

APPENDIX A
CALEEMOD MODELING RESULTS

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**University of the Pacific Rezone Project
Sacramento Metropolitan AQMD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	76.00	Dwelling Unit	0.77	76,000.00	203
General Office Building	50.31	1000sqft	0.00	50,311.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage adjused to represent total lot acreage for both sites. Commerical acreage zeroed out based on assumption that development would include a mixed-use building.

Demolition - Based on assumption that Marshall Way House would be demolished.

Construction Phase - Architectural Coating assumed to start two weeks after building construction and last for the same duration.

Water Mitigation - Compliant with MWELO.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	100.00
tblConstructionPhase	PhaseEndDate	11/20/2023	11/27/2023
tblConstructionPhase	PhaseEndDate	11/6/2023	11/13/2023
tblConstructionPhase	PhaseEndDate	11/13/2023	6/26/2023

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tblConstructionPhase	PhaseStartDate	11/14/2023	7/11/2023
tblConstructionPhase	PhaseStartDate	6/20/2023	6/27/2023
tblConstructionPhase	PhaseStartDate	11/7/2023	6/20/2023
tblLandUse	LotAcreage	2.00	0.77
tblLandUse	LotAcreage	1.15	0.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2023	8-31-2023	0.5514	0.5514
2	9-1-2023	9-30-2023	0.2561	0.2561
		Highest	0.5514	0.5514

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5878	9.0300e-003	0.7841	4.0000e-005		4.3400e-003	4.3400e-003		4.3400e-003	4.3400e-003	0.0000	1.2815	1.2815	1.2300e-003	0.0000	1.3123
Energy	7.3800e-003	0.0650	0.0409	4.0000e-004		5.1000e-003	5.1000e-003		5.1000e-003	5.1000e-003	0.0000	234.6448	234.6448	0.0163	3.1400e-003	235.9894
Mobile	0.3572	0.4489	3.1653	6.4100e-003	0.6578	5.1600e-003	0.6629	0.1759	4.8200e-003	0.1807	0.0000	602.7909	602.7909	0.0427	0.0306	612.9643
Waste						0.0000	0.0000		0.0000	0.0000	16.5945	0.0000	16.5945	0.9807	0.0000	41.1122
Water						0.0000	0.0000		0.0000	0.0000	4.9155	16.1295	21.0450	0.0184	0.0109	24.7444
Total	0.9524	0.5229	3.9903	6.8500e-003	0.6578	0.0146	0.6724	0.1759	0.0143	0.1901	21.5101	854.8467	876.3568	1.0594	0.0446	916.1226

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5878	9.0300e-003	0.7841	4.0000e-005		4.3400e-003	4.3400e-003		4.3400e-003	4.3400e-003	0.0000	1.2815	1.2815	1.2300e-003	0.0000	1.3123
Energy	7.3800e-003	0.0650	0.0409	4.0000e-004		5.1000e-003	5.1000e-003		5.1000e-003	5.1000e-003	0.0000	234.6448	234.6448	0.0163	3.1400e-003	235.9894
Mobile	0.3572	0.4489	3.1653	6.4100e-003	0.6578	5.1600e-003	0.6629	0.1759	4.8200e-003	0.1807	0.0000	602.7909	602.7909	0.0427	0.0306	612.9643
Waste						0.0000	0.0000		0.0000	0.0000	16.5945	0.0000	16.5945	0.9807	0.0000	41.1122
Water						0.0000	0.0000		0.0000	0.0000	4.9155	15.1517	20.0672	0.0183	0.0109	23.7611
Total	0.9524	0.5229	3.9903	6.8500e-003	0.6578	0.0146	0.6724	0.1759	0.0143	0.1901	21.5101	853.8690	875.3790	1.0593	0.0446	915.1393

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.11	0.01	0.02	0.11

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/14/2023	5	10	
2	Site Preparation	Site Preparation	6/15/2023	6/15/2023	5	1	
3	Grading	Grading	6/16/2023	6/19/2023	5	2	

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4	Building Construction	Building Construction	6/27/2023	11/13/2023	5	100
5	Paving	Paving	6/20/2023	6/26/2023	5	5
6	Architectural Coating	Architectural Coating	7/11/2023	11/27/2023	5	100

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 153,900; Residential Outdoor: 51,300; Non-Residential Indoor: 75,468; Non-Residential Outdoor: 25,156; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	5.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	71.00	16.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2000e-004	0.0000	6.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2300e-003	0.0289	0.0370	6.0000e-005		1.4100e-003	1.4100e-003		1.3500e-003	1.3500e-003	0.0000	5.2091	5.2091	9.5000e-004	0.0000	5.2328
Total	3.2300e-003	0.0289	0.0370	6.0000e-005	6.2000e-004	1.4100e-003	2.0300e-003	9.0000e-005	1.3500e-003	1.4400e-003	0.0000	5.2091	5.2091	9.5000e-004	0.0000	5.2328

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3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.0000e-004	8.0000e-005	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1553	0.1553	1.0000e-005	2.0000e-005	0.1628
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	1.1700e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2946	0.2946	1.0000e-005	1.0000e-005	0.2973
Total	1.5000e-004	4.9000e-004	1.2500e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4499	0.4499	2.0000e-005	3.0000e-005	0.4602

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2000e-004	0.0000	6.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2300e-003	0.0289	0.0370	6.0000e-005		1.4100e-003	1.4100e-003		1.3500e-003	1.3500e-003	0.0000	5.2091	5.2091	9.5000e-004	0.0000	5.2328
Total	3.2300e-003	0.0289	0.0370	6.0000e-005	6.2000e-004	1.4100e-003	2.0300e-003	9.0000e-005	1.3500e-003	1.4400e-003	0.0000	5.2091	5.2091	9.5000e-004	0.0000	5.2328

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3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.0000e-004	8.0000e-005	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1553	0.1553	1.0000e-005	2.0000e-005	0.1628
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	1.1700e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2946	0.2946	1.0000e-005	1.0000e-005	0.2973
Total	1.5000e-004	4.9000e-004	1.2500e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4499	0.4499	2.0000e-005	3.0000e-005	0.4602

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	3.0900e-003	1.9600e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4309
Total	2.7000e-004	3.0900e-003	1.9600e-003	0.0000	2.7000e-004	1.1000e-004	3.8000e-004	3.0000e-005	1.0000e-004	1.3000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4309

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3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0147	0.0147	0.0000	0.0000	0.0149
Total	1.0000e-005	0.0000	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0147	0.0147	0.0000	0.0000	0.0149

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	3.0900e-003	1.9600e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4309
Total	2.7000e-004	3.0900e-003	1.9600e-003	0.0000	2.7000e-004	1.1000e-004	3.8000e-004	3.0000e-005	1.0000e-004	1.3000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4309

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3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0147	0.0147	0.0000	0.0000	0.0149
Total	1.0000e-005	0.0000	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0147	0.0147	0.0000	0.0000	0.0149

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	0.0102	5.5500e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2481
Total	9.3000e-004	0.0102	5.5500e-003	1.0000e-005	5.3100e-003	4.2000e-004	5.7300e-003	2.5700e-003	3.9000e-004	2.9600e-003	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2481

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3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0471	0.0471	0.0000	0.0000	0.0476
Total	2.0000e-005	1.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0471	0.0471	0.0000	0.0000	0.0476

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	0.0102	5.5500e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2481
Total	9.3000e-004	0.0102	5.5500e-003	1.0000e-005	5.3100e-003	4.2000e-004	5.7300e-003	2.5700e-003	3.9000e-004	2.9600e-003	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2481

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3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0471	0.0471	0.0000	0.0000	0.0476
Total	2.0000e-005	1.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0471	0.0471	0.0000	0.0000	0.0476

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0316	0.3209	0.3549	5.7000e-004		0.0160	0.0160		0.0147	0.0147	0.0000	50.1042	50.1042	0.0162	0.0000	50.5093
Total	0.0316	0.3209	0.3549	5.7000e-004		0.0160	0.0160		0.0147	0.0147	0.0000	50.1042	50.1042	0.0162	0.0000	50.5093

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3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0400e-003	0.0390	0.0118	1.5000e-004	4.6800e-003	2.1000e-004	4.8900e-003	1.3500e-003	2.0000e-004	1.5500e-003	0.0000	14.8375	14.8375	3.7000e-004	2.1800e-003	15.4955
Worker	0.0102	6.3000e-003	0.0828	2.3000e-004	0.0261	1.4000e-004	0.0262	6.9300e-003	1.3000e-004	7.0600e-003	0.0000	20.9159	20.9159	6.6000e-004	6.0000e-004	21.1106
Total	0.0112	0.0453	0.0945	3.8000e-004	0.0308	3.5000e-004	0.0311	8.2800e-003	3.3000e-004	8.6100e-003	0.0000	35.7535	35.7535	1.0300e-003	2.7800e-003	36.6061

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0316	0.3209	0.3549	5.7000e-004		0.0160	0.0160		0.0147	0.0147	0.0000	50.1042	50.1042	0.0162	0.0000	50.5093
Total	0.0316	0.3209	0.3549	5.7000e-004		0.0160	0.0160		0.0147	0.0147	0.0000	50.1042	50.1042	0.0162	0.0000	50.5093

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3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0400e-003	0.0390	0.0118	1.5000e-004	4.6800e-003	2.1000e-004	4.8900e-003	1.3500e-003	2.0000e-004	1.5500e-003	0.0000	14.8375	14.8375	3.7000e-004	2.1800e-003	15.4955
Worker	0.0102	6.3000e-003	0.0828	2.3000e-004	0.0261	1.4000e-004	0.0262	6.9300e-003	1.3000e-004	7.0600e-003	0.0000	20.9159	20.9159	6.6000e-004	6.0000e-004	21.1106
Total	0.0112	0.0453	0.0945	3.8000e-004	0.0308	3.5000e-004	0.0311	8.2800e-003	3.3000e-004	8.6100e-003	0.0000	35.7535	35.7535	1.0300e-003	2.7800e-003	36.6061

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669

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3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	8.0000e-005	1.0500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2651	0.2651	1.0000e-005	1.0000e-005	0.2676
Total	1.3000e-004	8.0000e-005	1.0500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2651	0.2651	1.0000e-005	1.0000e-005	0.2676

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669

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3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	8.0000e-005	1.0500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2651	0.2651	1.0000e-005	1.0000e-005	0.2676
Total	1.3000e-004	8.0000e-005	1.0500e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2651	0.2651	1.0000e-005	1.0000e-005	0.2676

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7088					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5800e-003	0.0652	0.0906	1.5000e-004		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	12.7663	12.7663	7.6000e-004	0.0000	12.7854
Total	0.7183	0.0652	0.0906	1.5000e-004		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	12.7663	12.7663	7.6000e-004	0.0000	12.7854

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3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0100e-003	1.2400e-003	0.0163	4.0000e-005	5.1400e-003	3.0000e-005	5.1700e-003	1.3700e-003	3.0000e-005	1.3900e-003	0.0000	4.1243	4.1243	1.3000e-004	1.2000e-004	4.1627
Total	2.0100e-003	1.2400e-003	0.0163	4.0000e-005	5.1400e-003	3.0000e-005	5.1700e-003	1.3700e-003	3.0000e-005	1.3900e-003	0.0000	4.1243	4.1243	1.3000e-004	1.2000e-004	4.1627

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7088					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5800e-003	0.0652	0.0906	1.5000e-004		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	12.7663	12.7663	7.6000e-004	0.0000	12.7854
Total	0.7183	0.0652	0.0906	1.5000e-004		3.5400e-003	3.5400e-003		3.5400e-003	3.5400e-003	0.0000	12.7663	12.7663	7.6000e-004	0.0000	12.7854

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3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0100e-003	1.2400e-003	0.0163	4.0000e-005	5.1400e-003	3.0000e-005	5.1700e-003	1.3700e-003	3.0000e-005	1.3900e-003	0.0000	4.1243	4.1243	1.3000e-004	1.2000e-004	4.1627
Total	2.0100e-003	1.2400e-003	0.0163	4.0000e-005	5.1400e-003	3.0000e-005	5.1700e-003	1.3700e-003	3.0000e-005	1.3900e-003	0.0000	4.1243	4.1243	1.3000e-004	1.2000e-004	4.1627

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3572	0.4489	3.1653	6.4100e-003	0.6578	5.1600e-003	0.6629	0.1759	4.8200e-003	0.1807	0.0000	602.7909	602.7909	0.0427	0.0306	612.9643
Unmitigated	0.3572	0.4489	3.1653	6.4100e-003	0.6578	5.1600e-003	0.6629	0.1759	4.8200e-003	0.1807	0.0000	602.7909	602.7909	0.0427	0.0306	612.9643

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	413.44	373.16	310.84	1,008,554	1,008,554
General Office Building	490.04	111.19	35.22	766,033	766,033
Total	903.48	484.35	346.06	1,774,587	1,774,587

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351
General Office Building	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351

5.0 Energy Detail

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Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	161.6068	161.6068	0.0149	1.8100e-003	162.5174
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	161.6068	161.6068	0.0149	1.8100e-003	162.5174
Natural Gas Mitigated	7.3800e-003	0.0650	0.0409	4.0000e-004		5.1000e-003	5.1000e-003		5.1000e-003	5.1000e-003	0.0000	73.0380	73.0380	1.4000e-003	1.3400e-003	73.4720
Natural Gas Unmitigated	7.3800e-003	0.0650	0.0409	4.0000e-004		5.1000e-003	5.1000e-003		5.1000e-003	5.1000e-003	0.0000	73.0380	73.0380	1.4000e-003	1.3400e-003	73.4720

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5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	715633	3.8600e-003	0.0330	0.0140	2.1000e-004		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	38.1889	38.1889	7.3000e-004	7.0000e-004	38.4159
General Office Building	653047	3.5200e-003	0.0320	0.0269	1.9000e-004		2.4300e-003	2.4300e-003		2.4300e-003	2.4300e-003	0.0000	34.8491	34.8491	6.7000e-004	6.4000e-004	35.0562
Total		7.3800e-003	0.0650	0.0409	4.0000e-004		5.1000e-003	5.1000e-003		5.1000e-003	5.1000e-003	0.0000	73.0380	73.0380	1.4000e-003	1.3400e-003	73.4720

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	715633	3.8600e-003	0.0330	0.0140	2.1000e-004		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	38.1889	38.1889	7.3000e-004	7.0000e-004	38.4159
General Office Building	653047	3.5200e-003	0.0320	0.0269	1.9000e-004		2.4300e-003	2.4300e-003		2.4300e-003	2.4300e-003	0.0000	34.8491	34.8491	6.7000e-004	6.4000e-004	35.0562
Total		7.3800e-003	0.0650	0.0409	4.0000e-004		5.1000e-003	5.1000e-003		5.1000e-003	5.1000e-003	0.0000	73.0380	73.0380	1.4000e-003	1.3400e-003	73.4720

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	295923	48.0510	4.4300e-003	5.4000e-004	48.3218
General Office Building	699334	113.5558	0.0105	1.2700e-003	114.1956
Total		161.6068	0.0149	1.8100e-003	162.5174

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	295923	48.0510	4.4300e-003	5.4000e-004	48.3218
General Office Building	699334	113.5558	0.0105	1.2700e-003	114.1956
Total		161.6068	0.0149	1.8100e-003	162.5174

6.0 Area Detail

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5878	9.0300e-003	0.7841	4.0000e-005		4.3400e-003	4.3400e-003		4.3400e-003	4.3400e-003	0.0000	1.2815	1.2815	1.2300e-003	0.0000	1.3123
Unmitigated	0.5878	9.0300e-003	0.7841	4.0000e-005		4.3400e-003	4.3400e-003		4.3400e-003	4.3400e-003	0.0000	1.2815	1.2815	1.2300e-003	0.0000	1.3123

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0709					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4933					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0236	9.0300e-003	0.7841	4.0000e-005		4.3400e-003	4.3400e-003		4.3400e-003	4.3400e-003	0.0000	1.2815	1.2815	1.2300e-003	0.0000	1.3123
Total	0.5878	9.0300e-003	0.7841	4.0000e-005		4.3400e-003	4.3400e-003		4.3400e-003	4.3400e-003	0.0000	1.2815	1.2815	1.2300e-003	0.0000	1.3123

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0709					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4933					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0236	9.0300e-003	0.7841	4.0000e-005		4.3400e-003	4.3400e-003		4.3400e-003	4.3400e-003	0.0000	1.2815	1.2815	1.2300e-003	0.0000	1.3123
Total	0.5878	9.0300e-003	0.7841	4.0000e-005		4.3400e-003	4.3400e-003		4.3400e-003	4.3400e-003	0.0000	1.2815	1.2815	1.2300e-003	0.0000	1.3123

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.0672	0.0183	0.0109	23.7611
Unmitigated	21.0450	0.0184	0.0109	24.7444

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.95171 / 3.12173	7.5323	6.5600e-003	3.8700e-003	8.8509
General Office Building	8.94178 / 5.48045	13.5127	0.0118	7.0000e-003	15.8934
Total		21.0450	0.0184	0.0109	24.7444

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.95171 / 2.49738	7.1775	6.5300e-003	3.8700e-003	8.4941
General Office Building	8.94178 / 4.38436	12.8898	0.0118	6.9900e-003	15.2670
Total		20.0672	0.0183	0.0109	23.7611

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.5945	0.9807	0.0000	41.1122
Unmitigated	16.5945	0.9807	0.0000	41.1122

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	34.96	7.0966	0.4194	0.0000	17.5814
General Office Building	46.79	9.4980	0.5613	0.0000	23.5308
Total		16.5945	0.9807	0.0000	41.1122

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	34.96	7.0966	0.4194	0.0000	17.5814
General Office Building	46.79	9.4980	0.5613	0.0000	23.5308
Total		16.5945	0.9807	0.0000	41.1122

9.0 Operational Offroad

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**University of the Pacific Rezone Project
Sacramento Metropolitan AQMD Air District, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	76.00	Dwelling Unit	0.77	76,000.00	203
General Office Building	50.31	1000sqft	0.00	50,311.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage adjusted to represent total lot acreage for both sites. Commerical acreage zeroed out based on assumption that development would include a mixed-use building.

Demolition - Based on assumption that Marshall Way House would be demolished.

Construction Phase - Architectural Coating assumed to start two weeks after building construction and last for the same duration.

Water Mitigation - Compliant with MWELO.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	100.00
tblConstructionPhase	PhaseEndDate	11/20/2023	11/27/2023
tblConstructionPhase	PhaseEndDate	11/6/2023	11/13/2023
tblConstructionPhase	PhaseEndDate	11/13/2023	6/26/2023

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseStartDate	11/14/2023	7/11/2023
tblConstructionPhase	PhaseStartDate	6/20/2023	6/27/2023
tblConstructionPhase	PhaseStartDate	11/7/2023	6/20/2023
tblLandUse	LotAcreage	2.00	0.77
tblLandUse	LotAcreage	1.15	0.00

2.0 Emissions Summary

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2804	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725
Energy	0.0404	0.3561	0.2242	2.2100e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4600e-003	8.0900e-003	443.7757
Mobile	2.8631	2.6630	21.8793	0.0442	4.3712	0.0332	4.4044	1.1654	0.0310	1.1964		4,582.2894	4,582.2894	0.2881	0.2081	4,651.5097
Total	6.1839	3.0913	28.3761	0.0468	4.3712	0.0959	4.4671	1.1654	0.0937	1.2591	0.0000	5,034.7445	5,034.7445	0.3074	0.2162	5,106.8579

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2804	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725
Energy	0.0404	0.3561	0.2242	2.2100e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4600e-003	8.0900e-003	443.7757
Mobile	2.8631	2.6630	21.8793	0.0442	4.3712	0.0332	4.4044	1.1654	0.0310	1.1964		4,582.2894	4,582.2894	0.2881	0.2081	4,651.5097
Total	6.1839	3.0913	28.3761	0.0468	4.3712	0.0959	4.4671	1.1654	0.0937	1.2591	0.0000	5,034.7445	5,034.7445	0.3074	0.2162	5,106.8579

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/14/2023	5	10	
2	Site Preparation	Site Preparation	6/15/2023	6/15/2023	5	1	
3	Grading	Grading	6/16/2023	6/19/2023	5	2	
4	Building Construction	Building Construction	6/27/2023	11/13/2023	5	100	
5	Paving	Paving	6/20/2023	6/26/2023	5	5	
6	Architectural Coating	Architectural Coating	7/11/2023	11/27/2023	5	100	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 153,900; Residential Outdoor: 51,300; Non-Residential Indoor: 75,468; Non-Residential Outdoor: 25,156; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	5.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	71.00	16.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1232	0.0000	0.1232	0.0187	0.0000	0.0187			0.0000			0.0000
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698		1,148.4055	1,148.4055	0.2089		1,153.6290
Total	0.6463	5.7787	7.3926	0.0120	0.1232	0.2821	0.4053	0.0187	0.2698	0.2885		1,148.4055	1,148.4055	0.2089		1,153.6290

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3600e-003	0.0752	0.0159	3.1000e-004	8.7200e-003	5.8000e-004	9.3000e-003	2.3900e-003	5.5000e-004	2.9400e-003		34.2354	34.2354	1.3700e-003	5.4300e-003	35.8871
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0337	0.0162	0.2725	7.0000e-004	0.0761	3.9000e-004	0.0765	0.0202	3.6000e-004	0.0205		71.1699	71.1699	1.9500e-003	1.7500e-003	71.7396
Total	0.0351	0.0914	0.2884	1.0100e-003	0.0848	9.7000e-004	0.0858	0.0226	9.1000e-004	0.0235		105.4053	105.4053	3.3200e-003	7.1800e-003	107.6266

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1232	0.0000	0.1232	0.0187	0.0000	0.0187			0.0000			0.0000
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290
Total	0.6463	5.7787	7.3926	0.0120	0.1232	0.2821	0.4053	0.0187	0.2698	0.2885	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3600e-003	0.0752	0.0159	3.1000e-004	8.7200e-003	5.8000e-004	9.3000e-003	2.3900e-003	5.5000e-004	2.9400e-003		34.2354	34.2354	1.3700e-003	5.4300e-003	35.8871
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0337	0.0162	0.2725	7.0000e-004	0.0761	3.9000e-004	0.0765	0.0202	3.6000e-004	0.0205		71.1699	71.1699	1.9500e-003	1.7500e-003	71.7396
Total	0.0351	0.0914	0.2884	1.0100e-003	0.0848	9.7000e-004	0.0858	0.0226	9.1000e-004	0.0235		105.4053	105.4053	3.3200e-003	7.1800e-003	107.6266

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
Total	0.5348	6.1887	3.9239	9.7300e-003	0.5303	0.2266	0.7568	0.0573	0.2084	0.2657		942.4317	942.4317	0.3048		950.0517

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0169	8.1000e-003	0.1363	3.5000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		35.5849	35.5849	9.8000e-004	8.7000e-004	35.8698
Total	0.0169	8.1000e-003	0.1363	3.5000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		35.5849	35.5849	9.8000e-004	8.7000e-004	35.8698

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084	0.0000	942.4317	942.4317	0.3048		950.0517
Total	0.5348	6.1887	3.9239	9.7300e-003	0.5303	0.2266	0.7568	0.0573	0.2084	0.2657	0.0000	942.4317	942.4317	0.3048		950.0517

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0169	8.1000e-003	0.1363	3.5000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		35.5849	35.5849	9.8000e-004	8.7000e-004	35.8698
Total	0.0169	8.1000e-003	0.1363	3.5000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		35.5849	35.5849	9.8000e-004	8.7000e-004	35.8698

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865		1,364.771 3	1,364.771 3	0.4414		1,375.806 2
Total	0.9335	10.1789	5.5516	0.0141	5.3119	0.4201	5.7320	2.5686	0.3865	2.9550		1,364.771 3	1,364.771 3	0.4414		1,375.806 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0270	0.0130	0.2180	5.6000e-004	0.0609	3.1000e-004	0.0612	0.0161	2.9000e-004	0.0164		56.9359	56.9359	1.5600e-003	1.4000e-003	57.3916
Total	0.0270	0.0130	0.2180	5.6000e-004	0.0609	3.1000e-004	0.0612	0.0161	2.9000e-004	0.0164		56.9359	56.9359	1.5600e-003	1.4000e-003	57.3916

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865	0.0000	1,364.771 3	1,364.771 3	0.4414		1,375.806 2
Total	0.9335	10.1789	5.5516	0.0141	5.3119	0.4201	5.7320	2.5686	0.3865	2.9550	0.0000	1,364.771 3	1,364.771 3	0.4414		1,375.806 2

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0270	0.0130	0.2180	5.6000e-004	0.0609	3.1000e-004	0.0612	0.0161	2.9000e-004	0.0164		56.9359	56.9359	1.5600e-003	1.4000e-003	57.3916
Total	0.0270	0.0130	0.2180	5.6000e-004	0.0609	3.1000e-004	0.0612	0.0161	2.9000e-004	0.0164		56.9359	56.9359	1.5600e-003	1.4000e-003	57.3916

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402
Total	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0214	0.7409	0.2306	3.0500e-003	0.0964	4.1400e-003	0.1005	0.0278	3.9600e-003	0.0317		327.0147	327.0147	8.0800e-003	0.0479	341.5016
Worker	0.2393	0.1150	1.9350	4.9400e-003	0.5401	2.7800e-003	0.5429	0.1433	2.5600e-003	0.1458		505.3062	505.3062	0.0139	0.0124	509.3508
Total	0.2607	0.8558	2.1656	7.9900e-003	0.6365	6.9200e-003	0.6434	0.1710	6.5200e-003	0.1775		832.3209	832.3209	0.0220	0.0604	850.8525

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402
Total	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0214	0.7409	0.2306	3.0500e-003	0.0964	4.1400e-003	0.1005	0.0278	3.9600e-003	0.0317		327.0147	327.0147	8.0800e-003	0.0479	341.5016
Worker	0.2393	0.1150	1.9350	4.9400e-003	0.5401	2.7800e-003	0.5429	0.1433	2.5600e-003	0.1458		505.3062	505.3062	0.0139	0.0124	509.3508
Total	0.2607	0.8558	2.1656	7.9900e-003	0.6365	6.9200e-003	0.6434	0.1710	6.5200e-003	0.1775		832.3209	832.3209	0.0220	0.0604	850.8525

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312
Total	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312
Total	0.0607	0.0291	0.4906	1.2500e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		128.1058	128.1058	3.5200e-003	3.1500e-003	129.1312

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.1749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	14.3666	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0472	0.0227	0.3815	9.7000e-004	0.1065	5.5000e-004	0.1071	0.0283	5.1000e-004	0.0288		99.6378	99.6378	2.7300e-003	2.4500e-003	100.4354
Total	0.0472	0.0227	0.3815	9.7000e-004	0.1065	5.5000e-004	0.1071	0.0283	5.1000e-004	0.0288		99.6378	99.6378	2.7300e-003	2.4500e-003	100.4354

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.1749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	14.3666	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0472	0.0227	0.3815	9.7000e-004	0.1065	5.5000e-004	0.1071	0.0283	5.1000e-004	0.0288		99.6378	99.6378	2.7300e-003	2.4500e-003	100.4354
Total	0.0472	0.0227	0.3815	9.7000e-004	0.1065	5.5000e-004	0.1071	0.0283	5.1000e-004	0.0288		99.6378	99.6378	2.7300e-003	2.4500e-003	100.4354

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8631	2.6630	21.8793	0.0442	4.3712	0.0332	4.4044	1.1654	0.0310	1.1964		4,582.289 4	4,582.289 4	0.2881	0.2081	4,651.509 7
Unmitigated	2.8631	2.6630	21.8793	0.0442	4.3712	0.0332	4.4044	1.1654	0.0310	1.1964		4,582.289 4	4,582.289 4	0.2881	0.2081	4,651.509 7

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	413.44	373.16	310.84	1,008,554	1,008,554
General Office Building	490.04	111.19	35.22	766,033	766,033
Total	903.48	484.35	346.06	1,774,587	1,774,587

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351
General Office Building	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0404	0.3561	0.2242	2.2100e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4600e-003	8.0900e-003	443.7757
NaturalGas Unmitigated	0.0404	0.3561	0.2242	2.2100e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4600e-003	8.0900e-003	443.7757

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1960.64	0.0211	0.1807	0.0769	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.6635	230.6635	4.4200e-003	4.2300e-003	232.0342
General Office Building	1789.17	0.0193	0.1754	0.1473	1.0500e-003		0.0133	0.0133		0.0133	0.0133		210.4906	210.4906	4.0300e-003	3.8600e-003	211.7415
Total		0.0404	0.3561	0.2242	2.2000e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4500e-003	8.0900e-003	443.7757

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.96064	0.0211	0.1807	0.0769	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.6635	230.6635	4.4200e-003	4.2300e-003	232.0342
General Office Building	1.78917	0.0193	0.1754	0.1473	1.0500e-003		0.0133	0.0133		0.0133	0.0133		210.4906	210.4906	4.0300e-003	3.8600e-003	211.7415
Total		0.0404	0.3561	0.2242	2.2000e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4500e-003	8.0900e-003	443.7757

6.0 Area Detail

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.2804	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725
Unmitigated	3.2804	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7031					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1889	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348		11.3010	11.3010	0.0109		11.5725
Total	3.2803	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7031					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1889	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348		11.3010	11.3010	0.0109		11.5725
Total	3.2803	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**University of the Pacific Rezone Project
Sacramento Metropolitan AQMD Air District, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	76.00	Dwelling Unit	0.77	76,000.00	203
General Office Building	50.31	1000sqft	0.00	50,311.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage adjusted to represent total lot acreage for both sites. Commerical acreage zeroed out based on assumption that development would include a mixed-use building.

Demolition - Based on assumption that Marshall Way House would be demolished.

Construction Phase - Architectural Coating assumed to start two weeks after building construction and last for the same duration.

Water Mitigation - Compliant with MWELO.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	100.00
tblConstructionPhase	PhaseEndDate	11/20/2023	11/27/2023
tblConstructionPhase	PhaseEndDate	11/6/2023	11/13/2023
tblConstructionPhase	PhaseEndDate	11/13/2023	6/26/2023

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseStartDate	11/14/2023	7/11/2023
tblConstructionPhase	PhaseStartDate	6/20/2023	6/27/2023
tblConstructionPhase	PhaseStartDate	11/7/2023	6/20/2023
tblLandUse	LotAcreage	2.00	0.77
tblLandUse	LotAcreage	1.15	0.00

2.0 Emissions Summary

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2804	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725
Energy	0.0404	0.3561	0.2242	2.2100e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4600e-003	8.0900e-003	443.7757
Mobile	2.2222	3.0812	21.8285	0.0404	4.3712	0.0332	4.4044	1.1654	0.0310	1.1964		4,191.7610	4,191.7610	0.3282	0.2276	4,267.7926
Total	5.5429	3.5096	28.3253	0.0430	4.3712	0.0959	4.4671	1.1654	0.0937	1.2591	0.0000	4,644.2161	4,644.2161	0.3475	0.2357	4,723.1408

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2804	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725
Energy	0.0404	0.3561	0.2242	2.2100e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4600e-003	8.0900e-003	443.7757
Mobile	2.2222	3.0812	21.8285	0.0404	4.3712	0.0332	4.4044	1.1654	0.0310	1.1964		4,191.7610	4,191.7610	0.3282	0.2276	4,267.7926
Total	5.5429	3.5096	28.3253	0.0430	4.3712	0.0959	4.4671	1.1654	0.0937	1.2591	0.0000	4,644.2161	4,644.2161	0.3475	0.2357	4,723.1408

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/14/2023	5	10	
2	Site Preparation	Site Preparation	6/15/2023	6/15/2023	5	1	
3	Grading	Grading	6/16/2023	6/19/2023	5	2	
4	Building Construction	Building Construction	6/27/2023	11/13/2023	5	100	
5	Paving	Paving	6/20/2023	6/26/2023	5	5	
6	Architectural Coating	Architectural Coating	7/11/2023	11/27/2023	5	100	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 153,900; Residential Outdoor: 51,300; Non-Residential Indoor: 75,468; Non-Residential Outdoor: 25,156; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	5.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	71.00	16.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1232	0.0000	0.1232	0.0187	0.0000	0.0187			0.0000			0.0000
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698		1,148.4055	1,148.4055	0.2089		1,153.6290
Total	0.6463	5.7787	7.3926	0.0120	0.1232	0.2821	0.4053	0.0187	0.2698	0.2885		1,148.4055	1,148.4055	0.2089		1,153.6290

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.2900e-003	0.0813	0.0162	3.1000e-004	8.7200e-003	5.8000e-004	9.3000e-003	2.3900e-003	5.6000e-004	2.9400e-003		34.2549	34.2549	1.3600e-003	5.4300e-003	35.9075
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0298	0.0199	0.2374	6.2000e-004	0.0761	3.9000e-004	0.0765	0.0202	3.6000e-004	0.0205		63.3078	63.3078	2.2500e-003	2.0000e-003	63.9614
Total	0.0311	0.1011	0.2535	9.3000e-004	0.0848	9.7000e-004	0.0858	0.0226	9.2000e-004	0.0235		97.5627	97.5627	3.6100e-003	7.4300e-003	99.8689

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1232	0.0000	0.1232	0.0187	0.0000	0.0187			0.0000			0.0000
Off-Road	0.6463	5.7787	7.3926	0.0120		0.2821	0.2821		0.2698	0.2698	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290
Total	0.6463	5.7787	7.3926	0.0120	0.1232	0.2821	0.4053	0.0187	0.2698	0.2885	0.0000	1,148.4055	1,148.4055	0.2089		1,153.6290

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.2900e-003	0.0813	0.0162	3.1000e-004	8.7200e-003	5.8000e-004	9.3000e-003	2.3900e-003	5.6000e-004	2.9400e-003		34.2549	34.2549	1.3600e-003	5.4300e-003	35.9075
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0298	0.0199	0.2374	6.2000e-004	0.0761	3.9000e-004	0.0765	0.0202	3.6000e-004	0.0205		63.3078	63.3078	2.2500e-003	2.0000e-003	63.9614
Total	0.0311	0.1011	0.2535	9.3000e-004	0.0848	9.7000e-004	0.0858	0.0226	9.2000e-004	0.0235		97.5627	97.5627	3.6100e-003	7.4300e-003	99.8689

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
Total	0.5348	6.1887	3.9239	9.7300e-003	0.5303	0.2266	0.7568	0.0573	0.2084	0.2657		942.4317	942.4317	0.3048		950.0517

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0149	9.9300e-003	0.1187	3.1000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		31.6539	31.6539	1.1200e-003	1.0000e-003	31.9807
Total	0.0149	9.9300e-003	0.1187	3.1000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		31.6539	31.6539	1.1200e-003	1.0000e-003	31.9807

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084	0.0000	942.4317	942.4317	0.3048		950.0517
Total	0.5348	6.1887	3.9239	9.7300e-003	0.5303	0.2266	0.7568	0.0573	0.2084	0.2657	0.0000	942.4317	942.4317	0.3048		950.0517

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0149	9.9300e-003	0.1187	3.1000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		31.6539	31.6539	1.1200e-003	1.0000e-003	31.9807
Total	0.0149	9.9300e-003	0.1187	3.1000e-004	0.0380	2.0000e-004	0.0382	0.0101	1.8000e-004	0.0103		31.6539	31.6539	1.1200e-003	1.0000e-003	31.9807

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865		1,364.771 3	1,364.771 3	0.4414		1,375.806 2
Total	0.9335	10.1789	5.5516	0.0141	5.3119	0.4201	5.7320	2.5686	0.3865	2.9550		1,364.771 3	1,364.771 3	0.4414		1,375.806 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0239	0.0159	0.1899	4.9000e-004	0.0609	3.1000e-004	0.0612	0.0161	2.9000e-004	0.0164		50.6463	50.6463	1.8000e-003	1.6000e-003	51.1691
Total	0.0239	0.0159	0.1899	4.9000e-004	0.0609	3.1000e-004	0.0612	0.0161	2.9000e-004	0.0164		50.6463	50.6463	1.8000e-003	1.6000e-003	51.1691

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9335	10.1789	5.5516	0.0141		0.4201	0.4201		0.3865	0.3865	0.0000	1,364.771 3	1,364.771 3	0.4414		1,375.806 2
Total	0.9335	10.1789	5.5516	0.0141	5.3119	0.4201	5.7320	2.5686	0.3865	2.9550	0.0000	1,364.771 3	1,364.771 3	0.4414		1,375.806 2

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0239	0.0159	0.1899	4.9000e-004	0.0609	3.1000e-004	0.0612	0.0161	2.9000e-004	0.0164		50.6463	50.6463	1.8000e-003	1.6000e-003	51.1691
Total	0.0239	0.0159	0.1899	4.9000e-004	0.0609	3.1000e-004	0.0612	0.0161	2.9000e-004	0.0164		50.6463	50.6463	1.8000e-003	1.6000e-003	51.1691

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402
Total	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0207	0.7963	0.2411	3.0500e-003	0.0964	4.1800e-003	0.1006	0.0278	4.0000e-003	0.0318		327.2491	327.2491	8.0400e-003	0.0481	341.7693
Worker	0.2119	0.1410	1.6852	4.3900e-003	0.5401	2.7800e-003	0.5429	0.1433	2.5600e-003	0.1458		449.4855	449.4855	0.0160	0.0142	454.1260
Total	0.2326	0.9373	1.9264	7.4400e-003	0.6365	6.9600e-003	0.6435	0.1710	6.5600e-003	0.1776		776.7346	776.7346	0.0240	0.0623	795.8953

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402
Total	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0207	0.7963	0.2411	3.0500e-003	0.0964	4.1800e-003	0.1006	0.0278	4.0000e-003	0.0318		327.2491	327.2491	8.0400e-003	0.0481	341.7693
Worker	0.2119	0.1410	1.6852	4.3900e-003	0.5401	2.7800e-003	0.5429	0.1433	2.5600e-003	0.1458		449.4855	449.4855	0.0160	0.0142	454.1260
Total	0.2326	0.9373	1.9264	7.4400e-003	0.6365	6.9600e-003	0.6435	0.1710	6.5600e-003	0.1776		776.7346	776.7346	0.0240	0.0623	795.8953

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305
Total	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305
Total	0.0537	0.0358	0.4272	1.1100e-003	0.1369	7.1000e-004	0.1376	0.0363	6.5000e-004	0.0370		113.9541	113.9541	4.0500e-003	3.6100e-003	115.1305

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.1749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	14.3666	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0418	0.0278	0.3323	8.7000e-004	0.1065	5.5000e-004	0.1071	0.0283	5.1000e-004	0.0288		88.6309	88.6309	3.1500e-003	2.8100e-003	89.5460
Total	0.0418	0.0278	0.3323	8.7000e-004	0.1065	5.5000e-004	0.1071	0.0283	5.1000e-004	0.0288		88.6309	88.6309	3.1500e-003	2.8100e-003	89.5460

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.1749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	14.3666	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0418	0.0278	0.3323	8.7000e-004	0.1065	5.5000e-004	0.1071	0.0283	5.1000e-004	0.0288		88.6309	88.6309	3.1500e-003	2.8100e-003	89.5460
Total	0.0418	0.0278	0.3323	8.7000e-004	0.1065	5.5000e-004	0.1071	0.0283	5.1000e-004	0.0288		88.6309	88.6309	3.1500e-003	2.8100e-003	89.5460

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2222	3.0812	21.8285	0.0404	4.3712	0.0332	4.4044	1.1654	0.0310	1.1964		4,191.7610	4,191.7610	0.3282	0.2276	4,267.7926
Unmitigated	2.2222	3.0812	21.8285	0.0404	4.3712	0.0332	4.4044	1.1654	0.0310	1.1964		4,191.7610	4,191.7610	0.3282	0.2276	4,267.7926

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	413.44	373.16	310.84	1,008,554	1,008,554
General Office Building	490.04	111.19	35.22	766,033	766,033
Total	903.48	484.35	346.06	1,774,587	1,774,587

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
General Office Building	10.00	5.00	6.50	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351
General Office Building	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0404	0.3561	0.2242	2.2100e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4600e-003	8.0900e-003	443.7757
NaturalGas Unmitigated	0.0404	0.3561	0.2242	2.2100e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4600e-003	8.0900e-003	443.7757

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1960.64	0.0211	0.1807	0.0769	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.6635	230.6635	4.4200e-003	4.2300e-003	232.0342
General Office Building	1789.17	0.0193	0.1754	0.1473	1.0500e-003		0.0133	0.0133		0.0133	0.0133		210.4906	210.4906	4.0300e-003	3.8600e-003	211.7415
Total		0.0404	0.3561	0.2242	2.2000e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4500e-003	8.0900e-003	443.7757

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.96064	0.0211	0.1807	0.0769	1.1500e-003		0.0146	0.0146		0.0146	0.0146		230.6635	230.6635	4.4200e-003	4.2300e-003	232.0342
General Office Building	1.78917	0.0193	0.1754	0.1473	1.0500e-003		0.0133	0.0133		0.0133	0.0133		210.4906	210.4906	4.0300e-003	3.8600e-003	211.7415
Total		0.0404	0.3561	0.2242	2.2000e-003		0.0279	0.0279		0.0279	0.0279		441.1541	441.1541	8.4500e-003	8.0900e-003	443.7757

6.0 Area Detail

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.2804	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725
Unmitigated	3.2804	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7031					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1889	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348		11.3010	11.3010	0.0109		11.5725
Total	3.2803	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7031					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1889	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348		11.3010	11.3010	0.0109		11.5725
Total	3.2803	0.0723	6.2726	3.3000e-004		0.0348	0.0348		0.0348	0.0348	0.0000	11.3010	11.3010	0.0109	0.0000	11.5725

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

University of the Pacific Rezone Project - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

University of the Pacific Rezone Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Sacramento Metropolitan AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

University of the Pacific Rezone Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	4	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	2	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	7	No Change	0.00

University of the Pacific Rezone Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	9.58000E-003	6.51500E-002	9.05600E-002	1.50000E-004	3.54000E-003	3.54000E-003	0.00000E+000	1.27663E+001	1.27663E+001	7.60000E-004	0.00000E+000	1.27854E+001
Cement and Mortar Mixers	4.40000E-004	2.76000E-003	2.31000E-003	1.00000E-005	1.10000E-004	1.10000E-004	0.00000E+000	3.43710E-001	3.43710E-001	4.00000E-005	0.00000E+000	3.44600E-001
Concrete/Industrial Saws	1.67000E-003	1.29200E-002	1.82900E-002	3.00000E-005	6.40000E-004	6.40000E-004	0.00000E+000	2.68829E+000	2.68829E+000	1.30000E-004	0.00000E+000	2.69160E+000
Cranes	8.79000E-003	9.53900E-002	4.58600E-002	1.40000E-004	3.98000E-003	3.66000E-003	0.00000E+000	1.26738E+001	1.26738E+001	4.10000E-003	0.00000E+000	1.27763E+001
Forklifts	7.69000E-003	7.19800E-002	8.58600E-002	1.10000E-004	4.45000E-003	4.09000E-003	0.00000E+000	1.00719E+001	1.00719E+001	3.26000E-003	0.00000E+000	1.01533E+001
Graders	4.80000E-004	5.82000E-003	2.12000E-003	1.00000E-005	1.90000E-004	1.70000E-004	0.00000E+000	7.26720E-001	7.26720E-001	2.40000E-004	0.00000E+000	7.32590E-001
Pavers	4.20000E-004	4.12000E-003	6.31000E-003	1.00000E-005	1.90000E-004	1.80000E-004	0.00000E+000	9.03360E-001	9.03360E-001	2.90000E-004	0.00000E+000	9.10670E-001
Rollers	3.40000E-004	3.52000E-003	4.05000E-003	1.00000E-005	1.90000E-004	1.80000E-004	0.00000E+000	5.04270E-001	5.04270E-001	1.60000E-004	0.00000E+000	5.08350E-001
Rubber Tired Dozers	9.40000E-004	9.80000E-003	4.27000E-003	1.00000E-005	4.40000E-004	4.10000E-004	0.00000E+000	1.03158E+000	1.03158E+000	3.30000E-004	0.00000E+000	1.03992E+000
Tractors/Loaders/Backhoes	1.68100E-002	1.70560E-001	2.47820E-001	3.50000E-004	8.42000E-003	7.75000E-003	0.00000E+000	3.03851E+001	3.03851E+001	9.83000E-003	0.00000E+000	3.06308E+001

University of the Pacific Rezone Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	9.58000E-003	6.51500E-002	9.05600E-002	1.50000E-004	3.54000E-003	3.54000E-003	0.00000E+000	1.27663E+001	1.27663E+001	7.60000E-004	0.00000E+000	1.27854E+001
Cement and Mortar Mixers	4.40000E-004	2.76000E-003	2.31000E-003	1.00000E-005	1.10000E-004	1.10000E-004	0.00000E+000	3.43710E-001	3.43710E-001	4.00000E-005	0.00000E+000	3.44600E-001
Concrete/Industrial Saws	1.67000E-003	1.29200E-002	1.82900E-002	3.00000E-005	6.40000E-004	6.40000E-004	0.00000E+000	2.68828E+000	2.68828E+000	1.30000E-004	0.00000E+000	2.69159E+000
Cranes	8.79000E-003	9.53900E-002	4.58600E-002	1.40000E-004	3.98000E-003	3.66000E-003	0.00000E+000	1.26738E+001	1.26738E+001	4.10000E-003	0.00000E+000	1.27763E+001
Forklifts	7.69000E-003	7.19800E-002	8.58600E-002	1.10000E-004	4.45000E-003	4.09000E-003	0.00000E+000	1.00718E+001	1.00718E+001	3.26000E-003	0.00000E+000	1.01533E+001
Graders	4.80000E-004	5.82000E-003	2.12000E-003	1.00000E-005	1.90000E-004	1.70000E-004	0.00000E+000	7.26720E-001	7.26720E-001	2.40000E-004	0.00000E+000	7.32590E-001
Pavers	4.20000E-004	4.12000E-003	6.31000E-003	1.00000E-005	1.90000E-004	1.80000E-004	0.00000E+000	9.03360E-001	9.03360E-001	2.90000E-004	0.00000E+000	9.10670E-001
Rollers	3.40000E-004	3.52000E-003	4.05000E-003	1.00000E-005	1.90000E-004	1.80000E-004	0.00000E+000	5.04270E-001	5.04270E-001	1.60000E-004	0.00000E+000	5.08340E-001
Rubber Tired Dozers	9.40000E-004	9.80000E-003	4.27000E-003	1.00000E-005	4.40000E-004	4.10000E-004	0.00000E+000	1.03158E+000	1.03158E+000	3.30000E-004	0.00000E+000	1.03992E+000
Tractors/Loaders/Balckhoes	1.68100E-002	1.70560E-001	2.47820E-001	3.50000E-004	8.42000E-003	7.75000E-003	0.00000E+000	3.03851E+001	3.03851E+001	9.83000E-003	0.00000E+000	3.06307E+001

University of the Pacific Rezone Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.56663E-006	1.56663E-006	0.00000E+000	0.00000E+000	7.82145E-007
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.71984E-006	3.71984E-006	0.00000E+000	0.00000E+000	3.71526E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.57806E-006	1.57806E-006	0.00000E+000	0.00000E+000	7.82700E-007
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.92866E-007	9.92866E-007	0.00000E+000	0.00000E+000	9.84903E-007
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.96715E-005
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Balckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.31643E-006	1.31643E-006	0.00000E+000	0.00000E+000	1.30588E-006

Fugitive Dust Mitigation

Yes/No Mitigation Measure Mitigation Input Mitigation Input Mitigation Input

No	Soil Stabilizer for unpaved Roads	PM10 Reduction	PM2.5 Reduction	
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	PM2.5 Reduction	
No	Water Exposed Area	PM10 Reduction	PM2.5 Reduction	Frequency (per day)

University of the Pacific Rezone Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Unpaved Road Mitigation	Moisture Content: %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.03	0.01	0.03	0.01	0.00	0.00
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.01	0.00	0.01	0.00	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

University of the Pacific Rezone Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.06	4.65	0.43	0.09	3.97
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.20	0.48		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

University of the Pacific Rezone Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Neighborhood Enhancements	Improve Pedestrian Network			
No	Neighborhood Enhancements	Provide Traffic Calming Measures			
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00		
No	Parking Policy Pricing	Limit Parking Supply	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00		
No	Transit Improvements	Expand Transit Network	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00

University of the Pacific Rezone Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Commuter	Provide Ride Sharing Program		
	Commuter	Commuter Subtotal	0.00	
No	School Trip	Implement School Bus Program	0.00	
		Total VMT Reduction	0.00	

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		

University of the Pacific Rezone Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	0.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

University of the Pacific Rezone Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	