00	1.00	1.00	0.99	
Satd. Flow (perm)	1770	1863	1863	1583	1639	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	653	205	174	36	146	754
RTOR Reduction (vph)	0	0	0	16	128	0
Lane Group Flow (vph)	653	205	174	20	772	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	52.5	57.9	14.0	80.0	66.0	
Effective Green, g (s)	53.0	57.9	14.0	80.0	66.0	
Actuated g/C Ratio	0.37	0.40	0.10	0.55	0.46	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	647	744	180	917	746	
v/s Ratio Prot	c0.37	0.11	c0.09	0.01	c0.47	
v/s Ratio Perm				0.00		
v/c Ratio	1.01	0.28	0.97	0.02	1.03	
Uniform Delay, d1	46.0	29.4	65.3	14.7	39.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	37.7	0.3	57.3	0.0	42.3	
Delay (s)	83.7	29.7	122.6	14.8	81.8	
Level of Service	F	C	F	B	F	
Approach Delay (s)		70.8	104.1		81.8	
Approach LOS		E	F		F	

Intersection Summary

HCM Average Control Delay	79.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	110.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖↗	↑↑				↖↗
Volume (vph)	0	0	0	0	1356	108	192	1492	0	0	0	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					0.99		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6143		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6143		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1356	108	192	1492	0	0	0	34
RTOR Reduction (vph)	0	0	0	0	13	0	4	0	0	0	0	2
Lane Group Flow (vph)	0	0	0	0	1451	0	188	1492	0	0	0	32
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					16.0		25.5	25.5				25.5
Effective Green, g (s)					17.0		25.0	25.0				25.5
Actuated g/C Ratio					0.34		0.50	0.50				0.51
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					2089		1717	1681				1421
v/s Ratio Prot					c0.24		0.05	c0.44				
v/s Ratio Perm												0.01
v/c Ratio					0.69		0.11	0.89				0.02
Uniform Delay, d1					14.3		6.6	11.2				6.1
Progression Factor					0.62		0.91	0.91				1.00
Incremental Delay, d2					1.2		0.1	4.8				0.0
Delay (s)					10.0		6.1	15.0				6.1
Level of Service					B		A	B				A
Approach Delay (s)		0.0			10.0			14.0			6.1	
Approach LOS		A			B			B			A	

Intersection Summary

HCM Average Control Delay	12.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑		↑	←↑			↑	↑
Volume (vph)	0	0	0	54	1164	333	34	807	0	0	27	318
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.98		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.97		1.00	1.00			0.87	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4806		1610	3390			1546	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4806		1610	3390			1546	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	54	1164	333	34	807	0	0	27	318
RTOR Reduction (vph)	0	0	0	0	99	0	0	0	0	0	127	150
Lane Group Flow (vph)	0	0	0	0	1452	0	31	810	0	0	46	22
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom						custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					18.0		14.5	14.5			7.0	7.0
Effective Green, g (s)					17.5		14.0	14.0			6.5	6.5
Actuated g/C Ratio					0.35		0.28	0.28			0.13	0.13
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1682		451	949			201	196
v/s Ratio Prot							0.02	c0.24			c0.03	0.01
v/s Ratio Perm					0.30							
v/c Ratio					0.86		0.07	0.85			0.23	0.11
Uniform Delay, d1					15.1		13.2	17.0			19.5	19.2
Progression Factor					0.60		1.32	1.40			3.49	4.84
Incremental Delay, d2					5.0		0.2	7.1			1.3	0.6
Delay (s)					14.1		17.6	30.9			69.4	93.6
Level of Service					B		B	C			E	F
Approach Delay (s)		0.0			14.1			30.4			81.5	
Approach LOS		A			B			C			F	

Intersection Summary

HCM Average Control Delay	27.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖↖↖						↗↗	↗↗
Volume (vph)	0	0	0	369	1275	0	0	0	0	0	780	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.93	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1412	4789						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1412	4789						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	369	1275	0	0	0	0	0	780	270
RTOR Reduction (vph)	0	0	0	122	5	0	0	0	0	0	0	176
Lane Group Flow (vph)	0	0	0	210	1307	0	0	0	0	0	780	94
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1							2
Permitted Phases				1								2
Actuated Green, G (s)				20.5	20.5						17.5	17.5
Effective Green, g (s)				20.0	20.0						17.0	17.0
Actuated g/C Ratio				0.40	0.40						0.34	0.34
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				565	1916						1203	948
v/s Ratio Prot											c0.22	
v/s Ratio Perm				0.15	0.27							0.03
v/c Ratio				0.37	0.68						0.65	0.10
Uniform Delay, d1				10.6	12.4						14.0	11.3
Progression Factor				1.00	1.00						0.88	2.25
Incremental Delay, d2				1.9	2.0						2.0	0.2
Delay (s)				12.4	14.4						14.3	25.5
Level of Service				B	B						B	C
Approach Delay (s)		0.0			14.0			0.0			17.2	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/25/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	6	1675	600	102	184	146	2	2058	1085
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6053		2787	3433	1863	1584	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6053		2787	3433	1863	1584	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	1675	600	102	184	146	2	2058	1085
RTOR Reduction (vph)	0	0	0	3	0	0	0	41	0
Lane Group Flow (vph)	0	2281	0	99	184	146	1052	2052	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		32.0		6.5	6.5	6.5	50.0	50.0	
Effective Green, g (s)		32.0		6.0	6.0	6.0	50.0	50.0	
Actuated g/C Ratio		0.32		0.06	0.06	0.06	0.50	0.50	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1937		167	206	112	792	1441	
v/s Ratio Prot		c0.38				c0.08	0.66	c0.71	
v/s Ratio Perm				0.04	0.05				
v/c Ratio		1.18		0.59	0.89	1.30	1.33	1.42	
Uniform Delay, d1		34.0		45.8	46.7	47.0	25.0	25.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		85.7		3.7	34.2	187.0	156.4	194.9	
Delay (s)		119.7		49.6	80.9	234.0	181.4	219.9	
Level of Service		F		D	F	F	F	F	
Approach Delay (s)		119.7				148.6	207.0		
Approach LOS		F				F	F		

Intersection Summary

HCM Average Control Delay	167.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	145.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/25/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	200	345	161	61	485	78	1309	339	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.5	5.0	4.5	4.5	5.0	4.5	
Lane Util. Factor	0.95	0.86	0.91	0.95	0.97	1.00	0.95	1.00	
Frt	1.00	0.99	0.85	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1681	1588	1441	1504	3433	1863	3539	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)	1681	1588	1441	1504	3433	1863	3539	1583	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	200	345	161	61	485	78	1309	339	38
RTOR Reduction (vph)	0	0	1	40	0	0	0	4	0
Lane Group Flow (vph)	180	381	150	15	485	78	1309	373	0
Turn Type	Perm		Perm	Perm	Prot			Perm	
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2				4	
Actuated Green, G (s)	28.5	28.5	28.5	28.5	16.5	62.5	41.5	41.5	
Effective Green, g (s)	28.0	28.0	28.5	28.0	16.5	62.5	41.0	41.5	
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.16	0.62	0.41	0.42	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lane Grp Cap (vph)	471	445	411	421	566	1164	1451	657	
v/s Ratio Prot					c0.14	0.04	c0.37		
v/s Ratio Perm	0.11	0.24	0.10	0.01				0.24	
v/c Ratio	0.38	0.86	0.36	0.04	0.86	0.07	0.90	0.57	
Uniform Delay, d1	29.0	34.1	28.5	26.2	40.6	7.3	27.6	22.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.3	18.7	2.5	0.2	15.4	0.1	9.4	3.5	
Delay (s)	31.4	52.8	31.0	26.4	56.0	7.4	37.0	25.9	
Level of Service	C	D	C	C	E	A	D	C	
Approach Delay (s)		41.6				49.3	34.6		
Approach LOS		D				D	C		

Intersection Summary

HCM Average Control Delay	39.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	755	388	0	0	141	78	355	976	37	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.97		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.95		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4672		3433	5041				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4672		3433	5041				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	755	388	0	0	141	78	355	976	37	0	0	0
RTOR Reduction (vph)	0	0	0	0	16	0	0	6	0	0	0	0
Lane Group Flow (vph)	755	388	0	0	203	0	355	1007	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot					custom						
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	21.5	43.5			18.5		18.5	18.5				
Effective Green, g (s)	21.0	43.0			18.0		18.0	18.0				
Actuated g/C Ratio	0.30	0.61			0.26		0.26	0.26				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	1030	2174			1201		883	1296				
v/s Ratio Prot	c0.22	c0.11			0.04		0.10	c0.20				
v/s Ratio Perm												
v/c Ratio	0.73	0.18			0.17		0.40	0.78				
Uniform Delay, d1	22.0	5.8			20.2		21.5	24.1				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	4.6	0.2			0.3		1.4	4.6				
Delay (s)	26.6	6.0			20.5		22.9	28.8				
Level of Service	C	A			C		C	C				
Approach Delay (s)		19.6			20.5			27.2			0.0	
Approach LOS		B			C			C			A	

Intersection Summary

HCM Average Control Delay	23.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Volume (vph)	0	0	0	200	1076	0	0	0	0	0	405	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.91	0.91
Frbp, ped/bikes					1.00						1.00	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.99	0.85
Flt Protected					0.99						1.00	1.00
Satd. Flow (prot)					4878						3194	1190
Flt Permitted					0.99						1.00	1.00
Satd. Flow (perm)					4878						3194	1190
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	200	1076	0	0	0	0	0	405	152
RTOR Reduction (vph)	0	0	0	0	54	0	0	0	0	0	5	54
Lane Group Flow (vph)	0	0	0	0	1222	0	0	0	0	0	415	83
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2634						958	357
v/s Ratio Prot					c0.25						c0.13	
v/s Ratio Perm												0.07
v/c Ratio					0.46						0.43	0.23
Uniform Delay, d1					7.1						14.1	13.2
Progression Factor					1.00						0.72	0.85
Incremental Delay, d2					0.6						0.7	0.8
Delay (s)					7.6						10.8	12.0
Level of Service					A						B	B
Approach Delay (s)		0.0			7.6			0.0			11.1	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	8.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

64: Richards Blvd & 12th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔	↑↑	↗	↔↔	↑↑↑			↑↑↑	↔↔
Volume (vph)	0	0	0	46	908	95	5	1051	0	0	3304	552
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.97	0.95	1.00	0.97	0.91			0.91	0.88
Fr _t				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Fl _t Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				3433	3539	1583	3433	5085			5085	2787
Fl _t Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				3433	3539	1583	3433	5085			5085	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	46	908	95	5	1051	0	0	3304	552
RTOR Reduction (vph)	0	0	0	0	0	52	0	0	0	0	0	96
Lane Group Flow (vph)	0	0	0	46	908	43	5	1051	0	0	3304	456
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					4		5	2			6	
Permitted Phases				4		4						6
Actuated Green, G (s)				35.0	35.0	35.0	1.0	107.0			102.0	102.0
Effective Green, g (s)				35.0	35.0	35.0	1.0	107.0			102.0	102.0
Actuated g/C Ratio				0.23	0.23	0.23	0.01	0.71			0.68	0.68
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				801	826	369	23	3627			3458	1895
v/s Ratio Prot					c0.26		0.00	c0.21			c0.65	
v/s Ratio Perm				0.01		0.03						0.16
v/c Ratio				0.06	1.10	0.12	0.22	0.29			0.96	0.24
Uniform Delay, d ₁				44.7	57.5	45.3	74.1	7.8			21.9	9.2
Progression Factor				1.00	1.00	1.00	1.28	1.52			1.00	1.00
Incremental Delay, d ₂				0.0	62.0	0.1	4.5	0.2			8.0	0.3
Delay (s)				44.7	119.5	45.5	99.4	12.0			29.9	9.5
Level of Service				D	F	D	F	B			C	A
Approach Delay (s)		0.0			109.6			12.4			27.0	
Approach LOS		A			F			B			C	

Intersection Summary

HCM Average Control Delay	38.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖↖↖	↑						↑↑	↗
Volume (vph)	0	0	0	711	707	0	0	0	0	0	663	598
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.94	1.00						0.95	1.00
Frbp, ped/bikes				1.00	1.00						1.00	0.79
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				4990	1863						3539	1258
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				4990	1863						3539	1258
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	711	707	0	0	0	0	0	663	598
RTOR Reduction (vph)	0	0	0	288	0	0	0	0	0	0	0	227
Lane Group Flow (vph)	0	0	0	423	707	0	0	0	0	0	663	371
Confl. Peds. (#/hr)			55									55
Turn Type				Prot								Perm
Protected Phases				1 9	3 12 13						4	
Permitted Phases												4
Actuated Green, G (s)				67.0	77.5						25.0	25.0
Effective Green, g (s)				65.5	77.0						25.0	25.0
Actuated g/C Ratio				0.60	0.70						0.23	0.23
Clearance Time (s)											4.0	4.0
Vehicle Extension (s)											5.0	5.0
Lane Grp Cap (vph)				2971	1304						804	286
v/s Ratio Prot				0.08	c0.38						0.19	
v/s Ratio Perm												c0.29
v/c Ratio				0.14	0.54						0.82	1.30
Uniform Delay, d1				9.8	8.0						40.4	42.5
Progression Factor				1.98	0.69						1.00	1.00
Incremental Delay, d2				0.0	0.8						7.7	156.9
Delay (s)				19.5	6.3						48.1	199.4
Level of Service				B	A						D	F
Approach Delay (s)		0.0			12.9			0.0			119.8	
Approach LOS		A			B			A			F	

Intersection Summary

HCM Average Control Delay	63.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑↑	↑	↑				
Volume (vph)	0	0	0	0	1339	2293	56	120	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.88	1.00	1.00				
Frbp, ped/bikes					1.00	0.86	1.00	1.00				
Flpb, ped/bikes					1.00	1.00	1.00	1.00				
Frt					1.00	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					5085	2391	1770	1863				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					5085	2391	1770	1863				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1339	2293	56	120	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	246	46	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1339	2047	10	120	0	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type						custom	Split					
Protected Phases					6 11 15	11	8 16	8 16				
Permitted Phases						6 15						
Actuated Green, G (s)					83.5	75.5	19.5	19.5				
Effective Green, g (s)					83.5	75.5	19.0	19.0				
Actuated g/C Ratio					0.76	0.69	0.17	0.17				
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)					3860	1815	306	322				
v/s Ratio Prot					0.26	c0.44	0.01	c0.06				
v/s Ratio Perm						0.42						
v/c Ratio					0.35	1.13	0.03	0.37				
Uniform Delay, d1					4.3	17.2	37.8	40.2				
Progression Factor					0.54	1.00	0.86	0.97				
Incremental Delay, d2					0.0	60.7	0.1	1.5				
Delay (s)					2.4	78.0	32.8	40.6				
Level of Service					A	E	C	D				
Approach Delay (s)		0.0			50.1			38.1			0.0	
Approach LOS		A			D			D			A	

Intersection Summary

HCM Average Control Delay	49.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↑↑↑↑		↔	↔			↑	↔
Volume (vph)	0	0	0	270	3003	36	718	186	0	0	186	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.81		0.95	0.95			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes				0.85	1.00		1.00	1.00			1.00	1.00
Frft				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	0.97			1.00	1.00
Satd. Flow (prot)				1510	7516		1681	1719			1863	1583
Flt Permitted				0.95	1.00		0.95	0.97			1.00	1.00
Satd. Flow (perm)				1510	7516		1681	1719			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	270	3003	36	718	186	0	0	186	259
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	13
Lane Group Flow (vph)	0	0	0	270	3037	0	445	459	0	0	186	246
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type				Perm			Split					Perm
Protected Phases					2		3	3			4	
Permitted Phases				2								4
Actuated Green, G (s)				49.6	49.6		30.8	30.8			18.0	18.0
Effective Green, g (s)				49.0	49.0		30.3	30.3			17.5	17.5
Actuated g/C Ratio				0.45	0.45		0.28	0.28			0.16	0.16
Clearance Time (s)				4.6	4.6		3.5	3.5			3.5	3.5
Vehicle Extension (s)				0.2	0.2		0.2	0.2			0.2	0.2
Lane Grp Cap (vph)				673	3348		463	474			296	252
v/s Ratio Prot					c0.40		0.26	c0.27			0.10	
v/s Ratio Perm				0.18								c0.16
v/c Ratio				0.40	0.91		0.96	0.97			0.63	0.98
Uniform Delay, d1				20.6	28.4		39.3	39.4			43.2	46.1
Progression Factor				1.00	1.00		0.55	0.55			1.00	1.00
Incremental Delay, d2				1.8	4.7		26.8	27.8			3.0	49.7
Delay (s)				22.4	33.1		48.4	49.4			46.2	95.8
Level of Service				C	C		D	D			D	F
Approach Delay (s)		0.0			32.2			48.9			75.1	
Approach LOS		A			C			D			E	

Intersection Summary

HCM Average Control Delay	39.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & N 5th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↖	↑↑				↗
Volume (vph)	0	0	0	0	2279	235	38	1721	0	0	0	1183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.6		4.0	4.0				3.5
Lane Util. Factor					0.81		1.00	0.95				0.88
Frbp, ped/bikes					0.99		1.00	1.00				0.93
Flpb, ped/bikes					1.00		0.95	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					7401		1673	3539				2604
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					7401		1673	3539				2604
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	2279	235	38	1721	0	0	0	1183
RTOR Reduction (vph)	0	0	0	0	19	0	17	0	0	0	0	149
Lane Group Flow (vph)	0	0	0	0	2495	0	21	1721	0	0	0	1034
Confl. Peds. (#/hr)			40			40	40		40	40		40
Turn Type							Perm					custom
Protected Phases					2			8				
Permitted Phases					2		8					4
Actuated Green, G (s)					34.1		48.1	48.1				48.1
Effective Green, g (s)					33.8		47.6	47.6				48.1
Actuated g/C Ratio					0.34		0.48	0.48				0.48
Clearance Time (s)					4.3		3.5	3.5				3.5
Vehicle Extension (s)					2.0		2.0	2.0				2.0
Lane Grp Cap (vph)					2502		796	1685				1253
v/s Ratio Prot					c0.34			c0.49				
v/s Ratio Perm							0.01					0.40
v/c Ratio					1.00		0.03	1.02				0.83
Uniform Delay, d1					33.1		13.9	26.2				22.3
Progression Factor					0.59		1.04	0.89				1.00
Incremental Delay, d2					16.5		0.0	23.5				4.3
Delay (s)					36.1		14.5	46.8				26.7
Level of Service					D		B	D				C
Approach Delay (s)		0.0			36.1			46.1			26.7	
Approach LOS		A			D			D			C	

Intersection Summary

HCM Average Control Delay	37.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.6
Intersection Capacity Utilization	128.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richards Blvd & 10th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑		↘↘	↑			↑	↗
Volume (vph)	0	0	0	84	1019	15	1241	22	0	0	38	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.0	4.0		4.5	4.0			4.0	4.0
Lane Util. Factor				1.00	0.86		0.97	1.00			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.91
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	6394		3433	1863			1863	1445
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1770	6394		3433	1863			1863	1445
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	84	1019	15	1241	22	0	0	38	170
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	14
Lane Group Flow (vph)	0	0	0	84	1032	0	1241	22	0	0	38	156
Confl. Peds. (#/hr)			35				35					35
Turn Type				Perm			Prot					Perm
Protected Phases					6		3	8			4	
Permitted Phases				6								4
Actuated Green, G (s)				32.0	32.0		41.9	60.0			14.1	14.1
Effective Green, g (s)				31.5	32.5		41.4	59.5			13.6	13.6
Actuated g/C Ratio				0.32	0.32		0.41	0.60			0.14	0.14
Clearance Time (s)				4.5	4.5		4.0	3.5			3.5	3.5
Vehicle Extension (s)				2.0	2.0		3.0	0.2			2.0	2.0
Lane Grp Cap (vph)				558	2078		1421	1108			253	197
v/s Ratio Prot					c0.16		c0.36	0.01			0.02	
v/s Ratio Perm				0.05								c0.11
v/c Ratio				0.15	0.50		0.87	0.02			0.15	0.79
Uniform Delay, d1				24.6	27.2		26.9	8.3			38.1	41.8
Progression Factor				1.02	1.01		1.04	1.05			1.00	1.00
Incremental Delay, d2				0.5	0.8		6.2	0.0			0.1	18.1
Delay (s)				25.7	28.3		34.3	8.7			38.2	60.0
Level of Service				C	C		C	A			D	E
Approach Delay (s)		0.0			28.1			33.8			56.0	
Approach LOS		A			C			C			E	

Intersection Summary

HCM Average Control Delay	33.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Bannon St & I-5 NB Off

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑↑						↑	↗↘			
Volume (vph)	111	1162	0	0	0	0	0	21	1784	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5	4.5			
Lane Util. Factor	1.00	0.86						1.00	0.88			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	6408						1863	2787			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	6408						1863	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	111	1162	0	0	0	0	0	21	1784	0	0	0
RTOR Reduction (vph)	75	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	36	1162	0	0	0	0	0	21	1784	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	24.5	24.5						76.5	76.5			
Effective Green, g (s)	24.5	24.5						76.5	76.5			
Actuated g/C Ratio	0.22	0.22						0.70	0.70			
Clearance Time (s)	4.5	4.5						4.5	4.5			
Vehicle Extension (s)	3.0	3.0						3.0	3.0			
Lane Grp Cap (vph)	394	1427						1296	1938			
v/s Ratio Prot	0.02	c0.18						0.01				
v/s Ratio Perm									c0.64			
v/c Ratio	0.09	0.81						0.02	0.92			
Uniform Delay, d1	33.9	40.6						5.2	14.2			
Progression Factor	0.92	0.92						1.00	1.00			
Incremental Delay, d2	0.4	4.6						0.0	7.7			
Delay (s)	31.8	42.1						5.2	21.9			
Level of Service	C	D						A	C			
Approach Delay (s)		41.2			0.0			21.7			0.0	
Approach LOS		D			A			C			A	

Intersection Summary

HCM Average Control Delay	29.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	2296	493	0	0	0	0	580	212	176	248	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.86						1.00	1.00	1.00	1.00	
Frt	1.00	0.97						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	6238						1863	1583	1770	1863	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	6238						1863	1583	1770	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	157	2296	493	0	0	0	0	580	212	176	248	0
RTOR Reduction (vph)	0	35	0	0	0	0	0	0	18	0	0	0
Lane Group Flow (vph)	157	2754	0	0	0	0	0	580	194	176	248	0
Turn Type	Split						Perm			Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	50.5	50.5						35.5	35.5	12.0	51.5	
Effective Green, g (s)	50.5	50.5						35.5	35.5	12.0	51.5	
Actuated g/C Ratio	0.46	0.46						0.32	0.32	0.11	0.47	
Clearance Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	813	2864						601	511	193	872	
v/s Ratio Prot	0.09	c0.44						c0.31		c0.10	0.13	
v/s Ratio Perm									0.12			
v/c Ratio	0.19	0.96						0.97	0.38	0.91	0.28	
Uniform Delay, d1	17.7	28.8						36.6	28.8	48.5	17.9	
Progression Factor	1.06	1.07						1.00	1.00	0.82	0.42	
Incremental Delay, d2	0.2	5.4						27.9	0.5	37.6	0.2	
Delay (s)	18.9	36.2						64.5	29.2	77.6	7.7	
Level of Service	B	D						E	C	E	A	
Approach Delay (s)		35.3			0.0			55.1			36.7	
Approach LOS		D			A			E			D	

Intersection Summary

HCM Average Control Delay	39.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

14: Bannon St & N 5th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↔						↑↑↑				
Volume (vph)	1342	1705	0	0	0	0	0	671	545	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.0				
Lane Util. Factor	0.81	0.81						0.91				
Frt	1.00	1.00						0.93				
Flt Protected	0.95	0.99						1.00				
Satd. Flow (prot)	1433	5951						4743				
Flt Permitted	0.95	0.99						1.00				
Satd. Flow (perm)	1433	5951						4743				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1342	1705	0	0	0	0	0	671	545	0	0	0
RTOR Reduction (vph)	27	27	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	644	2349	0	0	0	0	0	1201	0	0	0	0
Turn Type	Perm											
Protected Phases	4						2					
Permitted Phases	4											
Actuated Green, G (s)	58.5	58.5						33.0				
Effective Green, g (s)	58.5	58.5						33.0				
Actuated g/C Ratio	0.58	0.58						0.33				
Clearance Time (s)	4.5	4.5						4.0				
Vehicle Extension (s)	3.0	3.0						3.0				
Lane Grp Cap (vph)	838	3481						1565				
v/s Ratio Prot								c0.25				
v/s Ratio Perm	c0.45	0.39										
v/c Ratio	0.77	0.67						1.00dr				
Uniform Delay, d1	15.6	14.2						30.1				
Progression Factor	1.00	1.00						1.00				
Incremental Delay, d2	4.3	0.5						3.7				
Delay (s)	19.9	14.8						33.7				
Level of Service	B	B						C				
Approach Delay (s)		15.9			0.0			33.7			0.0	
Approach LOS		B			A			C			A	

Intersection Summary

HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	128.2%	ICU Level of Service	H
Analysis Period (min)	15		

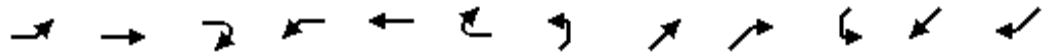
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

16: Richards & 12th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖↗	↑↑	↖					↑↑↑	↖	↖↗	↑↑↑	
Volume (vph)	1441	35	790	0	0	0	0	1081	7	46	3139	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Lane Util. Factor	0.97	0.95	1.00					0.86	0.86	0.97	0.91	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	1583					4805	1362	3433	5085	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	1583					4805	1362	3433	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1441	35	790	0	0	0	0	1081	7	46	3139	0
RTOR Reduction (vph)	0	0	71	0	0	0	0	0	2	0	0	0
Lane Group Flow (vph)	1441	35	719	0	0	0	0	1082	4	46	3139	0
Turn Type	custom		Perm						Perm		Prot	
Protected Phases	4	4						2		1	6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	53.5	53.5	53.5					59.0	59.0	24.5	88.0	
Effective Green, g (s)	53.5	53.5	53.5					59.0	59.0	24.5	88.0	
Actuated g/C Ratio	0.36	0.36	0.36					0.39	0.39	0.16	0.59	
Clearance Time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1224	1262	565					1890	536	561	2983	
v/s Ratio Prot	0.42	0.01						0.23		0.01	c0.62	
v/s Ratio Perm			c0.45						0.00			
v/c Ratio	1.18	0.03	1.27					0.57	0.01	0.08	1.05	
Uniform Delay, d1	48.2	31.4	48.2					35.6	27.7	53.2	31.0	
Progression Factor	1.00	1.00	1.00					0.49	0.19	0.68	0.55	
Incremental Delay, d2	88.6	0.0	136.2					0.1	0.0	0.0	28.8	
Delay (s)	136.8	31.4	184.5					17.7	5.1	36.2	45.7	
Level of Service	F	C	F					B	A	D	D	
Approach Delay (s)		151.8			0.0			17.6			45.6	
Approach LOS		F			A			B			D	

Intersection Summary

HCM Average Control Delay	77.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	143.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

21: N B Street & 16th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖			↖↗↘↙				
Volume (vph)	390	54	0	0	7	5	235	4813	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.94			1.00				
Flpb, ped/bikes	0.86	0.89			1.00			0.99				
Frt	1.00	1.00			0.94			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1443	1522			1646			6346				
Flt Permitted	0.75	0.77			1.00			1.00				
Satd. Flow (perm)	1139	1218			1646			6346				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	54	0	0	7	5	235	4813	8	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	222	222	0	0	12	0	0	5056	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	18.0	18.0			18.0			74.0				
Effective Green, g (s)	18.0	18.0			18.0			74.0				
Actuated g/C Ratio	0.18	0.18			0.18			0.74				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	205	219			296			4696				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.19	0.18						0.80				
v/c Ratio	1.08	1.01			0.04			1.08				
Uniform Delay, d1	41.0	41.0			33.9			13.0				
Progression Factor	1.00	1.00			1.00			1.00				
Incremental Delay, d2	86.7	64.4			0.3			39.2				
Delay (s)	127.7	105.4			34.1			52.2				
Level of Service	F	F			C			D				
Approach Delay (s)		116.5			34.1			52.2			0.0	
Approach LOS		F			C			D			A	

Intersection Summary

HCM Average Control Delay	57.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

26: Railyards Blvd & Jibboom St

6/25/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	867	384	25	504	177	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0	4.0
Lane Util. Factor	0.97		1.00		1.00	1.00
Frt	0.95		0.87		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3332		1623		1770	1863
Flt Permitted	0.97		1.00		0.30	1.00
Satd. Flow (perm)	3332		1623		550	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	867	384	25	504	177	32
RTOR Reduction (vph)	62	0	267	0	0	0
Lane Group Flow (vph)	1189	0	262	0	177	32
Turn Type					Perm	
Protected Phases	4		2			6
Permitted Phases					6	
Actuated Green, G (s)	37.0		40.0		40.0	40.0
Effective Green, g (s)	37.0		40.0		40.0	40.0
Actuated g/C Ratio	0.44		0.47		0.47	0.47
Clearance Time (s)	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	1450		764		259	877
v/s Ratio Prot	c0.36		0.16			0.02
v/s Ratio Perm					c0.32	
v/c Ratio	0.82		0.34		0.68	0.04
Uniform Delay, d1	21.1		14.2		17.6	12.1
Progression Factor	0.53		1.00		1.00	1.00
Incremental Delay, d2	4.4		0.3		13.7	0.1
Delay (s)	15.6		14.5		31.2	12.2
Level of Service	B		B		C	B
Approach Delay (s)	15.6		14.5			28.3
Approach LOS	B		B			C

Intersection Summary

HCM Average Control Delay	16.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	210	228	244	12	687	114	376	223	7	71	225	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95		0.95	0.95			1.00	1.00
Frt	1.00	0.92		1.00	0.98		1.00	1.00			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.99			0.99	1.00
Satd. Flow (prot)	1770	1718		1770	3464		1681	1741			1841	1583
Flt Permitted	0.22	1.00		0.27	1.00		0.95	0.99			0.99	1.00
Satd. Flow (perm)	405	1718		497	3464		1681	1741			1841	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	210	228	244	12	687	114	376	223	7	71	225	187
RTOR Reduction (vph)	0	40	0	0	14	0	0	1	0	0	0	90
Lane Group Flow (vph)	210	432	0	12	787	0	297	308	0	0	296	97
Turn Type	Perm			Perm			Split			Split		Perm
Protected Phases	2			6			3	3		4	4	
Permitted Phases	2			6								4
Actuated Green, G (s)	32.2	32.2		32.2	32.2		20.7	20.7			20.1	20.1
Effective Green, g (s)	32.2	32.2		32.2	32.2		20.7	20.7			20.1	20.1
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.24	0.24			0.24	0.24
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	153	651		188	1312		409	424			435	374
v/s Ratio Prot		0.25			0.23		0.18	c0.18			c0.16	
v/s Ratio Perm	c0.52			0.02								0.06
v/c Ratio	1.37	0.66		0.06	0.60		0.73	0.73			0.68	0.26
Uniform Delay, d1	26.4	21.9		16.8	21.2		29.5	29.6			29.5	26.4
Progression Factor	1.18	1.22		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	198.4	2.1		0.7	2.0		6.3	6.1			4.3	0.4
Delay (s)	229.5	28.9		17.5	23.3		35.9	35.7			33.9	26.8
Level of Service	F	C		B	C		D	D			C	C
Approach Delay (s)		90.7			23.2			35.8			31.1	
Approach LOS		F			C			D			C	

Intersection Summary

HCM Average Control Delay	45.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

30: Railyards Blvd & 5th St

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖↗			↖↗↘				
Volume (vph)	5	332	0	0	534	548	341	1510	145	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.0				
Lane Util. Factor	1.00	1.00			0.95			0.91				
Frt	1.00	1.00			0.92			0.99				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1770	1863			3270			4987				
Flt Permitted	0.95	1.00			1.00			0.99				
Satd. Flow (perm)	1770	1863			3270			4987				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	332	0	0	534	548	341	1510	145	0	0	0
RTOR Reduction (vph)	0	0	0	0	154	0	0	7	0	0	0	0
Lane Group Flow (vph)	5	332	0	0	928	0	0	1989	0	0	0	0
Turn Type	Split						Split					
Protected Phases	4	4			8		2	2				
Permitted Phases					8			2				
Actuated Green, G (s)	23.0	23.0			35.4			48.6				
Effective Green, g (s)	23.0	23.0			35.4			48.6				
Actuated g/C Ratio	0.19	0.19			0.29			0.41				
Clearance Time (s)	4.5	4.5			4.5			4.0				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	339	357			965			2020				
v/s Ratio Prot	0.00	c0.18			c0.28			c0.40				
v/s Ratio Perm												
v/c Ratio	0.01	0.93			0.96			0.98				
Uniform Delay, d1	39.3	47.7			41.6			35.3				
Progression Factor	1.00	1.00			1.00			1.00				
Incremental Delay, d2	0.0	29.9			20.1			16.7				
Delay (s)	39.3	77.6			61.7			52.0				
Level of Service	D	E			E			D				
Approach Delay (s)		77.1			61.7			52.0			0.0	
Approach LOS		E			E			D			A	

Intersection Summary

HCM Average Control Delay	57.6	HCM Level of Service	E
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/25/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻		↻	↕	↻	↻
Volume (vph)	556	5	198	408	573	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	0.95	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1861		1770	3539	1770	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	1861		1770	3539	1770	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	556	5	198	408	573	321
RTOR Reduction (vph)	1	0	0	0	0	209
Lane Group Flow (vph)	560	0	198	408	573	112
Turn Type			Prot			Perm
Protected Phases	2		1	6	8	
Permitted Phases						8
Actuated Green, G (s)	29.8		10.2	44.0	28.0	28.0
Effective Green, g (s)	29.8		10.2	44.0	28.0	28.0
Actuated g/C Ratio	0.37		0.13	0.55	0.35	0.35
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	693		226	1946	620	554
v/s Ratio Prot	c0.30		c0.11	0.12	c0.32	
v/s Ratio Perm						0.07
v/c Ratio	0.81		0.88	0.21	0.92	0.20
Uniform Delay, d1	22.5		34.3	9.2	25.0	18.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	9.8		29.3	0.2	19.6	0.2
Delay (s)	32.4		63.5	9.4	44.6	18.4
Level of Service	C		E	A	D	B
Approach Delay (s)	32.4			27.1	35.2	
Approach LOS	C			C	D	

Intersection Summary

HCM Average Control Delay	32.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/25/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		TT			TT	T
Volume (vph)	0	1024	0	0	265	512
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0
Lane Util. Factor		0.88			0.91	0.91
Frt		0.85			0.93	0.85
Flt Protected		1.00			1.00	1.00
Satd. Flow (prot)		2787			3140	1441
Flt Permitted		1.00			1.00	1.00
Satd. Flow (perm)		2787			3140	1441
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1024	0	0	265	512
RTOR Reduction (vph)	0	938	0	0	174	189
Lane Group Flow (vph)	0	86	0	0	347	67
Turn Type		custom				Prot
Protected Phases		4			2	2
Permitted Phases						
Actuated Green, G (s)		8.4			26.0	26.0
Effective Green, g (s)		8.4			26.0	26.0
Actuated g/C Ratio		0.08			0.26	0.26
Clearance Time (s)		4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0	3.0
Lane Grp Cap (vph)		234			816	375
v/s Ratio Prot		c0.03			c0.11	0.05
v/s Ratio Perm						
v/c Ratio		0.37			0.43	0.18
Uniform Delay, d1		43.3			30.8	28.7
Progression Factor		1.00			0.33	0.64
Incremental Delay, d2		1.0			0.9	0.6
Delay (s)		44.3			11.1	18.8
Level of Service		D			B	B
Approach Delay (s)	44.3			0.0	13.7	
Approach LOS	D			A	B	

Intersection Summary

HCM Average Control Delay	31.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	65.6
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗		↖↗↘				
Volume (vph)	284	5	0	0	102	1947	51	693	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.95	0.95			0.95	0.95		0.91				
Frt	1.00	1.00			0.86	0.85		1.00				
Flt Protected	0.95	0.95			1.00	1.00		1.00				
Satd. Flow (prot)	1681	1688			1530	1504		5063				
Flt Permitted	0.95	0.95			1.00	1.00		1.00				
Satd. Flow (perm)	1681	1688			1530	1504		5063				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	284	5	0	0	102	1947	51	693	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	34	34	0	1	0	0	0	0
Lane Group Flow (vph)	145	144	0	0	1003	978	0	748	0	0	0	0
Turn Type	Split				Perm		Perm					
Protected Phases	4	4			8			2				
Permitted Phases						8	2	2				
Actuated Green, G (s)	18.0	18.0			54.0	54.0		16.0				
Effective Green, g (s)	18.0	18.0			54.0	54.0		16.0				
Actuated g/C Ratio	0.18	0.18			0.54	0.54		0.16				
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)	303	304			826	812		810				
v/s Ratio Prot	c0.09	0.09			c0.66							
v/s Ratio Perm						0.65		0.15				
v/c Ratio	0.48	0.47			1.21	1.20		0.92				
Uniform Delay, d1	36.8	36.8			23.0	23.0		41.4				
Progression Factor	1.00	1.00			0.54	0.54		1.00				
Incremental Delay, d2	5.3	5.2			97.5	93.1		17.7				
Delay (s)	42.1	42.0			110.0	105.6		59.1				
Level of Service	D	D			F	F		E				
Approach Delay (s)		42.0			107.9			59.1			0.0	
Approach LOS		D			F			E			A	

Intersection Summary

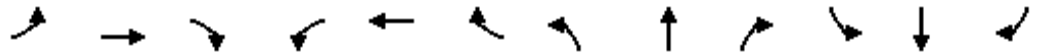
HCM Average Control Delay	89.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Volume (vph)	5	5	5	306	1310	505	317	279	5	5	1272	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00			0.95	
Frt		0.95			0.96		1.00	1.00			1.00	
Flt Protected		0.98			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1750			3388		1770	1858			3526	
Flt Permitted		0.69			0.90		0.95	1.00			0.95	
Satd. Flow (perm)		1229			3065		1770	1858			3365	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	306	1310	505	317	279	5	5	1272	30
RTOR Reduction (vph)	0	3	0	0	30	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	12	0	0	2091	0	317	283	0	0	1306	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)		45.0			45.0		12.0	47.0			31.0	
Effective Green, g (s)		45.0			45.0		12.0	47.0			31.0	
Actuated g/C Ratio		0.45			0.45		0.12	0.47			0.31	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		553			1379		212	873			1043	
v/s Ratio Prot							c0.18	0.15				
v/s Ratio Perm		0.01			c0.68						c0.39	
v/c Ratio		0.02			1.52		1.50	0.32			1.25	
Uniform Delay, d1		15.3			27.5		44.0	16.6			34.5	
Progression Factor		1.06			0.49		0.39	0.92			1.00	
Incremental Delay, d2		0.1			233.7		225.2	0.1			121.3	
Delay (s)		16.2			247.1		242.1	15.4			155.8	
Level of Service		B			F		F	B			F	
Approach Delay (s)		16.2			247.1			135.0			155.8	
Approach LOS		B			F			F			F	

Intersection Summary

HCM Average Control Delay	200.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	125.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/25/2007

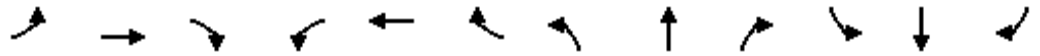


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	15	481	1726	0	0	0	0	0	1308	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.5	
Lane Util. Factor			1.00	0.91	0.91						0.91	
Frbp, ped/bikes			1.00	1.00	1.00						1.00	
Flpb, ped/bikes			1.00	1.00	1.00						1.00	
Frt			0.86	1.00	1.00						0.98	
Flt Protected			1.00	0.95	1.00						1.00	
Satd. Flow (prot)			1611	1610	3386						5003	
Flt Permitted			1.00	0.95	1.00						1.00	
Satd. Flow (perm)			1611	1610	3386						5003	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	481	1726	0	0	0	0	0	1308	158
RTOR Reduction (vph)	0	0	14	140	2	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	0	1	293	1772	0	0	0	0	0	1451	0
Confl. Peds. (#/hr)						72						
Turn Type			custom	Split								
Protected Phases			1	2	2						4	
Permitted Phases												
Actuated Green, G (s)			4.5	49.5	49.5						25.0	
Effective Green, g (s)			4.5	49.0	49.5						24.5	
Actuated g/C Ratio			0.04	0.49	0.50						0.24	
Clearance Time (s)			3.5	3.5	3.5						4.0	
Lane Grp Cap (vph)			72	789	1676						1226	
v/s Ratio Prot			c0.00	0.18	c0.52						c0.29	
v/s Ratio Perm												
v/c Ratio			0.01	0.37	1.06						1.18	
Uniform Delay, d1			45.6	15.9	25.2						37.8	
Progression Factor			1.00	0.94	0.96						0.78	
Incremental Delay, d2			0.2	1.2	38.0						89.4	
Delay (s)			45.8	16.2	62.2						119.0	
Level of Service			D	B	E						F	
Approach Delay (s)		45.8			53.2			0.0			119.0	
Approach LOS		D			D			A			F	
Intersection Summary												
HCM Average Control Delay			79.3		HCM Level of Service			E				
HCM Volume to Capacity ratio			1.04									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			21.5				
Intersection Capacity Utilization			76.2%		ICU Level of Service			D				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑						↑↑		↖	↗	
Volume (vph)	4	319	79	0	0	0	0	641	355	1035	778	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0		4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95		0.95	0.95	
Frbp, ped/bikes	1.00	0.97						0.95		1.00	1.00	
Flpb, ped/bikes	0.86	1.00						1.00		1.00	1.00	
Frt	1.00	0.97						0.95		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (prot)	1515	3329						3167		1681	1756	
Flt Permitted	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (perm)	1515	3329						3167		1681	1756	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	641	355	1035	778	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	75	0	0	0	0
Lane Group Flow (vph)	4	376	0	0	0	0	0	921	0	890	923	0
Confl. Peds. (#/hr)	72		72							72	72	
Turn Type	Perm						Split					
Protected Phases		1						2		6	6	
Permitted Phases	1											
Actuated Green, G (s)	16.5	16.5						23.5		41.0	41.0	
Effective Green, g (s)	16.5	16.0						23.0		40.5	40.5	
Actuated g/C Ratio	0.16	0.16						0.23		0.40	0.40	
Clearance Time (s)	3.5	3.5						3.5		4.0	4.0	
Lane Grp Cap (vph)	250	533						728		681	711	
v/s Ratio Prot		c0.11						c0.29		c0.53	0.53	
v/s Ratio Perm	0.00											
v/c Ratio	0.02	0.71						1.26		1.31	1.30	
Uniform Delay, d1	35.0	39.8						38.5		29.8	29.8	
Progression Factor	1.00	1.00						1.27		0.35	0.35	
Incremental Delay, d2	0.1	7.7						120.1		139.1	135.2	
Delay (s)	35.1	47.4						169.0		149.4	145.5	
Level of Service	D	D						F		F	F	
Approach Delay (s)		47.3			0.0			169.0			147.4	
Approach LOS		D			A			F			F	

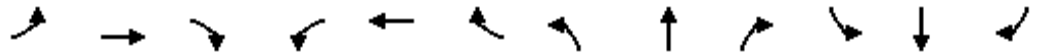
Intersection Summary

HCM Average Control Delay	141.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	102.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↙↑	
Volume (vph)	0	1306	371	0	0	0	0	0	0	363	1097	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.98								1.00	1.00	
Flpb, ped/bikes		1.00								0.93	1.00	
Frt		0.97								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3359								1494	3377	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3359								1494	3377	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1306	371	0	0	0	0	0	0	363	1097	0
RTOR Reduction (vph)	0	52	0	0	0	0	0	0	0	99	4	0
Lane Group Flow (vph)	0	1625	0	0	0	0	0	0	0	228	1129	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		19.5								18.5	18.5	
Effective Green, g (s)		19.0								18.0	18.0	
Actuated g/C Ratio		0.38								0.36	0.36	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1276								538	1216	
v/s Ratio Prot		c0.48										
v/s Ratio Perm										0.15	0.33	
v/c Ratio		1.27								0.42	0.93	
Uniform Delay, d1		15.5								12.1	15.4	
Progression Factor		1.28								2.31	1.97	
Incremental Delay, d2		123.6								0.6	3.9	
Delay (s)		143.5								28.4	34.2	
Level of Service		F								C	C	
Approach Delay (s)		143.5			0.0			0.0			32.9	
Approach LOS		F			A			A			C	
Intersection Summary												
HCM Average Control Delay			92.0		HCM Level of Service					F		
HCM Volume to Capacity ratio			1.11									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)				13.0			
Intersection Capacity Utilization			86.0%		ICU Level of Service					E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/25/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	908	273	205	170	393	689
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.91	
Flt Protected	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (prot)	1770	1863	1863	1583	1672	
Flt Permitted	0.95	1.00	1.00	1.00	0.98	
Satd. Flow (perm)	1770	1863	1863	1583	1672	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	908	273	205	170	393	689
RTOR Reduction (vph)	0	0	0	20	44	0
Lane Group Flow (vph)	908	273	205	150	1038	0
Turn Type	Prot			pm+ov		
Protected Phases	7	4	8	1	1	
Permitted Phases				8		
Actuated Green, G (s)	54.5	58.9	13.0	78.0	65.0	
Effective Green, g (s)	55.0	58.9	13.0	78.0	65.0	
Actuated g/C Ratio	0.38	0.41	0.09	0.54	0.45	
Clearance Time (s)	4.5	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.5	4.5	3.0	3.0	
Lane Grp Cap (vph)	671	757	167	895	750	
v/s Ratio Prot	c0.51	0.15	c0.11	0.07	c0.62	
v/s Ratio Perm				0.02		
v/c Ratio	1.35	0.36	1.23	0.17	1.38	
Uniform Delay, d1	45.0	30.0	66.0	17.0	40.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	168.6	0.5	143.8	0.1	181.3	
Delay (s)	213.6	30.5	209.8	17.1	221.3	
Level of Service	F	C	F	B	F	
Approach Delay (s)		171.3	122.4		221.3	
Approach LOS		F	F		F	

Intersection Summary

HCM Average Control Delay	184.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	135.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

50: I St & 5th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↖↗	↑↑				↖↗
Volume (vph)	0	0	0	0	3798	85	1082	1087	0	0	0	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0				3.5
Lane Util. Factor					0.86		0.97	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				1.00
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					1.00		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6207		3433	3362				2787
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6207		3433	3362				2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	3798	85	1082	1087	0	0	0	80
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	3880	0	1082	1087	0	0	0	80
Confl. Peds. (#/hr)						72						
Parking (#/hr)					0			0				
Turn Type							Split					custom
Protected Phases					1		2	2				
Permitted Phases												2
Actuated Green, G (s)					57.0		34.5	34.5				34.5
Effective Green, g (s)					58.0		34.0	34.0				34.5
Actuated g/C Ratio					0.58		0.34	0.34				0.34
Clearance Time (s)					5.0		3.5	3.5				3.5
Lane Grp Cap (vph)					3600		1167	1143				962
v/s Ratio Prot					c0.63		0.32	c0.32				
v/s Ratio Perm												0.03
v/c Ratio					1.08		0.93	0.95				0.08
Uniform Delay, d1					21.0		31.8	32.2				22.1
Progression Factor					0.49		1.02	1.02				1.00
Incremental Delay, d2					35.6		8.0	10.5				0.2
Delay (s)					46.0		40.5	43.4				22.3
Level of Service					D		D	D				C
Approach Delay (s)		0.0			46.0			41.9			22.3	
Approach LOS		A			D			D			C	

Intersection Summary

HCM Average Control Delay	44.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	130.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	71	2482	114	304	814	0	0	44	1031
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.86		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes					0.99		1.00	1.00			1.00	1.00
Frt					0.99		1.00	1.00			0.86	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					6276		1610	3384			1526	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					6276		1610	3384			1526	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	71	2482	114	304	814	0	0	44	1031
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	47	47
Lane Group Flow (vph)	0	0	0	0	2661	0	274	844	0	0	492	489
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					40.5		22.5	22.5			26.5	26.5
Effective Green, g (s)					40.0		22.0	22.0			26.0	26.0
Actuated g/C Ratio					0.40		0.22	0.22			0.26	0.26
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					2510		354	744			397	391
v/s Ratio Prot							0.17	c0.25			0.32	c0.32
v/s Ratio Perm					0.42							
v/c Ratio					1.06		0.77	1.13			1.24	1.25
Uniform Delay, d1					30.0		36.7	39.0			37.0	37.0
Progression Factor					0.40		1.13	1.13			1.31	1.31
Incremental Delay, d2					31.9		13.2	74.6			112.6	117.6
Delay (s)					43.8		54.5	118.8			160.9	166.0
Level of Service					D		D	F			F	F
Approach Delay (s)		0.0			43.8			103.0			163.4	
Approach LOS		A			D			F			F	

Intersection Summary

HCM Average Control Delay	83.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	133.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖↖↖						↗↗	↗↗
Volume (vph)	0	0	0	235	2149	0	0	0	0	0	1208	537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.86	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1303	4796						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1303	4796						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	235	2149	0	0	0	0	0	1208	537
RTOR Reduction (vph)	0	0	0	102	1	0	0	0	0	0	0	182
Lane Group Flow (vph)	0	0	0	109	2172	0	0	0	0	0	1208	355
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1						2	
Permitted Phases				1								2
Actuated Green, G (s)				46.5	46.5						36.5	36.5
Effective Green, g (s)				46.0	46.0						36.0	36.0
Actuated g/C Ratio				0.46	0.46						0.36	0.36
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				599	2206						1274	1003
v/s Ratio Prot											c0.34	
v/s Ratio Perm				0.08	0.45							0.13
v/c Ratio				0.18	0.98						0.95	0.35
Uniform Delay, d1				15.9	26.6						31.1	23.5
Progression Factor				1.00	1.00						0.80	0.78
Incremental Delay, d2				0.7	15.9						9.2	0.5
Delay (s)				16.6	42.5						34.0	18.8
Level of Service				B	D						C	B
Approach Delay (s)		0.0			40.2			0.0			29.3	
Approach LOS		A			D			A			C	
Intersection Summary												
HCM Average Control Delay			35.6		HCM Level of Service						D	
HCM Volume to Capacity ratio			0.97									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			18.0				
Intersection Capacity Utilization			78.1%		ICU Level of Service						D	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/25/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	1	1144	433	305	527	370	2	810	990
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.85	0.85	
Flt Protected		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)		6034		2787	3433	1863	1584	2882	
Flt Permitted		1.00		1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)		6034		2787	3433	1863	1584	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	1144	433	305	527	370	2	810	990
RTOR Reduction (vph)	0	0	0	48	0	0	0	75	0
Lane Group Flow (vph)	0	1578	0	257	527	370	601	1126	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		29.5		22.2	22.2	22.2	42.0	42.0	
Effective Green, g (s)		29.5		21.7	21.7	21.7	42.0	42.0	
Actuated g/C Ratio		0.28		0.21	0.21	0.21	0.40	0.40	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1692		575	708	384	632	1151	
v/s Ratio Prot		c0.26				c0.20	0.38	c0.39	
v/s Ratio Perm				0.09	0.15				
v/c Ratio		0.98dr		0.45	0.74	0.96	0.95	1.47dr	
Uniform Delay, d1		36.9		36.5	39.1	41.4	30.6	31.1	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		10.8		0.2	3.7	36.0	24.4	21.2	
Delay (s)		47.7		36.7	42.9	77.4	55.0	52.4	
Level of Service		D		D	D	E	D	D	
Approach Delay (s)		47.7				57.1	53.3		
Approach LOS		D				E	D		

Intersection Summary

HCM Average Control Delay	51.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	105.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.1%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/25/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	681	851	444	196	716	81	1189	348	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.0	4.5	4.0	3.5	4.0	3.5	
Lane Util. Factor	0.95	0.86	0.91	0.95	0.97	1.00	0.95	1.00	
Frt	1.00	0.99	0.85	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1681	1585	1441	1504	3433	1863	3539	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)	1681	1585	1441	1504	3433	1863	3539	1583	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	681	851	444	196	716	81	1189	348	39
RTOR Reduction (vph)	0	0	2	98	0	0	0	4	0
Lane Group Flow (vph)	613	963	418	78	716	81	1189	383	0
Turn Type	Perm		Perm	Perm	Prot			Perm	
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2				4	
Actuated Green, G (s)	45.0	45.0	45.0	45.0	15.0	47.5	28.5	28.5	
Effective Green, g (s)	44.5	44.5	45.0	44.5	15.0	47.5	28.0	28.5	
Actuated g/C Ratio	0.44	0.44	0.45	0.44	0.15	0.48	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	
Lane Grp Cap (vph)	748	705	648	669	515	885	991	451	
v/s Ratio Prot					c0.21	0.04	c0.34		
v/s Ratio Perm	0.36	0.61	0.29	0.05				0.24	
v/c Ratio	0.82	1.37	0.65	0.12	1.39	0.09	1.20	0.85	
Uniform Delay, d1	24.2	27.8	21.3	16.2	42.5	14.4	36.0	33.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	9.8	173.7	4.9	0.4	187.3	0.2	99.7	17.7	
Delay (s)	34.0	201.5	26.2	16.6	229.8	14.6	135.7	51.5	
Level of Service	C	F	C	B	F	B	F	D	
Approach Delay (s)		105.3				207.9	115.0		
Approach LOS		F				F	F		

Intersection Summary

HCM Average Control Delay	126.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	110.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

60: Capitol Mall & 5th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑↑		↔↔	↑↑↑				
Volume (vph)	418	313	0	0	561	135	452	1149	49	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0				
Lane Util. Factor	0.97	0.95			0.91		0.97	0.91				
Frbp, ped/bikes	1.00	1.00			0.98		1.00	1.00				
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.97		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	3433	3539			4855		3433	5035				
Flt Permitted	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	3433	3539			4855		3433	5035				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	418	313	0	0	561	135	452	1149	49	0	0	0
RTOR Reduction (vph)	0	0	0	0	19	0	0	6	0	0	0	0
Lane Group Flow (vph)	418	313	0	0	677	0	452	1192	0	0	0	0
Confl. Peds. (#/hr)						55			55			
Turn Type	Prot			custom								
Protected Phases	1	6			2		8	8				
Permitted Phases							8					
Actuated Green, G (s)	13.5	35.0			18.0		30.5	30.5				
Effective Green, g (s)	13.0	34.5			17.5		30.0	30.0				
Actuated g/C Ratio	0.18	0.47			0.24		0.41	0.41				
Clearance Time (s)	3.5	3.5			3.5		4.5	4.5				
Vehicle Extension (s)	0.5	5.0			5.0		5.0	5.0				
Lane Grp Cap (vph)	607	1661			1156		1401	2055				
v/s Ratio Prot	c0.12	0.09			c0.14		0.13	c0.24				
v/s Ratio Perm												
v/c Ratio	0.69	0.19			0.59		0.32	0.58				
Uniform Delay, d1	28.4	11.4			24.8		14.8	16.9				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	6.3	0.3			2.2		0.6	1.2				
Delay (s)	34.6	11.6			27.0		15.4	18.1				
Level of Service	C	B			C		B	B				
Approach Delay (s)		24.8			27.0			17.3			0.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM Average Control Delay	21.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	73.5	Sum of lost time (s)	13.0
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑↑
Volume (vph)	0	0	0	175	2730	0	0	0	0	0	909	765
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.86	0.86
Frbp, ped/bikes					1.00						0.99	0.85
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.99	0.85
Flt Protected					1.00						1.00	1.00
Satd. Flow (prot)					4901						2972	2191
Flt Permitted					1.00						1.00	1.00
Satd. Flow (perm)					4901						2972	2191
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	175	2730	0	0	0	0	0	909	765
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	1	1
Lane Group Flow (vph)	0	0	0	0	2898	0	0	0	0	0	985	687
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					57.7						35.3	35.3
Effective Green, g (s)					57.2						34.8	34.8
Actuated g/C Ratio					0.57						0.35	0.35
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2803						1034	762
v/s Ratio Prot					c0.59						c0.33	
v/s Ratio Perm												0.31
v/c Ratio					1.03						0.95	0.90
Uniform Delay, d1					21.4						31.8	31.0
Progression Factor					1.00						0.71	0.70
Incremental Delay, d2					26.5						2.8	1.9
Delay (s)					47.9						25.3	23.7
Level of Service					D						C	C
Approach Delay (s)		0.0			47.9			0.0			24.6	
Approach LOS		A			D			A			C	

Intersection Summary

HCM Average Control Delay	39.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

64: Richards Blvd & 12th Street

6/25/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔	↑↑	↗	↔↔	↑↑↑			↑↑↑	↔↔
Volume (vph)	0	0	0	93	743	162	9	2513	0	0	3091	528
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.97	0.95	1.00	0.97	0.91			0.91	0.88
Fr _t				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Fl _t Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				3433	3539	1583	3433	5085			5085	2787
Fl _t Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				3433	3539	1583	3433	5085			5085	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	93	743	162	9	2513	0	0	3091	528
RTOR Reduction (vph)	0	0	0	0	0	39	0	0	0	0	0	91
Lane Group Flow (vph)	0	0	0	93	743	123	9	2513	0	0	3091	437
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				29.8	29.8	29.8	1.3	112.2			106.9	106.9
Effective Green, g (s)				29.8	29.8	29.8	1.3	112.2			106.9	106.9
Actuated g/C Ratio				0.20	0.20	0.20	0.01	0.75			0.71	0.71
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				682	703	314	30	3804			3624	1986
v/s Ratio Prot					c0.21		0.00	c0.49			c0.61	
v/s Ratio Perm				0.03		0.08						0.16
v/c Ratio				0.14	1.06	0.39	0.30	0.66			0.85	0.22
Uniform Delay, d ₁				49.5	60.1	52.2	73.9	9.4			15.8	7.3
Progression Factor				1.00	1.00	1.00	1.22	0.40			1.00	1.00
Incremental Delay, d ₂				0.4	50.0	3.6	2.5	0.4			2.8	0.3
Delay (s)				49.9	110.1	55.8	92.7	4.2			18.6	7.6
Level of Service				D	F	E	F	A			B	A
Approach Delay (s)		0.0			95.7			4.5			17.0	
Approach LOS		A			F			A			B	

Intersection Summary

HCM Average Control Delay	23.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	143.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔↔	↑						↑↑	↗
Volume (vph)	0	0	0	676	241	0	0	0	0	0	1448	662
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.94	1.00						0.95	1.00
Frbp, ped/bikes				1.00	1.00						1.00	0.81
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				4990	1863						3539	1285
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				4990	1863						3539	1285
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	676	241	0	0	0	0	0	1448	662
RTOR Reduction (vph)	0	0	0	343	0	0	0	0	0	0	0	251
Lane Group Flow (vph)	0	0	0	333	241	0	0	0	0	0	1448	411
Confl. Peds. (#/hr)			55									55
Turn Type				Prot								Perm
Protected Phases				1	9	3	12	13			4	
Permitted Phases												4
Actuated Green, G (s)				31.0	41.5						51.0	51.0
Effective Green, g (s)				29.5	41.0						51.0	51.0
Actuated g/C Ratio				0.29	0.41						0.51	0.51
Clearance Time (s)											4.0	4.0
Vehicle Extension (s)											5.0	5.0
Lane Grp Cap (vph)				1472	764						1805	655
v/s Ratio Prot				0.07	c0.13						c0.41	
v/s Ratio Perm												0.32
v/c Ratio				0.23	0.32						0.80	0.63
Uniform Delay, d1				26.6	20.0						20.3	17.6
Progression Factor				1.22	1.02						1.00	1.00
Incremental Delay, d2				0.2	0.5						3.1	2.7
Delay (s)				32.6	20.9						23.4	20.3
Level of Service				C	C						C	C
Approach Delay (s)		0.0			29.5			0.0			22.4	
Approach LOS		A			C			A			C	

Intersection Summary

HCM Average Control Delay	24.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑↑	↑	↑				
Volume (vph)	0	0	0	0	827	1138	95	37	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.88	1.00	1.00				
Frbp, ped/bikes					1.00	0.73	1.00	1.00				
Flpb, ped/bikes					1.00	1.00	1.00	1.00				
Frt					1.00	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					5085	2021	1770	1863				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					5085	2021	1770	1863				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	827	1138	95	37	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	346	77	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	827	792	18	37	0	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type						custom	Split					
Protected Phases					6 11 15	11	8 16	8 16				
Permitted Phases						6 15						
Actuated Green, G (s)					73.1	69.6	19.4	19.4				
Effective Green, g (s)					69.6	69.6	18.9	18.9				
Actuated g/C Ratio					0.70	0.70	0.19	0.19				
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)					3539	1407	335	352				
v/s Ratio Prot					0.16	c0.06	0.01	c0.02				
v/s Ratio Perm						0.33						
v/c Ratio					0.23	0.56	0.05	0.11				
Uniform Delay, d1					5.5	7.6	33.2	33.6				
Progression Factor					0.72	13.34	0.64	0.87				
Incremental Delay, d2					0.1	0.8	0.1	0.3				
Delay (s)					4.0	102.1	21.4	29.6				
Level of Service					A	F	C	C				
Approach Delay (s)		0.0			60.8			23.7			0.0	
Approach LOS		A			E			C			A	

Intersection Summary

HCM Average Control Delay	58.5	HCM Level of Service	E
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↔		↔	↔			↔	↔
Volume (vph)	0	0	0	279	1615	32	368	221	0	0	94	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		4.5	4.5			4.0	4.0
Lane Util. Factor				1.00	0.81		0.95	0.95			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes				0.87	1.00		1.00	1.00			1.00	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	0.99			1.00	1.00
Satd. Flow (prot)				1534	7500		1681	1747			1863	1583
Flt Permitted				0.95	1.00		0.95	0.99			1.00	1.00
Satd. Flow (perm)				1534	7500		1681	1747			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	279	1615	32	368	221	0	0	94	110
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	102
Lane Group Flow (vph)	0	0	0	279	1645	0	291	298	0	0	94	8
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type				Perm			Split					Perm
Protected Phases					2		3	3			4	
Permitted Phases				2								4
Actuated Green, G (s)				56.9	56.9		23.0	23.0			8.0	8.0
Effective Green, g (s)				56.3	56.3		22.5	22.5			7.5	7.5
Actuated g/C Ratio				0.56	0.56		0.22	0.22			0.08	0.08
Clearance Time (s)				4.6	4.6		4.0	4.0			3.5	3.5
Vehicle Extension (s)				0.2	0.2		3.0	3.0			0.2	0.2
Lane Grp Cap (vph)				864	4223		378	393			140	119
v/s Ratio Prot					c0.22		c0.17	0.17			c0.05	
v/s Ratio Perm				0.18								0.01
v/c Ratio				0.32	0.39		0.77	0.76			0.67	0.07
Uniform Delay, d1				11.7	12.2		36.3	36.2			45.0	43.0
Progression Factor				0.77	0.77		0.83	0.83			1.00	1.00
Incremental Delay, d2				0.8	0.2		8.3	7.4			9.5	0.1
Delay (s)				9.8	9.6		38.4	37.4			54.6	43.1
Level of Service				A	A		D	D			D	D
Approach Delay (s)		0.0			9.7			37.9			48.4	
Approach LOS		A			A			D			D	

Intersection Summary

HCM Average Control Delay	18.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & N 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↖	↑↑				↗
Volume (vph)	0	0	0	0	1304	102	303	1182	0	0	0	777
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.6		4.0	4.0				3.5
Lane Util. Factor					0.81		1.00	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				0.93
Flpb, ped/bikes					1.00		0.95	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					7433		1673	3539				2604
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					7433		1673	3539				2604
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1304	102	303	1182	0	0	0	777
RTOR Reduction (vph)	0	0	0	0	14	0	108	0	0	0	0	188
Lane Group Flow (vph)	0	0	0	0	1392	0	195	1182	0	0	0	589
Confl. Peds. (#/hr)			40			40	40		40	40		40
Turn Type							Perm					custom
Protected Phases					2			8				
Permitted Phases					2		8					4
Actuated Green, G (s)					29.7		42.1	42.1				42.1
Effective Green, g (s)					29.4		41.6	41.6				42.1
Actuated g/C Ratio					0.29		0.42	0.42				0.42
Clearance Time (s)					4.3		3.5	3.5				3.5
Vehicle Extension (s)					2.0		2.0	2.0				2.0
Lane Grp Cap (vph)					2185		696	1472				1096
v/s Ratio Prot					c0.19			c0.33				
v/s Ratio Perm							0.12					0.23
v/c Ratio					0.64		0.28	0.80				0.54
Uniform Delay, d1					30.7		19.3	25.6				21.7
Progression Factor					0.54		0.93	0.82				1.00
Incremental Delay, d2					1.2		0.1	2.7				0.3
Delay (s)					17.7		18.0	23.7				21.9
Level of Service					B		B	C				C
Approach Delay (s)		0.0			17.7			22.6			21.9	
Approach LOS		A			B			C			C	

Intersection Summary

HCM Average Control Delay	20.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richards Blvd & 10th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↑↑↑		↖↖	↑				↗↗
Volume (vph)	0	0	0	0	609	101	1121	175	0	0	0	712
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0		4.5	4.5				4.0
Lane Util. Factor					0.86		0.97	1.00				0.88
Frbp, ped/bikes					1.00		1.00	1.00				0.95
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					0.98		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6271		3433	1863				2644
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6271		3433	1863				2644
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	609	101	1121	175	0	0	0	712
RTOR Reduction (vph)	0	0	0	0	31	0	0	0	0	0	0	38
Lane Group Flow (vph)	0	0	0	0	679	0	1121	175	0	0	0	674
Confl. Peds. (#/hr)			35				35					35
Turn Type				Perm			Split					custom
Protected Phases					6		3	3				
Permitted Phases				6								4
Actuated Green, G (s)					24.6		36.7	36.7				26.7
Effective Green, g (s)					24.1		36.2	36.2				26.2
Actuated g/C Ratio					0.24		0.36	0.36				0.26
Clearance Time (s)					4.5		4.0	4.0				3.5
Vehicle Extension (s)					2.0		3.0	3.0				2.0
Lane Grp Cap (vph)					1511		1243	674				693
v/s Ratio Prot					c0.11		c0.33	0.09				
v/s Ratio Perm												c0.26
v/c Ratio					0.45		0.90	0.26				0.97
Uniform Delay, d1					32.3		30.2	22.5				36.6
Progression Factor					0.76		0.98	0.98				1.00
Incremental Delay, d2					0.9		9.2	0.2				27.3
Delay (s)					25.6		38.9	22.2				63.9
Level of Service					C		D	C				E
Approach Delay (s)		0.0			25.6			36.6			63.9	
Approach LOS		A			C			D			E	

Intersection Summary

HCM Average Control Delay	40.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

11: Bannon St & I-5 SB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗							↖	↖	↖
Volume (vph)	0	82	104	0	0	0	0	0	0	1446	625	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5							4.5	4.5	
Lane Util. Factor		1.00	1.00							0.81	0.81	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	0.98	
Satd. Flow (prot)		1863	1583							2867	4431	
Flt Permitted		1.00	1.00							0.95	0.98	
Satd. Flow (perm)		1863	1583							2867	4431	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	82	104	0	0	0	0	0	0	1446	625	0
RTOR Reduction (vph)	0	0	93	0	0	0	0	0	0	188	45	0
Lane Group Flow (vph)	0	82	11	0	0	0	0	0	0	781	1057	0
Turn Type		Perm								Split		
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		10.4	10.4							80.6	80.6	
Effective Green, g (s)		10.4	10.4							80.6	80.6	
Actuated g/C Ratio		0.10	0.10							0.81	0.81	
Clearance Time (s)		4.5	4.5							4.5	4.5	
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Lane Grp Cap (vph)		194	165							2311	3571	
v/s Ratio Prot		c0.04								c0.27	0.24	
v/s Ratio Perm			0.01									
v/c Ratio		0.42	0.07							0.34	0.30	
Uniform Delay, d1		42.0	40.4							2.6	2.5	
Progression Factor		1.00	1.00							0.00	0.05	
Incremental Delay, d2		1.5	0.2							0.3	0.2	
Delay (s)		43.5	40.6							0.3	0.3	
Level of Service		D	D							A	A	
Approach Delay (s)		41.9			0.0			0.0			0.3	
Approach LOS		D			A			A			A	

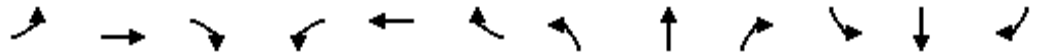
Intersection Summary

HCM Average Control Delay	3.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

12: Bannon St & I-5 NB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑						↑	↗↘			
Volume (vph)	37	1491	0	0	0	0	0	72	1827	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5	4.5			
Lane Util. Factor	1.00	0.86						1.00	0.88			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	6408						1863	2787			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	6408						1863	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	37	1491	0	0	0	0	0	72	1827	0	0	0
RTOR Reduction (vph)	22	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	15	1491	0	0	0	0	0	72	1827	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	25.3	25.3						65.7	65.7			
Effective Green, g (s)	25.3	25.3						65.7	65.7			
Actuated g/C Ratio	0.25	0.25						0.66	0.66			
Clearance Time (s)	4.5	4.5						4.5	4.5			
Vehicle Extension (s)	3.0	3.0						3.0	3.0			
Lane Grp Cap (vph)	448	1621						1224	1831			
v/s Ratio Prot	0.01	c0.23						0.04				
v/s Ratio Perm									c0.66			
v/c Ratio	0.03	0.92						0.06	1.00			
Uniform Delay, d1	28.1	36.4						6.1	17.1			
Progression Factor	0.59	0.73						1.00	1.00			
Incremental Delay, d2	0.1	9.6						0.0	20.4			
Delay (s)	16.8	36.1						6.1	37.4			
Level of Service	B	D						A	D			
Approach Delay (s)		35.6			0.0			36.2			0.0	
Approach LOS		D			A			D			A	

Intersection Summary

HCM Average Control Delay	36.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	93.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	192	2584	542	0	0	0	0	307	115	148	400	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.86						1.00	1.00	1.00	1.00	
Frt	1.00	0.97						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	6241						1863	1583	1770	1863	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	6241						1863	1583	1770	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	192	2584	542	0	0	0	0	307	115	148	400	0
RTOR Reduction (vph)	0	36	0	0	0	0	0	0	32	0	0	0
Lane Group Flow (vph)	192	3090	0	0	0	0	0	307	83	148	400	0
Turn Type	Split							Perm		Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	56.7	56.7						20.0	20.0	11.3	35.3	
Effective Green, g (s)	56.7	56.7						20.0	20.0	11.3	35.3	
Actuated g/C Ratio	0.57	0.57						0.20	0.20	0.11	0.35	
Clearance Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1004	3539						373	317	200	658	
v/s Ratio Prot	0.11	c0.50						c0.16		c0.08	0.21	
v/s Ratio Perm									0.05			
v/c Ratio	0.19	0.87						0.82	0.26	0.74	0.61	
Uniform Delay, d1	10.5	18.6						38.3	33.8	42.9	26.6	
Progression Factor	0.81	0.92						1.00	1.00	1.04	0.95	
Incremental Delay, d2	0.1	1.0						13.6	0.4	13.2	1.6	
Delay (s)	8.7	18.1						51.9	34.2	57.6	26.9	
Level of Service	A	B						D	C	E	C	
Approach Delay (s)		17.6			0.0			47.1			35.2	
Approach LOS		B			A			D			D	

Intersection Summary

HCM Average Control Delay	22.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

14: Bannon St & N 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↘	↖						↑↑↑					
Volume (vph)	1252	1333	0	0	0	0	0	619	45	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.5	4.5						4.0					
Lane Util. Factor	0.81	0.81						0.91					
Frt	1.00	1.00						0.99					
Flt Protected	0.95	0.98						1.00					
Satd. Flow (prot)	1433	5940						5034					
Flt Permitted	0.95	0.98						1.00					
Satd. Flow (perm)	1433	5940						5034					
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	1252	1333	0	0	0	0	0	619	45	0	0	0	
RTOR Reduction (vph)	5	5	0	0	0	0	0	7	0	0	0	0	
Lane Group Flow (vph)	621	1954	0	0	0	0	0	657	0	0	0	0	
Turn Type	Perm												
Protected Phases							4						
Permitted Phases	4						2						
Actuated Green, G (s)	64.5	64.5							27.0				
Effective Green, g (s)	64.5	64.5							27.0				
Actuated g/C Ratio	0.64	0.64							0.27				
Clearance Time (s)	4.5	4.5							4.0				
Vehicle Extension (s)	3.0	3.0							3.0				
Lane Grp Cap (vph)	924	3831							1359				
v/s Ratio Prot							c0.13						
v/s Ratio Perm	c0.43	0.33											
v/c Ratio	0.67	0.51							0.48				
Uniform Delay, d1	11.1	9.4							30.6				
Progression Factor	0.58	0.43							1.20				
Incremental Delay, d2	1.0	0.1							1.1				
Delay (s)	7.4	4.1							37.8				
Level of Service	A	A							D				
Approach Delay (s)	4.9		0.0				37.8		0.0				
Approach LOS	A		A				D		A				

Intersection Summary

HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

15: Bannon St & 7th Street

6/27/2007

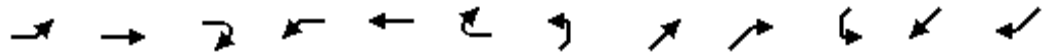


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑								↘	↑↑		
Volume (vph)	0	1006	372	0	0	0	0	0	0	293	1194	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.5								4.5	4.5		
Lane Util. Factor		0.86								1.00	0.95		
Frt		0.96								1.00	1.00		
Flt Protected		1.00								0.95	1.00		
Satd. Flow (prot)		6148								1770	3539		
Flt Permitted		1.00								0.95	1.00		
Satd. Flow (perm)		6148								1770	3539		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	1006	372	0	0	0	0	0	0	293	1194	0	
RTOR Reduction (vph)	0	69	0	0	0	0	0	0	0	71	0	0	
Lane Group Flow (vph)	0	1309	0	0	0	0	0	0	0	222	1194	0	
Turn Type										Prot			
Protected Phases		4								1	6		
Permitted Phases													
Actuated Green, G (s)		29.0								62.0	62.0		
Effective Green, g (s)		29.0								62.0	62.0		
Actuated g/C Ratio		0.29								0.62	0.62		
Clearance Time (s)		4.5								4.5	4.5		
Vehicle Extension (s)		3.0								3.0	3.0		
Lane Grp Cap (vph)		1783								1097	2194		
v/s Ratio Prot		c0.21								0.13	c0.34		
v/s Ratio Perm													
v/c Ratio		0.73								0.20	0.54		
Uniform Delay, d1		32.0								8.3	10.9		
Progression Factor		0.43								0.13	0.24		
Incremental Delay, d2		1.5								0.3	0.7		
Delay (s)		15.1								1.3	3.3		
Level of Service		B								A	A		
Approach Delay (s)		15.1			0.0			0.0			2.9		
Approach LOS		B			A			A			A		
Intersection Summary													
HCM Average Control Delay			8.8		HCM Level of Service						A		
HCM Volume to Capacity ratio			0.60										
Actuated Cycle Length (s)			100.0		Sum of lost time (s)					9.0			
Intersection Capacity Utilization			67.4%		ICU Level of Service					C			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

16: Richards & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖↗	↑↑	↖					↖↗↘	↖	↖↗	↑↑↑	
Volume (vph)	363	25	709	0	0	0	0	871	9	31	3458	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Lane Util. Factor	0.97	0.95	1.00					0.86	0.86	0.97	0.91	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	1583					4805	1362	3433	5085	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	1583					4805	1362	3433	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	363	25	709	0	0	0	0	871	9	31	3458	0
RTOR Reduction (vph)	0	0	69	0	0	0	0	0	5	0	0	0
Lane Group Flow (vph)	363	25	640	0	0	0	0	872	3	31	3458	0
Turn Type	custom		Perm						Perm	Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	39.5	39.5	39.5					58.6	58.6	26.9	90.0	
Effective Green, g (s)	39.5	39.5	39.5					58.6	58.6	26.9	90.0	
Actuated g/C Ratio	0.26	0.26	0.26					0.39	0.39	0.18	0.60	
Clearance Time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	904	932	417					1877	532	616	3051	
v/s Ratio Prot	0.11	0.01						0.18		0.01	c0.68	
v/s Ratio Perm			c0.40						0.00			
v/c Ratio	0.40	0.03	1.53					0.46	0.01	0.05	1.13	
Uniform Delay, d1	45.5	41.0	55.2					34.0	27.9	51.0	30.0	
Progression Factor	1.00	1.00	1.00					0.16	0.00	0.77	0.50	
Incremental Delay, d2	0.3	0.0	252.2					0.1	0.0	0.0	61.7	
Delay (s)	45.8	41.0	307.4					5.6	0.1	39.3	76.6	
Level of Service	D	D	F					A	A	D	E	
Approach Delay (s)		214.8			0.0			5.5			76.3	
Approach LOS		F			A			A			E	

Intersection Summary

HCM Average Control Delay	92.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	117.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

21: N B Street & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔			↖↗↔				
Volume (vph)	112	7	0	0	10	5	184	2270	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.97			1.00				
Flpb, ped/bikes	0.91	0.92			1.00			1.00				
Frt	1.00	1.00			0.95			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1533	1563			1720			6361				
Flt Permitted	0.75	0.78			1.00			1.00				
Satd. Flow (perm)	1207	1275			1720			6361				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	112	7	0	0	10	5	184	2270	10	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	1	0	0	0	0
Lane Group Flow (vph)	59	60	0	0	12	0	0	2463	0	0	0	0
Confl. Peds. (#/hr)	72					72	72		72			
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	12.0	12.0			12.0			30.0				
Effective Green, g (s)	12.0	12.0			12.0			30.0				
Actuated g/C Ratio	0.24	0.24			0.24			0.60				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	290	306			413			3817				
v/s Ratio Prot					0.01							
v/s Ratio Perm	c0.05	0.05						0.39				
v/c Ratio	0.20	0.20			0.03			0.65				
Uniform Delay, d1	15.2	15.2			14.5			6.5				
Progression Factor	1.00	1.00			1.00			0.46				
Incremental Delay, d2	1.6	1.4			0.1			0.8				
Delay (s)	16.8	16.6			14.7			3.8				
Level of Service	B	B			B			A				
Approach Delay (s)		16.7			14.7			3.8			0.0	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM Average Control Delay			4.4				HCM Level of Service		A			
HCM Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			50.0				Sum of lost time (s)		8.0			
Intersection Capacity Utilization			52.5%				ICU Level of Service		A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
 22: South Park St & Bercut Dr

6/27/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	74	64	267	47	129	315
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	74	64	267	47	129	315
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	74	64	267	47	129	315
Volume Left (vph)	74	0	0	0	129	0
Volume Right (vph)	0	64	0	47	0	0
Hadj (s)	0.53	-0.67	0.03	-0.67	0.53	0.03
Departure Headway (s)	6.8	5.6	5.4	4.7	5.8	5.3
Degree Utilization, x	0.14	0.10	0.40	0.06	0.21	0.46
Capacity (veh/h)	487	584	642	724	599	664
Control Delay (s)	9.7	8.0	10.9	6.9	9.1	11.6
Approach Delay (s)	8.9		10.3		10.8	
Approach LOS	A		B		B	
Intersection Summary						
Delay			10.3			
HCM Level of Service			B			
Intersection Capacity Utilization			35.3%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Volume (vph)	5	108	19	13	24	41	5	273	39	23	367	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.91		1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1821		1770	3204		1770	1828		1770	1859	
Flt Permitted	0.71	1.00		0.68	1.00		0.37	1.00		0.45	1.00	
Satd. Flow (perm)	1327	1821		1258	3204		691	1828		839	1859	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	108	19	13	24	41	5	273	39	23	367	5
RTOR Reduction (vph)	0	9	0	0	19	0	0	11	0	0	1	0
Lane Group Flow (vph)	5	118	0	13	46	0	5	301	0	23	371	0
Turn Type	Perm		Perm		Perm		Perm		Perm		Perm	
Protected Phases	2		6		6		4		4		4	
Permitted Phases	2		6		6		4		4		4	
Actuated Green, G (s)	30.1	30.1		30.1	30.1		18.9	18.9		18.9	18.9	
Effective Green, g (s)	30.1	30.1		30.1	30.1		18.9	18.9		18.9	18.9	
Actuated g/C Ratio	0.53	0.53		0.53	0.53		0.33	0.33		0.33	0.33	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	701	962		664	1692		229	606		278	616	
v/s Ratio Prot	c0.06		0.01		0.01		0.16		0.16		c0.20	
v/s Ratio Perm	0.00		0.01		0.01		0.01		0.01		0.03	
v/c Ratio	0.01	0.12		0.02	0.03		0.02	0.50		0.08	0.60	
Uniform Delay, d1	6.4	6.8		6.4	6.4		12.8	15.2		13.1	15.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.1		0.1	0.0		0.0	0.6		0.1	1.7	
Delay (s)	6.4	6.8		6.5	6.5		12.9	15.9		13.2	17.6	
Level of Service	A	A		A	A		B	B		B	B	
Approach Delay (s)	6.8		6.5		6.5		15.8		15.8		17.3	
Approach LOS	A		A		A		B		B		B	

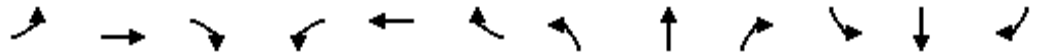
Intersection Summary

HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	57.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

28: Railyards Blvd & Crocker St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↖	↗			↖	↗	↖	↗	
Volume (vph)	23	42	31	250	9	78	11	146	189	69	47	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00	1.00	1.00	1.00	
Frt		0.95		1.00	0.87			1.00	0.85	1.00	0.98	
Flt Protected		0.99		0.95	1.00			1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3328		1770	1612			1856	1583	1770	1822	
Flt Permitted		0.90		0.95	1.00			0.98	1.00	0.66	1.00	
Satd. Flow (perm)		3016		1770	1612			1825	1583	1225	1822	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	23	42	31	250	9	78	11	146	189	69	47	8
RTOR Reduction (vph)	0	23	0	0	28	0	0	0	152	0	6	0
Lane Group Flow (vph)	0	73	0	250	59	0	0	157	37	69	49	0
Turn Type		Perm		Prot			Perm		Perm	Perm		
Protected Phases		2		1	6			8				4
Permitted Phases	2						8		8	4		
Actuated Green, G (s)		12.8		15.5	32.3			9.7	9.7	9.7	9.7	
Effective Green, g (s)		12.8		15.5	32.3			9.7	9.7	9.7	9.7	
Actuated g/C Ratio		0.26		0.31	0.65			0.19	0.19	0.19	0.19	
Clearance Time (s)		4.0		4.0	4.0			4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		772		549	1041			354	307	238	353	
v/s Ratio Prot				c0.14	0.04							0.03
v/s Ratio Perm		c0.02						c0.09	0.02	0.06		
v/c Ratio		0.09		0.46	0.06			0.44	0.12	0.29	0.14	
Uniform Delay, d1		14.2		13.9	3.3			17.8	16.6	17.2	16.7	
Progression Factor		1.00		0.89	1.69			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2		0.6	0.1			0.9	0.2	0.7	0.2	
Delay (s)		14.4		12.9	5.6			18.7	16.8	17.9	16.9	
Level of Service		B		B	A			B	B	B	B	
Approach Delay (s)		14.4			11.0			17.6			17.4	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	114	192	5	360	208	5	34	555	33	19	434	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	1.00		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1856		1770	3527		1770	1847		1770	1860	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1856		1770	3527		1770	1847		1770	1860	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	114	192	5	360	208	5	34	555	33	19	434	5
RTOR Reduction (vph)	0	1	0	0	1	0	0	2	0	0	1	0
Lane Group Flow (vph)	114	196	0	360	212	0	34	586	0	19	438	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Actuated Green, G (s)	10.9	19.8		25.0	33.9		3.8	37.6		1.6	35.4	
Effective Green, g (s)	10.9	19.8		25.0	33.9		3.8	37.6		1.6	35.4	
Actuated g/C Ratio	0.11	0.20		0.25	0.34		0.04	0.38		0.02	0.35	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	193	367		443	1196		67	694		28	658	
v/s Ratio Prot	0.06	c0.11		c0.20	0.06		c0.02	c0.32		0.01	0.24	
v/s Ratio Perm												
v/c Ratio	0.59	0.53		0.81	0.18		0.51	0.84		0.68	0.67	
Uniform Delay, d1	42.4	36.0		35.3	23.2		47.2	28.5		48.9	27.3	
Progression Factor	0.88	0.98		0.46	0.31		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.8	5.5		7.9	0.2		5.9	12.0		49.7	5.3	
Delay (s)	42.1	40.7		24.1	7.5		53.1	40.6		98.6	32.6	
Level of Service	D	D		C	A		D	D		F	C	
Approach Delay (s)		41.2			17.9			41.2			35.3	
Approach LOS		D			B			D			D	

Intersection Summary

HCM Average Control Delay	33.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			TT	T	TT						TTT	
Volume (vph)	0	0	244	915	542	0	0	0	0	0	757	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0						4.0	
Lane Util. Factor			0.88	0.91	0.91						0.91	
Frt			0.85	1.00	1.00						0.99	
Flt Protected			1.00	0.95	0.98						1.00	
Satd. Flow (prot)			2787	1610	3316						5056	
Flt Permitted			1.00	0.95	0.98						1.00	
Satd. Flow (perm)			2787	1610	3316						5056	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	244	915	542	0	0	0	0	0	757	30
RTOR Reduction (vph)	0	0	160	312	155	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	0	84	164	826	0	0	0	0	0	783	0
Turn Type			custom	Perm								
Protected Phases			4		8						2	
Permitted Phases				8								
Actuated Green, G (s)			34.4	34.4	34.4						23.0	
Effective Green, g (s)			34.4	34.4	34.4						23.0	
Actuated g/C Ratio			0.34	0.34	0.34						0.23	
Clearance Time (s)			4.0	4.0	4.0						4.0	
Vehicle Extension (s)			3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)			959	554	1141						1163	
v/s Ratio Prot			0.03								c0.15	
v/s Ratio Perm				0.10	0.25							
v/c Ratio			0.09	0.30	0.72						0.67	
Uniform Delay, d1			22.2	24.0	28.7						35.1	
Progression Factor			1.00	1.00	1.00						1.10	
Incremental Delay, d2			0.0	0.3	2.3						2.8	
Delay (s)			22.2	24.3	31.0						41.6	
Level of Service			C	C	C						D	
Approach Delay (s)		22.2			28.8			0.0			41.6	
Approach LOS		C			C			A			D	

Intersection Summary

HCM Average Control Delay	32.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	42.6
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

36: Camille Ln & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↘		↗	↘	
Volume (vph)	0	247	121	443	5	47	7	290	400	12	362	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.96			0.99		1.00	0.91		1.00	1.00	
Flt Protected		1.00			0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1780			1760		1770	1701		1770	1863	
Flt Permitted		1.00			0.47		0.38	1.00		0.20	1.00	
Satd. Flow (perm)		1780			867		707	1701		373	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	247	121	443	5	47	7	290	400	12	362	0
RTOR Reduction (vph)	0	29	0	0	6	0	0	83	0	0	0	0
Lane Group Flow (vph)	0	339	0	0	489	0	7	607	0	12	362	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			8			4	
Permitted Phases	2			2			8			4		
Actuated Green, G (s)		32.0			32.0		20.0	20.0		20.0	20.0	
Effective Green, g (s)		32.0			32.0		20.0	20.0		20.0	20.0	
Actuated g/C Ratio		0.53			0.53		0.33	0.33		0.33	0.33	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		949			462		236	567		124	621	
v/s Ratio Prot		0.19						c0.36			0.19	
v/s Ratio Perm					c0.56		0.01			0.03		
v/c Ratio		0.36			1.06		0.03	1.07		0.10	0.58	
Uniform Delay, d1		8.1			14.0		13.5	20.0		13.8	16.5	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.0			58.1		0.1	58.3		0.3	1.4	
Delay (s)		9.1			72.1		13.5	78.3		14.1	17.9	
Level of Service		A			E		B	E		B	B	
Approach Delay (s)		9.1			72.1			77.6			17.8	
Approach LOS		A			E			E			B	

Intersection Summary

HCM Average Control Delay	51.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗		↖↗↘				
Volume (vph)	43	5	0	0	127	1164	75	661	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.95	0.95			0.95	0.95		0.91				
Frt	1.00	1.00			0.88	0.85		1.00				
Flt Protected	0.95	0.96			1.00	1.00		0.99				
Satd. Flow (prot)	1681	1702			1556	1504		5055				
Flt Permitted	0.95	0.96			1.00	1.00		0.99				
Satd. Flow (perm)	1681	1702			1556	1504		5055				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	43	5	0	0	127	1164	75	661	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	149	195	0	1	0	0	0	0
Lane Group Flow (vph)	24	24	0	0	503	445	0	740	0	0	0	0
Turn Type	Split				Perm		Perm					
Protected Phases	4	4			8			2				
Permitted Phases						8	2	2				
Actuated Green, G (s)	18.0	18.0			45.0	45.0		25.0				
Effective Green, g (s)	18.0	18.0			45.0	45.0		25.0				
Actuated g/C Ratio	0.18	0.18			0.45	0.45		0.25				
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)	303	306			700	677		1264				
v/s Ratio Prot	c0.01	0.01			c0.32							
v/s Ratio Perm						0.30		0.15				
v/c Ratio	0.08	0.08			0.72	0.66		0.59				
Uniform Delay, d1	34.1	34.1			22.3	21.5		32.9				
Progression Factor	1.00	1.00			0.57	0.53		0.90				
Incremental Delay, d2	0.5	0.5			0.6	0.5		1.6				
Delay (s)	34.6	34.6			13.4	11.8		31.1				
Level of Service	C	C			B	B		C				
Approach Delay (s)		34.6			12.6			31.1			0.0	
Approach LOS		C			B			C			A	

Intersection Summary

HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Volume (vph)	5	5	5	133	1209	481	485	514	5	5	664	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00			0.95	
Frt		0.95			0.96		1.00	1.00			0.99	
Flt Protected		0.98			1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1750			3387		1770	1860			3505	
Flt Permitted		0.69			0.93		0.95	1.00			0.95	
Satd. Flow (perm)		1229			3145		1770	1860			3336	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	133	1209	481	485	514	5	5	664	44
RTOR Reduction (vph)	0	3	0	0	36	0	0	1	0	0	5	0
Lane Group Flow (vph)	0	12	0	0	1787	0	485	518	0	0	708	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)		45.0			45.0		23.0	47.0			20.0	
Effective Green, g (s)		45.0			45.0		23.0	47.0			20.0	
Actuated g/C Ratio		0.45			0.45		0.23	0.47			0.20	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		553			1415		407	874			667	
v/s Ratio Prot							c0.27	0.28				
v/s Ratio Perm		0.01			c0.57						c0.21	
v/c Ratio		0.02			1.26		1.19	0.59			1.06	
Uniform Delay, d1		15.3			27.5		38.5	19.5			40.0	
Progression Factor		0.98			0.81		0.55	0.26			1.00	
Incremental Delay, d2		0.1			118.8		88.6	0.3			52.4	
Delay (s)		15.0			141.0		109.8	5.4			92.4	
Level of Service		B			F		F	A			F	
Approach Delay (s)		15.0			141.0			55.8			92.4	
Approach LOS		B			F			E			F	

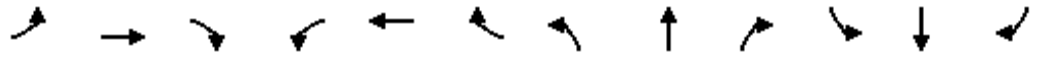
Intersection Summary

HCM Average Control Delay	106.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	109.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
40: G Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↗
Volume (vph)	0	0	15	300	1757	0	0	0	0	0	1162	371
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.0	
Lane Util. Factor			1.00	0.91	0.91						0.91	
Frbp, ped/bikes			1.00	1.00	1.00						1.00	
Flpb, ped/bikes			1.00	1.00	1.00						1.00	
Frt			0.86	1.00	1.00						0.96	
Flt Protected			1.00	0.95	1.00						1.00	
Satd. Flow (prot)			1611	1610	3387						4901	
Flt Permitted			1.00	0.95	1.00						1.00	
Satd. Flow (perm)			1611	1610	3387						4901	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	300	1757	0	0	0	0	0	1162	371
RTOR Reduction (vph)	0	0	14	112	1	0	0	0	0	0	58	0
Lane Group Flow (vph)	0	0	1	158	1786	0	0	0	0	0	1475	0
Confl. Peds. (#/hr)						72						
Turn Type			custom	Perm								
Protected Phases			1		2						4	
Permitted Phases			1	2								
Actuated Green, G (s)			4.5	47.5	47.5						27.5	
Effective Green, g (s)			4.5	47.0	47.5						27.0	
Actuated g/C Ratio			0.04	0.47	0.48						0.27	
Clearance Time (s)			3.5	3.5	3.5						3.5	
Lane Grp Cap (vph)			72	757	1609						1323	
v/s Ratio Prot			c0.00								c0.30	
v/s Ratio Perm				0.10	0.53							
v/c Ratio			0.01	0.21	1.11						1.12	
Uniform Delay, d1			45.6	15.6	26.2						36.5	
Progression Factor			1.00	1.44	1.07						1.00	
Incremental Delay, d2			0.2	0.5	56.9						62.7	
Delay (s)			45.8	22.9	84.9						99.2	
Level of Service			D	C	F						F	
Approach Delay (s)		45.8			76.8			0.0			99.2	
Approach LOS		D			E			A			F	
Intersection Summary												
HCM Average Control Delay			86.2		HCM Level of Service			F				
HCM Volume to Capacity ratio			1.05									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			21.0				
Intersection Capacity Utilization			90.0%		ICU Level of Service			E				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷						↷		↶	↷	
Volume (vph)	20	376	55	0	0	0	0	1189	280	462	296	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0		4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95		0.95	0.95	
Frbp, ped/bikes	1.00	0.98						0.97		1.00	1.00	
Flpb, ped/bikes	0.86	1.00						1.00		1.00	1.00	
Frt	1.00	0.98						0.97		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (prot)	1515	3404						3338		1681	1750	
Flt Permitted	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (perm)	1515	3404						3338		1681	1750	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	20	376	55	0	0	0	0	1189	280	462	296	0
RTOR Reduction (vph)	0	12	0	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	20	419	0	0	0	0	0	1449	0	374	384	0
Confl. Peds. (#/hr)	72		72							72	72	
Turn Type	Perm						Split					
Protected Phases	1						2		6		6	
Permitted Phases	1											
Actuated Green, G (s)	15.5	15.5						40.5		25.0	25.0	
Effective Green, g (s)	15.5	15.0						40.0		24.5	24.5	
Actuated g/C Ratio	0.16	0.15						0.40		0.24	0.24	
Clearance Time (s)	3.5	3.5						3.5		4.0	4.0	
Lane Grp Cap (vph)	235	511						1335		412	429	
v/s Ratio Prot		c0.12						c0.43		c0.22	0.22	
v/s Ratio Perm	0.01											
v/c Ratio	0.09	0.82						1.09		0.91	0.90	
Uniform Delay, d1	36.2	41.2						30.0		36.7	36.5	
Progression Factor	0.81	0.82						0.76		0.42	0.42	
Incremental Delay, d2	0.5	10.9						46.4		3.6	3.0	
Delay (s)	29.8	44.6						69.2		18.9	18.3	
Level of Service	C	D						E		B	B	
Approach Delay (s)		43.9			0.0			69.2			18.6	
Approach LOS		D			A			E			B	

Intersection Summary

HCM Average Control Delay	50.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↑↑								↘	↙↑			
Volume (vph)	0	798	112	0	0	0	0	0	0	334	944	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		4.0								4.0	4.0			
Lane Util. Factor		0.95								0.91	0.91			
Frbp, ped/bikes		0.99								1.00	1.00			
Flpb, ped/bikes		1.00								0.95	1.00			
Frt		0.98								1.00	1.00			
Flt Protected		1.00								0.95	1.00			
Satd. Flow (prot)		3447								1528	3379			
Flt Permitted		1.00								0.95	1.00			
Satd. Flow (perm)		3447								1528	3379			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	0	798	112	0	0	0	0	0	0	334	944	0		
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	125	5	0		
Lane Group Flow (vph)	0	888	0	0	0	0	0	0	0	176	972	0		
Confl. Peds. (#/hr)			72							72				
Turn Type										Perm				
Protected Phases		1									2			
Permitted Phases										2				
Actuated Green, G (s)		18.5								19.5	19.5			
Effective Green, g (s)		18.0								19.0	19.0			
Actuated g/C Ratio		0.36								0.38	0.38			
Clearance Time (s)		3.5								3.5	3.5			
Lane Grp Cap (vph)		1241								581	1284			
v/s Ratio Prot		0.26												
v/s Ratio Perm										0.12	0.29			
v/c Ratio		0.72								0.30	0.76			
Uniform Delay, d1		13.8								10.9	13.5			
Progression Factor		1.01								0.79	0.82			
Incremental Delay, d2		1.3								0.4	1.4			
Delay (s)		15.3								9.0	12.4			
Level of Service		B								A	B			
Approach Delay (s)		15.3			0.0			0.0			11.6			
Approach LOS		B			A			A			B			
Intersection Summary														
HCM Average Control Delay			13.1									HCM Level of Service	B	
HCM Volume to Capacity ratio			0.74											
Actuated Cycle Length (s)			50.0								13.0		Sum of lost time (s)	
Intersection Capacity Utilization			59.0%										ICU Level of Service	B
Analysis Period (min)			15											
c Critical Lane Group														

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔				↔		↔↔↔				
Volume (vph)	372	373	0	0	0	40	0	1308	23	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	1.00				1.00		1.00				
Satd. Flow (prot)	3221	1677				1611		5061				
Flt Permitted	0.95	1.00				1.00		1.00				
Satd. Flow (perm)	3221	1677				1611		5061				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	372	373	0	0	0	40	0	1308	23	0	0	0
RTOR Reduction (vph)	201	5	0	0	0	36	0	3	0	0	0	0
Lane Group Flow (vph)	134	405	0	0	0	4	0	1328	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	12.5	21.5				5.5		21.5				
Effective Green, g (s)	12.0	21.0				5.0		21.0				
Actuated g/C Ratio	0.24	0.42				0.10		0.42				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	773	704				161		2126				
v/s Ratio Prot	0.04	c0.14				0.00		c0.26				
v/s Ratio Perm		0.10										
v/c Ratio	0.17	0.57				0.02		0.62				
Uniform Delay, d1	15.1	11.1				20.3		11.4				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	0.5	3.4				0.3		1.4				
Delay (s)	15.6	14.5				20.6		12.8				
Level of Service	B	B				C		B				
Approach Delay (s)		15.0			20.6			12.8			0.0	
Approach LOS		B			C			B			A	

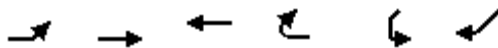
Intersection Summary

HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

48: I Street & Jibboom St

6/27/2007



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	727	154	197	0	348	750
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	1.00		0.91	
Flt Protected	0.95	1.00	1.00		0.98	
Satd. Flow (prot)	1770	1863	1863		1665	
Flt Permitted	0.95	1.00	1.00		0.98	
Satd. Flow (perm)	1770	1863	1863		1665	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	727	154	197	0	348	750
RTOR Reduction (vph)	0	0	0	0	52	0
Lane Group Flow (vph)	727	154	197	0	1046	0
Turn Type	Prot		custom			
Protected Phases	7	4	8	1	6	
Permitted Phases				8		
Actuated Green, G (s)	50.5	54.9	13.0		74.0	
Effective Green, g (s)	50.0	54.9	13.0		74.0	
Actuated g/C Ratio	0.33	0.37	0.09		0.49	
Clearance Time (s)	4.5	4.0	4.0		4.0	
Vehicle Extension (s)	2.5	4.5	4.5		3.0	
Lane Grp Cap (vph)	590	682	161		821	
v/s Ratio Prot	c0.41	0.08	c0.11		c0.63	
v/s Ratio Perm						
v/c Ratio	1.23	0.23	1.22		1.27	
Uniform Delay, d1	50.0	32.9	68.5		38.0	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	118.7	0.3	143.5		133.0	
Delay (s)	168.7	33.2	212.0		171.0	
Level of Service	F	C	F		F	
Approach Delay (s)		145.0	212.0		171.0	
Approach LOS		F	F		F	

Intersection Summary

HCM Average Control Delay	164.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

49: I Street & 3rd St

6/27/2007



Movement	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations	↗	↖	↕	↗↘			↖	↕	↕		
Volume (vph)	97	257	160	560	5	278	169	218	26	2	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5			4.5	4.5	4.5		
Lane Util. Factor	1.00	1.00	1.00	0.88			1.00	1.00	1.00		
Frt	0.86	1.00	1.00	0.85			1.00	1.00	0.95		
Flt Protected	1.00	0.95	1.00	1.00			0.95	1.00	1.00		
Satd. Flow (prot)	1611	1770	1863	2787			1770	1863	1771		
Flt Permitted	1.00	0.95	1.00	1.00			0.95	1.00	1.00		
Satd. Flow (perm)	1611	1770	1863	2787			1770	1863	1771		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	97	257	160	560	5	278	169	218	26	2	13
RTOR Reduction (vph)	89	0	0	1	0	0	0	0	12	0	0
Lane Group Flow (vph)	8	257	160	564	0	0	447	218	29	0	0
Turn Type	custom	Prot		Prot		Prot	Prot				
Protected Phases	4	3	8	8		5	5	2	6		
Permitted Phases	4										
Actuated Green, G (s)	5.0	11.5	21.0	21.0			19.5	30.0	6.0		
Effective Green, g (s)	5.0	11.5	21.0	21.0			19.5	30.0	6.0		
Actuated g/C Ratio	0.08	0.19	0.35	0.35			0.32	0.50	0.10		
Clearance Time (s)	4.5	4.5	4.5	4.5			4.5	4.5	4.5		
Lane Grp Cap (vph)	134	339	652	975			575	932	177		
v/s Ratio Prot	0.01	c0.15	0.09	c0.20			c0.25	c0.12	0.02		
v/s Ratio Perm											
v/c Ratio	0.06	0.76	0.25	0.58			0.78	0.23	0.17		
Uniform Delay, d1	25.3	22.9	13.9	15.9			18.3	8.5	24.7		
Progression Factor	1.00	1.00	1.00	1.00			1.00	1.00	1.00		
Incremental Delay, d2	0.9	14.7	0.9	2.5			9.9	0.6	2.0		
Delay (s)	26.2	37.6	14.8	18.4			28.2	9.1	26.7		
Level of Service	C	D	B	B			C	A	C		
Approach Delay (s)			22.8					22.0	26.7		
Approach LOS			C					C	C		

Intersection Summary

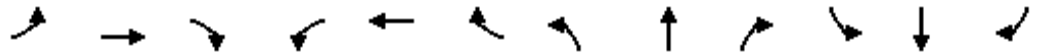
HCM Average Control Delay	22.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	56	1160	400	35	876	0	0	26	333
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.91		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.98		1.00	1.00			1.00	1.00
Flpb, ped/bikes					1.00		1.00	1.00			1.00	1.00
Frt					0.96		1.00	1.00			0.87	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					4768		1610	3389			1542	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					4768		1610	3389			1542	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	56	1160	400	35	876	0	0	26	333
RTOR Reduction (vph)	0	0	0	0	118	0	0	0	0	0	137	153
Lane Group Flow (vph)	0	0	0	0	1498	0	31	880	0	0	46	23
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom						custom
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					18.0		14.5	14.5			7.0	7.0
Effective Green, g (s)					17.5		14.0	14.0			6.5	6.5
Actuated g/C Ratio					0.35		0.28	0.28			0.13	0.13
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1669		451	949			200	196
v/s Ratio Prot							0.02	c0.26			c0.03	0.02
v/s Ratio Perm					0.31							
v/c Ratio					0.90		0.07	0.93			0.23	0.12
Uniform Delay, d1					15.4		13.2	17.5			19.5	19.2
Progression Factor					0.59		1.30	1.50			3.70	4.95
Incremental Delay, d2					6.4		0.2	12.2			1.3	0.6
Delay (s)					15.5		17.4	38.6			73.4	95.7
Level of Service					B		B	D			E	F
Approach Delay (s)		0.0			15.5			37.8			84.3	
Approach LOS		A			B			D			F	

Intersection Summary

HCM Average Control Delay	31.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖↖↖						↗↗	↗↗
Volume (vph)	0	0	0	384	1340	0	0	0	0	0	854	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.93	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1412	4790						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1412	4790						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	384	1340	0	0	0	0	0	854	272
RTOR Reduction (vph)	0	0	0	115	5	0	0	0	0	0	0	173
Lane Group Flow (vph)	0	0	0	231	1373	0	0	0	0	0	854	99
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1							2
Permitted Phases				1								2
Actuated Green, G (s)				20.5	20.5						17.5	17.5
Effective Green, g (s)				20.0	20.0						17.0	17.0
Actuated g/C Ratio				0.40	0.40						0.34	0.34
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				565	1916						1203	948
v/s Ratio Prot											c0.24	
v/s Ratio Perm				0.16	0.29							0.04
v/c Ratio				0.41	0.72						0.71	0.10
Uniform Delay, d1				10.8	12.6						14.4	11.3
Progression Factor				1.00	1.00						0.89	2.19
Incremental Delay, d2				2.2	2.3						2.5	0.2
Delay (s)				13.0	14.9						15.3	24.8
Level of Service				B	B						B	C
Approach Delay (s)		0.0			14.5			0.0			17.6	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM Average Control Delay			15.7		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			50.0		Sum of lost time (s)			13.0				
Intersection Capacity Utilization			56.2%		ICU Level of Service			B				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	390	1656	554	108	171	190	268	1954	1090
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.99		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.97		0.85	1.00	1.00	0.89	0.85	
Flt Protected		0.99		1.00	0.95	1.00	0.99	1.00	
Satd. Flow (prot)		6075		2787	3433	1863	1630	2882	
Flt Permitted		0.99		1.00	0.95	1.00	0.99	1.00	
Satd. Flow (perm)		6075		2787	3433	1863	1630	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	1656	554	108	171	190	268	1954	1090
RTOR Reduction (vph)	0	0	0	5	0	0	0	47	0
Lane Group Flow (vph)	0	2600	0	103	171	190	1128	2137	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		32.0		6.5	6.5	6.5	50.0	50.0	
Effective Green, g (s)		32.0		6.0	6.0	6.0	50.0	50.0	
Actuated g/C Ratio		0.32		0.06	0.06	0.06	0.50	0.50	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1944		167	206	112	815	1441	
v/s Ratio Prot		c0.43				c0.10	0.69	c0.74	
v/s Ratio Perm				0.04	0.05				
v/c Ratio		1.34		0.62	0.83	1.70	1.38	1.48	
Uniform Delay, d1		34.0		45.9	46.5	47.0	25.0	25.0	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		155.4		4.7	22.8	348.6	180.4	221.1	
Delay (s)		189.4		50.6	69.3	395.6	205.4	246.1	
Level of Service		F		D	E	F	F	F	
Approach Delay (s)		189.4				241.0	232.3		
Approach LOS		F				F	F		

Intersection Summary

HCM Average Control Delay	212.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.44		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	147.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/27/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	206	403	151	65	521	77	1294	302	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.5	5.0	4.5	4.5	5.0	4.5	
Lane Util. Factor	0.95	0.86	0.91	0.95	0.97	1.00	0.95	1.00	
Frt	1.00	0.99	0.85	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1681	1590	1441	1504	3433	1863	3539	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)	1681	1590	1441	1504	3433	1863	3539	1583	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	206	403	151	65	521	77	1294	302	33
RTOR Reduction (vph)	0	0	2	42	0	0	0	4	0
Lane Group Flow (vph)	185	439	141	16	521	77	1294	331	0
Turn Type	Perm		Perm	Perm	Prot			Perm	
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2				4	
Actuated Green, G (s)	28.5	28.5	28.5	28.5	16.5	62.5	41.5	41.5	
Effective Green, g (s)	28.0	28.0	28.5	28.0	16.5	62.5	41.0	41.5	
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.16	0.62	0.41	0.42	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lane Grp Cap (vph)	471	445	411	421	566	1164	1451	657	
v/s Ratio Prot					c0.15	0.04	c0.37		
v/s Ratio Perm	0.11	0.28	0.10	0.01				0.21	
v/c Ratio	0.39	0.99	0.34	0.04	0.92	0.07	0.89	0.50	
Uniform Delay, d1	29.1	35.8	28.3	26.2	41.1	7.3	27.4	21.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.5	39.5	2.3	0.2	22.6	0.1	8.7	2.7	
Delay (s)	31.6	75.3	30.6	26.4	63.7	7.4	36.1	24.4	
Level of Service	C	E	C	C	E	A	D	C	
Approach Delay (s)		54.3				56.4	33.7		
Approach LOS		D				E	C		

Intersection Summary

HCM Average Control Delay	43.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Volume (vph)	0	0	0	192	1078	0	0	0	0	0	466	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.91	0.91
Frpb, ped/bikes					1.00						1.00	0.92
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						1.00	0.85
Flt Protected					0.99						1.00	1.00
Satd. Flow (prot)					4879						3197	1190
Flt Permitted					0.99						1.00	1.00
Satd. Flow (perm)					4879						3197	1190
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	192	1078	0	0	0	0	0	466	152
RTOR Reduction (vph)	0	0	0	0	51	0	0	0	0	0	4	53
Lane Group Flow (vph)	0	0	0	0	1219	0	0	0	0	0	477	84
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					27.5						15.5	15.5
Effective Green, g (s)					27.0						15.0	15.0
Actuated g/C Ratio					0.54						0.30	0.30
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2635						959	357
v/s Ratio Prot					c0.25						c0.15	
v/s Ratio Perm												0.07
v/c Ratio					0.46						0.50	0.23
Uniform Delay, d1					7.1						14.4	13.2
Progression Factor					1.00						0.73	0.83
Incremental Delay, d2					0.6						1.0	0.8
Delay (s)					7.6						11.4	11.8
Level of Service					A						B	B
Approach Delay (s)		0.0			7.6			0.0			11.5	
Approach LOS		A			A			A			B	

Intersection Summary




























HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

64: Richards Blvd & 12th Street

6/27/2007

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				 	 		 	  			  	 
Volume (vph)	0	0	0	5	868	88	0	1234	0	0	3484	369
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0		4.0			4.0	4.0
Lane Util. Factor				0.97	0.95	1.00		0.91			0.91	0.88
Fr _t				1.00	1.00	0.85		1.00			1.00	0.85
Fl _t Protected				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)				3433	3539	1583		5085			5085	2787
Fl _t Permitted				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)				3433	3539	1583		5085			5085	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	5	868	88	0	1234	0	0	3484	369
RTOR Reduction (vph)	0	0	0	0	0	51	0	0	0	0	0	54
Lane Group Flow (vph)	0	0	0	5	868	37	0	1234	0	0	3484	315
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					4		5	2			6	
Permitted Phases				4		4						6
Actuated Green, G (s)				33.0	33.0	33.0		109.0			109.0	109.0
Effective Green, g (s)				33.0	33.0	33.0		109.0			109.0	109.0
Actuated g/C Ratio				0.22	0.22	0.22		0.73			0.73	0.73
Clearance Time (s)				4.0	4.0	4.0		4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)				755	779	348		3695			3695	2025
v/s Ratio Prot					c0.25			0.24			c0.69	
v/s Ratio Perm				0.00		0.02						0.11
v/c Ratio				0.01	1.11	0.11		0.33			0.94	0.16
Uniform Delay, d ₁				45.7	58.5	46.7		7.4			17.8	6.3
Progression Factor				1.00	1.00	1.00		1.08			1.00	1.00
Incremental Delay, d ₂				0.0	68.4	0.1		0.2			6.4	0.2
Delay (s)				45.7	126.9	46.9		8.2			24.2	6.5
Level of Service				D	F	D		A			C	A
Approach Delay (s)		0.0			119.1			8.2			22.5	
Approach LOS		A			F			A			C	
Intersection Summary												
HCM Average Control Delay			35.0				HCM Level of Service				C	
HCM Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)			150.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			117.8%				ICU Level of Service			H		
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

1: Richard Blvd & I-5 SB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔↔	↑						↑↑	↔
Volume (vph)	0	0	0	711	737	0	0	0	0	0	629	700
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.94	1.00						0.95	1.00
Frbp, ped/bikes				1.00	1.00						1.00	0.79
Flpb, ped/bikes				1.00	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				4990	1863						3539	1258
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				4990	1863						3539	1258
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	711	737	0	0	0	0	0	629	700
RTOR Reduction (vph)	0	0	0	288	0	0	0	0	0	0	0	214
Lane Group Flow (vph)	0	0	0	423	737	0	0	0	0	0	629	486
Confl. Peds. (#/hr)			55									55
Turn Type				Prot								Perm
Protected Phases				1	9	3	12	13			4	
Permitted Phases												4
Actuated Green, G (s)				67.0	77.5						25.0	25.0
Effective Green, g (s)				65.5	77.0						25.0	25.0
Actuated g/C Ratio				0.60	0.70						0.23	0.23
Clearance Time (s)											4.0	4.0
Vehicle Extension (s)											5.0	5.0
Lane Grp Cap (vph)				2971	1304						804	286
v/s Ratio Prot				0.08	c0.40						0.18	
v/s Ratio Perm												c0.39
v/c Ratio				0.14	0.57						0.78	1.70
Uniform Delay, d1				9.8	8.2						39.9	42.5
Progression Factor				1.75	0.68						1.00	1.00
Incremental Delay, d2				0.0	0.9						5.8	329.2
Delay (s)				17.3	6.5						45.7	371.7
Level of Service				B	A						D	F
Approach Delay (s)		0.0			11.8			0.0			217.4	
Approach LOS		A			B			A			F	

Intersection Summary

HCM Average Control Delay	110.2	HCM Level of Service	F
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Richard Blvd & I-5 NB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑↑	↑	↑				
Volume (vph)	0	0	0	0	1261	2420	139	78	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.88	1.00	1.00				
Frbp, ped/bikes					1.00	0.86	1.00	1.00				
Flpb, ped/bikes					1.00	1.00	1.00	1.00				
Frt					1.00	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					5085	2391	1770	1863				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					5085	2391	1770	1863				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1261	2420	139	78	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	338	99	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1261	2082	40	78	0	0	0	0
Confl. Peds. (#/hr)						55	55					
Turn Type						custom	Split					
Protected Phases					6 11 15	11	8 16	8 16				
Permitted Phases						6 15						
Actuated Green, G (s)					83.5	75.5	19.5	19.5				
Effective Green, g (s)					83.5	75.5	19.0	19.0				
Actuated g/C Ratio					0.76	0.69	0.17	0.17				
Clearance Time (s)						4.0						
Vehicle Extension (s)						5.0						
Lane Grp Cap (vph)					3860	1815	306	322				
v/s Ratio Prot					0.25	c0.45	0.02	c0.04				
v/s Ratio Perm						0.42						
v/c Ratio					0.33	1.15	0.13	0.24				
Uniform Delay, d1					4.2	17.2	38.5	39.3				
Progression Factor					0.55	1.29	0.81	0.93				
Incremental Delay, d2					0.0	69.0	0.4	0.8				
Delay (s)					2.4	91.2	31.5	37.4				
Level of Service					A	F	C	D				
Approach Delay (s)		0.0			60.8			33.6			0.0	
Approach LOS		A			E			C			A	

Intersection Summary

HCM Average Control Delay	59.3	HCM Level of Service	E
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Richard Blvd & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↑↑↑↑		↖	↗			↑	↗
Volume (vph)	0	0	0	307	3079	36	701	184	0	0	192	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.81		0.95	0.95			1.00	1.00
Frbp, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes				0.85	1.00		1.00	1.00			1.00	1.00
Fr t				1.00	1.00		1.00	1.00			1.00	0.85
Fl t Protected				0.95	1.00		0.95	0.97			1.00	1.00
Satd. Flow (prot)				1510	7517		1681	1719			1863	1583
Fl t Permitted				0.95	1.00		0.95	0.97			1.00	1.00
Satd. Flow (perm)				1510	7517		1681	1719			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	307	3079	36	701	184	0	0	192	259
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	13
Lane Group Flow (vph)	0	0	0	307	3113	0	435	450	0	0	192	246
Confl. Peds. (#/hr)	40		40	40		40			40	40		
Turn Type				Perm			Split					Perm
Protected Phases					2		3	3			4	
Permitted Phases				2								4
Actuated Green, G (s)				50.2	50.2		30.2	30.2			18.0	18.0
Effective Green, g (s)				49.6	49.6		29.7	29.7			17.5	17.5
Actuated g/C Ratio				0.45	0.45		0.27	0.27			0.16	0.16
Clearance Time (s)				4.6	4.6		3.5	3.5			3.5	3.5
Vehicle Extension (s)				0.2	0.2		0.2	0.2			0.2	0.2
Lane Grp Cap (vph)				681	3389		454	464			296	252
v/s Ratio Prot					c0.41		0.26	c0.26			0.10	
v/s Ratio Perm				0.20								c0.16
v/c Ratio				0.45	0.92		0.96	0.97			0.65	0.98
Uniform Delay, d1				20.8	28.3		39.5	39.7			43.4	46.1
Progression Factor				1.00	1.00		0.56	0.56			1.00	1.00
Incremental Delay, d2				2.2	5.2		26.3	28.5			3.6	49.7
Delay (s)				23.0	33.6		48.2	50.5			47.0	95.8
Level of Service				C	C		D	D			D	F
Approach Delay (s)		0.0			32.6			49.4			75.0	
Approach LOS		A			C			D			E	

Intersection Summary

HCM Average Control Delay	39.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Richard Blvd & N 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↖	↑↑				↗
Volume (vph)	0	0	0	0	2333	227	117	1733	0	0	0	1082
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.6		4.0	4.0				3.5
Lane Util. Factor					0.81		1.00	0.95				0.88
Frbp, ped/bikes					1.00		1.00	1.00				0.94
Flpb, ped/bikes					1.00		0.95	1.00				1.00
Frt					0.99		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					7411		1683	3539				2619
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					7411		1683	3539				2619
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	2333	227	117	1733	0	0	0	1082
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	2554	0	117	1733	0	0	0	1082
Confl. Peds. (#/hr)			40			40	40		40	40		40
Turn Type							Perm					custom
Protected Phases					2			8				
Permitted Phases					2		8					4
Actuated Green, G (s)					34.7		47.5	47.5				47.5
Effective Green, g (s)					34.4		47.0	47.0				47.5
Actuated g/C Ratio					0.38		0.52	0.52				0.53
Clearance Time (s)					4.3		3.5	3.5				3.5
Vehicle Extension (s)					2.0		2.0	2.0				2.0
Lane Grp Cap (vph)					2833		879	1848				1382
v/s Ratio Prot					c0.34			c0.49				
v/s Ratio Perm							0.07					0.41
v/c Ratio					0.90		0.13	0.94				0.78
Uniform Delay, d1					26.2		11.0	20.1				17.1
Progression Factor					1.00		1.00	1.00				1.00
Incremental Delay, d2					5.2		0.0	9.6				2.7
Delay (s)					31.4		11.1	29.7				19.8
Level of Service					C		B	C				B
Approach Delay (s)		0.0			31.4			28.5			19.8	
Approach LOS		A			C			C			B	

Intersection Summary

HCM Average Control Delay	28.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.6
Intersection Capacity Utilization	123.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Richards Blvd & 10th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	1019	15	1254	499	0	0	0	765
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.0		4.5	4.5				4.0
Lane Util. Factor					0.86		0.97	1.00				0.88
Frbp, ped/bikes					1.00		1.00	1.00				0.95
Flpb, ped/bikes					1.00		1.00	1.00				1.00
Frt					1.00		1.00	1.00				0.85
Flt Protected					1.00		0.95	1.00				1.00
Satd. Flow (prot)					6394		3433	1863				2645
Flt Permitted					1.00		0.95	1.00				1.00
Satd. Flow (perm)					6394		3433	1863				2645
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	1019	15	1254	499	0	0	0	765
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	7
Lane Group Flow (vph)	0	0	0	0	1032	0	1254	499	0	0	0	758
Confl. Peds. (#/hr)			35				35					35
Turn Type				Perm			Split					custom
Protected Phases					6		3	3				
Permitted Phases				6								4
Actuated Green, G (s)					23.1		38.0	38.0				26.9
Effective Green, g (s)					22.6		37.5	37.5				26.4
Actuated g/C Ratio					0.23		0.38	0.38				0.26
Clearance Time (s)					4.5		4.0	4.0				3.5
Vehicle Extension (s)					2.0		3.0	3.0				2.0
Lane Grp Cap (vph)					1445		1287	699				698
v/s Ratio Prot					c0.16		c0.37	0.27				
v/s Ratio Perm												c0.29
v/c Ratio					0.71		0.97	0.71				1.09
Uniform Delay, d1					35.7		30.8	26.7				36.8
Progression Factor					0.76		0.97	0.97				1.00
Incremental Delay, d2					2.7		19.1	3.5				59.6
Delay (s)					29.7		49.0	29.4				96.4
Level of Service					C		D	C				F
Approach Delay (s)		0.0			29.7			43.4			96.4	
Approach LOS		A			C			D			F	

Intersection Summary

HCM Average Control Delay	50.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

11: Bannon St & I-5 SB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗							↖	↑↑↑	
Volume (vph)	0	437	762	0	0	0	0	0	0	626	797	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5							4.5	4.5	
Lane Util. Factor		1.00	1.00							0.81	0.81	
Frt		1.00	0.85							1.00	1.00	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		1863	1583							2867	4509	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		1863	1583							2867	4509	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	437	762	0	0	0	0	0	0	626	797	0
RTOR Reduction (vph)	0	0	9	0	0	0	0	0	0	374	7	0
Lane Group Flow (vph)	0	437	753	0	0	0	0	0	0	183	859	0
Turn Type			Perm								Split	
Protected Phases		4								6	6	
Permitted Phases			4									
Actuated Green, G (s)		64.8	64.8							36.2	36.2	
Effective Green, g (s)		64.8	64.8							36.2	36.2	
Actuated g/C Ratio		0.59	0.59							0.33	0.33	
Clearance Time (s)		4.5	4.5							4.5	4.5	
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Lane Grp Cap (vph)		1097	933							944	1484	
v/s Ratio Prot		0.23								0.06	c0.19	
v/s Ratio Perm			c0.48									
v/c Ratio		0.40	0.81							0.19	0.58	
Uniform Delay, d1		12.1	17.7							26.4	30.6	
Progression Factor		1.00	1.00							0.13	0.69	
Incremental Delay, d2		0.2	5.2							0.4	1.5	
Delay (s)		12.4	22.9							3.8	22.6	
Level of Service		B	C							A	C	
Approach Delay (s)		19.1			0.0			0.0			15.2	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM Average Control Delay			17.0								HCM Level of Service	B
HCM Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			110.0								Sum of lost time (s)	9.0
Intersection Capacity Utilization			93.0%								ICU Level of Service	F
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis

12: Bannon St & I-5 NB Off

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑						↑	↗↘			
Volume (vph)	69	994	0	0	0	0	0	104	2022	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.5	4.5			
Lane Util. Factor	1.00	0.86						1.00	0.88			
Frt	1.00	1.00						1.00	0.85			
Flt Protected	0.95	1.00						1.00	1.00			
Satd. Flow (prot)	1770	6408						1863	2787			
Flt Permitted	0.95	1.00						1.00	1.00			
Satd. Flow (perm)	1770	6408						1863	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	69	994	0	0	0	0	0	104	2022	0	0	0
RTOR Reduction (vph)	55	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	14	994	0	0	0	0	0	104	2022	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Actuated Green, G (s)	20.5	20.5						80.5	80.5			
Effective Green, g (s)	20.5	20.5						80.5	80.5			
Actuated g/C Ratio	0.19	0.19						0.73	0.73			
Clearance Time (s)	4.5	4.5						4.5	4.5			
Vehicle Extension (s)	3.0	3.0						3.0	3.0			
Lane Grp Cap (vph)	330	1194						1363	2040			
v/s Ratio Prot	0.01	c0.16						0.06				
v/s Ratio Perm									c0.73			
v/c Ratio	0.04	0.83						0.08	0.99			
Uniform Delay, d1	36.7	43.1						4.2	14.4			
Progression Factor	0.73	0.81						1.00	1.00			
Incremental Delay, d2	0.2	6.4						0.0	17.8			
Delay (s)	27.1	41.5						4.2	32.2			
Level of Service	C	D						A	C			
Approach Delay (s)		40.6			0.0			30.8			0.0	
Approach LOS		D			A			C			A	

Intersection Summary

HCM Average Control Delay	34.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	99.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

13: Bannon St & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	150	2384	482	0	0	0	0	567	164	179	288	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.86						1.00	1.00	1.00	1.00	
Frt	1.00	0.97						1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	6246						1863	1583	1770	1863	
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	6246						1863	1583	1770	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	150	2384	482	0	0	0	0	567	164	179	288	0
RTOR Reduction (vph)	0	33	0	0	0	0	0	0	16	0	0	0
Lane Group Flow (vph)	150	2833	0	0	0	0	0	567	148	179	288	0
Turn Type	Split						Perm			Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	51.4	51.4						34.6	34.6	12.0	50.6	
Effective Green, g (s)	51.4	51.4						34.6	34.6	12.0	50.6	
Actuated g/C Ratio	0.47	0.47						0.31	0.31	0.11	0.46	
Clearance Time (s)	4.0	4.0						4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	827	2919						586	498	193	857	
v/s Ratio Prot	0.08	c0.45						c0.30		c0.10	0.15	
v/s Ratio Perm									0.09			
v/c Ratio	0.18	0.97						0.97	0.30	0.93	0.34	
Uniform Delay, d1	17.1	28.6						37.1	28.5	48.6	19.0	
Progression Factor	1.06	1.06						1.00	1.00	0.87	0.42	
Incremental Delay, d2	0.2	5.1						28.8	0.3	40.3	0.2	
Delay (s)	18.2	35.2						66.0	28.8	82.4	8.1	
Level of Service	B	D						E	C	F	A	
Approach Delay (s)		34.4			0.0			57.6			36.6	
Approach LOS		C			A			E			D	

Intersection Summary

HCM Average Control Delay	38.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

14: Bannon St & N 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↘						↑↑↑				
Volume (vph)	1296	1638	0	0	0	0	0	826	414	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5						4.0				
Lane Util. Factor	0.81	0.81						0.91				
Frt	1.00	1.00						0.95				
Flt Protected	0.95	0.99						1.00				
Satd. Flow (prot)	1433	5951						4831				
Flt Permitted	0.95	0.99						1.00				
Satd. Flow (perm)	1433	5951						4831				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1296	1638	0	0	0	0	0	826	414	0	0	0
RTOR Reduction (vph)	14	14	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	634	2272	0	0	0	0	0	1223	0	0	0	0
Turn Type	Perm											
Protected Phases	4						2					
Permitted Phases	4											
Actuated Green, G (s)	58.0	58.0						33.5				
Effective Green, g (s)	58.0	58.0						33.5				
Actuated g/C Ratio	0.58	0.58						0.34				
Clearance Time (s)	4.5	4.5						4.0				
Vehicle Extension (s)	3.0	3.0						3.0				
Lane Grp Cap (vph)	831	3452						1618				
v/s Ratio Prot								c0.25				
v/s Ratio Perm	c0.44	0.38										
v/c Ratio	0.76	0.66						0.76				
Uniform Delay, d1	15.8	14.3						29.6				
Progression Factor	1.00	1.00						0.67				
Incremental Delay, d2	4.2	0.5						1.6				
Delay (s)	20.0	14.7						21.4				
Level of Service	C	B						C				
Approach Delay (s)		15.9			0.0			21.4			0.0	
Approach LOS		B			A			C			A	

Intersection Summary

HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	123.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

15: Bannon St & 7th Street

6/27/2007

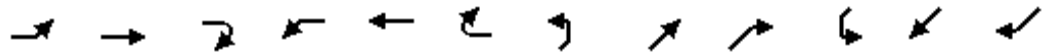


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑↑								↖	↑↑		
Volume (vph)	0	1705	347	0	0	0	0	0	0	488	1018	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.5								4.5	4.5		
Lane Util. Factor		0.86								1.00	0.95		
Frt		0.97								1.00	1.00		
Flt Protected		1.00								0.95	1.00		
Satd. Flow (prot)		6245								1770	3539		
Flt Permitted		1.00								0.95	1.00		
Satd. Flow (perm)		6245								1770	3539		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	1705	347	0	0	0	0	0	0	488	1018	0	
RTOR Reduction (vph)	0	27	0	0	0	0	0	0	0	1	0	0	
Lane Group Flow (vph)	0	2025	0	0	0	0	0	0	0	487	1018	0	
Turn Type										Prot			
Protected Phases		4								1	6		
Permitted Phases													
Actuated Green, G (s)		19.5								21.5	21.5		
Effective Green, g (s)		19.5								21.5	21.5		
Actuated g/C Ratio		0.39								0.43	0.43		
Clearance Time (s)		4.5								4.5	4.5		
Vehicle Extension (s)		3.0								3.0	3.0		
Lane Grp Cap (vph)		2436								761	1522		
v/s Ratio Prot		c0.32								0.28	c0.29		
v/s Ratio Perm													
v/c Ratio		0.83								0.64	0.67		
Uniform Delay, d1		13.8								11.2	11.4		
Progression Factor		1.78								0.88	0.89		
Incremental Delay, d2		1.9								3.6	2.1		
Delay (s)		26.4								13.5	12.2		
Level of Service		C								B	B		
Approach Delay (s)		26.4			0.0			0.0			12.6		
Approach LOS		C			A			A			B		
Intersection Summary													
HCM Average Control Delay			20.6		HCM Level of Service						C		
HCM Volume to Capacity ratio			0.75										
Actuated Cycle Length (s)			50.0		Sum of lost time (s)						9.0		
Intersection Capacity Utilization			66.1%		ICU Level of Service						C		
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

16: Richards & 12th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔↔	↑↑	↔					↔↔↔	↔	↔↔	↑↑↑	
Volume (vph)	1038	40	894	0	0	0	0	1597	15	42	3225	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Lane Util. Factor	0.97	0.95	1.00					0.86	0.86	0.97	0.91	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	1583					4805	1362	3433	5085	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	1583					4805	1362	3433	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1038	40	894	0	0	0	0	1597	15	42	3225	0
RTOR Reduction (vph)	0	0	71	0	0	0	0	0	3	0	0	0
Lane Group Flow (vph)	1038	40	823	0	0	0	0	1599	10	42	3225	0
Turn Type	custom		Perm				Perm		Prot			
Protected Phases	4	4						2		1	6	
Permitted Phases	4		4					2				
Actuated Green, G (s)	56.5	56.5	56.5					74.4	74.4	6.1	85.0	
Effective Green, g (s)	56.5	56.5	56.5					74.4	74.4	6.1	85.0	
Actuated g/C Ratio	0.38	0.38	0.38					0.50	0.50	0.04	0.57	
Clearance Time (s)	4.5	4.5	4.5					4.0	4.0	4.5	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1293	1333	596					2383	676	140	2882	
v/s Ratio Prot	0.30	0.01						0.33		0.01	c0.63	
v/s Ratio Perm			c0.52						0.01			
v/c Ratio	0.80	0.03	1.38					0.67	0.01	0.30	1.12	
Uniform Delay, d1	41.8	29.5	46.8					28.6	19.2	69.9	32.5	
Progression Factor	1.00	1.00	1.00					0.92	0.92	1.31	0.43	
Incremental Delay, d2	3.7	0.0	181.7					1.5	0.0	0.5	55.7	
Delay (s)	45.5	29.5	228.4					27.7	17.8	91.8	69.7	
Level of Service	D	C	F					C	B	F	E	
Approach Delay (s)		128.1			0.0			27.7			70.0	
Approach LOS		F			A			C			E	

Intersection Summary

HCM Average Control Delay	76.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	124.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

21: N B Street & 16th Street

6/27/2007















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔			↔			↔↔↔				
Volume (vph)	390	54	0	0	7	5	355	4820	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0				
Lane Util. Factor	0.95	0.95			1.00			0.86				
Frbp, ped/bikes	1.00	1.00			0.94			1.00				
Flpb, ped/bikes	0.86	0.89			1.00			0.99				
Frt	1.00	1.00			0.94			1.00				
Flt Protected	0.95	0.96			1.00			1.00				
Satd. Flow (prot)	1443	1522			1646			6319				
Flt Permitted	0.75	0.77			1.00			1.00				
Satd. Flow (perm)	1139	1218			1646			6319				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	390	54	0	0	7	5	355	4820	8	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	222	222	0	0	12	0	0	5183	0	0	0	0
Confl. Peds. (#/hr)	72						72	72		72		
Turn Type	Perm						Perm					
Protected Phases		2			2			4				
Permitted Phases	2						4					
Actuated Green, G (s)	18.0	18.0			18.0			74.0				
Effective Green, g (s)	18.0	18.0			18.0			74.0				
Actuated g/C Ratio	0.18	0.18			0.18			0.74				
Clearance Time (s)	4.0	4.0			4.0			4.0				
Lane Grp Cap (vph)	205	219			296			4676				
v/s Ratio Prot					0.01							
v/s Ratio Perm	0.19	0.18						0.82				
v/c Ratio	1.08	1.01			0.04			1.11				
Uniform Delay, d1	41.0	41.0			33.9			13.0				
Progression Factor	1.00	1.00			1.00			0.82				
Incremental Delay, d2	86.7	64.4			0.3			51.9				
Delay (s)	127.7	105.4			34.1			62.5				
Level of Service	F	F			C			E				
Approach Delay (s)		116.5			34.1			62.5			0.0	
Approach LOS		F			C			E			A	

Intersection Summary

HCM Average Control Delay	66.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	100.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 22: South Park St & Bercut Dr

6/27/2007

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	191	146	437	107	149	390
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	191	146	437	107	149	390
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	191	146	437	107	149	390
Volume Left (vph)	191	0	0	0	149	0
Volume Right (vph)	0	146	0	107	0	0
Hadj (s)	0.53	-0.67	0.03	-0.67	0.53	0.03
Departure Headway (s)	7.8	6.6	6.5	5.8	7.0	6.5
Degree Utilization, x	0.41	0.27	0.80	0.17	0.29	0.71
Capacity (veh/h)	430	513	539	589	492	534
Control Delay (s)	14.9	10.7	29.1	8.9	11.7	22.6
Approach Delay (s)	13.1		25.1		19.6	
Approach LOS	B		D		C	
Intersection Summary						
Delay			20.2			
HCM Level of Service			C			
Intersection Capacity Utilization			51.8%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

27: Railyards Blvd & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↕	↗	↖	↗		↖	↗	
Volume (vph)	5	122	5	337	274	155	12	389	81	63	450	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.95		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1852		1770	3347		1770	1815		1770	1826	
Flt Permitted	0.50	1.00		0.68	1.00		0.24	1.00		0.30	1.00	
Satd. Flow (perm)	928	1852		1258	3347		453	1815		551	1826	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	122	5	337	274	155	12	389	81	63	450	68
RTOR Reduction (vph)	0	3	0	0	80	0	0	14	0	0	10	0
Lane Group Flow (vph)	5	124	0	337	349	0	12	456	0	63	508	0
Turn Type	Perm		Perm		Perm		Perm		Perm		Perm	
Protected Phases	2		6		6		4		4		4	
Permitted Phases	2		6		6		4		4		4	
Actuated Green, G (s)	27.6	27.6		27.6	27.6		21.4	21.4		21.4	21.4	
Effective Green, g (s)	27.6	27.6		27.6	27.6		21.4	21.4		21.4	21.4	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.38	0.38		0.38	0.38	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	449	897		609	1621		170	681		207	686	
v/s Ratio Prot		0.07			0.10			0.25			c0.28	
v/s Ratio Perm	0.01			c0.27			0.03			0.11		
v/c Ratio	0.01	0.14		0.55	0.22		0.07	0.67		0.30	0.74	
Uniform Delay, d1	7.6	8.1		10.4	8.5		11.4	14.8		12.6	15.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.1		3.6	0.3		0.2	2.5		0.8	4.3	
Delay (s)	7.6	8.2		14.0	8.8		11.6	17.3		13.4	19.7	
Level of Service	A	A		B	A		B	B		B	B	
Approach Delay (s)		8.2			11.1			17.2			19.0	
Approach LOS		A			B			B			B	

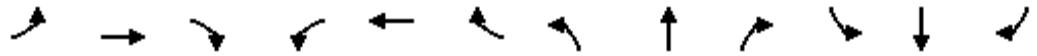
Intersection Summary

HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	57.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

28: Railyards Blvd & Crocker St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↖	↗			↖	↗	↖	↗	
Volume (vph)	18	69	37	284	346	269	94	229	272	16	54	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		0.95		1.00	1.00			1.00	1.00	1.00	1.00	
Frt		0.96		1.00	0.93			1.00	0.85	1.00	0.93	
Flt Protected		0.99		0.95	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (prot)		3356		1770	1741			1836	1583	1770	1728	
Flt Permitted		0.85		0.95	1.00			0.88	1.00	0.42	1.00	
Satd. Flow (perm)		2872		1770	1741			1634	1583	786	1728	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	18	69	37	284	346	269	94	229	272	16	54	50
RTOR Reduction (vph)	0	30	0	0	49	0	0	0	192	0	35	0
Lane Group Flow (vph)	0	94	0	284	566	0	0	323	80	16	69	0
Turn Type	Perm			Prot			Perm		Perm	Perm		
Protected Phases		2		1	6			8				4
Permitted Phases	2						8		8	4		
Actuated Green, G (s)		10.1		13.2	27.3			14.7	14.7	14.7	14.7	
Effective Green, g (s)		10.1		13.2	27.3			14.7	14.7	14.7	14.7	
Actuated g/C Ratio		0.20		0.26	0.55			0.29	0.29	0.29	0.29	
Clearance Time (s)		4.0		4.0	4.0			4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		580		467	951			480	465	231	508	
v/s Ratio Prot				0.16	c0.33							0.04
v/s Ratio Perm		0.03						c0.20	0.05	0.02		
v/c Ratio		0.16		0.61	0.60			0.67	0.17	0.07	0.14	
Uniform Delay, d1		16.5		16.1	7.6			15.5	13.1	12.7	13.0	
Progression Factor		1.00		1.57	1.63			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.6		1.8	2.2			3.7	0.2	0.1	0.1	
Delay (s)		17.1		27.1	14.6			19.2	13.3	12.8	13.1	
Level of Service		B		C	B			B	B	B	B	
Approach Delay (s)		17.1			18.5			16.5			13.1	
Approach LOS		B			B			B			B	

Intersection Summary

HCM Average Control Delay	17.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

32: Railyards Blvd & 6th St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	411	5	140	343	15	234	1029	248	11	138	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.97		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1859		1770	3517		1770	1808		1770	1853	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1859		1770	3517		1770	1808		1770	1853	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	191	411	5	140	343	15	234	1029	248	11	138	5
RTOR Reduction (vph)	0	1	0	0	3	0	0	8	0	0	1	0
Lane Group Flow (vph)	191	415	0	140	355	0	234	1269	0	11	142	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Actuated Green, G (s)	11.8	19.6		7.0	14.8		21.4	56.6		0.8	36.0	
Effective Green, g (s)	11.8	19.6		7.0	14.8		21.4	56.6		0.8	36.0	
Actuated g/C Ratio	0.12	0.20		0.07	0.15		0.21	0.57		0.01	0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	209	364		124	521		379	1023		14	667	
v/s Ratio Prot	0.11	c0.22		c0.08	0.10		c0.13	c0.70		0.01	0.08	
v/s Ratio Perm												
v/c Ratio	0.91	1.14		1.13	0.68		0.62	1.24		0.79	0.21	
Uniform Delay, d1	43.6	40.2		46.5	40.4		35.6	21.7		49.5	22.2	
Progression Factor	1.01	0.98		0.75	0.68		1.00	1.00		1.00	1.00	
Incremental Delay, d2	38.6	90.8		112.7	5.9		3.0	116.5		130.6	0.7	
Delay (s)	82.5	130.2		147.5	33.2		38.6	138.2		180.1	22.9	
Level of Service	F	F		F	C		D	F		F	C	
Approach Delay (s)		115.2			65.3			122.8			34.1	
Approach LOS		F			E			F			C	

Intersection Summary

HCM Average Control Delay	105.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	115.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

33: Railyards Blvd & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			TT	T	TT						TTT	
Volume (vph)	0	0	671	582	499	0	0	0	0	0	676	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0						4.0	
Lane Util. Factor			0.88	0.91	0.91						0.91	
Frt			0.85	1.00	1.00						1.00	
Flt Protected			1.00	0.95	0.98						1.00	
Satd. Flow (prot)			2787	1610	3338						5080	
Flt Permitted			1.00	0.95	0.98						1.00	
Satd. Flow (perm)			2787	1610	3338						5080	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	671	582	499	0	0	0	0	0	676	5
RTOR Reduction (vph)	0	0	474	251	53	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	197	104	673	0	0	0	0	0	680	0
Turn Type			custom	Perm								
Protected Phases			4		8						2	
Permitted Phases				8								
Actuated Green, G (s)			29.3	29.3	29.3						24.0	
Effective Green, g (s)			29.3	29.3	29.3						24.0	
Actuated g/C Ratio			0.29	0.29	0.29						0.24	
Clearance Time (s)			4.0	4.0	4.0						4.0	
Vehicle Extension (s)			3.0	3.0	3.0						3.0	
Lane Grp Cap (vph)			817	472	978						1219	
v/s Ratio Prot			0.07								c0.13	
v/s Ratio Perm				0.06	0.20							
v/c Ratio			0.24	0.22	0.69						0.56	
Uniform Delay, d1			26.9	26.7	31.3						33.3	
Progression Factor			1.00	1.00	1.00						0.76	
Incremental Delay, d2			0.0	0.2	2.0						1.5	
Delay (s)			26.9	27.0	33.3						26.8	
Level of Service			C	C	C						C	
Approach Delay (s)		26.9			31.2			0.0			26.8	
Approach LOS		C			C			A			C	

Intersection Summary

HCM Average Control Delay	28.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	46.7
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

36: Camille Ln & Bercut Dr

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Volume (vph)	36	114	46	810	5	74	14	323	559	22	754	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Fr _t		0.97		1.00	0.86		1.00	0.90		1.00	1.00	
Fl _t Protected		0.99		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1787		1770	1601		1770	1686		1770	1863	
Fl _t Permitted		0.95		0.69	1.00		0.22	1.00		0.22	1.00	
Satd. Flow (perm)		1711		1282	1601		414	1686		414	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	36	114	46	810	5	74	14	323	559	22	754	0
RTOR Reduction (vph)	0	24	0	0	43	0	0	139	0	0	0	0
Lane Group Flow (vph)	0	172	0	810	36	0	14	743	0	22	754	0
Turn Type	Perm		Perm		Perm		Perm		Perm		Perm	
Protected Phases	2		2		2		8		8		4	
Permitted Phases	2		2		2		8		8		4	
Actuated Green, G (s)	19.0		19.0		19.0		18.0		18.0		18.0	
Effective Green, g (s)	19.0		19.0		19.0		18.0		18.0		18.0	
Actuated g/C Ratio	0.42		0.42		0.42		0.40		0.40		0.40	
Clearance Time (s)	4.0		4.0		4.0		4.0		4.0		4.0	
Vehicle Extension (s)	3.0		3.0		3.0		3.0		3.0		3.0	
Lane Grp Cap (vph)	722		541		676		166		674		166	
v/s Ratio Prot					0.02		c0.44				0.40	
v/s Ratio Perm	0.10		c0.63				0.03				0.05	
v/c Ratio	0.24		1.50		0.05		0.08		1.10		0.13	
Uniform Delay, d ₁	8.3		13.0		7.7		8.4		13.5		8.6	
Progression Factor	1.00		1.00		1.00		1.00		1.00		1.00	
Incremental Delay, d ₂	0.8		233.4		0.2		0.2		66.3		0.4	
Delay (s)	9.1		246.4		7.8		8.6		79.8		8.9	
Level of Service	A		F		A		A		E		A	
Approach Delay (s)	9.1				225.2				78.7		48.4	
Approach LOS	A				F				E		D	

Intersection Summary

HCM Average Control Delay	112.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	117.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

38: G Street & 5th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗		↖↗↘				
Volume (vph)	274	5	0	0	93	2092	51	703	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.95	0.95			0.95	0.95		0.91				
Frt	1.00	1.00			0.86	0.85		1.00				
Flt Protected	0.95	0.95			1.00	1.00		1.00				
Satd. Flow (prot)	1681	1688			1527	1504		5063				
Flt Permitted	0.95	0.95			1.00	1.00		1.00				
Satd. Flow (perm)	1681	1688			1527	1504		5063				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	274	5	0	0	93	2092	51	703	5	0	0	0
RTOR Reduction (vph)	0	0	0	0	36	36	0	1	0	0	0	0
Lane Group Flow (vph)	140	139	0	0	1061	1052	0	758	0	0	0	0
Turn Type	Split				Perm		Perm					
Protected Phases	4	4			8			2				
Permitted Phases						8	2	2				
Actuated Green, G (s)	18.0	18.0			54.0	54.0		16.0				
Effective Green, g (s)	18.0	18.0			54.0	54.0		16.0				
Actuated g/C Ratio	0.18	0.18			0.54	0.54		0.16				
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Grp Cap (vph)	303	304			825	812		810				
v/s Ratio Prot	c0.08	0.08			0.69							
v/s Ratio Perm						c0.70		0.15				
v/c Ratio	0.46	0.46			1.29	1.30		0.94				
Uniform Delay, d1	36.7	36.6			23.0	23.0		41.5				
Progression Factor	1.00	1.00			0.24	0.24		1.00				
Incremental Delay, d2	5.0	4.9			129.4	133.7		19.4				
Delay (s)	41.7	41.5			134.9	139.2		60.9				
Level of Service	D	D			F	F		E				
Approach Delay (s)		41.6			137.0			60.9			0.0	
Approach LOS		D			F			E			A	

Intersection Summary

HCM Average Control Delay	110.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	118.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

39: G Street & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Volume (vph)	5	5	5	294	1546	469	222	395	5	5	1284	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			0.95		1.00	1.00			0.95	
Frt		0.95			0.97		1.00	1.00			1.00	
Flt Protected		0.98			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1750			3410		1770	1859			3530	
Flt Permitted		0.70			0.90		0.95	1.00			0.95	
Satd. Flow (perm)		1239			3102		1770	1859			3367	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	5	5	294	1546	469	222	395	5	5	1284	22
RTOR Reduction (vph)	0	3	0	0	23	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	12	0	0	2286	0	222	399	0	0	1310	0
Turn Type	Perm			Perm			Prot			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8						6		
Actuated Green, G (s)		48.0			48.0		8.0	44.0			32.0	
Effective Green, g (s)		48.0			48.0		8.0	44.0			32.0	
Actuated g/C Ratio		0.48			0.48		0.08	0.44			0.32	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		595			1489		142	818			1077	
v/s Ratio Prot							c0.13	0.21				
v/s Ratio Perm		0.01			c0.74						c0.39	
v/c Ratio		0.02			1.54		1.56	0.49			1.22	
Uniform Delay, d1		13.7			26.0		46.0	20.0			34.0	
Progression Factor		1.17			0.38		1.21	1.34			1.00	
Incremental Delay, d2		0.1			242.2		256.6	0.2			105.8	
Delay (s)		16.0			252.0		312.3	27.0			139.8	
Level of Service		B			F		F	C			F	
Approach Delay (s)		16.0			252.0			128.8			139.8	
Approach LOS		B			F			F			F	

Intersection Summary

HCM Average Control Delay	198.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	133.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

40: G Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	15	481	1726	0	0	0	0	0	1308	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.5	4.0	3.5						4.5	
Lane Util. Factor			1.00	0.91	0.91						0.91	
Frbp, ped/bikes			1.00	1.00	1.00						1.00	
Flpb, ped/bikes			1.00	1.00	1.00						1.00	
Frt			0.86	1.00	1.00						0.98	
Flt Protected			1.00	0.95	1.00						1.00	
Satd. Flow (prot)			1611	1610	3386						5003	
Flt Permitted			1.00	0.95	1.00						1.00	
Satd. Flow (perm)			1611	1610	3386						5003	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	15	481	1726	0	0	0	0	0	1308	158
RTOR Reduction (vph)	0	0	14	181	2	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	0	1	252	1772	0	0	0	0	0	1451	0
Confl. Peds. (#/hr)						72						
Turn Type			custom	Split								
Protected Phases			1	2	2						4	
Permitted Phases												
Actuated Green, G (s)			7.5	46.5	46.5						25.0	
Effective Green, g (s)			7.5	46.0	46.5						24.5	
Actuated g/C Ratio			0.08	0.46	0.46						0.24	
Clearance Time (s)			3.5	3.5	3.5						4.0	
Lane Grp Cap (vph)			121	741	1574						1226	
v/s Ratio Prot			c0.00	0.16	c0.52						c0.29	
v/s Ratio Perm												
v/c Ratio			0.01	0.34	1.13						1.18	
Uniform Delay, d1			42.8	17.3	26.8						37.8	
Progression Factor			1.00	0.82	0.77						0.73	
Incremental Delay, d2			0.1	1.1	64.9						89.5	
Delay (s)			42.9	15.3	85.4						117.2	
Level of Service			D	B	F						F	
Approach Delay (s)		42.9			71.6			0.0			117.2	
Approach LOS		D			E			A			F	
Intersection Summary												
HCM Average Control Delay			89.6		HCM Level of Service			F				
HCM Volume to Capacity ratio			1.04									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			21.5				
Intersection Capacity Utilization			76.5%		ICU Level of Service			D				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

44: H Street & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑						↑↑		↖	↗	
Volume (vph)	4	319	79	0	0	0	0	646	419	1075	725	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0						4.0		4.5	4.5	
Lane Util. Factor	1.00	0.95						0.95		0.95	0.95	
Frbp, ped/bikes	1.00	0.97						0.94		1.00	1.00	
Flpb, ped/bikes	0.86	1.00						1.00		1.00	1.00	
Frt	1.00	0.97						0.94		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (prot)	1515	3329						3130		1681	1751	
Flt Permitted	0.95	1.00						1.00		0.95	0.99	
Satd. Flow (perm)	1515	3329						3130		1681	1751	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	79	0	0	0	0	646	419	1075	725	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	75	0	0	0	0
Lane Group Flow (vph)	4	376	0	0	0	0	0	990	0	881	919	0
Confl. Peds. (#/hr)	72		72							72	72	
Turn Type	Perm						Split					
Protected Phases		1						2		6	6	
Permitted Phases	1											
Actuated Green, G (s)	16.5	16.5						23.5		41.0	41.0	
Effective Green, g (s)	16.5	16.0						23.0		40.5	40.5	
Actuated g/C Ratio	0.16	0.16						0.23		0.40	0.40	
Clearance Time (s)	3.5	3.5						3.5		4.0	4.0	
Lane Grp Cap (vph)	250	533						720		681	709	
v/s Ratio Prot		c0.11						c0.32		0.52	c0.52	
v/s Ratio Perm	0.00											
v/c Ratio	0.02	0.71						1.38		1.29	1.30	
Uniform Delay, d1	35.0	39.8						38.5		29.8	29.8	
Progression Factor	1.00	1.00						1.28		0.42	0.42	
Incremental Delay, d2	0.1	7.7						169.8		133.2	134.3	
Delay (s)	35.1	47.4						219.0		145.7	146.8	
Level of Service	D	D						F		F	F	
Approach Delay (s)		47.3			0.0			219.0			146.2	
Approach LOS		D			A			F			F	

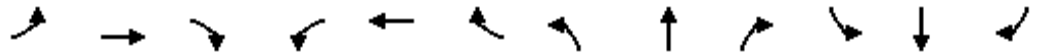
Intersection Summary

HCM Average Control Delay	157.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	105.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

45: H Street & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑								↘	↗↑	
Volume (vph)	0	1425	356	0	0	0	0	0	0	305	1101	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.95								0.91	0.91	
Frbp, ped/bikes		0.97								1.00	1.00	
Flpb, ped/bikes		1.00								0.86	1.00	
Frt		0.97								1.00	1.00	
Flt Protected		1.00								0.95	1.00	
Satd. Flow (prot)		3328								1378	3372	
Flt Permitted		1.00								0.95	1.00	
Satd. Flow (perm)		3328								1378	3372	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1425	356	0	0	0	0	0	0	305	1101	0
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	58	2	0
Lane Group Flow (vph)	0	1759	0	0	0	0	0	0	0	216	1130	0
Confl. Peds. (#/hr)			72							72		
Turn Type										Perm		
Protected Phases		1									2	
Permitted Phases										2		
Actuated Green, G (s)		54.5								33.5	33.5	
Effective Green, g (s)		54.0								33.0	33.0	
Actuated g/C Ratio		0.54								0.33	0.33	
Clearance Time (s)		3.5								3.5	3.5	
Lane Grp Cap (vph)		1797								455	1113	
v/s Ratio Prot		c0.53										
v/s Ratio Perm										0.16	0.34	
v/c Ratio		0.98								0.48	1.02	
Uniform Delay, d1		22.4								26.6	33.5	
Progression Factor		0.81								1.54	1.34	
Incremental Delay, d2		3.1								0.8	16.8	
Delay (s)		21.4								41.8	61.6	
Level of Service		C								D	E	
Approach Delay (s)		21.4			0.0			0.0			57.7	
Approach LOS		C			A			A			E	
Intersection Summary												
HCM Average Control Delay			37.4		HCM Level of Service					D		
HCM Volume to Capacity ratio			0.99									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				13.0			
Intersection Capacity Utilization			88.9%		ICU Level of Service					E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

47: H Street & 16th Street

6/27/2007



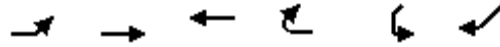
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗↘	↖				↗		↕↗↘				
Volume (vph)	858	933	0	0	0	50	0	2102	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0				4.0		4.0				
Lane Util. Factor	0.91	0.91				1.00		0.91				
Frbp, ped/bikes	1.00	1.00				1.00		1.00				
Flpb, ped/bikes	1.00	0.99				1.00		1.00				
Frt	1.00	1.00				0.86		1.00				
Flt Protected	0.95	1.00				1.00		1.00				
Satd. Flow (prot)	3221	1678				1611		5072				
Flt Permitted	0.95	1.00				1.00		1.00				
Satd. Flow (perm)	3221	1678				1611		5072				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	858	933	0	0	0	50	0	2102	20	0	0	0
RTOR Reduction (vph)	29	6	0	0	0	12	0	2	0	0	0	0
Lane Group Flow (vph)	743	1013	0	0	0	38	0	2120	0	0	0	0
Confl. Peds. (#/hr)	72					72			72			
Turn Type	Prot					custom						
Protected Phases	1	6				2		4				
Permitted Phases												
Actuated Green, G (s)	16.5	22.5				2.5		20.5				
Effective Green, g (s)	16.0	22.0				2.0		20.0				
Actuated g/C Ratio	0.32	0.44				0.04		0.40				
Clearance Time (s)	3.5	3.5				3.5		3.5				
Lane Grp Cap (vph)	1031	738				64		2029				
v/s Ratio Prot	0.23	c0.44				0.02		c0.42				
v/s Ratio Perm		0.16										
v/c Ratio	0.72	1.37				0.59		1.04				
Uniform Delay, d1	15.0	14.0				23.6		15.0				
Progression Factor	1.00	1.00				1.00		1.00				
Incremental Delay, d2	4.3	176.5				33.7		32.9				
Delay (s)	19.4	190.5				57.3		47.9				
Level of Service	B	F				E		D				
Approach Delay (s)		116.7			57.3			47.9			0.0	
Approach LOS		F			E			D			A	

Intersection Summary

HCM Average Control Delay	79.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	102.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 48: I Street & Jibboom St

6/27/2007



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	1125	164	220	0	920	697
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	1.00		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1770	1863	1863		1706	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1770	1863	1863		1706	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1125	164	220	0	920	697
RTOR Reduction (vph)	0	0	0	0	18	0
Lane Group Flow (vph)	1125	164	220	0	1599	0
Turn Type	Prot		custom			
Protected Phases	7	4	8	1	6	
Permitted Phases				8		
Actuated Green, G (s)	50.5	53.9	12.0		75.0	
Effective Green, g (s)	50.0	53.9	12.0		75.0	
Actuated g/C Ratio	0.33	0.36	0.08		0.50	
Clearance Time (s)	4.5	4.0	4.0		4.0	
Vehicle Extension (s)	2.5	4.5	4.5		3.0	
Lane Grp Cap (vph)	590	669	149		853	
v/s Ratio Prot	c0.64	0.09	c0.12		c0.94	
v/s Ratio Perm						
v/c Ratio	1.91	0.25	1.48		1.87	
Uniform Delay, d1	50.0	33.8	69.0		37.5	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	414.4	0.3	246.9		398.0	
Delay (s)	464.4	34.1	315.9		435.5	
Level of Service	F	C	F		F	
Approach Delay (s)		409.6	315.9		435.5	
Approach LOS		F	F		F	

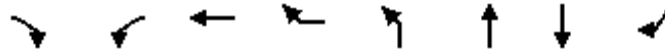
Intersection Summary

HCM Average Control Delay	416.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.85		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	177.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

49: I Street & 3rd St

6/27/2007



Movement	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations	↗	↖	↑	↗	↖	↑	↗	↖
Volume (vph)	241	295	180	5	247	344	147	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lane Util. Factor	1.00	1.00	1.00	0.88	1.00	1.00	1.00	
Frt	0.86	1.00	1.00	0.85	1.00	1.00	0.99	
Flt Protected	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1611	1770	1863	2787	1770	1863	1848	
Flt Permitted	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1611	1770	1863	2787	1770	1863	1848	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	241	295	180	5	247	344	147	9
RTOR Reduction (vph)	209	0	0	0	0	0	0	0
Lane Group Flow (vph)	32	295	180	5	247	344	156	0
Turn Type	custom	Prot		Prot	Prot			
Protected Phases	4	3	8	8	5	2	6	
Permitted Phases	4							
Actuated Green, G (s)	13.2	26.8	44.5	44.5	27.5	46.5	14.5	
Effective Green, g (s)	13.2	26.8	44.5	44.5	27.5	46.5	14.5	
Actuated g/C Ratio	0.13	0.27	0.44	0.44	0.28	0.46	0.14	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lane Grp Cap (vph)	213	474	829	1240	487	866	268	
v/s Ratio Prot	0.02	c0.17	c0.10	0.00	c0.14	0.18	c0.08	
v/s Ratio Perm								
v/c Ratio	0.15	0.62	0.22	0.00	0.51	0.40	0.58	
Uniform Delay, d1	38.4	32.2	17.0	15.4	30.5	17.6	39.9	
Progression Factor	1.00	0.87	0.72	0.70	1.00	1.00	1.00	
Incremental Delay, d2	1.5	1.8	0.2	0.0	3.7	1.4	8.9	
Delay (s)	39.9	29.7	12.5	10.9	34.3	18.9	48.9	
Level of Service	D	C	B	B	C	B	D	
Approach Delay (s)			23.0			25.3	48.9	
Approach LOS			C			C	D	

Intersection Summary

HCM Average Control Delay	29.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

51: I St & 6th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔	↔
Volume (vph)	0	0	0	72	2392	115	301	882	0	0	77	944
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.86		0.91	0.91			0.95	0.95
Frbp, ped/bikes					0.99		1.00	1.00			1.00	1.00
Flpb, ped/bikes					0.99		1.00	1.00			1.00	1.00
Frt					0.99		1.00	1.00			0.87	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					6270		1610	3385			1543	1504
Flt Permitted					1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)					6270		1610	3385			1543	1504
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	72	2392	115	301	882	0	0	77	944
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	48	48
Lane Group Flow (vph)	0	0	0	0	2572	0	271	912	0	0	473	452
Confl. Peds. (#/hr)				72		72						
Turn Type				Perm		custom					custom	
Protected Phases					4		1	1			2	2
Permitted Phases				4			1					2
Actuated Green, G (s)					40.5		22.5	22.5			26.5	26.5
Effective Green, g (s)					40.0		22.0	22.0			26.0	26.0
Actuated g/C Ratio					0.40		0.22	0.22			0.26	0.26
Clearance Time (s)					3.5		3.5	3.5			3.5	3.5
Vehicle Extension (s)					3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					2508		354	745			401	391
v/s Ratio Prot							0.17	c0.27			c0.31	0.30
v/s Ratio Perm					0.41							
v/c Ratio					1.03		0.77	1.22			1.18	1.16
Uniform Delay, d1					30.0		36.6	39.0			37.0	37.0
Progression Factor					0.42		1.14	1.15			1.31	1.31
Incremental Delay, d2					19.3		12.4	110.9			88.1	78.5
Delay (s)					31.9		54.1	155.7			136.5	126.9
Level of Service					C		D	F			F	F
Approach Delay (s)		0.0			31.9			132.4			131.8	
Approach LOS		A			C			F			F	

Intersection Summary

HCM Average Control Delay	78.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	129.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

52: I St & 7th Street

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↔↔↔						↕↕	↗↗
Volume (vph)	0	0	0	242	2145	0	0	0	0	0	1255	537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0						4.0	4.0
Lane Util. Factor				0.86	0.86						0.95	0.88
Frbp, ped/bikes				1.00	1.00						1.00	1.00
Flpb, ped/bikes				0.86	1.00						1.00	1.00
Frt				1.00	1.00						1.00	0.85
Flt Protected				0.95	1.00						1.00	1.00
Satd. Flow (prot)				1303	4796						3539	2787
Flt Permitted				0.95	1.00						1.00	1.00
Satd. Flow (perm)				1303	4796						3539	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	242	2145	0	0	0	0	0	1255	537
RTOR Reduction (vph)	0	0	0	106	1	0	0	0	0	0	0	182
Lane Group Flow (vph)	0	0	0	112	2168	0	0	0	0	0	1255	355
Confl. Peds. (#/hr)				72								
Turn Type				Perm								Perm
Protected Phases					1							2
Permitted Phases				1								2
Actuated Green, G (s)				46.5	46.5						36.5	36.5
Effective Green, g (s)				46.0	46.0						36.0	36.0
Actuated g/C Ratio				0.46	0.46						0.36	0.36
Clearance Time (s)				3.5	3.5						3.5	3.5
Lane Grp Cap (vph)				599	2206						1274	1003
v/s Ratio Prot											c0.35	
v/s Ratio Perm				0.09	0.45							0.13
v/c Ratio				0.19	0.98						0.99	0.35
Uniform Delay, d1				16.0	26.6						31.7	23.5
Progression Factor				1.00	1.00						0.82	0.44
Incremental Delay, d2				0.7	15.5						15.4	0.5
Delay (s)				16.6	42.1						41.5	10.8
Level of Service				B	D						D	B
Approach Delay (s)		0.0			39.8			0.0			32.3	
Approach LOS		A			D			A			C	
Intersection Summary												
HCM Average Control Delay			36.6		HCM Level of Service						D	
HCM Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			18.0				
Intersection Capacity Utilization			79.4%		ICU Level of Service			D				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

53: J St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	NBR	SBL	SBT	NEL	NER	NER2
Lane Configurations		←↑↑↑		↑↑	↑↑	↑	↑	↑↑	
Volume (vph)	203	1034	433	316	537	370	358	711	1046
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		0.86		0.88	0.97	1.00	1.00	0.91	
Frbp, ped/bikes		0.98		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	1.00	1.00	1.00	
Frt		0.96		0.85	1.00	1.00	0.92	0.85	
Flt Protected		0.99		1.00	0.95	1.00	0.98	1.00	
Satd. Flow (prot)		6018		2787	3433	1863	1679	2882	
Flt Permitted		0.99		1.00	0.95	1.00	0.98	1.00	
Satd. Flow (perm)		6018		2787	3433	1863	1679	2882	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	203	1034	433	316	537	370	358	711	1046
RTOR Reduction (vph)	0	0	0	68	0	0	0	75	0
Lane Group Flow (vph)	0	1670	0	248	537	370	735	1305	0
Confl. Peds. (#/hr)			36						36
Turn Type	Split			custom	Perm			Prot	
Protected Phases	2	2				1	3	3	
Permitted Phases				1	1				
Actuated Green, G (s)		29.5		22.2	22.2	22.2	42.0	42.0	
Effective Green, g (s)		29.5		21.7	21.7	21.7	42.0	42.0	
Actuated g/C Ratio		0.28		0.21	0.21	0.21	0.40	0.40	
Clearance Time (s)		4.0		3.5	3.5	3.5	4.0	4.0	
Vehicle Extension (s)		3.0		2.0	2.0	2.0	4.0	4.0	
Lane Grp Cap (vph)		1688		575	708	384	670	1151	
v/s Ratio Prot		c0.28				c0.20	0.44	c0.45	
v/s Ratio Perm				0.09	0.16				
v/c Ratio		0.99		0.43	0.76	0.96	1.10	1.55dr	
Uniform Delay, d1		37.7		36.4	39.3	41.4	31.6	31.6	
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		19.5		0.2	4.2	36.0	64.3	71.4	
Delay (s)		57.2		36.6	43.4	77.4	95.9	103.0	
Level of Service		E		D	D	E	F	F	
Approach Delay (s)		57.2				57.3	100.5		
Approach LOS		E				E	F		

Intersection Summary

HCM Average Control Delay	74.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	105.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	115.0%	ICU Level of Service	H
Analysis Period (min)	15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

57: L St & 3rd St

6/27/2007



Movement	WBL	WBT	WBR	WBR2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations									
Volume (vph)	738	845	449	203	708	84	1172	351	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.0	4.5	4.0	3.5	4.0	3.5	
Lane Util. Factor	0.95	0.86	0.91	0.95	0.97	1.00	0.95	1.00	
Frt	1.00	0.99	0.85	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1681	1585	1441	1504	3433	1863	3539	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (perm)	1681	1585	1441	1504	3433	1863	3539	1583	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	738	845	449	203	708	84	1172	351	39
RTOR Reduction (vph)	0	0	2	102	0	0	0	4	0
Lane Group Flow (vph)	664	964	422	81	708	84	1172	386	0
Turn Type	Perm		Perm	Perm	Prot			Perm	
Protected Phases		2			3	8	4		
Permitted Phases	2		2	2				4	
Actuated Green, G (s)	45.0	45.0	45.0	45.0	15.0	47.5	28.5	28.5	
Effective Green, g (s)	44.5	44.5	45.0	44.5	15.0	47.5	28.0	28.5	
Actuated g/C Ratio	0.44	0.44	0.45	0.44	0.15	0.48	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	3.5	3.5	
Lane Grp Cap (vph)	748	705	648	669	515	885	991	451	
v/s Ratio Prot					c0.21	0.05	c0.33		
v/s Ratio Perm	0.39	0.61	0.29	0.05				0.24	
v/c Ratio	0.89	1.37	0.65	0.12	1.37	0.09	1.18	0.86	
Uniform Delay, d1	25.5	27.8	21.4	16.3	42.5	14.4	36.0	33.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	14.7	174.3	5.0	0.4	180.6	0.2	92.6	18.4	
Delay (s)	40.2	202.1	26.4	16.7	223.1	14.6	128.6	52.2	
Level of Service	D	F	C	B	F	B	F	D	
Approach Delay (s)		105.5				201.0	109.5		
Approach LOS		F				F	F		

Intersection Summary

HCM Average Control Delay	123.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	110.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

61: P St & 3rd St

6/27/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑↑
Volume (vph)	0	0	0	163	2769	0	0	0	0	0	1003	772
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	4.0
Lane Util. Factor					0.91						0.86	0.86
Frbp, ped/bikes					1.00						0.99	0.85
Flpb, ped/bikes					1.00						1.00	1.00
Frt					1.00						0.99	0.85
Flt Protected					1.00						1.00	1.00
Satd. Flow (prot)					4902						2978	2191
Flt Permitted					1.00						1.00	1.00
Satd. Flow (perm)					4902						2978	2191
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	163	2769	0	0	0	0	0	1003	772
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	1	1
Lane Group Flow (vph)	0	0	0	0	2926	0	0	0	0	0	1079	694
Confl. Peds. (#/hr)				72								72
Parking (#/hr)				0	0						0	0
Turn Type				Split								Perm
Protected Phases				2	2						1	
Permitted Phases												1
Actuated Green, G (s)					57.7						35.3	35.3
Effective Green, g (s)					57.2						34.8	34.8
Actuated g/C Ratio					0.57						0.35	0.35
Clearance Time (s)					3.5						3.5	3.5
Lane Grp Cap (vph)					2804						1036	762
v/s Ratio Prot					c0.60						c0.36	
v/s Ratio Perm												0.32
v/c Ratio					1.04						1.04	0.91
Uniform Delay, d1					21.4						32.6	31.1
Progression Factor					1.00						0.75	0.74
Incremental Delay, d2					29.7						22.1	2.1
Delay (s)					51.1						46.5	25.1
Level of Service					D						D	C
Approach Delay (s)		0.0			51.1			0.0			38.1	
Approach LOS		A			D			A			D	

Intersection Summary

HCM Average Control Delay	46.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

64: Richards Blvd & 12th Street

6/27/2007

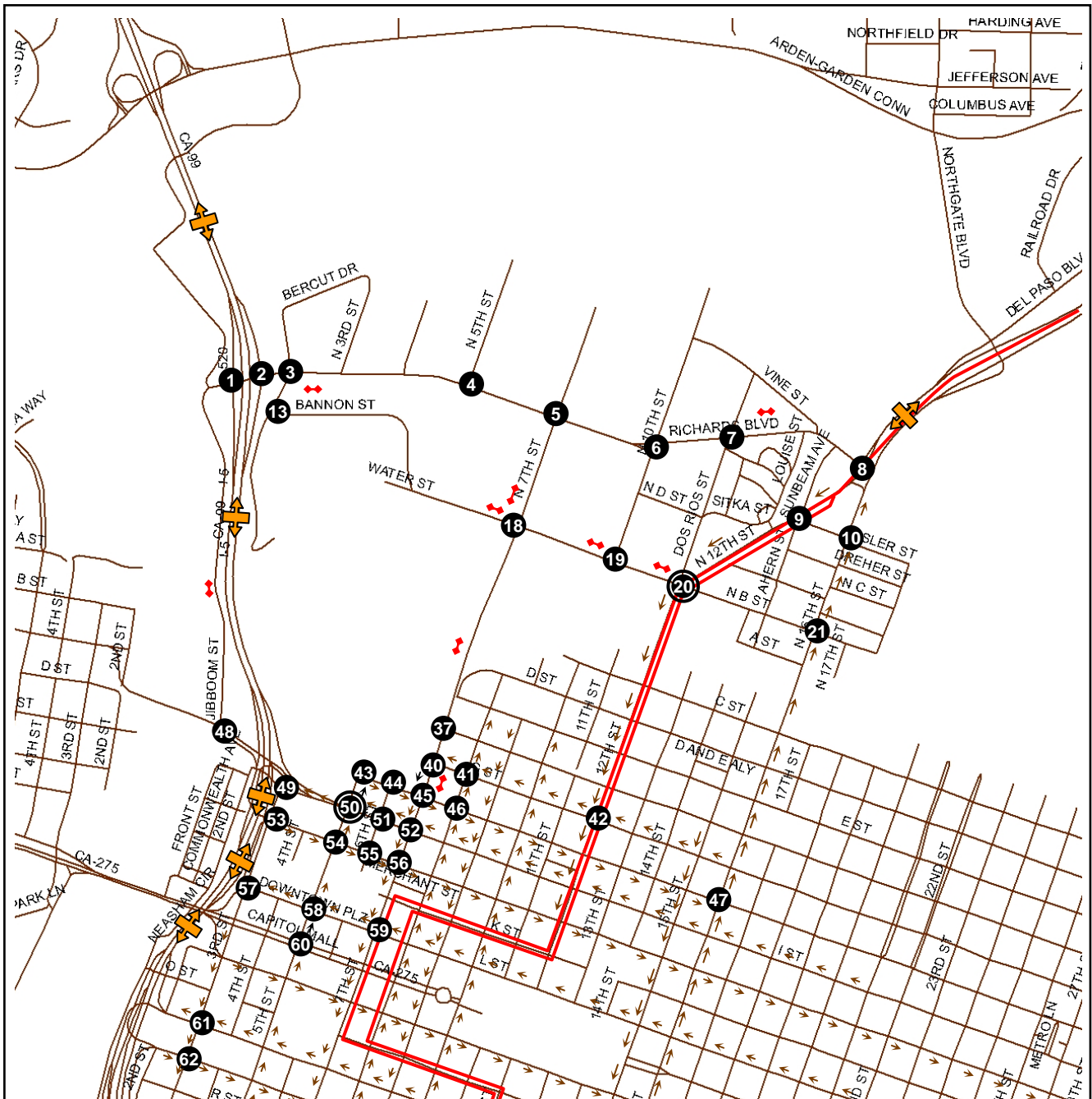


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔	↑↑	↗	↔↔	↑↑↑			↑↑↑	↔↔
Volume (vph)	0	0	0	95	878	143	58	2577	0	0	3172	435
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.97	0.95	1.00	0.97	0.91			0.91	0.88
Fr _t				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Fl _t Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				3433	3539	1583	3433	5085			5085	2787
Fl _t Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				3433	3539	1583	3433	5085			5085	2787
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	95	878	143	58	2577	0	0	3172	435
RTOR Reduction (vph)	0	0	0	0	0	38	0	0	0	0	0	69
Lane Group Flow (vph)	0	0	0	95	878	105	58	2577	0	0	3172	366
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				35.2	35.2	35.2	4.0	106.8			98.8	98.8
Effective Green, g (s)				35.2	35.2	35.2	4.0	106.8			98.8	98.8
Actuated g/C Ratio				0.23	0.23	0.23	0.03	0.71			0.66	0.66
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				806	830	371	92	3621			3349	1836
v/s Ratio Prot					c0.25		0.02	c0.51			c0.62	
v/s Ratio Perm				0.03		0.07						0.13
v/c Ratio				0.12	1.06	0.28	0.63	0.71			0.95	0.20
Uniform Delay, d ₁				45.2	57.4	47.1	72.3	12.6			23.2	10.1
Progression Factor				1.00	1.00	1.00	0.96	0.90			1.00	1.00
Incremental Delay, d ₂				0.3	47.7	1.9	9.2	0.8			7.4	0.2
Delay (s)				45.5	105.1	49.0	78.8	12.2			30.6	10.3
Level of Service				D	F	D	E	B			C	B
Approach Delay (s)		0.0			92.8			13.7			28.1	
Approach LOS		A			F			B			C	

Intersection Summary

HCM Average Control Delay	32.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	124.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Study Intersections and Street Segments – June 15, 2007



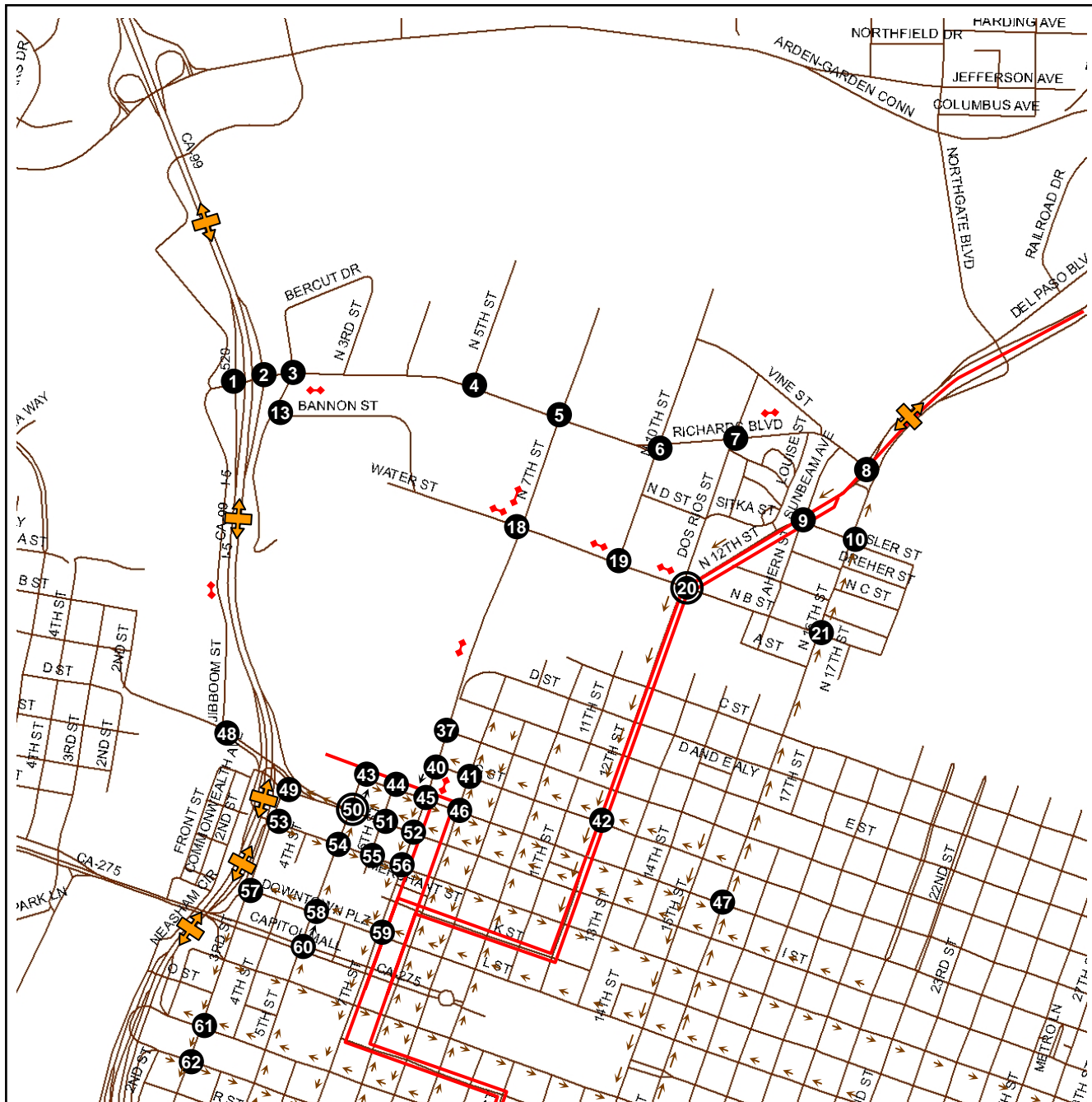
KEY

- 10 = Existing study intersection
- 13 = Existing study intersection (pedestrian & bike analysis)
- 40 = Proposed intersection
- Study street segment
- Freeway study area
- Light rail track

Dowling Associates, Inc.
Sacramento Railroads Traffic Study
 June 15, 2007



Figure A
ROADWAY NETWORK
EXISTING CONDITIONS



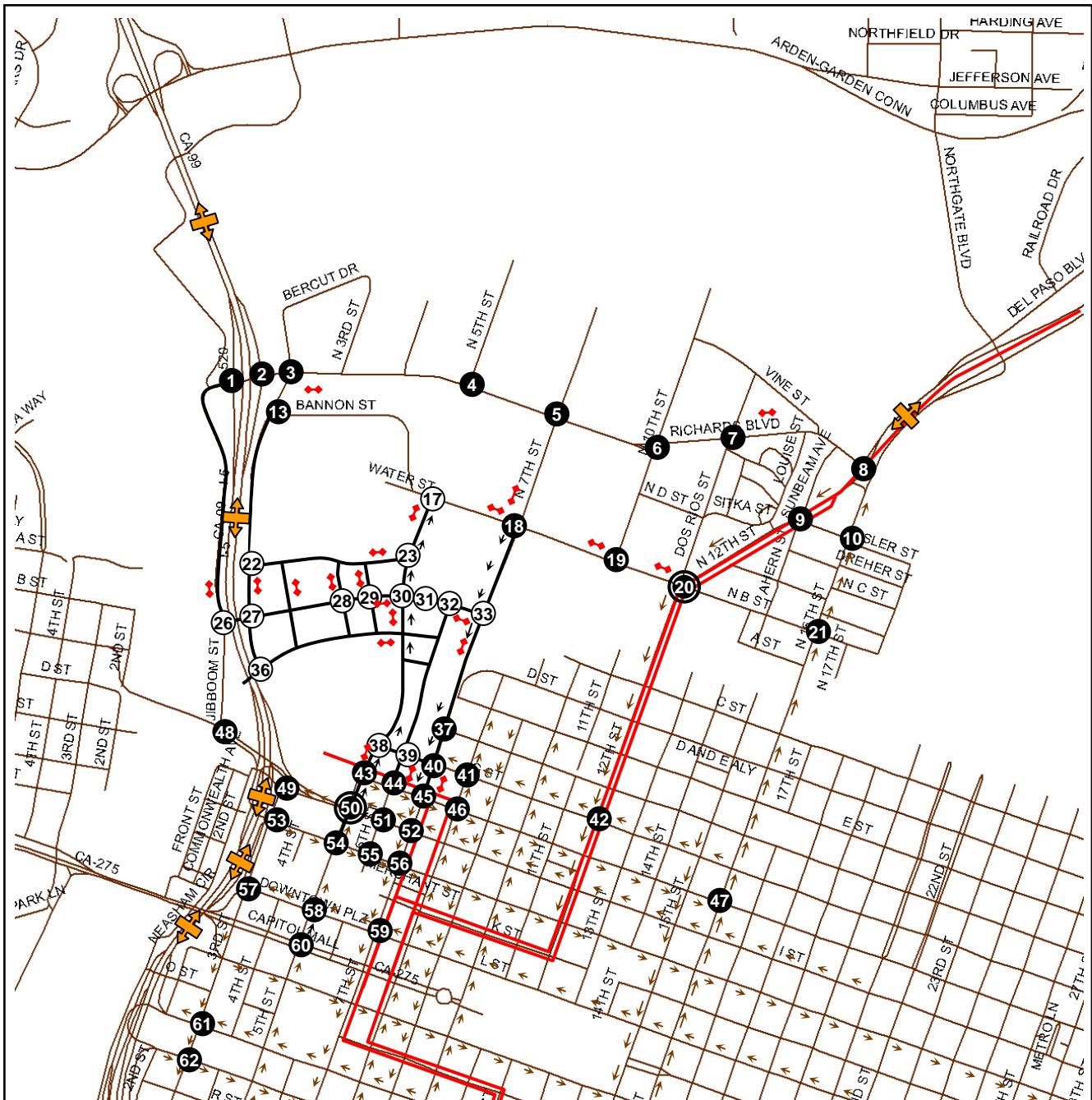
KEY

- 10 = Existing study intersection
- 13 = Existing study intersection (pedestrian & bike analysis)
- 40 = Proposed intersection
- ♦ = Study street segment
- ➔ = Freeway study area
- = Light rail track

Dowling Associates, Inc.
 Sacramento Railroads Traffic Study
 June 15, 2007



Figure B
ROADWAY NETWORK
BASELINE CONDITIONS



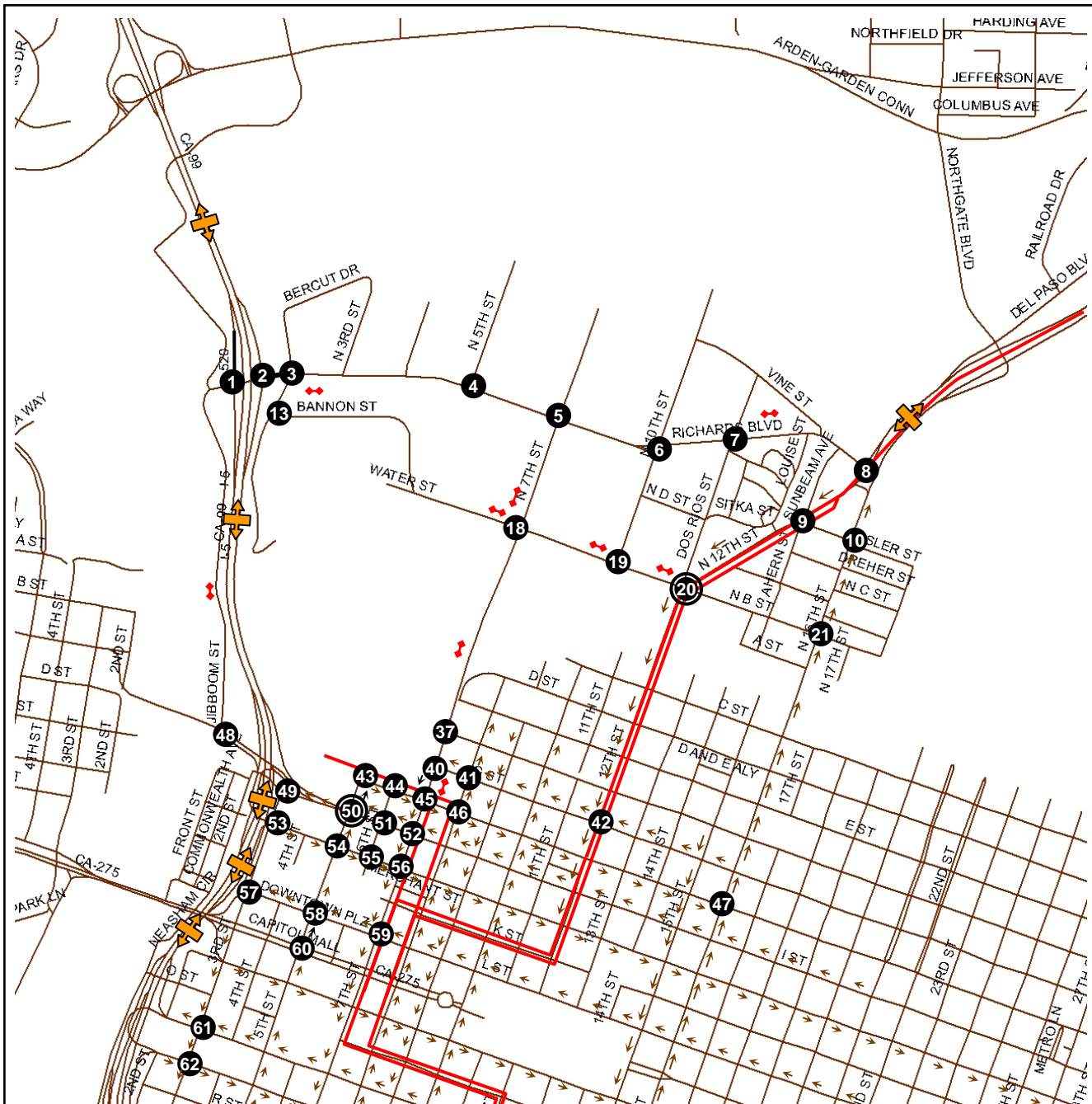
KEY

- ⑩ = Existing study intersection
- ⑬ = Existing study intersection (pedestrian & bike analysis)
- ④⑩ = Proposed intersection
- ⚡ = Study street segment
- ↔ = Freeway study area
- = Light rail track

Dowling Associates, Inc.
Sacramento Railyards Traffic Study
 June 15, 2007



Figure C
ROADWAY NETWORK
BASELINE PLUS INITIAL PHASE

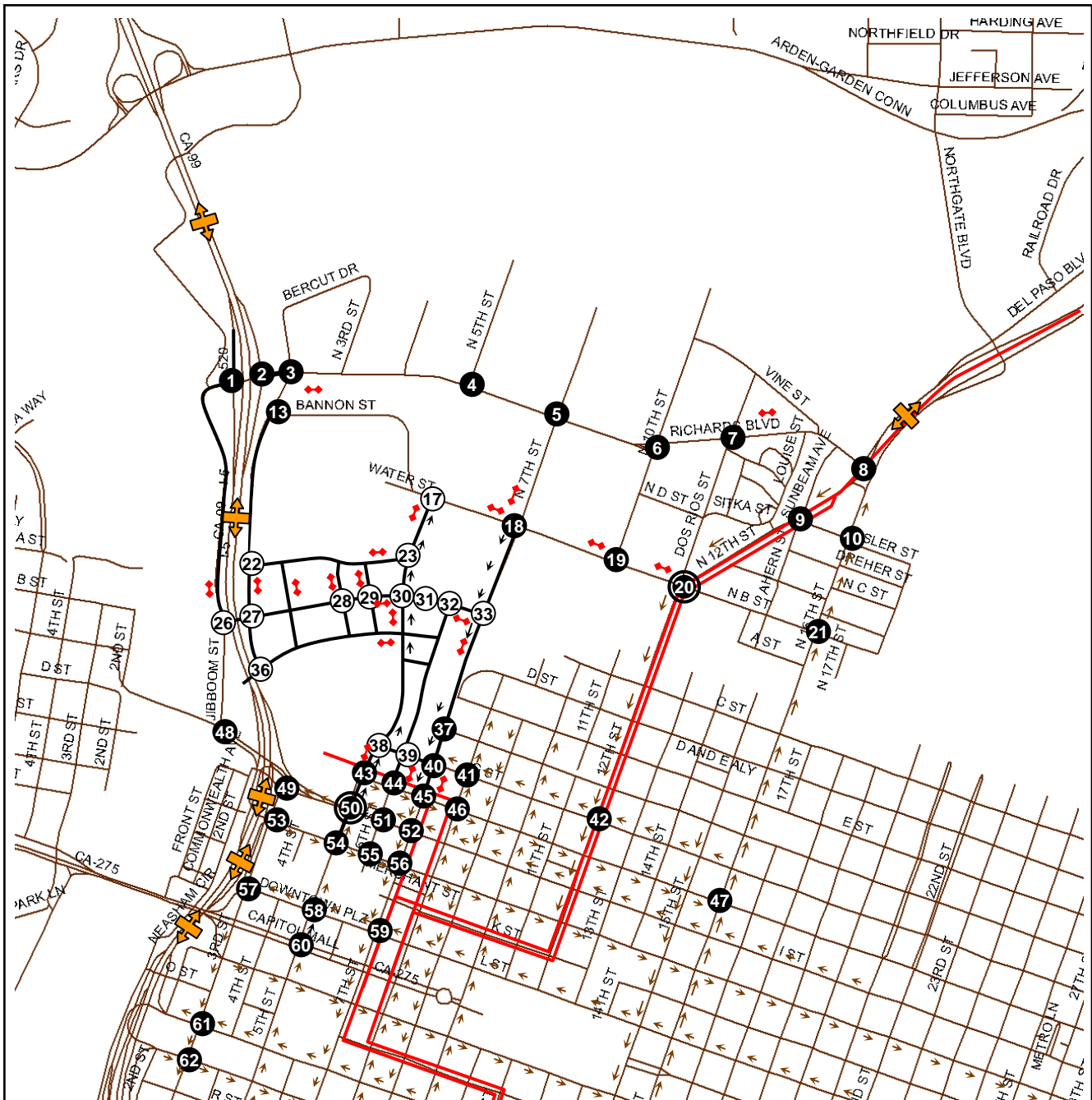


KEY

- ⑩ = Existing study intersection
- ⑬ = Existing study intersection (pedestrian & bike analysis)
- ④① = Proposed intersection
- - - = Study street segment
- ↔ = Freeway study area
- = Light rail track



Figure D
ROADWAY NETWORK
NEAR-TERM (2013) NO PROJECT



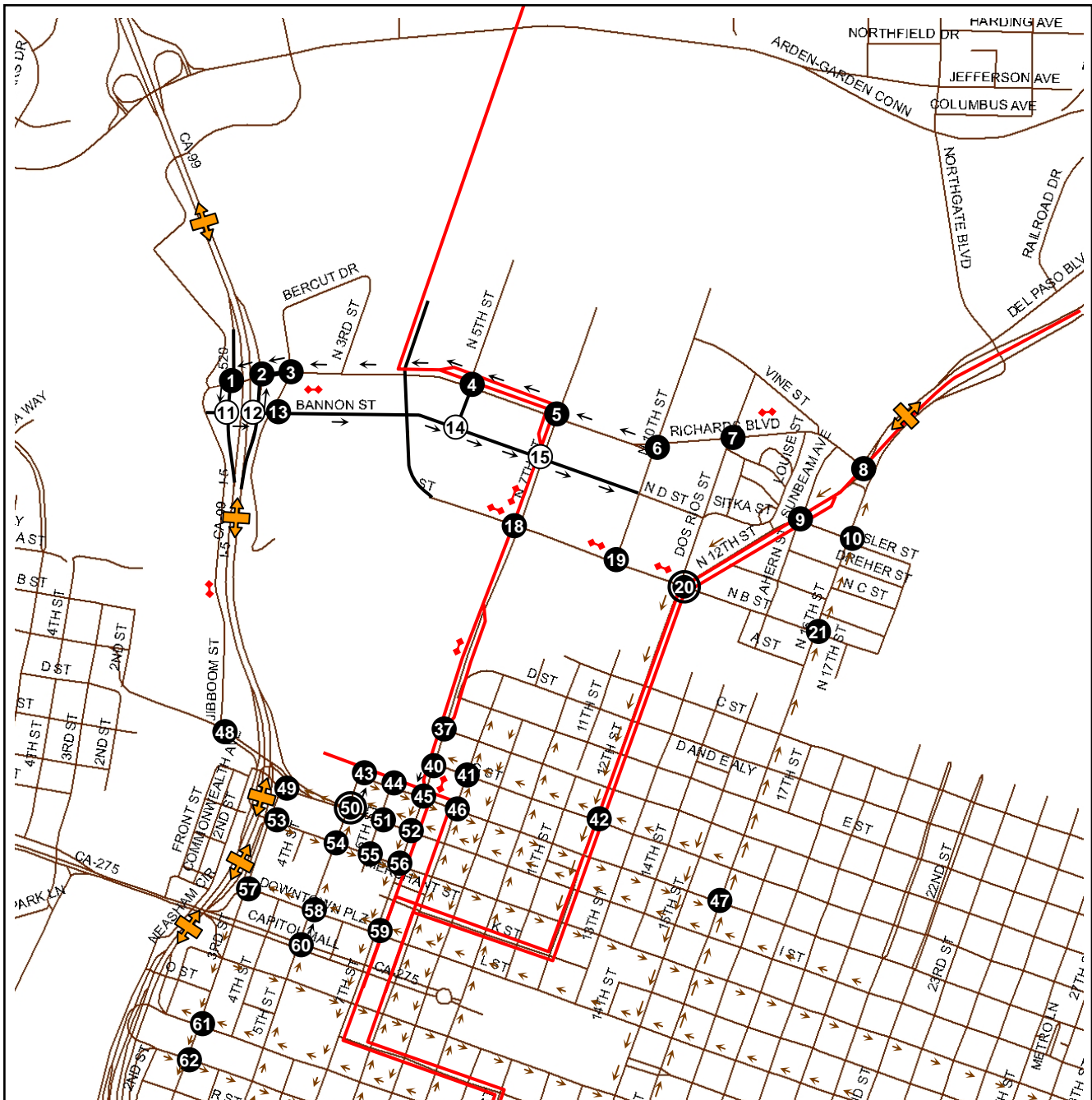
KEY

- ⑩ = Existing study intersection
- ⑬ = Existing study intersection (pedestrian & bike analysis)
- ④⑩ = Proposed intersection
- ⚡ = Study street segment
- ⚡ = Freeway study area
- = Light rail track

Dowling Associates, Inc.
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 June 15, 2007



Figure E
ROADWAY NETWORK
NEAR-TERM (2013) PLUS INITIAL PHASE



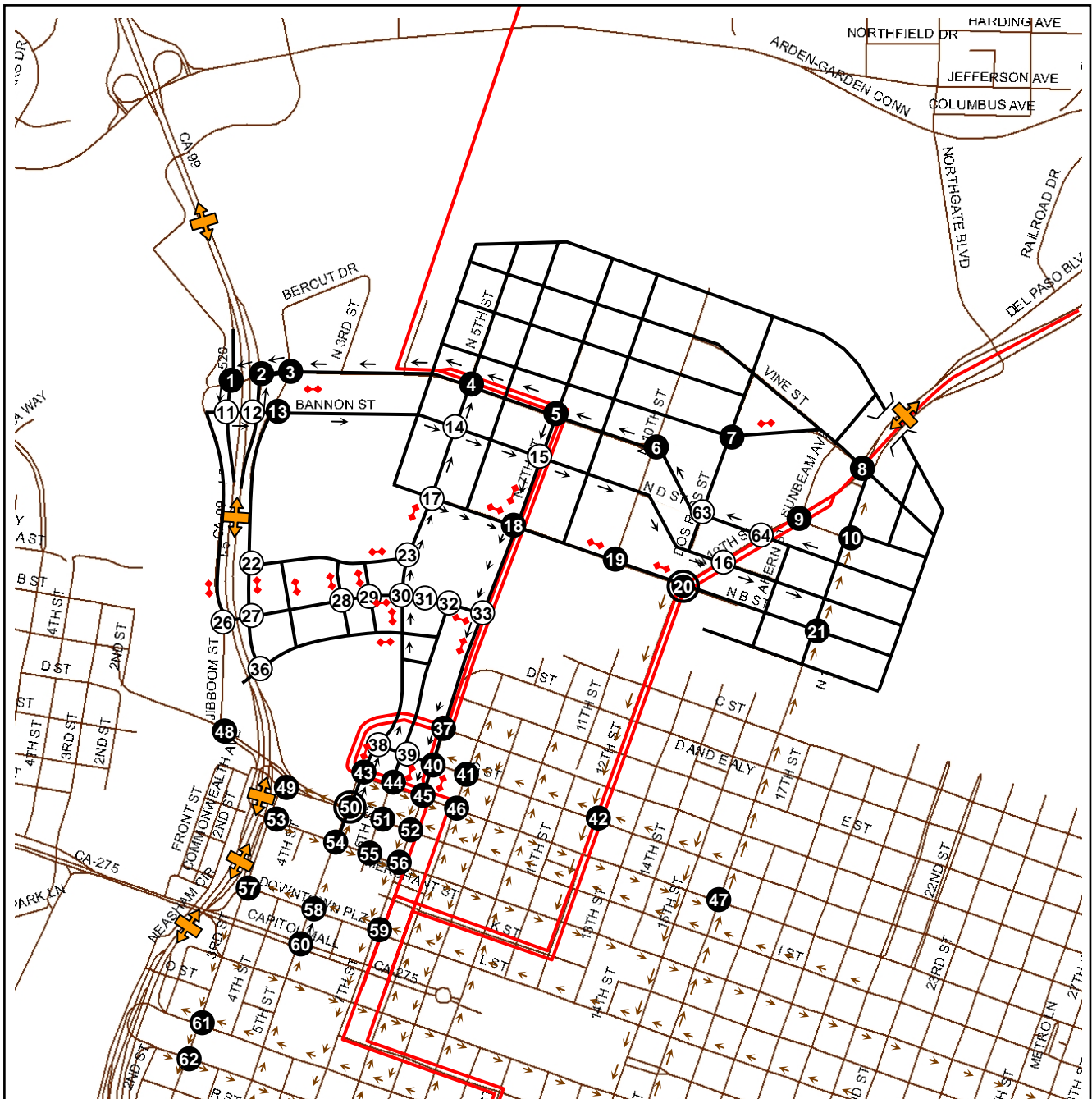
KEY

- 10 = Existing study intersection
- 13 = Existing study intersection (pedestrian & bike analysis)
- 40 = Proposed intersection
- Study street segment
- Freeway study area
- Light rail track

Dowling Associates, Inc.
Sacramento Railyards Traffic Study
 June 15, 2007



Figure F
ROADWAY NETWORK
LONG-TERM (2030) NO PROJECT



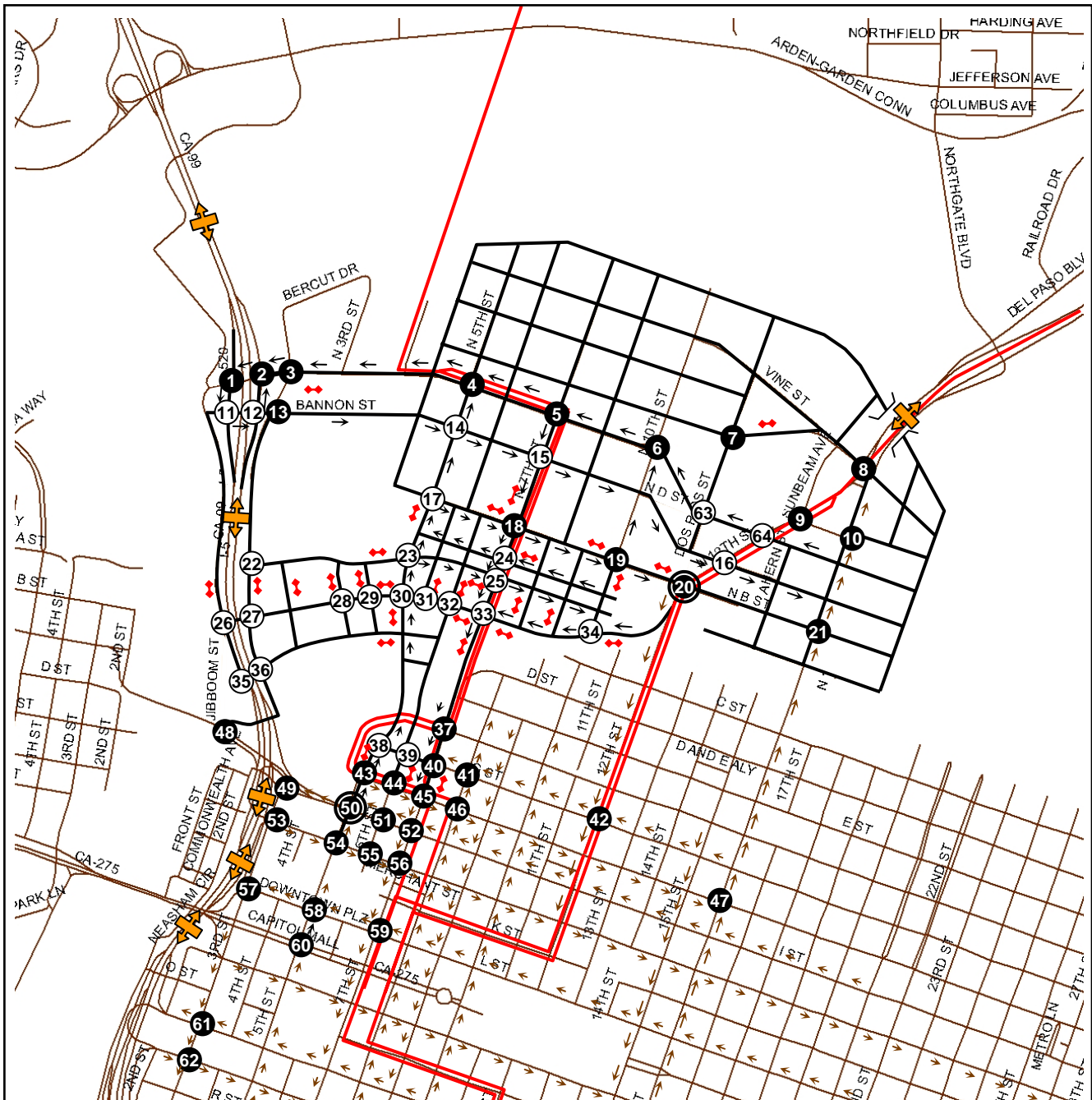
KEY

- 10 = Existing study intersection
- 13 = Existing study intersection (pedestrian & bike analysis)
- 40 = Proposed intersection
- ♦ = Study street segment
- + = Freeway study area
- = Light rail track

Dowling Associates, Inc.
Sacramento Railyards Traffic Study
 June 15, 2007



Figure G
ROADWAY NETWORK
LONG-TERM (2030) PLUS INITIAL PHASE



KEY

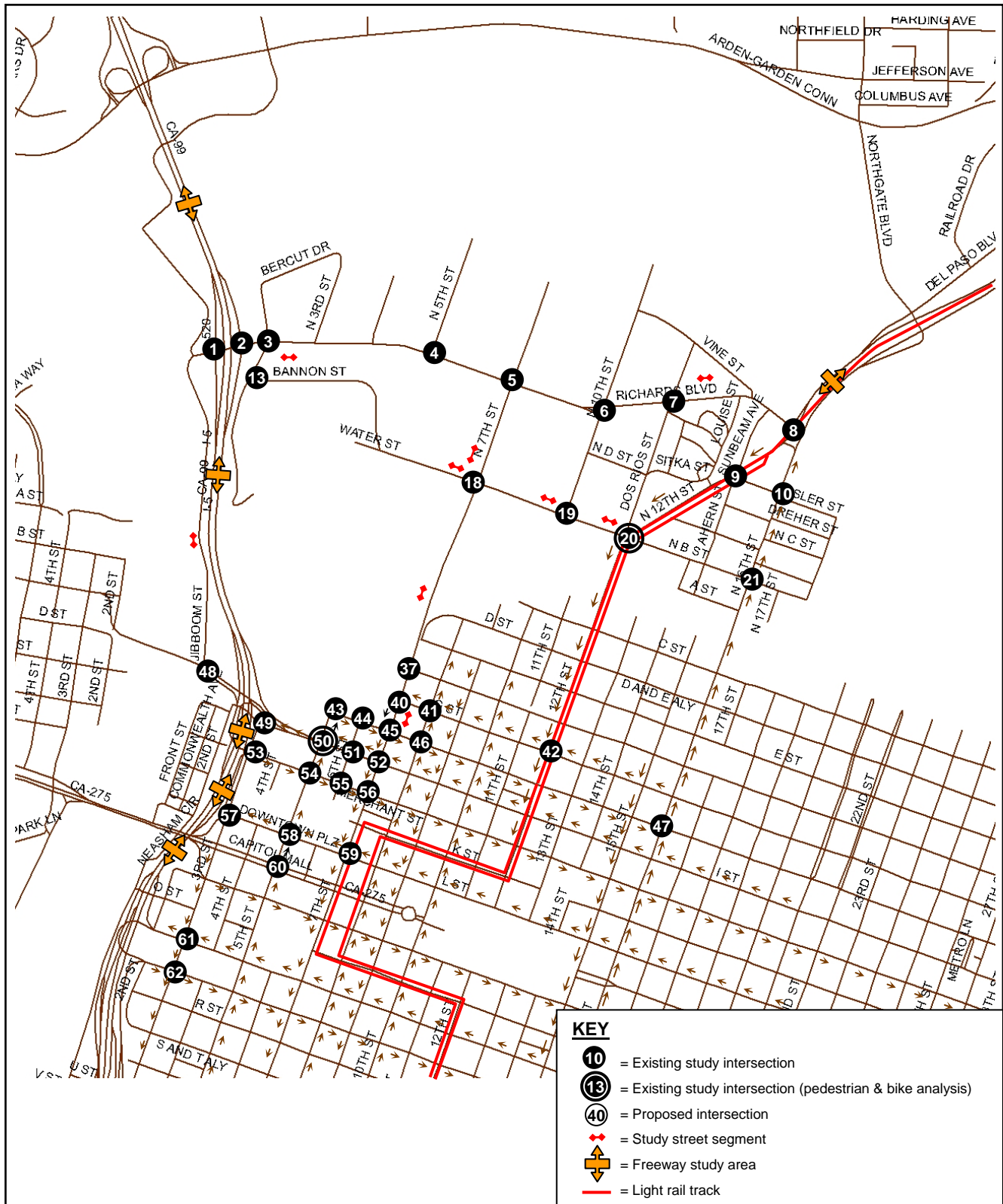
- 10 = Existing study intersection
- 13 = Existing study intersection (pedestrian & bike analysis)
- 40 = Proposed intersection
- ♦ = Study street segment
- + = Freeway study area
- = Light rail track

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Sacramento Railyards Traffic Study
 June 15, 2007



Figure H
ROADWAY NETWORK
LONG-TERM (2030) PLUS FULL PROJECT

Study Intersections and Street Segments – June 5, 2007



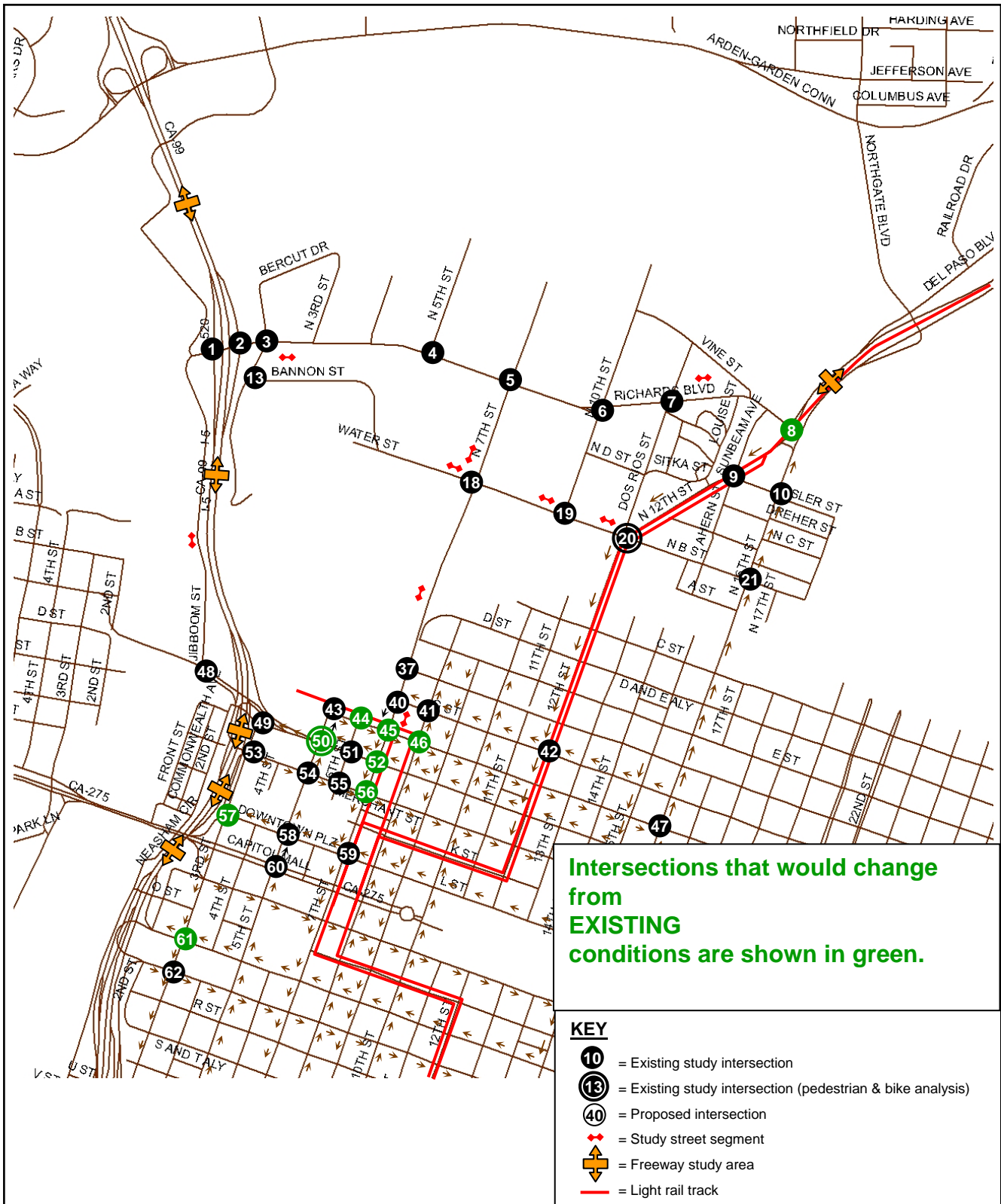
Dowling Associates, Inc.

Sacramento Railroads Traffic Study

June 5, 2007



Figure A
ROADWAY NETWORK
EXISTING CONDITIONS



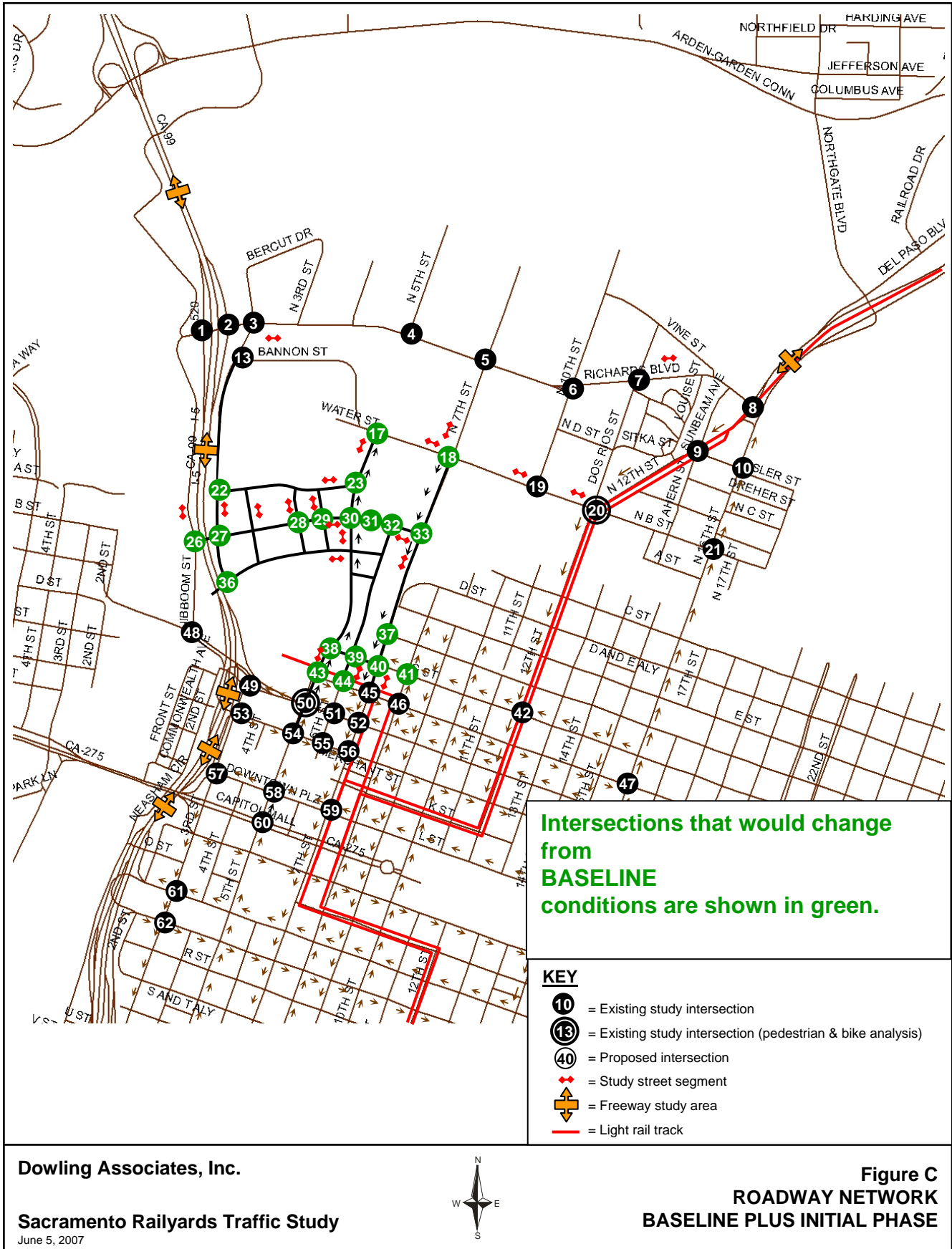
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure B
ROADWAY NETWORK
BASELINE CONDITIONS



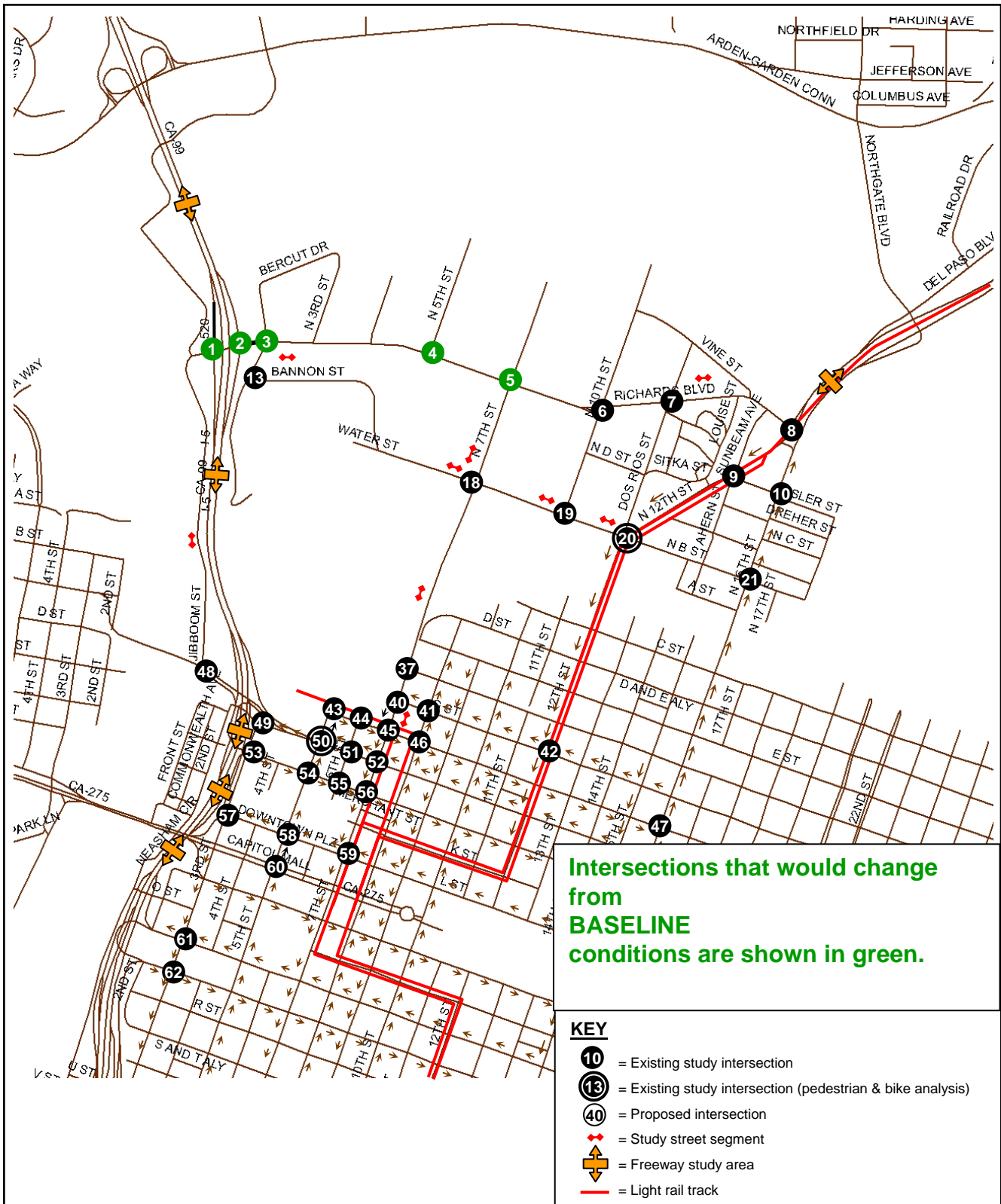
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure C
ROADWAY NETWORK
BASELINE PLUS INITIAL PHASE



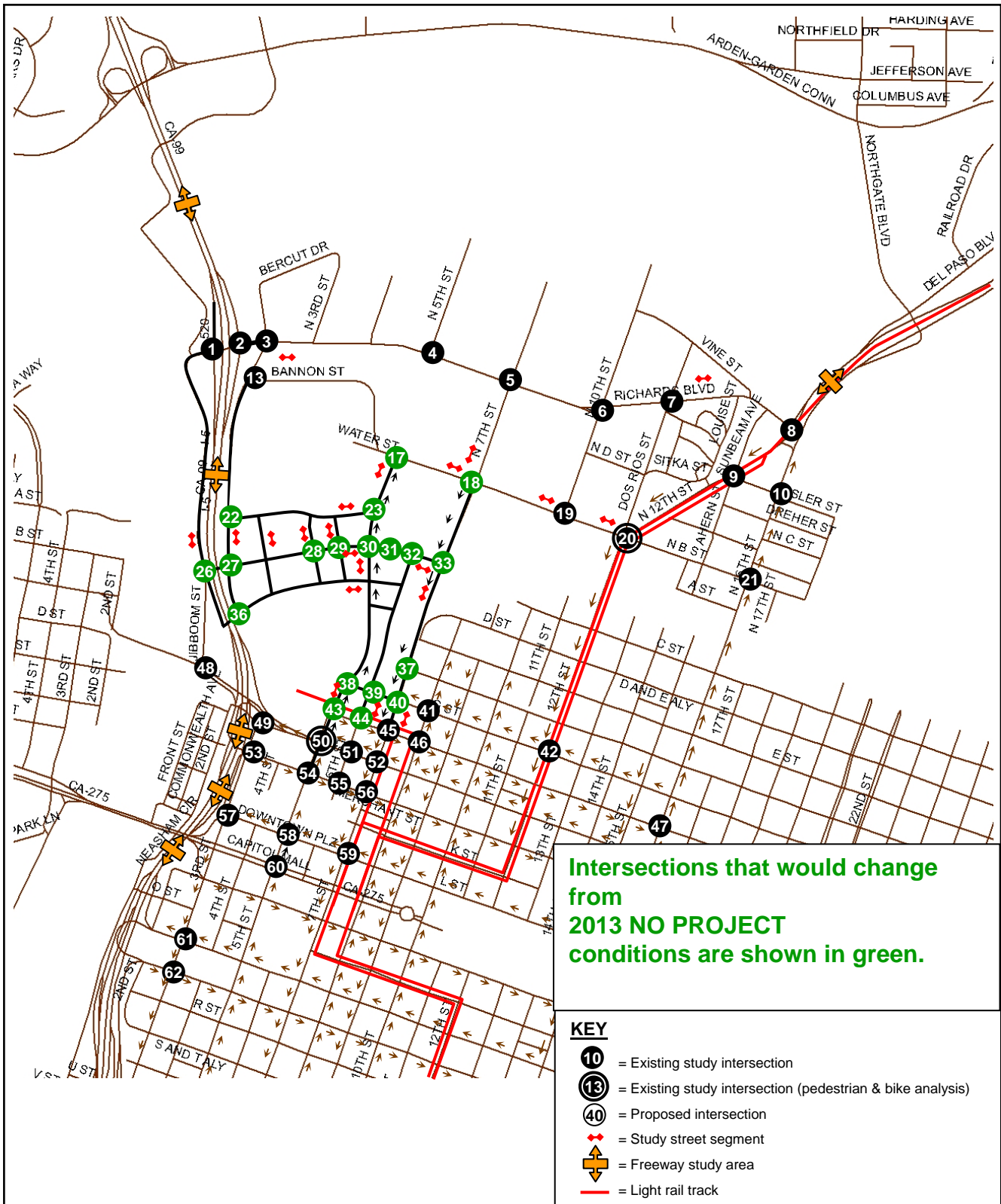
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure D
ROADWAY NETWORK
NEAR-TERM (2013) NO PROJECT



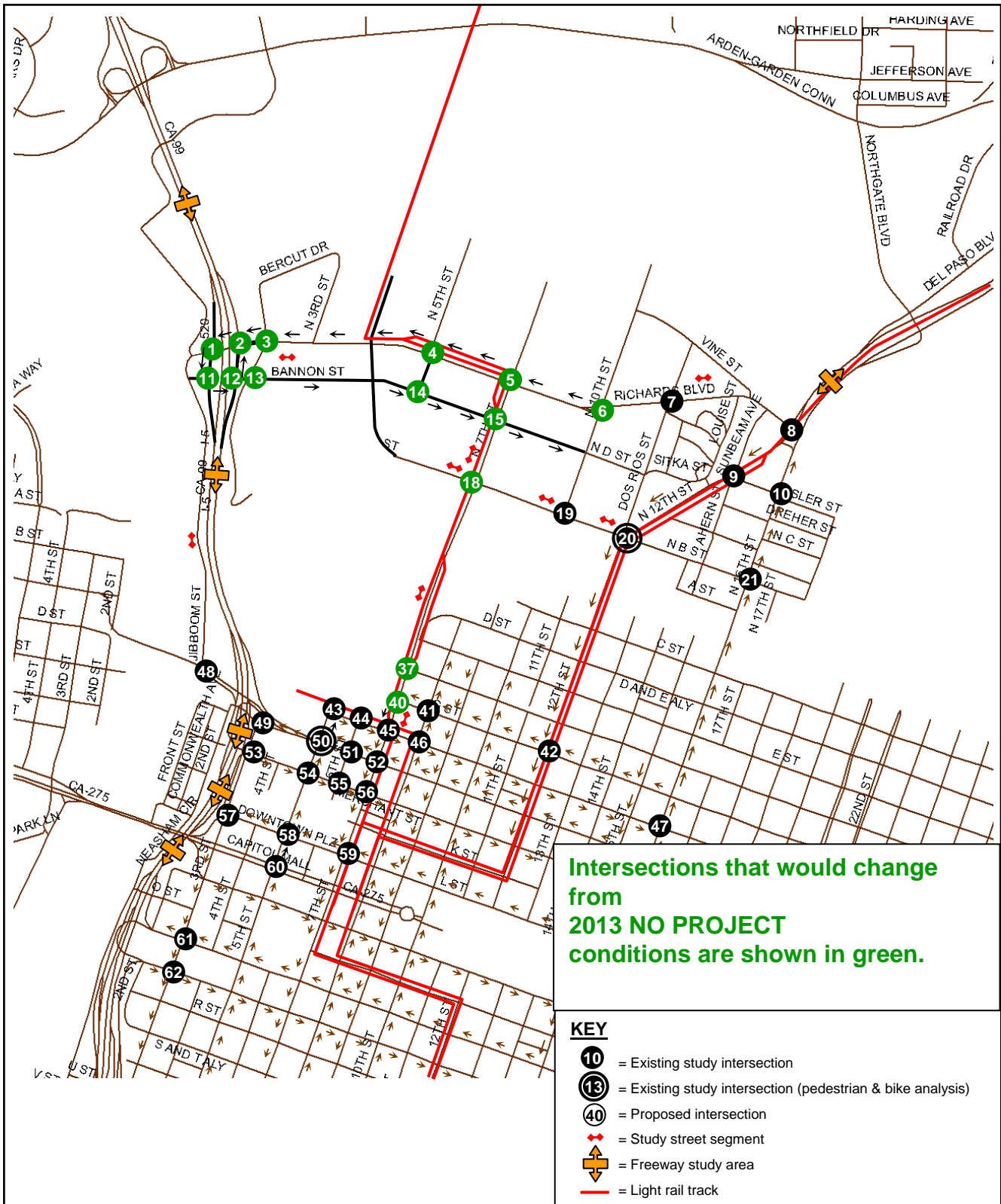
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure E
ROADWAY NETWORK
NEAR-TERM (2013) PLUS INITIAL PHASE



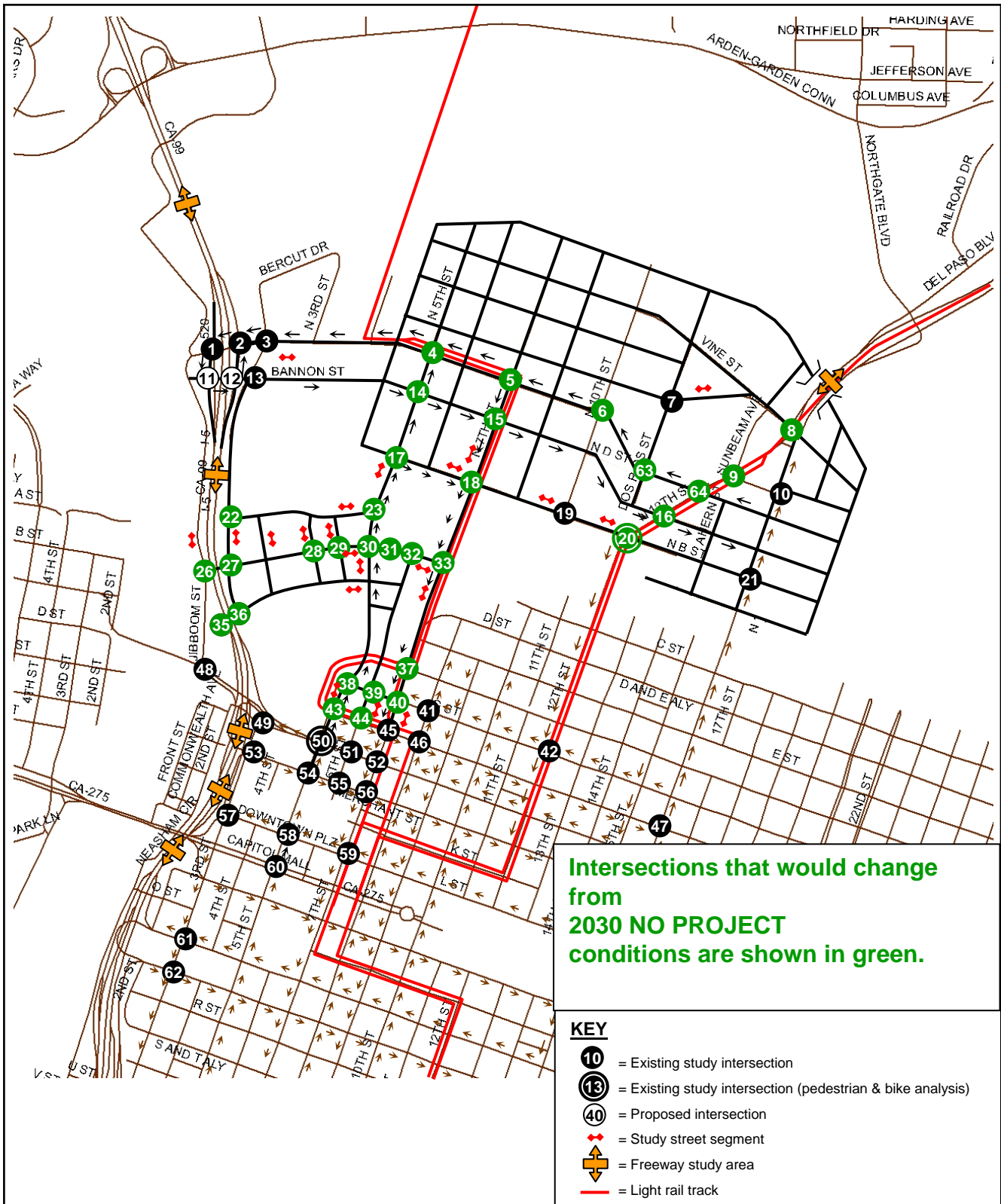
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure F
ROADWAY NETWORK
LONG-TERM (2030) NO PROJECT



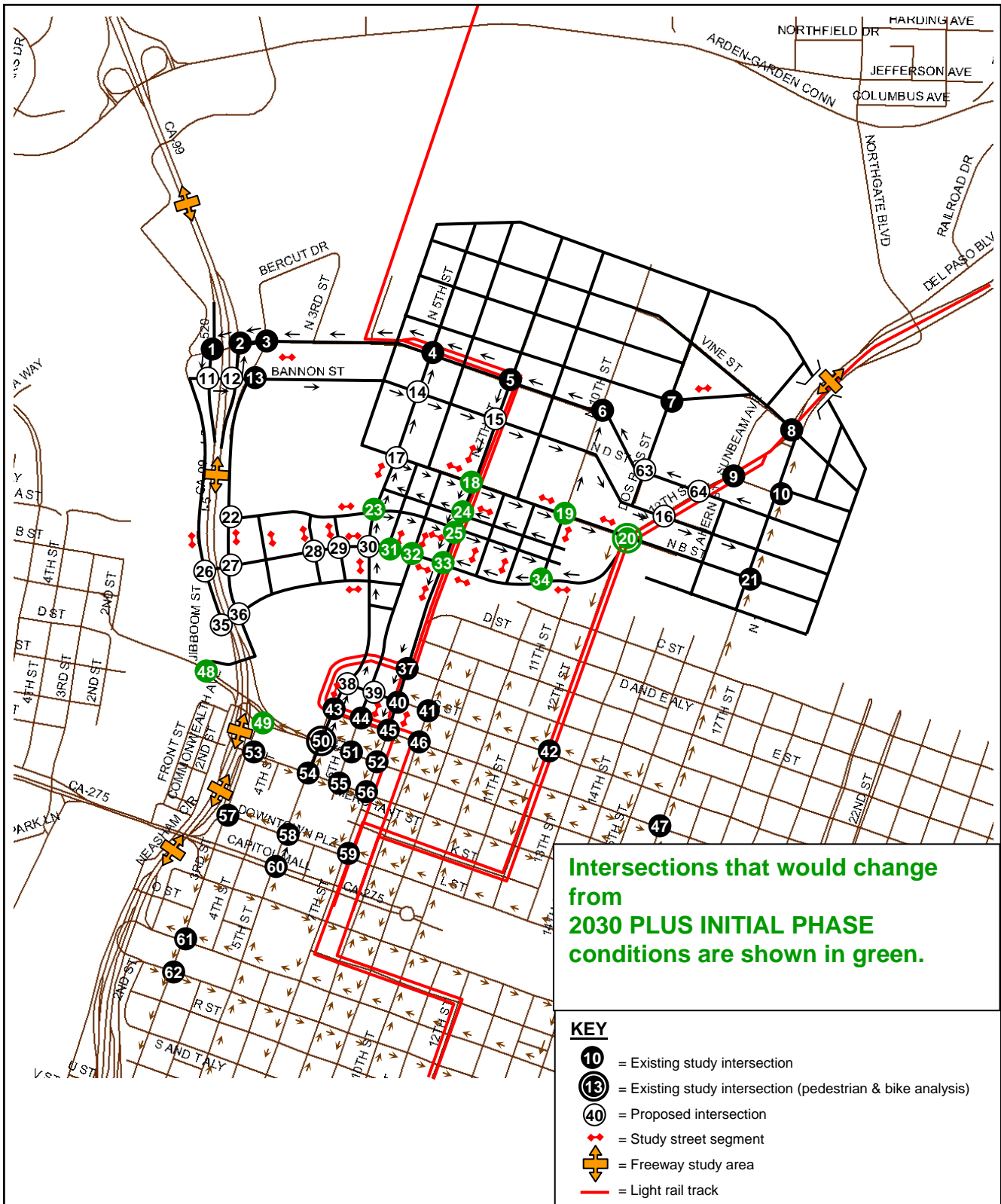
Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure G
ROADWAY NETWORK
LONG-TERM (2030) PLUS INITIAL PHASE



Dowling Associates, Inc.

Sacramento Railyards Traffic Study

June 5, 2007



Figure H
ROADWAY NETWORK
LONG-TERM (2030) PLUS FULL PROJECT

Traffic Counts

Start Date 6/7/2006
 Start Time 07:00
 Site Code 00000000
 Street Name BERCUT DRIVE--From North

RICHARDS BLVD. --From East

--From South

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	19	1	5	0	1	110	7	0	1	8	29	0	29	262	41	0
07:15 AM	24	0	6	0	2	114	8	0	1	7	36	0	33	256	38	0
07:30 AM	30	1	7	0	0	133	1	0	2	2	20	0	51	310	45	0
07:45 AM	37	11	5	0	2	145	5	0	3	2	18	0	49	320	65	0
08:00 AM	18	1	10	0	7	137	2	0	0	4	25	0	39	313	47	0
08:15 AM	25	3	6	0	1	111	11	0	2	8	14	0	25	275	49	0
08:30 AM	27	0	9	0	8	142	11	0	1	9	19	0	28	206	38	0
08:45 AM	28	1	5	0	4	139	7	0	3	7	22	0	24	237	50	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	71	1	7	0	4	292	6	0	3	8	32	0	18	127	33	0
04:00 PM	38	2	8	0	6	275	6	0	1	4	33	0	15	139	45	0
04:15 PM	67	4	13	0	8	324	5	0	1	4	45	0	13	158	56	0
04:30 PM	50	5	4	0	8	330	9	0	4	2	39	0	22	144	48	0
04:45 PM	84	3	5	0	10	355	1	0	4	4	46	0	11	113	39	0
05:00 PM	58	2	18	0	10	370	5	0	4	5	45	0	15	179	53	0
05:15 PM	63	2	9	0	9	302	5	0	3	5	38	0	19	150	46	0
05:30 PM	39	3	7	0	4	247	9	0	2	1	18	0	26	150	54	0

Start Date 6/8/2006
 Start Time 07:00
 Site Code 00000000
 Street Name 12TH STREET--From North

B STREET--From East

--From South

--From West

Start Time	Right	Thru	Left	PEDS	Right	Thru	Left	PEDS	Right	Thru	Left	PEDS	Right	Thru	Left	PEDS
07:00 AM	0	5	1	20	0	2	0	2	0	2	0	8	0	0	0	25
07:15 AM	0	5	0	17	0	5	0	8	0	0	0	12	0	1	0	23
07:30 AM	0	0	0	23	0	2	0	4	0	0	0	7	0	1	0	37
07:45 AM	0	6	0	11	0	5	0	10	0	6	0	10	0	6	0	19
08:00 AM	0	0	0	8	0	1	0	8	1	2	0	6	0	1	0	18
08:15 AM	0	3	0	20	0	2	0	11	1	1	0	9	0	6	0	23
08:30 AM	0	1	0	14	0	2	0	7	0	2	0	11	0	4	0	20
08:45 AM	0	2	0	15	0	2	0	11	1	2	0	9	0	5	0	24
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	1	0	5	0	2	0	2	0	3	0	3	0	3	0	5
04:15 PM	0	2	0	6	0	1	0	2	0	0	0	8	0	2	9	9
04:30 PM	0	3	0	5	0	1	0	16	0	0	0	7	0	1	0	2
04:45 PM	0	3	0	8	0	1	0	4	0	0	0	6	0	1	0	6
05:00 PM	0	5	0	14	0	6	0	16	0	1	0	11	0	0	0	13
05:15 PM	0	4	0	9	0	6	0	9	0	3	0	13	0	4	0	10
05:30 PM	0	2	0	10	0	4	0	8	0	1	1	9	1	1	0	6
05:45 PM	0	0	0	6	0	1	0	5	0	0	0	4	0	3	0	5

2.txt

Start Date 6/7/2006
 Start Time 07:00
 Site Code 00000000
 Street Name N. 5TH STREET--From North

RICHARDS BLVD. --From East

--From South

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	10	0	4	0	7	124	2	0	3	0	6	0	5	241	15	0
07:15 AM	10	0	8	0	7	118	1	0	2	0	2	0	3	234	9	0
07:30 AM	11	0	2	0	6	139	3	0	0	0	5	0	3	270	10	0
07:45 AM	11	1	5	0	11	171	4	0	2	0	5	0	0	310	8	0
08:00 AM	4	0	4	0	8	150	2	0	3	0	4	0	4	270	2	0
08:15 AM	8	0	7	0	2	132	1	0	2	0	3	0	5	246	10	0
08:30 AM	8	0	6	0	6	129	1	0	2	0	7	0	3	225	12	0
08:45 AM	10	0	2	0	5	128	2	0	6	0	6	0	2	217	5	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	11	0	5	0	4	311	5	0	1	0	1	0	2	139	2	0
04:15 PM	10	0	6	0	6	342	5	0	0	0	0	0	2	150	3	0
04:30 PM	10	0	4	0	3	365	3	0	7	1	8	0	2	140	3	0
04:45 PM	13	0	6	0	5	356	2	0	4	0	1	0	12	135	1	0
05:00 PM	5	0	2	0	3	408	2	0	4	0	3	0	3	181	8	0
05:15 PM	15	0	3	0	0	439	2	0	2	0	1	0	4	172	0	0
05:30 PM	7	0	0	0	3	345	3	0	4	0	3	0	1	138	2	0
05:45 PM	5	0	2	0	0	311	5	0	4	0	2	0	2	166	2	0

Start Date 6/15/2006
 Start Time 07:00
 Site Code 00000000
 Street Name --From North

Start Time	I STREET--From East				5TH STREET--From South				--From West							
	Rght	Thru	Left	PEDS	Rght	Thru	Left	PEDS	Rght	Thru	Left	PEDS				
07:00 AM	0	1	0	1	0	1	0	4	0	1	0	7	0	0	0	11
07:15 AM	0	0	0	3	1	1	0	11	0	0	0	19	0	0	0	7
07:30 AM	0	0	0	4	1	2	0	5	0	0	0	14	0	0	0	7
07:45 AM	0	0	0	51	0	2	0	9	0	0	0	19	0	0	0	32
08:00 AM	0	0	0	22	0	0	0	11	0	1	0	34	0	0	0	18
08:15 AM	0	0	0	11	0	2	0	12	0	0	0	35	0	0	0	23
08:30 AM	0	0	0	27	0	0	0	17	0	0	0	25	0	0	0	18
08:45 AM	0	0	0	17	0	1	0	9	0	0	0	25	0	0	0	21
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	15	1	4	0	10	0	0	0	5	0	0	0	12
04:15 PM	0	0	0	10	1	0	0	21	0	0	0	21	0	0	0	8
04:30 PM	0	0	0	44	3	2	0	36	0	1	0	22	0	0	0	17
04:45 PM	0	0	0	31	1	2	0	13	0	0	0	12	0	0	0	9
05:00 PM	0	0	0	20	3	6	0	18	0	1	0	16	0	0	0	12
05:15 PM	0	0	0	19	3	5	0	40	0	1	0	39	0	0	0	13
05:30 PM	0	0	0	17	5	0	0	14	0	2	0	8	0	0	0	11
05:45 PM	0	0	0	7	0	2	0	6	0	0	0	7	0	0	0	3

3.txt

Start Date 6/7/2006
 Start Time 07:00
 Site Code 00000000
 Street Name N. 7TH STREET--From North

RICHARDS BLVD. --From East

--From South

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	0	0	0	0	2	109	23	0	5	0	24	0	47	198	3	0
07:15 AM	2	2	0	0	3	108	40	0	7	1	16	0	44	193	9	0
07:30 AM	1	0	0	0	3	129	47	0	4	0	19	0	50	216	6	0
07:45 AM	5	1	1	0	3	156	45	0	4	4	25	0	64	246	7	0
08:00 AM	2	1	0	0	3	138	39	0	4	0	20	0	53	221	4	0
08:15 AM	3	0	4	0	3	107	40	0	9	3	26	0	67	182	5	0
08:30 AM	5	1	1	0	0	106	39	0	3	2	25	0	45	180	7	0
08:45 AM	7	0	0	0	3	104	18	0	7	0	22	0	35	180	11	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	5	4	0	0	4	265	20	0	17	3	51	0	27	115	3	0
04:15 PM	5	0	0	0	3	273	19	0	14	6	76	0	26	129	1	0
04:30 PM	11	2	1	0	4	272	15	0	10	3	85	0	22	128	2	0
04:45 PM	6	2	3	0	0	276	22	0	17	0	84	0	14	127	3	0
05:00 PM	10	7	1	0	0	328	31	0	8	0	75	0	20	165	2	0
05:15 PM	4	2	5	0	1	325	16	0	15	0	108	0	41	133	2	0
05:30 PM	4	0	2	0	0	274	11	0	20	1	69	0	26	115	1	0
05:45 PM	6	1	3	0	0	240	15	0	14	2	72	0	35	136	1	0

4. txt

Start Date 6/8/2006
 Start Time 07:00
 Site Code 00000000
 Street Name N. 10TH STREET--From North

RICHARDS BLVD. --From East

--From South

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	7	2	2	0	21	116	3	0	1	3	6	0	7	125	33	0
07:15 AM	10	4	1	0	9	127	5	0	1	7	4	0	53	120	27	1
07:30 AM	4	3	2	0	13	151	3	0	0	7	6	0	14	134	42	0
07:45 AM	20	4	2	0	28	162	3	0	1	5	6	0	11	156	55	0
08:00 AM	5	2	4	0	26	135	3	0	2	5	1	0	8	143	49	0
08:15 AM	7	2	5	0	20	141	3	0	1	3	1	0	8	152	29	0
08:30 AM	20	5	3	0	7	122	5	0	2	1	3	0	6	109	43	0
08:45 AM	16	1	3	0	7	107	4	0	0	1	3	0	9	152	27	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	34	1	11	0	2	189	0	0	1	5	8	0	8	133	6	0
04:15 PM	32	5	9	0	3	219	3	0	1	2	3	0	8	163	22	0
04:30 PM	43	3	21	0	4	245	1	0	2	2	8	0	10	156	7	0
04:45 PM	35	8	13	0	5	213	3	0	4	1	3	0	10	126	4	0
05:00 PM	52	20	28	0	4	284	2	0	3	8	2	0	5	153	11	0
05:15 PM	40	6	8	0	2	277	0	0	1	2	4	0	6	130	4	0
05:30 PM	28	8	12	0	2	225	1	0	0	1	3	0	5	142	9	0
05:45 PM	17	3	7	0	3	207	0	0	1	0	5	0	7	113	5	0

Start Date 6/8/2006
 Start Time 07:00
 Site Code 00000000

Street Name DOS RIOS STREET--From North

RICHARDS BLVD. --From East

--From South

Start Time	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other
07:00 AM	1	4	0	0	6	129	1	0	0	1	4	0	8	115	5	0
07:15 AM	1	2	2	0	2	147	6	0	4	7	7	0	11	134	5	0
07:30 AM	3	7	2	0	14	142	5	0	4	9	13	0	9	111	3	0
07:45 AM	3	3	7	0	11	184	4	0	1	3	6	0	18	149	2	0
08:00 AM	3	7	6	0	5	139	8	0	3	3	9	0	12	126	6	0
08:15 AM	7	6	2	0	3	146	3	0	2	4	13	0	11	122	7	0
08:30 AM	2	1	2	0	4	120	6	0	3	1	4	0	12	107	4	0
08:45 AM	2	1	1	0	3	102	4	0	7	5	14	0	15	121	5	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	3	7	7	0	1	182	1	0	4	1	14	0	12	127	5	0
04:15 PM	2	8	7	0	2	204	5	0	9	1	8	0	11	142	2	0
04:30 PM	4	3	4	0	1	228	3	0	6	2	13	0	6	151	5	0
04:45 PM	5	2	6	0	1	193	2	0	3	1	5	0	12	131	3	0
05:00 PM	8	2	7	0	1	234	1	0	6	5	14	0	10	136	0	0
05:15 PM	5	6	7	0	1	244	1	0	3	5	10	0	11	127	4	0
05:30 PM	2	3	6	0	2	203	0	0	3	2	5	0	6	131	2	0
05:45 PM	1	3	3	0	1	198	2	0	6	0	7	0	5	118	3	0

6.txt

Start Date 6/7/2006
 Start Time 07:00
 Site Code 00000000
 Street Name N. 7TH STREET--From North
 West

N. B STREET--From East

--From South

--From

Start Time	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other
07:00 AM	2	61	5	0	5	9	19	0	4	19	4	0	5	11	5	0
07:15 AM	3	76	6	0	6	12	23	0	5	17	4	0	6	16	4	0
07:30 AM	0	89	9	0	10	8	35	0	8	8	1	0	4	9	2	0
07:45 AM	2	96	13	0	17	8	50	0	6	16	1	0	5	18	1	0
08:00 AM	3	80	10	0	10	14	43	0	2	15	4	0	5	13	2	0
08:15 AM	4	91	11	0	14	6	42	0	8	17	3	0	7	10	2	0
08:30 AM	0	76	10	0	12	6	14	0	5	18	4	0	11	5	0	0
08:45 AM	0	39	14	0	13	8	21	0	5	13	4	0	4	9	3	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	1	46	4	0	9	24	11	0	23	56	5	0	3	12	6	0
04:15 PM	0	27	8	0	13	9	11	0	25	82	6	0	6	12	0	0
04:30 PM	2	30	10	0	15	13	11	0	30	83	6	0	1	14	0	0
04:45 PM	0	31	7	0	21	11	12	0	37	75	11	0	4	4	1	0
05:00 PM	3	45	12	0	13	11	21	0	77	69	27	0	4	7	0	0
05:15 PM	1	49	10	0	18	8	10	0	61	105	18	0	2	4	0	0
05:30 PM	1	28	10	0	6	10	14	0	31	82	8	0	2	1	1	0
05:45 PM	1	41	9	0	5	9	11	0	28	82	7	0	2	1	1	0

Start Date 6/12/2006
 Start Time 07:00
 Site Code 00000000
 Street Name 12TH STREET--From North

N. B STREET--From East

DOS RIOS STREET--From South

Start Time	Right	Thru	Left	DOSR	Right	Thru	Left	DOSR	Right	Thru	Left	DOSR	Right	Thru	Left	DOSR
07:00 AM	23	431	1	0	8	19	10	0	0	3	1	0	6	16	1	0
07:15 AM	27	517	3	1	4	17	10	0	1	4	10	0	13	10	0	0
07:30 AM	39	617	2	1	1	20	5	0	4	3	18	0	9	14	0	0
07:45 AM	38	632	4	0	7	20	14	0	1	7	4	0	10	11	1	0
08:00 AM	56	560	10	0	16	20	8	0	0	4	4	0	10	25	0	0
08:15 AM	38	613	7	0	5	12	8	0	2	2	11	0	4	12	2	0
08:30 AM	39	515	10	0	8	16	22	0	1	7	3	0	8	14	2	0
08:45 AM	14	435	6	1	25	13	18	0	2	9	5	0	8	16	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	14	337	16	2	8	23	18	0	5	10	7	0	17	44	2	0
04:15 PM	15	375	14	1	9	24	16	0	0	11	2	0	10	51	0	0
04:30 PM	12	381	13	1	7	12	16	0	0	6	4	0	17	63	0	0
04:45 PM	19	490	10	1	7	18	14	0	1	6	3	0	9	59	0	0
05:00 PM	20	404	22	1	8	16	13	0	0	8	4	0	31	126	2	0
05:15 PM	10	472	16	0	12	16	22	0	1	8	7	0	10	84	0	0
05:30 PM	4	482	7	2	4	15	9	0	2	5	4	0	10	44	0	0
05:45 PM	10	442	7	1	4	7	12	0	1	7	1	0	11	46	0	0

Start Date 6/6/2006
 Start Time 07:00
 Site Code 00000000
 Street Name --From North

N. B STREET--From East

16TH STREET--From South

--From West

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	0	0	0	0	1	0	0	0	1	199	19	0	0	1	6	0
07:15 AM	0	0	0	0	0	0	0	0	0	119	13	0	0	0	7	0
07:30 AM	0	0	0	0	0	2	0	0	1	249	25	0	0	3	20	0
07:45 AM	0	0	0	0	1	4	0	0	5	287	24	0	0	2	22	0
08:00 AM	0	0	0	0	1	2	0	0	0	230	12	0	0	0	30	0
08:15 AM	0	0	0	0	1	1	0	0	1	273	19	0	0	1	23	0
08:30 AM	0	0	0	0	1	2	0	0	1	273	35	0	0	3	22	0
08:45 AM	0	0	0	0	1	0	0	0	0	260	39	0	0	2	29	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	2	2	0	0	1	782	23	0	0	5	66	0
04:15 PM	0	0	0	0	1	0	0	0	0	829	15	0	0	3	69	0
04:30 PM	0	0	0	0	0	4	0	0	2	864	21	0	0	2	76	0
04:45 PM	0	0	0	0	0	0	0	0	1	765	27	0	0	50	68	0
05:00 PM	0	0	0	0	0	2	0	0	1	1037	13	0	0	0	142	0
05:15 PM	0	0	0	0	0	1	0	0	4	992	13	0	0	1	104	0
05:30 PM	0	0	0	0	1	4	0	0	1	821	19	0	0	1	63	0
05:45 PM	0	0	0	0	0	4	0	0	0	710	18	0	0	0	43	0

Start Date 6/6/2006
 Start Time 07:00
 Site Code 00000000
 Street Name 12TH STREET--From North

SPROULE STREET--From East

SUNBEAM AVENUE--From South

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	3	490	20	0	0	13	3	0	0	0	0	0	7	92	0	0
07:15 AM	2	632	31	0	0	13	3	0	0	0	0	0	15	99	0	0
07:30 AM	4	724	22	0	0	6	1	0	0	0	0	0	11	88	0	0
07:45 AM	2	767	44	0	0	13	2	0	0	0	0	0	17	112	0	0
08:00 AM	3	721	36	0	0	16	4	0	0	0	0	0	15	118	0	0
08:15 AM	1	711	44	0	0	15	9	0	0	0	0	0	21	98	0	0
08:30 AM	5	576	27	0	0	16	1	0	0	0	0	0	11	105	0	0
08:45 AM	6	494	34	0	0	7	3	0	0	0	0	0	16	99	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	7	364	35	0	0	6	3	0	0	0	0	0	17	93	0	0
04:15 PM	5	410	61	0	0	11	3	0	0	0	0	0	20	113	0	0
04:30 PM	10	404	45	0	0	10	10	0	0	0	0	0	29	102	0	0
04:45 PM	3	491	47	0	0	12	5	0	0	0	0	0	19	83	0	0
05:00 PM	3	420	46	0	0	13	6	0	0	0	0	0	26	98	0	0
05:15 PM	3	495	36	0	0	8	2	0	0	0	0	0	16	106	0	0
05:30 PM	4	506	41	0	0	8	5	0	0	0	0	0	19	102	0	0
05:45 PM	6	441	42	0	0	11	6	0	0	0	0	0	11	76	0	0

Start Date 6/8/2006
 Start Time 07:00
 Site Code 00000000
 Street Name --From North
 AVENUE--From West

BASLER STREET--From East

16TH STREET--From South

SPROULE

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	0	0	0	0	1	0	0	0	0	199	17	0	0	2	127	0
07:15 AM	0	0	0	0	3	1	0	0	1	241	15	0	0	3	161	0
07:30 AM	0	0	0	0	4	1	0	0	1	229	11	0	0	1	135	0
07:45 AM	0	0	0	0	4	0	0	0	1	277	18	0	0	3	201	0
08:00 AM	0	0	0	0	3	2	0	0	4	261	12	0	0	1	192	0
08:15 AM	0	0	0	0	0	0	0	0	3	250	14	0	0	1	174	0
08:30 AM	0	0	0	0	1	3	0	0	1	231	10	0	0	0	166	0
08:45 AM	0	0	0	0	3	2	0	0	1	241	9	0	0	2	170	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	4	1	0	0	0	872	8	0	0	2	131	0
04:15 PM	0	0	0	0	6	4	0	0	3	902	12	0	0	2	168	0
04:30 PM	0	0	0	0	4	2	0	0	2	1014	16	0	0	0	166	0
04:45 PM	0	0	0	0	6	3	0	0	1	1040	5	0	0	0	145	0
05:00 PM	0	0	0	0	2	5	0	0	2	934	16	0	0	1	190	0
05:15 PM	0	0	0	0	4	0	0	0	1	948	8	0	0	5	177	0
05:30 PM	0	0	0	0	2	1	0	0	0	842	7	0	0	0	203	0
05:45 PM	0	0	0	0	4	1	0	0	2	901	14	0	0	3	179	0

Start Date 6/6/2006
 Start Time 07:00
 Site Code 00000000
 Street Name 7TH STREET--From North

G STREET--From East

--From South

--From West

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	0	47	0	0	17	0	26	0	0	0	0	0	0	0	0	0
07:15 AM	0	57	0	0	33	0	48	0	0	0	0	0	0	0	0	0
07:30 AM	0	85	0	0	26	0	66	0	0	0	0	0	0	0	0	0
07:45 AM	0	97	0	0	40	0	62	0	0	0	0	0	0	0	0	0
08:00 AM	0	83	0	0	30	0	54	0	0	0	0	0	0	0	0	0
08:15 AM	0	95	0	0	27	0	47	0	0	0	0	0	0	0	0	0
08:30 AM	0	65	0	0	23	0	41	0	0	0	0	0	0	0	0	0
08:45 AM	0	63	0	0	17	0	59	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	87	0	0	32	0	58	0	0	0	0	0	0	0	0	0
04:15 PM	0	82	0	0	59	0	63	0	0	0	0	0	0	0	0	0
04:30 PM	0	87	0	0	31	0	77	0	0	0	0	0	0	0	0	0
04:45 PM	0	88	0	0	36	0	82	0	0	0	0	0	0	0	0	0
05:00 PM	0	133	0	0	72	0	109	0	0	0	0	0	0	0	0	0
05:15 PM	0	83	0	0	65	0	92	0	0	0	0	0	0	0	0	0
05:30 PM	0	72	0	0	37	0	50	3	0	0	0	0	0	0	0	0
05:45 PM	0	56	0	0	36	0	67	0	0	0	0	0	0	0	0	0

Start Date 6/6/2006
 Start Time 07:00
 Site Code 00000000
 Street Name --From North

G STREET--From East

8TH STREET--From South

--From West

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	0	0	0	0	46	26	0	0	0	73	29	0	0	0	0	0
07:15 AM	0	0	0	0	75	57	0	0	0	64	32	0	0	0	0	0
07:30 AM	0	0	0	0	84	58	0	0	0	117	50	0	0	0	0	0
07:45 AM	0	0	0	0	83	83	0	0	0	109	57	0	0	0	0	0
08:00 AM	0	0	0	0	78	77	0	0	0	125	74	0	0	0	0	0
08:15 AM	0	0	0	0	57	75	0	0	0	96	60	0	0	0	0	0
08:30 AM	0	0	0	0	59	64	0	0	0	107	55	0	0	0	0	0
08:45 AM	0	0	0	0	39	69	0	0	0	95	55	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	19	60	0	0	0	64	33	0	0	0	0	0
04:15 PM	0	0	0	0	21	72	0	0	0	71	48	0	0	0	0	0
04:30 PM	0	0	0	0	17	69	0	0	0	65	32	0	0	0	0	0
04:45 PM	0	0	0	0	13	68	0	0	0	63	35	0	0	0	0	0
05:00 PM	0	0	0	0	4	121	0	0	0	86	44	0	0	0	0	0
05:15 PM	0	0	0	0	11	116	0	0	0	97	32	0	0	0	0	0
05:30 PM	0	0	0	0	5	61	0	0	0	63	25	0	0	0	0	0
05:45 PM	0	0	0	0	6	69	0	0	0	43	23	0	0	0	0	0

Start Date 6/6/2006
 Start Time 07:00
 Site Code 00000000
 Street Name 12TH STREET--From North

G STREET--From East

--From South

--From West

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	44	264	0	0	0	29	4	0	0	0	0	0	0	0	0	0
07:15 AM	70	326	0	0	0	53	4	0	0	0	0	0	0	0	0	0
07:30 AM	49	327	0	0	0	71	13	0	0	0	0	0	0	0	0	0
07:45 AM	65	413	0	0	0	77	13	0	0	0	0	0	0	0	0	0
08:00 AM	73	410	0	0	0	73	7	0	0	0	0	0	0	0	0	0
08:15 AM	55	379	0	0	0	58	13	0	0	0	0	0	0	0	0	0
08:30 AM	66	327	0	0	0	53	11	0	0	0	0	0	0	0	0	0
08:45 AM	42	273	0	0	0	54	11	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	13	241	0	0	0	49	14	0	0	0	0	0	0	0	0	0
04:15 PM	30	231	0	0	0	36	11	0	0	0	0	0	0	0	0	0
04:30 PM	26	272	0	0	0	51	18	0	0	0	0	0	0	0	0	0
04:45 PM	30	317	0	0	0	53	17	0	0	0	0	0	0	0	0	0
05:00 PM	22	271	0	0	0	66	19	0	0	0	0	0	0	0	0	0
05:15 PM	37	287	0	0	0	69	4	0	0	0	0	0	0	0	0	0
05:30 PM	20	276	0	0	0	40	7	0	0	0	0	0	0	0	0	0
05:45 PM	24	261	0	0	0	47	16	0	0	0	0	0	0	0	0	0

Start Date 6/1/2006
 Start Time 07:00
 Site Code 00000000
 Street Name 6TH STREET--From North

--From East

--From South

H STREET--From West

Start Time	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other
07:00 AM	0	3	5	0	0	0	0	0	20	3	0	0	7	55	3	0
07:15 AM	0	1	1	0	0	0	0	0	45	1	0	0	10	65	3	0
07:30 AM	0	2	3	0	0	0	0	0	55	1	0	0	10	79	3	0
07:45 AM	0	6	0	0	0	0	0	0	62	5	0	0	12	105	5	0
08:00 AM	0	3	1	0	0	0	0	0	75	3	0	0	10	93	1	0
08:15 AM	0	7	1	0	0	0	0	0	77	9	0	0	6	82	3	0
08:30 AM	0	4	3	0	0	0	0	0	66	3	0	0	27	96	11	0
08:45 AM	0	5	2	0	0	0	0	0	49	5	0	0	24	68	2	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	23	1	0	0	0	0	0	46	2	0	0	22	57	2	0
04:15 PM	0	15	2	0	0	0	0	0	46	1	0	0	17	50	1	0
04:30 PM	0	38	3	0	0	0	0	0	33	4	0	0	32	60	1	0
04:45 PM	0	25	0	0	0	0	0	0	40	3	0	0	14	75	1	0
05:00 PM	0	94	1	0	0	0	0	0	51	2	0	0	17	83	1	0
05:15 PM	0	47	1	0	0	0	0	0	58	8	0	0	13	65	1	0
05:30 PM	0	23	0	0	0	0	0	0	44	1	0	0	35	96	1	0
05:45 PM	0	13	2	0	0	0	0	0	24	1	0	0	32	68	6	0

Start Date 6/1/2006
 Start Time 07:00
 Site Code 00000000
 Street Name 7TH STREET--From North

Start Time	7TH STREET--From North				--From East				--From South				H STREET--From West			
	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other
07:00 AM	0	54	21	0	0	0	0	0	0	0	0	0	6	74	0	0
07:15 AM	0	57	26	0	0	0	0	0	0	0	0	0	6	104	0	0
07:30 AM	0	86	37	0	0	0	0	0	0	0	0	0	8	128	0	0
07:45 AM	0	102	40	0	0	0	0	0	0	0	0	0	5	162	0	0
08:00 AM	0	86	32	0	0	0	0	0	0	0	0	0	7	163	0	0
08:15 AM	0	98	37	0	0	0	0	0	0	0	0	0	11	148	0	0
08:30 AM	0	101	31	0	0	0	0	0	0	0	0	0	9	156	0	0
08:45 AM	0	92	32	0	0	0	0	0	0	0	0	0	15	103	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	124	31	0	0	0	0	0	0	0	0	0	11	93	0	0
04:15 PM	0	122	28	0	0	0	0	0	0	0	0	0	9	88	0	0
04:30 PM	0	156	34	0	0	0	0	0	0	0	0	0	7	89	0	0
04:45 PM	0	135	29	0	0	0	0	0	0	0	0	0	11	104	0	0
05:00 PM	0	182	44	0	0	0	0	0	0	0	0	0	21	113	0	0
05:15 PM	0	153	25	0	0	0	0	0	0	0	0	0	14	110	0	0
05:30 PM	0	103	47	0	0	0	0	0	0	0	0	0	14	126	0	0
05:45 PM	0	68	32	0	0	0	0	0	0	0	0	0	13	81	0	0

Start Date 6/1/2006
 Start Time 07:00
 Site Code 00000000
 Street Name --From North

Start Time	--From North				--From East				8TH STREET--From South				H STREET--From West			
	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other
07:00 AM	0	0	0	0	0	0	0	0	13	59	0	0	0	46	48	0
07:15 AM	0	0	0	0	0	0	0	0	16	74	0	0	0	67	62	0
07:30 AM	0	0	0	0	0	0	0	0	25	111	0	0	0	89	75	0
07:45 AM	0	0	0	0	0	0	0	0	27	91	0	0	0	102	99	0
08:00 AM	0	0	0	0	0	0	0	0	31	90	0	0	0	113	81	0
08:15 AM	0	0	0	0	0	0	0	0	30	87	0	0	0	103	80	0
08:30 AM	0	0	0	0	0	0	0	0	33	92	0	0	0	99	88	0
08:45 AM	0	0	0	0	0	0	0	0	47	65	0	0	0	79	57	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	58	94	0	0	0	94	29	0
04:15 PM	0	0	0	0	0	0	0	0	49	59	0	0	0	80	35	0
04:30 PM	0	0	0	0	0	0	0	0	53	72	0	0	0	88	37	0
04:45 PM	0	0	0	0	0	0	0	0	47	70	0	0	0	100	38	0
05:00 PM	0	0	0	0	0	0	0	0	65	103	0	0	0	120	40	0
05:15 PM	0	0	0	0	0	0	0	0	44	80	0	0	0	113	25	0
05:30 PM	0	0	0	0	0	0	0	0	62	59	0	0	0	129	45	0
05:45 PM	0	0	0	0	0	0	0	0	27	49	0	0	0	91	23	0

Start Date 6/7/2006
 Start Time 07:00
 Site Code 00000000
 Street Name --From North

Start Time	I STREET--From East				3RD STREET--From South				--From West							
	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other				
07:00 AM	0	0	0	0	0	20	31	0	0	0	0	0	4	0	0	0
07:15 AM	0	0	0	0	0	18	33	0	0	0	0	0	4	0	0	0
07:30 AM	0	0	0	0	0	28	30	0	0	0	0	0	4	0	0	0
07:45 AM	0	0	0	0	0	33	38	0	0	0	0	0	9	0	0	0
08:00 AM	0	0	0	0	0	26	36	0	0	0	0	0	13	0	0	0
08:15 AM	0	0	0	0	0	38	38	0	0	0	0	0	10	0	0	0
08:30 AM	0	0	0	0	0	44	30	0	0	0	0	0	12	0	0	0
08:45 AM	0	0	0	0	0	52	40	0	0	0	0	0	14	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	50	53	0	0	0	0	0	58	0	0	0
04:15 PM	0	0	0	0	0	40	59	0	0	0	0	0	54	0	0	0
04:30 PM	0	0	0	0	0	40	65	0	0	0	0	0	55	0	0	0
04:45 PM	0	0	0	0	0	45	82	0	0	0	0	0	46	0	0	0
05:00 PM	0	0	0	0	0	38	89	0	0	0	0	0	69	0	0	0
05:15 PM	0	0	0	0	0	36	64	0	0	0	0	0	46	0	0	0
05:30 PM	0	0	0	0	0	52	60	0	0	0	0	0	67	0	0	0
05:45 PM	0	0	0	0	0	45	58	0	0	0	0	0	45	0	0	0

Start Date 6/7/2006
 Start Time 07:00
 Site Code 00000000
 Street Name 6TH STREET--From North

I STREET--From East

--From South

--From West

Start Time	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other
07:00 AM	9	1	0	0	7	127	13	0	0	22	8	0	0	0	0	0
07:15 AM	9	2	0	0	10	144	6	0	0	33	6	0	0	0	0	0
07:30 AM	8	6	0	0	12	177	13	0	0	49	8	0	0	0	0	0
07:45 AM	14	3	0	0	11	217	11	0	0	59	7	0	0	0	0	0
08:00 AM	10	2	0	0	15	169	11	0	0	62	6	0	0	0	0	0
08:15 AM	14	2	0	0	24	198	12	0	0	67	13	0	0	0	0	0
08:30 AM	17	13	0	0	23	211	19	0	0	51	8	0	0	0	0	0
08:45 AM	19	9	0	0	20	192	13	0	0	43	15	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	51	3	0	0	10	422	10	0	0	29	65	0	0	0	0	0
04:15 PM	38	2	0	0	15	423	16	0	0	23	61	0	0	0	0	0
04:30 PM	62	4	0	0	12	431	5	0	0	18	41	0	0	0	0	0
04:45 PM	48	2	0	0	22	482	6	0	0	18	70	0	0	0	0	0
05:00 PM	121	5	0	0	14	507	8	0	0	30	74	0	0	0	0	0
05:15 PM	61	2	0	0	14	541	14	0	0	29	74	0	0	0	0	0
05:30 PM	58	4	0	0	15	467	13	0	0	29	74	0	0	0	0	0
05:45 PM	52	1	0	0	7	399	3	0	0	14	42	0	0	0	0	0

Start Date 6/6/2006
 Start Time 07:00
 Site Code 00000000
 Street Name 6TH STREET--From North

--From East

--From South

J STREET--From West

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	0	0	4	0	0	0	0	0	1	0	0	0	0	350	69	0
07:15 AM	0	0	5	0	0	0	0	0	0	0	0	0	0	376	70	0
07:30 AM	0	0	4	0	0	0	0	0	1	1	0	0	0	513	85	0
07:45 AM	0	0	7	0	0	0	0	0	0	0	0	0	0	551	104	0
08:00 AM	0	0	7	0	0	0	0	0	0	0	0	0	0	495	103	0
08:15 AM	0	0	10	0	0	0	0	0	3	7	0	0	0	489	98	0
08:30 AM	0	0	17	0	0	0	0	0	7	2	0	0	0	456	104	0
08:45 AM	0	0	11	0	0	0	0	0	11	9	0	0	0	482	87	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	22	0	0	0	0	0	34	28	0	0	0	314	28	0
04:15 PM	0	0	12	0	0	0	0	0	32	36	0	0	0	315	17	0
04:30 PM	0	0	18	0	0	0	0	0	54	37	0	0	0	288	25	0
04:45 PM	0	0	22	0	0	0	0	0	49	21	0	0	0	328	24	0
05:00 PM	0	0	17	0	0	0	0	0	43	49	0	0	0	325	22	0
05:15 PM	0	0	10	0	0	0	0	0	39	35	0	0	0	303	34	0
05:30 PM	0	0	5	0	0	0	0	0	41	38	0	0	0	281	29	0
05:45 PM	0	0	8	0	0	0	0	0	46	36	0	0	0	319	19	0

Start Date 6/6/2006
 Start Time 07:00
 Site Code 00000000
 Street Name --From North

CAPITOL MALL--From East

5TH STREET--From South

--From West

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	0	0	0	0	4	16	0	0	16	113	25	0	0	33	52	0
07:15 AM	0	0	0	0	13	8	0	0	16	99	29	0	0	47	79	0
07:30 AM	0	0	0	0	12	19	0	0	8	107	46	0	0	64	93	0
07:45 AM	0	0	0	0	16	31	0	0	8	154	30	0	0	71	136	0
08:00 AM	0	0	0	0	23	22	0	0	12	160	40	0	0	84	103	0
08:15 AM	0	0	0	0	18	27	0	0	9	135	40	0	0	74	126	0
08:30 AM	0	0	0	0	19	21	0	0	6	127	27	0	0	75	117	0
08:45 AM	0	0	0	0	15	27	0	0	13	144	37	0	0	77	99	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	25	53	0	0	6	169	55	0	0	40	74	0
04:15 PM	0	0	0	0	14	53	0	0	5	154	49	0	0	43	63	0
04:30 PM	0	0	0	0	20	62	0	0	7	178	63	0	0	38	79	0
04:45 PM	0	0	0	0	24	55	0	0	12	179	56	0	0	53	73	0
05:00 PM	0	0	0	0	22	114	0	0	18	182	57	0	0	54	84	0
05:15 PM	0	0	0	0	17	108	0	0	6	153	70	0	0	55	84	0
05:30 PM	0	0	0	0	19	73	0	0	10	114	46	0	0	46	79	0
05:45 PM	0	0	0	0	13	72	0	0	5	105	54	0	0	33	54	0

Start Date 6/6/2006
 Start Time 07:00
 Site Code 00000000
 Street Name JIBB00M STREET--From North
 STREET--From West

I STREET--From East

--From South

C

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	81	0	8	0	4	16	0	0	0	0	0	0	0	31	61	0
07:15 AM	95	0	8	0	2	14	0	0	0	0	0	0	0	30	56	0
07:30 AM	98	0	15	0	3	18	0	0	0	0	0	0	0	38	83	0
07:45 AM	108	0	11	0	4	28	0	0	0	0	0	0	0	49	85	0
08:00 AM	75	0	9	0	2	30	0	0	0	0	0	0	0	37	74	0
08:15 AM	76	0	16	0	2	12	0	0	0	0	0	0	0	30	52	0
08:30 AM	60	0	3	0	1	19	0	0	0	0	0	0	0	34	55	0
08:45 AM	67	0	5	0	1	21	0	0	0	0	0	0	0	34	70	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	92	0	6	0	5	29	0	0	0	0	0	0	0	33	109	0
04:15 PM	108	0	5	0	2	29	0	0	0	0	0	0	0	37	81	0
04:30 PM	108	0	7	0	6	33	0	0	0	0	0	0	0	43	152	0
04:45 PM	99	0	11	0	9	48	0	0	0	0	0	0	0	40	110	0
05:00 PM	113	0	9	0	6	45	0	0	0	0	0	0	0	36	134	0
05:15 PM	97	0	11	0	4	53	0	0	0	0	0	0	0	45	127	0
05:30 PM	103	0	8	0	7	47	0	0	0	0	0	0	0	49	97	0
05:45 PM	86	0	7	0	2	45	0	0	0	0	0	0	0	42	92	0

Start Date 6/7/2006
 Start Time 07:00
 Site Code 00000000
 Street Name BERCUT DRIVE--From North

BANNON STREET--From East

--From South

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
07:00 AM	0	5	20	0	12	0	0	0	0	5	0	0	0	0	0	0
07:15 AM	0	4	18	0	6	0	0	0	1	1	0	0	0	0	0	0
07:30 AM	0	6	17	0	9	0	0	0	0	2	0	0	0	0	0	0
07:45 AM	0	4	28	0	7	0	0	0	0	1	0	0	0	0	0	0
08:00 AM	0	2	26	0	10	0	0	0	0	1	0	0	0	0	0	0
08:15 AM	0	2	31	0	9	0	0	0	1	2	0	0	0	0	0	0
08:30 AM	0	2	16	0	4	0	1	0	0	4	0	0	0	0	0	0
08:45 AM	0	5	15	0	15	0	0	0	1	4	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	2	8	0	14	0	1	0	0	4	0	0	0	0	0	0
04:15 PM	0	2	8	0	16	0	0	0	2	5	0	0	0	0	0	0
04:30 PM	0	3	12	0	13	0	0	0	0	5	0	0	0	0	0	0
04:45 PM	0	4	13	0	18	0	0	0	0	4	0	0	0	0	0	0
05:00 PM	0	1	9	0	24	0	0	0	1	2	0	0	0	0	0	0
05:15 PM	0	5	7	0	32	0	0	0	0	2	0	0	0	0	0	0
05:30 PM	0	4	2	0	11	0	1	0	0	7	0	0	0	0	0	0
05:45 PM	0	5	5	0	6	0	0	0	2	0	0	0	0	0	0	0

Start Date 6/8/2006
 Start Time 07:00
 Site Code 00000000

Start Time	N. 10TH STREET--From North West				N. B STREET--From East				--From South			--From				
	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other
07:00 AM	2	0	6	0	7	39	0	0	0	0	0	0	27	0	0	0
07:15 AM	0	0	7	0	7	24	0	0	0	0	0	0	16	2	0	0
07:30 AM	1	0	7	0	5	16	0	0	0	0	0	0	9	3	0	0
07:45 AM	3	0	10	0	11	60	0	0	0	0	0	0	19	3	0	0
08:00 AM	1	0	4	0	6	49	0	0	0	0	0	0	19	1	0	0
08:15 AM	1	0	2	0	6	29	0	0	0	0	0	0	14	1	0	0
08:30 AM	4	0	16	0	16	26	0	0	0	0	0	0	16	2	0	0
08:45 AM	3	0	11	0	12	23	0	0	0	0	0	0	14	1	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	5	0	17	0	8	39	0	0	0	0	0	0	52	1	0	0
04:15 PM	3	0	13	0	4	32	0	0	0	0	0	0	35	0	0	0
04:30 PM	1	0	15	0	6	35	0	0	0	0	0	0	60	2	0	0
04:45 PM	4	0	9	0	2	35	0	0	0	0	0	0	42	2	0	0
05:00 PM	4	0	32	0	2	28	0	0	0	0	0	0	72	3	0	0
05:15 PM	1	0	22	0	10	22	0	0	0	0	0	0	76	1	0	0
05:30 PM	3	0	8	0	6	26	0	0	0	0	0	0	41	0	0	0
05:45 PM	3	0	9	0	1	25	0	0	0	0	0	0	30	1	0	0

A.txt

Start Date 6/8/2006
 Start Time 06:00
 Site Code 00000000
 Street Name SR 5 SB RAMPS--From North

GARDEN HWY--From East

--From South

--From

Start Time	West	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
06:00 AM		20	0	29	0	80	36	0	0	0	0	0	0	0	16	31	0
06:15 AM		24	0	65	0	104	56	0	0	0	0	0	0	0	20	34	0
06:30 AM		40	0	63	0	77	76	0	0	0	0	0	0	0	39	63	0
06:45 AM		53	0	77	0	108	120	0	0	0	0	0	0	0	26	60	0
07:00 AM		82	0	95	0	121	114	0	0	0	0	0	0	0	53	75	0
07:15 AM		98	0	115	0	121	151	0	0	0	0	0	0	0	73	73	0
07:30 AM		130	0	119	0	155	208	0	0	0	0	0	0	0	87	112	0
07:45 AM		128	0	100	0	174	212	0	0	0	0	0	0	0	66	92	0
08:00 AM		70	0	95	0	133	171	0	0	0	0	0	0	0	49	81	0
08:15 AM		70	0	111	0	123	169	0	0	0	0	0	0	0	55	66	0
08:30 AM		72	0	107	0	112	157	0	0	0	0	0	0	0	51	62	0
08:45 AM		50	0	85	0	92	120	0	0	0	0	0	0	0	53	73	0
09:00 AM		38	0	69	0	69	88	0	0	0	0	0	0	0	31	53	0
09:15 AM		40	0	72	0	78	72	0	0	0	0	0	0	0	35	42	0
09:30 AM		24	0	82	0	90	76	0	0	0	0	0	0	0	35	49	0
09:45 AM		32	0	41	0	96	75	0	0	0	0	0	0	0	41	44	0
10:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM		26	0	83	0	97	126	0	0	0	0	0	0	0	58	43	0
03:15 PM		27	0	56	0	117	98	0	0	0	0	0	0	0	70	66	0
03:30 PM		29	0	88	0	116	137	0	0	0	0	0	0	0	63	62	0
03:45 PM		21	0	70	0	125	129	0	0	0	0	0	0	0	104	102	0
04:00 PM		16	0	55	0	128	121	0	0	0	0	0	0	0	86	73	0
04:15 PM		17	0	69	0	101	148	0	0	0	0	0	0	0	121	101	0
04:30 PM		21	0	81	0	123	156	0	0	0	0	0	0	0	107	114	0
04:45 PM		18	0	72	0	111	249	0	0	0	0	0	0	0	104	101	0
05:00 PM		19	0	74	0	101	212	0	0	0	0	0	0	0	111	98	0
05:15 PM		26	0	70	0	91	250	0	0	0	0	0	0	0	108	91	0
05:30 PM		39	0	74	0	123	199	0	0	0	0	0	0	0	86	94	0
05:45 PM		40	0	91	0	99	193	0	0	0	0	0	0	0	89	74	0
06:00 PM		40	0	65	0	76	159	0	0	0	0	0	0	0	74	59	0
06:15 PM		24	0	71	0	102	173	0	0	0	0	0	0	0	81	76	0
06:30 PM		27	0	41	0	84	134	0	0	0	0	0	0	0	50	59	0
06:45 PM		28	0	38	0	85	135	0	0	0	0	0	0	0	30	46	0

B. txt

Start Date 6/8/2006
 Start Time 06:00
 Site Code 00000000
 Street Name SR 5 NB RAMPS--From North

GARDEN HWY--From East

--From South

--From

Start Time	West	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
06:00 AM		31	0	34	0	41	85	0	0	0	0	0	0	0	31	14	0
06:15 AM		44	0	60	0	52	116	0	0	0	0	0	0	0	60	25	0
06:30 AM		43	0	62	0	53	110	0	0	0	0	0	0	0	56	46	0
06:45 AM		95	0	97	0	46	133	0	0	0	0	0	0	0	67	36	0
07:00 AM		78	0	76	0	39	157	0	0	0	0	0	0	0	120	28	0
07:15 AM		86	0	108	0	55	186	0	0	0	0	0	0	0	147	41	0
07:30 AM		129	0	129	0	57	234	0	0	0	0	0	0	0	171	35	0
07:45 AM		164	0	139	0	64	222	0	0	0	0	0	0	0	121	45	0
08:00 AM		129	0	94	0	61	175	0	0	0	0	0	0	0	123	21	0
08:15 AM		118	0	115	0	55	174	0	0	0	0	0	0	0	147	19	0
08:30 AM		111	0	108	0	55	158	0	0	0	0	0	0	0	136	22	0
08:45 AM		102	0	89	0	34	110	0	0	0	0	0	0	0	107	31	0
09:00 AM		53	0	81	0	30	104	0	0	0	0	0	0	0	78	22	0
09:15 AM		59	0	64	0	25	91	0	0	0	0	0	0	0	76	31	0
09:30 AM		64	0	71	0	24	102	0	0	0	0	0	0	0	96	21	0
09:45 AM		75	0	73	0	17	96	0	0	0	0	0	0	0	63	19	0
10:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM		62	0	101	0	69	161	0	0	0	0	0	0	0	97	44	0
03:15 PM		63	0	134	0	76	152	0	0	0	0	0	0	0	75	51	0
03:30 PM		64	0	148	0	81	189	0	0	0	0	0	0	0	88	62	0
03:45 PM		58	0	146	0	103	196	0	0	0	0	0	0	0	123	51	0
04:00 PM		67	0	116	0	107	182	0	0	0	0	0	0	0	102	39	0
04:15 PM		74	0	150	0	114	175	0	0	0	0	0	0	0	133	57	0
04:30 PM		86	0	154	0	114	193	0	0	0	0	0	0	0	157	31	0
04:45 PM		117	0	149	0	164	243	0	0	0	0	0	0	0	147	29	0
05:00 PM		117	0	201	0	134	196	0	0	0	0	0	0	0	131	54	0
05:15 PM		136	0	196	0	108	205	0	0	0	0	0	0	0	130	48	0
05:30 PM		126	0	161	0	110	198	0	0	0	0	0	0	0	103	57	0
05:45 PM		95	0	105	0	81	197	0	0	0	0	0	0	0	119	61	0
06:00 PM		77	0	109	0	86	158	0	0	0	0	0	0	0	98	41	0
06:15 PM		75	0	82	0	89	200	0	0	0	0	0	0	0	103	49	0
06:30 PM		86	0	85	0	71	132	0	0	0	0	0	0	0	61	32	0
06:45 PM		81	0	68	0	53	139	0	0	0	0	0	0	0	41	27	0

C. txt

Start Date 6/8/2006
 Start Time 06:00
 Site Code 00000000
 Street Name SR 5 SB OFF RAMP--From North

RICHARDS BLVD. --From East

SR 5 SB ON RAMP--From South

Start Time	--From West				RICHARDS BLVD. --From East				SR 5 SB ON RAMP--From South							
	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other				
06:00 AM	39	1	71	0	0	15	37	0	0	0	0	0	10	44	0	0
06:15 AM	38	2	87	0	0	26	39	0	0	0	0	0	10	47	0	0
06:30 AM	58	0	115	0	0	26	48	0	0	0	0	0	11	63	0	0
06:45 AM	87	0	142	0	0	30	42	0	0	0	0	0	15	75	0	0
07:00 AM	71	0	121	0	0	40	51	0	0	0	0	0	15	80	0	0
07:15 AM	88	0	144	0	0	48	55	0	0	0	0	0	15	79	0	0
07:30 AM	106	0	159	0	0	60	76	0	0	0	0	0	17	95	0	0
07:45 AM	86	0	171	0	0	56	90	0	0	0	0	0	12	131	0	0
08:00 AM	64	0	193	0	0	38	74	0	0	0	0	0	17	85	0	0
08:15 AM	65	0	137	0	0	46	73	0	0	0	0	0	15	78	0	0
08:30 AM	61	0	118	0	0	44	58	0	0	0	0	0	19	85	0	0
08:45 AM	52	1	129	0	0	23	81	0	0	0	0	0	17	70	0	0
09:00 AM	39	1	86	0	0	33	74	0	0	0	0	0	6	57	0	0
09:15 AM	40	0	103	0	0	32	101	0	0	0	0	0	10	46	0	0
09:30 AM	39	0	106	0	0	19	84	0	0	0	0	0	17	64	0	0
09:45 AM	39	1	102	0	0	29	86	0	0	0	0	0	14	64	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	67	12	84	0	0	71	173	0	0	0	0	0	10	91	0	0
03:15 PM	90	10	91	0	0	76	130	0	0	0	0	0	16	73	0	0
03:30 PM	56	1	80	0	0	101	162	0	0	0	0	0	17	103	0	0
03:45 PM	56	1	71	0	0	72	144	0	0	0	0	0	22	115	0	0
04:00 PM	68	0	82	0	0	101	160	0	0	0	0	0	27	119	0	0
04:15 PM	68	0	88	0	0	83	151	0	0	0	0	0	16	126	0	0
04:30 PM	56	0	90	0	0	91	143	0	0	0	0	0	13	121	0	0
04:45 PM	63	0	75	0	0	91	156	0	0	0	0	0	6	126	0	0
05:00 PM	58	2	82	0	0	85	149	0	0	0	0	0	22	122	0	0
05:15 PM	67	1	78	0	0	111	146	0	0	0	0	0	17	164	0	0
05:30 PM	56	1	64	0	0	73	141	0	0	0	0	0	15	125	0	0
05:45 PM	58	1	79	0	0	72	105	0	0	0	0	0	13	123	0	0
06:00 PM	70	2	79	0	0	75	106	0	0	0	0	0	21	86	0	0
06:15 PM	71	1	52	0	0	54	91	0	0	0	0	0	23	55	0	0
06:30 PM	61	2	59	0	0	66	78	0	0	0	0	0	20	61	0	0
06:45 PM	69	0	55	0	0	53	65	0	0	0	0	0	15	62	0	0

D. txt

Start Date 6/8/2006
 Start Time 06:00
 Site Code 00000000
 Street Name SR 5 NB ON RAMP--From North

RICHARDS BLVD. --From East

SR 5 NB OFF RAMP--From South

Start Time	--From West				RICHARDS BLVD. --From East				SR 5 NB OFF RAMP--From South							
	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other				
06:00 AM	0	0	0	0	31	46	0	0	90	0	6	0	0	87	28	0
06:15 AM	0	0	0	0	49	59	0	0	132	0	6	0	0	104	30	0
06:30 AM	0	0	0	0	55	64	0	0	136	1	10	0	0	136	42	0
06:45 AM	0	0	0	0	62	62	0	0	181	0	11	0	0	168	49	0
07:00 AM	0	0	0	0	72	82	0	0	169	0	9	0	0	159	42	0
07:15 AM	0	0	0	0	66	90	0	0	171	0	13	0	0	175	49	0
07:30 AM	0	0	0	0	57	124	0	0	181	0	12	0	0	206	48	0
07:45 AM	0	0	0	0	85	139	0	0	178	0	7	0	0	248	55	0
08:00 AM	0	0	0	0	60	100	0	0	157	0	12	0	0	248	31	0
08:15 AM	0	0	0	0	70	105	0	0	139	0	14	0	0	175	40	0
08:30 AM	0	0	0	0	91	94	0	0	167	1	8	0	0	163	40	0
08:45 AM	0	0	0	0	72	95	0	0	133	0	9	0	0	153	45	0
09:00 AM	0	0	0	0	72	94	0	0	140	0	13	0	0	117	28	0
09:15 AM	0	0	0	0	78	121	0	0	141	0	12	0	0	127	23	0
09:30 AM	0	0	0	0	86	93	0	0	124	0	10	0	0	129	41	0
09:45 AM	0	0	0	0	68	104	0	0	96	1	11	0	0	135	31	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	140	230	0	0	106	0	14	0	0	120	55	0
03:15 PM	0	0	0	0	135	191	0	0	92	0	15	0	0	112	52	0
03:30 PM	0	0	0	0	170	244	0	0	119	0	19	0	0	114	69	0
03:45 PM	0	0	0	0	178	198	0	0	107	0	18	0	0	111	75	0
04:00 PM	0	0	0	0	209	237	0	0	105	1	24	0	0	126	75	0
04:15 PM	0	0	0	0	205	219	0	0	120	1	15	0	0	142	72	0
04:30 PM	0	0	0	0	267	222	0	0	90	1	12	0	0	136	75	0
04:45 PM	0	0	0	0	227	227	0	0	68	0	20	0	0	108	93	0
05:00 PM	0	0	0	0	236	229	0	0	94	3	5	0	0	123	82	0
05:15 PM	0	0	0	0	255	243	0	0	76	5	14	0	0	137	105	0
05:30 PM	0	0	0	0	241	191	0	0	89	2	23	0	0	107	82	0
05:45 PM	0	0	0	0	233	154	0	0	77	0	23	0	0	139	63	0
06:00 PM	0	0	0	0	149	155	0	0	65	0	26	0	0	109	56	0
06:15 PM	0	0	0	0	134	123	0	0	69	0	22	0	0	69	38	0
06:30 PM	0	0	0	0	119	123	0	0	49	0	21	0	0	78	42	0
06:45 PM	0	0	0	0	98	96	0	0	59	0	22	0	0	83	35	0

Start Date 6/14/2006
 Start Time 06:00
 Site Code 00000000
 Street Name 3RD STREET--From North

SR 5 NB OFF RAMP--From East

J STREET--From South

Start Time	SR 5 SB OFF RAMP--From West	SR 5 NB OFF RAMP--From East				J STREET--From South										
	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other				
06:00 AM	0	11	9	0	19	146	2	0	7	0	0	0	35	120	0	0
06:15 AM	0	10	8	0	30	154	1	0	12	0	0	0	64	129	0	0
06:30 AM	0	14	12	0	38	185	0	0	16	0	0	0	93	169	0	0
06:45 AM	0	8	7	0	40	252	0	0	9	0	0	0	124	259	0	0
07:00 AM	0	19	21	0	50	270	0	0	21	0	0	0	117	258	1	0
07:15 AM	0	21	17	0	46	312	1	0	22	0	0	0	130	335	0	0
07:30 AM	0	23	18	0	52	348	0	0	20	0	0	0	140	357	1	0
07:45 AM	0	30	28	0	61	405	0	0	16	0	0	0	133	410	0	0
08:00 AM	0	28	20	0	46	426	0	0	23	0	0	0	134	374	0	0
08:15 AM	0	27	25	0	52	396	2	0	24	0	0	0	132	382	0	0
08:30 AM	0	25	34	0	53	355	0	0	30	0	0	0	127	326	0	0
08:45 AM	0	37	31	0	41	289	1	0	20	0	0	0	121	310	3	0
09:00 AM	0	25	21	0	36	287	0	0	26	0	0	0	94	238	0	0
09:15 AM	0	32	34	0	24	261	1	0	30	0	0	0	54	173	2	0
09:30 AM	0	18	37	0	32	201	1	0	22	0	0	0	45	217	1	0
09:45 AM	0	16	36	0	27	223	0	0	25	0	0	0	58	257	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	69	60	0	28	135	0	0	44	0	0	0	31	152	1	0
03:15 PM	0	40	54	0	18	129	1	0	43	0	0	0	41	186	1	0
03:30 PM	0	78	56	0	18	137	1	0	35	0	0	0	58	196	1	0
03:45 PM	0	45	51	0	17	112	1	0	49	0	0	0	50	213	0	0
04:00 PM	0	66	49	0	13	110	0	0	50	0	0	0	51	175	0	0
04:15 PM	0	55	57	0	19	114	0	0	50	0	0	0	59	173	0	0
04:30 PM	0	109	72	0	14	89	0	0	49	0	0	0	58	190	0	0
04:45 PM	0	83	55	0	22	103	1	0	49	0	0	0	79	258	0	0
05:00 PM	0	106	89	0	13	89	0	0	63	0	0	0	90	189	1	0
05:15 PM	0	107	66	0	10	91	0	0	47	0	0	0	111	224	0	0
05:30 PM	0	84	84	0	18	93	0	0	50	0	0	0	118	223	0	0
05:45 PM	0	73	55	0	12	135	0	0	56	0	0	0	98	237	0	0
06:00 PM	0	63	51	0	20	113	0	0	52	0	0	0	98	250	0	0
06:15 PM	0	49	53	0	20	119	0	0	48	0	0	0	75	240	0	0
06:30 PM	0	38	38	0	14	159	0	0	49	0	0	0	34	153	0	0
06:45 PM	0	49	63	0	18	135	0	0	56	0	0	0	26	192	0	0

Start Date 6/15/2006
 Start Time 06:00
 Site Code 00000000
 Street Name 2ND STREET--From North
 RAMPS--From West

P STREET--From East

--From South

SR 5 NB/SB ON

Start Time	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
06:00 AM	1	1	0	0	5	20	31	0	0	0	0	0	0	0	0	0
06:15 AM	2	5	0	0	10	9	37	0	0	0	0	0	0	0	0	0
06:30 AM	3	2	0	0	9	22	47	0	0	0	0	0	0	0	0	0
06:45 AM	2	1	0	0	16	28	47	0	0	0	0	0	0	0	0	0
07:00 AM	1	2	0	0	18	26	73	0	0	0	0	0	0	0	0	0
07:15 AM	4	3	0	0	21	33	74	0	0	0	0	0	0	0	0	0
07:30 AM	2	4	0	0	18	53	93	0	0	0	0	0	0	0	0	0
07:45 AM	5	2	0	0	32	76	107	0	0	0	0	0	0	0	0	0
08:00 AM	2	4	0	0	25	62	73	0	0	0	0	0	0	0	0	0
08:15 AM	6	5	0	0	25	47	75	0	0	0	0	0	0	0	0	0
08:30 AM	7	11	0	0	26	50	121	0	0	0	0	0	0	0	0	0
08:45 AM	10	7	0	0	20	59	77	0	0	0	0	0	0	0	0	0
09:00 AM	7	11	0	0	14	45	77	0	0	0	0	0	0	0	0	0
09:15 AM	7	12	0	0	16	52	68	0	0	0	0	0	0	0	0	0
09:30 AM	6	5	0	0	20	47	82	0	0	0	0	0	0	0	0	0
09:45 AM	4	9	0	0	23	35	103	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	17	16	0	0	10	73	269	0	0	0	0	0	0	0	0	0
03:15 PM	4	17	0	0	19	77	239	0	0	0	0	0	0	0	0	0
03:30 PM	14	13	0	0	13	123	344	0	0	0	0	0	0	0	0	0
03:45 PM	10	10	0	0	14	118	329	0	0	0	0	0	0	0	0	0
04:00 PM	8	12	0	0	11	215	452	0	0	0	0	0	0	0	0	0
04:15 PM	13	12	0	0	13	168	388	0	0	0	0	0	0	0	0	0
04:30 PM	16	12	0	0	12	219	476	0	0	0	0	0	0	0	0	0
04:45 PM	8	12	0	0	11	215	441	0	0	0	0	0	0	0	0	0
05:00 PM	19	13	0	0	9	303	529	0	0	0	0	0	0	0	0	0
05:15 PM	7	12	0	0	6	252	557	0	0	0	0	0	0	0	0	0
05:30 PM	6	11	0	0	9	188	417	0	0	0	0	0	0	0	0	0
05:45 PM	10	13	0	0	12	113	307	0	0	0	0	0	0	0	0	0
06:00 PM	4	9	0	0	14	105	298	0	0	0	0	0	0	0	0	0
06:15 PM	5	6	0	0	13	88	250	0	0	0	0	0	0	0	0	0
06:30 PM	1	4	0	0	5	64	213	0	0	0	0	0	0	0	0	0
06:45 PM	8	7	0	0	4	47	208	0	0	0	0	0	0	0	0	0

G. txt

Start Date 6/14/2006
 Start Time 06:00
 Site Code 00000000

Street Name SR 5 SB OFF RAMP--From North
 SR 5 NB OFF RAMP--From West

Q STREET--From East

2ND STREET--From South

Start Time	Right	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other
06:00 AM	0	0	49	0	0	0	0	0	1	0	0	0	3	129	0	0
06:15 AM	0	0	68	0	0	0	0	0	1	0	0	0	3	166	0	0
06:30 AM	0	0	86	0	0	0	0	0	0	0	0	0	5	240	0	0
06:45 AM	0	0	149	0	0	0	0	0	3	0	0	0	12	474	0	0
07:00 AM	0	0	161	0	0	0	0	0	0	0	0	0	14	482	0	0
07:15 AM	0	0	169	0	0	0	0	0	2	0	0	0	16	595	0	0
07:30 AM	0	0	185	0	0	0	0	0	1	0	0	0	12	501	0	0
07:45 AM	0	0	224	0	0	0	0	0	8	0	0	0	10	669	0	0
08:00 AM	0	0	222	0	0	0	0	0	6	0	0	0	26	701	0	0
08:15 AM	0	0	202	0	0	0	0	0	1	0	0	0	25	707	0	0
08:30 AM	0	0	220	0	0	0	0	0	3	0	0	0	10	701	0	0
08:45 AM	0	0	232	0	0	0	0	0	2	0	0	0	13	382	0	0
09:00 AM	0	0	141	0	0	0	0	0	1	0	0	0	0	262	0	0
09:15 AM	0	0	95	0	0	0	0	0	10	0	0	0	3	250	0	0
09:30 AM	0	0	64	0	0	0	0	0	1	0	0	0	4	196	0	0
09:45 AM	0	0	75	0	0	0	0	0	11	0	0	0	6	184	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	44	0	0	0	0	0	15	0	0	0	3	73	0	0
03:15 PM	0	0	37	0	0	0	0	0	15	0	0	0	3	74	0	0
03:30 PM	0	0	31	0	0	0	0	0	11	0	0	0	3	78	0	0
03:45 PM	0	0	56	0	0	0	0	0	11	0	0	0	3	76	0	0
04:00 PM	0	0	45	0	0	0	0	0	12	0	0	0	3	79	0	0
04:15 PM	0	0	60	0	0	0	0	0	14	0	0	0	3	68	0	0
04:30 PM	0	0	42	0	0	0	0	0	13	0	0	0	3	68	0	0
04:45 PM	0	0	35	0	0	0	0	0	14	0	0	0	0	81	0	0
05:00 PM	0	0	34	0	0	0	0	0	20	0	0	0	3	118	0	0
05:15 PM	0	0	27	0	0	0	0	0	13	0	0	0	0	113	0	0
05:30 PM	0	0	25	0	0	0	0	0	7	0	0	0	3	94	0	0
05:45 PM	0	0	28	0	0	0	0	0	8	0	0	0	4	114	0	0
06:00 PM	0	0	29	0	0	0	0	0	8	0	0	0	5	66	0	0
06:15 PM	0	0	39	0	0	0	0	0	9	0	0	0	1	64	0	0
06:30 PM	0	0	29	0	0	0	0	0	4	0	0	0	2	55	0	0
06:45 PM	0	0	41	0	0	0	0	0	3	0	0	0	0	53	0	0

Start Date 6/15/2006
 Start Time 06:00
 Site Code 00000000
 Street Name 3RD STREET--From North
 RAMP/CAPITOL MALL--From West

L STREET--From East

--From South

SR 5 ON

Start Time	Right	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other
06:00 AM	19	91	0	1	21	19	15	10	0	0	0	0	0	0	0	0
06:15 AM	21	95	0	1	24	22	13	8	0	0	0	0	0	0	0	0
06:30 AM	22	117	0	0	23	27	17	9	0	0	0	0	0	0	0	0
06:45 AM	28	133	0	3	39	15	25	10	0	0	0	0	0	0	0	0
07:00 AM	19	133	0	2	29	21	16	13	0	0	0	0	0	0	0	0
07:15 AM	15	146	0	0	36	63	13	16	0	0	0	0	0	0	0	0
07:30 AM	17	176	0	1	51	55	24	14	0	0	0	0	0	0	0	0
07:45 AM	32	168	0	3	54	42	28	13	0	0	0	0	0	0	0	0
08:00 AM	48	142	0	4	52	32	28	17	0	0	0	0	0	0	0	0
08:15 AM	25	142	0	2	41	27	36	11	0	0	0	0	0	0	0	0
08:30 AM	37	137	0	3	52	39	30	19	0	0	0	0	0	0	0	0
08:45 AM	34	90	0	2	55	36	23	21	0	0	0	0	0	0	0	0
09:00 AM	35	85	0	2	42	32	22	18	0	0	0	0	0	0	0	0
09:15 AM	24	57	0	2	53	35	29	19	0	0	0	0	0	0	0	0
09:30 AM	31	64	0	3	54	40	37	17	0	0	0	0	0	0	0	0
09:45 AM	29	61	0	4	61	38	41	15	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	52	74	0	14	116	92	81	38	0	0	0	0	0	0	0	0
03:15 PM	60	67	0	13	125	82	72	38	0	0	0	0	0	0	0	0
03:30 PM	31	90	0	11	122	87	89	41	0	0	0	0	0	0	0	0
03:45 PM	40	72	0	23	162	110	95	35	0	0	0	0	0	0	0	0
04:00 PM	41	59	0	15	185	107	88	49	0	0	0	0	0	0	0	0
04:15 PM	53	86	0	14	177	83	124	43	0	0	0	0	0	0	0	0
04:30 PM	49	116	0	16	222	104	113	40	0	0	0	0	0	0	0	0
04:45 PM	79	118	0	12	237	125	96	33	0	0	0	0	0	0	0	0
05:00 PM	81	108	0	14	196	114	101	31	0	0	0	0	0	0	0	0
05:15 PM	62	109	0	14	204	92	88	28	0	0	0	0	0	0	0	0
05:30 PM	71	111	0	15	181	103	101	27	0	0	0	0	0	0	0	0
05:45 PM	54	112	0	16	186	102	110	29	0	0	0	0	0	0	0	0
06:00 PM	51	102	0	13	133	85	64	30	0	0	0	0	0	0	0	0
06:15 PM	41	83	0	4	126	77	66	43	0	0	0	0	0	0	0	0
06:30 PM	36	54	0	9	99	90	98	34	0	0	0	0	0	0	0	0
06:45 PM	22	69	0	14	93	84	73	39	0	0	0	0	0	0	0	0

Start Date	6/15/2006															
Start Time	06:00															
Site Code	00000000															
Street Name	SR 5 SB ON RAMP FROM I STREET--From North								--From East				SR 5 NB ON RAMP FROM I STREET--From			
South																
Start Time	Right	Thru	--From West		Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other
			Left	Other												
06:00 AM	38	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0
06:15 AM	24	0	0	0	0	0	0	0	0	41	0	0	0	0	0	0
06:30 AM	27	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0
06:45 AM	36	0	0	0	0	0	0	0	0	36	0	0	0	0	0	0
07:00 AM	42	0	0	0	0	0	0	0	0	46	0	0	0	0	0	0
07:15 AM	58	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0
07:30 AM	85	0	0	0	0	0	0	0	0	69	0	0	0	0	0	0
07:45 AM	86	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0
08:00 AM	75	0	0	0	0	0	0	0	0	80	0	0	0	0	0	0
08:15 AM	78	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0
08:30 AM	79	0	0	0	0	0	0	0	0	80	0	0	0	0	0	0
08:45 AM	97	0	0	0	0	0	0	0	0	68	0	0	0	0	0	0
09:00 AM	56	0	0	0	0	0	0	0	0	81	0	0	0	0	0	0
09:15 AM	56	0	0	0	0	0	0	0	0	78	0	0	0	0	0	0
09:30 AM	72	0	0	0	0	0	0	0	0	96	0	0	0	0	0	0
09:45 AM	85	0	0	0	0	0	0	0	0	112	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	159	0	0	0	0	0	0	0	0	187	0	0	0	0	0	0
03:15 PM	143	0	0	0	0	0	0	0	0	208	0	0	0	0	0	0
03:30 PM	175	0	0	0	0	0	0	0	0	298	0	0	0	0	0	0
03:45 PM	211	0	0	0	0	0	0	0	0	302	0	0	0	0	0	0
04:00 PM	236	0	0	0	0	0	0	0	0	275	0	0	0	0	0	0
04:15 PM	275	0	0	0	0	0	0	0	0	257	0	0	0	0	0	0
04:30 PM	302	0	0	0	0	0	0	0	0	327	0	0	0	0	0	0
04:45 PM	313	0	0	0	0	0	0	0	0	294	0	0	0	0	0	0
05:00 PM	364	0	0	0	0	0	0	0	0	337	0	0	0	0	0	0
05:15 PM	344	0	0	0	0	0	0	0	0	309	0	0	0	0	0	0
05:30 PM	316	0	0	0	0	0	0	0	0	282	0	0	0	0	0	0
05:45 PM	250	0	0	0	0	0	0	0	0	263	0	0	0	0	0	0
06:00 PM	187	0	0	0	0	0	0	0	0	178	0	0	0	0	0	0
06:15 PM	150	0	0	0	0	0	0	0	0	232	0	0	0	0	0	0
06:30 PM	116	0	0	0	0	0	0	0	0	166	0	0	0	0	0	0
06:45 PM	121	0	0	0	0	0	0	0	0	172	0	0	0	0	0	0