



Sutter Medical Center, Sacramento

**Revised
Sutter Medical Center
Sacramento, Trinity Cathedral Project
Draft Environmental Impact Report
SCH # 2003102002**

Air Quality, Transportation and Circulation

Prepared for
City of Sacramento



Prepared by
EIP Associates, a Division of PBS&J

September 2006



Revised Environmental Impact Report (EIR)
for the Sutter Medical Center,
Sacramento (SMCS) Project
and the Trinity Cathedral Project

(SCH # 2003102002)

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Chapter 1 Introduction

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PROJECT BACKGROUND

This Revised Draft Environmental Impact Report (“Revised Draft EIR”) presents additional information regarding traffic trip generation, parking, and construction-related air quality (emissions of oxides of nitrogen or “NO_x”) impacts of the Sutter Medical Center, Sacramento project (“SMCS project” or “Project”).

On July 19, 2005, the City of Sacramento (“City”) released a Draft Environmental Impact Report (“EIR”) for the Project, which commenced a 45-day public review period. On October 21, 2005, the City released a Final EIR, which included responses to comments on the Draft EIR. On November 10, 2005, the Planning Commission approved the Project following a public hearing. Two appeals of the Planning Commission’s actions were filed, one from SMCS and the other from the Service Employees International Union (“SEIU”). At a hearing on December 6, 2005, the City Council denied the appeals, certified the EIR, and approved the Project. On December 8, 2005, the City filed a Notice of Determination with the State Clearinghouse for the SMCS project.

Thereafter, the SEIU filed a petition for writ of mandate challenging the adequacy of the EIR under the California Environmental Quality Act (“CEQA”), Public Resources Code (“PRC”) § 21000 et seq.¹ The lawsuit challenged the following City actions taken on December 6, 2005: ordinances and resolutions certifying the EIR, approving entitlements and adopting findings for the Sutter Medical Center Project.² Specifically, the lawsuit challenged Resolution Nos. 2005-882, 2005-883, 2005-883, 2005-886, 2005-887 and 2005-888 and Ordinance No. 2005-094.

On August 4, 2006, the Sacramento County Superior Court issued its ruling on the lawsuit filed by SEIU. On September 1, 2006, the Court issued a ruling and filed the Court’s judgment (copies of the Court’s judgment is included in Appendix A).

The Superior Court’s ruling and judgment generally uphold the adequacy of the EIR. The Court granted the petition for writ of mandate, however, on the grounds that the administrative record filed with the Court did not contain sufficient evidence supporting the EIR’s analysis and conclusions regarding traffic-trip generation, parking, and construction-related NO_x emissions. Specifically, the Court ruled as follows:

1 *Services Employees International Union (“SEIU”), et al. v. City of Sacramento et. al.* (2006) (Case No. 06 CS 00026) (“SEIU v. City of Sacramento”).

2 On December 6, 2005, the City Council also approved entitlements for the “Sutter Housing” and “Trinity Cathedral” projects. The EIR had analyzed the impacts of the SMCS project, the Sutter Housing project and the Trinity Cathedral project. Although the lawsuit filed by SEIU contested the adequacy of the EIR covering all three of these projects, the lawsuit did not challenge the entitlements approved for the Sutter Housing or Trinity Cathedral projects. For this reason, the Sutter Housing and Trinity Cathedral entitlements and projects are not at issue in the litigation filed by SEIU.

[T]he Court finds that the record does not contain sufficient underlying documentation of the analysis set forth in the [EIR] with respect to trip generation, parking and construction-related NO_x emissions that may be associated with the proposed Sutter Medical Center Project (“Project”). Underlying documentation regarding trip generation, parking and construction-related NO_x emissions were not present in the materials made available to the public during the review and comment stage or in the administrative record originally lodged with the Court. The petition for writ of mandate is granted on the grounds that [the City] committed a prejudicial abuse of discretion in approving the [P]roject and certifying the EIR. (Judgment, pp. 2-3, 4.)

Based on this determination, the judgment and writ direct the City to void its certification of the EIR and approval of the resolutions and ordinance listed above.³ Copies of the Superior Court’s ruling and judgment are included in Appendix A. The purpose of this Revised Draft EIR is to set forth the underlying documentation of the analysis set forth in the EIR with respect to trip generation, parking and construction-related NO_x emissions. This Revised Draft EIR is therefore intended to address the problems identified in the Court’s ruling and judgment.

As of the date of publication of this Revised Draft EIR, the City has not yet taken formal action to void the resolutions and ordinance, as directed by the Superior Court’s judgment. Nevertheless, in anticipation of this action, this Revised Draft EIR is being released for public review and comment.⁴

Scope of the Revised Draft EIR

This Revised Draft EIR presents additional supplemental information regarding traffic trip generation, parking, and construction-related air quality (NO_x) impacts of the SMCS project as analyzed in the previously certified SMCS Final EIR (October 2005) (SCH No. 2003102002). This information is presented to the public, responsible, and trustee agencies for review and comment. This information is intended to respond to the ruling and judgment issued by the Superior Court on, respectively, August 4, and September 1, 2006, in *SEIU v. City of Sacramento*.

In the August 4, 2006, ruling, the Court concluded:

On the basis of its review of the administrative record lodged in connection with the original briefing in this matter, as well as the Supplemental Administrative Record materials lodged by respondent in connection with the supplemental briefing, the Court finds that substantial evidence in support of the EIR’s analysis in the areas of traffic generation impacts, parking-related impacts and

3 As noted above, voiding these resolutions and this ordinance does not affect the entitlements approved in December 2005 for the Sutter Housing and Trinity Cathedral projects. In addition, the Court’s judgment and writ authorize certain, specific construction activities at the SMCS project to continue. The specific construction activities authorized to continue, notwithstanding the directive to void these resolutions and this ordinance, are identified in the Court’s judgment and writ.

4 The City Council may instead decide to file a notice of appeal. If so, then the decision whether it is necessary to provide the underlying documentation identified by the Superior Court will instead be made by the Court of Appeal. If the City Council decides on that course of action, the City will issue a public notice announcing that fact, so that agencies, organizations and persons will know that the City will no longer be moving forward with the review process for this Revised Draft EIR, pending the outcome of the appellate process.

NO_x emissions was not present in the materials made available to the public during the review and comment stage, or in the administrative record originally lodged with the Court, either in the form of studies or reports, or the data underlying such studies or reports. CEQA requires that such evidence be made available for public review.

...

In this case, respondent's failure to include underlying studies or data in the record available for public review that support the conclusions of the EIR on the issues of trip generation, parking and NO_x emissions, subverted the purposes of CEQA by omitting information necessary to informed decision making and informed public participation. The impacts in these areas were deemed significant; and these were areas of great public concern. The public should have had access to supporting information, either in the form of the studies referenced in the EIR or the underlying data, in order to be able to determine whether the EIR's assessment of these impacts was correct (and was correctly described), and, potentially, to be able to suggest further mitigation measures or alternatives if appropriate. The petition for writ of mandate is therefore granted solely on the ground that respondent violated CEQA in its treatment of trip generation, parking and NO_x emissions impacts. The community affected by this Project has the right, conferred by the terms of CEQA, to evaluate and make informed comment upon issues that impact the quality of their daily lives. The Court will not gloss over the impingement of such an important right. In making this ruling, the Court makes no findings regarding the merits of the project or the ultimate validity of the environmental analysis in the challenged areas, but issues the writ solely to address the failure to comply with the essential procedural requirements of CEQA in these challenged areas. In all other respects, the petition for writ of mandate is denied as set forth in the Court's original tentative ruling. (Superior Court, Petition for Writ of Mandate – Ruling on Submitted Matter (August 4, 2006), at pp. 3, 13.)

A Revised Draft EIR is the appropriate document to comply with the judgment. (See Pub. Resources Code, §21168.9.) The information contained in this Revised Draft EIR supplements the additional analysis and technical information contained in the October 2005 Final EIR. Consistent with the Court's ruling, this Revised Draft EIR includes only the portions of the EIR that were found by the Court to be deficient. Portions of the following chapters of the existing Final EIR are revised in this document: Section 6.2 (Air Quality) and Section 6.7 (Transportation and Circulation). The remainder of the EIR either was not challenged in litigation, and is therefore presumed adequate, or was determined by the Court to be adequate.

First, in response to the Superior Court's direction that the URBEMIS model outputs for construction NO_x should have been, but were not, available, the SMCS project's construction-related air quality impacts were re-modeled with more precise information pertaining to construction equipment. The text of Impact 6.2-3 (from the Draft EIR) has been revised to reflect this new modeling information. The URBEMIS model results are attached at the end of the air quality section, together with an explanation of how the City's air quality consultant performed this modeling.

Second, to address trip generation, the Superior Court directed that more information be provided identifying and explaining what data and methods were used to generate the trip generation rates and traffic projections for the SMCS project. The "Methods of Analysis" section

in the Transportation and Circulation portion of the EIR has been revised to include a more thorough explanation of the data and methods used to determine the trip generation associated with the Project. All the evidence used to generate this information is included in this Revised Draft EIR at the end of the Transportation and Circulation section.

Third, the Superior Court ruled that adequate information was not available in the record that documented parking occupancy surveys used to calculate peak parking demand for the hospital component of the SMCS project. Therefore, the parking count data sheets have been included in the Revised Draft EIR along with a more thorough explanation of the process that was followed to obtain that information. The data sheets also are included in this Revised Draft EIR at the end of the Transportation and Circulation section.

Environmental Review Process

This Revised Draft EIR has been prepared to meet all of the substantive and procedural requirements of CEQA and the CEQA Guidelines.⁵ As provided for in Section 15088.5(c) of the CEQA Guidelines, “[I]f the revision is limited to a few chapters or portions of the EIR, the Lead Agency need only recirculate the chapters or portions that have been modified.” This Revised Draft EIR therefore includes only those portions of the October 2005 Final EIR that must be revised in order to provide the information required by the Superior Court’s judgment. This Revised Draft EIR should be reviewed in conjunction with the October 2005 Final EIR.

In compliance with CEQA, this Revised Draft EIR is being circulated for 45 days for review and comment by local, responsible and trustee agencies, interested organizations and individuals. The Revised Draft EIR contains only the information necessary to comply with the Superior Court’s judgment. As further provided for in Section 15088.5(f)(2) of the CEQA Guidelines, comments should, therefore, be limited only to the additional information provided herein. Comments on those parts of the July 2005 Draft EIR unaffected by the Superior Court’s judgment will not be considered.

Copies of the July 2005 Draft EIR and October 2005 Final EIR are available for review at City of Sacramento Development Services, 2101 Arena Boulevard, Ste. 200, Sacramento, CA, 95834, during normal business hours.

As the Lead Agency, the City of Sacramento is responsible for conducting the environmental review, and approving or denying the project. Comments on the Revised Draft EIR should be provided in written form during the 45-day public comment period. Comments should be addressed to:

City of Sacramento, Development Services Department
Attn: Lezley Buford, AICP
2101 Arena Boulevard, Ste. 200
Sacramento, CA 95834

The deadline for submitting written comments is set forth in the “Notice of Availability” issued with this Revised Draft EIR.

5 The CEQA Guidelines are found at California Code of Regulations (“CCR”), title 14, section 15000 *et seq.*

Upon completion of the 45-day public review period, written responses to all comments raised with respect to environmental issues discussed in the Revised Draft EIR will be prepared and incorporated into the Final Revised EIR (FREIR). The City need not respond to comments submitted after the deadline set forth in the Notice of Availability. Written responses to comments received from any state or local agencies will be made available to these agencies at least 10 days prior to the public hearing at which the City considers whether to certify the FREIR and approval of the SMCS Project will be considered. These comments and responses will be included in the FREIR for consideration by the City. The City will not consider whether to re-approve the Project unless and until the City has first certified the FREIR.

REQUIRED DISCRETIONARY ACTIONS

The City of Sacramento would be required to certify that the Revised Draft EIR adequately identifies the significant environmental effects of the SMCS project, pursuant to CEQA, the State CEQA Guidelines, and the City of Sacramento CEQA Guidelines. If the City certifies the FREIR, then the Council would consider whether to take the following actions. These actions comprise the discretionary entitlements issued by the City that are necessary for the Project to proceed:

- Amendments to land-use map of General Plan at Project site;
- Amendments to Community Plan;
- Amendments to zoning districts at Project site; and
- Approval of helistop plans.

6.2R Air Quality

6.2R Air Quality

INTRODUCTION

As discussed in Chapter 1 (Introduction), the only air quality issue that was identified by the Court and, accordingly, is addressed in this Revised Draft EIR, concerns the Project's emissions of oxides of nitrogen (NO_x) associated with construction activities (see Appendix A for a copy of the Court's Ruling and Judgment). The remainder of the air quality analysis included in Section 6.2 (Air Quality) of the October 2005 Final EIR, therefore, is adequate, and is not repeated or revised in this revised Air Quality section.

As part of preparing these revisions to Section 6.2, construction-related emissions were re-modeled using the California Air Resources Board ("CARB") URBEMIS 2002 model Version 7.5. URBEMIS (an acronym for "Urban Emissions Model") was originally developed by the CARB more than 20 years ago as a tool for estimating air pollutant emissions from land use development projects. URBEMIS is updated from time to time as the model is refined and improved. URBEMIS estimates the emissions of the five major criteria air pollutants: oxides of nitrogen (NO_x), reactive organic gases (ROG), inhalable particulate matter (PM₁₀), carbon monoxide (CO), and sulfur dioxide (SO₂). Early versions of URBEMIS could only estimate pollutant emissions from the motor vehicles associated with project operation. Newer versions added capabilities for estimating emissions from construction sources and "area" sources (e.g., natural gas combustion, fireplace/woodstove use, etc.) associated with project operation. Since the Draft EIR was published, URBEMIS has undergone a revision, the most recent version of the model being URBEMIS 2002 Version 8.7. This version of URBEMIS was not used in the re-modeling effort because the model's construction emissions module was not changed in the upgrade from URBEMIS 2002 Version 7.5.

To prepare the revised Air Quality section, the SMCS project general contractor, Turner Construction, was contacted. Turner Construction provided the information necessary to determine the precise number, type, and mix of construction equipment that will be used to construct the SMCS project, in order to provide the most accurate inputs to the model and to get a more precise output of construction-related emissions. This information was not available when the July 2005 Draft EIR was being prepared. A copy of the mix of construction equipment and the model outputs from the URBEMIS model run is included at the end of this section. As described below, this list of equipment was then correlated to the URBEMIS model's list of standard equipment inputs. Additions of text to the Draft EIR published in July 2005 are shown in underline, and deleted text is shown in ~~strikeout~~.

The entire Section 6.2 (Air Quality) of the October 2005 Final EIR, including all supporting materials, is available for review at the City of Sacramento, Development Services Department, 2101 Arena Boulevard, Ste. 200, Sacramento, during normal business hours.

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

The analysis in this section focuses on the nature and magnitude of the change in the air quality environment due to construction of the SMCS project. Air pollutant emissions would result from construction activities, project operations, and increased traffic volumes. The net increase in emissions generated by these activities and other secondary sources have been estimated and compared to thresholds of significance recommended by the SMAQMD. The SMAQMD is the primary local agency responsible for air quality in the Sacramento Valley, and has published air quality thresholds of significance for use by lead agencies when making determinations of significance for a project. The SMAQMD thresholds establish standards for three types of impacts – short-term impacts from construction, long-term impacts from project operation, and cumulative impacts.

Construction

Construction emissions were calculated by estimating the equipment that would be used during the most intensive periods of clearing and grading of the project area, excavation of the site, and demolition and construction of the proposed structures and their associated support facilities. The “worst-case” daily construction emissions associated with these activities were estimated using emission factors from the URBEMIS 2002 emissions model Version 7.5 developed for CARB.

The “worst case” scenario for NO_x emissions from project construction activities would occur in spring 2007 when there would be an overlap in construction activity on four of the Project buildings (i.e., Women’s and Children’s Center [WCC], Sutter Medical Foundation Building [SMF], Future Medical Office Building [Future MOB], and residential components). Construction of the Community Parking Structure would be completed by this time; therefore, this component of the Project is not included in the table below.¹ This overlap would include only building construction phases for the four buildings identified above. Demolition of the residential project site occurred in summer 2006 and demolition of the WCC project site (which involves removal of a surface parking lot and the Old Tavern parking structure and central plant) is anticipated to occur in early 2007 and be completed by 2008.² Architectural coating and asphalt paving phases for all four buildings would occur at the very end of each of their construction periods, which would be in the fall of 2007 at the soonest (for the Future MOB) and not until the end of 2009 at the latest (for the WCC). Thus, these activities are not part of the “peak” NO_x emissions anticipated to occur in spring 2007. A copy of the construction schedule is also included at the end of this section.

The type and number of construction equipment that would be used for each building during each of the construction phases was provided by Turner Construction, the project general contractor, and is included at the end of this section. These primary project-specific data

1 This schedule is based on the construction schedule included in the Final EIR and on information provided by Sutter and its contractors. If there is a delay in construction of the Community Parking Structure, while the timing of the construction will change, the sequencing of building construction will not change. Therefore, the estimated emissions will occur in the same order and magnitude, just later in time.

2 All the buildings have been demolished as of the publication of this document with the exception of the Old Tavern parking structure and the SMCS central plant. The Old Tavern parking structure is scheduled to be demolished in late winter 2006/2007 while the central plant is not scheduled for demolition until 2008. Demolition of these structures is not scheduled to occur until after the spring 2007 “peak” of NO_x emissions.

(i.e., the equipment specifications and the anticipated scheduling for each construction phase for each project building) were used to calculate the maximum NO_x construction emissions using the URBEMIS 2002 model Version 7.5. Additional information describing how this modeling was performed appears in the attached technical memorandum.

The URBEMIS 2002 Version 7.5 output sheets (attached at the end of this section) contain the results of the modeling of the maximum construction NO_x emissions. They begin with a summary of the model results by source type (i.e., construction, area, and operational-motor vehicle), pollutant type (i.e., NO_x, ROG, PM₁₀, CO, and SO₂), and season and year. A more detailed breakdown by construction phase (i.e., demolition, site grading, construction), sub-phase (i.e., building construction, application of architectural coatings, asphalt laying), and source type (i.e., “fugitive” sources, such as dust stirred up by equipment movement, ROG from paint evaporation, and equipment engine exhaust sources) follows.

The following is an example of how to read the URBEMIS model outputs included at the end of this section. As shown in the URBEMIS output for the WCC on page 4, in the “NO_x” column, the line items for “2007,” “Phase 3 – Building Construction,” source categories “Bldg Const Off-Road Diesel” and “Bldg Const Worker Trips,” the model output numbers for NO_x emissions are “42.58” and “3.31.” These two numbers, which are given in units of “pounds per day,” when added together equal “45.89,” which is the total amount of NO_x emissions in pounds per day generated during the WCC building phase.

Standards of Significance

The standards of significance have not changed, and are presented on page 6.2-14 of the Draft EIR. The standard of significance for construction NO_x is set forth below.

For the purposes of this EIR, impacts to air quality are considered significant if the SMCS project would:

- Create emissions of an ozone precursor or PM₁₀ exceeding the SMAQMD recommended thresholds of significance. The SMAQMD considers the following generation of emissions to represent a significant adverse impact:

Pollutant	Construction
NO _x	85 lbs/day

Source: SMAQMD, 2002.

Impact 6.2-3R: Increase in NO_x emissions generated by construction equipment.		
	SMCS Project	Theatre
Significance Before Mitigation	Short-term Significant	Less than Significant
Mitigation Measures	Mitigation Measure 6.2-3	None required
Significance After Mitigation	Short-term Significant and Unavoidable	N/A

SMCS Project

Various pieces of construction equipment would be used during the demolition, grading and construction of the various SMCS project components. Much of this equipment is diesel-fueled, and emits NO_x as part of the fuel-combustion process. The number and type of equipment used for construction on any one day would determine whether SMAQMD thresholds for NO_x would be exceeded. An inventory of the reasonably anticipated number and type of construction equipment is included in the supplementary material in the technical memorandum attached at the end of this section. A majority of the building demolition activities have been completed with the exception of the Old Tavern parking structure and the central plant. As discussed in Impact 6.2-1 and 6.2-2 [see the prior July 2005 Draft EIR], it is not anticipated that the project sites for the various SMCS project components would not be graded simultaneously. However, actual construction of the buildings would overlap. Consequently, for purposes of calculating reasonable worst case daily emissions of NO_x, the site(s) with the most pieces of equipment being used at any one time would have the highest daily NO_x amounts, were used to conduct the NO_x modeling. According to the construction schedule, there would be periods where a number of different project components would have overlapping construction activities in 2007. These would be the WCC (398,400 square feet), the SMF Building (203,382), the Future MOB (35,000 square feet), and the residential component (32 units; each unit would be approximately 1,250 sf in size).

Construction of the WCC is scheduled to begin in early spring 2007 and be completed by late 2010. Construction of the SMF Building is scheduled to begin in the fall of 2006 and be completed by the spring of 2008. The Future MOB would begin construction was initially anticipated to begin construction in early summer 2006 and be completed by late summer 2007; however, this schedule has been delayed. Construction of the Future MOB is not anticipated to begin until early 2007, and may start later. The residential units would be constructed throughout 2007. It is not certain that the construction of these buildings will overlap. Nevertheless, such overlap is possible. These project components would have construction periods that overlap by four to six months, from the spring of 2007 to the middle or end of summer 2007. This period (spring to middle/end summer 2007) is the time during which the most construction equipment would be operating simultaneously, and, consequently, would be the period when the greatest daily amounts of NO_x would be generated by construction activities. For this reason, the URBEMIS model was used to estimate NO_x emissions during this peak period of construction activity. The URBEMIS model results therefore represent the "worst case." NO_x emissions during other construction periods would be less than peak emissions, because fewer NO_x-emitting construction activities would be underway.

The URBEMIS 2002 Version 7.5 was used to calculate NO_x emissions from the construction phases, including building demolition and grading, of these buildings during this overlapping

Table 1

SMAQMD Table 3.1: Construction Activity Equipment Types and Number Requirements

Construction Activity	Type of Equipment	Number of Equipment
<u>Demolition</u> ¹	<u>Loader</u>	<u>1</u>
	<u>Haul Truck</u>	<u>1</u>
<u>Land Clearing/Grubbing</u> ¹	<u>Loader</u>	<u>1</u>
	<u>Haul Truck</u>	<u>1</u>
<u>Backhoe Excavation</u> ¹	<u>Backhoe/Loader</u>	<u>1</u>
	<u>Haul Truck</u>	<u>1</u>
<u>Bulldozer Excavation</u> ¹	<u>Bulldozer</u>	<u>1</u>
	<u>Loader</u>	<u>1</u>
	<u>Haul Truck</u>	<u>1</u>
<u>Small Cut and Fill</u> ²	<u>Bulldozer</u>	<u>1</u>
	<u>Water Truck</u>	<u>1</u>
<u>Large Cut and Fill</u> ²	<u>Scraper</u>	<u>1</u>
	<u>Bulldozer</u>	<u>2</u>
	<u>Water Truck</u>	<u>1</u>
<u>Trenching</u> ¹	<u>Loader</u>	<u>1</u>
<u>Grading</u> ¹	<u>Bulldozer</u>	<u>1</u>
	<u>Motor Grader</u>	<u>1</u>
	<u>Water Truck</u>	<u>1</u>
<u>Concrete Slab Pouring</u> ³	<u>Cement Truck</u>	<u>1</u>
<u>Portable Equipment Operation</u> ⁴	<u>Generator</u>	<u>1</u>
	<u>Air Compressor</u>	<u>1</u>
<u>Paving</u> ¹	<u>Paving Machine</u>	<u>1</u>
	<u>Roller</u>	<u>1</u>
<u>Architectural Coating</u> ¹	<u>Air Compressor</u>	<u>1</u>

Sources:

1. Richardson Engineering Services' Process Plan Construction Estimating Standards, 1996;
2. National Construction Estimator, 1998;
3. Dodge Unit Cost Book, 1998;
4. SMAQMD.

period.³ If no project-specific construction equipment list is available, the SMAQMD recommends that construction impacts be analyzed using Table 3.1 of the SMAQMD Guide, shown below in Table 1. This table specifies types and numbers of construction equipment that would typically be used for projects of different sizes when no project-specific information is available.

Project specific Equipment provided by Turner Construction was used with the URBEMIS 2002 Version 7.5. In some instances, the exact type of equipment listed by Turner Construction did not appear in the URBEMIS model's internal equipment list. In those instances, the equipment listed by Turner was matched up with the most similar equipment (in type and horsepower) provided by URBEMIS specified in Table 3.1 was used in the URBEMIS 2002 model. The new modeling showed that construction associated with the WCC would generate approximately 35.97 45.89 pounds per day of NO_x in spring 2007, construction associated with the SMF

3 Version 7.5 of the URBEMIS 2002 model was used because version 8.7 released in 2005 only updated the operational motor vehicle emission factors and did not change the construction emissions module. Therefore, version 7.5 was used to be consistent with what was originally modeled for the project.

Table 2

**Worst Case SMCS – NO_x Emissions During Building Construction
(Early Spring 2007)**

<u>Building</u>	<u>Equipment Number</u>	<u>Equipment Type</u>	<u>NO_x (lbs/day)</u>
<u>SMF</u>	<u>1</u>	<u>Concrete Pump</u>	<u>143.93</u>
	<u>1</u>	<u>Tract Crane</u>	
	<u>2</u>	<u>Small Crane</u>	
	<u>10</u>	<u>Welding Machines</u>	
	<u>3</u>	<u>Boom Lift</u>	
	<u>2</u>	<u>Forklift</u>	
<u>WCC</u>	<u>1</u>	<u>Concrete Pump</u>	<u>45.89</u>
	<u>2</u>	<u>Small Crane</u>	
	<u>2</u>	<u>Forklift</u>	
<u>MOB</u>	<u>2</u>	<u>Small Crane</u>	<u>68.82</u>
	<u>1</u>	<u>Concrete Pump</u>	
	<u>1</u>	<u>Boom Lift</u>	
	<u>3</u>	<u>Welding Machines</u>	
	<u>1</u>	<u>Forklift</u>	
<u>Residential</u>	<u>1</u>	<u>Concrete Pump</u>	<u>34.35</u>
	<u>1</u>	<u>Small Crane</u>	
	<u>1</u>	<u>Forklift</u>	
<u>Total Construction NO_x Emissions</u>			<u>292.99</u>

Source: URBEMIS 2002; EIP Associates, a division of PBS&J; Equipment number/type data provided by Turner Construction, 2006.

Building would generate ~~407~~ 143.93 pounds per day of NO_x during this same period, the Future MOB would ~~also~~ contribute ~~407~~ 68.82 pounds per day, and construction of the residential units would contribute ~~73.89~~ 34.35 pounds per day. These emissions would combine as follows, shown in Table 2, below:

Thus, as Table 2 indicates the ~~These emissions would combine for a total maximum of NO_x emissions from construction activities would be approximately 323.86~~ 292.99 pounds of NO_x per day during the portion of 2007 where construction overlaps. These estimates of NO_x emissions due to Project construction differ from the estimates provided in the October 2005 Final EIR because the modeling is based on a refinement to the number and type of construction equipment to be used. This would be in excess of the SMAQMD construction NO_x threshold of 85 pounds per day and would be a **short-term significant impact**.

Theatre

The Children's Theatre of California proposes to build a 565-seat theatre that would include an approximately 50,000-square-foot building to house the B Street Theatre and the Children's Theatre of California. As discussed in chapter 2, Project Description, the Children's Theatre would be developed by an entity other than SMCS, and would be subject to additional

environmental review during the processing of development entitlements. As with the SMCS project, Table 3.1 of the SMAQMD guide was used to determine the type and amount of equipment that would be used during the construction period. Using these assumptions, NO_x emissions were calculated for a 50,000 square foot building when built over a one-year period. Maximum daily NO_x construction emissions were estimated to be approximately 60.87 pounds per day. This would not exceed the SMAQMD standards of significance for construction NO_x and would result in a **less-than-significant impact**.

Mitigation Measures

The SMAQMD requires that certain standard mitigation measures be implemented for all construction projects. The SMAQMD requires that Mitigation Measure 6.2-3 (a-c) below be implemented for all construction projects. fulfills this SMAQMD requirement and would reduce the NO_x impact from construction activities associated with the various SMCS project components. Mitigation Measure 6.2-3 (a) requires a reduction of 20% in NO_x emissions. In addition, Mitigation Measure 6.2-3 (d-g) would further decrease the emissions of NO_x from construction activities mostly from using alternative fueled equipment, which could reduce NO_x emissions by another 14%. Implementation of both of these measures could result in a 34% reduction in NO_x emissions during construction, at most. With this 34% reduction peak NO_x emissions during construction would total approximately 193 pounds per day. by at least 20 percent, resulting in maximum NO_x levels of approximately 259 pounds per day. Using alternative fueled equipment could reduce NO_x emissions by another 14 %, resulting in maximum NO_x levels of 213 pounds per day. This would not reduce the amount of NO_x generated daily to below the level of significance, and this would remain a short-term significant and unavoidable impact. Although these measures would reduce construction-related NO_x emissions, peak NO_x emissions would remain above the level of significance of 85 pounds per day. This impact would therefore remain a short-term significant and unavoidable impact. Heavy duty NO_x reduction from heavy-duty equipment is limited by available technology. Mitigation in addition to that listed below, and that would achieve substantially more reduce NO_x reductions emissions beyond this level, is not available at this time.

(SMCS)

6.2-3 *The following measures recommended by the SMAQMD shall be incorporated into construction practices:*

- (a) *The project applicant shall require the project developer or contractor to provide a plan for approval by SMAQMD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NO_x reduction and 45 percent particulate reduction compared to the most recent CARB fleet average at time of construction;*
- (b) *The project applicant shall require the project developer or contractor to submit to SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no*

construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.

- (c) *The project applicant shall require the project developer or contractor to ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately, and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey.*

In addition to the above, the following NO_x reducing measures shall be incorporated in all construction contracts:

- (d) *Construction equipment shall be kept in optimum running condition at all times.*
- (e) *If required, use alternative-fueled (such as aqueous fuel) and/or catalyst-equipped diesel construction equipment.*
- (f) *If any diesel-fueled generators are used during construction, one shall be replaced with a propane fueled gen-set. The project applicant or contractor shall coordinate with SMAQMD to ensure this is implemented.*
- (g) *Catalytic converters shall be installed on gasoline-powered equipment.*
- (h) *New technologies to control ozone precursor emissions shall be utilized as they become available and are required by the SMAQMD.*



To: Lezley Buford, AICP
City of Sacramento Development Services Department

From: Mr. Geoffrey Hornek
EIP Associates, a division of PBS&J

Date: September 20, 2006

Subject: **Technical Evaluation of Construction Air Pollutant Emissions from Sutter Medical Center, Sacramento (SMCS)**

This memorandum was prepared by Mr. Geoffrey Hornek, Senior Air Quality Scientist, employed with EIP Associates, a division of PBS&J. Mr. Hornek prepares air analyses for environmental and planning documents. As an air quality consultant with over 28 years of experience, Mr. Hornek has performed numerous air quality analyses for environmental and planning projects throughout California. Mr. Hornek has a Masters degree in Applied Science/Engineering, University of California, Davis. A copy of Mr. Hornek's resume is attached to this memorandum.

Introduction

The following discussion presents the process to model air emissions (pollutants) associated with the construction of urban development projects. This memorandum only addresses the pollutant oxides of nitrogen (NO_x) associated with exhaust generated by construction equipment. A detailed description of the URBEMIS model used to estimate air emissions is presented along with the types of information that can be input in the model. The calculated emissions of NO_x generated during the peak construction period of the SMCS project is also presented, along with all the URBEMIS model output sheets. This memorandum generally describes the process used to model air emissions associated with the proposed project and describes how to read and understand the URBEMIS model output sheets.

The initial NO_x analysis included in the July 2005 Draft EIR associated with project construction was run using URBEMIS 2002 Version 7.5; this modeling was performed in 2003-2004. In early 2005, the California Air Resources Board (CARB) upgraded URBEMIS; this upgrade, URBEMIS 2002 Version 8.7, is still the most current version of the model. The Version 8.7 upgrades only affected the model's features relating to emissions from operational sources, not from construction sources. The construction emissions modules in Version 7.5 and Version 8.7 are the same hence, it is the same in Version 7.5 as in Version 8.7. The URBEMIS 2002 Version 7.5 model output sheets prepared for the July 2005 Draft EIR were inadvertently purged; as a result, these output sheets are not available either electronically or in hard copy. Therefore, senior air quality analyst, Geoff Hornek, has re-run the project's numbers using URBEMIS 2002 Version 7.5 to recreate the 2003-2004 file. Mr. Hornek updated the construction equipment list to reflect the best available current information regarding equipment that will be used to construct the project, but did not use URBEMIS 2002 Version 8.7 because the model's construction emissions module was not changed in the upgrade from URBEMIS 2002 Version 7.5. This updated construction equipment information is included in the revised air quality section and the URBEMIS 2002 Version 7.5 model output sheets attached to this memo.

URBEMIS Model

URBEMIS (an acronym for "Urban Emissions Model") was originally developed by the California Air Resources Board more than 20 years ago as a tool for estimating air pollutant emissions from land use development projects. URBEMIS is updated from time to time as the model is refined and improved. URBEMIS estimates the emissions of the five major criteria air pollutants: oxides of nitrogen (NO_x), reactive

organic gases (ROG), inhalable particulate matter (PM₁₀), carbon monoxide (CO), and sulfur dioxide (SO₂). Early versions of URBEMIS could only estimate pollutant emissions from the motor vehicles associated with project operation. Newer versions added capabilities for estimating emissions from construction sources and "area" sources (e.g., natural gas combustion, fireplace/woodstove use, etc.) associated with project operation.

URBEMIS was designed to be a user-friendly program. It allows a user to enter project-specific values for the more important parameters that determine air pollutant emissions, while providing default values for other secondary parameters (obtained from studies of similar sources) that may not be readily available for the project. In many cases, though, URBEMIS allows a user to substitute project-specific information for many of the default parameters, if such data is available.

URBEMIS 2002 Version 7.5 Estimates of Air Pollutant Emissions for the SMCS EIR

URBEMIS 2002 Version 7.5 was used to calculate air pollutant emissions from the following sources associated with the construction and operation of the proposed Sutter Medical Center in Sacramento California:

1. Fugitive dust (PM₁₀) from demolition of existing buildings;
2. Fugitive dust (PM₁₀) from grading of construction site(s);
3. NO_x from construction equipment (including equipment used for demolition, site grading and construction); and
4. ROG and NO_x from motor vehicles associated with project operation.

General URBEMIS Procedures and Data Input Requirements for Calculating Construction Source Air Pollutant Emissions

URBEMIS can estimate construction air pollutant emissions and categorize them by pollutant type (i.e., NO_x, ROG, PM₁₀, CO, and SO₂), construction phase (i.e., demolition, site grading, construction), sub-phase (i.e., building construction, application of architectural coatings, asphalt laying), and source type (i.e., "fugitive" sources, such as dust thrown up by equipment movement and ROG from paint evaporation, and equipment engine exhaust sources).

URBEMIS requires that the user specify the start time (month and year) and the duration of construction (number of months). URBEMIS does not allow the construction phases to overlap and requires that demolition come first, followed by site grading, and ending with building construction. A user can specify the duration of each phase within the total construction period or can allow URBEMIS to assign default durations to each phase (i.e., 5%, 10% and 85% of the total construction period for each phase as listed, respectively). A user has the option of turning off a phase if it is not applicable to a project. URBEMIS can assign default start times and duration to construction sub-phases (i.e., building construction, application of architectural coatings, asphalt laying) or they can be specified by a user; unlike construction phases, sub-phases can overlap.

The construction emission sources and the data required to run URBEMIS to generate emission estimates (and, for a number of cases, the default data it provides) are as follows:

Demolition emissions are generated by:

1. Operation of off-road demolition equipment (e.g., concrete saws, cranes, bulldozers);
2. Hauling demolition materials from the project site to a landfill by on-road trucks; and
3. On-road commute trips by construction workers.

To estimate demolition emissions with URBEMIS:

1. User selects the number of each type of demolition equipment to be used; URBEMIS provides default values for the horsepower, hours-per-day usage, and engine load factor for each piece of equipment, which may be overridden if project-specific data is available;
2. User selects the volume of demolition debris to be removed daily; the model calculates the number of daily truck trips needed to remove the debris based on a truck capacity of 20 cubic yards, and assumes a hauling round trip of 20 miles; these defaults may be overridden if project-specific data is available; and
3. URBEMIS specifies the number of demolition workers at 125% of the total number of demolition equipment and sets the worker commute fleet mix (i.e., 50% autos and 50% light trucks), worker commute travel distance, speed, and temperature. These values cannot be overridden by the user.

Site grading emissions are generated by:

1. Operation of off-road grading equipment (e.g., scrapers, bulldozers, loaders, etc.);
2. Importing/exporting soil to/from the site by on-road trucks; and
3. On-road commute trips by construction workers.

To estimate site grading emissions with URBEMIS:

1. User selects the number of each type of grading equipment to be used; URBEMIS provides default values for horsepower, hours-per-day usage, and engine load factor for each piece of equipment, which may be overridden if project-specific data is available;
2. User selects the volume of soil to be imported or exported daily; URBEMIS calculates the number of daily truck trips needed to transport the soil based on a truck capacity of 15 cubic yards and assumes a hauling round trip of 20 miles; these defaults may be overridden if project-specific data is available;
3. URBEMIS specifies the number of grading workers at 125% of the total number of grading equipment and provides the worker commute fleet mix (i.e., 50% autos and 50% light trucks), worker commute travel distance, speed, and temperature. These values cannot be overridden by the user.

Building construction emissions are generated by:

1. Operation of off-road construction equipment (e.g., cranes, concrete pumps, forklifts, etc.);
2. On-road commute trips by construction workers;
3. Evaporation of architectural paint solvents;
4. On-road commute trips by painting workers;
5. Evaporation from asphalt paving materials;
6. Operation of off-road paving equipment (e.g., pavers, rollers, graders, etc.);
7. Hauling paving materials to the site by on-road trucks; and
8. On-road commute trips by paving workers.

To estimate construction emissions with URBEMIS:

1. User selects the number of each type of construction equipment to be used; URBEMIS provides default values for horsepower, hours-per-day usage, and engine load factor for each piece of equipment, which may be overridden if project-specific data is available;
2. URBEMIS calculates the number of construction workers by applying internal trip rates to size/type of buildings under construction (i.e., number of project residential units, square footage of project commercial/retail/office/industrial uses) and provides the worker commute fleet mix (i.e., 50% autos and 50% light trucks), worker commute travel distance, speed, and temperature; these values cannot be overridden by the user;
3. URBEMIS calculates ROG from the evaporation of solvents by applying internal solvent emission rates to size/type of buildings under construction (i.e., number of project residential units, square footage of project commercial/retail/office/industrial uses); user can change the solvent emission rates and other factors that effect ROG emissions if project-specific data is available;

4. URBEMIS assumes that the number of painting workers is equal to the number of construction workers; this value cannot be overridden by the user;
5. URBEMIS calculates ROG from the asphalt paving material by applying internal emission rates to the daily acreage to be paved; user provides the paving area, but cannot change the emission rates that URBEMIS provides;
6. URBEMIS assumes typical equipment mix for paving (i.e., a grader, three rollers, two on-road trucks, one off-road water truck, a paving sprayer, and a paver) that would pave 0.5 acres per day; these values can be overridden by the user if project-specific data is available;
7. URBEMIS calculates the number of daily truck trips needed to deliver asphalt to pave an area defined by the user based on a three-inch pavement thickness and a truck capacity of 20 cubic yards, these defaults may be overridden if project-specific data is available; and
8. URBEMIS specifies the number of paving workers at 125% of the total number of paving equipment and provides the worker commute fleet mix (i.e., 50% autos and 50% light trucks), worker commute travel distance, speed, and temperature; these values cannot be overridden by the user.

Calculation of Maximum Daily NO_x Emissions during SMCS Project Construction Using URBEMIS 2002 Version 7.5

Five structural components make up the proposed SMCS project: 1) Women's and Children's Center (WCC), 2) SMF Building (SMF), 3) Community Parking Structure, 4) Future Medical Office Building (Future MOB), and 5) Residential Development (32 units). Under current plans, construction of all the project components would not occur simultaneously; some structures would be complete (e.g., Community Parking Structure) before others begin (e.g., WCC). The three construction phases (i.e., demolition, site grading, building construction) for each project component would not overlap (e.g., demolition of the old St. Luke's Medical Office Building would be complete before the site is prepared, and then construction of the new Medical Office Building on that site would begin). However, different construction phases for different project components might overlap (e.g., demolition of the old St. Luke's Medical Office Building could occur concurrently with construction of the Community Parking Structure),¹ as shown by the construction schedule provided on page 2-7 of the FEIR and attached to this memo.

Based on construction scheduling information provided by the project applicant's construction contractors, the "worst case" scenario for NO_x emissions from project construction activities would occur in spring 2007, when there would be an overlap in construction activities on four of the project buildings (i.e., WCC, SMF, Future MOB, and residential components; construction schedule attached, emissions from construction of each building shown in Table 1 below). Construction of the Community Parking Structure would be completed by this time; therefore, this component of the project is not included in the calculation of the worst case construction emissions presented in the table below. Overlapping construction would include only building construction phases for four of the proposed buildings listed above; demolition of the residential site occurred in summer 2006 while demolition of the WCC project site is scheduled to begin in late Winter 2006/2007.² Architectural coating and asphalt paving phases for all four building would occur at the very end of each of their construction periods, Fall 2007 at the soonest (for the Future MOB) and not until the end of 2009 at the latest (for the WCC).

The best available current data on the type and number of construction equipment that would be used for each building during the respective building construction phases, as shown in the table below, was provided by Turner Construction, the project general contractor. These primary project-specific data (i.e., the equipment specifications and the anticipated scheduling for each construction phase for each project building) were used with URBEMIS 2002 Version 7.5, together with the model's default values, to

¹ The St. Luke's Medical Office Building was demolished in July 2006.

² All the buildings have been demolished as of summer 2006 with the exception of the Old Tavern S parking structure and the existing SMCS central plant. The Old Tavern parking structure along with a surface parking lot are scheduled for demolition in late winter 2007 (February/March). The central plant is scheduled for demolition in 2008.

determine the maximum NO_x emissions from all project construction activities. The URBEMIS 2002 Version 7.5 output sheets (attached) contain the results of the modeling that pertain to the maximum project construction NO_x emissions (also summarized in the Table 1 below).³

URBEMIS 2002 Version 7.5 Model Output Data

It is standard for URBEMIS to calculate maximum daily pollutant emissions seasonally (i.e., summer and winter) and for each year during which the construction period extends because many of the pollutant emissions rates internal to URBEMIS change with temperature and over time. The URBEMIS 2002 Version 7.5 data output sheets (attached) begin with a summary of the model results by source type (i.e., construction, area, and operational-motor vehicle), pollutant type (i.e., NO_x, ROG, PM₁₀, CO, and SO₂), season and year. A more detailed breakdown of model results by construction phase (i.e., demolition, site grading, construction), sub-phase (i.e., building construction, application of architectural coatings, asphalt laying), and source type (i.e., "fugitive" sources, such as dust kicked up by equipment movement and ROG from paint evaporation, and equipment engine exhaust sources) follows. For example, in the URBEMIS 2002 Version 7.5 output for the WCC, on page 4, in the "NO_x" column, the line items for "2007," "Phase 3 – Building Construction," source categories "Bldg Const Off-Road Diesel" and "Bldg Const Worker Trips" are "42.58" and "3.31," pounds per day, respectively. These two numbers added together, "45.89," constitute the total amount of NO_x emissions in pounds per day generated during the WCC building phase, as summarized in the table below.

As shown in Table 1, below, based on URBEMIS 2002 Version 7.5 modeling results the total maximum NO_x emissions generated during the building construction phases of all four project buildings would be 292.99 lbs/day. The SMAQMD *Guide* recommends the imposition of three standard mitigation measures to reduce NO_x emissions from construction equipment; these were included in the SMCS EIR as Mitigation Measures 6.2-3 (a-c). Measure 6.2-3 (a) specifies that a 20% NO_x reduction be achieved through efforts by the developer/contractor to use a construction equipment fleet 20% cleaner than the California average (see attached Appendix F from the SMAQMD Guide that specifies a 20 % reduction would be achieved). The EIR also included additional mitigation measures (i.e., Mitigation Measure 6.2-3 (d-g)) and projected a further decrease in NO_x emissions from construction equipment with their imposition, mostly from the use of alternative fueled equipment, which could reduce NO_x emissions by another 14% (see attached letter from the SMAQMD that specifies the use of aqueous fuel would achieve an additional 14% reduction). However, even if it were assumed that applying all seven of these mitigation measures would achieve the maximum possible reductions in emissions (i.e., 34% as stated in the EIR), the level of emissions would not be decreased to a level below the SMAQMD significance threshold of 85 pounds-per-day. Based on URBEMIS 2002 Version 7.5 with the updated construction equipment list, emissions would remain over the threshold, both prior to the implementation of these mitigation measures and after their implementation. Specifically, 292.99 pounds per day, reduced by 34%, would produce a total of 193.37 pounds/day, which is still over the SMAQMD 85 pounds/day threshold. Thus, construction equipment NO_x emissions would have a short-term significant and unavoidable impact, as identified in the EIR.

The updated NO_x emission information from URBEMIS 2002 Version 7.5 is shown below in Table 1.

3 The Sacramento Metropolitan Air Quality Management District's (SMAQMD) *Guide to Air Quality Assessment in Sacramento County (Guide)* is an advisory document intended to provide lead agencies, consultants, and project proponents with uniform procedures for assessing potential air quality impacts of proposed projects. The *Guide* designates URBEMIS as the preferred method for estimating a project's construction-phase air pollutant emissions. The *Guide* provides rough approximations of the type and number of equipment needed for specific construction activities (see Table 3.1 in the *Guide*). The SMAQMD would prefer a project-specific construction equipment list and scheduling information be provided, if available, rather than relying on the default data available in the URBEMIS model. If a project-specific construction equipment list is available, as for this project, there may be additional complications if particular types of equipment specified for the project do not have counterparts in URBEMIS's internal equipment list. In such cases, if a piece of equipment will be used, but that equipment does not appear on Table 3.1, then the piece of equipment must be translated into the piece of equipment on the Table 3.1 list that it most closely resembles. In this fashion, the equipment list provided by the contractor is translated into an equivalent list recognized by the URBEMIS model. In this case, the URBEMIS equipment closest in type, number, and horsepower to the project equipment identified by the general contractor was selected from the SMAQMD list for input in the model.

TABLE 1			
Worst Case SMCS – NO_x Emissions During Building Construction (Early Spring 2007)			
Building	Equipment Number	Equipment Type	NO_x (lbs/day)
SMF	1	Concrete Pump	143.93
	1	Tract Crane	
	2	Small Crane	
	10	Welding Machines	
	3	Boom Lift	
	2	Forklift	
WCC	1	Concrete Pump	45.89
	2	Small Crane	
	2	Forklift	
MOB	2	Small Crane	68.82
	1	Concrete Pump	
	1	Boom Lift	
	3	Welding Machines	
	1	Forklift	
Residential	1	Concrete Pump	34.35
	1	Small Crane	
	1	Forklift	
Total Construction NO_x Emissions			292.99

Source: URBEMIS 2002; EIP Associates, a division of PBS&J; Equipment number/type data provided by Turner Construction, 2006.

GEOFFREY H. HORNEK

Senior Scientist II

Geoff Hornek is an Environmental Engineer and Scientist with over 28 years of experience preparing complex technical environmental documents and managing projects with emphasis on air quality and noise analysis and mitigation development.

TECHNICAL CAPABILITIES

- Senior in-house expert on environmental air quality and noise problems, their public health implications, and their solutions.
- Extensive experience measuring ambient air pollutant and noise levels, computer modeling of air pollutant dispersion and noise attenuation, air toxic health risks assessments, and alternative strategies to mitigate identified environmental effects.
- Managed and prepared environmental documents in compliance with federal, state and local air pollutant/noise regulations.
- Excellent working relationship with public agency contacts and environmental professionals in a wide variety of government and industry sectors including urban and transportation planning, power generation, chemical manufacture, metal fabrication/coating, and printing.
- Developed methods for reconstructing occupational air pollutant exposure histories from limited measurement data using computer models and statistical techniques.

EDUCATION AND AFFILIATIONS

Currently working towards an M.P.H. in Environmental Health, University of Minnesota, School of Public Health, Minneapolis, MN
M.S., Applied Science/Engineering, University of California, Davis/Livermore
B.A., Physics, Queens College, NY
Member, American Physical Society

PROJECT EXPERIENCE

Air Pollutant/Noise Modeling

Air Pollutant Emissions and Noise Levels, San Francisco Giants Ballpark, San Francisco
Les Masson Provençal Senior Center Carbon Monoxide Modeling, City of Saratoga
SLAB Heavy Toxic Gas Dispersion Model Development, Bay Area Air Quality Management District
Russell Ranch Sound Wall Specifications, City of Folsom

Health Care/Research

Palo Alto Medical Foundation – New San Carlos Campus
University of California at Davis, Medical Center Expansion
Kaiser Permanente Hospital/Medical Office Expansion, City of San Francisco
University of California at San Francisco, Campus Long Range Development Plan
California Department of Health Services Laboratory Relocation, City of Berkeley
Berlex Biosciences, City of Richmond

Energy

SOCAL Gas Company Natural Gas Transmission Line 6902 Replacement Project: Hayfield to Calexico
Southeast Desert Wind Energy Planning Area Constraints Analysis (Bureau of Land Management), California
Tri-County Wind Energy Ordinance, Solano, Contra Costa and Alameda Counties
Wildhorse Geothermal Development, Sonoma County
Harwood Biomass-Fueled Power Plant, Mendocino County
Santa Clara Civic Center Cogenerating Power Plant, Santa Clara County

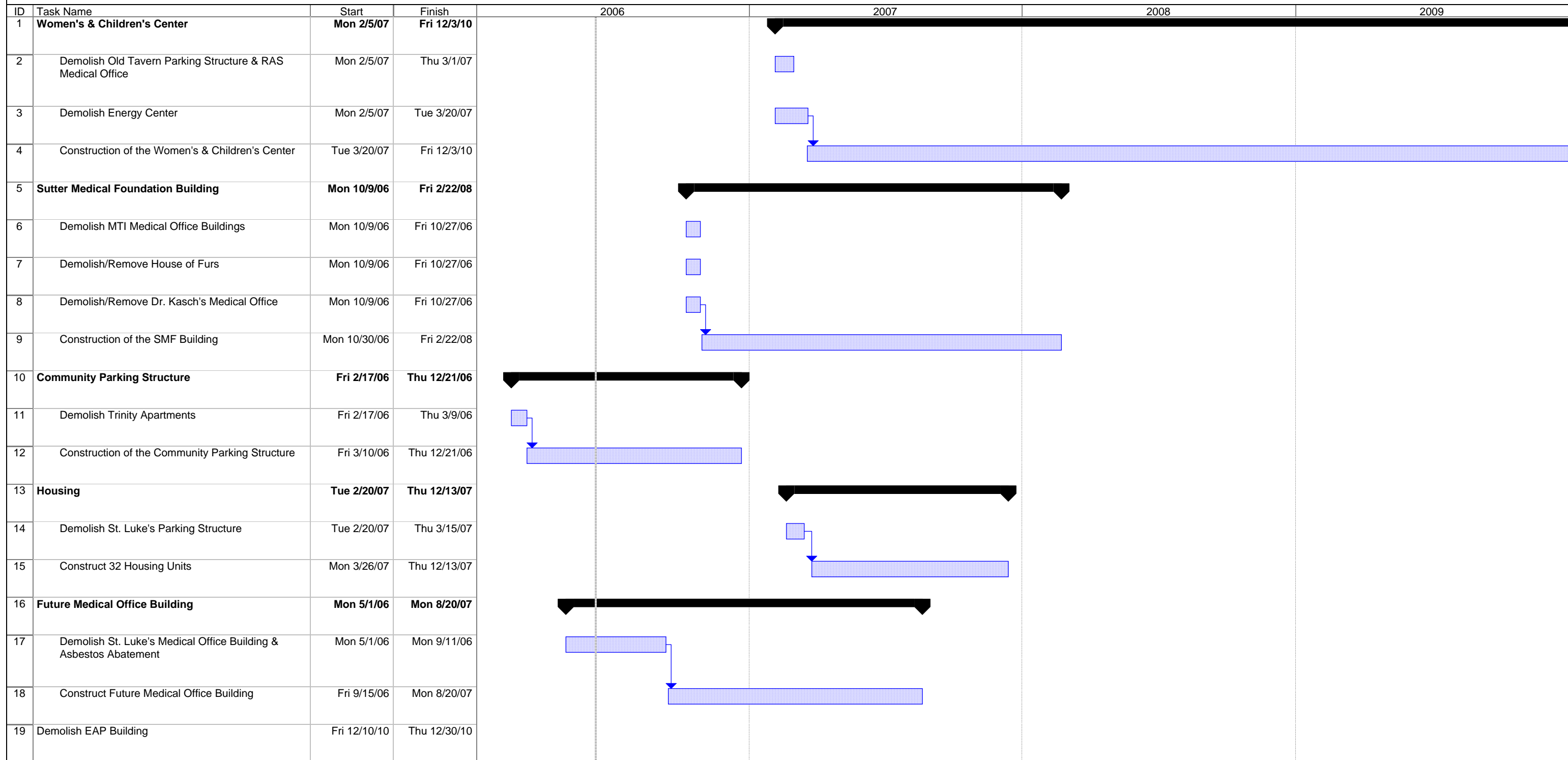
Transportation

Sand Hill Road Extension, Cities of Palo Alto and Menlo Park
4th Street Widening Noise Impact and Mitigation Study, City of Grover Beach
Willow Avenue Widening/Improvement, City of Fresno
Turner Court Corporation Yard, Alameda County
Grover Beach Multimodal Center, City of Grover Beach
San Carlos Caltrain Grade Separation, City of San Carlos
Lawrence Expressway HOV Lanes, City of Sunnyvale

Residential/Commercial/Retail Development

Sand Hill Road Hotel/Office Park, City of Menlo Park
Home Depot, City of Santa Rosa
Vineyards at Glen Loma Ranch, City of Gilroy
Oaks Factory Outlet, City of Buellton
Woodland Plaza Shopping Center, City of Paso Robles
Hamilton Field Master Plan, City of Novato

**SMCS Project Construction Schedule
Table 2-8**



Project: Schedule
Date: Fri 6/9/06

Task [Task bar] Split [Dotted bar] Progress [Solid bar] Milestone [Diamond] Summary [Milestone bar] Deadline [Down arrow]



Winston H. Hickox
Agency Secretary

Air Resources Board

Alan C. Lloyd, Ph.D.
Chairman

1001 I Street • P.O. Box 2815 • Sacramento, California 95812 • www.arb.ca.gov



Gray Davis
Governor

January 31, 2001

Mr. Thomas J. Sheahan
Managing Director, Legislative and Regulatory
The Lubrizol Corporation
29400 Lakeland Boulevard
Wickliffe, Ohio 44092-2298

Dear Mr. Sheahan:

Thank you for your letter requesting verification of the emission reductions associated with the use of the PuriNOx fuel. The emission reductions were determined by following the Air Resources Board's (ARB) "Interim Procedure for Verification of Emission Reductions for Alternative Diesel Fuels".

The ARB staff has reviewed your submitted data and has determined that the use of the PuriNOx fuel reduces oxides of nitrogen (NOx) emissions by 14 percent and particulate matter (PM) emissions by 62.9 percent in accordance with the interim procedure. Also, staff has determined that measurements of specified emissions result in no net increase in toxic emissions and hydrocarbon emissions are at least 25 percent lower than any applicable diesel vehicle emission standard.

Please note that the ARB's verification of emission reductions is subject to the conditions enclosed. Also, the ARB's verification of emission reductions does not address the appropriate use of the PuriNOx fuel in regards to possible impacts on engine durability or performance and does not address possible multi-media environmental impacts that may result from the use of the PuriNOx fuel.

If you have any questions, please contact me at (916) 322-6020, or Mr. Gary M. Yee, Manager, Industrial Section at (916) 327-5986.

Sincerely,

Dean C. Simeroth, Chief
Criteria Pollutants Branch

Enclosure

cc: Gary M. Yee, Manager
Industrial Section

California Environmental Protection Agency

CONDITIONS OF VERIFICATION OF EMISSION REDUCTIONS

The Air Resources Board's verification of emission reductions of the PuriNOx fuel is subject to the following conditions:

1. The Lubrizol Corporation (The Applicant) will provide an updated cetane test methodology and results based on the method using an "ignition quality tester" (a proposed ASTM method). Test results shall be made available to the ARB by March 31, 2001.
2. The Applicant shall provide an annual summary, ending each calendar year, specifying the total volume of PuriNOx fuel marketed for use or sale in California and the total number of California fleets using the fuel. The summary shall be submitted to the ARB by January 31st of each year.
3. The PuriNOx additive formulation and dosage rate shall be as specified in the original application excluding the wintertime fuel formulation (methanol formulation).
4. Any violation of the terms of these conditions shall cause the verification of emission reductions of the PuriNOx fuel to be void.

Appendix F –Construction Emissions Mitigation

The following measures are recommended as standard mitigation for all significant projects:

Category 1: Reducing NOx emissions from off-road diesel powered equipment

The project shall provide a plan for approval by the lead agency, in consultation with SMAQMD, demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average at time of construction; and

The project representative shall submit to the lead agency and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.

and:

Category 2: Controlling visible emissions from off-road diesel powered equipment

The project shall ensure that exhaust emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately, and the lead agency and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supercede other SMAQMD or state rules or regulations.

Turner Construction Company
2710 Capitol Avenue
Sacramento, CA 95816
Tel-916-329-4505
Fax- 916-329-4504

August 16, 2006

Christine Kronenberg, AICP
Senior Environmental Project Manager
EIP Associates, Division of PBS&J
1200 2nd Street
Sacramento, CA 95814

Re: Sutter Medical Center
Sacramento, CA

Subject: Estimated Construction Equipment List, SMCS Site

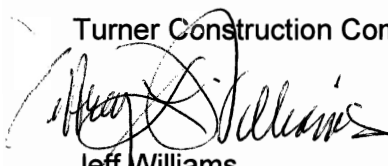
Christine:

We have contacted all subcontractors currently scheduled to be working on the SMCS sites; specifically for the Medical Office Building, the Womens and Childrens Hospital and the renovations of Sutter General Hospital.. Based on information received to date, the attached equipment list is provided for your use.

If you have any questions, please contact me.

Sincerely,

Turner Construction Company



Jeff Williams
Project Executive

CC: File
Tom O'Leary via email
Pam Brink via email



SMCS Project - EIR Mitigation Plan

6.2-3: Off-Road Vehicle/Equipment Inventory

Daily Survey	Weekly Survey	Monthly Summary Survey
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(Check One)		

Mitigation Measure: ...50 Hp+ off-road vehicles to be used on project shall average 20% Nox reduction and 45% particulate reduction as compared to CARB requirements for same make, year, model of equipment

Action Required: Provide written inventory of all equipment greater than 50 Hp and 40 hrs of use: Horsepower rating, engine production year, and project hours of use or fuel throughput. Inventory shall be updated MONTHLY and SMAQMD shall be notified of any new equipment 4

Survey Date: 30 Days Survey By: Applicable Subs Shown below Turner Construction
Signed

No.	Equipment Description	Engine Manufacturer / Notes	Mfr. Date	Serial No.	Hp Rating	Fuel Type	Projected Hours of Use per day	Fuel Burn per Hr.	Engine Total Hrs.	Factory Exhaust	Sub	Date on Site	Date Off Site	Total Monthly Hours
1	Forklift - Variable Reach 6,000#		2005		80	Diesel					Acco			45
2	Forklift - Variable Reach 8,000#		2005		100	Diesel					Acco			45
3	Forklift - Variable Reach 10,000#		2005		115	Diesel					Acco			45
4	Cat 966 G Wheel Loader	Caterpillar ACERT	2003		180	Diesel					Blue Iron			
5	Kobelco 330 Excavator	Mitsubishi 6D16-TLA2A	2003		247	Diesel					Blue Iron			
6	Cat 325D Excavator	Cat C7 ACERT	2005		204	Diesel					Blue Iron			
7	Kobelco 325 Excavator	Mitsubishi 6D34-TE1	2001		143	Diesel					Blue Iron			
8	Loader- John Deere 444J, ID #415	John Deere	2006	DW544JZ596717	115	Diesel					Viking Drillers			40
9	Drill Rig- Hitachi EX300LC Lodril, ID #30	Hitachi	1994		217	Diesel					Viking Drillers			
10	Grove HL 150 C Crawler Crane	Caterpillar	1997		325	Diesel					Herrick Steel			176
11	Crane					Diesel					Booth			
12	Backhoe					Diesel					Booth			
13	Gradall 7,000#	(typ data used for estimate)	2006		80	Diesel					Booth			
14	Gradall 10,000#	(typ data used for estimate)	2006		125	Diesel					Booth			
15	Peterbilt 385/10 Yard dump		1997		300	Diesel					Schetter			
16	Peterbilt 385/10 Yard dump		1997		300	Diesel					Schetter			
17	Peterbilt 385/10 Yard dump		1999		300	Diesel					Schetter			
18	Yanmar 100 /Excavator		2006		73.5	Diesel					Schetter			
19	Case 580/ Backhoe		2000		95	Diesel					Schetter			
20	Case 580/ Backhoe		2000		95	Diesel					Schetter			
21	Case 580m/ Backhoe		2001		98	Diesel					Schetter			
22	Case 580/ Backhoe		2001		95	Diesel					Schetter			
23	Case 580m/ Backhoe		2002		98	Diesel					Schetter			
24	Case 580m/ Backhoe		2003		98	Diesel					Schetter			
25	Case 580m/ Backhoe		2004		98	Diesel					Schetter			
26	Case 580m/ Backhoe		2004		98	Diesel					Schetter			
27	Yanmar50 /Excavator		2004		34.5	Diesel					Schetter			
28	Gmc/6 yard dump		1991		210	Diesel					Schetter			
29	Gmc/6 yard dump		1991		210	Diesel					Schetter			
30	Concrete Delivery Trucks	Typical- varies by vendor	2000+		360	Diesel					Vendor			
31	Conc. Boom Truck- 42meter pump	Schwing/Putzmeister (99-2007 in fleet)	2006		425	Diesel					Conco			
32	Conc. Boom Truck- 32meter pump	Schwing/Putzmeister (99-2007 in fleet)	2006		370	Diesel					Conco			
33	Gradall 7,000#	(typ data used for estimate)	2006		80	Diesel					Conco			
34	Gradall 10,000#	(typ data used for estimate)	2006		125	Diesel					Conco			
35	Crane										AGA			
36	Gradall G6-42P - 6,600# (42' lift ht.)		2006		80	Diesel					United Rentals			
37	Gradall 534D9-45 - 9,000# (45' lift ht.)		2006		110	Diesel					United Rentals			
38	Gradall G1055A - 10,000# (55' lift ht.)		2006		125	Diesel					United Rentals			
39	Crane- Terex 17 ton- TC3470	Caterpillar 3126 engine	2000		210	Diesel					United Rentals			
40	Crane- Terex 19 ton- TC3874	(Est. hp- info from United)	2000		243	Diesel					United Rentals			
41	Crane- Terex 23.5 ton- TC4792	(Est. hp- info from United)	2005		274	Diesel					United Rentals			

**Sutter Medical Center - NOX Construction During Building
Construction - Early Spring 2007**

	Equipment	Equipment	Equipment	Equipment	NOX
Building	Number	Specified by Client	Number	Specified by URBEMIS	(lbs/day)
SMF	1	Concrete Pump	1	Other	143.93
	1	Tract crane	1	Drill Rig	
	2	Small crane	2	Crane	
	10	Welding machines	10	Concrete saw	
	3	Boom lift	3	Skid steer loader	
	2	Forklift	2	Forklift	
WCC	1	Concrete Pump	1	Other	45.89
	2	Small crane	2	Crane	
	2	Forklift	2	Forklift	
MOB	2	Small crane	2	Crane	68.82
	1	Concrete Pump	1	Other	
	1	Boom lift	1	Skid steer loader	
	3	Welding machines	3	Concrete saw	
	1	Forklift	1	Forklift	
Residential	1	Concrete Pump	1	Other	34.35
	1	Small crane	1	Crane	
	1	Forklift	1	Forklift	
Total					292.99

**URBEMIS OUTPUTS – Women’s and Children’s
Center**

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - WCC Mod.urb
 Project Name: Sutter Construction - WCC Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	9.27	45.89	112.86	0.03	1.85	1.70	0.15

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day,unmitigated)	9.19	44.51	112.53	0.03	1.69	1.54	0.15

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2009 ***							
TOTALS (lbs/day,unmitigated)	289.65	45.04	123.63	0.03	1.75	1.45	0.30

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.27	2.66	1.65	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	123.76	155.44	1,569.04	1.17	115.62

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	124.04	158.10	1,570.69	1.17	115.62

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - WCC Mod.urb
 Project Name: Sutter Construction - WCC Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	9.27	45.89	112.86	0.03	1.85	1.70	0.15

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day,unmitigated)	9.19	44.51	112.53	0.03	1.69	1.54	0.15

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2009 ***							
TOTALS (lbs/day,unmitigated)	289.65	45.04	123.63	0.03	1.75	1.45	0.30

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.19	2.66	1.06	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	154.96	235.99	1,861.74	1.17	115.62

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	155.16	238.65	1,862.80	1.17	115.62

URBEMIS 2002 For Windows 7.5.0

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 Project Name: Sutter Construction - WCC Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (tpy, unmitigated)	0.69	3.53	8.51	0.00	0.14	0.14	0.00

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (tpy, unmitigated)	1.20	5.82	14.70	0.00	0.24	0.24	0.00

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2009 ***							
TOTALS (tpy, unmitigated)	7.90	2.43	6.49	0.00	0.05	0.05	0.00

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.04	0.49	0.25	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	24.48	33.27	304.16	0.21	21.10

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	24.53	33.75	304.40	0.21	21.10

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - WCC Mod.urb
 Project Name: Sutter Construction - WCC Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Winter)

Construction Start Month and Year: June, 2007
 Construction Duration: 24
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 398400

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	6.53	42.58	53.21	-	1.61	1.61	0.00
Bldg Const Worker Trips	2.74	3.31	59.65	0.03	0.24	0.09	0.15
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	9.27	45.89	112.86	0.03	1.85	1.70	0.15
Max lbs/day all phases	9.27	45.89	112.86	0.03	1.85	1.70	0.15
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	6.53	41.24	53.77	-	1.44	1.44	0.00
Bldg Const Worker Trips	2.66	3.27	58.76	0.03	0.24	0.09	0.15
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	9.19	44.51	112.53	0.03	1.69	1.54	0.15
Max lbs/day all phases	9.19	44.51	112.53	0.03	1.69	1.54	0.15
*** 2009***							

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	6.53	40.11	54.35	-	1.31	1.31	0.00
Bldg Const Worker Trips	2.57	3.22	57.81	0.03	0.24	0.09	0.15
Arch Coatings Off-Gas	279.18	-	-	-	-	-	-
Arch Coatings Worker Trips	0.85	0.53	11.24	0.00	0.16	0.01	0.15
Asphalt Off-Gas	0.46	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.06	1.18	0.23	0.00	0.03	0.03	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	289.65	45.04	123.63	0.03	1.75	1.45	0.30
Max lbs/day all phases	289.65	45.04	123.63	0.03	1.75	1.45	0.30

Phase 2 - Site Grading Assumptions: Phase Turned OFF

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jun '07

Phase 3 Duration: 24 months

Start Month/Year for SubPhase Building: Jun '07

SubPhase Building Duration: 24 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Mar '09

SubPhase Architectural Coatings Duration: 2.4 months

Start Month/Year for SubPhase Asphalt: Apr '09

SubPhase Asphalt Duration: 1.2 months

Acres to be Paved: 4.6

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
-----	------	------------	-------------	-----------

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.19	2.66	1.06	-	0.00
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.19	2.66	1.06	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	154.96	235.99	1,861.74	1.17	115.62
TOTAL EMISSIONS (lbs/day)	154.96	235.99	1,861.74	1.17	115.62

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	40.35 trips / 1000 sq. ft.	398.40	16,075.44

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Medical office building				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Changes made to the default values for Area

Changes made to the default values for Operations

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - WCC Mod.urb
 Project Name: Sutter Construction - WCC Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Summer)

Construction Start Month and Year: June, 2007
 Construction Duration: 24
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 398400

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	6.53	42.58	53.21	-	1.61	1.61	0.00
Bldg Const Worker Trips	2.74	3.31	59.65	0.03	0.24	0.09	0.15
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	9.27	45.89	112.86	0.03	1.85	1.70	0.15
Max lbs/day all phases	9.27	45.89	112.86	0.03	1.85	1.70	0.15
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	6.53	41.24	53.77	-	1.44	1.44	0.00
Bldg Const Worker Trips	2.66	3.27	58.76	0.03	0.24	0.09	0.15
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	9.19	44.51	112.53	0.03	1.69	1.54	0.15
Max lbs/day all phases	9.19	44.51	112.53	0.03	1.69	1.54	0.15
*** 2009***							

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	6.53	40.11	54.35	-	1.31	1.31	0.00
Bldg Const Worker Trips	2.57	3.22	57.81	0.03	0.24	0.09	0.15
Arch Coatings Off-Gas	279.18	-	-	-	-	-	-
Arch Coatings Worker Trips	0.85	0.53	11.24	0.00	0.16	0.01	0.15
Asphalt Off-Gas	0.46	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.06	1.18	0.23	0.00	0.03	0.03	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	289.65	45.04	123.63	0.03	1.75	1.45	0.30
Max lbs/day all phases	289.65	45.04	123.63	0.03	1.75	1.45	0.30

Phase 2 - Site Grading Assumptions: Phase Turned OFF

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jun '07

Phase 3 Duration: 24 months

Start Month/Year for SubPhase Building: Jun '07

SubPhase Building Duration: 24 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Mar '09

SubPhase Architectural Coatings Duration: 2.4 months

Start Month/Year for SubPhase Asphalt: Apr '09

SubPhase Asphalt Duration: 1.2 months

Acres to be Paved: 4.6

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.19	2.66	1.06	-	0.00
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.08	0.01	0.58	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.27	2.66	1.65	0.00	0.01

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	123.76	155.44	1,569.04	1.17	115.62
TOTAL EMISSIONS (lbs/day)	123.76	155.44	1,569.04	1.17	115.62

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	40.35 trips / 1000 sq. ft.	398.40	16,075.44

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Medical office building				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Changes made to the default values for Area

Changes made to the default values for Operations

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - WCC Mod.urb
 Project Name: Sutter Construction - WCC Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Tons/Year)

Construction Start Month and Year: June, 2007
 Construction Duration: 24
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 398400

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.49	3.29	4.13	-	0.14	0.14	0.00
Bldg Const Worker Trips	0.20	0.24	4.38	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.69	3.53	8.51	0.00	0.14	0.14	0.00
Total all phases tons/yr	0.69	3.53	8.51	0.00	0.14	0.14	0.00
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.84	5.40	7.08	-	0.24	0.24	0.00
Bldg Const Worker Trips	0.36	0.42	7.62	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	1.20	5.82	14.70	0.00	0.24	0.24	0.00
Total all phases tons/yr	1.20	5.82	14.70	0.00	0.24	0.24	0.00
*** 2009***							

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	0.35	2.20	3.00	-	0.05	0.05	0.00
Bldg Const Worker Trips	0.15	0.20	3.20	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	7.37	-	-	-	-	-	-
Arch Coatings Worker Trips	0.02	0.02	0.29	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.01	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	7.90	2.43	6.49	0.00	0.05	0.05	0.00
Total all phases tons/yr	7.90	2.43	6.49	0.00	0.05	0.05	0.00

Phase 2 - Site Grading Assumptions: Phase Turned OFF

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jun '07

Phase 3 Duration: 24 months

Start Month/Year for SubPhase Building: Jun '07

SubPhase Building Duration: 24 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Mar '09

SubPhase Architectural Coatings Duration: 2.4 months

Start Month/Year for SubPhase Asphalt: Apr '09

SubPhase Asphalt Duration: 1.2 months

Acres to be Paved: 4.6

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.04	0.48	0.19	-	0.00
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping	0.01	0.00	0.05	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (tpy, unmitigated)	0.04	0.49	0.25	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	24.48	33.27	304.16	0.21	21.10
TOTAL EMISSIONS (tons/yr)	24.48	33.27	304.16	0.21	21.10

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 85 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	40.35 trips / 1000 sq. ft.	398.40	16,075.44

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Medical office building				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Changes made to the default values for Area

Changes made to the default values for Operations

URBEMIS OUTPUTS – SMF Building

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\SMF Construction Mod.urb
 Project Name: Sutter Construction - SMF Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006 ***							
TOTALS (lbs/day,unmitigated)	21.44	148.92	168.33	0.00	6.24	6.16	0.08

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	343.11	145.53	175.96	0.00	5.88	5.72	0.16

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.18	1.40	1.14	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	64.41	80.84	816.05	0.61	60.13

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	64.59	82.25	817.19	0.61	60.14

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\SMF Construction Mod.urb
 Project Name: Sutter Construction - SMF Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006 ***							
TOTALS (lbs/day,unmitigated)	21.44	148.92	168.33	0.00	6.24	6.16	0.08

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	343.11	145.53	175.96	0.00	5.88	5.72	0.16

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.10	1.40	0.56	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	80.60	122.74	968.28	0.61	60.13

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	80.70	124.14	968.84	0.61	60.13

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\SMF Construction Mod.urb
 Project Name: Sutter Construction - SMF Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006 ***							
TOTALS (tpy, unmitigated)	0.53	3.67	4.19	0.00	0.16	0.16	0.00

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (tpy, unmitigated)	6.05	14.23	16.96	0.00	0.54	0.54	0.00

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.03	0.26	0.15	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	12.74	17.30	158.19	0.11	10.97

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	12.76	17.56	158.34	0.11	10.97

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\SMF Construction Mod.urb
 Project Name: Sutter Construction - SMF Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Winter)

Construction Start Month and Year: October, 2006
 Construction Duration: 12
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 209700

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	9.02	62.74	71.65	-	2.75	2.75	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.07	0.13	1.43	0.00	0.00	0.00	0.00
Maximum lbs/day	9.09	62.87	73.08	0.00	2.75	2.75	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	20.87	148.58	161.01	-	6.15	6.15	0.00
Bldg Const Worker Trips	0.58	0.35	7.32	0.00	0.09	0.01	0.08
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	21.44	148.92	168.33	0.00	6.24	6.16	0.08
Max lbs/day all phases	21.44	148.92	168.33	0.00	6.24	6.16	0.08
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	20.87	143.60	164.33	-	5.66	5.66	0.00
Bldg Const Worker Trips	0.54	0.33	6.88	0.00	0.09	0.01	0.08
Arch Coatings Off-Gas	320.62	-	-	-	-	-	-
Arch Coatings Worker Trips	0.48	0.22	5.65	0.00	0.09	0.01	0.08
Asphalt Off-Gas	0.57	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.09	1.48	0.33	0.00	0.04	0.04	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	343.11	145.53	175.96	0.00	5.88	5.72	0.16
Max lbs/day all phases	343.11	145.53	175.96	0.00	5.88	5.72	0.16

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Oct '06

Phase 2 Duration: 1.3 months

On-Road Truck Travel (VMT): 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Rubber Tired Dozers	352	0.590	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Nov '06

Phase 3 Duration: 10.7 months

Start Month/Year for SubPhase Building: Nov '06

SubPhase Building Duration: 10.7 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Bore/Drill Rigs	218	0.750	8.0
10	Concrete/Industrial saws	84	0.730	8.0
2	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	4.0
2	Rough Terrain Forklifts	94	0.475	8.0
3	Skid Steer Loaders	62	0.515	8.0

Start Month/Year for SubPhase Architectural Coatings: Aug '07

SubPhase Architectural Coatings Duration: 1.1 months

Start Month/Year for SubPhase Asphalt: Sep '07

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 2.4

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.10	1.40	0.56	-	0.00
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.10	1.40	0.56	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	80.60	122.74	968.28	0.61	60.13
TOTAL EMISSIONS (lbs/day)	80.60	122.74	968.28	0.61	60.13

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	39.87 trips / 1000 sq. ft.	209.70	8,360.74

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Medical office building				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Changes made to the default values for Area

Changes made to the default values for Operations

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\SMF Construction Mod.urb
 Project Name: Sutter Construction - SMF Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Summer)

Construction Start Month and Year: October, 2006
 Construction Duration: 12
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 209700

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	9.02	62.74	71.65	-	2.75	2.75	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.07	0.13	1.43	0.00	0.00	0.00	0.00
Maximum lbs/day	9.09	62.87	73.08	0.00	2.75	2.75	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	20.87	148.58	161.01	-	6.15	6.15	0.00
Bldg Const Worker Trips	0.58	0.35	7.32	0.00	0.09	0.01	0.08
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	21.44	148.92	168.33	0.00	6.24	6.16	0.08
Max lbs/day all phases	21.44	148.92	168.33	0.00	6.24	6.16	0.08
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	20.87	143.60	164.33	-	5.66	5.66	0.00
Bldg Const Worker Trips	0.54	0.33	6.88	0.00	0.09	0.01	0.08
Arch Coatings Off-Gas	320.62	-	-	-	-	-	-
Arch Coatings Worker Trips	0.48	0.22	5.65	0.00	0.09	0.01	0.08
Asphalt Off-Gas	0.57	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.09	1.48	0.33	0.00	0.04	0.04	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	343.11	145.53	175.96	0.00	5.88	5.72	0.16
Max lbs/day all phases	343.11	145.53	175.96	0.00	5.88	5.72	0.16

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Oct '06

Phase 2 Duration: 1.3 months

On-Road Truck Travel (VMT): 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Rubber Tired Dozers	352	0.590	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Nov '06

Phase 3 Duration: 10.7 months

Start Month/Year for SubPhase Building: Nov '06

SubPhase Building Duration: 10.7 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Bore/Drill Rigs	218	0.750	8.0
10	Concrete/Industrial saws	84	0.730	8.0
2	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	4.0
2	Rough Terrain Forklifts	94	0.475	8.0
3	Skid Steer Loaders	62	0.515	8.0

Start Month/Year for SubPhase Architectural Coatings: Aug '07

SubPhase Architectural Coatings Duration: 1.1 months

Start Month/Year for SubPhase Asphalt: Sep '07

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 2.4

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.10	1.40	0.56	-	0.00
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.08	0.01	0.58	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.18	1.40	1.14	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	64.41	80.84	816.05	0.61	60.13
TOTAL EMISSIONS (lbs/day)	64.41	80.84	816.05	0.61	60.13

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	39.87 trips / 1000 sq. ft.	209.70	8,360.74

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Medical office building				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Changes made to the default values for Area

Changes made to the default values for Operations

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\SMF Construction Mod.urb
 Project Name: Sutter Construction - SMF Mod
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Tons/Year)

Construction Start Month and Year: October, 2006
 Construction Duration: 12
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 209700

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.13	0.90	1.03	-	0.04	0.04	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Total tons/year	0.13	0.90	1.04	0.00	0.04	0.04	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.39	2.77	3.01	-	0.12	0.12	0.00
Bldg Const Worker Trips	0.01	0.00	0.14	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.40	2.77	3.15	0.00	0.12	0.12	0.00
Total all phases tons/yr	0.53	3.67	4.19	0.00	0.16	0.16	0.00
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	2.07	14.22	16.29	-	0.54	0.54	0.00
Bldg Const Worker Trips	0.09	0.00	0.60	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	3.88	-	-	-	-	-	-
Arch Coatings Worker Trips	0.01	0.00	0.07	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	6.05	14.23	16.96	0.00	0.54	0.54	0.00
Total all phases tons/yr	6.05	14.23	16.96	0.00	0.54	0.54	0.00

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Oct '06

Phase 2 Duration: 1.3 months

On-Road Truck Travel (VMT): 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
1	Rubber Tired Dozers	352	0.590	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Nov '06

Phase 3 Duration: 10.7 months

Start Month/Year for SubPhase Building: Nov '06

SubPhase Building Duration: 10.7 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Bore/Drill Rigs	218	0.750	8.0
10	Concrete/Industrial saws	84	0.730	8.0
2	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	4.0
2	Rough Terrain Forklifts	94	0.475	8.0
3	Skid Steer Loaders	62	0.515	8.0

Start Month/Year for SubPhase Architectural Coatings: Aug '07

SubPhase Architectural Coatings Duration: 1.1 months

Start Month/Year for SubPhase Asphalt: Sep '07

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 2.4

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.02	0.26	0.10	-	0.00
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping	0.01	0.00	0.05	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (tpy, unmitigated)	0.03	0.26	0.15	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	12.74	17.30	158.19	0.11	10.97
TOTAL EMISSIONS (tons/yr)	12.74	17.30	158.19	0.11	10.97

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 85 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	39.87 trips / 1000 sq. ft.	209.70	8,360.74

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Medical office building				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Changes made to the default values for Area

Changes made to the default values for Operations

URBEMIS OUTPUTS – Future MOB

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - MOB.urb
 Project Name: Sutter Construction - MOB
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006 ***							
TOTALS (lbs/day,unmitigated)	11.11	71.29	105.39	0.02	3.05	2.97	0.08

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	305.94	70.17	111.14	0.02	2.90	2.74	0.16

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.18	1.40	1.14	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	64.41	80.84	816.05	0.61	60.13

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	64.59	82.25	817.19	0.61	60.14

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - MOB.urb
 Project Name: Sutter Construction - MOB
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006 ***							
TOTALS (lbs/day,unmitigated)	11.11	71.29	105.39	0.02	3.05	2.97	0.08

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	305.94	70.17	111.14	0.02	2.90	2.74	0.16

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.10	1.40	0.56	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	80.60	122.74	968.28	0.61	60.13

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	80.70	124.14	968.84	0.61	60.13

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - MOB.urb
 Project Name: Sutter Construction - MOB
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006 ***							
TOTALS (tpy, unmitigated)	0.38	2.34	3.40	0.00	0.09	0.09	0.00

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (tpy, unmitigated)	5.06	6.76	10.54	0.00	0.27	0.27	0.00

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.03	0.26	0.15	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	12.74	17.30	158.19	0.11	10.97

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	12.76	17.56	158.34	0.11	10.97

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - MOB.urb
 Project Name: Sutter Construction - MOB
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Winter)

Construction Start Month and Year: October, 2006
 Construction Duration: 12
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 209700

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	9.55	68.35	73.80	-	2.92	2.92	0.00
Bldg Const Worker Trips	1.56	2.94	31.58	0.02	0.13	0.05	0.08
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	11.11	71.29	105.39	0.02	3.05	2.97	0.08
Max lbs/day all phases	11.11	71.29	105.39	0.02	3.05	2.97	0.08
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	9.55	65.90	75.29	-	2.65	2.65	0.00
Bldg Const Worker Trips	1.52	2.92	31.14	0.02	0.13	0.05	0.08
Arch Coatings Off-Gas	293.90	-	-	-	-	-	-
Arch Coatings Worker Trips	0.48	0.22	5.65	0.00	0.09	0.01	0.08
Asphalt Off-Gas	0.48	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.08	1.24	0.28	0.00	0.03	0.03	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	305.94	70.17	111.14	0.02	2.90	2.74	0.16
Max lbs/day all phases	305.94	70.17	111.14	0.02	2.90	2.74	0.16

Phase 2 - Site Grading Assumptions: Phase Turned OFF

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Oct '06

Phase 3 Duration: 12 months

Start Month/Year for SubPhase Building: Oct '06

SubPhase Building Duration: 12 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
3	Concrete/Industrial saws	84	0.730	8.0
2	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Skid Steer Loaders	62	0.515	8.0

Start Month/Year for SubPhase Architectural Coatings: Aug '07

SubPhase Architectural Coatings Duration: 1.2 months

Start Month/Year for SubPhase Asphalt: Sep '07

SubPhase Asphalt Duration: 0.6 months

Acres to be Paved: 2.4

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.10	1.40	0.56	-	0.00
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.10	1.40	0.56	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	80.60	122.74	968.28	0.61	60.13
TOTAL EMISSIONS (lbs/day)	80.60	122.74	968.28	0.61	60.13

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	39.87 trips / 1000 sq. ft.	209.70	8,360.74

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Medical office building				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Changes made to the default values for Area

Changes made to the default values for Operations

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - MOB.urb
 Project Name: Sutter Construction - MOB
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Summer)

Construction Start Month and Year: October, 2006
 Construction Duration: 12
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 209700

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	9.55	68.35	73.80	-	2.92	2.92	0.00
Bldg Const Worker Trips	1.56	2.94	31.58	0.02	0.13	0.05	0.08
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	11.11	71.29	105.39	0.02	3.05	2.97	0.08
Max lbs/day all phases	11.11	71.29	105.39	0.02	3.05	2.97	0.08
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	9.55	65.90	75.29	-	2.65	2.65	0.00
Bldg Const Worker Trips	1.52	2.92	31.14	0.02	0.13	0.05	0.08
Arch Coatings Off-Gas	293.90	-	-	-	-	-	-
Arch Coatings Worker Trips	0.48	0.22	5.65	0.00	0.09	0.01	0.08
Asphalt Off-Gas	0.48	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.08	1.24	0.28	0.00	0.03	0.03	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	305.94	70.17	111.14	0.02	2.90	2.74	0.16
Max lbs/day all phases	305.94	70.17	111.14	0.02	2.90	2.74	0.16

Phase 2 - Site Grading Assumptions: Phase Turned OFF

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Oct '06

Phase 3 Duration: 12 months

Start Month/Year for SubPhase Building: Oct '06

SubPhase Building Duration: 12 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
3	Concrete/Industrial saws	84	0.730	8.0
2	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Skid Steer Loaders	62	0.515	8.0

Start Month/Year for SubPhase Architectural Coatings: Aug '07

SubPhase Architectural Coatings Duration: 1.2 months

Start Month/Year for SubPhase Asphalt: Sep '07

SubPhase Asphalt Duration: 0.6 months

Acres to be Paved: 2.4

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.10	1.40	0.56	-	0.00
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.08	0.01	0.58	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.18	1.40	1.14	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	64.41	80.84	816.05	0.61	60.13
TOTAL EMISSIONS (lbs/day)	64.41	80.84	816.05	0.61	60.13

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	39.87 trips / 1000 sq. ft.	209.70	8,360.74

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Changes made to the default values for Area

Changes made to the default values for Operations

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - MOB.urb
 Project Name: Sutter Construction - MOB
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Tons/Year)

Construction Start Month and Year: October, 2006
 Construction Duration: 12
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 209700

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.33	2.25	2.43	-	0.09	0.09	0.00
Bldg Const Worker Trips	0.05	0.09	0.97	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.38	2.34	3.40	0.00	0.09	0.09	0.00
Total all phases tons/yr	0.38	2.34	3.40	0.00	0.09	0.09	0.00
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.99	6.48	7.47	-	0.27	0.27	0.00
Bldg Const Worker Trips	0.18	0.27	3.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	3.88	-	-	-	-	-	-
Arch Coatings Worker Trips	0.01	0.00	0.07	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	5.06	6.76	10.54	0.00	0.27	0.27	0.00
Total all phases tons/yr	5.06	6.76	10.54	0.00	0.27	0.27	0.00

Phase 2 - Site Grading Assumptions: Phase Turned OFF

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Oct '06

Phase 3 Duration: 12 months

Start Month/Year for SubPhase Building: Oct '06

SubPhase Building Duration: 12 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
3	Concrete/Industrial saws	84	0.730	8.0
2	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Skid Steer Loaders	62	0.515	8.0

Start Month/Year for SubPhase Architectural Coatings: Aug '07

SubPhase Architectural Coatings Duration: 1.2 months

Start Month/Year for SubPhase Asphalt: Sep '07

SubPhase Asphalt Duration: 0.6 months

Acres to be Paved: 2.4

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.02	0.26	0.10	-	0.00
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping	0.01	0.00	0.05	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (tpy, unmitigated)	0.03	0.26	0.15	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	12.74	17.30	158.19	0.11	10.97
TOTAL EMISSIONS (tons/yr)	12.74	17.30	158.19	0.11	10.97

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 85 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	39.87 trips / 1000 sq. ft.	209.70	8,360.74

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Medical office building				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Changes made to the default values for Area

Changes made to the default values for Operations

URBEMIS OUTPUTS – Residential Units

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - Residences.urb
 Project Name: Sutter Construction - Residences
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	1,342.36	34.35	90.38	0.03	1.40	1.25	0.15

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.27	2.66	1.65	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	123.76	155.44	1,569.04	1.17	115.62

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	124.04	158.10	1,570.69	1.17	115.62

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - Residences.urb
 Project Name: Sutter Construction - Residences
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	1,342.36	34.35	90.38	0.03	1.40	1.25	0.15

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.19	2.66	1.06	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	154.96	235.99	1,861.74	1.17	115.62

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	155.16	238.65	1,862.80	1.17	115.62

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - Residences.urb
 Project Name: Sutter Construction - Residences
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

*** 2007 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (tpy, unmitigated)	8.02	2.99	7.74	0.00	0.08	0.08	0.00

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.04	0.49	0.25	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	24.48	33.27	304.16	0.21	21.10

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	24.53	33.75	304.40	0.21	21.10

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - Residences.urb
 Project Name: Sutter Construction - Residences
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Winter)

Construction Start Month and Year: March, 2007
 Construction Duration: 9
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 398400

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	4.30	29.21	34.29	-	1.16	1.16	0.00
Bldg Const Worker Trips	2.74	5.14	56.09	0.03	0.24	0.09	0.15
Arch Coatings Off-Gas	1,340.07	-	-	-	-	-	-
Arch Coatings Worker Trips	1.02	0.62	13.08	0.00	0.16	0.01	0.15
Asphalt Off-Gas	1.10	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.17	3.42	0.64	0.01	0.07	0.07	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	1,342.36	34.35	90.38	0.03	1.40	1.25	0.15
Max lbs/day all phases	1,342.36	34.35	90.38	0.03	1.40	1.25	0.15

Phase 2 - Site Grading Assumptions: Phase Turned OFF

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Mar '07
 Phase 3 Duration: 9.0 months
 Start Month/Year for SubPhase Building: Mar '07
 SubPhase Building Duration: 8.0 months

No.	Type	Horsepower	Load Factor	Hours/Day
1	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '07

SubPhase Architectural Coatings Duration: 0.5 months

Start Month/Year for SubPhase Asphalt: Nov '07

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 4.6

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.19	2.66	1.06	-	0.00
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.19	2.66	1.06	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	154.96	235.99	1,861.74	1.17	115.62
TOTAL EMISSIONS (lbs/day)	154.96	235.99	1,861.74	1.17	115.62

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	40.35 trips / 1000 sq. ft.	398.40	16,075.44

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Medical office building				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths

Changes made to the default values for Area

Changes made to the default values for Operations

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - Residences.urb
 Project Name: Sutter Construction - Residences
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Summer)

Construction Start Month and Year: March, 2007
 Construction Duration: 9
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 398400

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	4.30	29.21	34.29	-	1.16	1.16	0.00
Bldg Const Worker Trips	2.74	5.14	56.09	0.03	0.24	0.09	0.15
Arch Coatings Off-Gas	1,340.07	-	-	-	-	-	-
Arch Coatings Worker Trips	1.02	0.62	13.08	0.00	0.16	0.01	0.15
Asphalt Off-Gas	1.10	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.17	3.42	0.64	0.01	0.07	0.07	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	1,342.36	34.35	90.38	0.03	1.40	1.25	0.15
Max lbs/day all phases	1,342.36	34.35	90.38	0.03	1.40	1.25	0.15

Phase 2 - Site Grading Assumptions: Phase Turned OFF

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Mar '07
 Phase 3 Duration: 9.0 months
 Start Month/Year for SubPhase Building: Mar '07
 SubPhase Building Duration: 8.0 months

No.	Type	Horsepower	Load Factor	Hours/Day
1	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '07

SubPhase Architectural Coatings Duration: 0.5 months

Start Month/Year for SubPhase Asphalt: Nov '07

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 4.6

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.19	2.66	1.06	-	0.00
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.08	0.01	0.58	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.27	2.66	1.65	0.00	0.01

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	123.76	155.44	1,569.04	1.17	115.62
TOTAL EMISSIONS (lbs/day)	123.76	155.44	1,569.04	1.17	115.62

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	40.35 trips / 1000 sq. ft.	398.40	16,075.44

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Medical office building				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths

Changes made to the default values for Area

Changes made to the default values for Operations

File Name: C:\Documents and Settings\21504\My Documents\Sutter Medical\Sutter Construction - Residences.urb
 Project Name: Sutter Construction - Residences
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Tons/Year)

Construction Start Month and Year: March, 2007
 Construction Duration: 9
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 398400

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.40	2.56	3.04	-	0.08	0.08	0.00
Bldg Const Worker Trips	0.23	0.41	4.63	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	7.37	-	-	-	-	-	-
Arch Coatings Worker Trips	0.01	0.00	0.07	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.01	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons/year	8.02	2.99	7.74	0.00	0.08	0.08	0.00
Total all phases tons/yr	8.02	2.99	7.74	0.00	0.08	0.08	0.00

Phase 2 - Site Grading Assumptions: Phase Turned OFF

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Mar '07
 Phase 3 Duration: 9.0 months
 Start Month/Year for SubPhase Building: Mar '07
 SubPhase Building Duration: 8.0 months
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Cranes	190	0.430	8.0
1	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '07

SubPhase Architectural Coatings Duration: 0.5 months

Start Month/Year for SubPhase Asphalt: Nov '07

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 4.6

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.04	0.48	0.19	-	0.00
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping	0.01	0.00	0.05	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS (tpy, unmitigated)	0.04	0.49	0.25	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Medical office building	24.48	33.27	304.16	0.21	21.10
TOTAL EMISSIONS (tons/yr)	24.48	33.27	304.16	0.21	21.10

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 85 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Medical office building	40.35 trips / 1000 sq. ft.	398.40	16,075.44

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lbs	15.10	4.60	92.70	2.70
Light Truck 3,751- 5,750	15.60	2.60	96.20	1.20
Med Truck 5,751- 8,500	6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Medical office building				7.0	3.5	89.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths

Changes made to the default values for Area

Changes made to the default values for Operations

6.7R Transportation and Circulation

6.7R Transportation and Circulation

INTRODUCTION

As discussed in Chapter 1 (Introduction) the transportation and circulation issues that were identified by the Court and, accordingly, are addressed in this Revised Draft EIR, concern the substantial evidence supporting the trip generation and parking assumptions used in the October 2005 Final EIR (see Appendix A for a copy of the Court's Ruling and Judgment). The remainder of the transportation and circulation (including parking) analyses contained in Section 6.7 (Transportation and Circulation) of the EIR, therefore, are adequate, and are not repeated or revised in this revised Transportation and Circulation section.

The "Methods of Analysis" section has been revised to include more information pertaining to the method used to determine the trip generation and parking demand associated with the SMCS project. Additions of text to Draft EIR published in July 2005 are shown in underline, and deleted text is shown in ~~strikeout~~.

The entire Section 6.7 (Transportation and Circulation) of the October 2005 Final EIR, including all supporting materials, is available for review at the City of Sacramento, Development Services Department, 2101 Arena Boulevard, Ste. 200, Sacramento, during normal business hours.

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

Trip Generation

The number of ~~Trips generated~~ ~~of~~ ~~by~~ the SMCS project and project alternatives is was estimated based upon data collected specifically for this ~~study~~ EIR as well as information on trip generation compiled by the Institute of Transportation Engineers (*Trip Generation, Seventh Edition*) ("ITE"). Table 6.7-13 from Volume 1 of the October 2005 Final EIR reproduced below, summarizes the project trip generation during the a.m. and p.m. peak hours.

Table 6.7-13
Vehicular Trip Generation

Trip Generation Rates									
Land Use	Source	Code	Unit	A.M. Peak Hour			P.M. Peak Hour		
				Trip Rate (trips per unit)	Percent Entering	Percent Exiting	Trip Rate (trips per unit)	Percent Entering	Percent Exiting
Hospital	Survey ¹	-	1,000 sf	1.02	53%	47%	0.83	37%	63%
Medical Office Building	ITE	720	1,000 sf	2.48	79%	21%	3.72	27%	73%
Apartments	ITE	220	Units	0.51	20%	80%	0.62	65%	35%
Retail ²	ITE	820	1,000 sf	0.52	61%	39%	1.88	48%	52%
Live Theatre ³	ITE	441	Seats	0.02	90%	10%	0.02	10%	90%
Church	ITE	560	1,000 sf	0.72	54%	46%	0.66	52%	48%
Trip Generation Volumes – New Trips									
Land Use	Size ⁴	Unit	A.M. Peak Hour			P.M. Peak Hour			
			Total Trips	Entering Trips	Exiting Trips	Total Trips	Entering Trips	Exiting Trips	
SMCS Project									
Hospital	504.176	1,000 sf	515	273	242	419	155	264	
Medical Office Building	122.571	1,000 sf	304	240	64	456	123	333	
Apartments	27	Units	14	3	11	17	11	6	
Retail	9	1,000 sf	5	3	2	17	8	9	
Total			838	519	319	909	297	612	
SMCS Program									
SMCS Project			838	519	319	909	297	612	
Theatre	565	Seats	11	9	2	11	2	9	
Total			849	528	321	920	299	621	
Trinity Cathedral Project									
Cathedral	44.284	1,000 sf	32	17	15	29	15	14	

Notes:

1. Based on trip generation and parking occupancy surveys conducted at Sutter Memorial Hospital, by DKS Associates on March 17, 2005.
2. Rates reduced 50 percent to reflect the primary orientation of the use to people already in the site vicinity.
3. Incomplete ITE data. A.M. peak hour trip generation rate and entering / exiting percentages based on local observations.
4. Change in size (proposed size minus existing size).

Source: Institute of Transportation Engineers' *Trip Generation, Seventh Edition*: DKS Associates, 2005.

SMCS Project

The SMCS project is estimated to generate 838 vehicle trips during the a.m. peak hour, and 909 vehicle trips during the p.m. peak hour.

The estimated number of vehicle trips associated with the proposed new Women's and Children's hospital building (WCC) is based on surveys of existing trips to the existing Sutter Memorial Hospital (SMH), which the WCC hospital would replace. SMH is near the intersection of 52nd Street and F Street in Sacramento. This existing hospital is proposed to be closed, and its uses moved about 1.5 miles west to the SMCS project site. The existing SMH is located in

an area with similar urban characteristics to the Project site. Therefore, the trip generation for the Project is expected to be similar to the existing SMH, which is a more accurate predictor of trip generation than the ITE rate. When more specific information is available concerning a project, and/or when unique project characteristics exist, the correct procedure is to rely on site-specific data at sites representative of the project, as discussed in the City of Sacramento's Traffic Study Guidelines and ITE's Trip Generation Handbook. Since this project involves the relocation of SMH uses and personnel to the project site, it is logical and appropriate to consider the existing trip generation characteristics of SMH in the analysis.

Vehicle trip surveys were conducted by DKS Associates in the spring of 2005, as discussed in detail in the attached Trip Generation Technical Memorandum prepared by DKS Associates. The surveys involved counting the number of cars that traveled into and out of the SMH site during the peak commute periods. The surveys involved both hand counts and machine (hose) counts of the number of vehicles.¹ The a.m. peak hour is the hour when traffic volumes are highest during the morning commute period, and the p.m. peak hour is the hour when traffic volumes are highest during the afternoon/evening commute period.

"Trip generation rates" were then developed by dividing the number of counted trips by the size of SMH. For example, if the number of cars traveling into the hospital in the morning peak hour was 500 cars, and the number leaving was 520 cars, then the total number of trips would be 1020. Continuing the example, if the size of the hospital was 100,000 square feet, dividing the total number of trips (1020) by the size of the hospital (100,000 square feet), results in a trip generation rate of 1.02 trips per 1,000 square feet. By applying this formula to the data collected in the vehicle surveys, the hospital trip generation rates were determined to be 1.02 trips per 1,000 square feet in the morning, and 0.83 trips per 1,000 square feet in the afternoon. These rates are shown in Table 6.7-13, above.

The above trip generation volumes-rates, used in this for traffic analysis purposes, shown in Table 6.7-13, above, are based upon both the trip generation rates recorded for the hospital component calculated specifically for this study EIR based on survey data and standard rates for the other Project components compiled by the Institute of Transportation Engineers at similar facilities. The survey data is included at the end of this section.

While the following factors are expected to reduce the actual number of project trips generated by the Project, these factors were not used in this EIR to discount the estimated trip generation:

- Transportation Systems Management (TSM) Plan – SMCS currently is implementing an alternative commute plan for the existing Sutter General Hospital that reduces the number of automobile trips to the Project site. As described in Chapter 2, Project Description, SMCS is now required to prepare and implement a TSM plan for the new project components. Many of the existing alternative commute strategies in the SMCS alternative commute plan (described in Chapter 2) have been included in the SMCS project and are expected to reduce project trip generation. However, since because the quantification of such

¹ A hand count is conducted by having a person observe an intersection for two hours in the morning and two hours in the afternoon, and counting the number of left, through and right turning vehicles on each approach to the observed intersection. A hose count is conducted by laying a pressurized pneumatic hose, which is connected to a machine that automatically counts vehicles as they travel over the hose, across streets leading to an intersection. The hose typically is left out for at least 24 hours to ensure collection of both a.m. and p.m. peak hour data. Sufficient travel speeds are needed for the hose counter equipment to properly register a passing vehicle. Therefore, a hand count was conducted at one stop sign controlled intersection where travel speeds were low.

reductions is inexact, no credit has been taken in this trip generation analysis for the TSM measures existing alternative commute plan.

- Consolidation and internalization – One purpose of the SMCS project is to consolidate Sutter General and Sutter Memorial Hospitals onto ~~one~~ a single campus to achieve better and more efficient services at less cost. Anticipated efficiency gains are related to consolidation and reduction in staffing levels, and reductions in lost time by doctors and staff traveling between facilities. Overall operational improvements could result in a staff reduction of five to ~~ten~~ 10 percent, resulting in corresponding ~~trip-generation~~ reductions in the number employee trips generated. However, ~~since because~~ project approval is related to building characteristics and not employee levels, no trip generation reduction has been ~~taken~~ assumed in this trip generation analysis for consolidation and internalization of hospital functions.
- SMF Medical office building characteristics – The proposed SMF medical office building ~~includes~~ would contain specialty care services, cardiac rehabilitation, and imaging services rather than the typical primary care offices located in ~~many~~ typical medical office buildings. The number of employees, number of patients and duration of visits for these specialty uses is expected to be less than for primary care offices; however, varies between these uses, because the types of medical uses differs from a more traditional medical office; however, no trip generation reduction has been ~~taken~~ assumed in this trip generation analysis because little quantifiable information is currently available.

Additional information on how trip-generation rates were calculated is presented in the technical memorandum attached to this analysis.

In addition to these trips, additional trips would be generated between pick-up/drop-off areas and parking facilities. Some of these trips would be valet and some would be self-parkers. The SMCS project proposes that pick-up/drop-off areas and valet parking would be provided at the following locations:

- Private drive running north/south east of the Buhler Building and west of the proposed WCC; and
- Private drive running north/south west of the proposed SMF Building.

The number of additional trips is estimated to be 290 vehicle trips during the a.m. peak hour and 294 vehicle trips during the p.m. peak hour. These trips would travel between the pick-up/drop-off areas and the proposed parking facilities. Valet parking would be provided in the Community Parking Structure as well as the south lot under the freeway. The additional trips are considered internal link trips and do not represent a net increase in the total number of vehicle trips accessing the project site. These trips have already been accounted for in the 838 vehicle trips during the a.m. peak hour, and 909 vehicle trips during the p.m. peak hour.

Parking

Title 17, Chapter 17.64 of the City's Zoning Code identifies parking requirements for different land uses. The City of Sacramento zoning requirements for parking were established to ensure that the typical project would have adequate off-street parking, such that unserved parking demand would not result in adverse effects to other members of the community. The City's

current zoning requirements do not address the individual characteristics of each project; rather, they are specified such that they provide adequate parking for the majority of projects. The current zoning requirements are currently being studied as part of the City's Central City Parking Master Plan project (Parking Master Plan). The requirements might or might not be changed at a future date as a result of the study. The Parking Master Plan is going before the City Council for review and approval on September 19, 2006.

The parking demand for the proposed hospital and medical office buildings is based on a survey of existing parking demand ("use") at SMH. SMH is near the intersection of 52nd Street and F Street in Sacramento. This existing hospital is proposed to be closed, and its uses moved about 1.5 miles west to the proposed Project site.

The midday parking accumulation counts (or the total number of vehicles on the SMH site) were conducted by DKS Associates between 11:30 and 12:30 p.m. on Thursday, March 17, 2005 at the existing SMH. The midday time period was chosen for the parking survey because it was determined that midday would have the greatest number of vehicles on-site and, therefore, the highest parking demand based on data from the vehicle trip hose counts (see description of vehicle trip surveys in the analysis of Project trip generation, above). A peak accumulation of 898 occupied spaces was recorded. A hospital "parking-rate" was then developed by dividing the number of counted occupied spaces by the size of SMH. Dividing the number of occupied parking spaces (898) by the existing hospital size (430,627 square feet), yields a peak-parking rate of 2.09 spaces per 1,000 square feet. This rate is shown in Table 6.7-19 from Volume 1 of the October 2005 Final EIR, reproduced below.

Multiplying the SMH rate (2.09 spaces per 1,000 square feet) by the proposed project's hospital component (398,362 square feet) results in 833 required spaces. Based on information from the surveys taken at SMH approximately five percent (5%) of the existing space at SMH is solely dedicated to medical office uses. The remainder of the parking spaces (95%) is used for the hospital; therefore, the observed parking rate was considered to be appropriate for hospital uses. In addition, this calculated parking rate was compared to information contained in the Institute of Transportation Engineers (ITE) Parking Generation, 3rd Edition, page 153. The ITE parking rate for an "urban hospital," applied to the 272 hospital beds proposed for the SMCS, would generate a demand for 944 parking spaces. However, since the data from SMH is considered to be most representative of local conditions, because the SMH is located close by the Project site and the parking survey recorded actual, local conditions, this information was used rather than the ITE Manual data.

Table 6.7-14 from Volume 1 of the October 2005 Final EIR, reproduced below, shows includes the City's parking requirements for the project. The parking demand rates used for the SMCS project are shown in Table 6.7-19. Additional information on how parking demand was calculated is presented in the technical memorandum attached to this analysis.

Table 6.7-14

City's Parking Requirements

Building/Use	Type of Use	SF	Zoning Requirement (spaces)
Women's and Children's Center	Hospital	398,362/272 beds	272 ¹
SGH	Hospital	71,300	N/A ²
SMF Building	Medical Office	129,137	646 ³
Specialty Care Offices		63,366	
Ambulatory Surgery		34,514	
Cardiac Rehabilitation		6,130	
Imaging		21,557	
Laboratory		3,570	
Retail	Retail	2,600	6.5 ⁴
Future MOB	Medical Office	35,000	175 ³
Residential	Residential	32 units	34 ⁵
Retail (Parking Structure)	Retail	9,000	22 ⁴
Trinity Cathedral	Church	1,000 seats	250 ⁶
Theatre	Theatre	565 seats	188 ⁷
Total			1,593.5

Notes:

1. 1 per patient bed.
2. New space does not include any beds.
3. 5 spaces per 1,000 sf.
4. 1 space per 400 sf.
5. 1 space per du + 1 guest space per 15 units.
6. 1 space per 4 seats.
7. 1 space per 3 seats.

Source: City of Sacramento Zoning Code, Title 17 Zoning, Chapter 17.64 Parking Regulations; Mark Kraft, July 2005.

Table 6.7-19
Estimated Parking Demand

Land Use	Size	Parking Rate	Source	Parking Need (spaces)
SMCS Project				
Women's and Children's Center	398,362 sf	2.09 / ksf	Survey ¹	833
SMF Building – Medical Office Building	97,223 sf	3.53 / ksf	ITE	343
SMF Building – Ambulatory Surgery	13 suites	5.67 / suite	ITE	74
Future Medical Office Building	35,000 sf	3.53 / ksf	ITE	124
Removal of Existing Medical Office Buildings	(9,652 sf)	3.53 / ksf	ITE	(34)
Apartments	27 du	1 / du	ITE	27
Retail	9,000 sf	2.65 / ksf	ITE	24
Pioneer Church	-	-	Project Description	36
Total				1,427³
Trinity Project				
Trinity Cathedral	-	-	Project Description	25
Total				1,452³
Theatre				
Theatre ²	-	-		124
Total				1,576³

Notes:

1. Based on trip generation and parking occupancy surveys conducted at Sutter Memorial Hospital, by DKS Associated on March 17, 2005.
2. See text for derivation of midday parking demand for the Theatre.
3. Factors such as consolidation and internalization, as well as available capacity in the existing SMCS parking, could reduce these estimates by up to 471 spaces.

Source: Institute of Transportation Engineers' *Parking Generation, Third Edition*; DKS Associates, 2005.

MEMORANDUM

TO: Lezley Buford, AICP
City of Sacramento Development Services Department

FROM: Pelle R. Clarke, DKS Associates

DATE: September 20, 2006

SUBJECT: Sutter Medical Center Estimated Parking Demand P/A No. P03163

This memorandum was prepared by Mr. Pelle Clarke, Senior Engineer, employed by DKS Associates. Mr. Clarke prepares traffic studies for environmental and planning documents. As a traffic engineer with 15 years of experience, Mr. Clarke has performed numerous traffic studies for environmental and planning projects throughout California. Mr. Clarke's resume is attached to this memorandum.

Introduction

This memorandum documents how the estimated parking demand for the proposed Women's and Children's (WCC) hospital use in the Sutter Medical Center (SMCS) Draft EIR was determined. A copy of the data sheets and other background material used to gather this information follows this memo.

Determination of Estimated Parking Demand

The SMCS project includes a hospital building and medical office buildings. The project also includes other land uses such as retail space, and a proposed theatre. The estimated parking need generated by these different land uses is shown in Table, 6.7-19 of the SMCS 2005 Draft EIR. Except for the hospital land use, the parking needs are based upon survey information published by the Institute of Transportation Engineers (ITE) Manual or contained in the SMCS 2005 Draft EIR Project Description.

The estimated parking needs for the proposed hospital and medical office buildings are based on surveys of existing parking demand at Sutter Memorial Hospital (SMH). DKS Associates concluded that the SMH facility was representative of the new WCC because the SMCS project would relocate uses and personnel currently at SMH (52nd Street/F Street) approximately 1.5 miles to the project site between 28th and 26th Streets. It is appropriate, therefore, to consider the existing trip generation characteristics of SMH as an accurate measure of trips that would be shifted from SMH to the SMCS campus.

There is no basis to assume that a greater number of trips would result for SMH uses that would be transferred to the SMCS site. This is especially so because, as stated in the 2005 Draft EIR, project trip generation is anticipated to be lower than analyzed because trip reductions due to consolidation and internalization of uses were not accounted for in the traffic study. With the consolidation of Sutter General and SMH into one campus, staff and patient travel between the two facilities would be eliminated and expected staff reductions of five to ten percent would reduce employee trips. The traffic analysis in the 2005 Draft EIR assumed a conservative approach and did not factor in any reductions in trips associated with the consolidation of uses or any reductions in staff. For this reason, to the extent parking and traffic analyses are based on traffic and parking counts at SMH, the estimates of trip generation and parking demand are likely higher than will actually occur. Nevertheless, the trip generation rates and parking demand estimates were not revised downward in order to ensure that the approach would be conservative.

The midday parking accumulation counts were conducted by DKS Associates between 11:30 and 12:30 p.m. on Thursday, March 17, 2005 at the existing SMH. It was determined based on data from the hose counts that between 11:30 and 12:30 there would be the highest concentration of vehicles on-site. A peak accumulation (or total number of vehicles on-site) of 898 occupied spaces was recorded. Parking calculations (rates) were based on data recorded at SMH rather than Sutter General Hospital, since parking for the Sutter General Hospital project could not be isolated from other non-Sutter uses (such as other non-Sutter affiliated doctors' offices and other medical facilities) that share the Sutter General Hospital parking. A hospital "parking-rate" was then developed by dividing the number of counted occupied spaces by the size of SMH. Dividing the number of occupied parking spaces (898) by the existing hospital size (430,627 square feet), yields a peak-parking rate of 2.09 spaces per 1,000 square feet. This rate is shown in Table 6.7-19 of the SMCS 2005 Draft EIR.

Multiplying the SMH rate (2.09 spaces per 1,000 square feet) times the proposed WCC component (398,362 square feet), results in 833 required spaces. This result was compared to information contained in the ITE Manual (see page 153 attached to the end of this memo). The ITE Manual includes information on average peak period parking demand at a hospital, based on data gathered from a variety of studies. The ITE Manual estimates parking demand on a per-bed basis, rather than per 1,000 square feet. Based upon 272 proposed beds at the WCC, the parking rate for an "urban hospital" of that size, using the ITE Manual, would generate a demand for 944 parking spaces. Since the data from SMH is considered to be representative of local conditions, the 833 required spaces calculated by using the SMH rate were used rather than the number of required spaces calculated using the ITE Manual.

Data from the City's ongoing Central City Parking Master Plan (specifically parking counts conducted in the garages and on-street adjacent to the SMH) were used to

establish existing parking conditions for both on-street and off-street parking.¹ The data sheets from the Central City parking study are included at the end of this section.

The data sheets used to count the on-street and off-street parking lots in and around Sutter General Hospital are attached to this memo. The on-street parking data survey sheets include one survey sheet for each City block in the Central City. In the center of the sheet is a location code, such as "13H." This indicates the block location. In this example, "13H" indicates that the intersection of 13th and H Streets is at the northwest corner of the block. The aerial photographs are oriented such that north is up.

The surveyor walked around the block and recorded the number and types of curb spaces. On the right side of the survey sheet is a list of codes that the surveyor used for inventory purposes. The letter in the code indicates the type of space, and the number refers to either time limits or length. For example, "M90" refers to a 90-minute parking meter, while "R180" refers to approximately 180 feet of No Parking and / or Red Curb.

The off-street parking data survey sheets show how the surveyor recorded the number of occupied and total spaces of each off-street lot/garage. In some cases, entry was not possible, and these locations are noted "GC." Because some locations were inaccessible, the surveys are estimates, and are not exact. In general, the numbers pointing to each lot/garage indicate the number of occupied spaces and the number of total spaces in the lot/garage. For example, "6/10" indicates that there were six occupied spaces out of a total of 10 spaces. For some large lots/garages, the number of vacant spaces were counted rather than the number of occupied spaces. In these locations, the letter "V" is used to denote this survey practice. In some locations, for clarity, the letter "O" is utilized to indicate that the associated number refers to the number of occupied spaces.

The data sheets also indicate the dates on which the counts were performed. Those dates are also summarized below. The counts were performed on March 17, 2005. This date was a Thursday, a weekday. Parking demand in the area is at its highest on weekdays.

Survey Method

Sutter Memorial Hospital Survey Result

As explained above, DKS Associates recorded the number of occupied spaces at SMH on March 17, 2005, between 11:30 a.m. and 12:30 p.m. The number of occupied employee spaces was 645 and the number of occupied visitor spaces was 253. A total of 898 occupied spaces were recorded.

¹ The Central City Parking Master Plan is a study being prepared by the City of Sacramento that evaluates existing parking facilities throughout the midtown and downtown area and identifies where additional parking facilities should be constructed. The Plan is scheduled to go before the City Council for approval on September 19, 2006.

To document this information DKS Associates printed out an aerial photo of the SMH site, mounted it on a clip board, and recorded the occupied parking spaces on the aerial photo. The aerial is from an unknown date and was not taken on the day of the parking occupancy count. The aerial was used as a guide to the campus and to record parking occupancies.

The following field notes appear on the aerial photo attached to this memorandum:

- 1) The parking area designated as “A Lot” was chained off. There were no occupied spaces recorded in the “A Lot.” The sign at the entrance to the “A Lot” read “PM Staff Lot A.”
- 2) “B Lot” – 60 occupied spaces were recorded.
- 3) “C Lot” – 246 visitor spaces and 170 employee spaces were recorded as occupied. (Note: there is an error in the notes at the bottom of the page where Lot C was noted as containing 242 occupied spaces, the highlighted values in the white spaces above the aerial show the correct total of 246).
- 4) “D Lot” – 316 occupied spaces were recorded.
- 5) “Doctor Parking” – 99 occupied spaces were recorded.
- 6) “Drop off area Parking” – 7 occupied spaces were recorded

The total number of occupied spaces counted between 11:30 a.m. and 12:30 p.m. on March 17, 2005 was 898 spaces ($60 + 246 + 170 + 316 + 99 + 7 = 898$ spaces).

PELLE R. CLARKE
Senior Engineer

EDUCATION:

Bachelor of Science, Civil
Engineering, California State
University, San Francisco, 1990

Master of Business Administration,
California State University,
Sacramento, 2002

YEARS OF EXPERIENCE: 15

AREAS OF EXPERTISE:

- General Plans/Specific Plans
- Major Investment Studies
- Travel Demand Modeling
- Areawide and Corridor Studies

PROFESSIONAL EXPERIENCE

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PROFESSIONAL AFFILIATIONS

Institute of Transportation Engineers

SMH Parking Counts

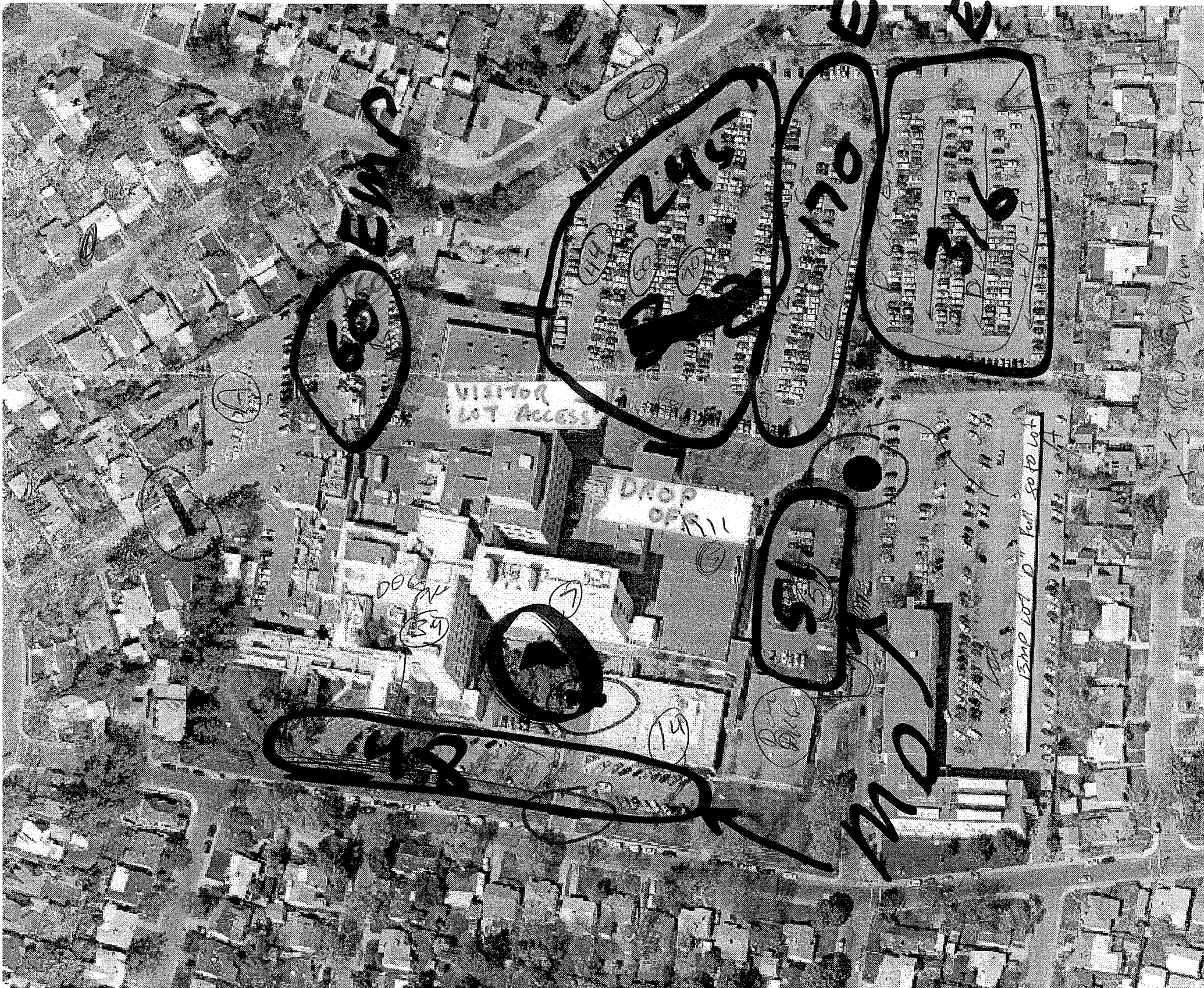
A = PM STAFF LOT A

B = PM STAFF LOT B (60)

20 PM + 60 + 70 + 44 + 8
= 246

EMP	60	Visitors	7
	170		246
	316		253
	518		645

total
253
+ 645
898



11:30 - 12:30 3/17/05

A Lot - chand off - not occupied - signed "PM Staff Lot A"

B Lot - 60

C Lot - 242 pm + 170 emp

D Lot - 316 emp

Doe pm - 99 emp

Prop site PKG - 7

emp atm

60

170

316

99

645

242

7

249

Memorial Count locations in

MEMORANDUM

TO: Lezley Buford, AICP
City of Sacramento Development Services Department

FROM: Pelle R. Clarke, DKS Associates

DATE: September 20, 2006

SUBJECT: Sutter Medical Center Trip Generation P/A No. P03163

This memorandum was prepared by Mr. Pelle Clarke, Senior Engineer, employed by DKS Associates. Mr. Clarke prepares traffic studies for environmental and planning documents. As a traffic engineer with 15 years of experience, Mr. Clarke has performed numerous traffic studies for environmental and planning projects throughout California. Mr. Clarke's resume is attached to this memorandum.

Introduction

This memorandum presents an explanation of how the trip generation rates for the hospital use in the Sutter Medical Center (SMCS) 2005 Draft EIR were determined. The trip generation rates for the other uses (e.g., medical office building, residential, theatre) were derived from the Institute of Transportation Engineers (ITE) Manual, which provides standard rates for land uses based on surveys in different locations in the United States. Upon further examination, the City determined that the ITE Manual trip generation rate for hospitals was based on surveys of more suburban hospitals, which would not be accurate to calculate the trip generation of a hospital in Midtown Sacramento. Consequently, a project-specific trip generation rate was developed using information from Sutter Memorial Hospital (SMH). This is a standard procedure in circumstances where the generic trip generation rates provided by the ITE Manual may not accurately describe the particular type of use under consideration. The ITE Manual recognizes that, where trip generation data is obtained that from a site that resembles the proposed project under analysis, then it is appropriate to use that data, rather than the trip generation rates set forth in the Manual (ITE Manual, page 15. See also a copy of the page from the ITE Manual attached to this memorandum.)

Trip Generation

Table 6.7-13, "Vehicular Trip Generation" on page 6.7-30 of the SMCS 2005 Draft EIR presents the estimated number of vehicle trips that are expected to be generated by the proposed SMCS project during the morning and afternoon peak commute hours. The

SMCS project includes a new hospital building and medical office buildings. The project also includes other land uses such as retail space, and a proposed theatre.

As explained above, using trip generation data compiled by ITE is standard procedure in the preparation of traffic studies. Therefore, except for the hospital building, the number of vehicle trips used in this analysis is based upon survey information published by ITE. However, when more specific information is available concerning a project, and/or when unique project characteristics exist, the correct procedure is to collect specific data at sites representative of the project, as discussed in the City of Sacramento's Traffic Study Guidelines and ITE's Trip Generation Handbook.¹ The SMH is also located in midtown Sacramento. Thus, trip generation characteristics at SMH are a better indicator of the number of trips that will be generated by corresponding, relocated uses at the SMCS than the ITE Manual's trip generation rates. For this reason, the existing trip generation characteristics of SMH were used in the analysis.²

New Women's and Children's Hospital Building

The estimate of the number of vehicle trips associated with the proposed new Women's and Children's Center hospital building (WCC) is based on a project-specific trip generation rate derived from surveys of existing trips to the existing SMH, which would be replaced by the proposed WCC. SMH is near the intersection of 52nd Street and F Street in Sacramento. This existing hospital is proposed to be closed, and its uses moved about 1.5 miles west to the proposed WCC site. The existing SMH is located in an area with similar urban characteristics to the WCC site.

Surveys were conducted by DKS Associates. Information was gathered on June 8, 9, and 10, 2004 – Tuesday through Thursday of that week. Surveys at the SMH site involved

¹ The *Trip Generation Handbook* was approved in November 2000 as a Recommended Practice of the Institute of Transportation Engineers (ITE). *Trip Generation* is an Informational Report published by ITE in three volumes that contain land use data descriptions, data plots, a description of the data base and reported statistics. The *Trip Generation Handbook* provides instruction and guidance in the proper use of data presented in *Trip Generation* and provides information on supplemental issues of importance in estimating trip generation for development sites.

² The ITE Manual (see pages 1102 and 1103 attached to this memo) shows the average a.m. and p.m. peak hour trip generation per 1,000 square feet (sf) of Hospital uses. The average ITE a.m. rate is 1.20 trips per 1,000 sf and the average p.m. rate is 1.18. The average trip generation rates used in the 2005 SMCS Draft EIR are based on data collected at SMH and were 1.02 during the a.m. peak hour and 0.83 during the p.m. peak hour. Therefore, the ITE trip generation rates are within 15-30% of the survey rates, which is considered within the range of generation rates for hospitals. According to the ITE *Trip Generation, Seventh Edition*, the range of rates is 0.63 to 5.45 during the a.m. peak hour, and 0.70 to 6.94 during the p.m. peak hour. The highest reported a.m. rate is over eight times higher than the lowest a.m. rate, and the highest p.m. rate is almost ten times the lowest p.m. rate. There is a wide variation in ITE's hospital rates and the data is scattered, not clustered together. Thus, the wide variation in hospital rates provides the rationale to go out and perform counts to obtain local data, if available. Ultimately, the recorded rates used in the July DEIR are above the data reported by ITE for the A.M. peak hour and are well within the data reported by ITE for the P.M. peak hour.

counting the number of cars that traveled into and out of the SMH site during the peak commuter periods using both hand counters and hose counters.³ The a.m. peak hour is the hour when traffic volumes are highest during the morning commute period (typically from 7 to 9 a.m.), and the p.m. peak hour is the hour when traffic volumes are highest during the afternoon/evening commute period (typically from 4 to 6 p.m.).

The trip rate is the number of car trips divided by the size of the hospital. For example, if the number of cars traveling into the hospital in the morning peak hour was 500 cars, and the number leaving was 500 cars, then the total number of trips would be 1,000. Continuing the example, if the size of the hospital was 100,000 square feet, dividing the total number of trips (1,000) by the size of the hospital (100,000 square feet), results in a trip generation rate of 1.00 trips per 1,000 square feet. This approach allows the use of data from an existing site to estimate trips at another, proposed, similar site, even if the existing site and the proposed site are not identical in size.

The project-specific hospital “trip generation rate” was developed by dividing the number of counted trips to and from the SMH by the size of the SMH. These rates are shown in Table 6.7-13 on page 6.7-30 of the 2005 Draft EIR. The hospital trip generation rate was determined to be 1.02 trips per 1,000 square feet in the a.m. peak hour and 0.83 trips per 1,000 square feet in the p.m. peak hour, as described in the table below.

The surveys show there were a total of 440 trips in and out of SMH during the a.m. peak hour, shown below in Table 1. The total size of SMH is 430,627 square feet (sf). Dividing 440 a.m. peak hour trips by 430,627 sf results in a rate of 1.02 trips per 1,000 sf. during the a.m. peak hour.

The total of the east side hand count plus the average south side hose count and the average west side hose count is a total of 440 trips.

The surveys show there were a total of 358 trips in and out of SMH during the p.m. peak hour, as shown below in Table 2. The total size of the Sutter Memorial Hospital is 430,627 sf. Dividing 358 p.m. peak hour trips by 430,627 sf results in a rate of 0.83 trips per 1,000 sf.

The total of the east side hand counts and south and west side average hose counts is 358 trips.

³ A hand count is conducted by having a person observe an intersection for two hours in the morning and two hours in the afternoon and counting the number of left, through and right turning vehicles on each approach to the intersection. A hose count is conducted by laying a pressurized hose across the street that is connected to a machine that automatically counts vehicles as they travel over the hose. A hose counter is typically left out for at least 24 hours to ensure collection of both a.m. and p.m. peak hour data. Sufficient travel speeds are needed for the hose counter equipment to properly register a passing vehicle. Therefore, a hand count was conducted at one location where travel speeds were low due to a stop signed controlled intersection.

Table 1						
Sutter Memorial Hospital A.M. Peak Hour Vehicular Trip Generation						
				Number of Trips		
Access	Method¹	Source²	Date	Incoming	Outgoing	Total
East side ³	Hand	p. 6	6/9/04	139	85	224
South side	Hose	p. 7	6/8/04	53	47	100
		p. 12	6/9/04	32	46	78
		p. 13	6/10/04	39	61	100
Average						92 ⁴
West side	Hose	p. 11	6/8/04	58	72	130
		p. 8	6/9/04	61	72	133
		p. 9	6/10/04	47	63	110
Average						124
TOTAL						440
Notes:						
1. Hand count vs. hose count. See footnote 3 for a description of the different types of counts.						
2. The data sheets with this information are attached at the end of the section.						
3. The parking lot located along the east side of the hospital was hand-counted for two hours on June 9, 2004 between 7:00 and 9:00 a.m.						
4. The average is for the hose counts.						
Source: DKS Associates, 2006.						

Table 2						
Sutter Memorial Hospital P.M. Peak Hour Vehicular Trip Generation						
				Number of Trips		
Access	Method¹	Source²	Date	Incoming	Outgoing	Total
East side ³	Hand	p. 3	6/9/04	63	121	184
South side	Hose	p. 7	6/8/04	51	50	101
		p. 12	6/9/04	49	52	101
		p. 13	6/10/04	47	45	92
Average						98 ⁴
West side	Hose	p. 11	6/8/04	24	52	76
		p. 8	6/9/04	15	61	76
		p. 9	6/10/04	22	56	78
Average						76
TOTAL						358
Notes:						
1. Hand count vs. hose count. See footnote 3 for a description of the different types of counts.						
2. The data sheets with this information are attached at the end of the section.						
3. The parking lot located along the east side of the hospital was hand-counted for two hours on June 9, 2004 between 4:00 and 6:00 p.m.						
4. The average is for the hose counts.						
Source: DKS Associates, 2006.						

PELLE R. CLARKE
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PROFESSIONAL AFFILIATIONS

Institute of Transportation Engineers

SMH Survey Data – To Determine Trip Generation

All Traffic Data
 5098 Foothills Blvd. 3-302
 Roseville, CA. 95678
 (916)771-8700

Site Code : 00000000
 Start Date: 06/09/04
 File I.D. : SUTMEM-T
 Page : 1

CITY OF SACRAMENTO
 SUTTER MEMORIAL HOSPITAL

Start Time	EMPLOYEE PARKING ENTRANCE				ENTRANCE TO SUTTER MEMORIAE STREET												Total					
	Southbound		Westbound		Northbound		Eastbound		Southbound		Westbound		Northbound		Eastbound							
	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl						
7:00am	0	4	0	4	0	0	0	0	0	13	23	0	36	0	6	0	17	23	0	63	0	63
7:15	0	23	0	23	0	0	0	0	0	6	25	0	31	0	1	0	17	18	0	72	0	72
7:30	0	7	0	7	0	0	0	0	0	11	23	0	34	0	1	0	9	10	0	51	0	51
7:45	0	1	0	1	0	0	0	0	0	15	23	0	38	0	4	0	7	11	0	50	0	50
Hour Total	0	35	0	35	0	0	0	0	0	45	94	0	139	0	12	0	50	62	0	236	0	236
8:00am	0	1	0	1	0	0	0	0	0	20	28	0	48	0	2	0	7	9	0	58	0	58
8:15	0	10	1	11	0	0	0	0	0	10	25	0	35	0	3	0	8	11	0	57	0	57
8:30	0	9	0	9	0	0	0	0	0	29	20	0	49	0	2	0	2	4	0	62	0	62
8:45	0	4	0	4	0	0	0	0	0	8	14	0	22	0	0	0	6	6	0	32	0	32
Hour Total	0	24	1	25	0	0	0	0	0	67	87	0	154	0	7	0	23	30	0	209	0	209
Grand	0	59	1	60	0	0	0	0	0	112	181	0	293	0	19	0	73	92	0	445	0	445
% of Total	0.0	13.3	.2%		0.0	0.0	0.0%			25.2	40.7	0.0%			4.3	0.0	16.4%			0.0%	100.0%	
Approch %			13.5%									65.8%					20.7%					
% of Apprc	0.0	98.3	1.7%		0.0	0.0	0.0%			38.2	61.8	0.0%			20.7	0.0	79.3%					

Peak Hour Analysis By Entire Intersection for the Period: 07:00am to 08:45am on 06/09/04

Direction	Street Name	Start	Peak Hr	Factor	Volumes				Percentages			
					Left	Thru	Rght	Total	Left	Thru	Rght	Total
Southbound	EMPLOYEE PARKING ENTRAN	07:00am	.380		0	35	0	35	.0	100.0	.0	.0
Westbound			.0		0	0	0	0	0.0	0.0	0.0	0.0
Northbound	ENTRANCE TO SUTTER MEMO		.914		45	94	0	139	32.3	67.6	.0	.0
Eastbound	E STREET		.674		12	0	50	62	19.3	.0	80.6	.0

CITY OF SACRAMENTO
SUTTER MEMORIAL HOSPITAL

All Traffic Data
5098 Foothills Blvd. 3-302
Roseville, CA. 95678
(916) 771-8700

Site Code : 00000000
Start Date: 06/09/04
File I.D. : SUTMEM-T
Page : 2

EMPLOYEE PARKING ENTRANCE

0	0	35	0	12
				94
				0
				=====
				106
Inbound			35	
Outbound			106	
Total			141	

0	0
=====	
0	0

E STREET

45	45
45	0
	0
=====	
	12

12

Inbound	62
Outbound	45
0 Total	107

Inbound	0
Outbound	0
Total	0

50

0	0
0	0
0	0

Inbound	139
Outbound	85
Total	224

0	45	94
35		
50		
=====		
85		

ENTRANCE TO SUTTER MEMORIAL

All Traffic Data

5098 Foothills Blvd. 3-302
Roseville, CA. 95678
(916)771-8700

Site Code : 00000000
Start Date: 06/09/04
File I.D. : SUTMEM-T
Page : 1

CITY OF SACRAMENTO
SUTTER MEMORIAL HOSPITAL

EMPLOYEE PARKING ENTRANCE

ENTRANCE TO SUTTER MEMORIAL STREET

Southbound

Westbound

Northbound

Eastbound

Start

Time	EMPLOYEE PARKING ENTRANCE Southbound				EMPLOYEE PARKING ENTRANCE Westbound				ENTRANCE TO SUTTER MEMORIAL STREET Northbound				ENTRANCE TO SUTTER MEMORIAL STREET Eastbound				Total			
	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Left	Thru	Rght	Totl	Total	=		
4:00pm	0	19	2	21	0	0	0	0	0	11	2	0	13	0	0	0	20	20	0	54
4:15	0	17	1	18	0	0	0	0	0	18	2	0	20	0	0	0	9	9	0	47
4:30	0	19	2	21	0	0	0	0	0	11	1	0	12	0	0	0	15	15	0	48
4:45	0	16	0	16	0	0	0	0	0	16	2	0	18	0	0	0	6	6	0	40
Hour Total	0	71	5	76	0	0	0	0	0	56	7	0	63	0	0	0	50	50	0	189
5:00pm	0	17	5	22	0	0	0	0	0	10	1	0	11	0	0	0	10	10	0	43
5:15	0	9	0	9	0	0	0	0	0	16	2	0	18	0	0	0	13	13	0	40
5:30	0	17	1	18	0	0	0	0	0	18	1	0	19	0	0	0	10	10	0	47
5:45	0	7	0	7	0	0	0	0	0	21	2	0	23	0	0	0	6	6	0	36
Hour Total	0	50	6	56	0	0	0	0	0	65	6	0	71	0	0	0	39	39	0	166
Grand	0	121	11	132	0	0	0	0	0	121	13	0	134	0	0	0	89	89	0	355
% of Total	0.0	34.1	3.1%		0.0	0.0	0.0%		34.1	3.7	0.0%		0.0	0.0	25.1%			0.0%	100.0%	
Approch %			37.2%								37.7%				25.1%					
% of Apprch	0.0	91.7	8.3%		0.0	0.0	0.0%		90.3	9.7	0.0%		0.0	0.0	100.0%					

Peak Hour Analysis By Entire Intersection for the Period: 04:00pm to 05:45pm on 06/09/04

Direction	Street Name	Start Peak Hour	Peak Hr Factor	Volumes				Percentages				
				Left	Thru	Rght	Total	Left	Thru	Rght	Total	
Southbound	EMPLOYEE PARKING ENTRANCE	04:00pm	.905	0	71	5	0	76	.0	93.4	6.5	.0
Westbound			.0	0	0	0	0	0	0.0	0.0	0.0	0.0
Northbound	ENTRANCE TO SUTTER MEMORIAL		.788	56	7	0	0	63	88.8	11.1	.0	.0
Eastbound	E STREET		.625	0	0	50	0	50	.0	.0	100.0	.0

CITY OF SACRAMENTO
SUTTER MEMORIAL HOSPITAL

All Traffic Data
5098 Foothills Blvd. 3-302
Roseville, CA. 95678
(916) 771-8700

Site Code : 00000300
Start Date: 06/09/04
File I.D. : SUTMEM-T
Page : 2

0
61
56
0
5
0

5	71	0	0
Inbound			76
Outbound			7
Total			83

0
0
0

Inbound	50
Outbound	61
Total	111
0	
50	

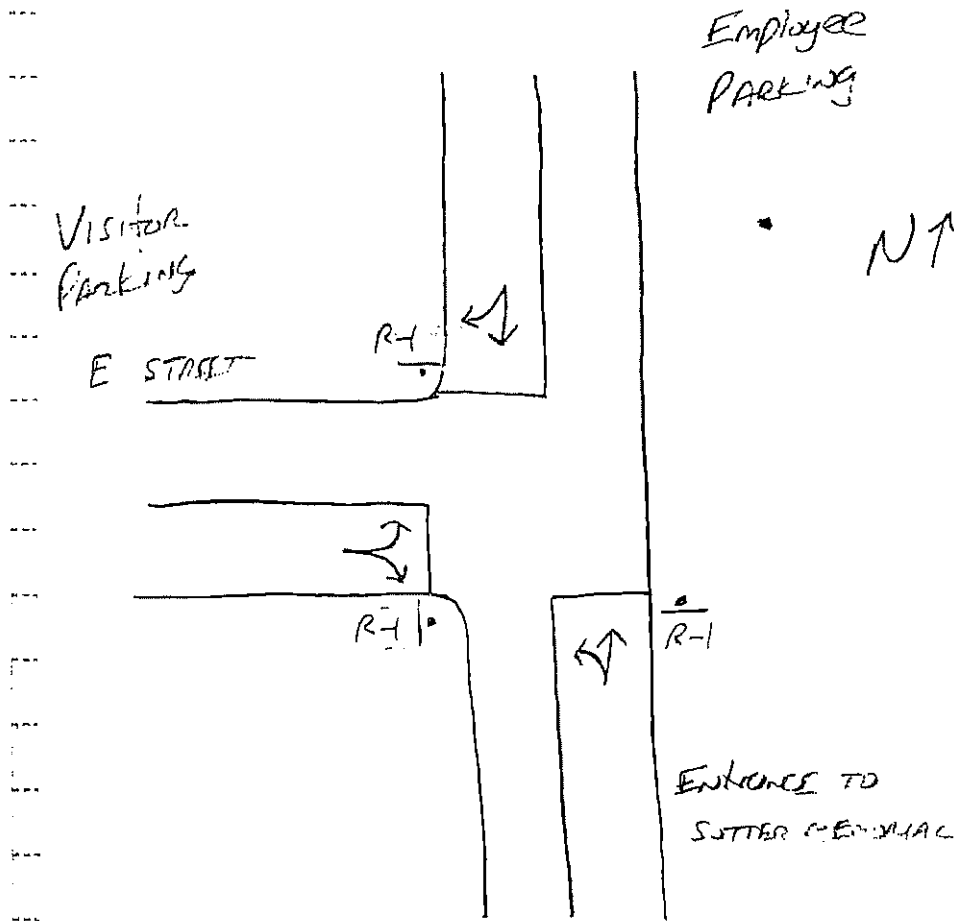
Inbound	0
Outbound	0
Total	0
0	0
0	0
0	0

0
71
50
121

Inbound	63		
Outbound	121		
Total	184		
0	56	7	0
71			
50			
121			

0
0

ENTRANCE TO SUTTER MEMORIAL



CITY OF SACRAMENTO

All Traffic Data
(916) 771-8700

Site Code : 00000000000

Start Date: 06/08/2004

File I.D. : SUTTER-2

Page : 1

SUTTER MAIN DRIVEWAY

Direction 1

Begin Time	IN		OUT		Combined		Tuesday
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
12:00	06/08 0	7	0	7	0	14	
12:15	0	15	0	13	0	28	
12:30	4	26	2	19	6	45	
12:45	0	4 28	76	0	2 22	61	0 6 50 137
01:00	1	19	1	15	2	34	
01:15	0	20	0	17	0	37	
01:30	0	11	0	12	0	23	
01:45	0	1 9	59	0	1 4	48	0 2 13 107
02:00	0	11	0	8	0	19	
02:15	0	5	0	4	0	9	
02:30	0	13	0	9	0	22	
02:45	0	* 16	45	0	* 8	29	0 * 24 74
03:00	1	12	1	8	2	20	
03:15	0	17	0	13	0	30	
03:30	0	19	0	19	0	38	
03:45	1	2 13	61	0	1 13	53	1 3 26 114
04:00	0	19	1	14	1	33	
04:15	0	17	0	18	0	35	
04:30	0	9	0	9	0	18	
04:45	0	* 6	51	0	1 9	50	0 1 15 101
05:00	0	5	0	6	0	11	
05:15	6	9	2	8	8	17	
05:30	0	22	1	22	1	44	
05:45	0	6 11	47	2	5 5	41	2 11 16 88
06:00	2	18	2	17	4	35	
06:15	5	12	3	8	8	20	
06:30	7	17	9	19	16	36	
06:45	12	26 12	59	11	25 9	53	23 51 21 112
07:00	4	18	3	20	7	38	
07:15	6	13	10	14	16	27	
07:30	6	12	7	10	13	22	
07:45	4	20 7	50	11	31 7	51	15 51 14 101
08:00	12	5	11	4	23	9	
08:15	15	15	13	12	28	27	
08:30	12	4	12	0	24	4	
08:45	14	53 2	26	11	47 4	20	25 100 6 46
09:00	12	1	16	1	28	2	
09:15	7	3	8	0	15	3	
09:30	7	3	14	3	21	6	
09:45	7	33 1	8	11	49 2	6	18 82 3 14
10:00	10	0	9	2	19	2	
10:15	3	3	9	6	12	9	
10:30	12	2	9	2	21	4	
10:45	15	40 3	8	14	41 2	12	29 81 5 20
11:00	17	1	14	2	31	3	
11:15	14	6	16	4	30	10	
11:30	16	0	16	4	32	4	
11:45	5	52 1	8	5	51 0	10	103 1 18
Totals	237	498	254	434	491	932	
Day Totals		735		688		1423	
Split %	48.2%	53.4%	51.7%	46.5%			

Peak Hour	10:45	12:30	10:45	12:30	10:45	12:30
Volume	62	93	60	73	122	166
P.H.F.	.91	.63	.93	.82	.95	.83

CITY OF SACRAMENTO

All Traffic Data
(916) 771-8700

Site Code : 000000000000

Start Date: 06/08/2004

File I.D. : SUTTER-3

E STREET AT SUTTER MEMORIAL HOSPITAL

Page : 2

Begin Time	Direction 1				Combined		Wednesday						
	IN		OUT		A.M.	P.M.							
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.							
12:00	06/39	1	21	11	10	12	31						
12:15		2	17	4	9	6	26						
12:30		2	22	4	16	6	38						
12:45		0	5	10	70	6	25	17	52	6	30	27	122
01:00		2	9	0	6	2	15						
01:15		0	11	0	12	0	23						
01:30		0	18	0	19	0	37						
01:45		0	2	10	48	0	*	15	52	0	2	25	100
02:00		0	17	0	18	0	35						
02:15		0	17	1	21	1	38						
02:30		0	25	0	15	0	40						
02:45		1	1	26	85	0	1	20	74	1	2	46	159
03:00		0	12	0	15	0	27						
03:15		1	15	0	17	1	32						
03:30		1	13	3	22	4	35						
03:45		1	3	3	43	4	7	26	80	5	10	29	123
04:00		2	6	4	13	6	19						
04:15		2	4	0	21	2	25						
04:30		4	2	0	12	4	14						
04:45		3	11	3	15	1	5	15	61	4	16	18	76
05:00		6	5	0	9	6	14						
05:15		1	4	2	9	3	13						
05:30		12	4	1	12	13	16						
05:45		7	26	3	16	2	5	10	40	9	31	13	56
06:00		8	2	4	9	12	11						
06:15		13	4	5	4	18	8						
06:30		22	14	6	4	28	18						
06:45		20	63	9	29	6	21	7	24	26	84	16	53
07:00		12	3	5	5	17	8						
07:15		17	4	14	15	31	19						
07:30		13	3	24	3	37	6						
07:45		16	58	1	11	19	62	6	29	35	120	7	40
08:00		15	2	15	14	30	16						
08:15		12	2	5	9	17	11						
08:30		23	3	8	6	31	9						
08:45		17	67	5	12	6	34	13	42	23	101	18	54
09:00		8	6	6	6	14	12						
09:15		17	3	7	7	24	10						
09:30		6	0	5	2	11	2						
09:45		4	35	2	11	8	26	7	22	12	61	9	33
10:00		12	2	9	7	21	9						
10:15		9	2	9	11	18	13						
10:30		13	10	17	11	30	21						
10:45		10	44	7	21	10	45	9	38	20	89	16	59
11:00		8	2	9	2	17	4						
11:15		14	3	4	10	18	13						
11:30		11	1	12	22	23	23						
11:45		6	39	1	7	15	40	14	48	21	79	15	55
Totals		354	368	271	562	625	930						
Day Totals		722	833	1555									
Split %		56.6%	39.5%	43.3%	60.4%								

Peak Hour	06:30	02:00	07:15	03:30	07:15	02:00
Volume	71	85	72	82	133	159
P.H.F.	.80	.81	.75	.78	.89	.86

CITY OF SACRAMENTO

All Traffic Data
(916) 771-8700

E STREET AT SUTTER MEMORIAL HOSPITAL

Site Code : 00000000000

Start Date: 05/08/2004

File I.D. : SUTTER-3

Page : 3

Begin Time	Direction 1				Combined				Thursday
	IN		OUT		A.M.		P.M.		
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
12:00	05/10 1	9	7	9	8			18	
12:15	3	12	8	8	11			20	
12:30	0	17	4	22	4			39	
12:45	0	4 13	51 2	21 12	51 2	25	25	102	
01:00	1	9	3	9	4			18	
01:15	0	9	0	5	0			14	
01:30	1	7	3	6	4			13	
01:45	0	2 5	30 0	6 9	29 0	8	14	59	
02:00	0	24	0	7	0			11	
02:15	0	14	0	17	0			31	
02:30	1	34	1	11	2			45	
02:45	0	1 16	90 0	1 19	54 0	2	37	144	
03:00	0	9	1	10	1			19	
03:15	0	11	0	21	0			32	
03:30	1	9	1	16	2			25	
03:45	0	1 6	35 0	2 18	65 0	3	24	100	
04:00	0	4	1	13	1			17	
04:15	1	7	3	17	4			24	
04:30	3	6	0	15	3			21	
04:45	3	7 5	22 0	4 11	56 3	11	16	78	
05:00	8	2	1	12	9			14	
05:15	2	4	2	9	4			13	
05:30	7	8	2	10	9			18	
05:45	7	24 8	22 2	7 10	41 9	31	18	63	
06:00	15	4	6	8	21			12	
06:15	15	6	4	5	19			11	
06:30	17	13	8	1	25			14	
06:45	28	75 15	38 7	25 8	22 35	100	23	60	
07:00	9	4	4	8	13			12	
07:15	17	0	26	11	43			11	
07:30	13	2	27	7	40			9	
07:45	8	47 1	7 6	63 8	34 14	110	9	41	
08:00	8	1	5	9	13			10	
08:15	20	4	6	10	26			14	
08:30	11	5	9	10	20			15	
08:45	23	62 3	13 10	30 8	37 33	92	11	50	
09:00	10	5	6	10	16			15	
09:15	10	3	11	5	21			8	
09:30	14	0	10	2	24			2	
09:45	14	48 1	9 11	38 3	20 25	66	4	29	
10:00	10	2	15	3	25			5	
10:15	10	4	9	12	19			16	
10:30	9	9	9	5	18			14	
10:45	11	40 12	27 12	45 5	25 23	85	17	52	
11:00	15	3	15	4	30			7	
11:15	10	1	16	27	26			28	
11:30	15	1	7	26	22			27	
11:45	9	49 0	5 12	50 14	71 21	99	14	76	
Totals	360	349	292	505	652	854			
Day Totals		709		797		1506			
Split %	55.2%	40.8%	44.7%	59.1%					

Peak Hour	06:00	02:00	06:45	11:00	06:45	02:00
Volume	75	90	64	71	131	144
P.H.F.	.66	.66	.59	.65	.76	.8

CITY OF SACRAMENTO

All Traffic Data
(916) 771-8700

Site Code : 00000000000
Start Date: 06/06/2004
File I.D. : SUTTER-1

SUTTER MEMORIAL HOSPITAL MAIN DRIVEWAY
PATIENT DROP OFF ONLY

Page : 1

Begin Time	Tues. 06/08		Wed. 06/09		Thur. 06/10		Daily Avg.	Avg.
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		
12:00	0	9	0	10	1	13	0	11
12:15	2	14	0	15	0	7	1	12
12:30	0	10	0	15	0	15	0	13
12:45	2	10	0	3	0	14	1	9
01:00	0	15	0	13	0	10	0	13
01:15	0	9	0	7	0	4	0	7
01:30	0	1	0	16	0	10	0	9
01:45	0	5	0	7	0	7	0	6
02:00	0	7	0	6	0	13	0	9
02:15	0	8	0	14	0	6	0	9
02:30	0	9	0	17	0	22	0	16
02:45	1	6	2	11	0	21	1	13
03:00	0	14	0	10	2	23	1	16
03:15	0	18	1	13	1	19	1	17
03:30	0	14	0	13	0	17	0	15
03:45	1	10	0	4	0	2	0	5
04:00	0	25	0	8	0	11	0	15
04:15	0	4	0	6	0	4	0	5
04:30	0	6	0	20	0	9	0	12
04:45	0	4	4	10	0	12	1	9
05:00	5	7	2	5	0	5	2	6
05:15	0	14	5	3	0	8	2	8
05:30	0	6	2	10	0	9	1	8
05:45	3	14	2	5	4	3	3	7
06:00	5	5	0	8	4	6	3	6
06:15	8	8	10	0	7	2	8	3
06:30	11	3	11	6	9	3	10	4
06:45	4	20	3	9	10	3	6	11
07:00	8	7	6	5	3	1	6	4
07:15	2	9	3	11	2	3	2	8
07:30	5	5	2	6	13	9	7	7
07:45	10	1	9	8	5	4	8	4
08:00	7	14	6	4	5	1	6	6
08:15	4	2	11	9	6	5	7	5
08:30	5	3	3	0	6	2	5	2
08:45	6	0	10	3	18	7	11	3
09:00	1	1	5	1	5	2	4	1
09:15	8	5	6	3	14	1	9	3
09:30	4	2	8	1	7	1	6	1
09:45	5	0	6	1	11	8	7	3
10:00	2	2	6	6	6	0	5	3
10:15	9	0	9	0	3	1	7	0
10:30	17	2	6	4	7	0	10	2
10:45	6	1	2	0	11	0	6	0
11:00	11	6	6	2	10	1	9	3
11:15	4	0	6	2	15	5	8	2
11:30	5	0	8	0	9	2	7	1
11:45	6	1	18	0	7	0	10	0
Total	167	338	178	330	201	331	181	332
Combined	505		508		532		513	
Peak Hour	10:15	03:15	11:00	02:15	10:45	02:30	11:00	
Volume	43	67	38	52	45	85	34	
P.H.F.	.63	.67	.52	.76	.75	.92	.85	

ADTs

E STREET AT SUTTER MEMORIAL HOSPITAL

Site Code : 00000000000
 Start Date: 06/08/2004
 File I.D. : SUTTER-3
 Page : 1

Begin Time	Direction 1				Combined		Tuesday
	IN		OUT		A.M.	P.M.	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
12:00	06/08 0	16	11	11	11	27	
12:15	2	11	6	13	8	24	
12:30	1	4	7	6	8	12	
12:45	0	3 17	48	2 26	17 49	2 29 34	97
01:00	2	15	0	9	2	24	
01:15	0	16	0	8	0	24	
01:30	0	6	0	4	0	10	
01:45	0	2 9	46	1 1	18 39	1 3 27	85
02:00	0	14	1	15	1	29	
02:15	1	25	1	11	2	36	
02:30	1	25	0	12	1	37	
02:45	0	2 37	101	0 2	15 53	0 4 52	154
03:00	1	11	0	16	1	27	
03:15	0	11	0	22	0	33	
03:30	0	13	0	23	0	36	
03:45	1	2 6	41	0 *	16 77	1 2 22	118
04:00	0	9	0	9	0	18	
04:15	3	11	3	16	6	27	
04:30	0	2	0	12	0	14	
04:45	3	6 2	24	0 3	15 52	3 9 17	76
05:00	7	2	1	11	8	13	
05:15	6	4	1	13	7	17	
05:30	4	2	5	9	9	11	
05:45	3	20 2	10	0 7	10 43	3 27 12	53
06:00	16	6	4	10	20	16	
06:15	12	4	4	8	16	12	
06:30	27	17	7	1	34	18	
06:45	16	71 18	45	5 20	7 26	21 91 25	71
07:00	15	5	5	7	20	12	
07:15	11	2	22	5	33	7	
07:30	14	1	25	19	39	20	
07:45	16	56 1	9	14 66	4 35	30 122 5	44
08:00	17	3	11	14	28	17	
08:15	12	9	13	7	25	16	
08:30	28	2	9	11	37	13	
08:45	21	78 9	23	9 42	18 50	30 120 27	73
09:00	19	6	15	6	34	12	
09:15	9	3	10	6	19	9	
09:30	8	4	5	2	13	6	
09:45	6	42 1	14	13 43	7 21	19 85 8	35
10:00	13	1	6	7	19	8	
10:15	8	2	10	5	18	7	
10:30	13	12	11	9	24	21	
10:45	12	46 14	29	10 37	8 29	22 83 22	58
11:00	10	4	9	4	19	8	
11:15	10	2	6	20	16	22	
11:30	12	3	11	30	23	33	
11:45	9	41 1	10	14 40	10 64	23 81 11	74
Totals	369	400	287	538	656	936	
Day Totals		769		825		1594	
Split %	56.2%	42.6%	43.7%	57.3%			

Peak Hour	08:15	02:00	07:15	03:00	07:15	02:00
Volume	80	101	72	77	130	154
F.H.F.	.71	.68	.72	.83	.83	.74

CITY OF SACRAMENTO

All Traffic Data
(916) 771-8700

Site Code : 00000000000

Start Date: 06/08/2004

File I.D. : SUTTER-2

SUTTER MAIN DRIVEWAY

Page : 2

Begin Time	Direction 1				Combined		Wednesday
	IN		OUT		A.M.	P.M.	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
12:00	06/09 1	25	1	20	2	45	
12:15	0	21	0	22	0	43	
12:30	1	23	3	21	4	44	
12:45	0 2	24 93	0 4	19 82	0 6	43 175	
01:00	1	16	1	18	2	34	
01:15	0	20	0	13	0	33	
01:30	0	13	0	9	0	22	
01:45	0 1	11 60	0 1	15 55	0 2	26 115	
02:00	0	11	0	10	0	21	
02:15	0	5	1	7	1	12	
02:30	0	20	0	16	0	36	
02:45	0 *	16 52	0 1	15 46	0 1	31 100	
03:00	1	15	1	16	2	31	
03:15	0	9	0	9	0	18	
03:30	1	10	1	14	2	24	
03:45	0 2	12 46	0 2	10 49	0 4	22 95	
04:00	0	10	0	8	0	18	
04:15	0	11	0	10	0	21	
04:30	0	6	0	10	0	16	
04:45	0 *	22 49	0 *	24 52	0 *	46 101	
05:00	2	11	2	11	4	22	
05:15	4	10	3	6	7	16	
05:30	3	3	3	4	6	7	
05:45	3 12	12 36	2 10	9 30	5 22	21 66	
06:00	3	11	4	10	7	21	
06:15	0	9	3	8	3	17	
06:30	10	14	11	14	21	28	
06:45	9 22	13 47	10 28	8 40	19 50	21 87	
07:00	2	12	4	10	6	22	
07:15	7	12	6	14	13	26	
07:30	3	10	5	8	8	18	
07:45	5 17	6 40	3 18	6 38	8 35	12 78	
08:00	8	11	13	9	21	20	
08:15	8	5	8	7	16	12	
08:30	12	10	12	11	24	21	
08:45	4 32	2 28	13 46	5 32	17 78	7 60	
09:00	8	3	9	8	17	11	
09:15	12	2	10	3	22	5	
09:30	8	3	7	3	15	6	
09:45	24 52	1 9	15 41	5 19	39 93	6 28	
10:00	8	2	9	4	17	6	
10:15	10	3	7	7	17	10	
10:30	11	2	12	2	23	4	
10:45	9 38	2 9	8 36	2 15	17 74	4 24	
11:00	6	0	3	0	9	0	
11:15	6	2	8	2	16	4	
11:30	5	2	5	5	10	7	
11:45	15 34	0 4	16 32	0 7	31 66	0 11	
Totals	212	473	219	467	431	940	
Day Totals		685		686		1371	
Split %	49.1%	50.3%	50.8%	49.6%			

Peak Hour	09:45	12:00	08:00	12:00	09:45	12:00
Volume	53	93	46	82	96	175
P.H.F.	.55	.93	.88	.93	.61	.97

CITY OF SACRAMENTO

All Traffic Data
(916) 771-8700

Site Code : 000000000000

Start Date: 06/08/2004

File I.D. : SUTTER-2

SUTTER MAIN DRIVEWAY

Page : 3

Begin Time	Direction 1		Direction 2		Combined		Thursday					
	IN	OUT	IN	OUT	A.M.	P.M.						
12:00	0	15	1	16	1	31						
12:15	1	17	1	19	2	36						
12:30	1	12	2	12	3	24						
12:45	0	2	19	63	0	4	19	66	0	6	38	129
01:00	0	30	0	20	0	50						
01:15	0	14	1	6	1	20						
01:30	0	13	0	8	0	21						
01:45	0	*	19	76	0	1	18	52	0	1	37	128
02:00	0	16	0	14	0	30						
02:15	0	14	0	6	0	20						
02:30	0	13	0	7	0	20						
02:45	0	*	17	60	0	*	18	45	0	*	35	105
03:00	1	35	0	27	1	62						
03:15	0	27	1	24	1	51						
03:30	1	25	2	21	3	46						
03:45	0	2	12	99	0	3	21	93	0	5	33	192
04:00	0	9	0	9	0	18						
04:15	0	12	0	13	0	25						
04:30	0	6	0	5	0	11						
04:45	0	*	14	41	0	*	11	38	0	*	25	79
05:00	0	14	0	8	0	22						
05:15	0	10	0	15	0	25						
05:30	0	9	0	11	0	20						
05:45	1	1	8	41	1	1	10	44	2	2	18	85
06:00	3	5	5	9	8	14						
06:15	3	9	3	9	6	18						
06:30	6	3	4	4	10	7						
06:45	11	23	6	25	11	23	10	32	22	46	18	57
07:00	13	17	13	9	26	26						
07:15	1	5	2	6	3	11						
07:30	2	7	6	8	8	15						
07:45	15	31	10	39	18	39	9	32	33	70	19	71
08:00	4	2	6	4	10	6						
08:15	10	1	14	1	24	2						
08:30	9	4	16	6	25	10						
08:45	16	39	4	11	25	61	4	15	41	100	8	26
09:00	10	11	8	6	18	17						
09:15	10	1	7	2	17	3						
09:30	21	6	21	7	42	13						
09:45	6	47	3	21	10	46	1	16	16	93	4	37
10:00	22	5	21	6	43	11						
10:15	9	0	8	1	17	1						
10:30	9	3	10	2	19	5						
10:45	6	46	0	8	5	44	0	9	11	90	0	17
11:00	10	1	11	2	21	3						
11:15	12	1	11	3	23	4						
11:30	18	2	19	4	37	6						
11:45	10	50	2	6	16	57	3	12	26	107	5	18
Totals	241	490	279	454	520	944						
Day Totals		731		733		1464						
Split %	46.3%	51.9%	53.6%	48.0%								

Peak Hour	09:15	02:45	08:15	03:00	08:45	02:45
Volume	59	104	63	93	118	194
P.H.F.	.67	.74	.63	.86	.70	.78

ITE Manual

Conducting a Trip Generation Study

4.1 Background

A local jurisdiction may wish to conduct its own trip generation study to validate use of ITE *Trip Generation* rates or equations in its community, establish its own rates reflecting unique conditions found in that community, or establish rates for land use types not included in *Trip Generation*. A state or province may wish to investigate trip generation rates in detail for land use types of particular concern in its jurisdiction. Consultants, ITE Districts/Sections, or individual ITE members may want to supplement the ITE national data base on trip generation.

To maintain consistency with ITE's nationally recognized data base and procedures, local studies should follow procedures consistent with those described below. However, it is recognized that local jurisdictions may need to tailor the process to meet the specific needs of the community and the characteristics of the sites being studied.

To enhance the national data base, ITE encourages the submittal of all new trip generation data. Sample data collection forms for reporting the information are included at the end of this chapter. These forms should be used whenever possible.

4.2 Reasons to Conduct a Trip Generation Study

The general purpose of a trip generation study is to collect and analyze data on the relationships between trip ends and site characteristics for a particular land use.

Before initiating the study, its specific purpose should be identified. The specific purpose will help the analyst target the characteristics of the sites, the data to be collected, the number of sites to survey, and the analysis to be conducted.

◆ If the description of a site is **not covered by the land use classifications** presented in *Trip Generation*, the analyst should collect local data and establish a local rate.

When to Conduct a Trip Generation Study

◆ **new land use not covered by Trip Generation**

◆ **inadequate number of studies in Trip Generation**

◆ **size of site outside of range of Trip Generation data points**

◆ **to establish a local trip generation rate**

◆ **to validate Trip Generation for local application**

◆ **to supplement national data base**

◆ If the site is located in a downtown setting, is served by significant public transportation, or is the site of an extensive transportation demand management program, the site is **not consistent with the ITE data** and the analyst should collect local data and establish a local rate.

◆ If the size of a site is **not within the range of data points** presented in *Trip Generation* for the land use, the analyst should collect local data and establish a local rate.

◆ If the *Trip Generation* data base has an **insufficient number of data points**, the analyst should collect local data and establish a local rate.

◆ If the *Trip Generation* data base produces curves with **unsatisfactory standard deviation or regression coefficients**, the analyst should collect local data and establish a local rate.

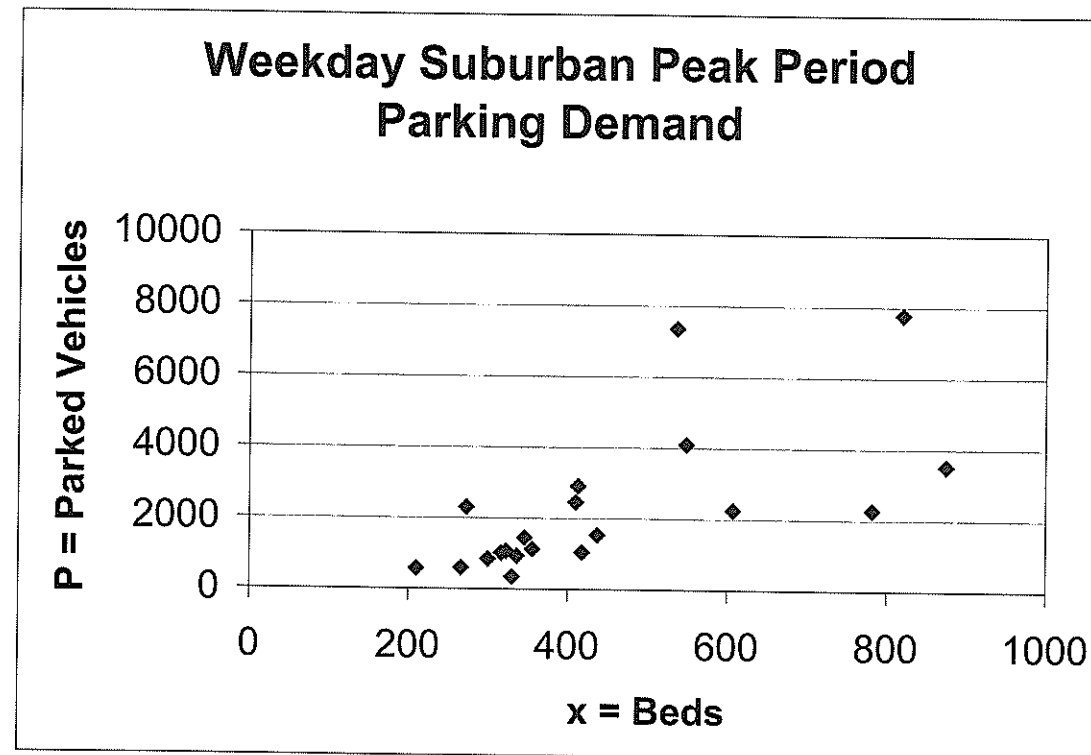
◆ If local circumstances (e.g., age of residents, worker shifts, other differences in independent variables) make a site **noticeably different from the sites for which data were collected** and reported in *Trip Generation*, the analyst should collect local data and establish a local rate.

◆ If the site is a **multi-use development**, the analyst should refer to chapter 7 in this handbook for guidance on special data collection and analysis efforts required for multi-use developments.

Land Use: 610 Hospital

Average Peak Period Parking Demand vs: Beds
On a: Weekday
Location: Suburban

Statistic	Peak Period Demand
Peak Period	9:00 a.m.–4:00 p.m.
Number of Study Sites	20
Average Size of Study Sites	440 beds
Average Peak Period Parking Demand	4.72 vehicles per bed
Standard Deviation	3.08
Coefficient of Variation	65%
95% Confidence Interval	3.37–6.07 vehicles per bed
Range	1.06–13.71 vehicles per bed
85th Percentile	7.63 vehicles per bed
33rd Percentile	2.98 vehicles per bed

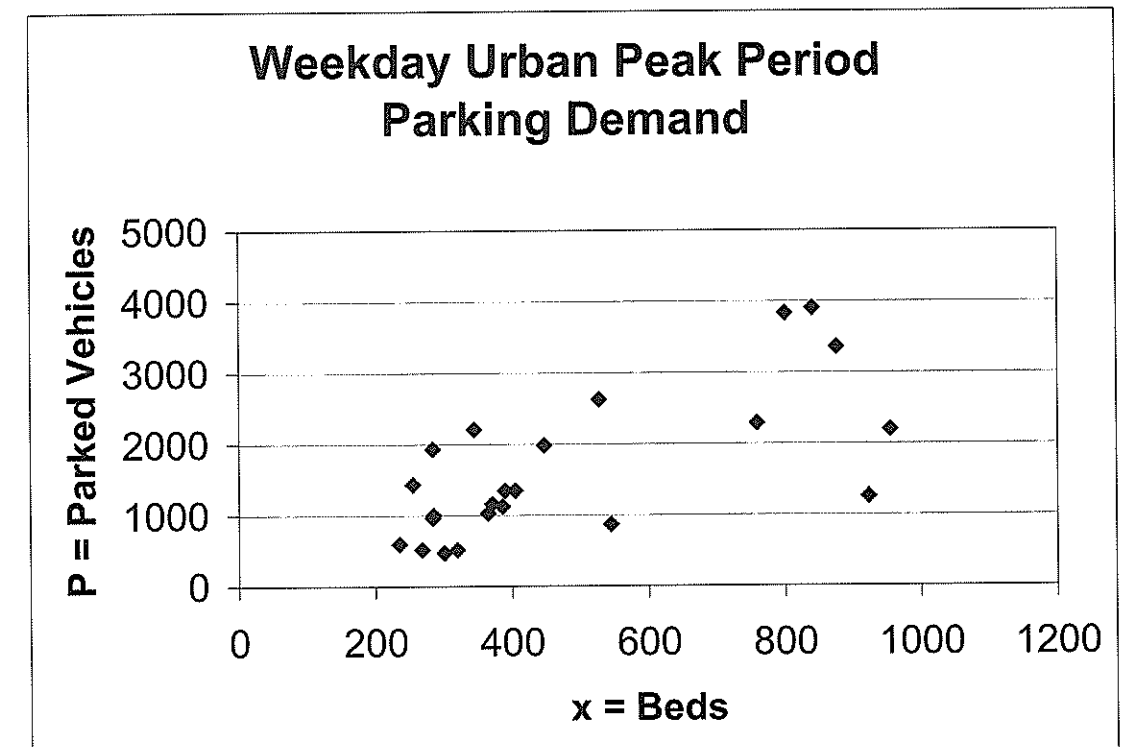


◆ Actual Data Points

Land Use: 610 Hospital

Average Peak Period Parking Demand vs: Beds
On a: Weekday
Location: Urban

Statistic	Peak Period Demand
Peak Period	9:00 a.m.–4:00 p.m.
Number of Study Sites	23
Average Size of Study Sites	490 beds
Average Peak Period Parking Demand	3.47 vehicles per bed
Standard Deviation	1.53
Coefficient of Variation	44%
95% Confidence Interval	2.84–4.10 vehicles per bed
Range	1.36–6.81 vehicles per bed
85th Percentile	4.92 vehicles per bed
33rd Percentile	2.84 vehicles per bed



◆ Actual Data Points

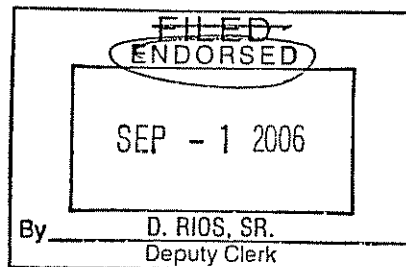
**Central City Parking Master Plan On-Street and
Off-Street Parking Counts**

Appendix A Court's Ruling and Judgment

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SUPERIOR COURT OF THE STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF SACRAMENTO

SERVICE EMPLOYEES)	Case No.: 06CS00026
INTERNATIONAL UNION,)	
et al.)	COURT'S RULING
)	
Petitioners,)	
vs.)	
)	
CITY OF SACRAMENTO, et al.)	
)	
Respondents.)	
<hr/>		
SUTTER HEALTH, INC., et al.		
Real Parties in Interest		
<hr/>		

1 The Court has received and reviewed the following documents: a letter from counsel for real
2 party in interest Sutter Medical Center Sacramento dated August 15, 2006 (along with a
3 proposed order, judgment and writ of mandate and supporting declarations); a letter from
4 counsel for respondent City of Sacramento dated August 16, 2006 essentially joining in real
5 party's position; petitioners' Notice of Lodging [of] Proposed Order, Judgment and Writ of
6 Mandate, Summary re Proposed Order, Judgment, Writ of Mandate and Response to Sutter's
7 Letter Brief dated August 21, 2006; and a reply letter from counsel for real party in interest
8 Sutter Medical Center Sacramento dated August 22, 2006.
9
10

11
12 The above-listed materials set forth argument and proposals regarding the proper form of relief
13 this Court should order as a remedy for the violations of CEQA it found in ruling on the
14 petition for writ of mandate. In essence, petitioners argue that the project should be completely
15 enjoined while respondent and real party take steps to remedy the deficiencies in CEQA
16 compliance, while real party and respondent argue that the Court should fashion the remedy so
17 as to permit limited construction activities to proceed in the interim under the authority of
18 Public Resources Code section 21168.9.
19
20

21
22 In connection with its letter briefing, real party has asked the Court to consider holding a
23 hearing for argument on the issue of the proper remedy. Neither respondent nor petitioners
24 have specifically asked the Court to hold a hearing. Having considered the arguments and
25 other materials submitted by the parties, which present and brief the issue of the proper remedy
26 thoroughly, the Court determines that a hearing for further argument is not necessary to permit
27
28

1 it to rule on the issue. The following therefore shall constitute the Court's ruling on the form
2 of the remedy in this matter, as set forth in the judgment and writ of mandate.
3

4
5 The Court finds that this is an appropriate case in which to exercise its discretion pursuant to
6 Public Resources Code section 21168.9 and traditional equitable principles to fashion a remedy
7 that will permit limited construction activities to proceed while respondent takes steps to
8 comply with the writ of mandate and CEQA.
9

10
11 This is not a case in which the failure to comply with CEQA went to the essence of the project,
12 as it might have, for example, if the Court had found deficiencies in the project description or
13 the consideration of alternatives. Nor is this a case in which the failure to comply with CEQA
14 consisted of a complete failure to identify and disclose one or more significant environmental
15 impacts. And this is not a case in which the EIR was a "mass of flaws" and infected with "a
16 vast array of inadequacies", such that it failed to comply with CEQA "in all major respects"
17 (See, *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App.
18 4th 713, 741-743.)
19

20
21
22 Instead, this is a case in which the Court found violations of CEQA in three discrete areas
23 involving environmental impacts that had been identified as significant, and that had been
24 subjected to thorough discussion in the EIR. Significantly for present purposes, this is not a
25 case in which the Court found that the conclusions set forth in the EIR were wrong. Rather,
26 this is a case in which the Court found that the public had not had the opportunity, guaranteed
27 to it by CEQA, to see and evaluate the underlying studies or evidence supporting the EIR's
28

1 quantification and projection of certain factors (numbers of car trips expected to be generated
2 by one portion of the project; NOx emissions expected during construction) contributing to
3 those impacts already identified as significant.
4

5
6 While the record certainly established violations of CEQA that should be addressed in the
7 ultimate relief granted in this case, those violations were not so profound or pervasive that they
8 compel a conclusion that correcting them will result in the ultimate abandonment or rejection,
9 or even a significant recasting, of the project. In fact, it is possible that respondent may be able
10 to remedy the CEQA violations by making available for public review and comment legitimate
11 studies and evidence that fully support the content of the EIR on those points, and receiving
12 comment thereon. In that case, it could be expected that the project ultimately might be re-
13 approved in its present form.
14

15
16
17 Even if the evidence made available to the public during the writ compliance process should
18 reveal specific trip generation and NOx impacts that are different than those projected in the
19 original EIR, the Court is not persuaded that it is likely that the scope of such impacts will be
20 so vastly different as to result in the cancellation or significant reshaping of the entire project.

21
22 Most likely, the emergence of such data will result in consideration of additional proposed
23 mitigation measures, or the strengthening of existing measures. Based on the evidence and
24 argument presented by real party in interest Sutter Medical Center Sacramento, it appears to
25 the Court to be most likely that, if such further consideration should lead to adoption of
26 additional or strengthened mitigation measures aimed at the identified impacts of traffic,
27 parking and NOx generation, those measures will address the impact of operational aspects of
28

1 the project that will not come into being until the time necessary to achieve full CEQA
2 compliance has passed (trip generation from the finished project), or that the impact during the
3 interim period would be relatively minor in comparison to the impact to be expected during the
4 entire period of construction, and probably at a level not greater than would be incurred if the
5 project were to be built under almost any scenario short of outright cancellation (NOx
6 emissions) It thus appears that fashioning relief in the manner requested by real party would
7 not render impossible the meaningful future consideration of mitigation measures, if
8 appropriate under the final environmental analysis.
9
10

11
12 The Court accordingly finds that the evidence before it establishes that the impact on the
13 environment during the writ compliance period that would be caused by severing the
14 construction activities specified in real party's proposed order, judgment and writ of mandate,
15 and allowing such activities to proceed, would not prejudice complete and full compliance with
16 CEQA as provided in Public Resources Code section 21168.9(b).
17

18
19 On the other side of the equation, the Court also must look at whether enjoining all further
20 activity on the project will prejudice the project proponent and/or the public. (See, *Laurel*
21 *Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal. 3d
22 376) In this case, the Court is persuaded from the evidence submitted by real party that such
23 prejudice will occur if the project is completely halted as sought by petitioners. As set forth in
24 the Declarations of Tom O'Leary and Larry Maas, a complete stoppage of the project for any
25 significant period is likely to cause damaging disruptions in scheduling and with regard to the
26 availability of essential personnel such as managers, contractors and subcontractors, and will
27
28

1 also most likely result in significant additional costs that may imperil the project or result in it
2 being significantly scaled back. Petitioners have not presented any evidence controverting
3 these points. Moreover, there is no dispute that the project is intended to provide essential
4 medical services and other amenities to the people of Sacramento; any significant delay, or the
5 ultimate loss of portions of the project from such delay, thus causes prejudice to the public.
6

7
8 Having considered the evidence and argument presented by the parties, and having balanced
9 the equities in the form of the potential harm to the environment if selected portions of the
10 project proceed, against the harm to the project and the public if the project is entirely
11 enjoined, the Court therefore finds good cause to fashion relief in the manner suggested by real
12 party in interest Sutter Medical Center Sacramento in its proposed order, judgment and writ of
13 mandate. The evidence submitted to the Court supports the findings set forth therein, and the
14 mechanism set forth therein for achieving full CEQA compliance in reasonable time while
15 permitting certain activities to proceed during the interim period represents a thoughtful and
16 measured approach that protects the environment, upholds the values of CEQA and
17 implements the provisions of this Court's order.
18
19

20
21
22 In making this ruling, the Court has considered the specific objections to the form of real
23 party's proposed order, judgment and writ of mandate asserted by petitioners and finds as
24 follows.
25

26 Real party's Proposed Order Granting Petition for Writ of Mandate, with one correction,
27 properly reflects the Court's order in the form submitted and will be signed and issued as the
28

1 Court's order in this matter. The correction is that the word "Petitioners" shall replace the
2 word "Respondents" on Line 13 of page 2.

3
4
5 Real party's Proposed Judgment Granting Petition for Writ of Mandate shall be amended in the
6 following particulars:

7
8 Line 7 of page 2 shall be amended to read "... that the remainder of Petitioners' claims do not
9 provide grounds to grant the Writ of Mandate as described in the Tentative and Final Rulings."

10
11 The Court finds that such amendment is appropriate in order to state the nature of its ruling
12 accurately, and to conform language of the judgment to that of the order.

13
14 Line 11 of page 4 shall be amended to read "... Court, ordering Respondents to void
15 certification of the EIR and of resolutions approving the project and ordering Sutter to ..." The
16 Court finds that such amendment is appropriate to make the judgment conform to the language
17 of Public Resources Code section 21168.9(a)(1) and to the proposed writ of mandate.

18
19
20 The following sentence found at lines 18-20 of page 4 shall be removed from the judgment:

21 "Such compliance may be demonstrated through making the underlying studies or data that
22 supports the EIR's analysis of these issues available for public review" The Court finds that
23 this language inappropriately advises respondent on how to achieve full compliance with
24 CEQA, in violation of the provision of Public Resources Code section 21168.9(c) that nothing
25 in that statute authorizes a court to direct any public agency to exercise its discretion in any
26 particular way. How compliance with CEQA will be achieved in this case depends upon facts
27
28

1 that are not before the Court at this time, including whether there actually are, or will be, any
2 studies or data that support the EIR's analysis on the challenged issues.
3

4
5 The language found at line 17 of page 5 reading "The Court expresses no view regarding..."
6 shall be removed from the judgment on the basis that it appears to have been included in error
7

8 Real Party's Proposed Peremptory Writ of Mandate shall be amended in the following
9 particulars:
10

11
12 Line 7 of page 1 shall be amended to read "...Respondent shall void its certification of the EIR
13 and approval of Resolution No. ..." This change is made on the same basis as the parallel
14 change to the proposed judgment, so as to conform the two documents to each other.
15

16
17 The following sentence found at lines 19-21 of page 1 shall be removed from the judgment:
18 "Such compliance may be demonstrated through making the underlying studies or data that
19 supports the EIR's analysis of these issues available for public review." This change is made
20 on the same basis as the parallel change to the proposed judgment, so as to conform the two
21 documents to each other.
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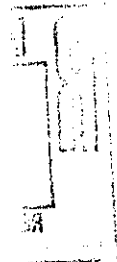
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The Court shall make all of the above-listed corrections and amendments, and shall sign and issue the order, judgment and writ of mandate immediately.

Dated: September 1, 2006

PATRICK MARLETTE

HON. PATRICK MARLETTE
Judge of the Superior Court



CERTIFICATE OF SERVICE BY MAILING
(C.C.P. Sec. 1013a(3))

I, the Clerk of the Superior Court of California, County of Sacramento, certify that I am not a party to this cause, and on the date shown below I served the foregoing COURT'S ORDER ON PETITION FOR WRIT OF MANDATE, COURT'S RULING and the COURT'S JUDGMENT, by depositing true copies thereof, enclosed in separate, sealed envelopes causing postage to be fully prepaid, in the United States Mail at Sacramento, California, each of which envelopes was addressed respectively to the persons and addresses shown on the addresses shown below:

EILEEN M. TEICHERT, City Atty. ROBERT D. TOKUNAGA Sup. Dep. City Atty., ANGELA M. CASAGRANDA, Sr. Dep. City Atty., CITY OF SACRAMENTO 915 I Street, Room 4010 Sacramento, Ca. 95814-2604	ELLEN GARBER ANDREA RUIZ-ESQUIDE, SHUTE, MIHALY & WEINBERGER 396 Hayes Street San Francisco, Ca. 94102
DAVID NAWI, SHUTE, MIHALY & WEINBERGER 2311 Capitol Avenue Sacramento, Ca. 95816	TINA A. THOMAS, WHITMAN F. MANLEY, ANDREA K. LEISY, REMY, THOMAS, MOOSE & MANLEY 455 Capitol Mall, Suite 210 Sacramento, Ca. 95814
EDWARD J. QUINN, JR., McDONOUGH, HOLLAND and ALLEN 555 Capitol Mall, 9 th Floor Sacramento, Ca. 95814	

I, the undersigned deputy clerk, declare under penalty of perjury that the foregoing is true and correct.

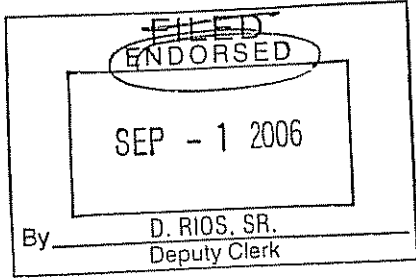
Dated: Sept 01, 2006

Superior Court of California,
County of Sacramento

By: _____

D. RIOS, SR.,
Deputy Clerk

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SUPERIOR COURT OF THE STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF SACRAMENTO

SERVICE EMPLOYEES) Case No.: 06CS00026
INTERNATIONAL UNION,)
et al.) **COURT'S JUDGMENT**
)
Petitioners,)
vs.)
)
CITY OF SACRAMENTO, et al.)
)
Respondents.)

SUTTER HEALTH, INC., et al.
Real Parties in Interest

1 This matter, which arises in traditional mandamus (see Pub. Resources Code, § 21168.5
2 and Code of Civ. Proc., § 1085), came on for regular hearing on June 9, 2006, in Department 19
3 before the Honorable G. Patrick Marlette, Judge of the Superior Court for the County of
4 Sacramento. Donald B. Mooney, John L. Marshall and Lee Axelrad of the Law Offices of
5 Donald B. Mooney appeared on behalf of Petitioners SERVICE EMPLOYEES
6 INTERNATIONAL UNION ("SEIU"); Ellen J. Garber of Shute, Mihaly & Weinberger
7 appeared on behalf of Respondents CITY OF SACRAMENTO and SACRAMENTO CITY
8 COUNCIL; and Whitman F. Manley of Remy, Thomas, Moose and Manley, LLP, appeared on
9 behalf of Real Parties SUTTER HEALTH, INC., SUTTER HEALTH-SACRAMENTO SIERRA
10 REGION, and SUTTER MEDICAL CENTER, SACRAMENTO.

11 Having reviewed the record of Respondents' proceedings in this matter, the briefs and
12 supplemental briefs submitted by counsel and the argument of counsel on June 9, 2006, the
13 Court rules and enters judgment as follows:

14 1. On June 8, 2006, the Court issued a tentative ruling granting the petition for writ
15 of mandate. A copy of the Court's tentative ruling appears at Exhibit A to this judgment.
16 Exhibit A is incorporated by reference.

17 2. Following trial, the Court directed the parties to file supplemental briefs
18 addressing issues identified by the Court. The parties submitted supplemental briefs in
19 accordance with the Court's direction.
20

21 3. On August 4, 2006, the Court issued its decision on the petition for writ of
22 mandate. A copy of the Court's ruling appears at Exhibit B to this judgment. Exhibit B is
23 incorporated by reference.

24 4. As set forth in the Court's ruling, the Court finds that the record does not contain
25 sufficient underlying documentation of the analysis set forth in the Environmental Impact Report
26 ("EIR") with respect to trip generation, parking and construction-related NOx emissions that
27 may be associated with the proposed Sutter Medical Center Project ("Project"). Underlying
28 documentation regarding trip generation, parking and construction-related NOx emissions were

1 not present in the materials made available to the public during the review and comment stage or
2 in the administrative record originally lodged with the Court. The petition for writ of mandate is
3 granted on the grounds that Respondent committed a prejudicial abuse of discretion in approving
4 the project and certifying the EIR.

5 5 With the exception of the items set forth in paragraph 4, the Court found that the
6 remainder of Petitioners' claims do not provide grounds to grant the Writ of Mandate as
7 described in the Tentative and Final Rulings.

8 6 Pursuant to Public Resources Code section 21168.9, subdivision (b), the Court
9 finds as follows:

10 a. Certain portions of the Project are project activities that may be severed from the
11 remainder of the Project in accordance with Public Resources Code, section 21168.9 because the
12 continued construction of certain portions of the project will not prejudice the consideration or
13 implementation of mitigation measures to the project. The severable portions of the Project are:
14 (i) ongoing excavation activities associated with the new energy center, including the area below
15 grade for medical office space and ninety (90) parking spaces, and the related ongoing
16 construction of the tunnel under 28th and L Streets; (ii) construction of the Community Parking
17 Structure; and (iii) completing utility trenching and reconstruction and resurfacing of streets.

18 b. Severance of the above construction activities from the remainder of the Project will not
19 prejudice Respondent's full compliance with CEQA, in that Respondent violated CEQA only
20 with respect to the matters described in paragraph 4. Specifically:

21 i. The parking impacts specified above relate to parking demand that will occur
22 when the Project becomes operational. Thus, these impacts will not occur by virtue of allowing
23 specific construction activities to continue notwithstanding this judgment. In particular,
24 construction of the Community Parking Structure will limit the duration of the temporary
25 shortfall of parking spaces during construction.

26 ii. The trip generation specified above relates to trip generation that will occur when
27 the Project becomes operational. These trips will not be generated by virtue of allowing specific
28

1 construction activities to continue notwithstanding this judgment. In particular, repairing and
2 resurfacing roads in the vicinity of the Project, if allowed to continue, will improve current
3 traffic conditions and limit disruption of traffic, thus improving traffic conditions.

4 iii. The short term NOx emissions that occur during the limited construction activities
5 authorized by this judgment will be a fraction of overall emissions. Because construction of the
6 Community Parking Structure would occur prior to the initiation of construction of the other
7 buildings (e.g., the Women's and Children's Center and the Sutter Medical Foundation), NOx
8 emissions from the ongoing construction of the parking structure will be minor and will not
9 contribute to "peak" cumulative conditions, as could occur if construction of the entire project
10 proceeded simultaneously. The record of proceedings and the evidence submitted in support of
11 this judgment indicate that Sutter has complied with all adopted feasible mitigation measures to
12 address construction-related NOx emissions and is well within the emissions contemplated and
13 allowed by the Sacramento Metropolitan Air Quality Management District (the "District"). The
14 District has also agreed that, to date, all identified feasible air quality mitigation measures,
15 including mitigation measures to avoid or substantially reduce construction related NOx
16 emissions, are included in the EIR.

17 iv. Respondent retains discretion to adopt additional feasible mitigation measures to
18 address trip generation, parking and NOx emissions in light of the information developed in
19 remedying the defects to Respondent's CEQA process, as identified in the Court's ruling.

20
21 7. The Court, in relying on traditional equitable principles and Public Resources Code
22 section 21168.9, finds that enjoining construction of the entire Sutter Project will result in
23 substantial social and economic harm to residents within the region and Sutter Medical Center
24 Sacramento, in particular the delayed or truncated delivery of crucial health services, and that
25 any harm which may result from allowing the specific construction activities enumerated herein
26 to proceed is therefore outweighed by the harm that would be experienced if the project were
27 stopped entirely. Accordingly, equitable considerations indicate that suspending the entire Sutter
28 Medical Center Project is not appropriate.

1 Based on the foregoing, IT IS HEREBY ORDERED, DECREED AND ADJUDGED
2 that:

3 1. Judgment granting a writ of mandate is entered in favor of Petitioners in this
4 proceeding.

5 2. Pursuant to Public Resources Code, section 21168.9, subdivision (a), a
6 Peremptory Writ of Mandate directed to Respondents shall be issued under seal of this Court,
7 ordering Respondents to void certification of the EIR and of resolutions approving the project
8 and ordering Sutter to suspend construction or operation of the Project as approved by
9 Resolution No 2005-882, Resolution No.2005-883, Resolution No. 2005-884, Resolution No.
10 2005-886, Resolution No. 2005-887, Resolution No. 2005-888 and Ordinance No. 2005-094, and
11 excluding the separate approvals relating to the Trinity Cathedral and Sutter Midtown Housing
12 Projects which were not challenged by Petitioners, unless and until Respondents have complied
13 with the requirements of CEQA with respect to underlying documentation of trip generation,
14 parking and construction-related NOx emissions.

15 3 Pursuant to Public Resources Code section 21168.9, subdivision (b), and
16 notwithstanding paragraph 2 of this judgment, Sutter may engage in the following construction
17 activities associated with the Project:

18 a. Excavation of the new Energy Center, including the area below grade for medical
19 office space and ninety (90) parking spaces, and excavation for the related tunnel under 28th and
20 L Streets;

21 b. Construction of the Community Parking Structure and associated uses; and

22 c. Completion of reconstructing streets after laying down utility trenches.

23 4. The construction activities listed in paragraph 3 are severable from the remainder
24 of the Sutter Project because (i) each serves a separate independent and immediate public need
25 for safety and infrastructure improvements such that the benefits to the general public and Real
26 Parties in Interest outweigh any ongoing effect on the environment; and (ii) severance of the
27

1 construction activities will not in any way prejudice complete and full compliance with CEQA,
2 including consideration or implementation of additional mitigation measures.

3 5. Respondent shall not reconsider the Project unless and until Respondent has
4 remedied the defects in the CEQA process identified in this judgment.

5 6. In entering this judgment, the Court makes no findings regarding the merits of the
6 project or the ultimate validity of the environmental analysis in the challenged areas, but issues
7 the writ solely to address the failure to comply with the essential procedural requirements of
8 CEQA in these challenged areas. Nothing in this judgment shall be construed to require
9 Respondent to exercise its lawful discretion in any particular way.

10 7. This Court shall retain jurisdiction over this matter pursuant to Public Resources
11 Code section 21168.9, subdivision (b).

12 8. Petitioner is awarded its costs.
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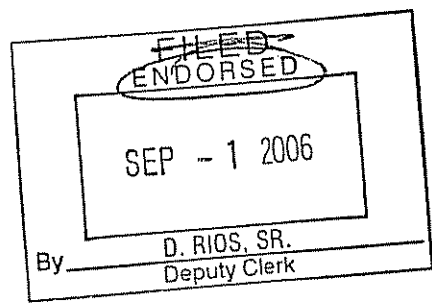
PATRICK MARLETTE

17 DATED: September 1, 2006

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HON. PATRICK MARLETTE
19 Judge of the Superior Court
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**SUPERIOR COURT OF THE STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF SACRAMENTO**

SERVICE EMPLOYEES INTERNATIONAL)
UNION, et al.)
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Petitioners,)
)
Vs.)
)
CITY OF SACRAMENTO, et al.)
)
Respondents.)
SUTTER HEALTH, INC., et al.)
Real Parties in Interest)

Case No.: 06CS00026

**COURT'S ORDER ON
PETITION FOR WRIT
OF MANDATE**

1 This matter, which arises in traditional mandamus (see Pub. Resources Code, § 21168.5
2 and Code of Civ. Proc., § 1085), before the Honorable G. Patrick Marlette, Judge of the Superior
3 Court, County of Sacramento, for a hearing on June 9, 2006, at 9:00 a.m., in Department 19.
4 Donald B. Mooney, John Marshall and Lee Axelrad of the Law Offices of Donald B. Mooney
5 appeared on behalf of Petitioners SERVICE EMPLOYEES INTERNATIONAL UNION
6 ("SEIU"); Ellen Garber of Shute, Mihaly & Weinberger appeared on behalf of Respondents
7 CITY OF SACRAMENTO and SACRAMENTO CITY COUNCIL; and Whitman F. Manley of
8 Remy, Thomas, Moose and Manley, LLP, appeared on behalf of Real Parties in Interest
9 SUTTER HEALTH, INC., SUTTER HEALTH SACRAMENTO SIERRA REGION, and
10 SUTTER MEDICAL CENTER, SACRAMENTO.

11 The Court having reviewed the record of Respondents' proceedings in this matter,
12 the briefs and argument submitted by counsel, including supplemental briefing, and the matter
13 having been submitted for decision, and the court having issued in this matter its Tentative
14 Ruling on June 8, 2006, and Final Ruling on August 4, 2006 (attached hereto as Exhibits A and
15 B), finds as follows:

16 1. This case presents a Petition for Writ of Mandate under Code of Civil
17 Procedure section 1085 and Public Resources Code section 21168.5 that challenges the adequacy
18 of the Respondents' compliance with the California Environmental Quality Act ("CEQA"),
19 Public Resources Code section 21000 et seq., in preparing and certifying an environmental
20 impact report ("EIR") for the Sutter Medical Center, Sacramento Project (the "SMCS Project").

21 2. Petitioner argues that the EIR for the Project was legally deficient in its
22 treatment of environmental impacts and proposed mitigation measures in the following areas:
23 generation of fugitive dust (otherwise known as PM-10); generation of ultra-fine particles
24 (known as PM-2.5); traffic generation; parking; generation of ozone precursors; and sleep
disruption from nighttime helicopter operations. Petitioner also challenges the statement of
overriding considerations Respondents adopted, which contains their explanation of why the
project should go forward despite certain significant unmitigated adverse environmental impacts.

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**SUPERIOR COURT OF CALIFORNIA
COUNTY OF SACRAMENTO**

SERVICE EMPLOYEES
INTERNATIONAL UNION
UNITED HEALTHCARE WORKERS
WEST,

Petitioners

vs.

CITY OF SACRAMENTO
SACRAMENTO CITY COUNCIL
Respondents.

SUTTER HEALTH INC., a California
non-profit corporation, SUTTER
HEALTH-SACRAMENTO SIERRA
REGION (formerly known as Sutter
Community Hospitals of Sacramento),
and SUTTER MEDICAL CENTER,
SACRAMENTO

Real Parties in Interest

Department Number: 19

Case Number: 06CS00026

PETITION FOR WRIT OF
MANDATE

RULING ON SUBMITTED
MATTER

This ruling is being posted on the Court's Internet site for the convenience of the parties and counsel. Copies of the ruling are also being mailed to counsel for the parties according to the usual procedures of the Court.

On June 9, 2006, the Court, having previously issued a tentative ruling on the petition for writ of mandate, heard oral argument in this matter. At the

1 conclusion of the hearing, the Court ordered the parties to submit further briefing
2 on the issue of whether there was substantial evidence in the record to support
3 the analysis of the EIR in the following areas: traffic generation impacts; parking-
4 related impacts; and NOx emissions. The Court then took the matter under
5 submission for review of the supplemental briefing and issuance of a final ruling.
6 (The Court's minute order dated June 9, 2006 erroneously stated that the Court
7 would issue a further tentative decision. The intent of the Court as stated at the
8 hearing on that date was to issue a final ruling without further oral argument.)
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10 The Court has received and reviewed the following briefs and other
11 materials submitted by the parties in response to the Court's order for
12 supplemental briefing: Respondents' and Real Parties' Joint Supplemental Brief,
13 filed June 21, 2006; Declaration of Christine Kronenberg in Support of
14 Respondents' and Real Parties in Interests' Supplemental Brief, filed June 21,
15 2006; Notice of Lodging of Supplemental Administrative Record of Proceedings,
16 Volume 35, filed June 21, 2006; Petitioner's Supplemental Brief, filed June 30,
17 2006; and Respondents' Notice of Additional Authority, filed July 27, 2006. On
18 the basis thereof, as well as on the basis of the briefs and other materials
19 previously filed with the Court, the administrative record, and the oral arguments
20 of counsel, the Court now issues its final ruling on the petition for writ of mandate.
21

22 With the exception of the issues covered by the order for supplemental
23 briefing, namely, traffic generation impacts, parking-related impacts, and NOx
24 emissions, the Court confirms the tentative ruling as its final ruling in this matter.
25 The Court's final ruling on the issues covered by the order for supplemental
26 briefing is as follows:
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1 On the basis of its review of the administrative record lodged in connection
2 with the original briefing in this matter, as well as the Supplemental Administrative
3 Record materials lodged by respondent in connection with the supplemental
4 briefing, the Court finds that substantial evidence in support of the EIR's analysis
5 in the areas of traffic generation impacts, parking-related impacts and NOx
6 emissions was not present in the materials made available to the public during the
7 review and comment stage, or in the administrative record originally lodged with
8 the Court, either in the form of studies or reports, or the data underlying such
9 studies or reports. CEQA requires that such evidence be made available for
10 public review. Respondent's failure to make such evidence available for review
11 (or to include it in the administrative record originally lodged with the Court) is a
12 failure to proceed in the manner required by law that is prejudicial under
13 persuasive and controlling case law, thus supporting issuance of a writ of
14 mandate. The issue of an agency's alleged failure to disclose relevant
15 information in the CEQA review process is generally embraced within the
16 pleading and presentation to the Court of the claim that the agency's certification
17 of the EIR is not supported by substantial evidence. (See, *Del Mar Terrace*
18 *Conservancy, Inc. v. City Council* (1992) 10 Cal. App. 4th 712, 743.)

21 In arguing its position on these remaining issues, respondent has placed
22 great emphasis on the content of the EIR itself, maintaining that in each of the
23 challenged areas the EIR presented a clear, thorough and comprehensive
24 analysis of the significant impacts that would result from the project. This
25 argument is misplaced. The adequacy of the EIR in and of itself is not the focus
26 of the Court's concern, at least in terms of the level of detail with which the EIR
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1 disclosed and described the potential impacts. Rather, the Court's concern is,
2 and has been, whether there is actually substantial evidence outside of the EIR to
3 support what the EIR says about such impacts. Respondent's position as
4 presented in the supplemental briefing comes close to being an argument that
5 factual statements or projections in the EIR on issues such as how many trips the
6 new hospital facility will generate may be substantial evidence to support
7 themselves. Such an argument is not only illogical, in that it tends to reduce
8 judicial review to a meaningless exercise, it also is not supported by any of the
9 numerous cases respondent has cited in its supplemental briefing. Indeed, some
10 of those cases make it clear that reviewing courts typically have looked for
11 separate studies and data outside the EIR itself, in finding EIRs to be supported
12 by substantial evidence. (See, for example, *Cadiz Land Co. v. Rail Cycle* (2000)
13 83 Cal. App. 4th 74, 98; *El Morro Community Association v. California*
14 *Department of Parks and Recreation* (2004) 122 Cal. App. 4th 1341.) The Court's
15 reason for ordering the supplemental briefing was that respondent's original
16 briefing either did not identify any such separate studies or data to support the
17 challenged points in the EIR, or, where it attempted to do so, the cited portions of
18 the record did not actually support what the EIR said.

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21 The problem is clearly illustrated by the discussion of trip generation in the
22 EIR, and is also present in the other areas under review. Table 6.7-13 of the EIR
23 sets forth projected trip generation rates for the hospital, "[b]ased on trip
24 generation and parking occupancy surveys conducted at Sutter Memorial
25 Hospital". (Admin. Record, Vol. 12, p. 4371.) The EIR did not identify the person
26 or entity that had conducted the surveys or refer to any study or report in which
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1 the content of such surveys was described or analyzed. Moreover, no such
2 surveys, or any study or report describing or analyzing them, was cited or could
3 be located in the record originally lodged with the Court.

4 In its response to public comments on this issue before certification of the
5 final EIR, respondent offered a December 2, 2005 memorandum prepared by
6 DKS Associates, which touched on this issue, among others. (See, Admin.
7 Record, Vol. 8, pp. 2872-2884.) The memorandum, however, merely restated
8 what was in the EIR on this point and argued that it was not out of line with the
9 standard ITE trip projections; it was not the original study or surveys upon which
10 the EIR was based, and provided no meaningful view of the original surveys, such
11 as their methodology, the dates they were conducted, a summary of the trip
12 generation data etc. Therefore, as far as members of the public attempting to
13 review and comment were concerned, the trip generation projection numbers for
14 the hospital in the EIR had no connection to any identifiable, reviewable, outside
15 source that could be consulted for the purpose of checking, and potentially
16 commenting on, the accuracy and relevancy of such projections.

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19 Nor did respondent, in its opposition to the petition for writ of mandate, cite
20 to any identifiable, reviewable outside source that the Court could consult for the
21 purpose of determining that the trip projection numbers were supported by
22 substantial evidence outside the EIR itself. Instead, respondent cited to portions
23 of the Technical Appendices in the administrative record. (Admin. Record, Vol.
24 14, p. 5185-Vol. 16, p. 6062, and, in particular, Vol. 14, pp. 5198-5228.) The
25 cited pages, however, did not appear to contain information regarding the site
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1 surveys; instead, they appeared to contain analysis of traffic at various signaled
2 intersections near the new project, evidently a separate subject of study.

3 Similarly, with regard to parking impacts, the EIR's discussion of this issue
4 contained numbers for estimated peak parking demand for the hospital
5 component of the project based upon parking occupancy surveys conducted at
6 Sutter Memorial Hospital. (See, Administrative Record, Vol. 12, page 4387, Table
7 6.7-19, Note 1; Vol. 4, page 1304, Table 2.) The only citation the Court was given
8 to material in the original administrative record on this matter outside the EIR itself
9 was to a memorandum dated September 6, 2005 prepared by Nelson/Nygaard
10 and setting forth an analysis of parking demand. That memorandum referred to
11 the trip generation and parking occupancy studies, but revealed that
12 Nelson/Nygaard did not perform those studies itself; evidently, they were
13 performed by DKS Associates. (See, Admin. Record, Vol. 4, pp. 1304.) The
14 actual DKS study or report has not been identified in the original administrative
15 record; nor has any underlying or supporting data.
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18 Finally, the Court's concern with regard to NOx emissions impacts was that
19 the material in the original administrative record cited by respondent in support of
20 the EIR simply did not appear to support what the EIR said. Respondent has not
21 cited to any additional material in the original administrative record that clears up
22 this problem.
23

24 Now, in response to the Court's concerns and its order for supplemental
25 briefing, respondent still has not identified the original trip generation or parking
26 study for the hospital or any supporting data, or relevant URBEMIS modeling
27 data, in the original administrative record. Instead, it has produced a
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1 Supplemental Administrative Record volume containing data on the trip
2 generation surveys as well as on the other two subjects of concern, parking and
3 NOx emissions. Much of the information in the Supplemental Administrative
4 Record that has been cited to the Court consists of so-called "raw data" from
5 consultants who provided information relied upon in the EIR. In the case of the
6 URBEMIS modeling data, the original modeling runs apparently were no longer in
7 existence, but had been discarded by respondent's consultants, so new data was
8 generated. Respondent argues that such raw data fully supports the conclusions
9 regarding environmental impacts contained in the EIR and thus serves as
10 substantial evidence to support its findings and certification.
11

12 The Court finds this argument to be unpersuasive. Regardless of whether
13 the raw data sheets and other materials in the Supplemental Administrative
14 Record support what the EIR says about trip generation, parking and NOx
15 emissions impacts (and in the case of NOx emissions it appears that the new
16 materials still do not, in fact, support the EIR), the fact that such data only
17 emerged at this late date, and in response to the Court's concerns, demonstrates
18 that respondent failed to proceed in the manner required by law, by failing to
19 make such information available to the public during the process of review and
20 certification of the EIR.
21

22 Respondent has argued throughout these proceedings that CEQA does
23 not require it to make the "raw data" underlying the EIR, such as the actual
24 "clipboard sheets" used to record data during trip generation surveys, or the
25 original modeling runs performed by consultants, available to either the public or
26 the Court for review. This argument misses the point, which is that CEQA
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1 requires that there be some form of substantial evidence in the record outside the
2 EIR itself to support what the EIR says. Such substantial evidence does not
3 necessarily have to be in the form of what respondent calls "raw data"; it may be
4 in the form of an expert consultant's report or some other discussion and analysis
5 providing an opinion on the basis of underlying data. Where no expert
6 consultant's report can be located in the record, however, reference to underlying
7 data may be required, if only to verify that a study referred to in the EIR actually
8 was done and says what the EIR says it said. A lead agency may not simply refer
9 to a study without disclosing that study to the public. (See, *Environmental*
10 *Protection Information Center, Inc. v. Johnson* (1985) 170 Cal. App. 3d 604, 629-
11 630.)
12

13 Moreover, respondent's argument that it need not disclose "raw data" is
14 somewhat inconsistent with the fact that respondent itself, in its opposition to the
15 petition, cited to tabulated data in the original Administrative Record, such as the
16 Technical Appendices on traffic-related issues and the URBEMIS modeling runs
17 on NOx emissions (although such citations failed to support the EIR). Much of
18 this earlier-cited information is similar to the kind of "raw data" respondent now
19 provides while arguing that it was not obligated to have it in, or cite it from, the
20 record.
21

22 More fundamentally, the argument is not in harmony with CEQA statutory
23 and regulatory law, which requires a meaningful disclosure of studies or their
24 underlying data in order to facilitate the public review and comment process.
25

26 Public Resources Code section 21167.6(e) defines the "record" in a CEQA
27 proceeding expansively. In particular, subsections (7) and (10) state that the
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1 record shall include all written evidence submitted to the lead agency with regard
2 to the project, and any other written materials relevant to the agency's compliance
3 with CEQA or its decision on the merits of the project, including copies of studies
4 or other documents relied upon in any environmental document prepared for the
5 project and either made available to the public during the public review period or
6 included in the agency's files on the project. Under these provisions of CEQA,
7 the trip generation study, for example, which was specifically referred to in the
8 draft EIR, should have been included in the record, or, if for some reason that
9 was not available, some other form of documentation of that study's conclusions
10 should have been included.
11

12 Other provisions of CEQA make it clear that material that is within the
13 "record" of the proceeding should be available for public review. Public
14 Resources Code section 21081.6(a)(2) provides that, when making findings
15 regarding significant environmental effects of a project, the lead agency shall
16 specify the location and custodian of the documents or other material which
17 constitute the record of proceedings upon which its decision is based. And Public
18 Resources Code section 21092(b) provides that notice of preparation of an EIR
19 shall specify the address where copies of the draft EIR, and all documents
20 referenced therein, are available for review. The obvious purpose of these
21 requirements is that the public should have access to documents and data
22 explicitly referred to and relied upon in the EIR, in order to facilitate meaningful
23 review and comment.
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26 The statutory requirement that underlying studies or data be available to
27 the public is underscored by the CEQA regulatory Guidelines, specifically 14
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1 C.C.R. section 15147, regarding "technical detail", which states: "The information
2 contained in an EIR shall include summarized technical data, maps, plot plans,
3 diagrams and similar relevant information sufficient to permit full assessment of
4 significant environmental impacts by reviewing agencies and members of the
5 public. Placement of highly technical and specialized analysis and data in the
6 body of an EIR should be avoided through inclusion of supporting information and
7 analyses as appendices to the main body of the EIR. Appendices to the EIR may
8 be prepared in volumes separate from the basic EIR document, but shall be
9 readily available for public examination and shall be submitted to all
10 clearinghouses which assist in public review."
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12 The CEQA Guidelines are binding on all public agencies, and failure to
13 comply with a valid Guideline may constitute an abuse of discretion justifying
14 issuance of a writ of mandate. (See, *Benton v. Board of Supervisors* (1991) 226
15 Cal. App. 3d 1467, 1478-1479.) As noted above, respondent recognized its
16 obligation to provide supporting technical data by preparing Technical Appendices
17 to the EIR addressing traffic-related issues and also including URBEMIS
18 modeling data on the NOx emissions issue. The problem before the Court is that
19 the technical data cited to the Court in the original administrative record did not
20 support the EIR on the challenged points of trip generation, parking and NOx
21 emissions. Such information has only emerged with the production of
22 respondent's Supplemental Administrative Record. It is clear from the fact that no
23 citation could be made to such data in the original administrative record, as well
24 as from the fact that the information in the Supplemental Administrative Record
25 had to be gathered from consultants in response to the Court's order for
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1 supplemental briefing, or, in the case of the URBEMIS modeling data for NOx
2 emissions, generated anew, that this technical data was not available to the
3 public for review prior to certification of the EIR.

4 The Court therefore finds that respondent violated CEQA with regard to the
5 EIR's discussion of trip generation, parking and NOx emissions impacts when it
6 failed to disclose underlying information regarding those impacts as required by
7 law, as follows: the EIR specifically referred to studies or modeling data on these
8 issues; the actual studies on traffic generation and parking impacts, apparently
9 conducted by DKS Associates, were not contained in the administrative record
10 originally submitted to the Court, from which the Court concludes that they were
11 not made available for public review and comment; the technical and modeling
12 data that was cited to the Court from the original administrative record did not
13 support what the EIR said on those points; the supporting data was only produced
14 in the course of these proceedings in the form of a Supplemental Administrative
15 Record, and some of that data (specifically, the URBEMIS modeling runs for NOx
16 emissions), consisted of information that had been generated after certification of
17 the final EIR and did not necessarily support the statements in the EIR.

18 Proceeding in this manner amounted to an abuse of discretion in the form of a
19 failure to proceed in the manner required by law.

20 Respondent argues that CEQA does not require perfection; therefore, if
21 there was any technical violation of CEQA in this case, the writ nonetheless
22 should not issue. Respondent's argument is unpersuasive. The case law
23 respondent cites suggests that courts will forgive what amount to minor
24 imperfections or omissions in such areas as the EIR's discussion of
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1 environmental impacts so long as there has been a good faith effort to comply
2 and no fundamental failure to disclose or analyze such impacts has occurred.
3 Where the alleged violation is one of essential procedure, however, the case law
4 suggests that a stricter level of scrutiny applies.

5 Thus, while reviewing courts generally will defer to an agency's substantive
6 judgments, they will require strict compliance with the procedures required by law.
7 (See, *Sacramento Old City Association v. City Council* (1991) 229 Cal. App. 3d
8 1011, 1019.) A failure to comply with the required procedures subverts the
9 purposes of CEQA if it results in the omission of material necessary to informed
10 decision making and informed public participation; in that case, the error is
11 prejudicial. (See, *Planning and Conservation League v. Dept. of Water*
12 *Resources* (2000) 83 Cal. App. 4th 892, 912.) Moreover, where the
13 administrative record does not permit the reviewing court to determine that the
14 lead agency has complied with CEQA, such prejudice exists and the project
15 approval should be overturned. (See, *Protect Our Water v. County of Merced*
16 (2003) 110 Cal. App. 4th 362, 373; 130 Cal. App. 4th 488, 497.) It is not relevant
17 to the Court's analysis that the agency might have reached the same ultimate
18 decision had the law been followed, since to reach that conclusion would be
19 impermissibly to exercise the Court's independent judgment on the evidence in
20 the record in violation of the rule of deference to the legitimate exercise of
21 administrative discretion and of the substantial evidence standard of review
22 applicable to these proceedings. (See, *Rural Landowners Association v. City*
23 *Council* (1983) 143 Cal. App. 3d 1013, 1022-23.)
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1 In this case, respondent's failure to include underlying studies or data in
2 the record available for public review that support the conclusions of the EIR on
3 the issues of trip generation, parking and NOx emissions, subverted the purposes
4 of CEQA by omitting information necessary to informed decision making and
5 informed public participation. The impacts in these areas were deemed
6 significant; and these were areas of great public concern. The public should have
7 had access to supporting information, either in the form of the studies referenced
8 in the EIR or the underlying data, in order to be able to determine whether the
9 EIR's assessment of these impacts was correct (and was correctly described),
10 and, potentially, to be able to suggest further mitigation measures or alternatives
11 if appropriate. The petition for writ of mandate is therefore granted solely on the
12 ground that respondent violated CEQA in its treatment of trip generation, parking
13 and NOx emissions impacts. The community affected by this project has the
14 right, conferred by the terms of CEQA, to evaluate and make informed comment
15 upon issues that impact the quality of their daily lives. The Court will not gloss
16 over the impingement of such an important right. In making this ruling, the Court
17 makes no findings regarding the merits of the project or the ultimate validity of the
18 environmental analysis in the challenged areas, but issues the writ solely to
19 address the failure to comply with the essential procedural requirements of CEQA
20 in these challenged areas. In all other respects, the petition for writ of mandate is
21 denied as set forth in the Court's original tentative ruling.
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25 Counsel for petitioner is directed to prepare the written order, judgment
26 and writ of mandate in conformity with this ruling according to the procedure set
27 forth in Rule of Court 391.
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Date: August 4, 2006

PATRICK MARLETTE

**Honorable PATRICK MARLETTE,
Judge of the Superior Court of California,
County of Sacramento**

Case Number: 06CS00026
Case Title: SEIU vs CITY OF SAC

Department: 19

CERTIFICATE OF SERVICE BY MAILING
(C.C.P. Sec. 1013a(4))

I, the Clerk of the Superior Court of California, County of Sacramento, certify that I am not a party to this cause, and on the date shown below I served the foregoing **RULING ON SUBMITTED MATTER** by depositing true copies thereof, enclosed in separate, sealed envelopes with the postage fully prepaid, in the United States Mail at Sacramento, California, each of which envelopes was addressed respectively to the persons and addresses shown below:

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I, the undersigned deputy clerk, declare under penalty of perjury that the foregoing is true and correct.

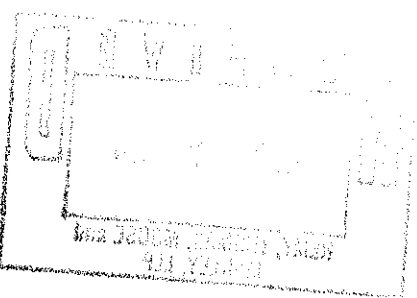
Dated: August 4, 2006

Superior Court of California,
County of Sacramento

FRANK TEMMERMAN

By:

Deputy Clerk



The following shall constitute the Court's tentative ruling on the petition for writ of mandate, set for hearing in Department 19 on Friday, June 9, 2006. The tentative ruling shall become the final ruling of the Court unless a party wishing to be heard so advises the Clerk of this Department no later than 4:00 p.m. on the court day preceding the hearing, and further advises the clerk that such party has notified the other side of its intention to appear.

Introduction

This is a petition for writ of mandate under Code of Civil Procedure section 1085 and Public Resources Code section 21168.5, in which petitioner challenges the adequacy of respondent's compliance with the California Environmental Quality Act ("CEQA", Public Resources Code sections 21000, et seq.) in preparing and certifying an environmental impact report ("EIR") for the Sutter Medical Center, Sacramento project.

Petitioner argues that the EIR for the project was legally deficient in its treatment of environmental impacts and proposed mitigation measures in the following areas: generation of fugitive dust (otherwise known as PM-10); generation of ultra fine particles (known as PM-2.5); traffic generation; parking; generation of ozone precursors; and sleep disruption from nighttime helicopter operations. Petitioners also challenge the statement of overriding considerations respondent adopted, which contains its explanation of why the project should go forward despite certain significant unmitigated adverse environmental impacts.

Preliminary Procedural and Evidentiary Matters

In the Stipulation and Order Establishing Briefing Schedule and Hearing Date, filed March 15, 2006, the Court granted the parties' request that it reserve two hours for the hearing on this matter, and stated that the Court would revisit the request after all briefing had been filed. If a hearing is requested on the basis of this tentative ruling, counsel are directed to contact the Clerk of this Department to inform the Court as to whether a two hour hearing is still necessary. A two hour hearing will be permitted upon request of either party.

The Court has received applications by the following parties for leave to file briefs as *amici curiae* in support of respondents and real parties in interest:

Sacramento Metropolitan Air Quality Management District (filed May 5, 2006);

Sacramento Area Council of Governments (filed May 5, 2006);

Midtown Business Association (filed May 10, 2006);

Trinity Episcopal Cathedral (filed May 10, 2006);

Sacramento Metropolitan Chamber of Commerce (filed May 11, 2006);

Sacramento Sierra Building & Construction Trades Council (filed May 11, 2006).

No objections have been filed with the Court. The Court finds that the proposed briefs submitted by these entities will assist the Court in understanding and resolving the legal issues

presented by the petition. All applications for leave to file briefs as *amici curiae* are therefore granted, and the briefs will be considered by the Court. The parties acting as *amici curiae* will not be permitted to participate in oral argument at the hearing on this matter.

Respondent and real party in interest have made a Request for Judicial Notice, filed May 15, 2006, of two documents: Sacramento Metropolitan Air Quality Management District Operational Air Quality Mitigation Protocol (attached to the Declaration of Whitman F. Manley as Exhibit A); and City of Sacramento Municipal Code Chapter 8.116 (attached to the declaration as Exhibit B). No objection has been made to the requests, and the documents being proper subjects for judicial notice pursuant to Evidence Code section 452(h) and 452(c), respectively, the request is granted.

Standard of Review

The applicable standard of review is set forth in Public Resources Code section 21168.5. Under that statute, the Court's inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence.

Analysis of Fugitive Dust (PM-10) Impacts

Petitioner argues that the EIR fails to deal properly with the potential impacts of emissions of particulate matter, or PM-10, from construction of the project. According to the EIR, PM-10 emissions will occur in the form of fugitive dust generated by demolition of existing structures and grading of construction sites. Among other alleged deficiencies, petitioner alleges that the EIR does not appropriately quantify potential dust emissions, improperly understates the total impact by failing to analyze all sources of dust together, fails to account for the possibility that demolition and grading activities may occur simultaneously and therefore increase the potential impact, and fails to account for the effect of longer construction workdays.

In analyzing the EIR's discussion of PM-10 impacts, the Court has applied the principle that the purpose of the EIR under CEQA is to serve as an informational document that discloses the potential environmental impacts of a proposed action before that action is taken, and discusses the availability and feasibility of measures to reduce or avoid those potential impacts. An EIR is sufficient to that purpose if it makes a good faith effort at the identification and disclosure of potential impacts. Technical perfection is not required. (See, *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners of the City of Oakland* (2001) 91 Cal. App. 4th 1344, 1355.)

Having reviewed the portions of the EIR regarding PM-10 emissions along with the portions of the administrative record relevant to that issue, and having considered petitioner's arguments, the Court finds that the EIR satisfied the applicable legal standards. The EIR clearly and sufficiently disclosed that there would be significant short-term potential impacts on air quality through the generation of dust from demolition of existing structures and the grading of construction sites. The potential significance of the short-term impact appropriately was measured in relation to the SMAQMD recommended threshold of significance of 50 micrograms of PM-10 per cubic meter of air. The EIR clearly stated that construction activities would generate dust exceeding that standard, absent mitigation.

Petitioner really is not arguing that the EIR failed to disclose a significant potential impact in terms of PM-10 generation; instead, petitioner is arguing that the EIR failed to disclose the true extent of that potential impact.

Much of what petitioner says about the EIR's discussion of dust is true. It is true, for example, that the EIR did not precisely quantify the potential emissions of dust from the project in terms of the SMAQMD micrograms/cubic meter standard, instead estimating potential emissions on a pounds per day basis. It is also true that the EIR analyzes dust generated by demolition activities separately from dust generated by grading. And it is true that the EIR does not appear to analyze the potential impact on dust generation of a compressed construction schedule, under which more dust-generating activities might occur simultaneously, or of a lengthened workday, which might result in a greater amount of dust being generated on a particular day.

These alleged deficiencies in the EIR are essentially beside the point, however, in light of the fact that the EIR also found that the potential PM-10 impacts of the project could be mitigated below the level of significance through adoption of Mitigation Measures 6.2-1 and 6.2-2. In effect, petitioner is making abstract or moot points about increased impacts that would occur only in the absence of the adopted mitigation measures. To state it another way, once the EIR appropriately concludes that a potential impact can be mitigated below the level of significance, the question of exactly how large the impact would be in the absence of mitigation is moot. The real issue therefore is: did the EIR appropriately conclude that the adopted mitigation measures would work?

The two mitigation measures addressing construction dust impacts were adopted from recommended mitigation measures established by the SMAQMD (for grading) and the SJVUAPCD (for demolition). These measures represent the experience and expert opinion of agencies specifically charged with protecting and regulating air quality as to workable measures for controlling dust emission. As such, they represent substantial evidence upon which respondent was entitled to rely in analyzing the dust-generating impacts of the project.

Petitioner, by contrast, has not demonstrated that the dust-related mitigation measures will not be effective, i.e., it has not demonstrated that those measures will not, in fact, reduce dust emissions below the established 50 microgram per cubic meter level of significance, under any of the various possible scenarios it advances (simultaneous demolition and grading, longer workdays, etc.).

The Court therefore finds that the EIR properly fulfilled its purpose as an informational document with regard to PM-10 (dust) emissions. It clearly stated that there would be a significant short-term impact in the absence of mitigation, but just as clearly stated that with appropriate mitigation measures that impact would be reduced below the established level of significance. At most, petitioners have pointed out certain technical imperfections, none of which undermine that essential conclusion. Petitioners therefore have not demonstrated that the EIR's discussion of PM-10 impacts was fatally flawed.

Ultra-Fine Particulate Matter (PM-2.5) Emissions

Petitioner also contends that the EIR is inadequate because it does not address the environmental impact of the emission of ultra-fine particulate matter, or PM-2.5. According to material in the record, PM-2.5 particles are smaller than the PM-10 particles discussed above, and present a distinct health risk in that they may be absorbed directly into the blood stream.

Apparently PM-2.5 particles are primarily associated with diesel exhaust, such as might be emitted by construction vehicles.

It is true that the EIR does not specifically address the impact of PM-2.5 emissions. The record also reveals, however, that this particular type of air pollutant appears to be an emerging area of concern in which there do not appear to be established means for measuring and estimating emissions, or generally-accepted criteria for thresholds of significance. For example, the EIR states that the federal government has established concentration-based annual and 24-hour ambient air quality standards for PM-2.5 and that California only recently did so. (See, EIR, Table 6.2-1, Admin. Record, Vol. 11, p. 04185.) More significantly for the purposes of assessing the adequacy of the EIR, there does not appear to be any established methodology for estimating emissions of PM-2.5 from diesel equipment used in construction projects. (See, for example, Admin. Record, Vol. 8, p.2866.) Petitioner has not demonstrated that any such methodology exists. It does refer to the so-called ISCST3 model, but the references to that model in the record relate to its use in modeling PM-10 emissions. Those references do not contradict respondent's assertion that no methodology now exists to measure potential PM-2.5 impacts.

As set forth in *Berkeley Keep Jets Over the Bay v. Board of Port Commissioners of the City of Oakland* (2001) 91 Cal. App. 4th 1344, 1370-1371, a public agency is required to do the necessary work to educate itself about different methodologies that may be available to quantify a given potential environmental impact, and to use its best efforts to find out and disclose all that it reasonably can. On the other hand, if, after thorough investigation, it finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate the discussion of the impact.

Respondent's handling of the PM-2.5 question in this case met that standard. As set forth in the EIR and in responses to comments, respondent consulted with a variety of air quality regulatory agencies regarding PM-2.5 emissions, and concluded that there was no existing methodology for measuring or estimating such emissions in connection with this type of construction project. There thus could be no basis for any analysis of whether the impact of PM-2.5 emissions from this project would be significant in relation to the only apparent potential criterion of significance, the federal concentration-based standards. At most, petitioner has suggested that there likely would be some level of PM-2.5 emissions from the project. It has failed to demonstrate, however, that such emissions rise to the level of significance that would require that they be addressed in the EIR. The Court accordingly finds that the EIR did not fail in its purpose as an informational document by not specifically addressing the issue of PM-2.5 emissions.

Analysis of Traffic Generation Impacts

The EIR concluded that the project would result in a significant and unavoidable impact by increasing traffic volumes on the freeway system. (Impact 6.7-2, Admin. Record, Vol. 12, p. 4381.) Petitioner does not quarrel with that conclusion *per se*, but asserts that the EIR may significantly understate the actual impact.

In making this argument, petitioner focuses on the EIR's discussion of vehicular trip generation projections associated with the various components of the project. In particular, petitioner challenges the projections for the hospital. Those projections are based on a "survey" in the form of trip generation and parking occupancy surveys conducted at the existing Sutter Memorial Hospital. Projections for the remaining components of the project, by contrast, were based on the Institute of Transportation Engineers *Trip Generation* manual, which petitioner

describes as containing the industry standard reference rates of trip generation established by transportation engineers. (See, Table 6.7-13 and Note 1, Admin. Record, Vol. 12, p. 4371.) The site surveys at the existing hospital resulted in projected traffic counts for the project that are within, but on the lower end of, the ranges that would be projected from the ITE manual. Petitioners thus argue that reliance on the site survey has resulted in an understating of the actual potential impact of the project.

Petitioner's argument has three aspects. The first is that the site survey was an improper methodology for projecting traffic counts. The second is that, even if the methodology was proper, respondent failed to adjust the site survey data to reflect the probability that the use of the new hospital will be more intensive than that of the existing hospital and thus will generate higher traffic counts. The third is that, even if otherwise proper, the site survey conclusions are not supported by any underlying data.

With regard to the first point, petitioner's argument is unpersuasive. Under CEQA, the lead agency has discretion to choose an appropriate methodology for studying an impact. It need not utilize a particular methodology that is requested by a commentator, and its choice of methodology will be upheld if it is supported by substantial evidence. (See, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal. App. 4th 1184, 1198; *Association of Irrigated Residents v. County of Madera* (2003) 107 Cal. App. 4th 1383, 1396.) Since one of the primary purposes of the project is the relocation of the existing Sutter Memorial Hospital operations, it is logical to look at the existing traffic counts for the hospital to estimate what those counts will be at the new location. The similarity in uses between the existing hospital and the new one is, at least in a general sense, sufficiently apparent to be substantial evidence in support of the use of site surveys at the existing hospital as the methodology for estimating future trip generation.

Petitioner's argument is also unpersuasive on the second point. It does appear from the record that respondent and its traffic consultant did consider whether the new facility might be used more intensively than the old one, as well as whether there might be any reduction in daily trips from consolidation of facilities or potential reductions in staffing. (See, for example, Admin. Record, Vol. 8, p. 2877; Vol. 12, p. 4372.) Petitioner has not demonstrated that this analysis is unreasonable or flawed. Indeed, its assertions about the more intensive use of the new facility appear to be little more than speculation, and speculation does not provide a proper basis for invalidating an EIR. (See, *Wal-Mart Stores, Inc. v. City of Turlock* (2006) 138 Cal. App. 4th 273, 291-294.)

Petitioners are on firmer ground with regard to their third point. While it is true, as respondent says, that the underlying data supporting the trip generation projections need not be in the EIR itself, that does not obviate the requirement that the conclusions of the EIR must be supported by substantial evidence in the record. In this case, the substantial evidence to support the trip generation projections for the hospital would be the "trip generation and parking occupancy surveys conducted at Sutter Memorial Hospital" referred to in the EIR. (Admin. Record, Vol. 12, p. 4371.) The Court has not been able to locate any such surveys in the record. The December 2, 2005 memorandum prepared by DKS Associates, respondent's traffic consultant, which has been cited to the Court, merely restates the consultant's conclusions regarding trip generation without providing the underlying data. (See, Admin. Record, Vol. 8, pp. 2872-2884, and, in particular, p. 2877. The document that follows the memorandum in the record at Vol. 8, p. 2885 does appear to relate to some sort of survey of traffic at the Sutter Hospitals, but does not obviously connect to the trip generation numbers set forth in the EIR, and in any case appears to relate to a single day and not to multiple visits.) The memorandum itself, being

merely a restatement of the conclusions contained in the EIR, cannot serve as substantial evidence to support the EIR's conclusions. The DKS memorandum does reveal that the trip generation estimates were determined "...on the basis of numerous site visits...", which also confirmed that on-site parking capacity at the existing hospital was fully utilized. Respondent claims that the underlying data generated by those site visits can be found in the nearly 900-page Technical Appendices in the record. (Admin. Record, Vol. 14, p. 5185-Vol. 16, p. 6062.) In particular, respondent cites to Vol. 14, pp. 5198-5228. These pages do not appear to contain the necessary information regarding the site surveys; instead, they appear to contain analyses of traffic at various signaled intersections near the new project. Lacking an accurate citation to the underlying site survey data, the Court cannot find that the trip generation projections for the hospital are supported by substantial evidence.

The issue is significant because, unlike the situation with the PM-10 emissions, discussed above, respondent found that the traffic impacts were significant and unavoidable, and could not be mitigated. It therefore became critical to know exactly what the scope of the impact would be, and to be able to determine whether the EIR had assessed them correctly. As a matter of pure common sense, some level of impact may be tolerable, while a larger impact may not, or may be of a scope such as to make a more compelling case for mitigation. It may be that respondent is completely correct in its assessment of the trip generation effect of the project, or it may be that the surveys were taken in a manner, as petitioner argues, that significantly understated the current situation and thus undermined the future projections. Without being able to locate the underlying data in the record, it is impossible to tell. As noted above, the primary function of an EIR is to serve as an informational document, or, as some courts have put it, as an environmental "alarm bell". The purpose is not served by accepting conclusions that apparently are not supported by substantial evidence in the record. The Court therefore will grant the petition for writ of mandate as to the discussion of traffic impacts unless respondent is able to identify the underlying survey data in the record.

Analysis of Parking-Related Impacts

Petitioner attacks the manner in which the EIR dealt with the impact of the project on demand for parking, which it classified as a "potentially significant" impact. (See, Admin. Record, Vol. 12, p. 4386.)

The EIR's discussion of parking-related impacts suffers from the same flaw as does its discussion of trip generation impacts. The stated numbers for estimated peak parking demand for the hospital component of the project are based upon parking occupancy surveys conducted at Sutter Memorial Hospital (see, Administrative Record, Vol. 12, page 4387, Table 6.7-19, Note 1; Vol. 4, page 1304, Table 2), yet the Court has not been given any citation to the underlying data in the record that supports these numbers. For the reasons stated above with regard to the traffic surveys, the Court cannot find that the EIR's conclusions regarding estimated parking demand are supported by substantial evidence. Lacking such support, the EIR cannot be said to fulfill its function as an informational document on the issue of parking demand. The Court therefore will grant the petition for writ of mandate as to the discussion of parking impacts unless respondent is able to identify the underlying survey data in the record.

On the assumption that the project would create an impact on parking demand, respondent adopted Mitigation Measure 6.7-1, which in essence was a commitment to obtain off-site parking lots as needed. (See, Admin. Record, Vol. 11, p. 4042; Vol. 12, p. 4389.) Petitioner attacks this mitigation measure as illusory in that it does not actually identify any potential off-

site parking locations or discuss the potential impacts of their use, or guarantee that such sites will actually be available when needed. Petitioner's argument on this point is unpersuasive. By treating the impact on parking as potentially significant and committing itself to eventually working out a solution (and performing a review of the environmental impacts of such solution at the appropriate time), respondent complied with the requirements of CEQA as explained in *Sacramento Old City Association v. City Council* (1991) 229 Cal. App. 3d 1011, 1028-1029, *Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal. App. 4th 351, 373, and cases cited therein. Petitioner's contention that the growth-inducing impacts of the project make it unlikely that off-site parking will be available when needed is unpersuasive because it is entirely speculative. Petitioner therefore has not demonstrated that Mitigation Measure 6.7-1 is an improper and inadequate method of dealing with potential future parking shortfalls.

Petitioner also attacks what it characterizes as respondent's conclusion that a one-time increase in employee parking fees "perpetually" would prevent a parking shortfall. This contention does not appear to be borne out by the discussion of parking pricing in the EIR or in the consultant's report in the record. (See, for example, Admin. Record, Vol. 11, p. 4041; Vol. 17, p. 6377.) Far from viewing the parking price increase alone as a perpetual palliative, the EIR and the consultants see it as merely one element in a multi-faceted program to manage parking demand. Moreover, petitioner's argument regarding the proper "elasticity rate" to use in gauging the effects of a price increase for parking are really an argument over methodology. Petitioner's selective citations to the Pratt Handbook (for which no citations to the administrative record are given) are not sufficient to persuade the Court that the parking consultant's application of a -0.3 rate was improper under the circumstances.

The Court accordingly finds that respondent's treatment of the parking issue was deficient only to the extent that its conclusions regarding parking demand for the hospital do not appear to be supported by substantial evidence in the record.

Analysis of Ozone Precursor Impacts (ROGs and NO_x)

The EIR disclosed a short-term significant impact in the form of increased NO_x emissions generated by construction equipment. Even though mitigation measures were imposed, the impact was still found to be unavoidable. The EIR estimated the impact to be a maximum of approximately 323.86 pounds per day, which would be in excess of the Sacramento Air Quality Management District's construction threshold of 85 pounds per day.

Petitioner argues that the EIR significantly understates expected emissions. Citing to the so-called URBEMIS Modeling Outputs for the project found in Volume II of the Technical Appendices to the Draft EIR (Admin. Record, Vol. 13, p. 4878 and following), which estimate, among other things, emissions of NO_x, petitioner alleges that none of those modeling runs supports the EIR's number of 323.86 pounds per day. Respondent attempts to explain and justify the number, but does not cite to any document in the record supporting that number, or demonstrating how that number could have been derived from the modeling runs in the record or from another source. Just as was the case with the parking and traffic impacts discussed above, absent a citation to such information in the record, the Court cannot find that the EIR's discussion of NO_x emissions is supported by substantial evidence, and as a result cannot find that the EIR fulfills its purpose as an informational document on this issue, because the actual scope of the impact is unknown. The Court therefore will grant the petition for writ of mandate as to the discussion of NO_x emissions unless respondent is able to identify the underlying data in the record.

Petitioner further argues that respondent arbitrarily rejected proposals for additional mitigation measures addressing ozone precursor emissions. The record does not support this contention. The Final EIR contained a discussion of each of petitioner's suggested mitigation measures related to ozone precursors. (See, Admin. Record, Vol. 17, pp. 6284-6287; 6290.) Respondent was required to adopt potential mitigation measures only to the extent that they were feasible and would substantially lessen the project's significant environmental effects. (Public Resources Code section 21002.) In its responses in the Final EIR, respondent either accepted certain of the suggested mitigation measures, or reasonably and persuasively explained that they were already covered by other mitigation measures already in place, ineffective, or infeasible, as the case may be. This is all CEQA requires. (See, *A Local & Regional Monitor v. City of Los Angeles* (1993) 12 Cal. App. 4th 1773, 1809-1811.)

The record also does not bear out petitioner's contention that respondent arbitrarily refused to go beyond a 15% emissions reduction level recommended by the Sacramento Metropolitan Air Quality Management District. Respondent adopted mitigation measures going beyond the District's recommendations. (See, Admin. Record, Vol. 11, p. 4203.) Petitioner therefore has not demonstrated that respondent violated CEQA in its treatment of suggested mitigation measures for ozone precursors.

Analysis of Noise Impacts from Nighttime Helicopter Flights

The project includes a rooftop helipad that will be used to receive flights transferring critically ill patients to the facility on a scheduled, non-emergency basis. Some of the flights will occur at night. Therefore, the EIR identified and analyzed the effect of nighttime flights on nearby residents, finding that there was a significant, unavoidable impact in that flights could contribute to sleep disturbance in adjacent neighborhoods.

Petitioner attacks the treatment of this issue on two grounds: the EIR does not disclose the actual geographical area that will be affected by nighttime noise levels that are sufficient to disturb sleep; and respondent improperly rejected feasible measures to mitigate the noise impacts.

With regard to the first ground, the Court finds that the doctrine of exhaustion of administrative remedies precludes petitioner from raising this issue here. That doctrine is specifically applicable to CEQA under Public Resources Code section 21177(a). In this proceeding, petitioner contends that the EIR's analysis of helicopter noise was inadequate because, although the EIR disclosed that sleep disruption was likely to occur in locations exposed to noise levels of 70 dBA, a threshold of significance that is not now in dispute, it never disclosed, through maps or otherwise, how large an area would be subject to noise at that level. That specific issue was never raised before respondent before final certification. Petitioner cites to various documents in the record demonstrating that the noise analysis was challenged, either in comments or in an appeal (e.g., Admin. Record, Volume 17, pp. 6169, 6181-6182, 6243-6244; Vol. 8, pp. 2805, 2820), but none of those comments addressed the precise issue raised here. Such comments either made a general challenge to the noise analysis, without mentioning the alleged failure to disclose the geographical extent of potential sleep disruption under the 70 dBA standard, or focused on the issue of the proper "significance criterion", i.e. whether the 70 dBA standard itself was proper. The issue of lack of proper maps or other geographic delineation of the affected area within the 70 dBA contour was not raised, and therefore cannot be addressed here.

With regard to the second ground, respondent rejected two mitigation measures for helicopter noise suggested by petitioner: upgrading the windows and doors of affected residences

with glazing rated for sound transmission loss, potentially by providing financial assistance to owners; and prohibiting the non-emergency use of the helipad between 10 p.m. and 7 a.m. A lead agency is required to adopt mitigation measures only to the extent that they are feasible given the nature and objectives of the project. The decision not to adopt a particular mitigation measure will be upheld if it is supported by substantial evidence. (See, *A Local & Regional Monitor v. City of Los Angeles* (1993) 12 Cal. App. 4th 1773, 1809.) Moreover, as respondent points out, mitigation measures are required to be enforceable.

In this case, the Court finds that respondent's rejection of the two proposed mitigation measures was reasonable and appropriate and supported by substantial evidence. With regard to upgrading affected residences, respondent reasonably concluded that the proposed measure was not enforceable or feasible because it required the cooperation of numerous third parties and potentially could require a significant expenditure to obtain a benefit that could be defeated simply because people would open their windows at night during hot weather. Petitioner has not demonstrated that these concerns are lacking in substance. With regard to the limitation on non-emergency flights, respondent appropriately concluded that such a limitation was not compatible with the nature of the project, which was to be able to receive medically-necessary transfers of critically ill patients that might be pushed into nighttime hours by unexpected factors such as weather or aircraft availability. Petitioner has not demonstrated otherwise. The Court accordingly finds that respondent did not violate CEQA by rejecting the two proposed mitigation measures for nighttime helicopter noise.

Statement of Overriding Considerations

Petitioner's challenge to the statement of overriding considerations is essentially derivative of its challenges to specific elements of the EIR. Under Public Resources Code section 21081(b), CEQA requires that a lead agency explain the specific economic, legal, social, technological or other benefits of the project which outweigh whatever significant unmitigated environmental effects have been identified in the EIR. If the EIR's treatment of significant environmental effects is flawed, it follows that the statement of overriding considerations is also flawed. In this case, to the extent that the Court has found that there is no citation to substantial evidence in the record to support the assessment of certain significant impacts in the EIR, the statement of overriding considerations rests on an inadequate basis and therefore does not fulfill its legal purpose. The petition for writ of mandate should be granted to vacate the approval of the statement of overriding considerations so that the matter can be reconsidered when the environmental effects of the project have been addressed properly.

Conclusion

In light of the Court's conclusion that there does not appear to be substantial evidence to support the conclusions of the EIR regarding the scope of traffic, parking and ozone precursor impacts, as set forth above, the petition for writ of mandate should be granted requiring respondent to set aside its certification of the final EIR for the project, and requiring it thereafter to proceed in compliance with the requirements of CEQA with regard to further review and consideration of the project.

In the event that this tentative ruling becomes the final ruling of the Court, counsel for petitioner is directed to prepare an order, judgment and writ of mandate in conformity with this ruling pursuant to the procedures set forth in Rule of Court 391.