

THE METROPOLITAN PROJECT

Sacramento, California

Final Environmental Impact Report

Prepared for:
The City of Sacramento

Prepared by:
GAIL ERVIN CONSULTING

October 10, 2007



FINAL EIR FOR THE METROPOLITAN PROJECT

State Clearinghouse Number: 2006042161

PREPARED FOR

**CITY OF SACRAMENTO
DEVELOPMENT SERVICES DEPARTMENT
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October 10, 2007

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1.0

INTRODUCTION

CHAPTER 1

1. INTRODUCTION

PURPOSE OF THIS DOCUMENT

This document contains public comments received on the Draft Environmental Impact Report (Draft EIR) for the Metropolitan Project PO5-205 (Proposed Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA). Written comments were received by the City of Sacramento (City) during the 45-day public comment period held from July 11, 2006 through August 24, 2006.

Subsequent to the release of the Draft EIR, the developer requested that additional information be included regarding another mix of uses in a building with a slightly smaller footprint. The Mixed-Use Hotel Option proposes fewer residential units than the project as described in the Draft EIR, and substitutes hotel rooms and a restaurant.

This Final EIR includes a description of the Mixed-Use Hotel Option, necessary discussion changes to the Draft EIR to include this Option, and written responses to each comment received on the Draft EIR. The responses correct, clarify, and/or amplify text in the Draft EIR. Also included are text changes made at the initiative of City staff. These changes do not alter the conclusions of the Draft EIR.

PROJECT SUMMARY

This Final EIR provides environmental review for both the Residential Option, analyzed in the Draft EIR as the Proposed Project, and the Mixed-Use Hotel Option discussed herein. The Mixed-Use Hotel Option would be equal to or smaller than the Residential Option, and would not result in new or higher intensity impacts than the Residential Option, as further discussed below.

PROPOSED PROJECT – RESIDENTIAL OPTION

As described in the Draft EIR, the Proposed Project, or Residential Option, would demolish the existing structures on the project site and would construct a 652,000 gross square foot (gsf), 39-story building. The project site is 160 by 260 feet, covering most of the City half-block between J Street and the alley between I and J streets. Ingress and egress to the parking garage, loading areas, and building services would be located on the alley.

There are no changes to the Residential Option. Residential gross square footage, including circulation and community spaces, would encompass 430,500 sf and there would be 13,000 sf of ground floor retail/commercial space fronting 10th and J streets. A residential lobby would be located facing the corner of 10th and J streets, behind a 25 foot outdoor plaza. An exterior 15 foot deep arcade or plaza would be located along 10th Street to allow for patio dining. Ingress and egress to the parking garage, loading areas, and building services would be located on the alley. The building would be 420 feet in height (389 feet to the top of the roof); this would include 345 feet for the first 200 feet on the J Street block moving from east to west, which is within the 350 foot zone for the Capitol View Protection Ordinance. There is no height limitation for the half block facing 10th Street. The building's step-like design is intended to be consistent with the Downtown area's existing high-rise focus.

The project would provide 320 condominium units with residential amenities such as private balconies, a swimming pool, fitness and recreation rooms, and landscape and open space terrace areas. Parking would be provided on one or one and a half sub-grade levels and six above grade levels for a total of 514 spaces. The top of the building would be split into three levels, with the pool and penthouses on the lowest. There would also be an upstairs terrace for the penthouses and a room with mechanical systems. The condos would range from 700 to 1,300 sf and include open air balconies on all units. Two-story lofts would be available right above the ground-floor retail/commercial space, and some penthouses may have two floors.

MIXED-USE HOTEL OPTION

The Mixed-Use Hotel Option would demolish the existing structures on the proposed site and would construct a mixed-use, residential condominium/hotel building with parking. The Mixed-Use Hotel Option would construct a maximum of 190 residential units and 190 hotel rooms in a building similar to the Residential Option. A hotel lobby with restaurant would be located facing the corner of 10th and J streets, behind a 25-foot outdoor plaza.

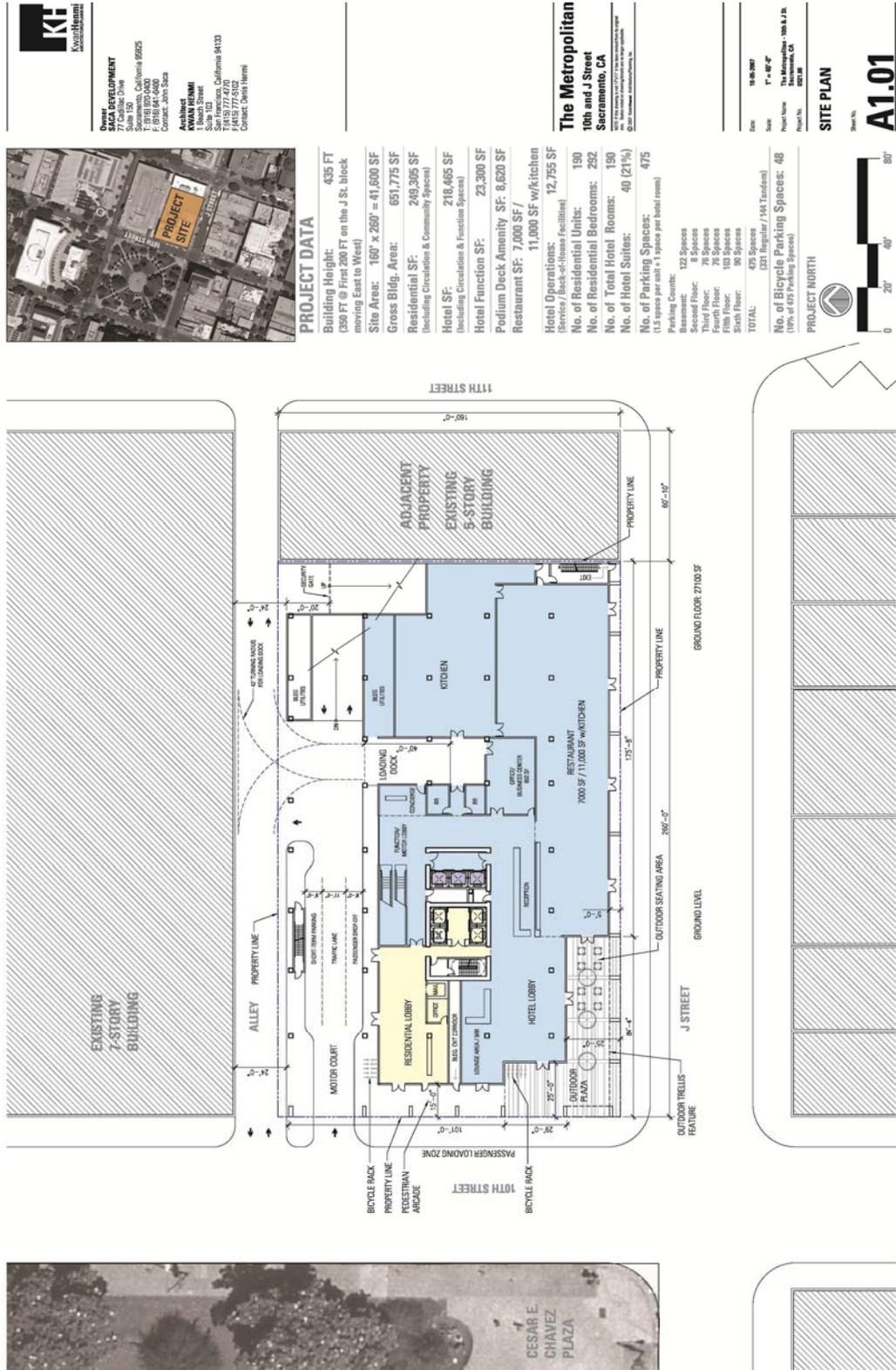
The gross building area would be 651,775 sf and the building would be 435 feet in height (400 feet to the top of the roof). This option proposes a building that is 11 feet higher to the top of the roof than the Residential Option (including the spire). Similar to the proposed residential project, the building would include 350 feet for the first 200 feet on the J Street block moving from east to west, which is within the 350 foot zone for the Capitol View Protection Ordinance. There is no height limitation for the half block facing 10th Street.

The podium level would be set back off the alley by approximately 4 feet, and the tower would be set back 33 feet 6 inches from the edge of the alley, compared to the 43 foot setback for the Residential Option. All other elements would be similar to the Residential Option. The proposed site plan, building sections, and floor plans are provided in Figures 1 through 12.

REQUIRED PROJECT APPROVALS/ENTITLEMENTS

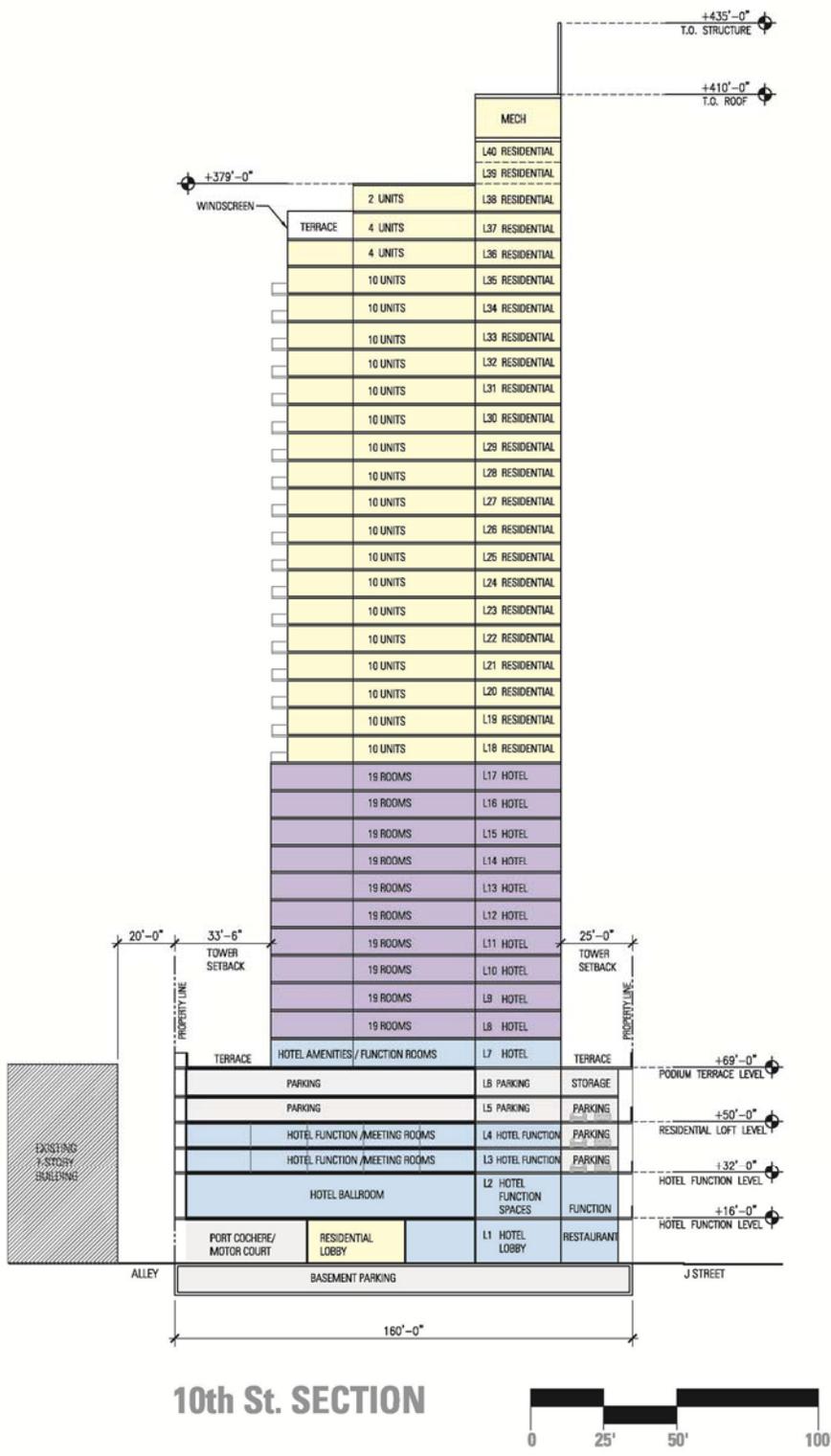
Entitlements are being requested from the City of Sacramento for both the Residential Option and the Mixed-Use Hotel Option, as follows:

- Certification of the Environmental Impact Report and Adoption of Findings and a Mitigation Monitoring Plan
- Tentative Map to designate the site for condominium purposes
- Special Permit to construct 320 or 190 condominium units in the Central Business District (C-3-SPD) zone
- Special Permit for a Major Project over 75,000 gross square feet in the Central Business District (C-3-SPD) zone
- Special Permit to allow hotel uses
- Special Permit to allow tandem parking
- Variance to reduce the required maneuvering area from 26 feet to 25 feet



Source: KwanHenmi, 2007

**FIGURE 1
 MIXED USE-OPTION: SITE PLAN**



Owner
SACA DEVELOPMENT
 77 Cadillac Drive
 Suite 150
 Sacramento, California 95825
 T: (916) 920-0400
 F: (916) 641-0400
 Contact: John Saca

Architect
KWAN HENMI
 1 Beach Street
 Suite 103
 San Francisco, California 94133
 T: (415) 777-4770
 F: (415) 777-5102
 Contact: Denis Henmi

The Metropolitan
10th and J Street
Sacramento, CA

NOTE: If this drawing is not 11"x17" it has been reduced from its original size. Scales noted on drawing/details are no longer applicable.
 © 2007 KwanHenmi Architecture/Planning, Inc.

Date: 10-05-2007
 Scale: 1" = 50'-0"
 Project Name: The Metropolitan - 10th & J St. Sacramento, CA
 Project No. 0521.00

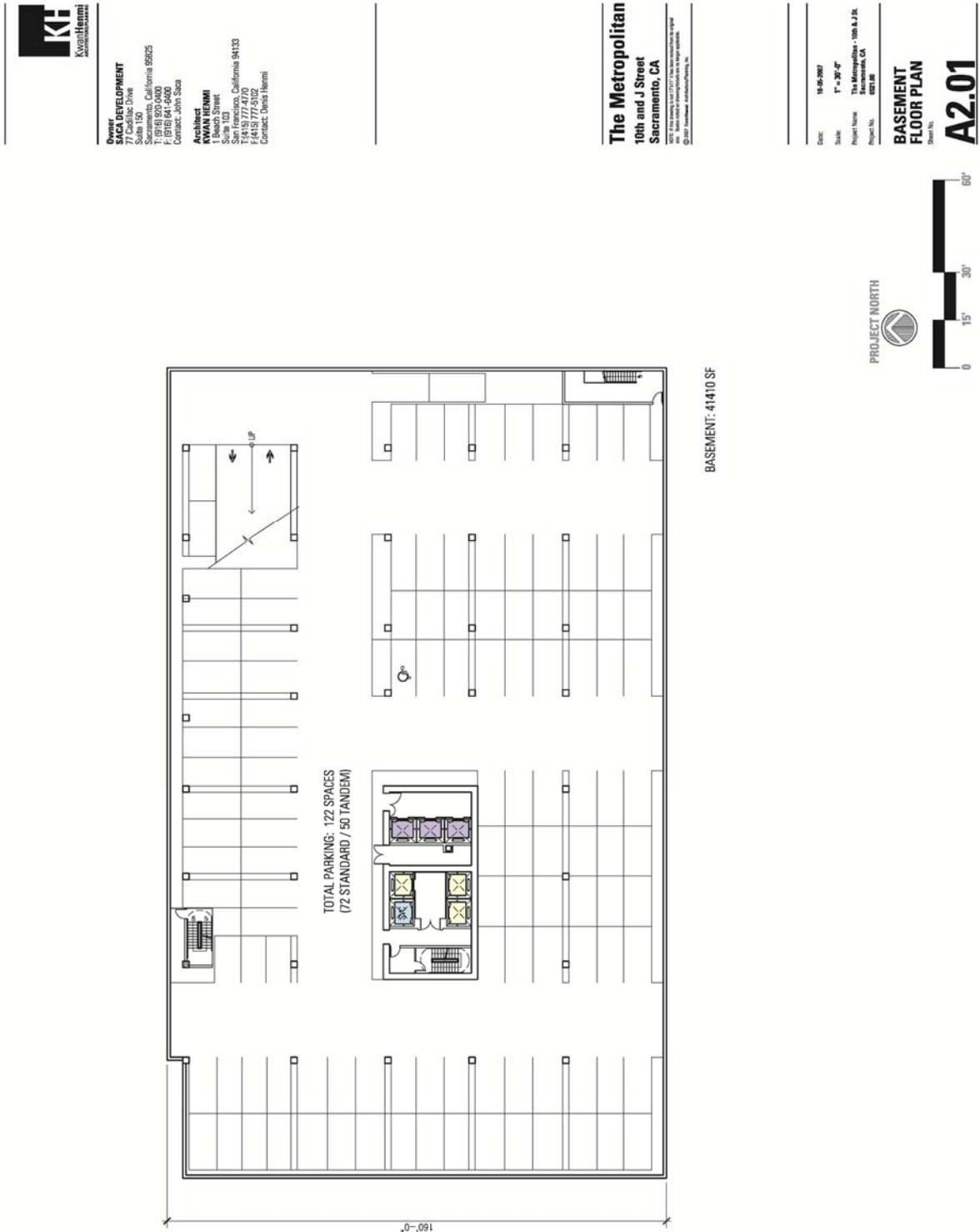
BUILDING SECTION

Sheet No.

A3.01

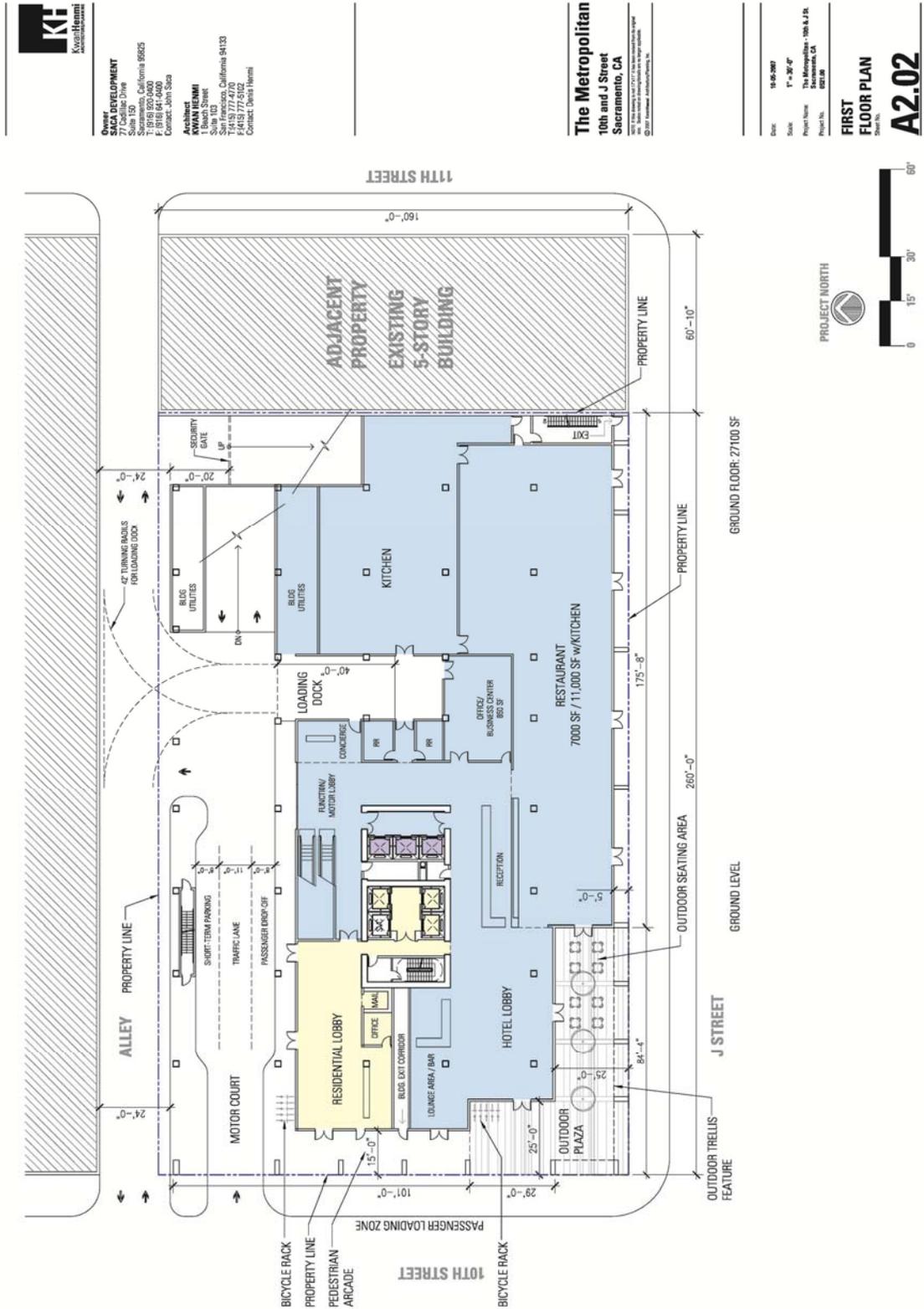
Source: KwanHenmi, 2007

FIGURE 2
MIXED USE-OPTION: BUILDING SECTION



Source: KwanHenmi, 2007

FIGURE 3
MIXED USE-OPTION: BASEMENT FLOOR PLAN



Source: KwanHenmi, 2007

FIGURE 4
MIXED USE-OPTION: FIRST FLOOR PLAN



Owner
KCA DEVELOPMENT
 1700 J Street
 Suite 150
 Sacramento, California 95825
 Tel: (916) 441-1000
 F: (916) 441-0400
 Contract: John Sica

Architect
KWAN HENMI
 1 Beach Street
 Suite 103
 Sacramento, California 94133
 Tel: (916) 777-4770
 F: (916) 777-5102
 Contact: Dennis Henmi

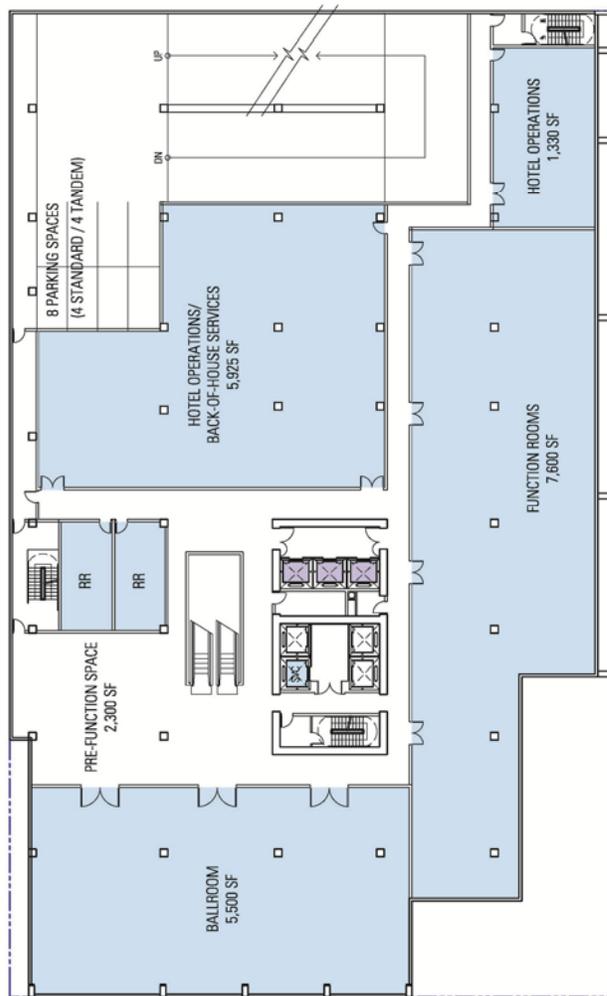
The Metropolitan
 10th and J Street
 Sacramento, CA

NOT TO SCALE
 DATE: 10/17/07
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Date: 10-06-2007
 Scale: 1" = 30'-0"
 Project Name: The Metropolitan - 10th & J St.
 Project No.: 02071.00

SECOND FLOOR PLAN
 Sheet No.

A2.03



SECOND FLOOR PLAN: 37550 SF
 +16'-0"

HOTEL AMENITIES/SERVICES LEVEL



Source: KwanHenmi, 2007

FIGURE 5
MIXED USE-OPTION: SECOND FLOOR PLAN



Owner
77CA DEVELOPMENT
 77 California Street
 Suite 150
 Sacramento, California 95825
 T: (916) 441-1000
 F: (916) 441-0400
 Contact: John Sosa

Architect
KWAN HENMI
 1 Beach Street
 Suite 103
 San Francisco, California 94133
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 F: (415) 777-5102
 Contact: Dennis Henmi

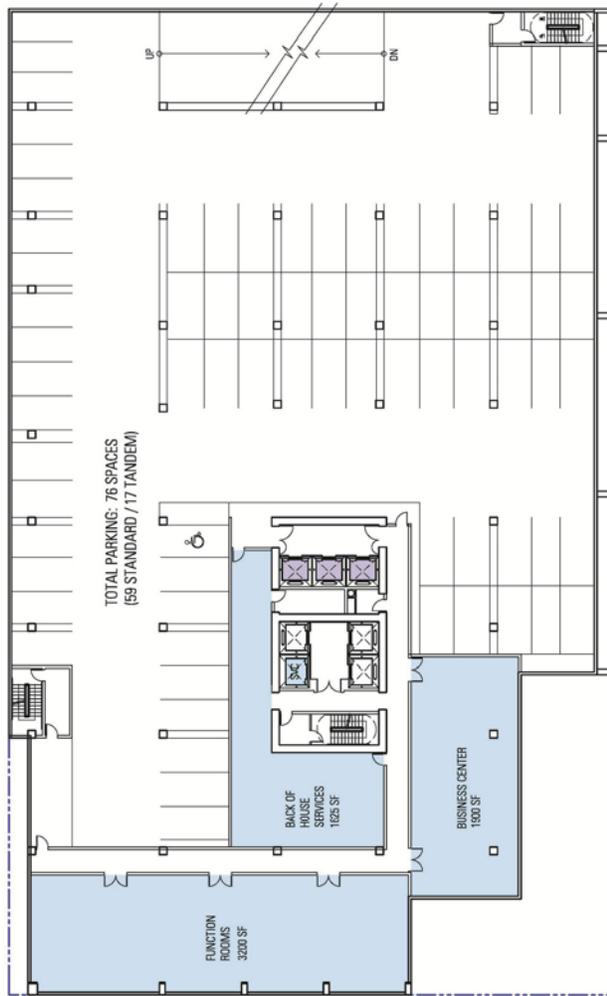
The Metropolitan
 10th and J Street
 Sacramento, CA

10th & J Street, 10th & J Street, 10th & J Street, 10th & J Street
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Date: 10-05-2007
 Scale: 1" = 30'-0"
 Project Name: The Metropolitan - 10th & J St.
 Project No.: 02071.00

**THIRD & FOURTH
 FLOOR PLAN**

Sheet No. **A2.04**



3RD to 4TH FLOOR PLAN: 37550 SF/FLOOR
 +32'-0"

HOTEL AMENITIES/SERVICES & PARKING LEVEL



Source: KwanHenmi, 2007

FIGURE 6
MIXED USE-OPTION: 3RD AND 4TH FLOOR PLAN



Owner
KCA DEVELOPMENT
 1000 S. State Street
 Suite 150
 Sacramento, California 95825
 Tel: (916) 441-1000
 F: (916) 841-0400
 Contact: John Sosa

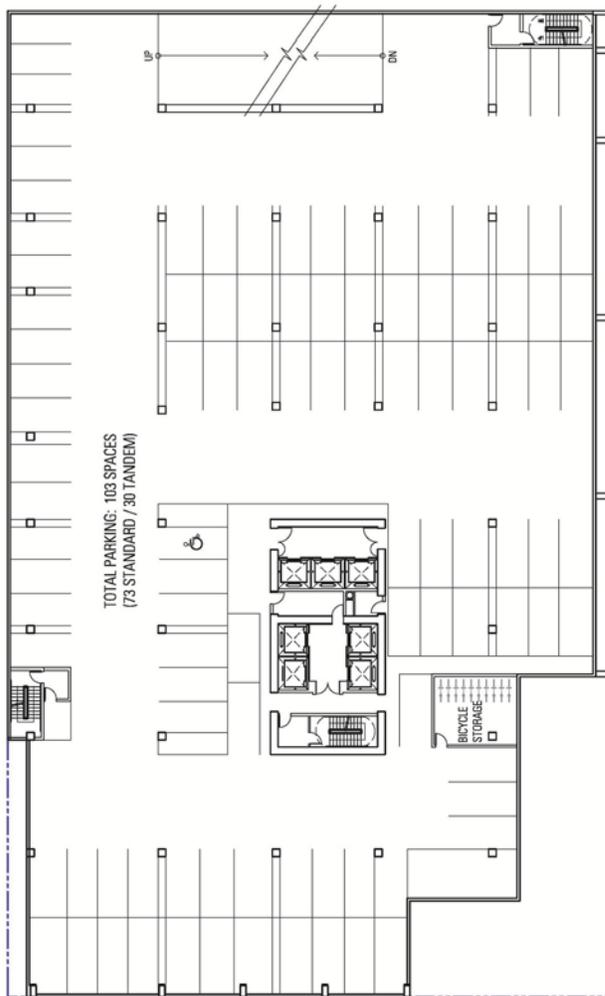
Architect
KWAN HENMI
 1 Beach Street
 Suite 103
 San Francisco, California 94133
 Tel: (415) 777-4770
 F: (415) 777-5102
 Contact: Dennis Henmi

The Metropolitan
 10th and J Street
 Sacramento, CA

NOT TO SCALE
 DATE: 10/17/07
 DRAWN BY: J. S. Sosa
 CHECKED BY: D. Henmi
 © 2007 KwanHenmi Architecture/Planning, Inc.

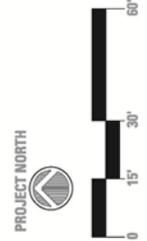
Date: 10-09-2007
 Scale: 1" = 30'-0"
 Project Name: The Metropolitan - 10th & J St.
 Project No.: 02071.00

FIFTH FLOOR PLAN
 Sheet No. **A2.05**



5TH FLOOR PLAN: 37550 SF/ FLOOR
 +50'-0"

PARKING LEVEL



Source: KwanHenmi, 2007

FIGURE 7
MIXED USE-OPTION: 5TH FLOOR PLAN



Owner
YCA DEVELOPMENT
 7777 Sacramento Blvd
 Suite 150
 Sacramento, California 95825
 T: (916) 481-0000
 F: (916) 481-0000
 Contact: John Saca

Architect
KWAN HENMI
 1 Beach Street
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 San Francisco, California 94133
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 Contact: Denis Henmi

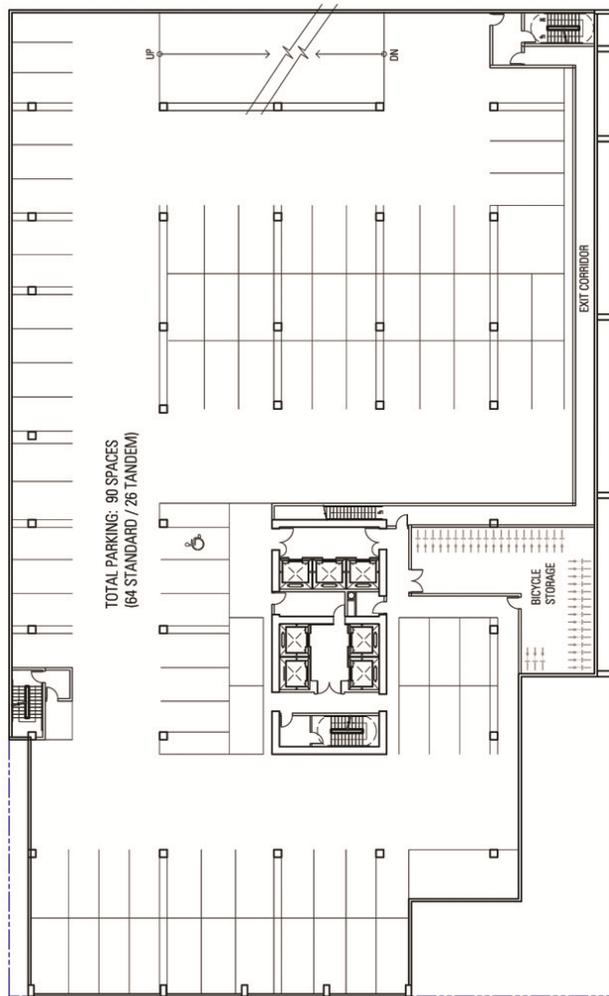
The Metropolitan
 10th and J Street
 Sacramento, CA

10th and J Street is a project of YCA Development, Inc.
 © 2007 KwanHenmi Architecture/Planning, Inc.

Date: 10-05-2007
 Scale: 1" = 30'-0"
 Project Name: The Metropolitan - 10th & J St.
 Project No.: 0521.00

SIXTH FLOOR PLAN
 Sheet No.

A2.06



6TH FLOOR PLAN: 37550 SF/FLOOR
 +59'-0"

PARKING LEVEL



Source: KwanHenmi, 2007

FIGURE 8
MIXED USE-OPTION: 6TH FLOOR PLAN



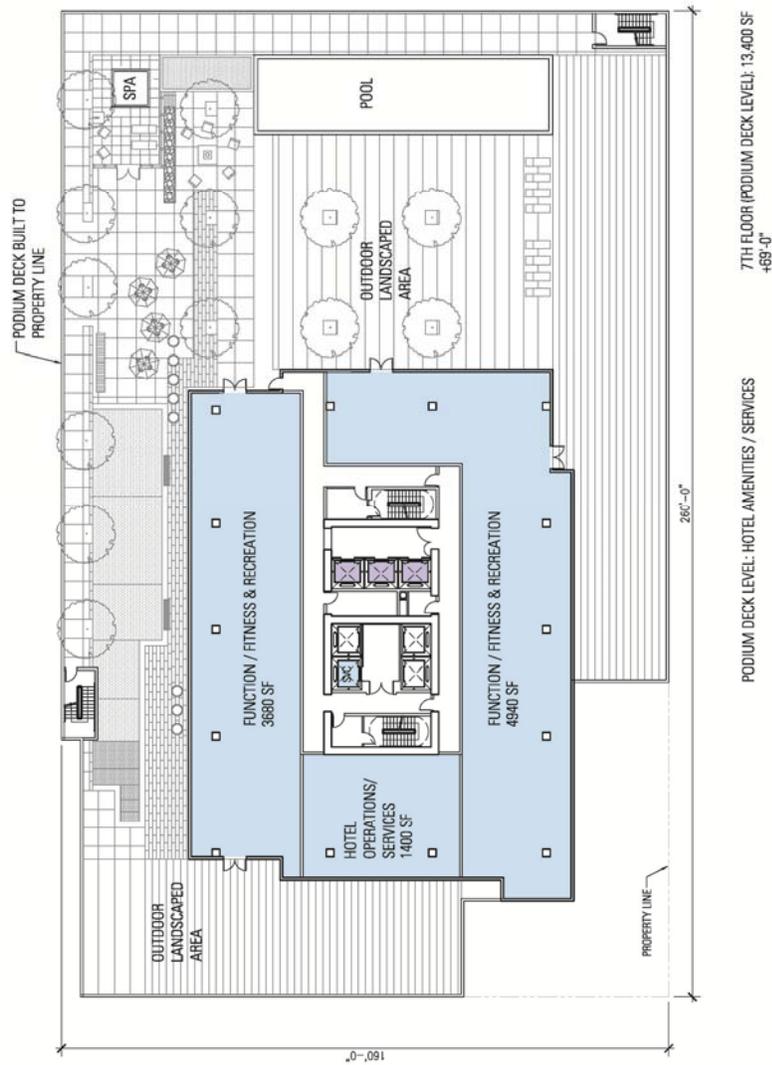
Owner
KCA DEVELOPMENT
 7700 Sycamore Drive
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 Tel: (916) 486-1000
 F: (916) 486-0400
 Contract: John Sica

Architect
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 Tel: (916) 777-4770
 F: (916) 777-5102
 Contact: Dennis Henmi

The Metropolitan
 10th and J Street
 Sacramento, CA

Date: 10-05-2007
 Scale: 1" = 30'-0"
 Project Name: The Metropolitan - 10th & J St.
 Project No.: 02071.00

PODIUM FLOOR PLAN
 Sheet No. **A2.07**



Source: KwanHenmi, 2007

FIGURE 9
MIXED USE-OPTION: PODIUM FLOOR PLAN



Owner
YCA DEVELOPMENT
 7700 J Street
 Suite 150
 Sacramento, California 95825
 T: (916) 486-0000
 F: (916) 861-0400
 Contact: John Sica

Architect
KWAN HENMI
 1 Beach Street
 Suite 103
 San Francisco, California 94133
 T: (415) 777-4770
 F: (415) 777-5102
 Contact: Dennis Hermi

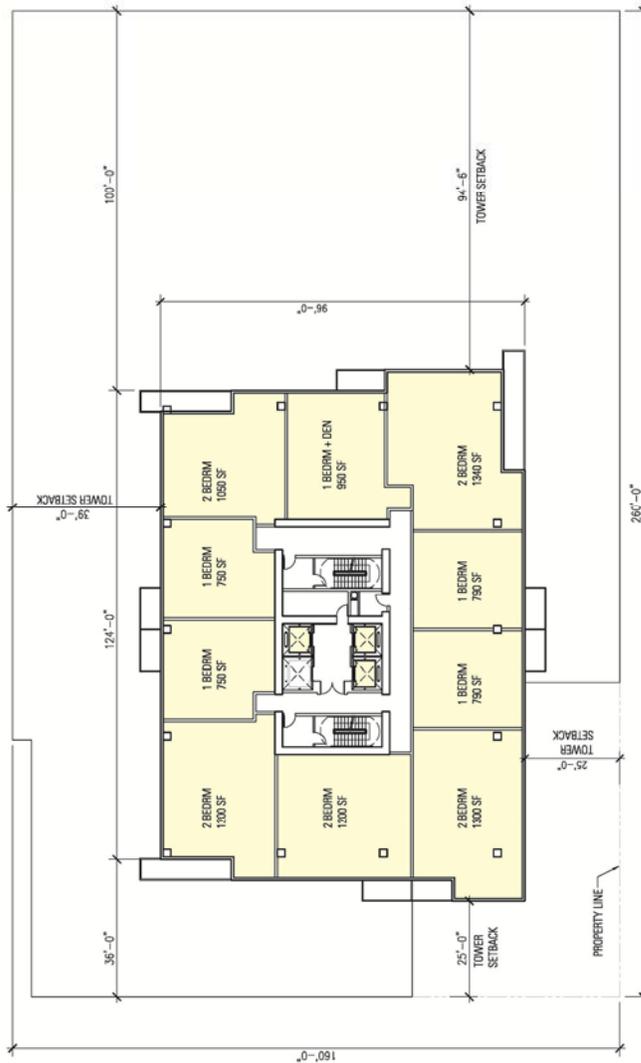
The Metropolitan
 10th and J Street
 Sacramento, CA

NOT TO SCALE
 DATE: 10/11/07
 BY: K. HENMI
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Date: 10-06-2007
 Scale: 1" = 30'-0"
 Project Name: The Metropolitan - 10th & J St.
 Project No.: 02071.00

RES. LEVELS 18-35
FLOOR PLAN
 Sheet No.

A2.09



FLOORS 18 TO 35
 10 RESIDENTIAL UNITS / FLOOR
 GROSS FLOOR AREA: 12,400 SF
 RESIDENTIAL UNIT AREA: 10120 SF (81.6% OF FLOOR AREA)
 CORE + CIRCULATION AREA: 2280 SF (18.4%)
 CORE AREA: 1870 SF (15.5%)



Source: KwanHenmi, 2007

FIGURE 11
MIXED USE-OPTION: FLOORS 18-35



Owner
77CA DEVELOPMENT
 77 California Street
 Suite 150
 Sacramento, California 95825
 Telephone: (916) 441-1000
 Fax: (916) 441-0400
 Contact: John Sica

Architect
KWAN HENMI
 1 Beach Street
 Suite 103
 San Francisco, California 94133
 Telephone: (415) 777-4770
 Fax: (415) 777-5102
 Contact: Dennis Henmi

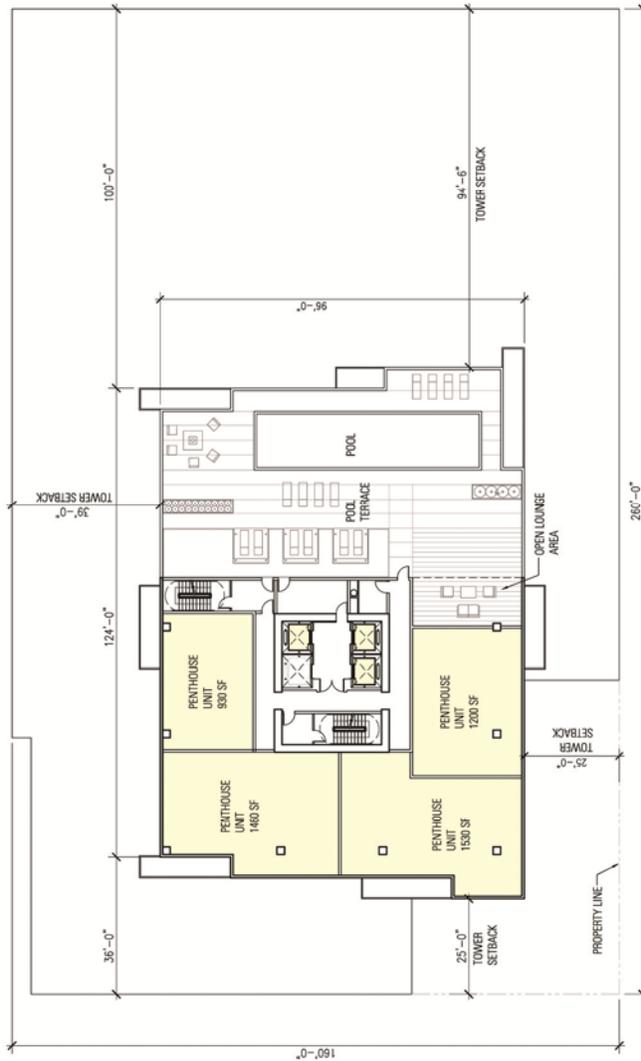
The Metropolitan
 10th and J Street
 Sacramento, CA

100% Final Building Plans (7/27/07) for the Metropolitan Project
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Date: 10-06-2007
 Scale: 1" = 30'-0"
 Project Name: The Metropolitan - 10th & J St.
 Project No: 0021.00

LEVELS 36-37
FLOOR PLAN
 Sheet No.

A2.10



FLOORS 36 & 37
 4 RESIDENTIAL UNITS / FLOOR
 GROSS FLOOR AREA: 7,230 SF
 RESIDENTIAL UNIT AREA 5120 SF

RESIDENTIAL FLOOR / POOL DECK

Source: KwanHenmi, 2007

FIGURE 12
MIXED USE-OPTION: FLOORS 36-37

SUMMARY OF TWO OPTIONS

TABLE 1
COMPARISON OF RESIDENTIAL OPTION AND MIXED-USE HOTEL OPTION

Use	Residential Option	Mixed-Use Hotel Option
Residential	320 du ¹	190 du
Commercial/Retail	6,000 sf	none
Hotel	None	190 rooms
Hotel Function Space	None	23,300 sf
Restaurant	7,000 sf	11,000 sf
Total Gross Building Area	652,000 sf	651,775 sf

Source: KwanHenmi, 2007

A comparison of the building sections from the 10th Street perspective are provided in Figure 13.

TYPE OF DOCUMENT

This EIR is a Project EIR, pursuant to Section 15161 of the CEQA Guidelines. A Project EIR examines the environmental impacts of a specific project. This type of EIR focuses on the changes in the environment that would result from implementation of the project, including construction and operation.

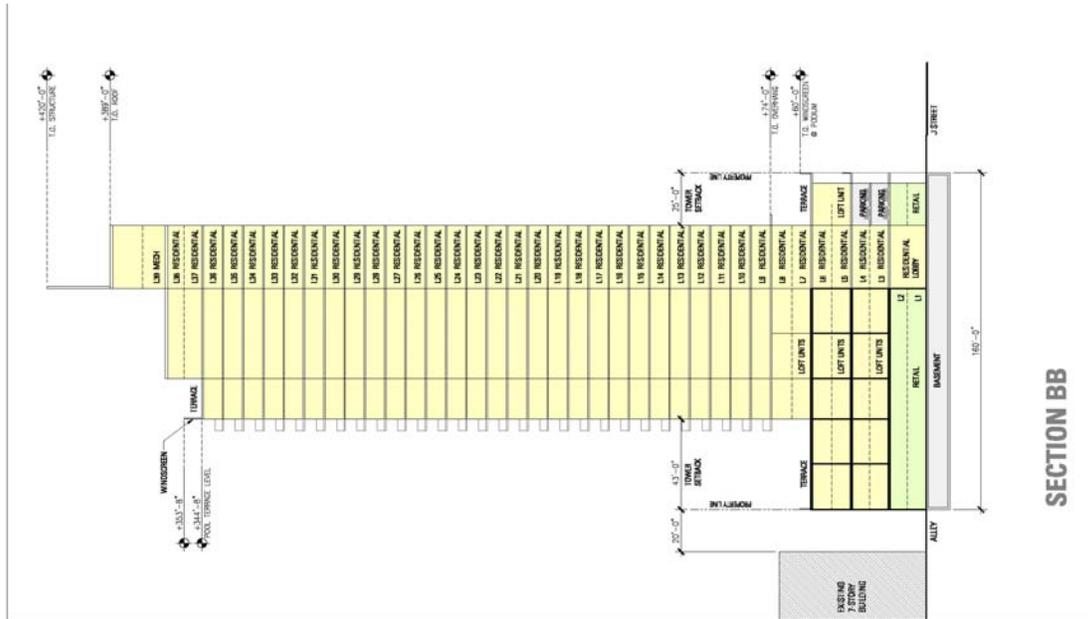
The City circulated a Notice of Preparation (NOP) for the Metropolitan Project EIR for 30-days between April 28, 2006 and May 30, 2006. The Draft EIR circulated for a 45-day public comment period held from July 11, 2006 through August 24, 2006. This Final EIR will be available for a minimum of 10 days prior to the hearing on the Metropolitan Project.

This EIR is an informational document intended to disclose to the City of Sacramento and the public the environmental consequences of approving and implementing the Residential Option or Mixed-Use Hotel Option. The preparation of the Final EIR focuses on the responses to comments on the Draft EIR, minor changes to the project description, and any staff amendments. The Lead Agency (City of Sacramento) must certify that the EIR adequately discloses the environmental effects of the project and has been completed in conformance with CEQA, and that the decision-making bodies independently reviewed and considered the information contained in the EIR prior to taking action on the project. The Final EIR must also be considered by the Responsible Agencies, which are public agencies that have discretionary approval authority over the project in addition to the Lead Agency. The CEQA Guidelines Section 15132 specifies the following:

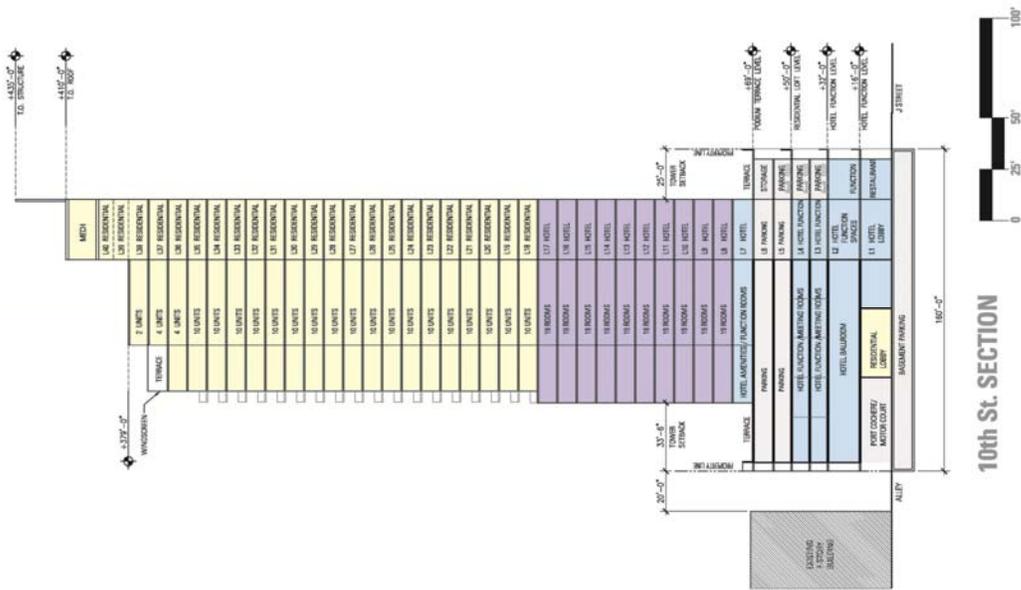
The Final EIR shall consist of:

- The Draft EIR or revision of the Draft EIR

¹ Dwelling unit



Residential Option Elevation



Mixed-Use Hotel Option Elevation

Source: KwanHenmi, 2007

FIGURE 13
BUILDING SECTION COMPARISON OF RESIDENTIAL
OPTION AND MIXED-USE HOTEL OPTION

- Comments and recommendations received on the Draft EIR either verbatim or in summary
- A list of persons, organizations, and public agencies commenting on the Draft EIR
- The responses of the Lead Agency to environmental points raised in the review and consultation process
- Any other information added by the Lead Agency

This document contains the staff initiated changes to the Draft EIR, the list of commenters, the comment letters, and responses to the significant environmental points raised in the comments. The Draft EIR is hereby incorporated by reference.

ORGANIZATION OF THIS DOCUMENT

For this Final EIR, comments and responses are grouped by comment letter. As the subject matter of one topic may overlap between letters, the reader must occasionally refer to more than one letter and response to review all the information on a given subject. Cross references are provided to assist the reader. Responses to these comments are included in this document to provide additional information for use by the decision makers.

The comments and responses that make up the Final EIR, in conjunction with the Draft EIR as amended by the text changes, constitute the EIR that will be considered for certification by the City of Sacramento.

The Final EIR is organized as follows:

CHAPTER 1 – INTRODUCTION

This chapter includes a summary of the project description and the process and requirements of a Final EIR.

CHAPTER 2 - TEXT CHANGES TO THE DRAFT EIR

This chapter lists the text changes to the Draft EIR, as well as a discussion regarding the relationship of the project changes to the previous analysis.

CHAPTER 3 - LIST OF AGENCIES AND PERSONS COMMENTING

This chapter contains a list of all of the agencies or persons who submitted comments on the Draft EIR during the public review period, ordered by agency, organization, and date.

CHAPTER 4 - COMMENTS AND RESPONSES

This chapter contains the comment letters received on the Draft EIR and the corresponding response to each comment. Each letter and each comment within a letter has been given a number. Responses are provided after the letter in the order in which the comments were assigned. Where appropriate, responses are cross-referenced between letters.

CHAPTER 5 – MITIGATION MONITORING PLAN

This chapter contains the Mitigation Monitoring Plan (MMP) to aid the City in its implementation and monitoring of measures adopted in the EIR.

APPENDICES

The Appendices contain any additional worksheets or clarifying information referenced in the text of this document.

PUBLIC PARTICIPATION AND REVIEW

The City of Sacramento notified all responsible and trustee agencies and interested groups, organizations, and individuals that the Draft EIR on the Residential Option was available for review. The following list of actions took place during the preparation, distribution, and review of the Draft EIR:

- A Notice of Preparation (NOP) for an EIR was filed with the State Clearinghouse on April 28, 2006. The 30-day public review comment period for the NOP was established starting on April 28, 2006 and ending on May 30, 2006. The project site was also posted with the NOP on April 28, 2006.
- A Notice of Completion (NOC) and copies of the Draft EIR were filed with the State Clearinghouse on July 11, 2006. An official 45-day public review period for the Draft EIR was established by the State Clearinghouse, ending on August 24, 2006 and a Notice of Availability (NOA) was distributed to interested groups, organizations, and individuals including property owners within 1,000 feet of the project boundaries. The project site was posted with the NOA.
- The NOA was published in the Sacramento Bee and the Daily Recorder newspapers on July 11, 2006.
- Copies of the Draft EIR were available for review at the City of Sacramento Development Services Department, City of Sacramento, New City Hall, 915 I Street, 3rd Floor, Sacramento, California 95814, and at the North Permit Center, 2101 Arena Boulevard, 2nd Floor, Sacramento, California 95834.
- The City posted the DEIR on the City's official website on July 11, 2006.

2.0

CHANGES TO THE DRAFT EIR

2.0 CHANGES TO THE DRAFT EIR

INTRODUCTION

This chapter presents minor corrections and revisions made to the Draft EIR initiated by commenting agencies, the public, staff, and/or consultants based on their on-going review. In addition, changes due to project modification are included here as appropriate. New text is indicated in underline and text to be deleted is reflected by a strike through. Text changes are presented in the page order in which they appear in the Draft EIR.

5.1 AIR QUALITY/MICROCLIMATE

Mixed-Use Hotel Option: Because there is no significant change in the Mixed-Use Hotel Option's traffic generation (see Chapter 5.6, Transportation and Circulation discussion below), operational impacts are not anticipated to exceed Sacramento Metropolitan Air Quality Management District (SMAQMD) thresholds. The building to accommodate the Mixed-Use Hotel Option would be approximately the same size as the Residential Option. Therefore, it is anticipated that the impacts to air quality resulting from construction of the Mixed-Use Hotel Option would be the same as the Residential Option.

In order to verify the validity of the DEIR Air Quality analysis, a new analysis was run using URBEMIS 2007, version 9.2.2. All of the assumptions used in the original URBEMIS 2002 model were used, except the construction timeline was moved to 2008-2009. While the emissions estimates were affected, the change was less than 5 lbs per day for all measures and thus remains well below the thresholds of significance.

Revised Text in the DEIR: Subsequent to the preparation of the DEIR, additional information received from the project construction contractor, Turner Construction, confirmed that most construction equipment would be electric powered. The URBEMIS 2002 emissions model was rerun based on the specific construction equipment list provided by the contractor. This information significantly lowers the construction emissions, and changes the construction mitigation fee to zero. The URBEMIS worksheets, as approved by Jeane Borkenhagen of the Sacramento Metropolitan Air Quality Management District (SMAQMD) on September 6, 2006, are included in Appendix A of this Final EIR, and changes are made to Chapter 5.1 as outlined below.

Since the Draft EIR was circulated, URBEMIS has been updated to a new model. Although the baseline set for this project does not require updating the URBEMIS results, URBEMIS 2007 (9.2.2) was informally run to confirm no new impacts would occur under the new modeling requirements. All of the assumptions used in the original URBEMIS 2002 model were used, except the construction timeline was moved to 2008-2009. While the emissions estimates were affected, the change was negligible for all measures and thus emissions remained well below the thresholds of significance.

Pages 5.1-16 paragraph 3 through 5.1-18 paragraph 1 are amended as follows:

Emissions from construction equipment (i.e., graders, backhoes, haul trucks etc.) are shown in Table 5.1-4. The modeling indicates that emissions of NO_x during the demolition phase could reach a maximum of ~~56.43~~ 41.25 pounds-per day, and NO_x emissions during the

grading phase of construction could reach maximum levels of 54.94 pounds per day, and levels of NO_x during the construction phase could reach maximum levels of ~~233.86~~ 34.45 pounds per day. This would be ~~above~~ below the 85 pounds-per-day threshold of significance for construction NO_x.

Due to changing conditions during the construction phase, however, more equipment may be necessary than currently foreseen, and therefore more NO_x emissions may be generated. By limiting the use of diesel and/or gasoline-powered equipment to no more than six (6) pieces per day, the project's NO_x emissions will remain below the 85 pounds-per-day threshold of significance.

~~Mitigation measures exist that can reduce emissions of construction NO_x. SMAQMD requires standard mitigation measures to result in a minimum 20 percent NO_x reduction. Additional aggressive measures are available to further reduce impacts if the required mitigations would not put the emissions below the threshold; in lieu of additional measures, SMAQMD would require an off-site mitigation fee based on pounds of NO_x remaining above the threshold.~~

**TABLE 5.1-4
URBEMIS2002 SUMMARY REPORT FOR CONSTRUCTION EMISSIONS**

Emissions Estimates¹	ROG	NO_x	CO	SO₂	PM₁₀
Phase 1 Demolition	7.56 <u>4.34</u>	56.13 <u>41.25</u>	61.35 <u>30.74</u>	0.03	6.53 <u>6.44</u>
Phase 2 Grading	7.93	54.94	62.74	0.00	11.84
Phase 3 Construction – 2007	31.32 <u>5.27</u>	233.86 <u>34.45</u>	235.71 <u>43.39</u>	0.03 <u>0.00</u>	19.96 <u>1.60</u>
Phase 3 Construction – 2008	31.26 <u>5.21</u>	222.51 <u>32.83</u>	243.34 <u>43.88</u>	0.00	9.60 <u>1.47</u>
Significance Threshold	None	85	None	None	None
Exceeds Threshold	—	YES NO	—	—	—

¹ Emissions estimates are in pounds per day for summer, 2007

~~As of June 1, 2006, the SMAQMD is using an updated mitigation fee rate of \$14,300 per ton of emissions. The mitigation fee is based on the Carl Moyer Program cost effectiveness cap; in January 2006, the Carl Moyer Program Guidelines were amended, accounting for this increase in mitigation fee rate. Assuming the construction mitigation measures outlined below achieve a 20 percent NO_x reduction, the fee required for this project is calculated to be \$179,673. The mitigation fee calculations are shown in Appendix C.~~

Mitigation

5.1-1 The project representative shall ensure that no more than six (6) pieces of heavy-duty (>50 horsepower) diesel and/or gasoline-powered equipment will be used per day during the demolition, site preparation, and construction phases of the project, including owned, leased, and subcontractor equipment.

~~The following measures shall be incorporated into construction practices and approved by SMAQMD prior to the start of demolition and construction:~~

- ~~(a) The project shall 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 of 20 percent NO_x reduction and 45 percent particulate reduction compared to the most recent CARB fleet average at the time of construction.~~
- ~~(b) The project representative shall 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 shall 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. The AQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other AQMD or state rules or regulations.~~
- ~~(d) The project representative shall implement additional aggressive mitigation measures in consultation with SMAQMD, using existing technology on the construction fleet such as aqueous diesel fuel and cooled exhaust gas recirculation systems to reduce emissions below SMAQMD thresholds, or shall pay a \$179,673 off-site mitigation fee prior to the issuance of grading permits.~~

Significance after Mitigation

Less than significant

Revised Text in the DEIR: In response to recent legislation, Assembly Bill (AB) 32 (2006), and Senate Bill (SB) 97 (2007), which address global warming and greenhouse gas emissions (GHG), page 5.1-9 of the Draft EIR is hereby amended to add the following discussion.

Greenhouse Gas (GHG) Emissions

There is evidence that the Earth's climate has been warming over the past century as a result of the buildup in the atmosphere of GHGs emitted from human activity. The burning of fossil fuels is the largest source of GHGs, particularly carbon dioxide. GHGs act much like a blanket, trapping the Earth's heat in the atmosphere and resulting in an increase in the global mean temperature. A warmer global climate could have significant effects on local and regional weather patterns, agricultural production, flooding and water resources, and the distribution of plant and animal species among other impacts.

In 2006, California enacted the California Global Warming Solutions Act (AB 32). The Act requires California to reduce its emission of GHGs to the statewide level emitted in 1990 by 2020. The Act charges the California Air Resources Board (CARB) with the task of developing, with public input, a plan for reducing GHG emissions and implementing that plan by January 2012.

The City is aware of several recent letters from the California Attorney General's Office stating the need to address the issues of global warming in CEQA documents. The City acknowledges the importance of this issue and believes that any potential impacts related to global warming would be considered cumulative in nature. A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. The City believes that it is not appropriate to address the issue within the confines of the typical CEQA analysis of cumulative impacts for the following reasons:

- 1) CEQA Guidelines Section 15130(a) states: "An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in section 15065(a)(3). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable." CEQA Section 15065(a)(3) states : "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

The very nature of global warming makes it impossible, pursuant to the CEQA process, to identify either the incremental effect or the effects of other current and foreseeable projects. Therefore, there is no basis for determining what is "cumulatively considerable" which would typically lead to a CEQA threshold of significance.

- 2) CEQA Guidelines Section 15130(a)(2) states: " When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant."

While advances have been made in the past few years in scientific activity to assess the potential impact of future climate change due to global warming and related potential impacts to issues such as flood risk and water supply, projections of future changes are still highly speculative and dependent on assumptions and generalizations.

3) CEQA Guidelines Section 15130(b)(3) states: "Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used."

Once again, the fact that the area affected is world-wide makes this requirement irrelevant.

4) CEQA Guidelines Section 15130(b)(5) states: "An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects."

Lacking the necessary facts and analysis to support a conclusion as to the "significance of global warming, the City is unable to determine the effectiveness of potential mitigation measures.

In addition to the difficulty in following the CEQA requirements described above, to accurately account for carbon dioxide emissions attributable to the project, it would be necessary to differentiate between new sources that otherwise would not exist but for the project, and existing sources that have simply relocated to the project area (presumably from anyplace in the world). The City believes that the appropriate approach to addressing the issue of global warming is through the adoption of policies, ordinances, and regulations rather than the imposition of conditions on a project-by-project basis, as discussed below.

In part to address deteriorating air quality issues, the City Council adopted Smart Growth Principles into the General Plan in 2001. Smart Growth changes development patterns by supporting projects that incorporate land uses, transportation management, and infrastructure that discourage urban sprawl and promote infill development, reduce vehicle emissions, and improve air quality.

The City's Infill Program adopts numerical and qualitative infill development goals, targets specific types of infill development, and offers focused procedural and financial incentives to help achieve infill development goals.

As part of the Sustainability Master Plan, currently being prepared, the City will integrate environmentally sustainable practices into City policies, procedures, and operations that will provide tools for measuring the City's progress towards sustainability. The foundation for the Sustainability Master Plan is the United Nations Environmental Accords, a set of 21 actions that the United Nations asked city governments to adopt and implement over a seven-year period. The City's plan will be adopted by 2008. The pertinent goals and targets identified in the Plan will be incorporated into the City's General Plan. The goals and targets will serve as a policy framework for the City to ensure that sustainability concerns are incorporated into the City's decision-making processes.

The City's Building Department is currently working on an ordinance to adopt the Leadership in Energy and Environmental Design (LEED) Green Building Rating System at the Silver certification standards for new buildings in the City. LEED is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings and promotes a whole-building approach to sustainability by recognizing performance in five key areas: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. To earn certification, a building project must meet certain prerequisites and performance credits within each category. Projects are

awarded Certified, Silver, Gold, or Platinum certification depending on the number of credits they achieve. LEED Silver is awarded to projects that achieve at least 50% of the core credits available. Points are earned for certain efficiencies in categories such as Indoor Environmental Quality, Building Materials and Resources, and Energy and Atmosphere.

In addition to City policies and ordinances, existing federal and State programs are credited with reducing green house gases in California. The City requires compliance with the California Energy Commission's Title 24 energy efficiency standards for buildings, appliance energy efficiency standards, diesel-engine idling restrictions, the required use of E6 fuel (6% ethanol, 94% gasoline), and vehicle emission standards help to reduce the production of GHGs throughout the City.

The City is a member of the Sacramento Area Council of Governments (SACOG), which covers a six-county area. SACOG adopted a Metropolitan Transportation Plan (MTP) to provide a regional vision for all modes of surface transportation and a guide for regional transportation investments. The MTP uses federal and state funds that come to the region for programs designed to meet goals which include: clean air; design of communities to encourage local pedestrian, bicycle, and transit travel; and for improvements to main routes that serve longer distance travel around the region - specifically freeways, rail lines, and major roadways and streets that serve regional traffic.

CHAPTER 5.2 CULTURAL AND HISTORIC RESOURCES

Mixed-Use Hotel Option: It is not anticipated that the changes proposed for the Mixed-Use Option that would alter the impacts and mitigation measures outlined in Chapter 5.2 of the Draft EIR. The existing buildings on the site will be demolished and the site will be prepared for construction as discussed in the Draft EIR.

Revised Text in the DEIR: Page 5.2-28. Mitigation Measure 5.2-1b is amended to clarify the City's standard cultural resource mitigation language, and measures 5.2-1e and 5.2-1f have been added as further clarification, as follows:

5.2-1b: The project applicant shall hire a professional archaeologist to perform archaeological monitoring during ground-disturbing construction activities, including demolition, for the duration of the project. If resources are discovered during construction, the procedure laid out in the Unanticipated Discovery Plan will be followed. This includes consultation with the appropriate Native American representatives if a Native American site is discovered.

5.2-1e If Native American archeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archeologists, who are certified by the Society of Professional Archeologists (SOPA) and/or meet the federal standards as stated in the Code of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions. In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out by qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements.

5.2-1f If a human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find, and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place.

The impact remains less than significant, as identified in the Draft EIR.

5.3 HAZARDS AND HAZARDOUS MATERIALS

Mixed-Use Hotel Option: It is not anticipated that changes proposed for the Mixed-Use Hotel Option would alter the impacts and mitigation measures outlined in Chapter 5.3 of the Draft EIR. The existing buildings on the site will be demolished and the site will be prepared for construction as discussed in the Draft EIR.

5.4 NOISE/VIBRATION

Mixed-Use Hotel Option: There are no changes proposed for the Mixed-Use Hotel Option that are anticipated to alter the impacts and mitigation measures outlined in Chapter 5.4 of the Draft EIR. The existing buildings on the site would be demolished and the site would be prepared for construction as discussed in the Draft EIR. Because it is not anticipated there would be a significant change in the amount of traffic (see Chapter 5.6 Transportation and Circulation below), it is not likely there would be a change in noise exposure for existing sensitive receptors.

5.5 PUBLIC SERVICES AND UTILITIES

Mixed-Use Hotel Option: There are no changes proposed for the Mixed-Use Hotel Option that would significantly alter the impacts and mitigation measures outlined in Chapter 5.5 of the Draft EIR. The existing buildings on the site will be demolished and the site will be prepared for construction as discussed in the Draft EIR. The change in uses in the building would result in a reduction in wastewater flows, as identified on Table 2, below. The mitigation measure for construction dewatering would be adequate and appropriate.

**TABLE 2
PROJECTED WASTEWATER FLOW GENERATION – MIXED USE HOTEL OPTION**

Use	Wastewater Generation Rate	Residential Option Size	Wastewater	
			ESD	GPD
Restaurant	2.0 ESD/1,000 gsf	11,000 sf	22 ESD	8,800
Residential	.75 ESD/du	190 du	142.5 ESD	57,000
Hotel	0.3/sleeping room	190 rooms	57 ESD	22,800
Projected Additional Wastewater Flow			221.5 ESD	88,600
Residential Option Total Flows			255.2 ESD	102,080

gsf = gross square feet
GPD = Gallons Per Day
Source: Gail Ervin Consulting, 2006

ESD = Equivalent Single-family Dwelling unit, or 400 GPD
du = dwelling unit

5.6 TRANSPORTATION AND CIRCULATION

Mixed-Use Hotel Option: City staff has assessed the average daily trip generation of the Mixed-Use Option. The Mixed-Use Hotel Option has been specifically limited to 190 hotel rooms and 190 condominium units to ensure there would be no significant change in the traffic analysis results.

Updated LOS Sheets: The LOS intersection calculation sheets were inadvertently omitted from the Draft EIR technical appendices. These sheets have been included as Appendix C of this Final EIR.

Revised Text in the DEIR:

Impact 5.6-2 regarding Freeway Mainline Impacts on page 5.6-42 of the Draft EIR is hereby amended as follows:

Impact 5.6-2 Freeway Mainline: The project would increase traffic volumes on the freeway mainline

~~The project would increase traffic volumes on the freeway mainline. Table 5.6-17 summarizes the resultant conditions. The changes in freeway system operating conditions with the addition of project-generated traffic exceed the standards of significance for impacts to the freeway system, since traffic is added to freeway segments already operating at LOS F. These sections include portions of Northbound I-5 during the p.m. peak hour and portions of Southbound I-5 during the a.m. and p.m. peak hours. No feasible mitigation measures were identified that would reduce the impact of the project on five I-5 freeway mainline segments. Widening the freeway would reduce the impact but was not considered feasible. Therefore, the impacts are considered **significant**.~~

The proposed project would add traffic to freeway mainline areas but would not cause levels of service to deteriorate beyond that of without project conditions. The project would add about eighteen vehicles and thirteen vehicle to southbound I-5 north of US 50 in the a.m. and p.m. respectively. The freeway mainline would operate at LOS F without the project and would continue to operate at LOS F.

The City consulted with Caltrans concerning possible mitigation measures to address the project's impacts to the identified freeway facilities. The discussion focused on (1) identifying any approved or adopted capitol improvement projects that would improve transportation access to and from Sacramento's downtown, and (2) proportional share mitigation impact funding contributions to those projects as a means of addressing project impacts to the highways from the project and various other pending developments in the area.

The City has selected the Downtown-Natomas-Airport Light Rail Extension (DNA) project as the transportation improvement that will provide regional traffic congestion relief along the main line I-5 state highway system. The City will require a "fair share" contribution to help fund the local share of the DNA project costs to address the Project's incremental impacts on the congested segments of the main line I-5 freeway. The amount will be based on the Project's projected transit trips in relation to the DNA project's capacity for the first phase of the DNA project, referred to as the Minimum Operable Segment (MOS), which will extend the existing light rail line from Downtown to the light rail station at Richards Blvd.

Because the City has not completed a “nexus” and “rough proportionality” study pursuant to the constitutional principals established in *Nollan v. California Coastal Commission* (1987) 483 U.S. 825 and *Dolan v. City of Tigard* (1994) 512 U.S. 374, the Project applicant’s contribution toward the DNA project can only be secured on a voluntary basis under the project’s conditions of approval. The payment of the net fair share contribution will be owed on a proportionate basis at the time of issuance of the building permits for the Project.

Implementation of this “fair share” contribution requirement will mitigate the project’s impacts on regional traffic conditions in the project area. However, the contribution of these funds does not ensure that the DNA project will be implemented or will fully mitigate the project’s impacts on the mainline freeway system. As such, the city has concluded that the project’s impacts to regional traffic in the project area will remain **significant and unavoidable**

Mitigation

None available

5.6-2 Prior to building occupancy, the applicant shall pay a fairshare contribution to the Downtown-Natomas-Airport Light Rail Extension (DNA), phase I(MOS) project to mitigate the project’s regional traffic impacts on the mainline freeway system in the Cathedral Square area. The City shall determine the project applicants total fair share contribution based on the project’s transit trips in relation the DNA, MOS project’s capacity. However, the contribution of these funds does not ensure that the DNA project will be implemented or will fully mitigate the project’s impacts on the mainline freeway system.

Significance after Mitigation

Significant and unavoidable

Impact 5.6-3 regarding Freeway Interchange Impacts on page 5.6-43 of the Draft EIR is hereby amended as follows:

Impact 5.6-3 Freeway Interchanges: The project would increase traffic volumes at the freeway interchanges

The project would increase traffic volumes at freeway interchanges. **Table 5.6-18** summarizes the resultant conditions. The changes in freeway system operating conditions with the addition of project-generated traffic exceed the standards of significance for impacts to the freeway system, since traffic is added to freeway interchanges already operating at LOS F. Impacts occur at the interchange of I-5 and US 50 during the a.m. and p.m. peak hours. ~~No feasible mitigation measures were identified that would reduce the impact of the project on the one freeway interchange.~~ Widening the freeway would reduce the impact but was not considered feasible. Therefore, the impacts are considered significant.

Implementation of Mitigation Measure 5.6-2 will mitigate the project’s impacts on regional traffic conditions in the project area. However, the contribution of these funds does not ensure that the DNA project will be implemented or will fully mitigate the project’s impacts on the mainline freeway system. As such, the city has concluded that the project’s impacts to regional traffic in the project area will remain **significant and unavoidable**

Mitigation

None available

5.6-3 Implement Mitigation Measure 5.6-2.

Significance after Mitigation

Significant and unavoidable

Impact 5.6-11 regarding Freeway Mainline Cumulative Impacts on page 5.6-50 of the Draft EIR is hereby amended as follows:

Impact 5.6-11 Cumulative impacts to freeway mainline under near term plus project condition

~~The proposed Downtown projects project, in combination with other proposed downtown projects, would add traffic to freeway mainline segments but would not cause freeway levels of service to deteriorate beyond LOS E. The projects would add traffic to I-5 freeway segments that would operate at LOS F without the projects. Other downtown projects would add traffic to I-5 freeway segments that would cause it to operate at LOS F even without the proposed project. This is considered a significant impact.~~

Implementation of Mitigation Measure 5.6-2 will mitigate the project's impacts on regional traffic conditions in the project area. However, the contribution of these funds does not ensure that the DNA project will be implemented or will fully mitigate the project's impacts on the mainline freeway system. As such, the city has concluded that the project's impacts to regional traffic in the project area will remain **significant and unavoidable**.

Mitigation

~~5.6-11 No feasible mitigation measures were identified that would reduce the impact of the project on I-5 freeway mainline segments. Widening the freeway would reduce the impact but was not considered feasible. Implement Mitigation Measure 5.6-2.~~

Significance after Mitigation

Significant and unavoidable

Impact 5.6-12 regarding merge/ diverge/ weave area Cumulative Impacts on page 5.6-50 of the Draft EIR is hereby amended as follows:

Impact 5.6-12 Cumulative impacts to freeway merge/ diverge/ weave areas under near term plus project condition

~~The proposed Downtown projects project, in combination with other proposed downtown projects, would add traffic to freeway ramps and weaving areas but would not cause levels of service to deteriorate beyond LOS E on these facilities. The projects would add traffic to I-5 freeway ramps that would operate at LOS F without the projects. Other downtown projects would add traffic to I-5 and Highway 50 freeway ramps that would operate at LOS F~~

even without the proposed project. Because these facilities currently operate at LOS F, this is considered a significant impact.

Implementation of Mitigation Measure 5.6-2 will mitigate the project's impacts on regional traffic conditions in the project area. However, the contribution of these funds does not ensure that the DNA project will be implemented or will fully mitigate the project's impacts on the mainline freeway system. As such, the city has concluded that the project's impacts to regional traffic in the project area will remain **significant and unavoidable**.

Mitigation

- 5.6-12 ~~No feasible mitigation measures were identified that would reduce the impact of the project on I-5 and U.S. 50 freeway ramps. Widening the freeway would reduce the impact but was not considered feasible.~~ Implement Mitigation Measure 5.6-2.

Significance after Mitigation

Significant and unavoidable

Impact 5.6-13 regarding freeway ramp queue Cumulative Impacts on page 5.6-51 of the Draft EIR is hereby amended as follows:

Impact 5.6-13 Cumulative impacts to freeway ramp queues under near term plus project condition

The proposed ~~Downtown projects~~ project, in combination with other proposed downtown projects, would add traffic to the northbound I-5 off-ramp to J Street, which currently experiences queues during the a.m. peak hour that extend onto the freeway mainline. In addition, the proposed ~~Downtown projects~~ project, in combination with other proposed downtown projects, would cause queues for the southbound I-5 off-ramp to J Street to extend onto the freeway mainline during the a.m. peak hour. This is considered a significant impact.

Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid the project's significant effects associated with impacts to freeway ramp queues under cumulative Near Term Project Plus Conditions.

Mitigation measure 5.6-17(a) would reduce the queue for the southbound I-5 off-ramp at J Street to 6,125 feet during the a.m. peak hour, but this would not be enough to eliminate the near-term cumulative impact. This mitigation measure would not affect the northbound I-5 off-ramp queue at J Street, and no other feasible mitigation measures were identified that would reduce the impact of the projects at that location. Additionally, implementation of Mitigation Measure 5.6-2 will mitigate the project's impacts on regional traffic conditions in the project area. However, the contribution of these funds does not ensure that the DNA project will be implemented or will fully mitigate the project's impacts on the mainline freeway system. As such, the city has concluded that the project's impacts to regional traffic in the project area will remain **significant and unavoidable**.

Mitigation

5.6-13 ~~Implement Mitigation Measures 5.6-17(a) and 5.6-2. Mitigation measure (a) would reduce the queue for the southbound I-5 off-ramp at J Street to 6,125 feet during the a.m. peak hour, but this would not be enough to eliminate the near-term cumulative impact. This mitigation measure would not affect the northbound I-5 off-ramp queue at J Street, and no other feasible mitigation measures were identified that would reduce the impact of the projects at that location. Widening the freeway would reduce the impact but was not considered feasible.~~

Significance after Mitigation

Significant and unavoidable

Impact 5.6-18 regarding freeway mainline Cumulative Impacts on page 5.6-55 of the Draft EIR is hereby amended as follows:

Impact 5.6-18 Cumulative impacts to freeway mainline under long term plus project condition

The proposed ~~Downtown projects~~ project, in combination with other proposed downtown projects, would add traffic to freeway mainline segments but would not cause freeway levels of service to deteriorate beyond LOS E. The project, in combination with other proposed downtown projects would add traffic to I-5 freeway segments that would operate at LOS F even without the projects. This is considered a significant impact.

Implementation of Mitigation Measure 5.6-2 will mitigate the project's impacts on regional traffic conditions in the project area. However, the contribution of these funds does not ensure that the DNA project will be implemented or will fully mitigate the project's impacts on the mainline freeway system. As such, the city has concluded that the project's impacts to regional traffic in the project area will remain **significant and unavoidable**.

Mitigation

5.6-18 ~~Implement Mitigation Measure 5.6-2. No feasible mitigation measures were identified that would reduce the impact of the project on I-5 freeway mainline segments. Widening the freeway would reduce the impact but was not considered feasible.~~

Significance after Mitigation

Significant and unavoidable

Impact 5.6-19 regarding merge/ diverge/ weave area Cumulative Impacts on page 5.6-55 of the Draft EIR is hereby amended as follows:

Impact 5.6-19 Cumulative impacts to freeway merge/ diverge/ weave areas under long term plus project condition

The proposed ~~Downtown projects~~ project, in combination with other proposed downtown projects, would add traffic to freeway ramps and weaving areas but would not cause levels

of service to deteriorate beyond LOS E on these facilities. The proposed project, in combination with other proposed downtown projects would add traffic to I-5 and U.S. 50 freeway ramps that would operate at LOS F even without the projects. Because these facilities currently operate at LOS F, this is considered a significant impact.

Implementation of Mitigation Measure 5.6-2 will mitigate the project's impacts on regional traffic conditions in the project area. However, the contribution of these funds does not ensure that the DNA project will be implemented or will fully mitigate the project's impacts on the mainline freeway system. As such, the city has concluded that the project's impacts to regional traffic in the project area will remain **significant and unavoidable**.

Mitigation

~~No feasible mitigation measures were identified that would reduce the impact of the project on I-5 and U.S. 50 freeway ramps. Widening the freeway would reduce the impact but was not considered feasible.~~

5.6-19 Implement Mitigation Measure 5.6-2.

Significance after Mitigation

Significant and unavoidable

Impact 5.6-20 regarding freeway ramp queue Cumulative Impacts on page 5.6-56 of the Draft EIR is hereby amended as follows:

Impact 5.6-20 Cumulative impacts to freeway ramp queues under long term plus project condition

~~The proposed Downtown projects project, in combination with other proposed downtown projects, would add traffic to the northbound I-5 off-ramp to J Street during both the a.m. and p.m. peak hours, when the queue would exceed the ramp's storage capacity without the proposed projects. Similarly, the proposed Downtown projects project, in combination with other proposed downtown projects, would add traffic to the southbound I-5 off-ramp to J Street during the a.m. peak hour, when the queue would exceed the ramp's storage capacity even without the proposed projects. This is considered a significant impact.~~

Changes or alterations have been required in, or incorporated into, the project that substantially lessen, but do not avoid the project's significant effects associated with impacts to freeway ramp queues under cumulative Long Term Project Plus Conditions.

The near-term Mitigation Measure 5.6-17(a) would reduce the queue for the northbound I-5 off-ramp queue at J Street during the p.m. peak hour to 1,725 lane feet and would reduce the long-term cumulative impact during this time period to a less-than-significant level. This mitigation measure would not significantly affect this northbound I-5 off-ramp queue at J Street during the a.m. peak hour. The mitigation measure would reduce the queue for the southbound I-5 off-ramp at J Street to 6,100 feet during the a.m. peak hour, but this would not be enough reduction to eliminate the long-range cumulative impact. Widening the freeway would reduce the impact but was not considered feasible.

Additionally, implementation of Mitigation Measure 5.6-2 will mitigate the project's impacts on regional traffic conditions in the project area. However, the contribution of these funds does not ensure that the DNA project will be implemented or will fully mitigate the project's impacts on the mainline freeway system. As such, the city has concluded that the project's impacts to regional traffic in the project area will remain **significant and unavoidable**.

Mitigation

5.6-20 Implement Mitigation Measures 5.6-17(a) and 5.6-2. ~~The near-term Mitigation Measure (a) would reduce the queue for the northbound I-5 off-ramp queue at J Street during the p.m. peak hour to 1,725 lane feet and would reduce the long-term cumulative impact during this time period to a **less-than-significant** level. This mitigation measure would not significantly affect this northbound I-5 off-ramp queue at J Street during the a.m. peak hour. The mitigation measure would reduce the queue for the southbound I-5 off-ramp at J Street to 6,100 feet during the a.m. peak hour, but this would not be enough reduction to eliminate the long-range cumulative impact. Widening the freeway would reduce the impact but was not considered feasible.~~

Significance after Mitigation

Significant and unavoidable

5.7 URBAN DESIGN AND AESTHETICS

Mixed-Use Hotel Option: There are no changes proposed for the Mixed-Use Hotel Option that are anticipated to alter the impacts and mitigation measures outlined in Chapter 5.7 of the Draft EIR. The existing buildings on the site will be demolished and the building will be constructed in a manner similar to that discussed in the Draft EIR; the interior of the building will be modified to accommodate the change in uses.

3.0

LIST OF AGENCIES AND PERSONS COMMENTING

3.0 LIST OF AGENCIES AND PERSONS COMMENTING

STATE AGENCIES

- A. Governor's Office of Planning and Research, State Clearinghouse and Planning Unit, August 25, 2006
- B. Department of Transportation, Division of Aeronautics, August 11, 2006
- C. Department of Transportation, District 3, August 16, 2006

LOCAL AGENCIES

- D. Sacramento Regional County Sanitation District, August 16, 2006
- E. Sacramento Metropolitan Air Quality Management District August 24, 2006

INDIVIDUALS

- F. Wells Fargo Bank, August 22, 2006
- G. William D. Kopper, August 23, 2006

LATE COMMENT

- H. Department of Water Resources, September 20, 2006

4.0

COMMENTS AND RESPONSES

CHAPTER 4

4.0 COMMENTS AND RESPONSES

COMMENT LETTERS

The written comments received on the Draft EIR and the responses to those comments are provided in this section. Each comment letter received is reproduced in its entirety and is followed by responses to the comment letter.

The first letter (on the following pages) is not a comment letter, but a formal disclosure from the Governor's Office of Planning and Research State Clearinghouse. The letter states that the State Clearinghouse received the Draft EIR and it was sent to selected state agencies for review from April 28, 2006 to May 30, 2006.



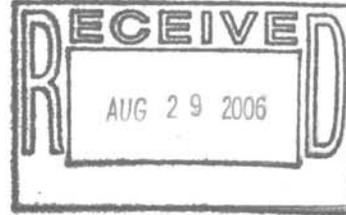
Arnold Schwarzenegger
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



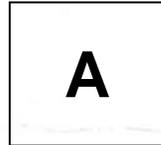
Sean Walsh
Director

August 25, 2006



Dana Allen
City of Sacramento
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

Subject: The Metropolitan Project DEIR
SCH#: 2006042161



Dear Dana Allen:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on August 24, 2006, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

**Document Details Report
State Clearinghouse Data Base**

SCH# 2006042161
Project Title The Metropolitan Project DEIR
Lead Agency Sacramento, City of

Type EIR Draft EIR

Description The proposed project would require special permits for a major project, condominium construction, and tandem parking, approval of a tentative map and variance, and Design Review for a proposed new 420-foot high, 39-story mixed-use residential tower development at the corner of 10th and J Streets. The building would accommodate 320 residential condominium units, with ground floor commercial/retail space facing both 10th and J Streets, over podium parking with 514 off-street parking spaces (1.6 spaces per unit).

Lead Agency Contact

Name Dana Allen
Agency City of Sacramento
Phone (916) 808-2762
email
Address 2101 Arena Boulevard, Suite 200
City Sacramento
Fax
State CA **Zip** 95834

Project Location

County Sacramento
City Sacramento
Region
Cross Streets Bounded by J St. on the south, 10th St. on the west, and the alley bwn I and J St. on the north
Parcel No. 006-0044-009 through 013
Township **Range** **Section** **Base**

Proximity to:

Highways 160, I-5, Business 80
Airports Sacramento Intl, Mather Field
Railways UPRR
Waterways Sacramento River, American River
Schools Various
Land Use Community/Neighborhood Commercial and Offices, and zoned C-3-SPD (Central Business District Special Planning District); designated General Commercial, Multi-Use Central Business District in the Central City Community Plan

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Cumulative Effects; Growth Inducing; Landuse; Noise; Public Services; Sewer Capacity; Toxic/Hazardous; Traffic/Circulation

Reviewing Agencies Resources Agency; Regional Water Quality Control Bd., Region 5 (Sacramento); Department of Parks and Recreation; Native American Heritage Commission; Office of Historic Preservation; Department of Health Services; Department of Fish and Game, Region 2; Department of Water Resources; California Highway Patrol; Caltrans, District 3; Caltrans, Division of Aeronautics; Department of Toxic Substances Control; State Lands Commission

Date Received 07/10/2006 **Start of Review** 07/11/2006 **End of Review** 08/24/2006

Note: Blanks in data fields result from insufficient information provided by lead agency.

COMMENTS AND RESPONSES

COMMENT LETTER A: Governor's Office of Planning and Research, State Clearinghouse and Planning Unit

Response to Comment A-1:

This letter confirms that the State Clearinghouse (SCH) circulated the Draft EIR to selected state agency for review. The SCH review period closed on August 24, 2006, consistent with the SCH policy of counting the day the document is filed to give the 45-day review period. The review period submitted to the SCH and published with the document and the Notice of Availability started July 11 and ended August 24, 2006.

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS – M.S.#40
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-4959
FAX (916) 653-9531
TTY (916) 651-6827



*Flex your power!
Be energy efficient!*

August 11, 2006

Ms. Dana Allen
City of Sacramento
915 I Street, 3rd Floor
Sacramento, CA 95814

RECEIVED
AUG 14 2006
STATE CLEARING HOUSE

*Clear
8-24-06
e*

B

Dear Ms. Allen:

Re: City of Sacramento's Draft Environmental Impact Report for The Metropolitan Project;
SCH# 2006042161

The California Department of Transportation (Caltrans), Division of Aeronautics (Division), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The Division has technical expertise in the areas of airport operations safety, noise and airport land use compatibility. We are a funding agency for airport projects and we have permit authority for public and special use airports and heliports. The following comments are offered for your consideration.

The proposal is for the construction of 320 condominium units in a 39-story (420-foot tall) building located at the northeast corner of 10th and J Streets in downtown Sacramento.

As we stated in our February 16, 2006 response to the City of Sacramento's request for comments, the proposal will require submission of a Notice of Proposed Construction or Alteration (Form 7460-1) to the Federal Aviation Administration (FAA) in accordance with Federal Aviation Regulation, Part 77, "Objects Affecting Navigable Airspace". Form 7460-1 is available at <http://forms.faa.gov/forms/faa7460-1.pdf>.

B-1

These comments reflect the areas of concern to the Division of Aeronautics with respect to airport-related noise and safety impacts and regional airport land use planning issues. We advise you to contact our District 3 Marysville Office at (530) 741-4211 concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please call me at (916) 654-5314.

Sincerely,

Original Signed by

SANDY HESNARD
Aviation Environmental Specialist

c: State Clearinghouse, Greg Chew-SACOG

"Caltrans improves mobility across California"

COMMENT LETTER B: Department of Transportation, Division of Aeronautics

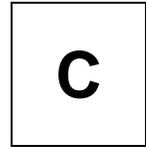
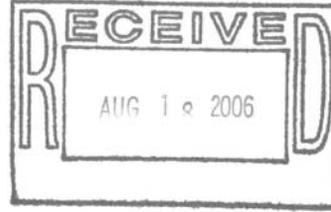
Response to Comment B-1:

This letter notifies the applicant that a federal form, Notice of Proposed Construction or Alteration (Form 7460-1), must be submitted to the Federal Aviation Administration. This notification is hereby forwarded to the applicant.

DEPARTMENT OF TRANSPORTATION
DISTRICT 3 – SACRAMENTO AREA OFFICE
VENTURE OAKS – MS 15
P.O. BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 274-0614
FAX (916) 274-0648
TTY (530) 741-4509



*Flex your power!
Be energy efficient!*



August 16, 2006

06SAC0107
03-SAC-05 PM 23.511
The Metropolitan (P05-205)
Draft Environmental Impact Report
SCH#2006042161

Ms. Dana Allen
City of Sacramento
2101 Arena Boulevard
Sacramento, CA 95834

Dear Ms. Allen:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (DEIR) for The Metropolitan project. The project at 10th & J Streets proposes construction of a 642,000 sq. ft., 39-story residential mixed-use building with 320 residential condominium units, commercial/retail spaces on the ground floor, and 514 off-street parking spaces. Our comments are as follows:

- o The Traffic Impact Study in the DEIR relies in part on the Downtown Traffic Study. Caltrans is currently analyzing this Study and will be requesting a meeting with City of Sacramento staff to discuss our concerns about the volumes data and mitigation.

C-1

"Caltrans improves mobility across California"

Ms. Dana Allen
August 16, 2006
Page 2

- o Significant impacts to the State Highway System are identified in the DEIR as Impacts 5.6-2, 5.6-3, 5.6-11, 5.6-12, 5.6-13. Caltrans disagrees with the statement that “no feasible mitigation measures are available” and requests a meeting with City staff and project proponents to discuss potential mitigation measures.

C-1

If you have any questions about the comments or to schedule the meeting regarding mitigation measures, please contact Alyssa Begley at (916) 274-0635.

Sincerely,



BRUCE DE TERRA, Chief
Office of Transportation Planning—South

cc: Tom Neumann
Terri Pencovic
Jeff Pulverman

SACRAMENTO DOWNTOWN TRAFFIC STUDY

These comments were submitted to the City Transportation Division at a meeting on September 8, 2006.

- | | |
|---|------|
| 1. Although Business 80 (State Route 51) and State Route 160 are discussed sporadically throughout the Downtown Traffic Study (Study), there was no traffic analysis performed for either of these roadways. Why weren't these two roadways included in the analysis? | C-2 |
| 2. Mainline Volumes and Methodologies | |
| a. Per the Caltrans' Traffic Impact Study Guidelines, a Traffic Study of this nature requires that a traffic analysis be done using four specific scenarios: (i) Existing Conditions (ii) Proposed Project (iii) Cumulative Conditions without project (iv) Cumulative Conditions with project. The scenarios completed in this study contain Existing Conditions, Baseline Conditions, Near Term Cumulative Conditions and Long term Cumulative Conditions. Why weren't these appropriate analyses done as well? | C-3a |
| b. From study to study, there is an inconsistency in scenarios analyzed. Although several of the studies analyzed Existing Conditions and Baseline Conditions. Beyond that, some studies analyzed Baseline Plus Project, while others did not. Some studied Near Term conditions while others did not. Some studied Long Term Conditions while others did not. Please explain this inconsistency. | C-3b |
| c. Both Cumulative and Baseline analyses evaluate different future projects. Additionally, some projects are missing from both lists, such as the Capitol Grand Tower which is a 56-story hotel, office and condominium complex. Using separate lists of future projects render Cumulative conditions incomplete. In order for Caltrans to conduct a thorough and complete examination of this study, a thorough and complete cumulative scenario would be required. | C-3c |
| d. In this study, it is specifically stated, "no analysis of baseline plus project impacts were performed for this study." Given the two lists of future projects that are circulating (Proposed Projects and Baseline Projects), wouldn't as study of these two groups come closest to equaling a Cumulative scenario? | C-3d |
| e. In Table 6-Existing Conditions, the traffic volumes average 37% lower than the Caltrans Volume Book, 15% lower than the TSN data and 27% lower than the SCMET model. How were these numbers arrived at? | C-3e |
| f. The traffic volumes on Tables 12 (Mainline Baseline Conditions) are 25% lower than Caltrans' Volumes and 19% than the SACMET model. How were these numbers arrived at? | C-3f |
| g. The traffic volumes on Table 16 (Mainline Near-Term) are 31% lower than Caltrans' Volumes and 21% than the SACMET model. How were these numbers arrived at? | C-3g |
| h. The traffic volumes on Table 20 (Mainline Long-Term) are 45% lower than Caltrans' Volumes and 33% than the SACMET model. How were these numbers arrived at? | C-3h |
| i. The Study claimed, "Cumulative Traffic Volumes were produced using the 2013 and 2027 SACMET model". If that is so, why is there a variance of 21% for 2013 and 33% for 2030? | C-3i |

4.0 COMMENTS AND RESPONSES

- | | |
|--|------|
| 3. Caltrans was able to validate all of the ITE trip rates related to Office and Residential trips. However, we were unable to validate the Retail/Shopping trip generation rates. Please explain your methodology behind this. | C-4 |
| 4. The Transit Trips on Table 9 do not line up with the Transit numbers on Table 10. Please explain. | C-5 |
| 5. Would like to see two Zone Link analyses:
a. Existing
b. Proposed Projects | C-6 |
| 6. The Truck percentages are low (5%)
a. Caltrans Truck Volumes= 9.6% of the ADT
b. Caltrans TCR = 10% of the ADT | C-7 |
| 7. Trip Generation Calculation:
a. On Table 9 (for 800 K Street, Westfield, The Metropolitan and Cathedral Square) the External Trips Calculations take New External trips minus Existing External Trips. (IE: 800 K Street 4778-1936=2842). The calculation should be: New External trips plus Existing External Trips (4778+1936=6714). Please clarify. | C-8 |
| 8. Trip distribution
1. Why doesn't Business 80 and Route 160 show up in the trip distribution? | C-9a |
| 2. In some of the other studies, Residential is broken out from Office/Retail. Why was this not done for this study? | C-9b |
| 3. Why do the distribution percentages that are used for Residential, Office and Retail reflect the exact distribution that some of the other studies use for residential only? | C-9c |
| 9. Ramp Analysis
a. AM/PM Existing Ramp volumes are 28% lower than the SACMET Model. Please clarify. | C-10 |
| 10. Page 41 Baseline Conditions:
a. All of the baseline projects listed in the Narrative are not accounted for on the map (page 42). Are all of the baseline conditions accounted for in the analysis in Table 12? | C-11 |
| 11. Why wasn't the Residential Alternative for 800 K Street discussed and analyzed in the Study? (See Page 6.6-2 of the 800 K and L Street Draft EIR) | C-12 |

COMMENT LETTER C: Department of Transportation, District 3, Bruce de Terra, Chief, Office of Transportation Planning – South**Response to Comment C-1:**

As requested, a meeting was held between Caltrans and the City's Transportation Division on September 8, 2006. Additional comments were submitted to the City in the meeting, as attached to the original comment letter, above. These additional comments on the Sacramento Downtown Traffic Study (Study), as provided in Volume III Appendix H of the Draft EIR, are addressed in the responses below.

The Traffic Study found that the impacted freeway mainline segments currently operate at LOS F in the Baseline Condition during the PM Peak Hour without the Project, and would continue to operate at LOS F in both the Near Term Cumulative Condition (2013) and Long Term Cumulative Condition (2030) both without and with the Proposed Project. Freeway mainline improvements are within the exclusive jurisdiction of Caltrans - which can and should propose and adopt appropriate improvement plans that would reduce freeway mainline impacts pursuant to Public Resources Code Section 21081 and CEQA Guideline Section 15091.

The City consulted with Caltrans prior to the preparation of this Final EIR concerning possible mitigation measures to address the Project's impacts to the identified freeway mainline segments. The discussion focused on (1) identifying any Caltrans approved or adopted capital improvement projects that would improve access to and from Sacramento's downtown and improve the existing LOS F on the freeway mainline segments to LOS E or better in the Near Term (2013) and Long Term (2030), and (2) proportional share mitigation impact funding contributions to those projects as a means of addressing impacts to the highways from the Project and various other pending developments in the area.

Caltrans indicated that they have developed general cost estimates for the following projects. Though these projects are designed to address regional transportation needs that extend far beyond the downtown area, Caltrans believes they would serve to mitigate impacts from pending downtown developments and are viable:

- I-5 American River Bridge widening - two structures. Add one standard lane and re-establish standard shoulders to each structure: \$134 million.
- I-5 HOV lanes - Garden Highway to I-80 HOV lanes with direct connectors: \$300 million.
- I-5 HOV lanes - U.S. 50 Interchange to Elk Grove Blvd: \$200 million.

No preliminary improvement plans have been prepared for these proposed freeway improvements, and it is unclear what the cost estimates are based on or include.

These proposed freeway improvement projects are included in Sacramento Area Council of Governments (SACOG) existing Metropolitan Transportation Plan (MTP) for preliminary engineering and environmental only. The MTP is a long-range plan which is based on growth and travel demand projections coupled with financial projections. The MTP lists hundreds of locally and regionally important projects. It is updated every three years, at which time projects can be added or deleted. SACOG uses the plan to help prioritize projects and guide regional transportation project funding decisions. The projects included

in the MTP have not gone through the environmental review process and are not guaranteed for funding or construction.

Given the status of the improvement projects identified by Caltrans and the information available at this time, the City has concluded that there is currently insufficient information and certainty on which to base a feasible and viable mitigation measure to address the Project's impacts on the identified freeway mainline segments. The proposed freeway improvement projects are not currently approved and funded. There is no fee or other funding mechanism currently in place for future funding. Furthermore, the City cannot determine either the cost of the proposed freeway improvement projects or the Project's fair share proportional contribution to the improvement projects with sufficient certainty to enable the City to develop a fee-based mitigation measure that would satisfy the legal requirements for fee-based mitigation under both CEQA (see CEQA Guidelines 15126.4) and constitutional principles that call for a nexus and rough proportionality between a project's impacts and the fee-based mitigation measure. Finally, the prospects of the proposed freeway improvements ever being constructed remains uncertain due to funding priorities and on-going policy developments that may favor other approaches to addressing freeway congestion. Collection of a mitigation fee under these circumstances at this time may be an idle act.

Widening the freeway mainline right-of-way would create adverse impacts by requiring the removal of historic buildings in the Old Sacramento District, and potentially the Crocker Art Museum, which are already situated adjacent to the existing freeway right-of-way; would potentially require modifications to the flood wall/levee that protects Downtown Sacramento; and would create further physical barriers between people living and working in Downtown Sacramento and the Sacramento River and the Old Sacramento District. Such new impacts from widening the freeway would not be capable of mitigation to a less-than-significant level and would violate City policies concerning: the preservation of the Old Sacramento District; promoting ease of pedestrian access between Downtown Sacramento and the Sacramento River; promoting ease of pedestrian access between Downtown Sacramento and the Old Sacramento District; and protecting the integrity of Sacramento's flood control system.

Consequently, the City has been unable to identify any feasible mitigation measures that could reduce or avoid the impact of the Project on the three I-5 freeway mainline segments to a less-than-significant level. The California Environmental Quality Act (Pub. Resources Code, §21000 et seq.) defines "feasible" for these purposes as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors (Pub. Resources Code, §21061.1). Therefore, the impacts of the Proposed Project on the three I-5 freeway segments would remain significant and unavoidable.

Response to Comment C-2:

Business 80 - Analysis locations on Business 80 were removed from the scope of study because initial analysis had shown that very few project trips would utilize Business 80 to and from the proposed downtown project locations. In the professional assessment of the City traffic engineers in consultation with the traffic consultant, Dowling and Associates, those few trips would have no effect on traffic flows on Business 80.

State Route (SR) 160 – A sizable number of project trips was distributed to and from SR 160. SR 160 (via N. 12th and 16th Streets) was included in the trip distribution – 14% for

Office/Retail and 5% for Residential. The roadways leading to and from SR 160, namely 12th and 16th Streets were therefore included in the analysis, as discussed on Draft EIR page 5.6-24 and shown in Figures 5.6-1, 5.6-3, 5.6-4, 5.6-7, and 5.6-9.

The scope of work for the Downtown Traffic Study was prepared in coordination with Caltrans District 3 staff. District 3 staff was satisfied with the identified study area which included the study intersections and state route facilities analyzed in the Study. From 160 at the American River northward, the City and Caltrans agreed that impacts were not anticipated beyond the study area and no analysis was required.

Response to Comment C-3:

C-3a: The Downtown Traffic Study contains all the required scenarios including:

- Existing Conditions
- Baseline Conditions
- Baseline with Proposed Project Conditions
- Near Term Cumulative Conditions
- Near Term Cumulative with Proposed Project Conditions
- Long Term Cumulative Conditions
- Long Term Cumulative with Proposed Project Conditions

The Study was prepared as an umbrella study to ensure the consideration of the cumulative impacts of all the proposed downtown area projects at the time of the Study, thus the methodologies for the cumulative analyses were contained in the Study, which was provided as an appendix to the Metropolitan Project Draft EIR.

C-3b: As stated above, the Metropolitan Project Draft EIR contains all required scenarios within the body of the report except for the methodology discussion of the cumulative analyses, which is contained in the Study.

C-3c: Baseline projects are projects and improvements that have already been approved by the City. Changes in the SACMET model land use forecasts were made as necessary to show sufficient growth to represent the baseline and cumulative projects.

The Capitol Grand Tower was not included in the Baseline because at the time the Study was prepared, the Capitol Grand Tower project application was on indefinite hold pending major project redesign per the direction of its applicant. There was no revised application for the Capitol Grand Tower available to assess in the cumulative study, thus it was not considered a current project under the criteria used to select projects for the Study. A separate traffic study is therefore required for the Capitol Grand Tower now that the notice of preparation (NOP) was recently issued for the revised application. The Capitol Grand Tower, as any other project that has been or will be proposed since completion of the Study, will need to modify the assumptions regarding the cumulative environment for their project. The Study represents the cumulative known environment at the point the included studies issued their NOPs. To the extent any of these projects significantly change their project description they will be subject to review of the applicability of the Study.

C-3d: The two groups of projects (already approved projects and nine proposed projects) on Year 2010 and Year 2030 networks were analyzed in the Study under Near Term with Project and Long Term with Project conditions. As stated, the Study focused on future impact analyses in order to determine the cumulative impacts of all nine proposed downtown projects. This cumulative analysis supplements individual project studies. The impacts for Baseline with individual project were analyzed in the individual studies; for this project, that analysis is provided in Draft EIR Chapter 5.6, as amended in Chapter 2.0, above.

C-3e: The existing traffic volumes were based on mainline and ramp data provided by Caltrans and on actual traffic counts conducted for the study at ramp terminal intersections. Ramp volumes provided by Caltrans were added or subtracted from the mainline volumes to arrive at the upstream and downstream volumes.

C-3f: Projected volumes from the Baseline projects were added to the Existing traffic volumes provided by Caltrans to arrive at the numbers in Table 12 of the Study.

C-3g: The increments between 2005 and 2013 SACMET model output were added to the existing traffic volumes provided by Caltrans to arrive at the Near Term numbers.

C-3h: The increments between 2005 and 2030 SACMET model output were added to the existing traffic volumes provided by Caltrans to arrive at the Long-Term numbers.

C-3i: Please refer to responses to comments C-3g and C-3h, above.

Response to Comment C-4:

As with Office and Residential trip generation, the Retail/Shopping trip generation was based on published ITE data. The fitted-curve equations were used to calculate retail trip generation for weekday, AM peak hour and PM peak hour. Adjustments for alternative modes, internal capture and trips to and from other "Downtown projects" were made to the gross ITE trip generation to arrive at the net project generated trip generation in the Study.

The latter adjustment, trips to and from other downtown projects should only have been made under Cumulative conditions when all nine projects were assumed to be built, but should not have been adjusted for the Baseline with Project condition in the Metropolitan project specific analysis in Draft EIR Chapter 5.6. However, according to the trip generation table provided for the Metropolitan Project, the number of estimated trips to and from other projects is a very small number - 2 trips in and 2 trips out in the AM and 6 trips in and 6 trips out in the PM. Additionally, most of the projects in close proximity to the Metropolitan sites are in the process of approval (the Epic, 800 K & L Streets, and the Cathedral at 11th Street), thus it is very conservative to say that the amount of trips generated between the Metropolitan and the other downtown projects in the baseline analysis would be considered, and there is therefore no need to amend the analysis.

Response to Comment C-5:

Table 9 in the Downtown Traffic Study identifies the Transit Adjustments made to the trip generation for each project in the study, while Table 10 shows the total number of Transit Trips the projects individually and cumulatively are expected to generate. The latter includes transit trips that would not replace a vehicular trip.

Response to Comment C-6:

The analyses performed were selected in accordance with City criteria in order to identify significant impacts resulting from the Proposed Project.

Response to Comment C-7:

According to the 2004 Annual Average Daily Truck Traffic on the California Highway System, truck volumes in the project vicinity were 9.6 percent of average daily traffic on I-5 and between 2.32 and 3.71 percent on US 50. Even if a truck percentage of 9.6 is assumed on I-5, the proposed project would not cause the level of service to change under any of the analysis conditions because it is LOS F without the project, and stays LOS F with the project.

Response to Comment C-8:

The existing external trips refer to the number of trips that are currently generated at the site that travel to external locations. Since the existing land uses will be replaced by the proposed project, the existing trips traveling off-site were subtracted from the new trips that would travel off-site.

Response to Comment C-9:

C-9a: As discussed under Response to Comment C-2, above, it was determined that trips bounded for Business 80 would be accessed via SR 160. SR 160 (via N. 12th and 16th Streets) is clearly identified in the trip distribution – 14% for Office/Retail and 5% for Residential.

C-9b: The Metropolitan project contains both residential and retail components. Separate trip distributions were used for each land use type, as shown in Figures 6 and 7 in the Downtown Study. Figure 5.6-9 in the Draft EIR was incorrectly labeled and has been corrected in Chapter 2, above. This is the correct figure and just replicates existing information from Figures 6 and 7 in the Downtown Study.

C-9c: Please see response to comment C-9b, above.

Response to Comment C-10:

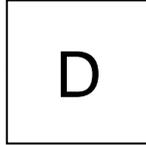
As discussed, existing ramp volumes were either supplied by Caltrans or based on actual counts.

Response to Comment C-11:

The only baseline projects not shown on the map are the Amtrak Extension and the 3rd Street Conversion. All baseline projects were taken into account in the analysis.

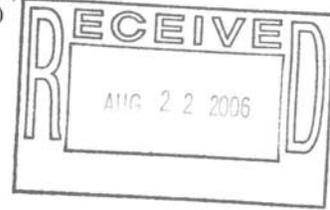
Response to Comment C-12:

The proposed projects evaluated in the Study covered the most likely development known at the time of the study. The residential alternative for 800 K & L Streets would generate fewer trips than the Office/Residential project proposed at the site and would have lesser impacts.



Wastewater Treatment

August 16, 2006
E225.000



Technology in balance with nature

10545 Armstrong Avenue
Mather, CA 95655
Tele: [916] 876-6000
Fax: [916] 876-6160
Website: www.srcsd.com

Dana Allen
City of Sacramento
Development Services Department
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

Subject: Notice of Availability - Draft Environmental Impact Report for The Metropolitan Project APN: 006-0044-009 thru-013 Control No. P05-205

- Board of Directors**
Representing:
- County of Sacramento
 - County of Yolo
 - City of Citrus Heights
 - City of Elk Grove
 - City of Folsom
 - City of Rancho Cordova
 - City of Sacramento
 - City of West Sacramento

Dear Ms. Allen:

Both the County Sanitation District 1 (CSD-1) and the Sacramento Regional County Sanitation District (SRCSD) reviewed the subject Notice of Availability documents and have the following comments.

The comments sent in a letter dated May 31, 2006 are still valid and are repeated below for your convenience.

The subject property is outside the boundaries of CSD-1 but within the Urban Service Boundary and SRCSD shown on the Sacramento County General Plan. Sacramento City Utilities Department approval will be required for sewage service.

SRCSD Advisories:

SRCSD does not have any specific concerns. We expect that if the project is subject to currently established policies, ordinances, fees, and to conditions of approval, then mitigation measures within the Environmental Impact Report (EIR) will adequately address the sewage aspects of the project. We anticipate a less than significant impact to the sewage facilities due to mitigation.

If you have any questions regarding these comments, please call Stephen Moore at (916) 876-6296 or myself at (916) 876-6094.

Sincerely,
Wendy Haggard
Wendy Haggard, P.E.
Department of Water Quality
Development Services

D-1

- Mary K. Snyder
District Engineer
- Stan R. Dean
Plant Manager
- Wendell H. Kido
District Manager
- Marcia Maurer
Chief Financial Officer

WH/JRO: cc

cc: Melenie Davis
Amber Schalansky
Steve Norris

allen081606.ltr.doc

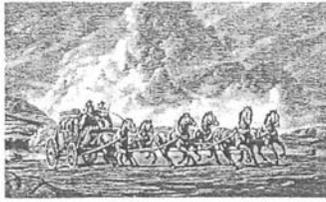
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Sacramento Regional County Sanitation District

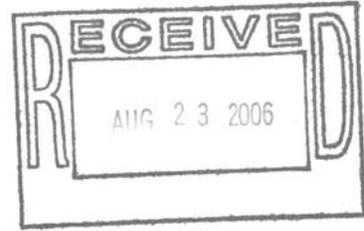
COMMENT LETTER D: Sacramento Regional County Sanitation District

Response to Comment D-1:

Comment noted. Draft EIR pages 5.5-6 through 5.5-10 identify the impacts and mitigation measures; these mitigation measures are incorporated into the Mitigation Monitoring Plan included in Chapter 4 of this Final EIR.



**WELLS
FARGO**



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Memo

E

To: Dana Allen, Senior Planner

From: GA Shupe

Date: August 22, 2006

Re: Briggs Trust / Crest Theater

Draft EIR – Metropolitan Project (PO5-205)

In relationship to our property at 1011 to 1015 K Street, the Crest Theater, we are concerned about the noise generated by pile driving during daytime activities in the theater. We also are concerned about the possible interruption of fire sprinkler operation.

E-1

Thank you for reviewing our concerns.

WELLS FARGO BANK, N.A. TRUSTEE

GERALD A. SHUPE
VICE PRESIDENT

COMMENT LETTER E: Wells Fargo Bank, Briggs Trust / Crest Theater

Response to Comment E-1:

Wells Fargo submitted a similar comment on the Notice of Preparation, included in Appendix A of the Draft EIR. Concerns regarding impacts on the Crest Theater were specifically addressed on Draft EIR pages 3.0-3, 5.4-5, and 5.4-17. On direct line of site, a pile driver – without pre-drilling holes as required in mitigation measure 5.4-1c – would generate a reference noise level up to 107 dB at 50 feet. Since noise from a point source usually attenuates at approximately 6 dBA per doubling of distance, this would result in pile driving noise of about 101 dBA Leq at 100 feet, and 95 dBA Leq at 200 feet.

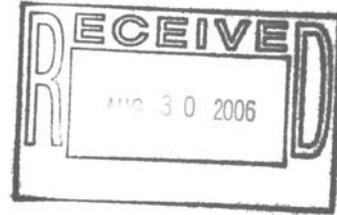
However, there is a solid row of intervening 2-story buildings between the site and the Crest. The Crest location is a minimum of 330 feet from the project site. At this distance the pile driving levels would be around 91 dB with no shielding from intervening buildings or construction walls. There would be about a 10 dB in reduction from the site construction barrier and intervening buildings, which would put the levels at approximately 81 dB Lmax at the Crest. Most buildings provide a minimum exterior-to-interior noise reduction of 25 dB, assuming closed windows. Therefore, interior maximum levels from pile driving would be expected to be 56 dB Lmax, or less, without mitigation. Noise levels from movies would likely be much higher, probably in the 65-80 dB range. Therefore, construction noise from the Metropolitan Project, especially after mitigation requiring pre-drilling of pile holes, is not anticipated to have a significant effect on the Crest's operations.



Larry Greene
AIR POLLUTION CONTROL OFFICER

August 24, 2006

Ms. Dana Allen
City of Sacramento
Development Services Department
2101 Arena Blvd., 2nd floor
Sacramento, CA, 95834



**SUBJECT: DEIR, The Metropolitan # PO5-205
SMAQMD # SAC200600940B**

Dear Ms. Allen:

Thank you for providing the project listed above to the Sacramento Metropolitan Air Quality Management District (District). Staff comments follow.

As we've stated before, we appreciate this project for its density and mixed-use nature in the heart of downtown.

We have spoken to the project air quality consultant at the Ervin Company and understand that the URBEMIS run included in Appendix C and its accompanying fee calculation are in error. The proponent, apparently, will use different construction equipment than that which was originally assumed. We cannot evaluate the construction air quality analysis until we see the revised modeling.

The project is projected to not be significant for operational air quality impacts. The modeling for this finding was done using the actual data from the traffic study for the project. Despite that, we suggest the project proponent and the City consider several measures which could encourage the use of alternative transportation by the residents of the Metropolitan. Those measures would be beneficial to the region's air quality. They are:

1. The creation of an indoor bicycle facility for bike storage, lockers and showers. Office workers, residents and even hotel guests could all be encouraged to avoid automobile trips if bicycle amenities were plentiful. The EPA building in downtown Sacramento has such a facility and it is used by many bicyclists. We'd be happy to arrange a visit for the proponent to that facility.
2. The accommodation of a future car sharing operation in the building's parking facility. Car sharing is a program which allows people to use automobiles, pay for that use, but not to own the automobiles. The City of Sacramento, with its future downtown growth could be a great candidate for a car sharing program. Such a program in the Capitol Grand Tower could make the building more marketable and environmentally friendly. Vehicle spaces could be designated to house vehicles from such a program. The proponent could be exploring such a program now in order to accommodate it.
3. With the project's close proximity to both light rail and bus transit, planning now for a future transit pass program such that a monthly transit pass is included in the condo fees and office rents would be important.
4. The construction of an extremely energy-efficient building; one which exceeds Title 24 requirements.

The Transportation and Circulation Section of the document (Section 5.6) contains detailed plans to retime the signal phasing at approximately 14 downtown intersections as mitigation for

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916/874-4800 || 916/874-4899 fax
www.airquality.org

F

F-1

F-2

additional traffic created by The Metropolitan and other downtown projects. The retiming will provide longer signal phases to motor vehicles traveling on cross-town routes and entering/exiting freeways. The analysis of the retiming of the intersections (section 5.6-10) and the analysis of pedestrian facilities (section 5.6-6) does not examine how these changes may impact pedestrians by reducing the frequency and length of pedestrian crossing phases at the impacted intersections. In addition, these changes may impact several cross-town bicycle routes, but the analysis of impact to bikeway (section 5.6-5) does not address how the changes to signal timing may affect individuals traveling on bicycles through these intersections.

F-3

The District is concerned that these changes may make it more difficult for pedestrian and bicycle users to move about downtown and access to public transit, discouraging the use of bicycle, pedestrian, and public transit modes and negatively affecting air quality. The District recommends that the EIR include additional analysis of the impact of signal timing changes on pedestrians and bicyclists, and provide additional graphic(s) that clearly depicts which intersections are affected by the change.

All projects are subject to SMAQMD rules and regulations in effect at the time of construction. Please see the attached document describing SMAQMD Rules which may apply to this project.

If you have questions, please contact me at 874-4885 or jborkenhagen@airquality.org

Sincerely,



Jeane Borkenhagen
Associate Air Quality Planner Analyst

cc: Mr. Larry Robinson SMAQMD
Mr. Eric Rasmusson Holloway, Rasmusson and Molodanof
Ms. Gail Ervin Gail Ervin Consulting

Enc: SMAQMD Rules & Regulations Statement

SMAQMD Rules & Regulations Statement

*The following statement is recommended as standard condition of approval or construction document language for **all** construction projects within the Sacramento Metropolitan Air Quality Management District (SMAQMD):*

All projects are subject to SMAQMD rules and regulations in effect at the time of construction. A complete listing of current rules is available at www.airquality.org or by calling 916.874.4800. Specific rules that may relate to construction activities may include, but are not limited to:

Rule 201: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may require permit(s) from SMAQMD prior to equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact the District early to determine if a permit is required, and to begin the permit application process. Portable construction equipment (e.g. generators, compressors, pile drivers, lighting equipment, etc) with an internal combustion engine over 50 horsepower are required to have a SMAQMD permit or a California Air Resources Board portable equipment registration.

Rule 403: Fugitive Dust. The developer or contractor is required to control dust emissions from earth moving activities or any other construction activity to prevent airborne dust from leaving the project site.

Rule 442: Architectural Coatings. The developer or contractor is required to use coatings that comply with the volatile organic compound content limits specified in the rule.

Rule 902: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of asbestos containing material.

Other general types of uses that require a permit include dry cleaners, gasoline stations, spray booths, and operations that generate airborne particulate emissions.

COMMENT LETTER F: Sacramento Metropolitan Air Quality Management District, Jeane Borkenhagen

Response to Comment F-1:

Additional information received from the project construction contractor, Turner Construction, confirmed that most construction equipment would be electric powered. The URBEMIS 2002 emissions model was rerun based on the specific construction equipment list. This information significantly lowers the construction emissions, and changes the construction mitigation fee to zero. The URBEMIS worksheets, as reviewed by Jeane Borkenhagen of the SMAQMD on September 6, 2006, are included in Appendix A of this Final EIR, and changes made to Draft EIR Chapter 5.2 are outlined in Chapter 2, above.

Response to Comment F-2:

Comment noted. Whereas there was no adverse impact identified, there is no nexus to require mitigation measures under the CEQA process.

The project has been designed to comply with the Title 24 requirements. Currently the City of Sacramento does not require projects be designed to exceed the state requirement. However, as discussed in the Project Description, “[t]he proposed project would include energy-saving equipment, lighting, windows, and other energy conservation measures. Although specific features have not been determined at this time, lighting conservation would include installation of such features as occupancy sensors to automatically turn off lights when not in use, lighting reflectors, electronic ballasts, and energy efficient lamps. Window glazing for the project would include low-E glass. Conservation efforts are also expected to involve improved HVAC systems with microprocessor-controlled energy management systems.” In addition, the applicant has indicated a commitment to the environment and the use of state of the art systems, and the desire to meet Leadership in Energy and Environmental Design (LEED) certification. The commenter’s desire to see the project exceed the Title 24 requirements is noted and forwarded to the decision-makers and applicant for their review.

Response to Comment F-3:

The changes in traffic signal timing that are included in the mitigation measures do not change the frequency of pedestrian crossing phases. As the recommended traffic signal timing changes do not change the traffic signal cycle lengths, the same number of pedestrian phases per hour will occur as would occur without the mitigation measures.

During each signal cycle, the mitigation measures shift an amount of time from one direction of travel to another. For example, some mitigation measures shift time from a north-south movement to an east-west movement. The effect on pedestrian crossings is that there will be a similar change in crossing time. In the example, any time taken from the north-south movement will be given to the east-west movement. However, in all cases pedestrians will still have at least the minimum amount of time necessary to safely cross the street, as calculated in accordance with City and State traffic signal timing criteria.

The traffic signal timing changes are not anticipated to affect bicycle travel in the Downtown. The traffic signal timing changes will still allow bicyclists ample time to safely travel through intersections, since bicycles travel faster than pedestrians and ample time will be provided

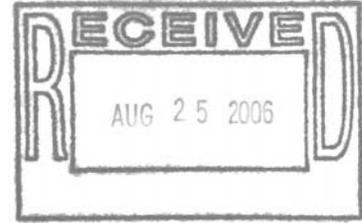
for pedestrians to cross signalized intersections. The changes in traffic signal timing are at most in the range of five seconds; this means that a pedestrian or bicyclist traveling in one direction may experience an additional delay of about five seconds waiting for the signal to change. However, pedestrians or bicyclists traveling in the other direction will receive five additional seconds to pass through the intersection. Such changes are relatively minor and are not anticipated to affect the volume of pedestrian travel, bicycle travel, or transit mode share.

It should be noted that traffic signal timing is monitored and adjusted by City Traffic Engineering as part of normal operations, and that changes similar to those proposed in the mitigation measures have been routinely implemented throughout Downtown for many years without any known adverse effects on the volume of pedestrian travel, bicycle travel, or transit utilization.

The proposed mitigation measures are not anticipated to result in significant impacts to bikeways, since, in accordance with the standards of significance, the traffic signal timing changes that are part of the mitigation measures do not hinder or eliminate existing or future bikeways, nor cause unsafe bicycle / pedestrian or bicycle / motor vehicle conflicts.

WILLIAM D. KOPPER

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Davis, CA 95616
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Paralegals
Kristin Rauh
SherryAugustine

G

August 23, 2006

Dana Allen, Sr. Planner
Environmental Planning Services
City of Sacramento Development Services Dept.
2101 Arena Boulevard, 2nd Floor
Sacramento, CA 95834

Re: The Metropolitan Project

Dear Ms. Allen:

I represent Gene A. Moe, Karl H. Mindermann, and Jeffrey S. Linn, all residents of the City of Sacramento. These are their comments on the DEIR for the Metropolitan Project. We incorporate the comments of all other individuals into these comments. My clients oppose the Project. In addition to the comments included in this letter, we incorporate the traffic comments prepared by Daniel Smith, and the Cultural Resources comments completed by Barry Price. The consultant's comments are attached. Our additional comments are as follows:

1. Failure to consult with sisters agencies.

Guideline¹ Section 15086(5) provides:

“The lead agency shall consult with and request comments on the draft EIR from: 4) any city or county which borders on a city or county within which the Project is located and 5) for a Project of statewide, regional, or area-wide significance, the transportation planning agencies and public agencies which have transportation facilities within their jurisdictions which could be affected by the Project. “Transportation facilities” includes: major local arterials in public transit within five miles of the Project site, and freeways, highways and rail transit service within ten miles of the Project site.”

It appears from page 5.6-2 of the EIR that the City consulted with CALTRANS or at least provided the Notice Of Preparation to CALTRANS, however, there is no evidence that the City of Sacramento consulted with Yolo County and Sacramento County and specifically provided information about the Project to the Transportation Planning Departments for Yolo County and Sacramento County. The Project has potential to affect transportation facilities in West Sacramento, Yolo County, and Sacramento County. (Moreover, there is no evidence that the City of West

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¹ “Guidelines” refers to the CEQA Guidelines Title 14, California Code of Regulations §15000-15387.

Dana Allen, Sr. Planner
Environmental Planning Services
August 23, 2006
Page 2

Sacramento was consulted about the Project and the Transportation Planning Agency in the City of West Sacramento received information about this Project.) The Project is clearly of area-wide significance.

G-1

The draft EIR does not include a State Clearing House number and the authors of the EIR need to provide evidence that the Project was circulated to the State Clearing House as required by law.

2. Failure to evaluate the impacts of tandem parking.

In accordance with the attached traffic report of Daniel Smith, the Project is likely to cause traffic congestion in the alley between J and I Streets, and the congestion may spill out onto 10th and especially 11th Street. The EIR includes no analysis as to how the tandem parking spaces may function and how use of the tandem parking spaces may slow down traffic movement in the parking garage and cause further back-ups of traffic onto 10th and 11th Streets. In view of the fact that a special permit is being requested for tandem parking, the EIR needs to include a discussion of potential environmental impacts related to the tandem parking.

G-2

3. The EIR does not include a discussion of the requested variance.

A Project description must be accurate. An accurate description is necessary to determine the scope of environmental review. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199.) In this case, the EIR includes as part of the Project a “variance to reduce required maneuvering area from 26 feet to 25 feet.” From this description of the variance, it is impossible to determine this element of the Project. The EIR does not explain where the variance will be located. It is likely that if the variance is to be included in the alley between I and J Streets, it may have significant impacts that have not been evaluated in the Environmental Impact Report. The attached traffic report prepared by Daniel Smith provides significant evidence that the Project will have significant traffic impacts on the alley between I and J. The EIR needs to explain where a variance is requested and the potential environmental impacts related to the variance.

G-3

Sacramento Municipal Code provides that “a variance cannot be a special privilege extended to one individual property owner. The circumstances must be such that the same variance would be appropriate for any property owner facing similar circumstances.” Furthermore, “a variance must not be injurious to public welfare, nor to property in the vicinity of the applicant.” Finally, “a variance must be in harmony with the General Plan purpose and intent of [the zoning code]. It must not adversely affect the General Plan or specific plans of the City, or the open space zoning regulations.” (Zoning Code §216.010.) From the information provided by Mr. Daniel Smith, it would appear that the variance may affect turning and maneuvering space in the alley or in the parking garage, it may very well be injurious to the public welfare by creating a traffic hazard. Further, it would not be in conformity with the General Plan. The Environmental Impact Report needs to discuss these issues in detail.

4. The EIR fails to address potential inconsistencies with a number of elements of the City’s General Plan.

G-4a

Section 15125(d) of the Guidelines states that “the EIR shall discuss any inconsistencies between the proposed Project and applicable general plans and regional plans.” As the EIR

Dana Allen, Sr. Planner
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 Page 3

acknowledges, the Project site has not been considered for housing by any of the City's plans including the Central City Community plan, the Central City Housing strategy, the Downtown Development plan, and other plans. Nevertheless, housing is a permitted use with certain conditions.

On pages 3.3-30 through 3.3-32, the City's general plan acknowledges that the City has fallen far short of meeting the needs of homeless people in the City of Sacramento. Moreover, the City has fallen far short of meeting the City's share of regional housing needs for very low and low income units. On page 3.4-9 of the General Plan, the General Plan reports that by 2007, 772 very low income units are needed, while the City only produced 194 units between 2000 and 2001. Further, the General Plan reports that in 2007, 2,791 low income units are needed while the City produced only 55 low income units between 2000 and 2001.

On page 3.6-19 of the General Plan, the General Plan reports as follows:

Reduction and decline of single room occupancy hotels (SRO's) or resident hotels, represent a second potential governmental constraint to housing people in the special needs group. Residential hotels represent last resort housing for single people who are very poor, some of who have mental health, physical health and substance abuse problems. This is the most difficult housing to replace in any urban community.

G-4a

The City's SRO task force recommended as follows:

1. The City should pursue policies that will create different housing types affordable and accessible to persons typical of those living in downtown resident hotels.
2. The Sacramento Housing Redevelopment Agency should modify its multifamily policies to increase the number of units accessible and affordable to persons typical of SRO residence. (See General Plan page 3.6-20.)

On page 3.10-20 the City's General Plan states as follows: "Given the financing and construction expenses of new housing, the existing housing supplies the City's best source of housing affordable to lower income households. Ongoing and new programs targeted to maintain the existing housing stock could result in retention of affordable housing and avoid tenant displacement. The City should target rehabilitation of housing units, especially those affordable to lower income households, in need of repair." Policy number 6.c of the General Plan states: "provide programs to preserve the existing stock of single room occupancy units (SRO's) or their replacement and accessibility to SRO tenants."

The Metropolitan Project replaces the Biltmore Hotel and the area above The Broiler that was single occupancy residential housing for the poorest members of the community. The single occupancy housing was shut down in 2002, and the EIR does not shed any light on how this particular housing will be replaced. In fact, it appears that the single occupancy housing in the Biltmore and above The Broiler is being replaced with high cost housing that has no lower income

G-4b

Dana Allen, Sr. Planner
Environmental Planning Services
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Page 4

component whatsoever. The EIR fails to explain how the Project is consistent with the elements of the General Plan that have been cited above. Moreover, the Housing Element Implementation Program of the General Plan includes the following mandates:

1. Stimulate the acquisition and rehabilitation of problem multifamily properties and institute better management practices through financing requirements and monitoring.
2. Support mixed income development to revitalize lower income neighborhoods. In new growth areas, this goal seeks to create housing affordable to low income people to increase economic diversity and to expand housing near job centers. In downtown Sacramento, this goal has major importance in sustaining the retail, commercial and civic life of the central city. Mixed income housing as an element of downtown Sacramento revitalization serves primarily moderate income households (80% to 120% of area median income).

The Project EIR provides no discussion as to how the Project is consistent with the requirement of the EIR that the housing Projects in the downtown area are to be mixed income developments that are affordable to low income people. The 320 unit Metropolitan Project does not include any units that are affordable to lower income people. The EIR needs to address its inconsistencies with the housing element of the City's General Plan. The Project not only appears to be inconsistent with the housing element of the City's General Plan, but also with the Central City Community Plan which provides that in the central city area there must be housing for all social economic levels, in particular the opportunity for low and moderate income persons to reside within the central city. The merged redevelopment plan also includes as a goal: "expansion and improvement of the community supply of housing, including low and moderate income housing."

G-4b

The Project appears to be inconsistent with the Housing Element of the City General Plan because it displaces single occupancy housing, which is the housing of last resort for the very poor before they become homeless and replaces it with high-end housing. It does not include any low income or very low income housing within the Project, which is a requirement for the downtown area.

5. **The EIR needs to include a water assessment.**

The Environmental Impact Report describes the Project as a 642,000 square foot residential condominium building, with ground floor retail and parking. The building includes 13,000 square feet of ground floor retail/commercial space fronting 10th and J Streets.

G-5

Public Resources Code §21151.9 states: "Whenever a City or County determines that a Project, as defined in §10912 of the Water Code, is subject to this division (i.e., CEQA), it shall comply with Part 2.10 (commencing with §10910) of Division 6 of the Water Code."

Dana Allen, Sr. Planner
 Environmental Planning Services
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Under §10912(a) of the Water Code a “Project” is defined as meeting any of the following criteria:

1. A proposed residential development of more than 500 dwelling units;
2. A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
3. A commercial building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
4. A hotel or motel with more than 500 rooms;
5. Proposed industrial, manufacturing, or processing plant, or industrial park, plan to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
6. A mixed-use Project that includes one or more of these elements; or
7. A Project creating the equivalent demand of 500 residential units.

G-5

Because the proposed Project is a mixed-use facility that includes one or more of the above elements from the list, it meets the requirements as a “Project” under the Water Code. The Project meets the requirement because it is a mixed-use business establishment having more than 500,000 square feet of floor space among all components of the Project or it is a mixed-use building that has commercial uses that is more than 250,000 square feet of floor space.

The EIR is required to include a water assessment. The EIR should be re-circulated with the Water Assessment chapter added.

6. The EIR fails to include feasible mitigation measures for noise vibrations.

On page 5.4-18 of the EIR, the EIR states that “construction - induced vibration impacts could cause architectural damage to nearby historic structures and annoyance to nearby sensitive receivers.” In the mitigation measures, the EIR admits that “the most significant source of ground born vibrations” would be from pile-drivers during periods of construction on the Project site. The EIR also notes that in previous pile-driving in the historical area of the city, sprinkling systems were set off by the pile-driving. The proposed mitigation includes the following:

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“During demolition and construction, should damage occur despite the above mitigation measures, construction operation shall be halted and the problem activity shall be identified. A qualified engineer shall establish vibration limits based on soil conditions and the types of buildings in the immediate area. The contractor shall monitor the buildings throughout the remaining construction period and follow all recommendations of the qualified engineer to repair any damage that has occurred to the pre-existing state, and to void any further structural damage.”

Dana Allen, Sr. Planner
Environmental Planning Services
August 23, 2006
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In addition to the vibration from the pounding of piles, the pounding of piles results in noise-level violations. The EIR concludes that the construction noise, including specifically the pile-driving, is a short term significant and unavoidable environment impact.

In view of the fact that pile-driving is not a necessary foundational method, it would appear that the city should require as a mitigation measure that the developer use the torque screw method for constructing the building foundation. This method eliminates pile-driving and is to be used on the Epic Residential Tower which is of approximately the same size in height. Please see page 5.4-12 of the Epic EIR which is attached.

G-6

7. **The Project EIR fails to consider the potentially significant energy implications of the Project.**

An EIR should consider potentially significant energy implications of a Project. (Guidelines, Appendix F; Public Resources Code §21100(b)(3).) Guidelines, Appendix F, requires an Environmental Impact Report to evaluate energy impacts including:

1. The Project's energy requirements and its energy use efficiency;
2. The Project's effects on local and regional energy supplies and other requirements for additional capacity;
3. The Project's effects on peak and base period energy demands;
4. The degree to which the Project complies with existing energy standards;
5. The Project's effects on energy resources;
6. The Project's Projected transportation energy use and its overall use of efficient transportation alternatives.

G-7

Furthermore, CEQA requires an EIR to discuss energy conservation mitigation measures. Mitigation measures should include measures to reduce wasteful, inefficient, and unnecessary consumption of energy. (Public Resources Code §21100(b)(3)). CEQA guidelines appendix F contains general examples of mitigation measures for a Project's potentially significant energy impacts. An EIR's analysis of potential mitigation measures include:

1. Potential measures to reduce wasteful, inefficient, and unnecessary energy consumption during construction, operation, maintenance or removal of the Project.
2. Citing, orientation, and design to minimize energy consumption.
3. Potential of reducing peak energy demand.
4. Alternative fuels or energy system.
5. Energy conservation that could result from recycling efforts.

Failure to include a detailed statement setting forth mitigation measures proposed to reduce wasteful energy consumption as required by Public Resources Code §21100(b)(3) may render an EIR legally inadequate. (See *People v. County of Kern* (1976) 62 Cal.App.3d 761.)

Dana Allen, Sr. Planner
Environmental Planning Services
August 23, 2006
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It is not sufficient to comply with CEQA for the authors of the EIR to simply state that the Project will comply with Title 24.

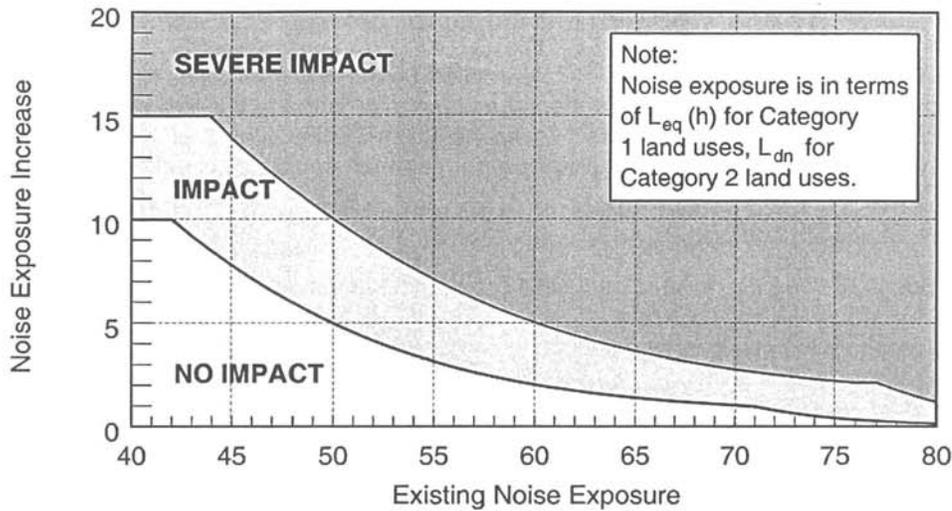
G-7

Sincerely,



WILLIAM D. KOPPER

WDK/sra
Enc.



Graph 5.4-1 Federal Transit Administration's Incremental Noise Impact Criteria

TABLE 5.4-4

NOISE IMPACT CRITERIA: EFFECT ON CUMULATIVE NOISE EXPOSURE

L_{dn} or L_{eq} in dBA (rounded to nearest whole decibel)			
Existing Noise Exposure	Allowable Project Noise Exposure	Allowable Combined Total Noise Exposure	Allowable Noise Exposure Increase
45	51	52	7
50	53	55	5
55	55	58	3
60	57	62	2
65	60	66	1
70	64	71	1
75	65	75	0

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, April 1995, p. 3-7.

Project-Specific Impacts and Mitigation Measures

5.4-1 Construction of the proposed project would produce temporary noise. This is a short-term significant impact.

During construction of the proposed project, noise levels would be produced by the operation of heavy-duty equipment and various other construction activities. According to the project applicant, pile driving would not be used for constructing the building foundation and structure ("founding"). The current program for founding the building would use a torque screw displacement method/steel pile method. This method does not create the need for disposal or export of material. Secondly, it does not create the pounding or vibration associated with driven pile systems. The torque screw method is driven by a diesel engine and creates noise pollution approximate to that produced by a local city bus. Construction noise would affect surrounding uses to varying degrees throughout the construction schedule, approximately 31 months. As discussed in the environmental setting, there



SMITH ENGINEERING & MANAGEMENT

August 21, 2006

Mr. William D. Kopper
 Attorney at Law
 417 E Street
 Davis, CA 95616

Subject: The Metropolitan Project Draft EIR

P06006

Dear Mr. Kopper:

Per your request, I have reviewed the transportation and circulation component of the draft environmental impact report (hereinafter "the DEIR") for the Metropolitan Project in the City of Sacramento (hereinafter "the City"). My qualifications to perform this review include registration as a Civil and Traffic Engineer in California and thirty-nine years experience as a traffic and transportation engineering consultant in the State. I have both prepared and reviewed the transportation and circulation components of numerous environmental documents and am familiar with the downtown Sacramento area. My comments on the subject DEIR follow.

Recommended Mitigations for Significant Traffic Impacts at Intersections May Be Infeasible

The DEIR finds that the project would contribute to significant traffic impacts under the near term cumulative conditions at 13 downtown intersections and at 14 downtown intersections under the long-term cumulative conditions. At 12 of the 13 intersections that would experience significant traffic impacts under the near term cumulative scenario, the DEIR proposes to mitigate the impacts solely by traffic signal timing changes. For the 14 downtown intersections significantly impacted under the long-term cumulative condition, the DEIR proposes to mitigate the impacts at 12 solely by signal timing changes and at the other two by a combination of lane modifications and signal timing changes. While this facile approach has an appealing simplicity - just key in a few timing changes to the signal control system and poof, the significant impacts vanish - the reality is much more complex. The problem with this mitigation approach is that it attempts to optimize each impacted intersection as if it were operating in isolation. However, signals in downtown Sacramento do not operate in isolation: they operate in coordinated systems that provides for progressive movement along the major circulation corridors. Modifications to individual signal timings

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Mr. William D. Kopper
August 21, 2006
Page 2

that seem beneficial when considered in isolation may prove more harmful than helpful when their consequences to system-wide progression are considered. Although, to the credit of the DEIR analysts, the mitigation proposals avoid changes in overall signal cycles that would be clearly and significantly detrimental to signal coordination, the only way to determine whether the timing changes produce a net benefit or not is to perform a signal system analysis. Since this analysis has not been done, although it reasonably could have been, the conclusions regarding the mitigations based on signal timing changes remain speculative, and therefore do qualify as mitigation under CEQA.

G-8

DEIR Fails To Appropriately Consider Potentially Significant Consequences Of Reliance on Alley As Project's Principal Traffic Access and Egress

According to the project site plan, the alley running between 10th and 11th Streets that the project will rely upon as its sole access/egress for its parking garage and for its loading dock/service area is 20 feet in width with building faces built-out to the limits of the alley. The project description indicates this alley is used by two-way traffic.

The DEIR conducted no analysis of the project's impact on traffic operations and level of service at the uncontrolled intersections of the alley with 10th and 11th Streets.

Driver's sight distance to southbound traffic on 11th Street from the stop position short of the sidewalk crossing eastbound on the alley is about 55 feet and to northbound traffic on 11th Street is about 60 feet. A similar 55 foot sight distance would prevail for westbound drivers on the alley from a stop position at the back-of-sidewalk looking to northbound traffic in the near lane of 10th Street. The minimum corner sight distance that should be available is 150 feet. Drivers' sight distance to pedestrians walking along 10th or 11th whose path is close to the building faces is about 10 to 12 feet. This means drivers emerging from the alley would have about 1 second to perceive and react to someone traveling close to the building face at jogging pace and about a half-second to perceive and react to someone traveling at moderate running pace (such as a reasonably fit person running to catch a bus). The limits on available sight distance and available perception/reaction times imposed by the physical geometry at the corners of the alley definitely challenge driver perception/reaction capabilities and definitely constitute a significant potential safety impact.

G-9a

The project's First Floor Plan (DEIR Figure 2.0-6) indicates that the project's loading dock, which would be accessed from the subject alley, would be about 24 feet wide and provide for a vehicle turning radius of 33.4 feet (outside radius) and about 18 feet (inside radius). These radii are adequate to accommodate normal passenger cars and most pickup trucks, SUV's and vans, but not standard

G-9b

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single-unit cargo trucks or semi's. Given the confines of the alley and the loading dock, it is doubtful that a standard single unit truck or a semi would be able to maneuver into the dock, even with multiple cut maneuvers. Hence, at move-ins or move-outs or with any delivery or removal of bulky goods, the vehicle(s) involved will need to stop in a travel lane of the alley, thereby obstructing it. Such will also be the case for refuse collection - the garbage truck will have to stop in the travel lane of the alley and all the cans or dumpsters will have to be hauled out by hand.

G-9b

The DEIR does not indicate whether the alley will need to be used as a fire lane for the project. If so, the limitations of the alley and loading dock geometry that dictate that large vehicle loading and unloading must take place in the alley may constitute a situation that significantly impacts public safety for this and other adjacent buildings from a fire protection sense.

Since the aperture size and geometry relative to the size and alignment of the alley of the access to the resident garage entrance is essentially the same as that for the loading dock, about the same interior and exterior turning radii limitations will confine users of the parking garage as are indicated on the site plan for the loading dock. This means that most of the standard to large passenger vehicles residents may normally wish to keep in the garage - standard to large cars, pick-ups, SUV's and vans - will have to swing out extensively into the westbound lane of the alley when they are attempting to approach or depart eastbound in the alley and will need to swing into or through the departure lane of the garage access ramp when they are entering from the eastbound direction of the alley. Also, drivers attempting to depart the garage to go eastbound will need to begin their exiting turn from well into the entry lane of the garage. The DEIR trip generation analysis indicates that some 114 vehicles may enter the garage while 93 depart in the PM peak hour. With this traffic, to say nothing of any non-project traffic in the alley (the DEIR is silent on non-project traffic uses of the alley) the lane encroachments described above at a point where the physical geometry imposes very severe sight distance limitations is a definite indication of a potential significant safety impact.

G-9c

No pedestrian facilities exist within the alley. The alley is of minimum width for two way traffic use to be feasible. Hence, any pedestrians working in the alley or using it as a short-cut will tend to be walking close to the building faces. The severe sight distance limitations at the project's garage exit pose a significant safety concern relative to any pedestrians in the alley.

G-9d

The DEIR did analyze the potential for entry queues at the garage entrance and, although it stated that the type of gates to be used at the garage entrance were unknown, concluded that "in is expected at a 95 percent probability level that a maximum of one vehicle will be at the entry gate" and that "the site plan provides

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adequate space for such queuing without impacting adjacent sidewalks and roadways". This reassuring conclusion fails to take in to consideration several salient factors.

1. The maneuvering space required for the first three spaces inside the garage dictates that the entry control gate must be placed closer to the exterior of the garage than one car length. Hence, even a single vehicle queued at the entry gate will extend into the eastbound lane of the alley and, contrary to the finding in the DEIR, the queues will impact adjacent walking paths and traffic lanes.

2. Because of the confined geometry of the alley and garage access/egress point and consequent need for entering vehicles to encroach on the garage exit lane, vehicles attempting to enter will not be able to do so until any vehicles simultaneously attempting to exit have cleared the garage access area. We question whether the computations regarding queuing (only the results, not the actual computations, are presented in the DEIR and its Appendix) have taken this into account. Considering both inbound and outbound traffic because of the encroachment conflict would significantly alter the queuing conclusions.

3. If a vehicle is maneuvering to exit any of the first three spaces inside the garage, incoming vehicles will not be able to enter, even though the control gate may be open. It seems unlikely that this consideration was taken into account in the queuing computation.

4. Although the actual queuing computation is not presented, it appears to be characteristic of assumption of a gate opening time characteristic of light swing-arm gates triggered by card-key or wireless activators typically used for parking administration in employee-parking or long-lease parking situations, not the much more ponderous security-type gates used in residential complex applications. A gate that may take 20 or 30 seconds to open from the time of activation would cause significantly different queuing properties than a gate that takes 2-3 seconds to open from the time of activation.

Over and above all of the foregoing, the queuing analysis as reported in the DEIR indicates that in the PM peak hour there may be an up-to 5 percent probability that there would be a queue of 2 or more vehicles. Given the consequences of in-alley heavy vehicle loading resulting from the access constraints at the project's loading dock, and the proximity of the loading dock to the garage entrance (they are immediately adjacent to one another), any queues of 2 or more vehicles would have significant consequence. In fact, because of the proximity of the loading dock to the garage access point, the on-alley loading and unloading of large vehicles that the constraints of the proposed geometry creates will probably cause significant constraint on garage access and egress any time on-street loading/unloading takes place.

G-9e

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Given all of the foregoing, because of the multiple significant impacts that the project's reliance on the alley as its sole access/egress to the loading area and to the parking garage, the project should be completely redesigned to take its loading and garage access either from 10th Street or from J Street or the alley should be widened along the entire project frontage to dimensions suitable for adequate maneuvering to/from the garage and loading dock.

G-9e

DEIR Understates Project's Traffic Impacts Through Unreasonable Discounting of Project Trip Generation

The DEIR discounts estimated project trip generation for the high levels of transit, walking and bicycle reliance known to exist in downtown Sacramento and for presumed internalization of some trips between the component land uses within the project complex. These discounts to trip generation appear reasonable. However, the project's trip generation analysis further discounts presumed tripmaking between the subject and a number of other large concurrent projects in the downtown area on the basis of the same factors - higher walk, bicycle and transit reliance in downtown, and the presumption that the concurrent projects will somehow function as a compound project where internalized tripmaking will take place.

As to the additional reductions based on walk, bike and transit travel, there is absolutely no justification for a double discounting of trips between these concurrent projects since the gross trip generation of all of the concurrent projects including the subject project has already been discounted based on these considerations.

G-10

As to the notion of internalization among the concurrent projects, many of the concurrent projects are of predominant use types that generate little peak period trip exchanges - for instance there are relatively few peak period trips made between residential use and residential use. While a few of the concurrent projects are of use types more likely to generate peak period trip exchanges with the subject project, most are too far apart to have any kind of jointly internalized trip relationship. For instance, the nearest corner of the Sutter Medical Center project is in excess of 1.3 miles from the Metropolitan project. The 301 Capitol Mall project is 1.2 miles from the Metropolitan project. The Calpers project is .95 miles from the Metropolitan project.

Hence, there is no reasonable justification for taking the double discounting of project trips described above, especially in light of the good faith effort to disclose impact demanded by CEQA. The doubly discounted trips constitute almost an additional 6 percent over and above the net project trips that were assigned and considered in the intersection level of service analysis. It is possible that an increment of 6 percent to project trips would cause some intersections,

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particularly ones close to the project site, to experience delay increases that would exceed the thresholds of significance. The intersection analyses, at least for intersections within a three or four block radius of the project site, should be redone with the doubly discounted trips added to the project traffic assignment.

G-10

DEIR Inaccurately Characterizes Mitigations To Project Impacts on Freeway Mainlines, Interchanges and Merge-Weave Areas as Infeasible or Unavailable.

While it has been conventional wisdom that improvements to the freeway system serving downtown Sacramento are infeasible, the reality is that over recent decades there has been no political will to contemplate such improvements and as a result there has been no study of the nature and cost of improvements that might be physically feasible. While it is obvious that such improvements, were they to be defined, would be quite costly, given the number of high-value concurrent projects in the DEIR, it appears entirely possible that projects financed by a combination of public and private funds might be feasible to mitigate some the freeway-related impacts disclosed in the DEIR. The DEIR too readily dismisses the freeway-related impacts as conditions where mitigation is "infeasible" or "unavailable" when those facts are unknown but not necessarily unknowable.

G-11

Conclusion

This completes my current comments on the Metropolitan DEIR. For the above-stated reasons, I do not believe the components of the document relating to Transportation/Traffic impacts are adequate.

Sincerely,

Smith Engineering & Management
A California Corporation



Daniel T. Smith Jr., P.E.
President



SMITH ENGINEERING & MANAGEMENT

DANIEL T. SMITH, Jr.
President
EDUCATION

Bachelor of Science, Engineering and Applied Science, Yale University, 1967
 Master of Science, Transportation Planning, University of California, Berkeley, 1968

PROFESSIONAL REGISTRATION

California No. 21913 (Civil) Nevada No. 7969 (Civil) Washington No. 29337 (Civil)
 California No. 938 (Traffic) Arizona No. 22131 (Civil)

PROFESSIONAL EXPERIENCE

Smith Engineering & Management, 1993 to present. President.
 DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.
 De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.
 Personal specialties and project experience include:

Litigation Consulting. Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

Urban Corridor Studies/Alternatives Analysis. Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

Area Transportation Plans. Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

TRAFFIC • TRANSPORTATION • MANAGEMENT

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Daniel T. Smith, Jr. / page 2

Transportation Centers. Project manager for Daly City Intermodal Study which developed a \$7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

Campus Transportation. Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

Special Event Facilities. Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

Parking. Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

Transportation System Management & Traffic Restraint. Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

Bicycle Facilities. Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

MEMBERSHIPS

Institute of Transportation Engineers Transportation Research Board

PUBLICATIONS AND AWARDS

Residential Street Design and Traffic Control, with W. Honnburger *et al.* Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

Residential Traffic Management, State of the Art Report, U.S. Department of Transportation, 1979.

Improving The Residential Street Environment, with Donald Appleyard *et al.*, U.S. Department of Transportation, 1979.

Strategic Concepts in Residential Neighborhood Traffic Control, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

Planning and Design of Bicycle Facilities: Pitfalls and New Directions, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.



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22 August 2006

Mr. William D. Kopper
Attorney at Law
417 E Street
Davis, CA 95616

RE: Draft Environmental Impact Report for The Metropolitan Project

Dear Mr. Kopper:

Per your request, I have reviewed the Environmental Impact Report for The Metropolitan Project, which envisions construction of 320 condominium units over ground floor retail and podium parking at the northeast corner of 10th and J Streets in downtown Sacramento. You have requested my assessment of the cultural and historical resource sections of the EIR to determine whether they meet the requirements of the California Environmental Quality Act, and whether they propose feasible mitigation measures for potential impacts to historical resources.

In this regard, I have reviewed Section 5.2 of the EIR as well as Technical Appendices D and E concerning cultural and historical resources. Appendix D, the Cultural Resources Sensitivity Study by Tremaine and Associates, thoroughly explores the archaeological potential of the project site. The authors have examined the relevant background references, consulted with the regional Information Center of the California Historical Resources Information System, gathered source materials from a variety of other repositories, and compiled the information into a credible document predicting the presence of archaeological remains within the urban setting of the project area.

G-12

The Cultural Resources Sensitivity Study (Appendix D) meets current professional and technical standards and requirements for a Phase 1 inventory, with one possible exception. I saw no reference in the technical report or EIR to consultation with local Native American tribal representatives. Such consultations are typically included in cultural resource studies when tribal resources may be affected. Although frequently overlooked on projects in urban settings under the incorrect assumption that prehistoric sites have been destroyed by subsequent urban development, the oversight is particularly glaring in this case in light of the several prehistoric archaeological sites identified within and adjacent to the study area and the potential for human remains of American Indian origin to be uncovered at the project site (see discussion below).

Appendix D clearly identifies a Nisenan (Southern Maidu) village site, CA-SAC-38, immediately adjacent to the project area. The site is known to contain a substantial archaeological deposit including human burials. The report notes that the site's boundaries are ill-defined and that it probably extends into the project area. This finding is echoed on page 5.2-5 of the EIR, where it states "There is a strong possibility that the site extends to the east and thus may be an impacted resource." Appendix D also provides strong evidence that historical archaeological remains are

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preserved within the study area; the EIR goes on to state “it is also very likely that trash deposits and foundations from pre-1880 structures may be encountered” within the project area.

Appendix D goes on to recommend a three-phase program to locate and uncover buried archaeological remains within the project area, evaluate their significance according to CEQA criteria, assess potential project impacts, and develop appropriate measures to mitigate significant impacts. A key component of their recommendations is development of a research design and testing and mitigation plan that identifies important historical themes and research questions, defines the methods to be used to evaluate the significance of the resources, and details the appropriate steps to be taken if significant resources will be impacted by the proposed project. These recommendations are included in the EIR as mitigation measures 5.2-1a through 5.2-1d.

G-13

I find it inappropriate that the consultant’s recommendations in Appendix D for identification and evaluation of the resources within the project area have been converted to mitigation measures and thus deferred until after approval of the project. Such deferral is inconsistent with CEQA, which requires that significant resources and impacts be identified in advance, and that feasible mitigation measures be described in the EIR so the public has an opportunity to review and comment. Deferring this work until after approval of the EIR essentially eliminates the public’s opportunity to comment on the adequacy of the proposed mitigation measures. The EIR itself should contain the recommended research design and fieldwork plan for identification, evaluation, and treatment of the resources likely to be present at the project site.

As an aside, the summary of impacts and mitigation measures in Chapter 3 of the EIR reports that impacts to cultural resources are less than significant, and no mitigation is required. It further concludes that the cumulative loss of cultural resources is a significant and unavoidable impact. This is inconsistent with Summary Table 3.0-1 and Section 5.2, which describe impacts to archaeological resources as significant prior to mitigation and less-than-significant after implementation of the mitigation measures described above. This inconsistency should be corrected in the final EIR.

G-14

I have also reviewed Appendix E, the Historical Resources Assessment by Historic Environment Consultants. This report provides detailed historical background on the extant buildings at the project site, and concludes that none of the buildings qualify as historical resources under CEQA. I find the significance evaluations in the report and EIR weak. I do not necessarily disagree with the conclusions, but I find the reasoning poorly explicated and the language confusing. The report presents substantial detail on the history of each building, but these details are not linked to the specific eligibility criteria of the California Register of Historic Resources or the local Sacramento Register, so the reader can not reach a clear understanding of how the conclusions were reached, particularly in terms of the significance criteria and integrity considerations.

G-15

A key element of the analysis appears to be the conclusion that the buildings have important historical associations, but none retain sufficient integrity to convey those associations. Because each of these buildings has a long history of use and adaptive modification, the key associations



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should be more clearly explained, the period(s) of significance for each building clearly defined, and the character-defining elements described in those terms. It can then be more clearly explained how subsequent modifications have affected the important characteristics of each building. Photographs comparing the current condition with the period of significance also would help the reader understand the argument for loss of integrity more clearly.

An important consideration when evaluating the integrity of a building is the extent to which modifications may be reversible through application of restorative techniques. For example, covered windows and transoms may be easily uncovered and returned to their original status, and wooden sashes can replace later aluminum inserts (as long as the original openings are intact), thereby restoring the integrity of those features. Stucco or paneling covering older brickwork may be removed, revealing the original building facades and fabrics. Even the deteriorated interiors of abandoned buildings may be repaired and restored. Appendix E gives little indication of the state of the original fabric of the structures, and whether modifications that detract from the integrity of the buildings may be reversible.

G-15

Equally as important, each building seems to be evaluated individually, without consideration for the possibility that the grouping comprises part of a potentially significant historical district. The project site is surrounded by, though not included in, several formally recognized historic districts. Tremaine and Associates proposed a Sacramento Underground Historic District that included the project site, and the Biltmore Hotel at 1009 J Street and The Broiler at 1013-1015 J Street also have been identified as possible contributors to a future downtown historic district. Page 2.0-4 of the EIR notes that preservation of these buildings was brought up before the City Council in 2002, but the Council deferred action until a project was proposed for the site. At this juncture, it would seem appropriate to reconsider whether these buildings contribute to the significance of such a district.

Thank you for the opportunity to review and comment on the cultural resources analysis of the EIR for The Metropolitan Project. Please contact me if you have any questions on the comments offered above, or wish to discuss the project further.

Sincerely,

A handwritten signature in black ink that reads "Barry A Price". The signature is written in a cursive style with a large, prominent "B" and "P".

Barry A Price, M.A., RPA
Vice President
Applied EarthWorks, Inc.



Curriculum Vitae

BARRY A. PRICE, RPA

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EDUCATION

- M.A. Cultural Resource Management, Sonoma State University, 1994.
- B.A. Anthropology (with honors), Sonoma State University, 1976.

Specialized Training

- 2004 “CEQA for the CRM Professional.” American Cultural Resources Association/Hicks and Company.
- 2003 “The California Environmental Quality Act: How Does It Fit in Historic Preservation Efforts?” Planning and Conservation League and the Educational Foundation of America.
- 1999 “The New 36 CFR Part 800: Highlights of Changes.” Advisory Council on Historic Preservation.
- 1995 “California Environmental Quality Act: A Step-by-Step Approach to Compliance,” University of California, Davis, Land Use and Natural Resources Program
- 1995 “Cultural Resources Industry Outreach Training Course,” Federal Energy Regulatory Commission (FERC) Office of Pipeline Regulation
- 1994 “Advanced Seminar on Preparing Agreement Documents under Section 106.” U.S. General Services Administration and the University of Nevada, Reno
- 1992 “Federal Projects and Historic Preservation Law,” Advisory Council on Historic Preservation
- 1992 Lithic Technology Workshop, Dr. Jeffrey Flenniken, California State University, Fresno

PROFESSIONAL EXPERIENCE

- 1997– **Vice President, Principal Archaeologist, and Western Division Manager, Applied EarthWorks, Inc., Fresno, California.** Project administration and technical management for projects throughout the western United States. Ensure compliance with federal and state laws and regulations, and certify technical quality of reports and other documents. Serve as principal liaison with clients and government agencies. Direct divisional marketing, new business development, and personnel management. Supervise preparation of bids and proposals, engage in contract negotiations, and manage budgets and workscopes. Also fulfill corporate administrative duties assigned by the president and board of directors.
- 1995–1996 **Senior Archaeologist and Western Division Manager, Applied EarthWorks, Inc., Fresno, California.** Project administration and technical management for a corporate division encompassing California, southern Oregon, and western Nevada. Prepare bids and proposals, negotiate budgets and workscopes, and serve as principal liaison with clients and government agencies. Ensure regulatory compliance and technical quality of reports and other documents. Participate in marketing and new business development, personnel management, and other duties assigned by the president.

- 1991–1995 **Vice President (1992–1995)/Assistant Vice President (1991–1992), INFOTEC Research, Inc., Fresno, California.** Project administration and technical management for a variety of large and small projects throughout the western U.S. Ensure technical quality of reports and other documents. Prepare bids and proposals and manage budgets and workscopes. Serve as principal liaison with clients and government agencies. Participate in marketing and new business development, personnel management, and other duties assigned by the president.
- 1989–1991 **Senior Archaeologist/Program Manager for Nevada, INFOTEC Research, Inc., Fresno, California.** Various administrative and technical functions relating to project design, data acquisition, laboratory analysis, report preparation, and technical management.
- 1984–1989 **Principal Archaeologist and Project Director, Retrospect Research Associates, Ely, Nevada.** As owner/operator of a small cultural resources consulting firm, directed nearly 200 archaeological projects on private and federally-administered property, under contract to both federal agencies and to a variety of oil and gas, mining, and other private firms. A wide variety of projects were completed, including large and small surveys, test excavations at both historic and prehistoric sites, literature reviews, data analyses, architectural and historical surveys, and preservation-oriented feasibility studies and development plans.
- 1985–1988 **Historical and Archaeological Collections Manager, White Pine Public Museum, Ely, Nevada.** Served as technical consultant to the Museum Board of Directors. Developed and implemented a collections management policy covering acquisition, registration, storage, preservation, curation, and deaccession of Museum collections.
- 1986 **Consultant, Henderson to Boulder City Rail Line Reuse Feasibility Study.** Under subcontract with Shortline Enterprises and the Nevada State Department of Museums and History, conducted an analysis of the state-owned railroad line between Henderson and Boulder City, Nevada. Responsible for researching the line's history, reviewing and contrasting it with other similar lines throughout the nation, exploring potential uses of the property, and investigating the legal liabilities and ramifications of reuse.
- 1985 **Project Supervisor, Lower Osceola Historic Site Evaluation.** Under contract to the U.S. Department of Interior (Bureau of Land Management), conducted a non-disturbing archaeological evaluation of 26WP1674. Archival and field data were used to address site significance, research potential, and National Register eligibility. Site management alternatives including protection, data recovery, and interpretation were presented.
- 1984–1985 **Principal Investigator and Project Director, Downtown McGill Historic Survey.** Under a grant from the Nevada Division of Historic Preservation and Archaeology, conducted an historical and architectural survey of McGill, Nevada, a twentieth-century company mining town. An inventory of historically significant buildings, structures, and sites was produced, and the National Register eligibility of the district was evaluated.
- 1984 **Principal Investigator and Project Director, Nevada Northern Railway Tourism Complex Development Plan.** Produced a feasibility study and development plan for historic railroad properties in East Ely, White Pine County, Nevada. The study included preparation of plans and cost estimates for restoration of buildings, rolling stock, and other equipment, an estimate of the cost of establishing excursion service, and an assessment of other expenses involved in establishing the facility as a major historic/recreational railroad attraction.
- 1984 **Principal Investigator, East Ely Historic Revitalization Project.** Under grants from several state agencies, directed a survey of 80 locations in East Ely, producing an inventory

- of historically significant buildings, structures, and sites, and a plan for preserving and developing an historic district organized around the Nevada Northern Railway complex.
- 1983–1984 **Staff Archaeologist, Bureau of Land Management, Ely District.** Conducted cultural resource clearance surveys on a variety of range-related projects including spring developments, fencelines, and pipelines. Assisted the District Archaeologist in clearances of mining notices and plans of operation.
- 1983–1984 **Field Director, Intermountain Research, Silver City, Nevada.** Directed 12 cultural resource clearance surveys on federal property in eastern Nevada.
- 1982–1983 **Archaeological Specialist/Historian, California Department of Parks and Recreation, Sacramento.** Excavation of sealed historic deposits (1850–1860) beneath the Fallon Hotel, Columbia State Historic Park. Inventory of nearly 200 historic sites in Calaveras and Tuolumne Counties.
- 1982 **Field Technician and Laboratory Analyst, Infotec Development, Inc., Sonora, California.** Conducted field mapping and excavation of five prehistoric sites in the Stanislaus National Forest. Lab responsibilities included cleaning, sorting, cataloguing, and describing artifacts. Also reprocessed and reanalyzed material from previously excavated sites.
- 1981 **Archaeologist, Stanislaus and Mendocino National Forests.** Conducted cultural resource clearance surveys in advance of timber sales and other Forest projects.
- 1981 **Field Technician, Infotec Development, Inc., Sonora, California.** New Melones Reservoir Project. Excavation of prehistoric village sites in Calaveras and Tuolumne counties, California.
- 1979–1981 **Staff Archaeologist, Archaeological Resource Service, Novato, California.** Served as field director or crew chief on a variety of cultural resource management projects in the San Francisco Bay Area and North Coast Ranges, California. Responsible for proposal writing, administration and budget, field direction, and report preparation.
- 1977–1979 **Staff Archaeologist, Cultural Resources Facility, Sonoma State University Foundation.** Field directed and/or administered more than 30 contracts for archaeological and historical studies in the San Francisco Bay Area and North Coast Ranges of California. Clients included federal, state, and local agencies as well as private businesses.
- 1976–1977 **Archaeological Technician, Bureau of Land Management, Redding and Ukiah Districts.** Conducted cultural resource clearance surveys for timber sales, leaseholds, land exchanges, recreation sites, and other BLM projects.
- 1975–1977 **Curatorial Assistant, Anthropology Laboratory, Sonoma State University.** Coordinated field and lab projects and supervised the analysis and curation of archaeological specimens. Also assisted the program director in a variety of other capacities including project administration, budget and personnel management, research planning, and data processing and distribution.

ARTICLES PUBLISHED/PAPERS PRESENTED

- 2005 Fashionably Late: Chronological and Cultural Definitions of the Late Period on the Central California Coast. Paper presented at the 39th Annual Meeting of the Society for California Archaeology, Sacramento.

- 2004 (with Susan K. Stratton and M. Colleen Hamilton) Hazardous Site Archaeology: A Case Study of a Manufactured-Gas Plant. *Proceedings of the Society for California Archaeology* 14: 21–24.
- 2002 A Clovis Point from the Sierra National Forest. *Society for California Archaeology Newsletter* 36(1):15–16.
- 2000 (with Susan K. Stratton and M. Colleen Hamilton) Hazardous Site Archaeology: A Case Study of a Manufactured Gas Plant. Paper presented at the 34th Annual Meeting of the Society for California Archaeology, Riverside.
- 1998 Two Cupule Rock Art Sites in Elko County, Nevada. In *Rock Art Studies in the Great Basin*, edited by Eric W. Ritter. Coyote Press Archives of Great Basin Prehistory Number 1.
- 1997 Evidence for a 200-Year-Long Late Holocene Drought Along California’s Central Coast. Paper presented at the 31st Annual Meeting of the Society for California Archaeology, Rohnert Park.
- 1996 Late Holocene Climatic Fluctuations along the California Coast: The Paleoenvironmental Data from CA-SBA-2696. Paper presented at the 30th Annual Meeting of the Society for California Archaeology, Bakersfield.
- 1995 Archaeological Investigations for the Mission Hills/Santa Ynez Extension of the Coastal Aqueduct. *Society for California Archaeology Newsletter* 29(2): 9–10. Fullerton.
- 1994 (with Timothy W. Canaday) Predictive Models and Site Survey: A 1,000 Mile Transect. Paper presented at the 59th Annual Meeting of the Society for American Archaeology, Anaheim, California.
- 1994 California Archaeology: The Future of the Past. Paper presented to the Archaeological Institute of America for California Archaeology Week, May 1994.
- 1991 Archaeology in the Oil Patch: A Research and Management Agenda for Trap Spring. *Nevada Archaeologist* 9. Reno.
- 1990 The Boulder Creek Cupules. Paper presented at the 22nd Biennial Great Basin Anthropological Conference, Reno, Nevada.
- 1989 McGill, Nevada: An Example of Company Town Architecture as Social History. Paper presented at the Building the West Conference on Vernacular Architecture West of the Rockies, Reno, Nevada.
- 1988 (with Sarah E. Johnston) A Model of Late Pleistocene and Early Holocene Adaptation in Eastern Nevada. In *Early Human Occupation in Far Western North America: The Clovis-Archaic Interface*, edited by J. Willig, C. M. Aikens, and B. Fagan, pp. 231–250. Nevada State Museum Anthropological Papers 21, Carson City.
- 1987 Nevada’s Black Gold. *Reno Gazette-Journal*, 2 March: 1E–5E. Reno, Nevada.
- 1987 (with Walter E. Cuchine) *Ethnic Cultures of White Pine County, Nevada*. Nevada Humanities Committee, Reno.
- 1986 Paleoindian Site Types and Settlement Patterns in Eastern Nevada. Paper presented at the 20th Biennial Great Basin Anthropological Conference, Las Vegas, Nevada.
- 1986 *Boom Towns and Copper Camps: An Archaeological Survey of Historic Sites in White Pine County, Nevada*. Nevada Division of Historic Preservation and Archaeology, Carson City.

- 1985 The Pony Express in Nevada. In *Nevada: 1864–1985, The Official Publication of the Nevada Day Celebration*. Southern Nevada Memorial Hospital Foundation, Inc., Las Vegas.
- 1985 *Red Metal Railroad: The History of the Nevada Northern Railway*. Nevada Governor's Office of Community Services and White Pine County Chamber of Commerce.
- 1984 Upland Site Utilization in the Western Pluvial Lakes Tradition. Paper presented at the Annual Meeting of the Nevada Archaeological Association, Ely, Nevada.

TECHNICAL REPORTS

Baloian, Mary Clark, Randy Baloian, Michael J. Moratto, and **Barry A. Price**

- 2006 Cultural Resources Survey and Evaluation on the Sumner Peck Ranch for the Tesoro Viejo Project, Madera County, California. Applied EarthWorks, Inc., Fresno, California. Prepared for Tesoro Viejo, Inc., Fresno, California.

Lebow, Clayton G., Nathan E. Stevens, **Barry A. Price**, Rebecca L. McKim, Wendy M. Nettles, Leeann G. Haslouer, Michael H. Imwalle, and Jason M. Fancher

- 2006 *Archaeological Investigations Supporting Consultation with the State Historic Preservation Officer for the Privatization of Military Family Housing on Vandenberg Air Force Base, Santa Barbara County, California*. Applied EarthWorks, Inc., Lompoc, California. Submitted to 30 CES/CEVPC, Vandenberg Air Force Base, California.

Nettles, Wendy M.

- 2006 *The Copelands Project: Neophytes, Shopkeepers, and the Soiled Doves of San Luis Obispo*, with contributions by M. Colleen Hamilton, **Barry A. Price**, Rachael Nixon, Virginia S. Popper, Kholood Abdo-Hintzman, Mary Clark Baloian, John D. Goodman II, Sherri M. Gust, Ann M. Munns, Dina M. Coleman, and Keith Warren. Applied EarthWorks, Inc., Fresno, California. Submitted to City of San Luis Obispo Department of Community Development, San Luis Obispo, California.

Price, Barry A., Sandra S. Flint, and Michael J. Moratto

- 2006 *Cultural Resources Treatment Plan for the Kern Delta Water District Water Banking and In Lieu Water Supply Program, Kern County, California*. Applied EarthWorks, Inc., Fresno, California. Prepared for Kern Delta Water District, Bakersfield, California, Jud Monroe Consulting Services, San Anselmo, California, and Black & Veatch, Overland Park, Kansas.

Flint, Sandra S., Barry A. Price, Randy Baloian, Mary Clark Baloian, and Kathleen Jernigan

- 2005 *Archaeological Investigations at CA-SMA-109/H, CA-SMA-151, and CA-SMA-347, Pillar Point Air Force Station, Santa Mateo County, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to 30 CES/CEVPC, Vandenberg Air Force Base, California.

Gerber, Joyce L., **Barry A. Price**, Clayton G. Lebow, and Mary Clark Baloian

- 2005 *Cultural Resources Management Plan for Pillar Point Air Force Station, San Mateo County, California*. Preliminary Final. Applied EarthWorks, Inc., Fresno, California. Submitted to U.S. Air Force, 30 CES/CEVPC, Vandenberg AFB, California.

Jernigan, Kathleen, Randy Baloian, and **Barry A. Price**

- 2005 *Cultural Resources Inventory for the Spring Hill Ranch Subdivision, Mariposa County, California*. Applied EarthWorks, Inc., Fresno, California. Prepared for Rod Hylton, Fresno, California.

Lloyd, Jay B., Randy Baloian, **Barry A. Price**, and Mary Clark Baloian

- 2005 *Extended Phase 1 and Phase 2 Archaeological Investigations, Cachuma Lake Boat Launch Ramp Facilities Improvements, Santa Barbara County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for Santa Barbara County Parks, Santa Barbara, California. Submitted to U.S. Bureau of Reclamation, Mid-Pacific Region, Sacramento, California.

Lloyd, Jay B., and **Barry A. Price**

- 2005 *Archaeological Evaluation Proposal for Phase II Test Excavations at CA-SBA-1229, Paradise Road Emergency Repair Project, Santa Barbara County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for County of Santa Barbara County Public Works Department, Santa Barbara, California.

Lloyd, Jay B., Joseph Schuldenrein, and **Barry A. Price**

- 2005 *Archaeological Testing at CA-SLO-879 for the Estero Marine Terminal Source Removal Project, San Luis Obispo, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Rincon Consultants, Inc., San Luis Obispo, California.

Price, Barry A.

- 2005 *Cultural Resources Management Review for Rancho San Marcos Golf Course Improvements, Santa Barbara County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for Rincon Consultants, Inc., Ventura, California.
- 2005 *Revised Report of Archaeological Monitoring at CA-MAD-652, 46066 Sutton Drive, Lot 37, Fresno River Estates, Oakhurst.* Applied EarthWorks, Inc., Fresno, California. Submitted to County of Madera Planning Department, Madera, California.

Price, Barry A., and Carole Denardo

- 2005 *Resource Interpretation and Public Awareness Plan.* Integrated Cultural Resources Management Plan for Vandenberg Air Force Base, vol. 4, edited by Michael J. Moratto and Barry A. Price. Applied EarthWorks, Inc., Fresno, California. Submitted to 30 CES/CEVPC, Vandenberg Air Force Base, California.

Price, Barry A., Jay B. Lloyd, Sandra S. Flint, Mary Clark Baloian, Michael Mirro, Randy Baloian, David Earle, and Alan Garfinkel

- 2005 *Final Eligibility and Effects Assessment at CA-LAN-192, Stephen Sorenson Park, Los Angeles County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for Rincon Consultants, Inc., Ventura, California. Submitted to Community Development Commission of the County of Los Angeles, Monterey Park, California.

Tanaguchi, Christeen, and **Barry A. Price**

- 2005 National Register of Historic Places Registration Form: San Joaquin Light & Power Corporation Building, 1401 Fulton Street, Fresno, California. Applied EarthWorks, Inc., Fresno, California.

Baloian, Mary Clark, Wendy M. Nettles, **Barry A. Price**, and Dina M. Coleman

- 2004 *Archaeological Investigations at the Wawona Hotel Complex, Yosemite National Park, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Yosemite Concession Services Corporation, Yosemite, California.

Baloian, Mary Clark, and **Barry A. Price**

- 2004 *Historic Properties Management Plan for the Crane Valley Hydroelectric Power Project in Madera County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Pacific Gas and Electric Company, San Francisco.

Nettles, Wendy M., and **Barry A. Price**

- 2004 *Phase 2 Evaluation of the NTU Mine Site (CA-SBA-3725H) in Santa Barbara County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for Santa Maria Pacific, LLC, Santa Maria, California.

Price, Barry A.

- 2004 *Historic Property Survey Report for the Turri Road Bridge Replacement Project in San Luis Obispo County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for Essex Environmental, San Luis Obispo, California. Submitted to County of San Luis Obispo Department of Public Works, San Luis Obispo, California, and California Department of Transportation District 5, San Luis Obispo, California.

Price, Barry A., Randy Baloian, and Peggy Beedle

- 2004 *Historical Resources Analysis for the Estero Marine Terminal Source Removal Project, San Luis Obispo County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Rincon Consultants, Inc., San Luis Obispo, California.

Price, Barry A., Sandra S. Flint, and Randy Baloian

- 2004 *Cultural Resources Management Plan for the Topock Compressor Station Expanded Groundwater Extraction and Treatment System, San Bernardino County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for Pacific Gas and Electric Company, San Francisco, California.

Price, Barry A., and Wendy M. Nettles

- 2004 *Historical Resources Analysis for the Old Armenian Town Redevelopment Project in Fresno, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to URS Corporation, Fresno, California.

Brady, Jon L., with contributions by Wendy M. Nettles and **Barry A. Price**

- 2003 *Historic Property Survey for Proposed School Site N.* Applied EarthWorks, Inc., Fresno, California. Submitted to Fresno Unified School District Facilities Management and Planning Department, Fresno, California.

Livingstone, David M., with contributions by Wendy M. Nettles, **Barry A. Price**, and Randy Baloian

- 2003 *Historic Property Survey for Fresno Unified School District Proposed Elementary School Site D-2, Fresno, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Fresno Unified School District Facilities Management and Planning Department, Fresno, California.

Lloyd, Jay B., Daniel Hart, and **Barry A. Price**

- 2003 *Archaeological Testing and Evaluation for the Shell Pipeline Company, LP, Marsh Creek Pipeline Replacement Project in Contra Costa County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Essex Environmental, San Luis Obispo, California.

Price, Barry A., and Randy M. Baloian

- 2003 *Positive Archaeological Survey for a Proposed Bridge Replacement on Jalama Road in Santa Barbara County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to County of Santa Barbara Public Works Department, Santa Barbara, California.

Price, Barry A., and Carole Denardo

- 2003 *Resource Interpretation and Public Awareness Plan.* Integrated Cultural Resources Management Plan for Vandenberg Air Force Base, vol. 4, edited by Michael J. Moratto.

Applied EarthWorks, Inc., Fresno, California. Submitted to 30 CES/CEVPC, Vandenberg Air Force Base, California.

Price, Barry A.

- 2003 *Negative Archaeological Survey Report for the Old Coast Highway Bridge Replacement Project, Santa Barbara County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to County of Santa Barbara Public Works Department, Santa Barbara, California.
- 2003 *Negative Archaeological Survey Report for the Black Road Bridge (51C-0051) Replacement Project in Santa Barbara County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to County of Santa Barbara Department of Public Works, Santa Barbara, California.

Flint, Sandra S., **Barry A. Price**, Jay B. Lloyd, Dina M. Coleman, Wendy Nettles, and Mary Clark Baloian

- 2002 *PGT-PG&E Pipeline Expansion Project, Line 401 Capacity Loops: Supplemental Testing and Evaluation Report and Historic Properties Treatment Plan for the Northern Loop in Modoc County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Pacific Gas and Electric Company, Walnut Creek, California.

Nettles, Wendy M., M. Colleen Hamilton, and **Barry A. Price**

- 2002 *Archaeological Research Design and Testing/Mitigation Plan for the Copelands Project, San Luis Obispo, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to City of San Luis Obispo Community Development Department, San Luis Obispo, California.

Price, Barry A.

- 2002 *Management of Cold War Resources.* Integrated Cultural Resources Management Plan for Vandenberg Air Force Base, vol. 3, edited by Michael J. Moratto. Applied EarthWorks, Inc., Fresno, California. Submitted to 30 CES/CEVPC, Vandenberg Air Force Base, California.
- 2002 *PGT-PG&E Pipeline Expansion Project, Line 401 Capacity Loops: Exclusionary Fencing at Rock Disposal Areas MA 52 and MA 53, Modoc County, California.* Northern Loop Letter Report 2—Addendum 1. Applied EarthWorks, Inc., Fresno, California. Prepared for Pacific Gas and Electric Company, Walnut Creek, California. Submitted to Bureau of Land Management, Redding, California; USDA Modoc National Forest, Alturas, California; and State Office of Historic Preservation, Sacramento.
- 2002 *PGT-PG&E Pipeline Expansion Project, Line 401 Capacity Loops: Supplemental Archaeological Investigation of Four Additional Temporary Work Spaces, Two Ancillary Areas, and Three Access Roads in Shasta County, California.* Southern Loop Letter Report 5. Applied EarthWorks, Inc., Fresno, California. Prepared for Pacific Gas and Electric Company, Walnut Creek, California. Submitted to Bureau of Land Management, Redding, California, and State Office of Historic Preservation, Sacramento.
- 2002 *PGT-PG&E Pipeline Expansion Project, Line 401 Capacity Loops: Supplemental Archaeological Investigation of Nine Additional Temporary Work Spaces (MA 48, 49, 50, 52, 53, 60, 70, 73, and 82) and Nine Access Roads (MR 1, 3, 5, 6, 8, 15, 16, 17, and 18) in Modoc County, California.* Northern Loop Letter Report 2. Applied EarthWorks, Inc., Fresno, California. Prepared for Pacific Gas and Electric Company, Walnut Creek, California. Submitted to Bureau of Land Management, Redding, California; USDA Modoc National Forest, Alturas, California; and State Office of Historic Preservation, Sacramento.

- 2002 *PGT-PG&E Pipeline Expansion Project, Line 401 Capacity Loops: Supplemental Archaeological Investigation of Six Ancillary Areas near Tionesta in Modoc County, California*. Northern Loop Letter Report 5. Applied EarthWorks, Inc., Fresno, California. Prepared for Pacific Gas and Electric Company, Walnut Creek, California. Submitted to Bureau of Land Management, Redding, California; USDA Modoc National Forest, Alturas, California; and State Office of Historic Preservation, Sacramento.

Price, Barry A., and Carole A. Denardo

- 2002 *Archaeological Investigations for the Olde Towne Nipomo Enhancement Project, San Luis Obispo County, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to Essex Environmental, San Luis Obispo, California.

Price, Barry A., Sandra S. Flint, and Jay B. Lloyd

- 2002 *PGT-PG&E Pipeline Expansion Project Line 401 Capacity Loops: Supplemental Archaeological Inventory and Evaluation and Historic Properties Treatment Plan for the Southern Loop in Shasta County, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to Pacific Gas and Electric Company, Walnut Creek, California.

Price, Barry A., Wendy M. Nettles, and Carole Denardo

- 2002 *Cultural Resources Inventory for the Copelands Project, San Luis Obispo, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to City of San Luis Obispo, Department of Community Development, San Luis Obispo, California.

Coleman, Dina M., Mary Clark Baloian, Wendy M. Nettles, and **Barry A. Price**

- 2001 *Preliminary Evaluation Report: Archaeological Investigations at Washburn Cottage, Wawona Hotel Complex, Yosemite National Park, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to Yosemite Concession Services Corporation, Inc., Yosemite, California.

Flint, Sandra S., and **Barry A. Price**

- 2001 *Archaeological Survey Report for the Friant Road Improvement Project, Fresno County, California*. Applied EarthWorks, Inc., Fresno, California. Prepared for The Twining Laboratories, Inc., Fresno, California. Submitted to County of Fresno Public Works Department, Fresno, California, and California Department of Transportation, District 6, Fresno.

Lebow, Clayton G., Mary Clark Baloian, Douglas R. Harro, Rebecca L. McKim, Carole Denardo, Jill Onken, Eugene Romanski, and **Barry A. Price**

- 2001 *Final Report of Archaeological Investigations, Reaches 5B and 6, Coastal Branch Aqueduct, Phase II*, with contributions by Jeff A. Parsons. Applied EarthWorks, Inc., Fresno, California. Prepared for Central Coast Water Authority, Buellton, California.

Palmer, Kevin (Lex), **Barry A. Price**, and Sandra S. Flint

- 2001 *Historic Study Report for the Friant Road Improvement Project, Fresno County, California*. Applied EarthWorks, Inc., Fresno, California. Prepared for The Twining Laboratories, Inc., Fresno, California. Submitted to County of Fresno Public Works Department, Fresno, California, and California Department of Transportation, District 6, Fresno.

Palmer, Kevin (Lex), Keith Warren, and **Barry A. Price**

- 2001 *Cultural Resources Inventory for the San Luis Obispo County Administration Building, San Luis Obispo, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to Morro Group, Inc., San Luis Obispo, California.

Price, Barry A.

- 2001 *Archaeological Survey Report for the Ramajal Creek Bridge (51C-016) Seismic Retrofit Project on Jalama Road, Santa Barbara County, California.* Applied EarthWorks, Inc., Lompoc, California. Prepared for Santa Barbara County Department of Public Works, Santa Barbara, California. Submitted to California Department of Transportation, District 5, San Luis Obispo, California.
- 2001 *Architectural Assessment of the Cottonwood Creek Bridge (41C-006), Madera County, California.* Applied EarthWorks, Inc., Fresno, California. Letter report to Madera County Road Department, Madera, California.
- 2001 *Cultural Resources Assessment for a Proposed Communication Tower Site, Denverton/CA-1595C, Solano County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to ASR Engineering, Inc., Fresno, California.
- 2001 *Cultural Resources Investigation of Proposed Prison Site, Orange Cove, Fresno County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Conestoga-Rovers & Associates, Baton Rouge, Louisiana.
- 2001 *Historic Property Survey Report for the Balsam Creek Bridge Replacement Project, Huntington Lake Road, Fresno County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for W. Koo & Associates, Orange, California. Submitted to Fresno County Department of Public Works, Fresno, California, and California Department of Transportation, District 6, Fresno, California.
- 2001 *Historic Property Survey Report for the Carpinteria Class II Coastal Bike Path on Via Real, Santa Barbara County, California.* Applied EarthWorks, Inc., Lompoc, California. Prepared for Bengal Engineering, LP, Goleta, California, and City of Carpinteria Department of Public Works, Carpinteria, California. Submitted to California Department of Transportation, District 5, San Luis Obispo, California.
- 2001 *Historic Property Survey Report for the Ramajal Creek Bridge (51C-016) Seismic Retrofit Project on Jalama Road, Santa Barbara County, California.* Applied EarthWorks, Inc., Lompoc, California. Prepared for Santa Barbara County Department of Public Works, Santa Barbara, California. Submitted to California Department of Transportation, District 5, San Luis Obispo, California.
- 2001 *Negative Archaeological Survey Report, Clark Avenue and Highway 101 Park and Ride, Orcutt, Santa Barbara County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Santa Barbara County Department of Public Works, Santa Barbara, California.

Price, Barry, Mary C. Baloian, and Michael J. Moratto, with contributions by Dina Coleman, Wendy Nettles, and Lyn Meckstroth

- 2001 *Research Design for Archaeological Investigations at the Wawona Hotel Complex, Yosemite National Park, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Yosemite Concession Services Corporation, Inc., Yosemite, California.

Price, Barry A., Sandra S. Flint, and Christopher Ryan

- 2001 *Archaeological Investigations at Chepo Saddle, Road 222 Reconstruction Project, Madera County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to U.S. Department of Transportation, Federal Highway Administration, Lakewood, Colorado.

Denardo, Carole, and **Barry A. Price**

- 2000 *Cultural Resources Survey for the Cathedral Oaks/Glen Annie Signal Project, Goleta, California*. Applied EarthWorks, Inc., Lompoc, California. Submitted to County of Santa Barbara, Public Works Department, Santa Barbara, California.

Flint, Sandra S., Wendy M. Nettles, Stefani D. Hooper, Mary Clark Baloian, **Barry A. Price**, Carol Brill, and Shari Alberg

- 2000 *Heritage Resources Inventory, Archaeological Survey on Tahoe National Forest, Nevada County, California, for Pacific Gas and Electric Company Transmission Line Separation Project on National Forest Lands*. Applied EarthWorks, Inc., Fresno, California. Submitted to Pacific Gas and Electric Company, San Francisco.

Flint, Sandra S., Wendy M. Nettles, Stefani D. Hooper, **Barry A. Price**, Mary Clark Baloian, and Carol Brill

- 2000 *Heritage Resources Inventory, Archaeological Survey on Sequoia National Forest, Fresno and Tulare Counties, California, for Pacific Gas and Electric Company Transmission Line Separation Project on National Forest Lands*. Applied EarthWorks, Inc., Fresno, California. Submitted to Pacific Gas and Electric Company, San Francisco.

Flint, Sandra S., Wendy M. Nettles, Stefani D. Hooper, **Barry A. Price**, and Carol Brill

- 2000 *Heritage Resources Inventory, Archaeological Survey on Sierra National Forest, Fresno and Madera Counties, California, for Pacific Gas and Electric Company Transmission Line Separation Project on National Forest Lands*. Applied EarthWorks, Inc., Fresno, California. Submitted to Pacific Gas and Electric Company, San Francisco.

Flint, Sandra S., Wendy M. Nettles, and **Barry A. Price**

- 2000 *Archaeological Survey of Selected Portions of the Santa Margarita Ranch, San Luis Obispo County, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to Santa Margarita Ranch LLC, San Luis Obispo, California.

Flint, Sandra S., **Barry A. Price**, Stefani D. Hooper, Wendy M. Nettles, Mary Clark Baloian, Carol Brill, and Jason Brown

- 2000 *Heritage Resources Inventory, Archaeological Survey on Plumas National Forest, Plumas and Butte Counties, California, for Pacific Gas and Electric Company Transmission Line Separation Project on National Forest Lands*. Applied EarthWorks, Inc., Fresno, California. Submitted to Pacific Gas and Electric Company, San Francisco.

Flint, Sandra S., **Barry A. Price**, Wendy M. Nettles, Stefani D. Hooper, Mary Clark Baloian, Carol Brill, and Shari Alberg

- 2000 *Heritage Resources Inventory, Archaeological Survey on Eldorado National Forest, El Dorado and Amador Counties, California, for Pacific Gas and Electric Company Transmission Line Separation Project on National Forest Lands*. Applied EarthWorks, Inc., Fresno, California. Submitted to Pacific Gas and Electric Company, San Francisco.

Palmer, Kevin (Lex), **Barry A. Price**, and Sandra S. Flint

- 2000 *Historic Study Report for the Friant Road Improvement Project, Fresno County, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to County of Fresno Public Work Department, Fresno, California.

Price, Barry A.

- 2000 *Historic Property Survey Report for the Balsam Creek Bridge Replacement Project, Huntington Lake Road, Fresno County, California*. Applied EarthWorks, Inc., Fresno, California. Draft submitted to ENSR, Camarillo, California.

Price, Barry A., Sandra S. Flint, and Christopher Ryan

- 2000 *Archaeological Investigations at Chepo Saddle, Road 222 Reconstruction Project, Madera County, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to U.S. Department of Transportation, Federal Highway Administration, Lakewood, Colorado.

Wyss, Marilyn, and **Barry A. Price**

- 2000 *Cultural Resources Investigations at CA-SBR-9998 near Needles in San Bernardino County, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to ASR Engineering, Inc., Fresno, California.

Flint, Sandra S., and **Barry A. Price**

- 1999 *Archaeological Survey Report for the Friant Road Improvement Project, Fresno County, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to The Twining Laboratories, Fresno, California.

Flint, Sandra S., **Barry A. Price**, Douglas R. Harro, and Rebecca L. McKim

- 1999 *Archaeological Testing at CA-SLO-1075, San Luis Obispo County, California*. Applied EarthWorks, Inc., Lompoc, California. Submitted to Cannon Associates, San Luis Obispo, California.

Hamusek-McGann, Blossom, Sandra S. Flint, Melinda Peak, and **Barry A. Price**

- 1999 *Evaluation of 18 Historic Mines in the Whiskeytown Unit, Whiskeytown-Shasta-Trinity National Recreation Area, Shasta County, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to Redwood National Park, Arcata, California.

Lebow, Clayton G., and **Barry A. Price**

- 1999 *Archaeological Data Recovery Plan for the Fairview Avenue Overhead Replacement Project, Santa Barbara County, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to County of Santa Barbara, Department of Public Works, Engineering Department, Santa Barbara, California.
- 1999 *Revised Archaeological Data Recovery Plan for the Fairview Avenue Overhead Replacement Project, Santa Barbara County, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to County of Santa Barbara, Department of Public Works, Engineering Department, Santa Barbara, California.

Price, Barry A.

- 1999 *Historic Property Survey Report for the Balsam Creek Bridge Replacement Project, Huntington Lake Road, Fresno County, California*. Applied EarthWorks, Inc., Fresno, California. Draft submitted to ENSR, Camarillo, California.
- 1999 *Phase-1 Archaeological Survey, APN 3-340-08 (Banning), Carpinteria, California*. Applied EarthWorks, Inc., Lompoc, California. Letter report to Murphy King Real Estate, Carpinteria, California.
- 1999 *Scope of Work for Cultural Resources Evaluation and Archaeological Impact Mitigation, Santa Barbara I Manufactured Gas Plant Site Remediation Project, Santa Barbara, California*. Applied EarthWorks, Inc., Lompoc, California. Submitted to Dames & Moore, Santa Barbara, California.
- 1999 *WGR Gas Pipeline Project, Task 1: Review and Analysis of Cultural Resource Documentation*. Applied EarthWorks, Inc., Fresno, California. Letter report to MHA Environmental Consulting, Inc., San Mateo, California.

Price, Barry, Scott Williams, Carole Denardo, and Jeff Parsons

- 1999 *Archaeological Testing at the Unocal Avila Tank Farm, Avila Beach, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to JE Remediation Technologies, Inc., Avila Beach, California.

Snyder, Bonnie, and **Barry A. Price**

- 1999 *Historical Evaluation of the H. L. Poe House, 745 W. 19th Street, Merced, California*. Applied EarthWorks, Inc., Fresno, California, and P. S. Preservation Services, Sacramento, California. Submitted to Russell Associates, Palo Alto, California.

Denardo, Carole, and **Barry A. Price**

- 1998 *Archaeological Background Studies for the Parma Park Fuels Hazard Reduction Project, City of Santa Barbara, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to the City of Santa Barbara Parks Department.

McKim, Rebecca, and **Barry A. Price**

- 1998 *Archaeological Survey for the Hollister Avenue Interchange Replacement, Goleta, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to the Santa Barbara County Department of Public Works.

Price, Barry A.

- 1998 *Cultural Resources Constraints Analysis, Union Pacific Railroad Coastline Sidings Project, Santa Barbara and Ventura Counties, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to Myra L. Frank and Associates, Inc., Los Angeles.

Price, Barry A., and Sandra S. Flint

- 1998 *Historic Properties Treatment Plan, Chepo Saddle Reconstruction Project, Sierra National Forest, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to the U.S. Department of Transportation, Federal Highway Administration, Central Federal Lands Highway Division, Lakewood, Colorado.

Ryan, Christopher, and **Barry A. Price**

- 1998 *Archaeological Survey for the Pine Creek Communities Development Project*. Applied EarthWorks, Inc., Fresno, California. Submitted to Quad-Knopf Inc., Roseville, California.

Flint, Sandra S., **Barry A. Price**, and Michael Strobl

- 1997 *Cultural Resource Studies for the Glacier Point Rehabilitation and Restoration Project, Yosemite National Park*. Applied EarthWorks, Inc., Fresno, California. Submitted to Yosemite Concession Services and the National Park Service, El Portal, California.

McKim, Rebecca L., and **Barry A. Price**

- 1997 *NRHP Eligibility Testing at CA-SBA-3487 (CA-SBA-ISO-608), Military Family Housing Project, Vandenberg Air Force Base, California*. Applied EarthWorks, Inc., Fresno, California, for Tetra Tech, Inc., Santa Barbara, California. Submitted to 30 CES/CEV, Vandenberg AFB, California. USAF Contract No. F04684-95-C-0045, Task Assignment No. 261.

Price, Barry A.

- 1997 *Archaeological Monitoring for Installation of Power and Fiber Optic Cables to Launch Site 576-E*. Applied EarthWorks, Inc., Fresno, California. Letter report to Tetra Tech, Inc., Santa Barbara, California. Submitted to 30 CES/CEV, Vandenberg AFB, California. USAF Contract No. F04684-95-C-0045, Task Assignment No. 216A.

- 1997 *Finding of Adverse Effect for the Replacement of the Zaca Creek Bridges No. 1 and 2 (51C-225 and 51C-226) on Jonata Park Road Near Buellton in Santa Barbara County, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Department of Public Works, County of Santa Barbara.
- Price, Barry A., Sandra S. Flint, and Kham N. Slater
- 1997 *Cultural Resource Monitoring and Emergency Archaeological Excavations for Segment 2 of the Chorro Valley Water Transmission Pipeline Project.* Applied EarthWorks, Inc., Fresno, California. Submitted to County of San Luis Obispo, Department of Planning and Building, and the U.S. Army Corps of Engineers, Los Angeles District.
- Clark, Mary E., Clayton G. Lebow, **Barry A. Price**, and Carole Denardo
- 1996 *Summary of Phase-2 Investigations at CA-SLO-1674 (CCAP-5B-5), Coastal Aqueduct, Phase II.* Applied EarthWorks, Inc., Fresno, California. Submitted to the Los Angeles District of the U.S. Army Corp of Engineers and the Central Coast Water Authority, Buellton, California.
- Denardo, Carole, Clayton G. Lebow, and **Barry A. Price**
- 1996 *Summary of Phase-2 Investigations at CCAP-6-2, Coastal Aqueduct, Phase II.* Applied EarthWorks, Inc., Fresno, California. Submitted to the Los Angeles District of the U.S. Army Corp of Engineers and the Central Coast Water Authority, Buellton, California.
- McKim, Rebecca, Douglas Harro, and **Barry A. Price**
- 1996 *Testing and Evaluation Report: CA-SBA-3387.* Applied EarthWorks, Inc., Fresno, California. Submitted to the Department of Public Works, County of Santa Barbara.
- McKim, Rebecca, and **Barry A. Price**
- 1996 *Archaeological Survey Report for the Jonata Park Road Bridges Replacement Project.* Applied EarthWorks, Inc., Fresno, California. Submitted to the Department of Public Works, County of Santa Barbara.
- Price, Barry A. (general editor)
- 1996 *Hunter-Gatherer Land Use in the San Antonio Creek Drainage: Archaeological Investigations at CA-SBA-2696*, by Roger H. Colten, Clayton G. Lebow, Carole Denardo, Rebecca L. McKim, Douglas R. Harro, Charles H. Miksicek, and Brenda Bowser. Applied EarthWorks, Inc., Fresno, California. Submitted to the Central Coast Water Authority, Buellton, California.
- Price, Barry A.
- 1996 *Archaeological Records Search and Overview of Key Cultural Resource Issues for the Alliant EELV/LCLS Project at Space Launch Complex 6, Vandenberg Air Force Base, California.* Applied EarthWorks, Inc., Fresno, California. Submitted to Reynolds, Smith, and Hills, Inc., Jacksonville, Florida.
- 1996 *Archaeological Survey of Access Roads, Extra Work Spaces, and Soil Disposal Areas for Reaches 5B and 6 of the Coastal Branch Aqueduct.* Applied EarthWorks, Inc., Fresno, California. Submitted to the Central Coast Water Authority, Buellton, California.
- 1996 *Historic Properties Survey Report for the Jonata Park Road Bridges Replacement Project.* Applied EarthWorks, Inc., Fresno, California. Submitted to the Department of Public Works, County of Santa Barbara.
- 1996 *Report of Backhoe Testing at CA-SBA-1202.* Applied EarthWorks, Inc., Fresno, California. Submitted to KBDR Partnership, Los Angeles.

Price, Barry A., Rebecca L. McKim, and Michael H. Imwalle

1996 *Cultural Resource Investigations for the Military Family Housing Project, Vandenberg Air Force Base, California*. INFOTEC Research, Inc., Fresno, California. Submitted to Halliburton NUS Corporation, Pittsburgh, Pennsylvania.

1996 *Cultural Resource Investigations for the Combat Arms Training and Maintenance Facility, Vandenberg Air Force Base, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to Halliburton NUS Corporation, Pittsburgh, Pennsylvania.

Roper, C. Kristina, Ethan B. Bertrando, Mary E. Clark, Rebecca L. McKim, Douglas R. Harro, Michael H. Imwalle, Betsy V. Bertrando, Carole A. Denardo, and **Barry A. Price**

1996 *Archaeological Testing and Evaluation Report: Segment 2 of the Chorro Valley Water Transmission Pipeline Project*. Applied EarthWorks, Inc., Fresno, California. Submitted to Montgomery Watson, Walnut Creek, California, and the U.S. Army Corps of Engineers, Los Angeles District.

Clark, Mary E., and **Barry A. Price**

1995 Summary of Extended Phase-1 Investigations at CA-SLO-806. In *Coastal Branch, Phase II, State Water Project Cultural Resources Survey, Reaches 5B and 6, San Luis Obispo and Santa Barbara Counties, California*, Appendix C, Extended Surveys (revised 23 August 1995), by Glenn Farris, Philip Hines, Mark Rhoades, and Betty J. Rivers. INFOTEC Research, Inc., Fresno, California. Submitted to the State of California Department of Parks and Recreation, Sacramento.

Hildebrandt, W. R., P. J. Mikkelsen, A. J. Gilreath, S. A. Waechter, J. E. Berg, P. D. Bouey, C. K. Roper, R. T. Milliken, R. G. Atwell, A. J. Bailey, K. McGuire, C. G. Lebow, **B. A. Price**, K. T. Katsura, J. Onken, C. M. Hodges, and D. G. Weatherby

1995 *Summary Reports: Prehistoric Sites, California*. Archaeological Investigations, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California, vol. IIC. INFOTEC Research, Inc., Fresno, California. Submitted to Pacific Gas Transmission Company, Portland, Oregon.

Imwalle, Michael, Mary Clark, and **Barry A. Price**

1995 *Archaeological Survey Report, Combat Arms Training and Maintenance Facility, Vandenberg Air Force Base, California*. INFOTEC Research, Inc., Fresno, California. Submitted to Halliburton NUS Corporation, Pittsburgh, Pennsylvania.

1995 *Archaeological Survey Report, Military Family Housing Project, Vandenberg Air Force Base, California*. INFOTEC Research, Inc., Fresno, California. Submitted to Halliburton NUS Corporation, Pittsburgh, Pennsylvania.

Price, Barry A., and Timothy W. Canaday

1995 *Results of Test Excavation Conducted for Spaceport Systems International, Inc., at Space Launch Complex 6 South, Vandenberg Air Force Base, California*. INFOTEC Research, Inc., Fresno, California. Submitted to Lockheed Environmental Systems and Technologies, Lompoc, California.

Price, Barry A., Mary E. Clark, Carole Denardo, and Jeff A. Parsons

1995 *Summary of Phase-2 Investigations at CA-SBA-2767 (CCAP-6-1), Coastal Aqueduct, Phase II*. Applied EarthWorks, Inc., Fresno, California. Submitted to the Los Angeles District

of the U.S. Army Corp of Engineers, Vandenberg Air Force Base, and the Central Coast Water Authority, Buellton, California.

Price, Barry A., Roger H. Colten, Timothy W. Canaday, Mary Clark, Christopher Ryan, Terri P. Fulton, Michael H. Imwalle, and C. Kristina Roper

1995 *Final Report of Archaeological Investigations, Mission Hills and Santa Ynez Extensions, Coastal Aqueduct Project, Phase II*. INFOTEC Research, Inc., Fresno, California. Draft submitted to the Central Coast Water Authority, Buellton, California.

Price, Barry A., Roger H. Colten, and Mary E. Clark

1995 *Research Design and Historic Properties Treatment Plan for CA-SLO-806 (The Walsh Site), Nipomo, California*. Applied EarthWorks, Inc., Fresno, California. Submitted to the Central Coast Water Authority, Buellton, California, and the U.S. Army Corps of Engineers, Los Angeles District.

Ripperda, Jerry, and Rosie Thompson, with contributions by **Price, Barry A.**

1995 Final Environmental Impact Report: Addendum 5. In *State Water Project, Coastal Branch, Phase II, and Mission Hills Extension, Cultural Resources*, pp. 52–63. Department of Water Resources, Sacramento.

Romanski, Eugene J., and **Barry A. Price**

1995 *Cultural Resources Inventory for One Segment of Ponderosa Telephone Company's Proposed O'Neals to North Fork Buried Fiber Optic Telephone Cable, Madera County, California*. INFOTEC Research, Inc., Fresno, California. Submitted to Ponderosa Telephone Company, O'Neals, California.

Moratto, M. J., R. M. Pettigrew, **B. A. Price**, L. A. Ross, and R. F. Schalk

1994 *Project Overview, Research Design, and Archaeological Inventory*. Archaeological Investigations, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California, vol. I. INFOTEC Research, Inc., Fresno, California. Submitted to Pacific Gas Transmission Company, Portland, Oregon.

Price, Barry A.

1994 *Phase-2 Archaeological Investigation at CA-SBA-2684, Mission Hills and Santa Ynez Extensions, Coastal Branch Aqueduct*. INFOTEC Research, Inc., Fresno, California. Submitted to the Central Coast Water Authority, Santa Barbara, California.

Price, Barry A., Andrew Bailey, Mary Clark, Christopher Ryan, and Kurt Katsura

1994 *Summary of Phase-2 Investigations at CA-SBA-2696 (CCAP-A-8), Coastal Aqueduct, Phase II*. INFOTEC Research, Inc., Fresno, California. Submitted to the Los Angeles District of the U.S. Army Corp of Engineers, Vandenberg Air Force Base, and the Central Coast Water Authority, Buellton, California.

Price, Barry A., N. D. Sharp, T. W. Canaday, L. A. Ross, C. K. Roper, K. T. Katsura, L. J. Sekora, and F. A. Riddell

1994 *Cultural Resources Assessment Report, Tuscarora Pipeline Project*. INFOTEC Research, Inc., Fresno, California. Submitted to Tuscarora Gas Transmission Company, Reno, Nevada.

Lebow, Clayton G., and **Barry A. Price**

1993 *Additional Archaeological Survey of Proposed Ancillary Areas, Construction Spread 2C, Oregon, PGT-PG&E Pipeline Expansion Project*. INFOTEC Research, Inc., Fresno, California. Submitted to Pacific Gas Transmission Company, San Francisco, California.

Price, Barry A., T. W. Canaday, R. M. Pettigrew, and R. U. Bryson, L. A. Speulda, R. G. Atwell, and M. Ostrogorsky

- 1993 *Synopsis of Testing and Evaluation and Historic Properties Treatment Plan*. Archaeological Testing and Evaluation Report, 1991 Field Season, and Historic Properties Treatment Plan for 1992 Field Season, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California, Vol. I. INFOTEC Research, Inc., Fresno, California. Submitted to Bechtel Corporation, San Francisco, California.

Romano, M. C., L. A. Speulda, J. Onken, R. U. Bryson, P. Mikkelsen, J. A. Willig, F. W. Crisson, L. J. Sekora, P. Bouey, K. T. Katsura, D. P. McDougall, J. Van der Feen, **B. A. Price**, C. E. Skinner, N. D. Sharp, K. K. Benedict, and N. Stenholm

- 1993 *Descriptive Site Reports and Data Compendia, California*. Archaeological Testing and Evaluation Report, 1991 Field Season, and Historic Properties Treatment Plan for 1992 Field Season, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California, Volume II.D. INFOTEC Research, Inc., Fresno, California. Submitted to Bechtel Corporation, San Francisco, California.

Moratto, M. J., P. Bouey, S. K. Goldberg, C. G. Lebow, P. Mikkelsen, M. Ostrogorsky, R. M. Pettigrew, M. Romano, **B. A. Price**, R. F. Schalk, L. A. Speulda, J. A. Willig, R. Atwell, T. L. Brejla, R. Bryson, K. McGuire, C. Miss, and R. E. Hughes

- 1992 *Summary Report of Phase 3 Cultural Resource Investigations, 1991 Field Season, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California*. INFOTEC Research, Inc., Fresno, California. Submitted to Pacific Gas Transmission Company, San Francisco, California.

Moratto, M. J., J. M. Silvermoon, C. G. Lebow, M. Romano, R. Schwaderer, R. F. Schalk, P. R. Waite, **B. A. Price**, K. Benedict, and M. Ostrogorsky

- 1992 *Supplemental Cultural Resources Assessment Report, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California. Phase I: Survey, Inventory, and Preliminary Evaluation of Cultural Resources*. INFOTEC Research, Inc., Fresno, California. Submitted to Pacific Gas Transmission Company, San Francisco, California.

Moratto, Michael J., Judith A. Willig, Charles Hodges, and **Barry A. Price**

- 1992 *Final Cultural Resources Monitoring Plan for "A" Construction Spreads, PGT-PG&E Pipeline Expansion Project*. INFOTEC Research, Inc., Fresno, California. INFOTEC Research, Inc., Fresno, California. Submitted to Pacific Gas Transmission Company, San Francisco.

Price, Barry A. (editor)

- 1992 *Supplemental Archaeological Surveys of Construction Staging Areas, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California*. INFOTEC Research, Inc., Fresno, California. Submitted to Pacific Gas Transmission Company, San Francisco.

Price, Barry A., with M. J. Moratto, and C. G. Lebow

- 1992 *Archaeological Survey Report of Route 168 Study Areas, Fresno County, California (6-FRE-168, P.M. R8.8/R27.4, Temperance Avenue to Lodge Road)*. INFOTEC Research, Inc., Fresno, California. Submitted to CH₂M Hill, Emeryville, California.

Colombo, M. G., with M. J. Moratto and **B. A. Price**

- 1991 *Archaeological Testing and Evaluation of CA-LAN-1735 for the Point Vicente Light House Station Family Housing Project, Palos Verdes Peninsula, California*. Submitted to the Los Angeles District, U.S. Army Corps of Engineers, Los Angeles.

Moratto, M. J., T. L. Jackson, R. M. Pettigrew, and **B. A. Price** (editors)

- 1991 *Synopsis of Testing and Evaluation and Historic Properties Treatment Plan*. Archaeological Testing and Evaluation, 1990 Field Season, and Historic Properties Treatment Plan for 1991 Field Season, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California, vol I. INFOTEC Research, Inc., Fresno, California. Submitted to Pacific Gas Transmission Company, San Francisco, California.

Moratto, M. J., T. L. Jackson, R. M. Pettigrew, R. F. Schalk, D. Chavez, E. C. Gibson, C. B. Hemphill, C. J. Miss, **B. A. Price**, M. Romano, K. Roper, B. P. Wickstrom, M. S. Burney, C. G. Lebow, J. Silvermoon, and M. K. Crist

- 1990 *Cultural Resources Assessment Report, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California, Phase 1: Survey, Inventory, and Preliminary Evaluation of Cultural Resources*. INFOTEC Research, Inc., Fresno, California. Submitted to Pacific Gas and Electric Co., San Francisco, California.

Price, Barry A.

- 1990 *A Cultural Resources Survey in Anadarko Petroleum Company's Butte Prospect, White Pine County, Nevada*. INFOTEC Research, Inc., Fresno, California. Submitted to Anadarko Petroleum Company and the Bureau of Land Management, Ely District, Ely, Nevada.
- 1990 *Archaeological Survey of the Angst, Inc. Elko Project, Southern Parcel*. INFOTEC Research, Inc., Fresno, California. Submitted to Angst, Inc., Beatty, Nevada, and the Bureau of Land Management, Elko District, Elko, Nevada.

Price, Barry A.

- 1986 *An Architectural and Historical Survey of Downtown McGill, White Pine County, Nevada*. Prepared for State of Nevada, Division of Historic Preservation and Archaeology, Carson City, Survey and Planning Grant #32-84-8711-B(14).

Price, Barry A.

- 1985 *An Evaluation of the Lower Osceola Historic Site (26-WP-1674), White Pine County, Nevada*. Intermountain Research, Silver City, Nevada. Submitted to the Bureau of Land Management, Ely District, Ely, Nevada.

Costello, Julia G., Joan Gorsuch, **Barry Price**, Martha Freeman, and Jeanne Mummert

- 1983 *Jamestown Historic Sites Survey*. Calaveras County Museum and Archives.

PROFESSIONAL MEMBERSHIPS

Register of Professional Archaeologists
 Society for American Archaeology
 Society for Historical Archaeology
 Society for California Archaeology
 Nevada Archaeological Association
 Fresno County Archaeological Society
 San Luis Obispo County Archaeological Society
 Mining History Association
 National Trust for Historic Preservation

GRANTS, AWARDS, AND HONORS

Nevada Division of Historic Preservation and Archaeology survey and planning grants for historical and architectural surveys in White Pine County, Nevada, 1983–1987. Three projects totaling \$28,067.

Nevada Humanities Committee grants for humanities related projects in White Pine County, 1984–1987. National Endowment for the Humanities funds for two projects totaling \$37,818.

Nevada Governor's Office of Community Services grants for tourism and economic development. One project totaling \$8,750.

Sonoma State University Department of Anthropology research grant for \$500 to analyze prehistoric cultural remains from Mendocino County, California, 1981.

National Science Foundation Fellowships in Microbiology and Bioscience, LaSalle College and Hahnemann Medical College and Hospital, Philadelphia, Pennsylvania, 1968–1969.

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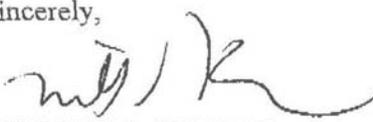
Dana Allen, Sr., Planner
Environmental Planning Services
City of Sacramento Development Services Dept.
2101 Arena Boulevard, 2nd Floor
Sacramento, CA 95834

RE: The Metropolitan Project

Dear Ms. Allen:

Please find enclosed additional comments of Gene A. Moe, Karl H. Mindermann, and Jeffrey S. Linn. I previously had comments delivered to your office on August 24, 2006. My letter was dated August 23, 2006. These additional comments consist of the energy analysis of the Project prepared by Mr. Charles Ehrlich of ENRG LLC. Mr. Ehrlich's report and his resume are attached to this letter. Please consider Mr. Ehrlich's letter part of the comments of Gene A. Moe, Karl H. Mindermann, and Jeffrey S. Linn.

Sincerely,



WILLIAM D. KOPPER

WDK:kgr
enclosure

Metropolitan Project

10th and J Streets
Sacramento, California

Review of Draft EIR Documents

August 24, 2006

by

Charles Ehrlich
ENRG LLC
430 D Street, Davis, CA 95616
Phone: (530) 400-9570



BUILDINGS, ENERGY EFFICIENCY, DESIGN, DIAGNOSTICS, AND ON-SITE ENERGY GENERATION

August 24, 2006

William D. Kopper
Attorney at Law
417 E Street
Davis, CA 95616

Re: Review of Metropolitan Project EIR for documentation of building energy use and impacts

Dear William Kopper:

At your request we reviewed the Draft Environmental Impact Report (dated July 11, 2006) submitted by the the City of Sacramento and the Saca Development, LLC (hereinafter "project applicants") for the construction of the proposed new 39-story, mixed-use tower occupying a 0.995 acre site at the corner of 10th and J Streets in Sacramento, California (hereinafter "proposed project"). This letter addresses the issue of whether or not the EIR includes adequate and sufficient detail to allow the general public to understand the nature of the energy-related impacts that the proposed project will have upon the community and the physical environment, and whether the EIR complies with CEQA requirements.

The requirements for documentation and discussion of energy use impacts of a proposed project are detailed in the *CEQA Guidelines*¹. The *Guidelines* states in Appendix F Energy Conservation, "Potentially significant energy implications of a project should be considered in an EIR" and includes a list of topics to include throughout the project EIR submittal package.

Although the documents state that "the Proposed Project would include energy-saving equipment, lighting, windows, and other energy conservation measures. Although specific features have not been determined at this time..." the EIR documents fail to provide any meaningful information with respect to the energy-use impacts of the proposed project. As stated in CEQA Guidelines Appendix F:

In order to assure that energy implications are considered in project decisions, the California Environmental Quality Act requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy.

There is no information to be found in the EIR Project Description or any other part of the EIR that complies with the requirements of Appendix F, Section II.A. This is significant because any evaluation of the project's energy consumption impact begins with a description of the project's energy features and expected annual energy use.

¹ Title 14 CCR, Chapter 3, Guidelines for Implementation of CEQA

Furthermore, there is no discussion whatsoever of the amount of increase in electricity use or demand. Clearly a 39-story mixed-use project with 430,500 sq. ft. of residential, 13,000 sq. ft. of retail, and over 7 floors of garage for 514 parking spaces will consume a greater amount of energy than the existing buildings it would replace.

G-16

Interestingly section 6.5 of the EIR discusses impacts to Public Services and Utilities such as sewage and wastewater flows, no mention of electrical or gas use impacts is made. This reviewer does not understand the statement on page 6.0-1 which apparently attempts to explain this lack of information:

For issue areas directly or indirectly related to infrastructure, project-level impacts are more conservatively analyzed against future baseline conditions that consider General Plan and approved growth, because improvements (e.g., roadway widenings, intersection improvements, wastewater distribution and conveyance, solid waste disposal, water supply, electricity, and natural gas supplies) must consider and accommodate ultimate demand.

G-17

This statement seems to imply that “growth is inevitable,” and that the impacts of such future presumed future growth are unavoidable, and that the Proposed Project has fewer infrastructure impacts than this imaginary future growth scenario. This argument is presented without any discussion of the nature of this “approved growth” and how this future condition was determined to be a “baseline” against which the Proposed Project is “more conservatively analyzed.”

Assuming future growth to be a “baseline” condition is an anathema to the public disclosure and dialog that the CEQA process demands, especially in relation to energy use impacts when the State is facing increasing energy shortages.

The only mention of energy-related mitigation measures is found in a section called “Energy Features.” On page 3.0-16, the EIR states:

The Proposed Project would include energy-saving equipment, lighting, windows, and other energy conservation measures. Although specific features have not been determined at this time, lighting conservation would include installation of such features as occupancy sensors to automatically turn off lights when not in use, lighting reflectors, electronic ballasts, and energy efficient lamps. Window glazing for the project would include low-E glass. Conservation efforts are also expected to involve improved HVAC systems with microprocessor-controlled energy management systems.

G-18

All of these features are required by the 2005 Building Energy Efficiency Standards, and so they are appropriate to consider part of the baseline building, not as part of any mitigation measures.

In the Environmental Analysis section the EIR identifies increased emissions of Ozone and PM10 as a result of the project (Page 5.1-20):

Smaller sources of precursors would be created by fuel-burning equipment, such as that used for the heating and cooling of the building...

G-19

The EIR declares that no mitigation measures are required because the emission levels do not exceed the thresholds. The project applicants did not consider potential energy efficiency upgrades as a means to mitigate these air pollution impacts. Since the project is located in a “nonattainment” designated area, these omissions should of great concern to the public. If the air basin of this region fails to meet its air quality standards, it could be faced with the loss federal dollars for highway construction and maintenance.

The EIR does not describe the specific energy saving features planned for the building. In fact it states that specific features have not yet been identified. The EIR does not disclose the presumed energy consumption of the building relative to the energy consumption of the baseline or the project alternatives. One of the energy efficiency measures that could significantly reduce energy consumption and improve local air quality impacts is the use high efficiency air conditioners. The document does not provide any details on the efficiency of the air conditioning systems for the building. Higher than minimum standard air condition equipment is available and is cost effective solution.

G-19

While it is assumed that the building would be built to meet the current California Title-24, Part 6 building energy efficiency standards, the lack of any statement to that effect is troubling. Furthermore, the CEQA Guidelines does not limit itself only to energy use topics covered by Title 24, Part 6, and specifically states that potential energy use impacts should be discussed in the project description. Title 24 represents minimum building energy standards that apply to all new construction. Apparently CEQA requires something other than reiterating Title 24 compliance otherwise Appendix F, Sections 21100(b)(3) and 15126.4(a)(1)(c) would be irrelevant.

With virtually no discussion of the energy use impacts and possible mitigation measures, there is no way for the public to determine if these impacts are significant or not. It not sufficient that the local natural gas (PG&E) and electricity (SMUD) providers are informed about the project and have indicated that sufficient resources are available and that no new power plants will need to be constructed.

In the CEQA *Guidelines*, the threshold of significance is defined.

“Thresholds” include guidance provided by the CEQA Guidelines, agency standards, legislative or regulatory requirements as applicable and professional judgment. All impacts that do not exceed the stated significance criteria described for each section are assumed to be less than significant and are therefore not discussed in detail in the document (California Public Resources Code Section 21100 and CEQA Guidelines Section 15128).

G-20

This seems to imply that where an agency does not provide specific regulatory guidance, then the threshold of significance is left to professional judgment. The project applicants have failed to address the significance of the project’s energy impacts. In the professional opinion of the authors, the energy impacts of the project are very significant. In making this assessment we rely upon an estimate of energy consumption based upon similar buildings in California as reported by the CalArch² benchmarking tool.

² <http://poet.lbl.gov/cal-arch/about.html>

Using a straightforward benchmarking approach we estimate that the project is likely to consume approximately 29,381,625 kBtu per year (site energy) or 71,893,500 kBtu per year (source energy). Since the average California single-family home uses about 5,914 kWh of electricity (site energy) and 454 therms of natural gas (site energy) per year. In other words, the proposed project will consume as much energy and cause the local power plants to emit the equivalent amount of pollution as 720 homes each year. We also estimate that the peak electricity demand of the Project will be approximately 373 kW, or the equivalent of over 720 homes. At some point in the future when local energy supplies are constrained, the proposed project would the equivalent impact on the electrical demand shortage as 720 homes. Potentially the lights at 720 homes will go out to offset the peak demand impacts of the project. Electricity demand is further exacerbated when the rest of the project is included. The proposed project includes both the 7-story parking garage and an additional 13,000 sq. ft. of retail on the ground floor. We estimate that the retail part of the project is likely to consume approximately 604,500 kBtu per year (site energy) or 1,950,000 kBtu per year (source energy). The combined demand (residential + retail) puts the proposed project into one of SMUD's category of bigger energy using customers³. The project could be subject to high demand-metered rates and may be eligible to participate in a variety of demand-reducing and curtailing measures. These facts demonstrate that the energy impacts of the proposed project are very significant but have not been adequately considered or mitigated in the EIR.

G-20

The EIR is insufficient and provides the public and decision-makers with no understanding of the energy-related impacts that the proposed project will have upon the community. The EIR does not include any discussion of the energy use intensity and peak energy demands, does not analyze the potential impacts on the community, and does not discuss mitigation measures that could reasonably improve upon some of the project's impacts. The proposed building has energy impacts that are significant and when explicated they can be analyzed to develop mitigation measures that go beyond their proposed air quality mitigation measures, cost effectively. Without this level of discussion, how are the public and decision makers to know if they are getting a typical energy hog of a project or one that is energy efficient? In short, the EIR's failure to quantify the energy use of the project prejudices the review process by depriving the public and decision makers of necessary information about the project's significant energy consumption impacts.

In Appendix F, Section II.A, the CEQA Guidelines list what an EIR should include. Each of the relevant topic areas are discussed below.

Topic A.1: Energy consuming equipment and processes which will be used during construction, operation and/or removal of the project. If appropriate, this discussion should consider the energy intensiveness of materials and equipment required for the project.

G-21

Here the EIR should go into detail about the energy intensity of material selected for construction, whether these items are sustainably harvested, and how much energy is consumed in transporting these items to the project site. The US Green Building Council, LEED-NC provides a comprehensive catalog of building materials, sources and methods and a measurement tool that can

³ Since most of the electricity demand will be individually metered to each condominium unit (as required by State law), these demand rates will probably not be applicable nor effective at curtailing excessive energy demand.

be used to minimize the embodied energy of the building. Based upon other projects, it is entirely feasible that the building could be certified at the Platinum Level or beyond with at most a 5% increase in cost. The EIR could provide a copy of the LEED checklist and discuss why specific measures were not included in the proposed design. With this information the public can learn how energy efficiency will be addressed through the selection of local and sustainable building products.

Topic A.2: Total energy requirements of the project by fuel type and end use.

Here the EIR should assess the energy use of the proposed building as compared to a building that meets **minimum** Title 24 building efficiency standards. This information is readily available from any energy consultant. The EIR should discuss the expected energy use intensity in kBtu per square foot per year broken down by end use area, for example lighting, heating, cooling, and water heating. Most important in California due to limited energy in the peak summer cooling season, the EIR should discuss the peak demand requirements of the proposed building, for example the maximum electricity demand in kW in July and August. The expected energy use intensities and demand requirements should then be compared to similar buildings in California using a benchmarking tool such as CalArch.⁴ With this information the public can learn how energy efficient the building is compared to others, and in which specific end uses there may still exist opportunities for improvement in energy efficiency.

Topic A.3: Energy conservation equipment and design features.

This topic area overlaps the Title 24 building efficiency standards, but in requiring that the features be discussed in the EIR, it goes beyond the usual design development process. The document should describe the unique features of the proposed energy-using equipment which will contribute toward decreasing the Energy Use Intensity of the building and improving the performance beyond the Title 24 minimum building energy efficiency standards. For example, the lighting power density, minimum target EER of air conditioning equipment, the minimum efficiency of gas-fired equipment, use of premium efficient motors, variable frequency drives, etc. The goals of the CEQA Guidelines suggests what can be learned from this information. This topic should go beyond the simply discussing the energy efficiency specifications of the building equipment and include a discussion of how the unique features of the proposed building will decrease its reliance on electricity and natural gas. For example, how would the use of combined heat and power using a clean-burning microturbine to create electricity and hot water for space heating and domestic uses reduce the need for electricity and natural gas from outside energy suppliers? This topic area should also include a description of the unique features of the proposed building that will increase its use of renewable energy resources such as the installation of solar photovoltaic panels to generate emissions-free energy on-site.

Topic A.4: Initial and life-cycle energy costs or supplies.

This topic area should compare the life-cycle energy cost of the building to the initial construction cost. Using a simple software tool such as the Department of Energy's BLCC, one can readily determine which energy using equipment has the lowest total lifecycle cost. Even a simple cost

⁴ See Attachment A for an example benchmarking exercise conducted by the authors.

effectiveness analysis would show that the payback for energy efficiency and on-site generation measures is very reasonable compared to the expected life of the building. An energy consultant can use the schematic building design, or the design of other similar facilities, to determine the optimum, most cost effective design strategy and set the target energy use intensity (EUI) accordingly. This target EUI can be compared to the state-wide average EUI to demonstrate the degree to which this building is more efficient than other retail buildings.⁵ Simply stating that the building will meet the minimum state energy codes does not satisfy this requirement. With this information the public could evaluate the selection of equipment and identify unnecessary environmental impacts or suggest alternatives to mitigate these impacts.

Topic A.5: *Total estimated daily trips to be generated by the project and the additional energy consumed per trip by mode.*

The EIR reports 2,221 additional trips generated by the building (page 5.6-34). Because buildings of this magnitude are known to attract people who travel greater distances to work, and because this project is located in the downtown, the trade-off between energy wasted in the long-distance travel should be compared the potential energy savings associated with fewer trips due to the proximity of the store to other retail establishments. This will help the public to understand if the proposed project location is, in fact, advantageous in terms of transportation energy use, or if another location is more suitable.

As described elsewhere in the *Guidelines*, the EIR documents should additionally include:

1. a list of the energy-using equipment's features and general design features of the project,
2. the initial and life-cycle energy costs of the project,
3. the existing capacity of the local electricity and natural gas distribution system,
4. the energy use profile of the facility and its impact on the peak demand capacity of the local energy grid,
5. the effects of the project on energy supplies and if additional capacity will be needed,
6. plans for participating in the energy saving and peak demand programs of the local gas and electric utility,
7. a description of measures to reduce wasteful, inefficient and unnecessary energy consumption (other than meeting minimum state energy efficiency standards),
8. an explanation why reasonable energy efficiency and site energy generation options were not implemented,
9. a description of the orientation and design features to minimize energy consumption,⁶
10. delineation of strategies to make maximum use of available nighttime cooling, roof radiant and evaporative cooling, and pre-cooling opportunities,
11. strategies to make maximum use of daylighting with controls that fine tune the electrical lighting to minimize the peak demand and energy use of lighting,
12. an assessment of the impact of landscaping to shade the parking lot to reduce the absorption and retention of unwanted solar heat and to avoid the heat-island effect,

⁵ Attachment A demonstrates the Lawrence Berkeley National Laboratory *Cal-Arch* benchmarking web-based tool.

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13. a discussion of options for reducing peak energy demand such as the use of thermal energy storage, evaporative cooling, and demand-responsive utility billing rates,
14. a discussion of the feasibility of using alternative and renewable fuels such as solar electric, solar thermal, and biodiesel,
15. a comparison of the overall energy consumption of the proposed building compared to a building constructed according to "best available technologies,"
16. an assessment of the project using the criteria of Leadership in Energy and Environmental Design (LEED),
17. a discussion of the unavoidable adverse effects of wasteful, inefficient and unnecessary energy consumption that cannot be feasibly mitigated,
18. a discussion of how the irreversible commitment of energy resources preempts future development through the use of current energy resources,
19. a discussion of how the proposed building design precludes future energy conservation efforts, for example, building orientation cannot be changed after construction begins,
20. an analysis of the short-term gains of the proposed building as compared to the long-term impacts over the lifetime of the project and how these could be minimized using "best available technologies."

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Performing the appropriate calculations and analyses to support the above documentation is possible at the early design phases of the project. Therefore, given experience with the design and operation of similar facilities, complying with all of the above documentation requirements would not impose an undue burden upon the project applicants or the City. This allows them to satisfy the requirement of the CEQA process to inform the public and decision makers about the potential energy-related impacts of the project.

In short, the EIR's treatment of energy impacts from the project is woefully inadequate and certification of the document in this condition would be materially erroneous. The EIR must first describe the energy uses of the whole project, determine whether such consumption is a significant impact, mitigate significant effects, and discuss cost effective ways to reduce and offset energy consumption from the project.

Thank you for the opportunity to review and comment on this project EIR.

Sincerely



Charles Ehrlich, CEA
President, ENRG LLC

Attachment A: Example Cal-Arch Benchmarking Tool

The Lawrence Berkeley National Laboratory maintains a web site⁷ called “Cal-Arch” which provides an easy-to-use interface for the public to analyze the energy use of building as compared to similar buildings in California. An example of the type of analysis possible with this tool is provided below for the project.

Input Parameters

Hotel, Motel, Dorm

Building area: 95,900 sq.ft.

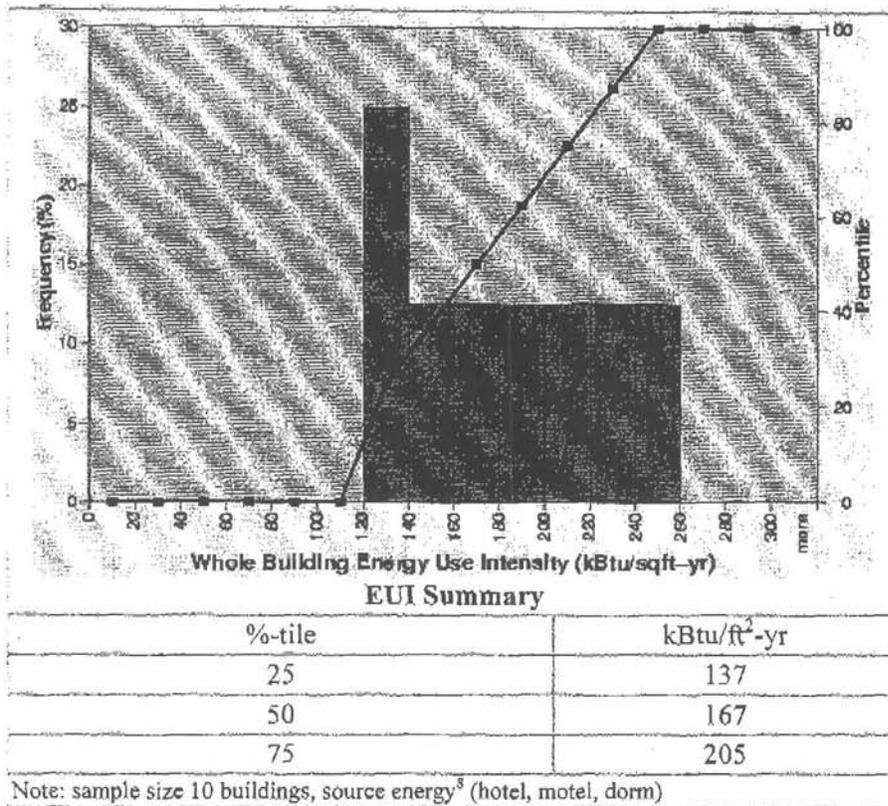


Figure 1. Benchmarking Results for Retail Food Sales Establishments.

⁷ <http://poet.lbl.gov/cal-arch/about.html>

⁸ Energy use can be expressed as either site or source energy. Typically site energy, the energy delivered to your building, is reported and billed, and thus it is assumed you are entering your data as site data. In evaluating energy efficiency and environmental impacts of energy consumptions you may be interested in examining Source energy, the energy produced and transmitted from the power plant. The site-to-source conversion factor used in Cal-Arch for electricity is 2.7 (*); Site and Source gas use are nearly the same. The differences are primarily due to transmission losses.

Analysis: Food / Retail Centers

A residential high-rise building that is no more efficient than the average of such buildings in California would consume 167 kBtu per square foot per year. Since the database contains existing buildings constructed to earlier energy standards, and since the project will be constructed to meet the 2005 Energy Standards, we can presume the energy use intensity will be at least 25% more efficient than existing construction.

430,500 sf • 167 kBtu/sf = 71,893,500 x T24-2005 25% reduction = 71,893,500 kBtu per year
 We estimate that the project is likely to consume approximately 29,381,625 kBtu per year (site energy) or 71,893,500 kBtu per year (source energy). Since the average California single-family home uses about 5,914 kWh of electricity (site energy) and 454 therms of natural gas (site energy) per year (equivalent to 99,914 kBtu per year source energy), the project energy use impact at the power plant is equivalent to 720 homes.

This energy can be disaggregated into end-uses using the California Commercial End Use Survey (CEUS).⁹ This study provides state-wide average energy use intensities for the main types of energy-using equipment in commercial buildings.

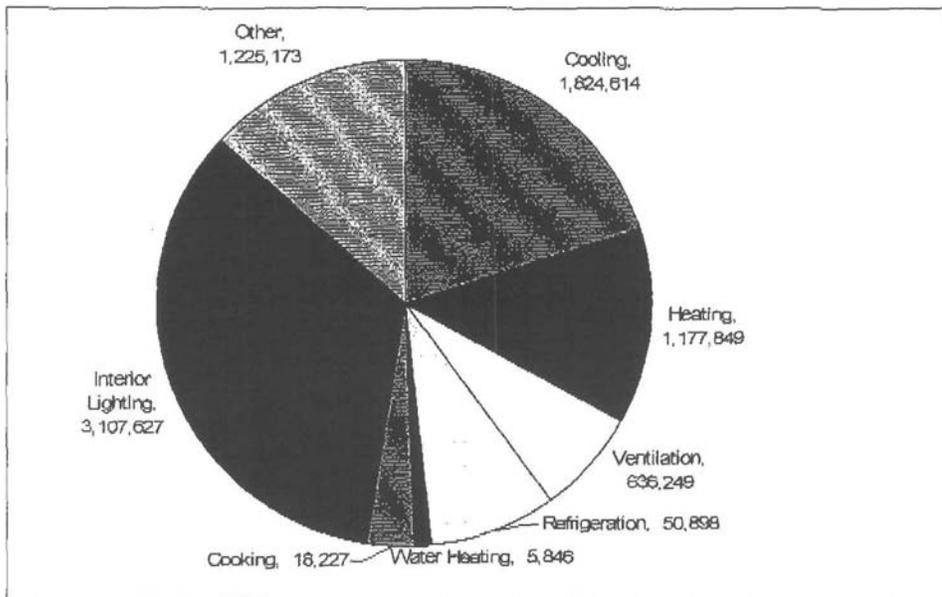


Figure 2. Predicted electricity end uses of commercial buildings.

⁹ <http://www.energyvortex.com/files/CECstudy.pdf>

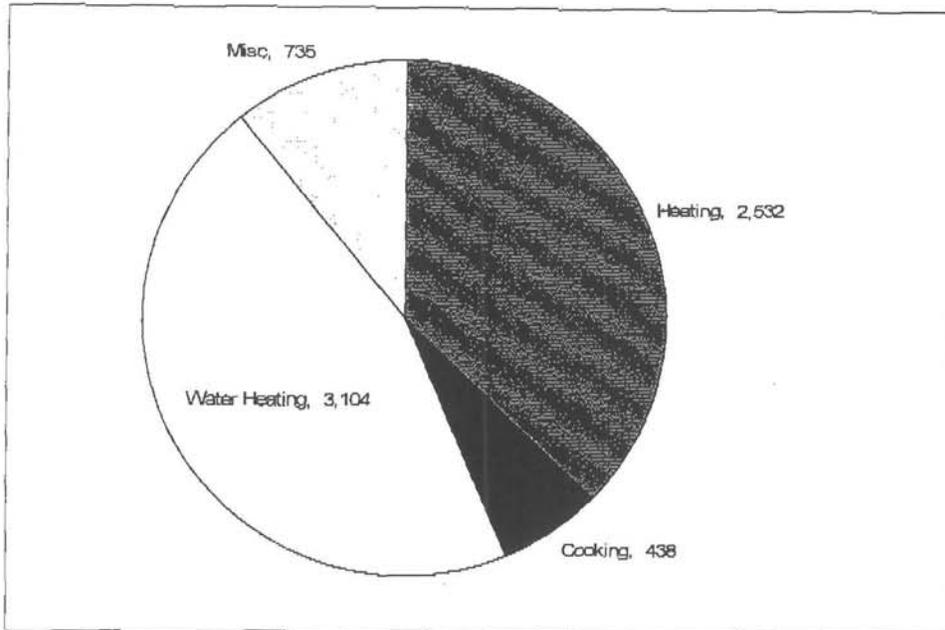


Figure 3. Predicted natural gas use of commercial buildings.

The benchmarking results and energy end-use pie charts shown provide a detailed picture of where the energy is being consumed and facilitate greater discussion.

Résumé for Charles Ehrlich

2201 Shasta Drive, Davis, California, 95616

(530) 400-9570

ckehrlich@yahoo.com

CURRENT POSITION**ENRG LLC**

430 D Street, Davis, CA 95616. Phone: (530) 400-9570

1/1/06 – present, President

Responsibilities: Technical lead for energy efficiency projects**Projects:** Residential, Multifamily, Commercial, and Institutional Projects. Submetering of a 1930's era apartment complex, Photovoltaics for seven self-storage facilities, whole-house energy audit for a residence in Davis, energy audit of the Anderson Union High School and Brighton Preschool.**WORK EXPERIENCE****Heschong Mahone Group, Inc.**

11626 Fair Oaks Blvd., # 302, Fair Oaks, CA 95628. Nehemiah Stone. Phone: (916) 962-7001

6/21/01 – 12/31/2005, Program Manager

Projects: California Energy Star New Homes Multifamily, *Designed for Comfort* utility incentive program for multifamily new construction (www.DesignedforComfort.com), Title 24 code enhancement for residential hardwired lighting**Skills:** Project management, program evaluation, design review, product research, incentive program policy development and marketing, code evaluation, stakeholder outreach and consensus building, working with utility company program managers, proposal writing, managing staff and consultant resources, building industry education**Muir Commons Homeowners Association**

2222 Muir Woods Place, Davis, CA 95616 Phone: (530) 758-5202

8/15/98 - present, CoHousing Resident and past President of the Board (unpaid)

Projects: Member of the board since August 1998, president of the board in 2002, installed 10kW solar photovoltaic system on roof of common house, photovoltaic installation workshop in collaboration with Cooperative Community Energy**Skills:** Consensus building, meeting facilitation, building maintenance, workshop development, tour host, energy efficiency audits and appliance replacement**California Dept. of Housing and Community Development, Information Technology Branch**

1800 Third Street, Room 340, Sacramento, CA 95814 Ron Sullivan. Phone: (916) 323-4340

5/10/01 - 6/20/01, Associate Programmer Analyst (Specialist).

Projects: Web server maintenance, version control system implementation and project documentation analysis**Skills:** Collaborating with coworkers, meeting facilitation, best practices research**Lawrence Berkeley National Laboratory, Building Technologies Department**

1 Cyclotron Road, MS: 90-3111, Berkeley, CA 94720 Stephen Selkowitz. Phone: (510) 486-5064

5/1/95 - 5/7/01, Principal Research Associate

Projects:

- Desktop Radiance—Design of an AutoCAD plug-in user interface to Radiance for daylighting design. Lead a team of two programmers and two architects in the development of the integrated package (<http://radsite.lbl.gov/deskrad>)
- Lighting and Daylighting Analysis for the Smithsonian National Air and Space Museum, Dullus Campus.
- Federal Aviation Administration: Visual Performance Analysis of the SFO Air Traffic Control Tower (Movie, QTVR)
- Goniometric analysis of holographic glazing (GIF)
- Analysis of dynamic characteristics of electrochromic glazing (<http://radsite.lbl.gov/electro>, MPEG)
- ADELIN software distribution and technical support (<http://radsite.lbl.gov/adeline>)
- Industry Alliance for Interoperability Computer Training Room Glare Analysis
- Web site design, development and management (<http://radsite.lbl.gov/radiance>)

4.0 COMMENTS AND RESPONSES

Skills:

- Lighting analysis, daylighting design, software development, technical writing, project management, supervision, technical support, goniometric analysis, programming, collaborating with coworkers, meeting facilitation, AutoCAD

Space & Light, Lighting Research and Consulting

Space & Light, 2164 Jefferson Ave. Berkeley, CA 94703 Phone/Fax: (530) 400-9570

8/1/91 -, consultant (inactive) to lighting designers and architects

Projects:

- Ben Gurion 2000, New International Terminal Rotunda Lighting Analysis in Telaviv, Israel
- San Francisco International Airport, New International Lobby. Solar reflection study from Air Traffic Control Tower, present approach surface roads, and incoming flight paths; Interior glare and visual comfort analysis. In Progress with Cunningham & Associates, Skidmore Owings and Merrill, Del Campo Maru Partnership.
- Headquarters Tower exterior lighting analysis. In Progress. Lighting Designer: Stephen Lees of Horton Lees Lighting Design. Architect: Cesar Pelli and Associates.
- Inventure Museum, Acron Ohio. Daylighting and architectural features analysis. Lighting Designer: Synergy Consultants. Architect: James Polscheck and Partners, New York.
- "Best of the IES" Software rendering challenge sponsored by the New York Chapter of the Illuminating Engineering Society of North America. Partnership with Greg Ward of LBL.
- Victor Valley Library. Daylighting architectural features analysis. Energy Consultant: Greg Cunningham & Associates
- Wall Mart Stores. Skylight Efficacy and reflector design analysis. Energy Consultant: Marlin Addison of Energy Simulation Specialists.
- North Point Apartments. Interior Hallway renovation renderings. Lighting Designer: Edward J. Cansino and Associates.
- Candlestick Point State Park Community Theater. Lighting Design and analysis. Architect: Mark Mack of MACK Architects. QTVR #1, #2, #3.
- Web site development: <http://www.innernet.com/radiance>

Skills:

- Lighting analysis, design optimization, project management, contract management, business development, AutoCAD 3D modeling

The PG&E Pacific Energy Center

851 Howard Street, San Francisco, California, 94103. James Chace. Phone: (415) 973-8576

2/1/92 - 5/1/95, Consultant, Building Science Specialist

Projects: Numerous. The Energy Center exists for the purpose of advising architects and building owners about the energy implications of their buildings. As Building Science Specialist, I headed the software evaluation service and provided clients with information about software available for energy analysis.

Skills: Education and outreach to architects on energy efficiency, lighting analysis, training workshop development and coordination, project management, contract management, direct client contact, desktop computer and network support, Unix system administration

Lawrence Berkeley National Lab, Lighting Systems Research Group

1 Cyclotron Road, Berkeley, MS 90-3111, California, 94720. Phone: (510) 486-4757

6/1/88 - 9/31/88, intern. Contact: Greg Ward

9/31/88 - 5/1/95, occasional guest researcher. Contact: Greg Ward

5/1/94 - 8/1/94, Research Associate. Contact: Francis Rubinstein

5/1/95, - present, Principal Research Associate. Contact: Stephen Selkowitz

Projects:

- Radiance lighting simulation and modeling
- U.C. Berkeley, College of Environmental Design. Wurster Hall Rendering
- Arch 239X, Graduate course on using Radiance for lighting design
- Two Day Intensive Radiance Training Workshop at LBL
- Greening of the White House, exterior lighting retrofit renderings
- IES New York Chapter, Software Challenge

Skills:

- Lighting simulation and analysis, AutoCAD 3D modeling

Guthrie, Friedlander / Architects

601 Fourth Street, Suite 117, San Francisco, California, 94107. Phone: (415) 882-9905
8/1/90 - 12/15/91, staff architect and CAD manager

Projects:

- Runnabouts Restaurant, Fort Myers, Florida
- Zim's Restaurants, 3 locations, San Francisco, California
- Mandelbaum, Mooney, Ashley Office Headquarters, San Francisco, California
- Harlan Residence, Napa, California
- McGill Apartment Remodel, San Francisco, California

Skills:

- Architectural design and drafting, lighting design, project management, direct client contact, desktop computer and network support

MACK Architects

246 First Street, Suite 400, San Francisco, California, 94105. Phone: (415) 777-5305
6/1/88 - 8/1/90, draftsperson and CAD manager

Projects:

- Fukuoka Housing Project, Fukuoka, Japan
- Candlestick Point Community Theatre, San Francisco, California (QTVR #1, #2, #3)
- Bogner Fashion Store, Boston, Massachusetts
- Planet/Thompson Residence, Kentfield, California
- Gerhardt Residence Addition, Sausalito, California

Skills:

- Architectural design and drafting, lighting design, direct client contact, desktop computer and network support, collaborating with coworkers

DEGREES

B.A., Architecture, College of Environmental Design, University of California at Berkeley, 1989

M.S., Architecture (Building Science), College of Environmental Design, University of California at Berkeley, 2002.

RESEARCH INTERESTS

- Thesis topic: Computer Aided Perception: A Method to Evaluate the Representation of Glare in Computer Graphics Imagery. Developed method and apparatus to compare human response to images with real-world scale models. (www.radsite.org/perception/Ehrlich_Thesis_V12.pdf)
- Energy efficiency, lighting, daylighting research and development
- High dynamic range display devices
- Visual perception and glare
- Human-computer interface design

SOFTWARE DEVELOPMENT EXPERIENCE**MS Visual Studio**

- Lead designer of Desktop Radiance, an AutoCAD rendering and simulation plug-in module to support the needs of architect and lighting designers who wish to predict the appearance of buildings that use daylighting.

Installshield 6.2

- Developed the install program for two versions of Desktop Radiance

Java

- Miscellaneous web applications

Matlab

- Graphical analysis and scientific problem solving

C-Shell

- Scripting for batch rendering animation control, parametric modeling and system administration

TRAINING EXPERIENCE

- Three-day training on Radiance for Stephen Winter and Associate, Stamford, Connecticut, 1998.
- Three-day training on Radiance for Donald Prowler and Associate, Philadelphia, Pennsylvania, 1997.
- Four-day training on Radiance for Martin Moeck formerly of Siemens Lighting, Germany, 1992.
- Two-day training on Radiance with Greg Ward, Berkeley, California, 1990.
- Host and trainer for numerous software training seminars at the PG&E Energy Center

PUBLICATIONS

- Electrical Systems Design April 1990, Co-author with Greg Ward
- Lighting Design and Application June 1990, Content contributor
- Berkeley Computing Quarterly Summer 1990, Author
- Progressive Architecture November 1990, focus page
- Siggraph 1991 July 1991, Back Cover model author
- Architecture July 1993, Quoted in Energy Design Software article
- Journal of the Illuminating Engineering Society, Summer 1989. *Simulating the Visual Performance of Electrochromic Glazing for Solar Control.*
- *Rendering with Radiance*, by Greg Ward and Robert Shakespeare. Contributed chapter on Lighting Analysis.
- Editor of the Daylighting chapter of the Ninth Edition of the IESNA Lighting Handbook

ARCHITECTURAL DESIGN COMPETITIONS

- "Best of the IES" Software rendering challenge sponsored by the New York Chapter of the Illuminating Engineering Society of North America.
- Choragic Monument Competition, New York A.I.A. Independent, 1990
- Napa Valley Museum Competition, Napa, California MACK Architects, 1990
- Alexandria Library Competition, Egypt MACK Architects, 1989
- Arts Park Los Angeles, Competition MACK Architects, 1989
- Berlin Library A.G.B. Competition MACK Architects, 1988

COMPUTER SYSTEMS EXPERIENCE

IBM-PC & Compatibles

- AutoCAD, MSDOS, Scripting, Ether-networking, 3D Studio animations, Windows, Excel, etc.
- MS Access Database, Windows NT networking, Advanced MS Office
- Linux installation and kernel optimization, administration, and various CAD software and shell scripting utilities

Macintosh (all)

- MacOS, A/UX v2.0.1, X11
- Network Design/Administration
- Architrion II v.5.5 beta testing, daily use
- Swivel 3D, Super 3D, Adobe Photoshop...
- Hypercard translator interface programming
- Radiance Synthetic Imaging System

Hewlett Packard (370crx)

- HPUX, System Administration
- Unigraphics 3D Surface Modeling

Sun Microsystems (3/60, Sparc) SunOS 4.0.3, System Administration

- Open Windows, SunView, X10, X11
- AutoCAD, Radiance alpha testing, cross-compiling

Silicon Graphics (4D 35, Indigo)

- IRIX 3.5, NeWS, X11
- Alias 3.1 3D modeling and animation software

MicroVax II

- VMS, System administration, DCL Programming
- Graphic Design System (GDS), 3D modeling, 2D drafting

COMMENT LETTER G: William D. Kopper, Attorney at Law**Response to Comment G-1:**

The City provided public notice of the Notice of Preparation (NOP), and the "Notice of Availability of a Draft Environmental Impact Report - The Metropolitan Project - SCH # 2006042161" (NOA) consistent with Public Resources Code 21092. The affected freeway interchanges and mainline circulation are located within the City of Sacramento and Yolo County/West Sacramento would not be directly affected by the proposed project. SACOG is the transportation planning agency for the region; the City of West Sacramento and Yolo County participate in regional transportation issues affected by cumulative development through SACOG. The Sacramento Downtown Traffic Study utilized SACOG's SACMET model which includes information on transportation facilities within five miles of the project site

The State Clearinghouse number was inadvertently left off the cover page. However, the letter from the State Clearinghouse assigning the number was located in Appendix A of the Draft EIR. The Final EIR cover now includes the SCH number.

Response to Comment G-2:

The commenter and the traffic report assert that tandem parking "is likely to cause traffic congestion in the alley between J and I Streets, and the congestion may spill out onto 10th and especially 11th Street." However, no analysis or justification is provided for this conclusion.

Tandem parking is commonly used in parking garages in urban centers, including several existing facilities in the City of Sacramento. The preparers of the document are unaware of any location in the City of Sacramento where such tandem parking has resulted in congestion spilling into adjacent alleys or City streets. The tandem parking would be utilized by project tenants and / or monthly parkers, rather than the public for hourly parking. The movement of cars for tandem parking causes little disruption beyond that normally associated with vehicles entering and / or exiting parking spaces. If a car needs to be moved to allow another vehicle to exit the space, the first vehicle can be temporarily stored in the travel aisle, which is wide enough for another vehicle to pass. Even if the travel aisle were to be blocked for one minute, in the a.m. and p.m. peak hours less than four vehicles would be entering and / or exiting the garage in any average one-minute period. A one-minute queue of up to four vehicles inside the garage would not result in "congestion in the alley between J and I Streets, and the congestion may spill out onto 10th and especially 11th Street."

Response to Comment G-3:

As noted, the Project Description identifies one of the requested entitlements as a variance to reduce the required maneuvering area from 26 feet to 25 feet. Final EIR Chapter 2, above, provides an additional sentence to clarify the Project Description regarding the variance. Responses to Mr. Smith's comments are included in Responses to Comments G-8 through G-11, below.

As stated in Section 15124 of the CEQA Guidelines, the project description should include the location and boundaries of the project site; statement of project objectives; general

description of the project's technical, economic, and environmental characteristics; and list of permits and approvals and a list of responsible agencies. The project description provided in the Draft EIR meets the intent set forth in the CEQA Guidelines. There is no change in the project description, and all variances or exemptions were identified. Therefore, the project description is adequate and complete, as amended in Chapter 2 above, and no recirculation of the Draft EIR is required per CEQA Guidelines Section 15088.5; "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR" (CEQA Guidelines Section 15088.5(A)(4)(b)).

Response to Comment G-4a:

At the time this project was initiated, the Biltmore Hotel had been closed and vacant for four years.

There are six existing SRO hotels containing 300-units within two blocks of the project site. A recent amendment to the City's SRO housing ordinance acknowledged the previous loss of the Biltmore units, and revised the relocation requirements for existing SRO units that are destroyed, converted, or closed. The ordinance includes a replacement requirement that derives from the number of rooms in hotels still in business and that were covered by the 1986 ordinance. The amended ordinance sets a no-net loss threshold at 712 units; this is the number of units in the ten SRO hotels that are still in business downtown and that were subject to the 1986 ordinance. The Biltmore Hotel is not one of these ten hotels.

Since the SRO Ordinance was adopted in 1986, the Redevelopment Agency's programs have been used to build at least two comparable replacement projects. Both projects are regulated for 30 years with rents at 50 percent of median income. These projects are Pensione K at 17th and K Streets (125 units) and The Terraces at 1615 O Street (60 units). Adding these units to the existing inventory means that a total of 897 single room occupancy units are available today. There are currently a total of 20,256 housing units downtown, 3,270 of which are regulated for very low- and low-income housing units in the Central City.

The Biltmore is vacant and severely deteriorated, but is not considered a "problem" property identified in Housing Element Implementation Measure #1, which refers to poor management and crime problems. The Proposed Project is consistent with Housing Element Implementation Measure #2 to support mixed income development to revitalize lower income neighborhoods. Whereas the housing surrounding the project site is primarily low-income and SRO housing, the proposed project would provide market rate housing to sustain "the retail, commercial and civic life of downtown Sacramento". The commenter erroneously assumes that the General Plan requires all downtown housing projects to be mixed income developments "affordable to lower income people." It is not a requirement of the Agency or City to provide affordable housing in every project. A mix of market rate and affordable housing is desirable, especially in the Central Business District (CBD) which contains a disproportionate amount of low-income housing.

The City has several methods of providing additional affordable housing in the Central City. The Sacramento Housing Trust Fund Ordinance - Chapter 17.188 of the City Code (also known as Section 33, Housing Requirements for Non-Residential Development Projects) provides for increasing and improving the supply of housing affordable to households of low-income, with priority to very low-income households. This City Ordinance requires payment of in-lieu fees and those Housing Trust Funds are administered by the Sacramento Housing

and Redevelopment Agency (SHRA) for affordable housing projects as allowed by the Ordinance.

As an option to in-lieu fees, the Zoning Ordinance allows for partial payment of fees and development of affordable housing. Per Section E.1, as an alternative to the fee requirement of paragraph D.1, an applicant may elect to construct housing. The Sacramento Housing Trust Fund exempts parking structures and residential components, but the office requirement is \$0.99/psf and retail is \$0.79/psf. The final amount is determined at the building permit stage of each development project.

In addition, the Proposed Project is a private project that will generate property tax increment to the Redevelopment Agency. Per the Merged Downtown Redevelopment Plan, as amended, at least 30 percent of the tax increment generated by the project, as well as tax increment revenues from other developments in the Merged Downtown Redevelopment Plan Project Area, must be used to provide housing affordable to moderate, low- and very-low income households. The Agency uses this tax increment to construct and rehabilitate affordable housing within primarily the Merged Downtown Redevelopment Plan Project Area.

In March, 2006, the Agency adopted production goals for New Single-Room Occupancy (SRO) units, authorized the Release of Request for Applications for the construction of new very low-income efficiency apartments, adopted production goals for rehabilitating 100 SRO units in Central City, and amended the Agency's budget allocating \$15,000,000 from the Tax Allocation Revenue Bond Downtown Housing fund for the SRO housing project. Overall, the tax increment revenues and Housing Trust Fund in-lieu fees from the project would enhance the ability of the Agency (and its constituent entity SHRA) to develop affordable housing. The project may also stimulate new development within the CBD providing increased property tax revenues that the Agency will use to provide safe and affordable housing to very low- and low-income households within the CBD.

Response to Comment G-4b:

Also see response to comment G-4a, above. The comment refers to Implementation Programs in the City's General Plan Housing Element and presumes that those policies are applicable to individual projects. Those Implementation Programs are intended as goals for the City with regard to the use of public subsidies for housing, and not requirements for individual projects to internally provide a certain percentage of particular housing types. This is made clear when the referenced Implementation Programs are shown in their entirety:

Stimulate the acquisition and rehabilitation of problem multifamily properties and institute better management practices through financing requirements and monitoring. This goal has high priority in older, lower income neighborhoods. Activities that meet this goal include gap financing, issuance of mortgage revenue bonds with tax credits, and joint efforts with local nonprofit housing corporations to acquire bank-foreclosed properties for demolition and reconstruction. The most significant recent activity under this goal has been the housing authority's aggressive pursuit of HUD-foreclosed units in Franklin Villa for rehabilitation and property management, a \$1 million commitment. Acquisition and rehabilitation programs for both ownership and

rental housing predominantly serve very low-income households (under 50 percent of area median income).

Support mixed-income development to revitalize lower income neighborhoods. In new growth areas, this goal seeks to create housing affordable to low-income people to increase economic diversity and to expand housing near job centers. In downtown Sacramento, this goal has major importance in sustaining the retail, commercial, and civic life of the Central City. Mixed income housing as an element of downtown Sacramento revitalization serves primarily moderate-income households (80 to 120 percent of area median income). In new growth areas, mixed income housing is most likely to be financed with Low Income Housing Tax Credits, thereby assisting both very low and low-income people. Depending on the state's regulations, households earning 35 percent of median income may be reached through these developments. (City of Sacramento, Housing Element of the General Plan, Housing Element Update, July 1, 2002 - June 30, 2007, page 3.11-2).

The above Implementation Programs are not applicable to the Proposed Project and are not "mandates", as stated in the comment. The Proposed Project would be consistent with the General Plan.

Per Chapter 17.190 of the City's Affordable Housing Ordinance, the downtown area is not a new growth area subject to the affordable housing requirement under that Ordinance.

The Proposed Project is generally consistent with the goals and objectives of the Housing Element. The mixed-use nature of the Proposed Project meets the intent of the General Plan's goals of mixed-use development and increased housing choices in Downtown Sacramento. The project would:

- Provide adequate housing sites and opportunities for all households (Goal 1) by promoting a mix of housing types in the Central Business District.
- Provide housing assistance to low- and moderate-income households (Goal 2) through the availability of increased tax increment and 30 percent housing set-asides to construct and rehabilitate very low- and low-income housing.
- Promote a variety of housing types with neighborhoods to encourage economic diversity and housing choice (Goal 3).

Response to Comment G-5:

The Proposed Project is a residential condominium development of 320 units with 13,000 sf ground floor retail, thus it does not meet criteria 1, 2, 3, 4, or 5 of the "project" definition under Water Code Section 10912(a). Although it is a mixed-use project, it does not contain any one of the first five criteria, thus it also does not meet criteria 6.

As noted on page 38 of the Initial Study, assuming a demand factor of 225 gallons per day (gpd) per residential unit, and assuming worst case that the ground floor retail would include a 7,000 sf restaurant at 600 gpd/1000 sf of restaurant, and 6,000 sf retail at 61 gpd/1000 sf, the proposed project would generate a demand of less than 77,000 gpd, which is well below the 10 million gpd threshold of significance. Dividing 77,000 gpd by the residential demand

factor of 225 gpd shows the project could create the equivalent demand of up to 342 residential units, thereby not meeting criteria number 7. This project therefore does not meet the requirements of a “project” under the Water Code, and no Water Assessment is required.

Response to Comment G-6:

The Draft EIR, page 5.4-19, notes these studies did recognize that it is “possible for fire sprinklers to break at joints at vibration levels below current criteria” not that vibrations would set off the sprinkler systems. This would be a potential concern for the building immediately adjacent to the project, and is mitigated by the proposed mitigation measures to a less-than-significant impact.

The torque piles are not in common use in the Sacramento area, and are still considered experimental because this foundation method presents significant risks for developers. From a construction standpoint, the quieter method theoretically allows for a) longer work hours and reduced installation time, b) a higher productivity rate, i.e. more piles placed per hour, further reducing installation time, and c) each pile can withstand greater loads therefore fewer piles are needed (up to 15% less, depending on soil conditions).

This is a new application so there are very few qualified contractors using this method, and it is considered by the project contractor to carry risks. Pricing is variable, quality is said to be inconsistent, and contractors do not guarantee the soils can accommodate the method. There are some technical difficulties reported with this system, including numerous cases where this application did not work, i.e. failure to achieve the required resistance against the soil or drill bits breaking before reaching the right depths (Turner Construction, October 2, 2006). The cost is also much higher than driven concrete piles. Although identified advantages help minimize the cost premium, it is generally not enough to offset the higher cost altogether.

Because of the high risk and the uncertainty of the proper results, the added cost, and the lack of consistent successful experience with these piles in the Sacramento area, this method is not recommended by the applicant’s construction contractor. For buildings over ten stories, the contractor believes there is a potential to cause too much irrecoverable damage for the apparent gain. In addition, although the method can reduce the temporary noise of pile driving, it does not reduce construction noise to less-than-significant levels. Notwithstanding that the Epic developer has elected to assume these risks by proposing use of this pile installation method, this mitigation measure for construction noise has been rejected from consideration as too unproven and speculative to justify the temporary noise reductions that could be achieved.

Response to Comment G-7:

The City’s thresholds of significance for energy are based on the provider’s ability to serve the project, and all providers were contacted during the NOP process. Pacific Gas and Electric (PG&E) and Sacramento Municipal Utility District (SMUD) have previously indicated the ability to serve the Central City. SMUD produces power through renewable hydroelectric, thermal (natural gas), wind and solar resources, as well as purchasing wholesale power, and anticipates no major problems in serving the City of Sacramento (General Plan Technical Background Report, June 2005).

The comment refers to CEQA Guidelines Appendix F, the goal of which is to conserve energy, which “implies the wise and efficient use of energy” and discourages the “wasteful, inefficient, and unnecessary consumption of energy.” The comment includes numbered items from Appendix F and states that these are requirements for the analysis. CEQA does not “require all EIRs” to assess energy impacts, and in fact does not even include energy as an issue in the Appendix G Initial Study checklist. CEQA Guidelines Section 15126.4(a)(1) states “(1) An EIR shall describe feasible measures which could minimize significant adverse impacts, including **where relevant** (emphasis added), inefficient and unnecessary consumption of energy.” Section (a)(1)(C) further states that “energy conservation measures, as well as other appropriate mitigation measures, shall be discussed **when relevant** (emphasis added). Examples of energy conservation measures are provided in Appendix F.” Appendix F specifically states that the referenced items may be included in the project description, but does not require that these items be considered standards by which to judge the project.

As discussed in the Initial Study for the proposed project (and reiterated in the comment), the proposed project would comply with Title 24 with regard to energy conservation. Thus, the “degree to which the project complies with existing energy standards” is included in the EIR. The EIR does not rely solely on compliance with Title 24 to reduce energy consumption. The proposed project also includes features to reduce its energy demands. The Initial Study states “[t]he proposed project would include lighting and other energy conservation measures and would construct all structures with up-to-date energy-saving equipment. Lighting conservation efforts in new construction include installation of occupancy sensors to automatically turn off lights when not in use, lighting reflectors, electronic ballasts, and energy-efficient lamps. Conservation efforts are also expected to involve improved HVAC systems with microprocessor-controlled energy management systems.” Energy consumption by the proposed project would not be considered wasteful, inefficient, or unnecessary.

Response to Comment G-8:

It is common practice to adjust signal timing splits to reduce the overall stop controlled delay at intersections. The effects of adjusting the signal timing splits to improve efficiency would not significantly affect signal progression and would mitigate impacts to less-than-significant levels according to the criteria used by the City to evaluate project impacts. Optimization of signal system timing is beyond the scope of the study and is not required to demonstrate the effectiveness of the mitigation measures.

Response to Comment G-9a:

The adopted City Street Standard alleyway width of 20 feet is provided by the Proposed Project.

Quantitative analyses of the unsignalized intersections of the alley with 10th and 11th streets were not performed. These intersections were screened from quantitative analysis since the likelihood of significant impacts in accordance with CEQA guidelines and standards of significance is highly unlikely. These intersections exhibit low volumes on the alley approaches, since the alley generally accommodates traffic associated only with the immediate adjacent properties. Field observations of these two intersections, as well as other similar intersections serving similar buildings in Downtown Sacramento with alley access to parking facilities, has confirmed that little intersection delay is anticipated. The

adjacent traffic signals at J and I streets provide gaps in the 10th and 11th streets traffic streams, allowing vehicles to exit the alleys without substantial queuing or delay.

The sight distance limitations are an existing condition, and are not caused by or exacerbated by the Proposed Project. This is a common condition at many alley / street intersections throughout Downtown Sacramento, and is in accordance with City Street Standards.

Response to Comment G-9b:

The project will be conditioned to install signs in the alleyway to prohibit loading and unloading in the alley during peak hours. The effectiveness of such restrictions will be ensured by proper enforcement. Even if a vehicle is stopped in the alley for loading / unloading, another vehicle can pass the stopped vehicle. Given the anticipated low volumes in the alley, no substantial queuing or delay is anticipated. Even in the peak hours, the total volumes expected in the alley average about four vehicles per minute, or about one car every 15 seconds.

Response to Comment G-9c:

Regarding the maneuvering of vehicles entering and exiting the garage, the geometrics proposed for the project and alley are common for parking facilities including parking structures. These are low speed maneuvers and are expected by users of parking facilities and alleys. No undue safety issues are anticipated. The volume of vehicles in the peak hour, less than four vehicles per minute on average, allows ample time for vehicles to pause to accommodate other maneuvering vehicles, as necessary.

Response to Comment G-9d:

City alleys are not designed to provide separate pedestrian walkways. While some pedestrian movement does occur in alleys, the majority of pedestrians travel on the sidewalks of the major streets in Downtown. The alleys are a low speed environment and field observations of alleys throughout Downtown Sacramento have not indicated any undue substantial conflicts between pedestrians and other vehicles.

Response to Comment G-9e:

The queuing analysis performed for the parking garage assumed that entrance to and egress from the garage will be controlled by separate barrier type parking gates. Gates would be activated by user cards or proximity devices. The queuing analysis assumed a seven-second average service time, which is typical for such parking access control devices. Based upon the current project design information, such gates could be located within the garage allowing one entering car to queue between the gate and the alley. The exiting gate could be located near the alley, maximizing queuing space within the garage. Such a design is contrary to the design limitation assertions of the commenter.

The project will be conditioned to utilize such gates during all peak entry and exit time periods, rather than other types of gates that have longer service times. A first in, first out, queuing analysis was utilized, with exponentially distributed service and inter-arrival times. The critical time period for exiting is the a.m. peak hour, during which 98 exiting vehicles are

anticipated. The analysis indicates with over a 96 percent probability that one vehicle or less will be queued exiting the facility.

The critical time period for entering is the p.m. peak hour, during which 114 vehicles are anticipated. The analysis indicates with over a 95 percent probability that one or less vehicles will be queued entering the facility. As indicated above, there is space for the queuing of one vehicle between the entry gate and the alley.

Even if entry to the garage were delayed due to unusual circumstances, approximately four additional cars could queue in the alley between the garage entrance and 10th Street, and approximately nine cars could queue in the alley between the garage entrance and 11th Street. Only after these queue lengths were exceeded would any possible traffic impacts occur on 10th and 11th streets.

Response to Comment G-10:

It is acknowledged that the adjustments for “trips to-from other proposed projects” should only have been applied to the analysis of cumulative conditions. Please see response to Comment C-4, above. There is no new information of substantial importance that would require recirculation of the Draft EIR.

Response to Comment G-11:

Please see response to comment C-1, above. A clarifying discussion has been added below the second paragraph of page 5.6-42 of the Draft EIR, regarding the discussion of the Freeway Mainline Impact 5.6-2, as identified in Chapter 2, above.

Response to Comment G-12:

Tremaine and Associates has been working closely with Native American tribal representatives regarding issues in the downtown area for many years. As provided by the Native American Heritage Commission, a records search of the sacred lands file failed to indicate the presence of Native American cultural resources in the immediate project area, although the potential always exists as identified in the Draft EIR. The Commission provided a list of Native American individuals and organizations who have been contacted about the project.

Response to Comment G-13:

The archaeological consultation process includes the following:

- Consult with Native Americans and other interested parties
- Prepare research design and work plan
- Identify resources (geophysics and ground-truthing with use of backhoe)
- Evaluate resources (conduct formal test excavation)
- If significant and subject to adverse impact, then mitigate (normally data recovery, hence the research design & work plan)

Whereas the project site is covered with buildings, and demolition of the buildings is contingent upon approval of the project and a demolition permit, the identification and

evaluation of potential subsurface resources was evaluated to the extent possible. The lack of a research design and work plan at the EIR stage does not prohibit EIR reviewers from assessing the adequacy of the document. The intent of the EIR is to ensure that impacts are considered and that appropriate mitigation measures are implemented. The impacts have been considered and if the steps outlined above are followed, appropriate mitigation measures will have been implemented.

It is a given that professional organizations/individuals will be conducting the work, and thus, the research design and work plan should be adequate. The Cultural Resources Sensitivity Study notes, rather than requires, that both identification and evaluation must be completed before actual impacts can be fully assessed. Because the site is covered with buildings and asphalt, it is impossible to conduct the evaluation until the buildings have been demolished. Since demolition is part of the project being analyzed in the EIR, the site specific evaluation cannot be completed until the demolition permit is approved. The compressed approach to identification, evaluation, and mitigation has been employed numerous times in the City for just this reason, to identify and require any necessary mitigation prior to construction on a site. Implementation of the proposed mitigation procedures will reduce site specific impacts to less than significant, as identified in the Draft EIR.

Response to Comment G-14:

The summary in Draft EIR Chapter 3 correctly identifies cultural resource impacts 5.2-1 and 5.2-2 as significant, and less-than-significant after mitigation. Impact 5.2-3, which refers to cumulative impacts, is correctly identified as significant and unavoidable.

As urban development increases throughout the City of Sacramento and the region, cumulative development in the City could result in archaeological resources being unearthed and damaged or destroyed. Although the adopted mitigation measures may mitigate project specific impacts to less-than-significant levels, small losses multiplied over many projects could combine to result in a significant overall cumulative loss of cultural resources, both historic and archaeological. As noted in the Draft EIR page 5.2-32, even with existing regulations and compliance with required mitigation, the project's contribution to the potential loss of these resources, combined with the loss of resources over the years by previous development, would not be reduced to a level that would be considered less than significant. This impact remains significant and unavoidable.

Response to Comment G-15:

The author of the Draft EIR Appendix E, Paula Boghosian, MS, Hon AIACC, AIACV, of Historic Environment Consultants, has met the Secretary of the Interior's Professional Qualifications for the Practice of Architectural History; the resume for Barry Price, the consultant providing comments, identifies extensive experience in archaeology but does not indicate similar qualifications regarding architectural history. There is a distinction between the methodologies used for archaeology and those for architectural integrity issues and how that affects the eligibility of architectural resources in meeting criteria for the National Register of Historic Places (National Register, utilized by the City of Sacramento) or the California Register of Historical Resources (California Register).

The description of each building in the document notes any special character-defining design elements. However, the possession of some distinctive architectural elements does not automatically qualify a building for local or California Register listing. The building must

have retained sufficient integrity of design, materials, workmanship, setting, location, feeling, and association in order to meet eligibility requirements. The document clearly states that each of the subject project buildings lack sufficient physical integrity or historic significance to meet listing criteria. The criteria utilized are those of the National Register of Historic Places and the California Register of Historical Resources.

While the buildings may have some historical associations, these associations are not of sufficient importance to meet criteria for listing under historic significance, particularly in tandem with loss of design integrity. Discussing the Period of Significance of the buildings is irrelevant if the building has not retained sufficient physical integrity to convey a clear understanding of its original design and its expression of its era.

In terms of revealing early or original facades by removing current façade coverings, the building surfaces themselves have been modified and original building fabric substantially compromised. Façade window openings have been altered. Even the central stairway of the former Biltmore Hotel has been modified, and the balusters increased in height to meet current codes, altering the scale of its original image.

There is a statement after each building discussion that notes whether the property is, or is not, eligible to the Sacramento Register (applying National Register criteria), or the California Register. The image of the group of buildings within the project area does not reflect a cohesive sense of a former time and place, and they are consequently not eligible for inclusion in a downtown district.

Response to Comment G-16:

As stated in the Initial Study, the project has been designed to comply with specifications contained in Title 24 of the California Code of Regulations. The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were established by the state in 1978 in response to a legislative mandate to reduce California's energy consumption, several years after CEQA was adopted. The standards are updated regularly to allow consideration and possible incorporation of new energy efficiency technologies and methods. In 2005, the Energy Commission adopted new standards; these new Standards are in effect as of October 1, 2005. A 2008 update process has been initiated. According to the California Energy Commission, California's building efficiency standards (along with those for energy efficient appliances) have saved more than \$56 billion in electricity and natural gas costs since 1978, and continued compliance with the standards will save an additional \$23 billion by year 2013. These savings translate into a significant reduction in energy consumption and demand. Therefore, Title 24 is a statutory compliance mechanism that meets the CEQA Appendix F goals, which were adopted before Title 24 and its many updates.

Response to Comment G-17:

As noted in Chapter 1.0, the Draft EIR is focused on potential significant impacts identified in the Initial Study; readers are referred to the Initial Study in Draft EIR Appendix B for those impacts determined to be less than significant. As noted in response to comment G-7, above and in the Initial Study (Page 26, Section 8), the City's standard of significance is based on the utilities' ability to serve the project, and both gas and electricity supplies are adequate to serve the project and cumulative development identified in the SACOG growth projections. Neither the City nor the state has adopted any specific thresholds or standards

for energy usage. SACOG population and planned development projections are considered future baseline for long-term planning; energy utilities base their infrastructure and supply planning on SACOG projections and the City's General Plan land uses. High intensity growth is planned for and encouraged in the Central City; growth projected by SACOG is considered "inevitable" from a planning perspective, and increased intensities in the Central City reduce the need for utilities to considering extending infrastructure into undeveloped lands on the suburban fringe. Therefore, whereas SMUD and PG&E have indicated they have the capacity to serve the demands of the project, the impact was determined to be less than significant in the Initial Study and scoped out of the Draft EIR.

Response to Comment G-18:

There are no energy mitigation measures required for this project. The comment refers to page 2.0-22 of the Project Description; these features are a part of the project and may or may not include measures that exceed Title 24 requirements. The project applicant has also indicated the intent to develop to Leadership in Energy and Environmental Design (LEED) green building standards. LEED is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. To earn certification, a building project must meet certain prerequisites and performance benchmarks (credits) within each category. Projects are awarded Certified, Silver, Gold, or Platinum certification depending on the number of credits they achieve. It is unknown at this point what level the final project would achieve, but it is assumed it will meet the 'Certified' level at a minimum; all LEED-certified buildings conserve energy and water and reduce harmful greenhouse gas emissions.

Response to Comment G-19:

The comment notes that the EIR identified ozone (O₃) and PM₁₀ emissions as less than significant; this assessment was based on URBMEMIS2002 emissions model calculations which include energy usage, and is addressed in Chapter 5.1, Air Quality. CEQA only requires mitigation measures for significant impacts.

Response to Comment G-20:

Please see response to comment G-7, above. Whereas the thresholds are not based on project energy demand, no project demand calculations are required. Currently, the City does not have any additional standards with which to gauge the significance of energy consumption. The project would be required to meet state regulations proposed by the California Energy Commission and any additional measures would need to be addressed by the City as a part of design review or plan review. As stated in the Initial Study, energy use would not require the construction of new facilities or interfere with the ability of SMUD or PG&E to provide service.

The City of Sacramento has adopted an energy conservation review checklist and development guidelines for all projects and site plan reviews. The intent of the guidelines is to encourage consideration of energy conservation measures in the preliminary development stages so that project related energy consumption is minimized. In addition to the checklist, plan review of the energy facilities for development occurs during the design review stage of the planning process. Since there is no adverse impact based on the City's thresholds, there is no nexus to require energy mitigation measures.

Response to Comment G-21:

This refers to Appendix F of the CEQA Guidelines. Please see response to comments G-7 and G-19 above.

Response to Comment G-22:

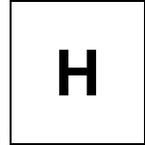
This refers to Appendix F of the CEQA Guidelines. Please see response to comments G-7 and G-16, above.

STATE OF CALIFORNIA - THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 942360001
(916) 653-5791



September 20, 2006

Dana Allen, Project Manager
City of Sacramento
2101 Arena Boulevard, Second Floor
Sacramento, California 95834

The Metropolitan Project DEIR
State Clearinghouse (SCH) Number: 2006042161

The project corresponding to the subject SCH identification number has come to our attention. The limited project description suggests a potential encroachment on an Adopted Plan of Flood Control. If indeed your project encroaches on an adopted food control plan, you will need to obtain an encroachment permit from the Reclamation Board prior to initiating any activities. The attached Fact Sheet explains the permitting process. Please note that the permitting process may take as much as 45 to 60 days to process. Also note that a condition of the permit requires the securing all of the appropriate additional permits before initiating work. This information is provided so that you may plan accordingly.

H-1

If after careful evaluation, it is your assessment that your project is not within the authority of the Reclamation Board, you may disregard this notice. For further information, please contact Sam Brandon of my staff at (916) 574-0651.

Sincerely,

Mike Mirmazaheri, Chief
Floodway Protection Section

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

Encroachment Permits Fact Sheet

Basis for Authority

State law (Water Code Sections 8534, 8608, 8609, and 8710 – 8723) tasks the Reclamation Board with enforcing appropriate standards for the construction, maintenance, and protection of adopted flood control plans. Regulations implementing these directives are found in California Code of Regulations (CCR) Title 23, Division 1.

Area of Reclamation Board Jurisdiction

The adopted plan of flood control under the jurisdiction and authority of the Reclamation Board includes the Sacramento and San Joaquin Rivers and their tributaries and distributaries and the designated floodways.

Streams regulated by the Reclamation Board can be found in Title 23 Section 112. Information on designated floodways can be found on the Reclamation Board's website at http://recbd.ca.gov/designated_floodway/ and CCR Title 23 Sections 101 - 107.

Regulatory Process

The Reclamation Board ensures the integrity of the flood control system through a permit process (Water Code Section 8710). A permit must be obtained prior to initiating any activity, including excavation and construction, removal or planting of landscaping within floodways, levees, and 10 feet landward of the landside levee toes. Additionally, activities located outside of the adopted plan of flood control but which may foreseeable interfere with the functioning or operation of the plan of flood control is also subject to a permit of the Reclamation Board.

Details regarding the permitting process and the regulations can be found on the Reclamation Board's website at <http://recbd.ca.gov/> under "Frequently Asked Questions" and "Regulations," respectively. The application form and the accompanying environmental questionnaire can be found on the Reclamation Board's website at <http://recbd.ca.gov/forms.cfm>.

Application Review Process

Applications when deemed complete will undergo technical and environmental review by Reclamation Board and/or Department of Water Resources staff.

Technical Review

A technical review is conducted of the application to ensure consistency with the regulatory standards designed to ensure the function and structural integrity of the adopted plan of flood control for the protection of public welfare and safety. Standards and permitted uses of designated floodways are found in CCR Title 23 Sections 107 and Article 8 (Sections 111 to 137). The permit contains 12 standard conditions and additional special conditions may be placed on the permit as the situation warrants. Special conditions, for example, may include mitigation for the hydraulic impacts of the project by reducing or eliminating the additional flood risk to third parties that may caused by the project.

Additional information may be requested in support of the technical review of

your application pursuant to CCR Title 23 Section 8(b)(4). This information may include but not limited to geotechnical exploration, soil testing, hydraulic or sediment transport studies, and other analyses may be required at any time prior to a determination on the application.

Environmental Review

A determination on an encroachment application is a discretionary action by the Reclamation Board and its staff and subject to the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code 21000 et seq.). Additional environmental considerations are placed on the issuance of the encroachment permit by Water Code Section 8608 and the corresponding implementing regulations (California Code of Regulations – CCR Title 23 Sections 10 and 16).

In most cases, the Reclamation Board will be assuming the role of a "responsible agency" within the meaning of CEQA. In these situations, the application must include a certified CEQA document by the "lead agency" [CCR Title 23 Section 8(b)(2)]. We emphasize that such a document must include within its project description and environmental assessment of the activities for which are being considered under the permit.

Encroachment applications will also undergo a review by an interagency Environmental Review Committee (ERC) pursuant to CCR Title 23 Section 10. Review of your application will be facilitated by providing as much additional environmental information as pertinent and available to the applicant at the time of submission of the encroachment application.

These additional documentations may include the following documentation:

- California Department of Fish and Game Streambed Alteration Notification (<http://www.dfg.ca.gov/1600/>),
- Clean Water Act Section 404 applications, and Rivers and Harbors Section 10 application (US Army Corp of Engineers),
- Clean Water Act Section 401 Water Quality Certification, and
- corresponding determinations by the respective regulatory agencies to the aforementioned applications, including Biological Opinions, if available at the time of submission of your application.

The submission of this information, if pertinent to your application, will expedite review and prevent overlapping requirements. This information should be made available as a supplement to your application as it becomes available. Transmittal information should reference the application number provided by the Reclamation Board.

In some limited situations, such as for minor projects, there may be no other agency with approval authority over the project, other than the encroachment permit by Reclamation Board. In these limited instances, the Reclamation Board

may choose to serve as the "lead agency" within the meaning of CEQA and in most cases the projects are of such a nature that a categorical or statutory exemption will apply. The Reclamation Board cannot invest staff resources to prepare complex environmental documentation.

Additional information may be requested in support of the environmental review of your application pursuant to CCR Title 23 Section 8(b)(4). This information may include biological surveys or other environmental surveys and may be required at anytime prior to a determination on the application.

COMMENT LETTER H: Department of Water Resources, Mike Mirmazaheri, Chief

Response to Comment H-1:

An Adopted Plan of Flood Control includes the natural stream channel and overbank area at design flood levels or 100-year flood elevation, areas between and including the project levees, areas where there are flowage easements, and up to ten (10) feet landward from the landside toe of a Federal flood control project levee.

The Proposed Project is located in a raised area of Downtown Sacramento designated Zone X on the Federal Emergency Management Agency (FEMA) Federal Insurance Rate Map (FIRM), Community Panel No. 060266 0025F, effective date 7/6/98, with a Letter of Map Revision dated February 18, 2005. There is no encroachment on an Adopted Plan of Flood Control.

5.0

MITIGATION MONITORING PLAN

5.0 MITIGATION MONITORING PLAN

INTRODUCTION

The California Environmental Quality Act (CEQA) requires review of any project that could have significant adverse effects on the environment. In 1988, CEQA was amended to require reporting on and monitoring of mitigation measures adopted as part of the environmental review process. This Mitigation Monitoring Plan (MMP) is designed to aid the City of Sacramento in its implementation and monitoring of measures adopted from the Metropolitan Project Draft EIR (proposed project).

MITIGATION MEASURES

The mitigation measures are taken from the Metropolitan Project Draft EIR, including the Initial Study (see Appendix B of the Draft EIR), and are assigned the same number as in the Draft EIR. The Mitigation Monitoring Program (MMP) describes the actions that must take place to implement each mitigation measure, the timing of those actions, and the entities responsible for implementing and monitoring the actions.

MMP COMPONENTS

The components of each monitoring form are addressed briefly, below.

IMPACT

This column summarizes the significant impact stated in the Draft EIR.

MITIGATION MEASURE

All mitigation measures that were identified in the Metropolitan Project Draft EIR are presented, and numbered accordingly. The mitigation measures from the Initial Study are identified by topic and number.

ACTION

For every mitigation measure, one or more actions are described. These are the center of the MMP, as they delineate the means by which EIR measures will be implemented, and, in some instances, the criteria for determining whether a measure has been successfully implemented. Where mitigation measures are particularly detailed, the action may refer back to the measure.

IMPLEMENTING PARTY

This item identifies the entity that will undertake the required action.

TIMING

Each action must take place prior to the time at which a threshold could be exceeded. Implementation of the action must occur prior to or during some part of approval, project design, construction, or on an ongoing basis. The timing for each measure is identified.

MONITORING PARTY

The City of Sacramento is responsible for ensuring that most mitigation measures are successfully implemented. Within the City, a number of departments and divisions would have responsibility for monitoring some aspect of the overall project. Occasionally, monitoring parties outside the City are identified; these parties are referred to as "Responsible Agencies" by CEQA.

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
DEIR Section 5.1 Air Quality/Microclimate					
Impact 5.1-1: Short-Term Construction Increases in Ozone Precursors	5.1-1 The project representative shall ensure that no more than six (6) pieces of heavy-duty (>50 horsepower) diesel and/or gasoline-powered equipment will be used per day during the demolition, site preparation, and construction phases of the project, including owned, leased, and subcontractor equipment.	Mitigation measures incorporated into construction measures	Developer The developer shall provide the City Building Division with a copy of contract requirements that include the conditions for the contractor for the Proposed Project.	Prior to the start of demolition and construction	The Building Division shall verify compliance during construction. The City Project Coordinator shall include a copy of construction conditions in the project file.
Impact 5.1-2: Short-Term Construction Increases in PM ₁₀ Emissions	5.1-2a The project shall ensure that all demolished material will be completely wetted during demolition and during any subsequent disturbance of the material. 5.1-2b The project shall ensure that piles of demolished material, when not being disturbed, are either completely wetted or completely covered. 5.1-2c Two feet of freeboard space shall be maintained on all trucks transporting demolished material.	Mitigation measures incorporated into demolition practices	Demolition Contractor The developer shall provide the City Building Division with a copy of contract requirements that include the conditions for the contractor for the Proposed Project.	During demolition activity	The Building Division shall verify compliance during construction. The City Project Coordinator shall include a copy of construction conditions in the project file.
DEIR Section 5.2 Cultural and Historic Resources					
Impact 5.2-1: Loss or degradation of known or undiscovered prehistoric and historic resources	5.2-1a The project proponent shall hire a qualified professional to formulate and implement a research design and field strategy with regard to possible sub-surface resource. Testing shall include geophysical mapping of the near-surface, ground-truthing using both the geophysical maps and historic maps, followed by evaluation of discovered resources for CRHR eligibility. All testing shall be conducted prior to initiation of	Mitigation measures shall be used and monitored during construction activities	Developer The City of Sacramento will include the conditions in the project's construction permits. Preservation Director	Prior to the start of demolition and construction	The Building Division shall verify compliance during demolition and construction. The Applicant shall submit a copy of construction conditions to the City Project Coordinator.

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>construction for the project. Based on the results of testing, recommendations shall be provided, which may include additional testing, data recovery, future construction monitoring, as well as preparation of an Unanticipated Discovery Plan. All recommendations shall be submitted to the City of Sacramento's Preservation Director for approval.</p> <p>5.2-1b The project applicant shall hire a professional archaeologist to perform archaeological monitoring during ground-disturbing construction activities, including demolition, for the duration of the project. If resources are discovered during construction, the procedure laid out in the Unanticipated Discovery Plan will be followed. This includes consultation with the appropriate Native American representatives if a Native American site is discovered.</p> <p>5.2-1c If significant findings are made, historic materials and artifacts shall be incorporated into an interpretive display in the proposed building, or grouped with other projects to produce a larger more comprehensive exhibit or display in coordination with the Manager of the History and Science Division. The interpretive display shall include a history of the site uses including information on the various ethnics groups that dominated the site. Display of all historic materials and artifacts shall follow the standard practices and procedures generally</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>accepted in museum curation, and shall be made available to the Manager of the History and Science Division for review and comment before they are constructed and installed. All collected materials shall be archived at an appropriate curation facility at the project applicant's expense.</p> <p>5.2-1d All activities related to the data recovery of the site shall be recorded and compiled into a report and submitted to both the City and the North Central Information Center. In addition, appropriate public outreach material such as a leaflet, pamphlet, or booklet shall be developed detailing any finds and their historic context. All reports shall be deposited with the city's archive - the Sacramento Archives and Museum Collection Center (SAMCC), and shall include original photographs and negatives or high resolution digital scans in a TIF format on high quality CD's or DVD's. Reports if produced in a digital format shall be deposited as both a hard copy and a digital copy. A release shall be included that allows SAMCC the right to reproduce all documents and graphics (including photographs) without restriction.</p> <p>5.2-1e If Native American archeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archeologists, who are certified by the Society of Professional Archeologists (SOPA) and/or meet the federal standards as stated in the Code</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
Impact 5.2-2: Potential alteration or demolition of historic resources	<p>of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions. In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out by qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements.</p> <p>5.2-1f If a human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find, and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for reinterment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place.</p> <p>5.2-2 Retain the original granite curbstones in place during project construction; if that is not possible, all curbstones shall be carefully removed</p>	Mitigation measures shall be used and monitored during	Developer/Contractor The City of Sacramento will include the conditions	Prior to the start of demolition and construction	The Building Division shall verify compliance during demolition and

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	and stored during sidewalk demolition and replaced back in their original location during sidewalk reconstruction.	construction activities	in the project's construction permits.		construction. Applicant shall submit a copy of construction conditions to the City Project Coordinator.
Impact 5.2-3: Cumulative loss of cultural resources	Implement Mitigation Measures 5.2-1a, 5.2-1b, and 5.2-1c.	Mitigation measures shall be used and monitored during construction activities:	Developer/Contractor The City of Sacramento will include the conditions in the project's construction permits.	Prior to the start of demolition and construction	The Building Division shall verify compliance during demolition and construction. The Applicant shall submit a copy of construction conditions to the City Project Coordinator.
5.3 Hazards and Hazardous Materials					
Impact 5.3-1: Construction disturbance of potentially contaminated soil and structures	<p>5.3.1a Prior to any demolition activities on the project site, conduct an interior survey to evaluate the presence of asbestos containing materials, lead based paint, PCB containing electrical and hydraulic fluids, and/or CFCs, as well as any other potential environmental concerns (i.e., aboveground/underground fuel tanks, elevator shafts/hydraulic lifts, floor drains/sumps, chemical storage/disposal) which may be present within structures on the properties.</p> <p>5.3-1b The City shall require in construction contract documents that a hazardous materials removal team be on-call and available for immediate response during site preparation,</p>	Conduct an interior survey, retain on-call hazmat removal team, and provide construction documents that incorporate the mitigation measures.	Developer The City shall require in construction contract documents that a hazardous materials removal team be on-call and available for immediate response during site preparation, excavation, and any pile driving construction activities. Sacramento Fire Department SCEMD	Prior to demolition	Building Division shall verify compliance prior to demolition. Applicant shall submit a copy of construction conditions and any site remediation plans and/or site safety plans to the City Project Coordinator.

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>excavation, and any pile driving construction activities. Hazardous material removal activities may be contracted to a qualified hazardous materials removal contractor.</p> <p>Construction contract documents shall require the hazardous material removal contractor or subcontractor to comply with the following:</p> <p>(1) Prepare a hazardous material discovery and response contingency plan for review by the City of Sacramento Fire Department. The fire department will act as the first responder to a condition of extreme emergency (i.e., fire, emergency medical assistance, etc).</p> <p>(2) In the event that a condition or suspected condition of soil and/or groundwater contamination are discovered during construction, work shall cease or be restricted to an unaffected area of the site as the situation warrants and the City shall be immediately notified. Upon notification, the City shall notify the Sacramento County Environmental Management Department (SCEMD) of the contamination condition, and the hazardous material removal contractor shall prepare a site remediation plan and a site safety plan, the latter of which is required by OSHA for the protection of construction workers. Similarly, the hazardous material removal contractor shall follow and implement all directives of the SCEMD and any other jurisdictional authorities that might become involved in the</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>remediation process.</p> <p>(3) Preparation of any remediation plan shall include in its focus measures to be taken to protect the public from exposure to potential site hazards and shall include a certification that the remediation measures would clean up the contaminants, dispose of the wastes properly, and protect public health in accordance with federal, state, and local requirements.</p> <p>(4) Obtain closure and/or No Further Action letters from the appropriate agency(ies).</p> <p>(5) Construction contract documents shall include provisions for the proper handling and disposal of contaminated soil and/or dewatering water (including groundwater and contaminated rainwater) in accordance with federal, state, and local requirements.</p>				
5.4 Noise/Vibration					
<p>Impact 5.4-1: Construction noise at sensitive receptors</p>	<p>5.4-1a Erect a solid 6 to 8 foot plywood construction/noise barrier along the exposed project boundaries. The barrier should not contain any significant gaps at its base or face, except for site access and surveying openings.</p> <p>5.4-1b Construction activities shall comply with the City of Sacramento Noise Ordinance. Demolition and pile driving activities shall be coordinated with adjacent land uses in order to minimize potential disturbance of</p>	<p>Mitigation measures shall be used and monitored during construction and demolition activities</p>	<p>Contractor The City of Sacramento will include the construction noise conditions in the project's construction permits.</p>	<p>Before and during construction</p>	<p>The Building Division shall verify compliance during construction. The Applicant shall submit a copy of construction conditions to the City Project Coordinator.</p>

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
<p>Impact 5.4-2: Construction-induced vibration impacts could cause architectural damage to nearby historic structures and annoyance to nearby sensitive receivers</p>	<p>planned activities.</p> <p>5.4-1c Pile holes will be pre-drilled to the maximum feasible depth. This will reduce the number of blows required to seat the pile, and will concentrate the pile driving activity closer to the ground where noise can be attenuated more effectively by the construction/noise barrier.</p> <p>5.4-1d Locate fixed construction equipment such as compressors and generators as far as possible from sensitive receptors. Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on power construction equipment.</p> <p>5.4-1e Designate a disturbance coordinator and conspicuously post this person's number around the project site and in adjacent public spaces. The disturbance coordinator will receive all public complaints about construction noise disturbances and will be responsible for determining the cause of the complaint, and implement any feasible measures to be taken to alleviate the problem.</p>	<p>Mitigation measures shall be used and monitored during construction and demolition activities</p>	<p>Developer/Contractor</p> <p>The Applicant shall provide verification to the Building Division that the pre-existing condition of sensitive buildings has been assessed and recorded prior to the issuance of construction permits.</p>	<p>Prior to construction and demolition</p>	<p>The Building Division shall verify compliance during demolition and construction. The Applicant shall submit a copy of construction conditions to the City Project Coordinator.</p>
<p>Impact 5.4-2a 5.4-1c.</p> <p>5.4-2b Prior to demolition, the pre-existing condition of all buildings within a 50-foot radius will be recorded in order to evaluate damage from construction activities. Fixtures and finishes within a 50-foot radius of construction activities susceptible to damage will be documented (photographically and in writing) prior to</p>	<p>5.4-2a Implement mitigation measure</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>construction. All damage will be repaired back to its pre-existing condition.</p> <p>5.4-2c If fire sprinkler failures are reported in surrounding buildings to the disturbance coordinator, the contractor shall provide monitoring during construction and repairs to sprinkler systems shall be provided.</p> <p>5.4-2d During demolition and construction, should damage occur despite the above mitigation measures, construction operations shall be halted and the problem activity shall be identified. A qualified engineer shall establish vibration limits based on soil conditions and the types of buildings in the immediate area. The contractor shall monitor the buildings throughout the remaining construction period and follow all recommendations of the qualified engineer to repair any damage that has occurred to the pre-existing state, and to avoid any further structural damage.</p>		<p>The Building Division will include conditions in the project's construction permits.</p>		
<p>Impact 5.4-5: The operation of the proposed project could expose new sensitive receptors to excessive interior noise levels</p>	<p>5.4-5 Windows for the residential floors below the 15th floor, along J Street, would be required to have a minimum STC rating of 33. The project applicant shall submit an acoustical review of interior noise levels prior to being issued building permits. The review should verify that the proposed building façade construction is sufficient to achieve an interior noise level of 45 dB Ldn or less.</p>	<p>Mitigation measures would reduce the potential for interior noise level impacts</p>	<p>Developer/Contractor The City of Sacramento will include the construction noise conditions in the project's construction permits.</p>	<p>Prior to construction</p>	<p>The Building Division shall verify compliance during construction, prior to issuing final building permits. The Applicant shall submit a copy of construction conditions to the City Project Coordinator.</p>

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
5.5 Public Services and Utilities					
<p>Impact 5.5-2: Combined sewer service system impacts from dewatering activities</p>	<p>5.5-2a Prior to issuance of the building permit construction contract documents shall include provisions for the proper handling and disposal of contaminated dewatering water in accordance with federal, state, and local requirements. 5.5-2b If the City or SRCSD determines that groundwater extracted during dewatering activities does not meet applicable standards for discharge into the city sewer system, the contractor shall implement groundwater treatment systems that treat groundwater to standards established by the Central Valley RWQCB, City, and SRCSD.</p>	<p>Mitigation measures incorporated into construction practices</p>	<p>Developer/Contractor The City of Sacramento will include the construction dewatering conditions in the project's construction permits. SRCSD</p>	<p>Prior to construction</p>	<p>The Building Division shall verify compliance during construction, prior to issuing building permits. The Applicant shall submit a copy of construction conditions to the City Project Coordinator.</p>
5.6 Transportation and Circulation					
<p>Impact 5.6-2: Freeway Mainline: The project would increase traffic volumes on the freeway mainline</p>	<p>5.6-2 Prior to building occupancy, the applicant shall pay a fairshare contribution to the Downtown-Natomas-Airport Light Rail Extension (DNA), phase I(MOS) project to mitigate the project's regional traffic impacts on the mainline freeway system in the Cathedral Square area. The City shall determine the project applicants total fair share contribution based on the project's transit trips in relation the DNA, MOS project's capacity. However, the contribution of these funds does not ensure that the DNA project will be implemented or will fully mitigate the project's impacts on the mainline freeway system.</p>	<p>The applicant shall pay a fairshare contribution to the Downtown-Natomas-Airport Light Rail Extension (DNA)</p>	<p>Department of Development Services, Engineering Division, and Department of Transportation Engineering</p>	<p>Prior to occupancy</p>	<p>Department of Development Services, Engineering Division, and Department of Transportation Engineering shall verify compliance prior to issuing occupancy permits.</p>

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
<p>Impact 5.6-3: Freeway Interchanges: The project would increase traffic volumes at the freeway interchanges</p>	<p>5.6-3 Implement Mitigation Measure 5.6-2.</p>	<p>The applicant shall pay a fairshare contribution to the Downtown-Natomas-Airport Light Rail Extension (DNA)</p>	<p>Department of Development Services, Engineering Division, and Department of Transportation Engineering</p>	<p>Prior to occupancy</p>	<p>Department of Development Services, Engineering Division, and Department of Transportation Engineering shall verify compliance prior to issuing occupancy permits.</p>
<p>Impact 5.6-9: Construction: The project may include the temporary closure of numerous transportation facilities, including portions of City streets, sidewalks, bikeways, on-street parking, off-street parking, and transit facilities</p>	<p>5.6-9 Prior to the beginning of construction, a construction management plan shall be prepared by the applicant to the satisfaction of the City traffic engineer, Regional Transit, and any other affected agency.</p>	<p>Prepare traffic management plan and get sign-off by the City traffic engineer and Regional Transit</p>	<p>Developer</p>	<p>Prior to construction</p>	<p>The Development Engineering Division and Department of Transportation shall verify compliance prior to issuing building permits.</p>
<p>Impact 5.6-10 Cumulative impacts to study intersection under near term plus project condition</p>	<p>5.6-10a At the 3rd Street / J Street intersection, modify the traffic signal phase splits during the a.m. peak period by increasing the phase time for the southbound I-5 off-ramp approach (eastbound) to 40 seconds, maintaining the 50 second phase time for the northbound I-5 off-ramp, and decreasing the north and southbound 3rd Street phase time to 10 seconds. This mitigation measure would reduce average vehicle delay by 33 seconds during the a.m. peak hour and would</p>	<p>The applicant shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p>	<p>Department of Development Services, Engineering Division, and Department of Transportation Engineering</p>	<p>Prior to occupancy</p>	<p>Department of Development Services, Engineering Division, and Department of Transportation Engineering shall verify compliance prior to issuing occupancy permits.</p>

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-10b At the 3rd Street / L Street intersection, modify the westbound approach to provide one left-turn lane, two through lanes (to the northbound I-5 on-ramp), and one right-turn lane. This mitigation measure would reduce average vehicle delay by 40 seconds during the p.m. peak hour and maintain LOS C operations during the a.m. peak hour. The mitigation measure would reduce the near-term cumulative impact to a less-than-significant level.</p> <p>5.6-10c At the 3rd Street / N Street intersection, modify the traffic signal phase splits during the a.m. peak period by increasing the southbound 3rd Street signal phase time to 34 seconds, decreasing the eastbound N Street approach to 15 seconds, and maintaining the phase time for the eastbound Tower Bridge approach at 21 seconds. This mitigation measure would improve traffic operations to LOS C during the a.m. peak hour and would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-10d At the 3rd Street / P Street</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>intersection, modify the traffic signal phase splits during the p.m. peak period by increasing the signal phase time to 32 seconds for the westbound P Street approach and decreasing the southbound 3rd Street approach to 18 seconds. This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-10e At the 5th Street / L Street intersection, modify the traffic signal phase splits during the p.m. peak period by increasing the signal phase time to 28 seconds for the westbound L Street approach and decreasing the northbound and southbound 5th Street approaches to 42 seconds. This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-10f At the 7th Street / L Street intersection, modify the traffic signal phase splits during the p.m. peak period by increasing the signal phase time to 22 seconds for the westbound L Street approach and decreasing the</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>northbound and southbound 5th Street approaches to 28 seconds. This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-10g At the 8th Street / L Street intersection, modify the traffic signal phase splits during the p.m. peak period by increasing the signal phase time to 25 seconds for the westbound L Street approach and decreasing the northbound 8th Street signal phase time to 25 seconds. This mitigation measure would improve traffic operations to LOS B during the p.m. peak hour and would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-10h At the 9th Street / J Street intersection, modify the traffic signal phase splits during the p.m. peak period by increasing the signal phase time to 28 seconds for the eastbound J Street approach and decreasing the southbound 9th Street signal phase time to 22 seconds. This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the near-</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-10i At the 10th Street / J Street intersection, modify the traffic signal phase splits during the p.m. peak period by increasing the signal phase time to 28 seconds for the eastbound J Street approach and decreasing the northbound 10th Street signal phase time to 22 seconds. This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-10j At the 12th Street / J Street intersection, modify the traffic signal phase splits during the p.m. peak period by increasing the signal phase time to 22 seconds for the eastbound J Street approach and decreasing the 12th Street signal phase time to 28 seconds. This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>intersection.</p> <p>5.6-10k At the 15th Street / J Street intersection, modify the traffic signal phase splits during the p.m. peak period by increasing the phase time for the eastbound J Street approach to 30 seconds, and decreasing the southbound 15th Street signal phase time to 20 seconds. This mitigation measure would reduce average vehicle delay by 61.4 seconds during the p.m. peak hour and would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-10l At the 15th Street / X Street intersection, modify the traffic signal phase splits during the p.m. peak period by increasing the phase time for the southbound 15th Street approach to 28 seconds, decreasing the eastbound U.S. 50 off-ramp phase time to 28 seconds, and maintaining 17 seconds for the X Street approach. This mitigation measure would reduce average vehicle delay by 34.4 seconds during the p.m. peak hour and would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-10m At the 16th Street / H Street intersection, modify the traffic signal</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
<p>Impact 5.6-11: Cumulative impacts to freeway mainline under near term plus project condition</p>	<p>phase splits during the p.m. peak period by increasing the phase time for the northbound 15th Street approach to 26 seconds, decreasing the phase times for the eastbound H Street left-turning movement and through movements to 18 and 24 seconds, respectively, and maintaining 6 seconds for the westbound H Street right-turning movement. This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.²² seconds. This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p>	<p>The applicant shall pay a fairshare contribution to the Downtown-Natomas-Airport Light Rail Extension (DNA)</p>	<p>Department of Development Services, Engineering Division, and Department of Transportation Engineering</p>	<p>Prior to occupancy</p>	<p>Department of Development Services, Engineering Division, and Department of Transportation Engineering shall verify compliance prior to issuing</p>

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
Impact 5.6-12: Cumulative impacts to freeway merge/diverge/ weave areas under near term plus project condition	5.6-12 Implement Mitigation Measure 5.6-2.	The applicant shall pay a fairshare contribution to the Downtown-Natomas-Airport Light Rail Extension (DNA)	Department of Development Services, Engineering Division, and Department of Transportation Engineering	Prior to occupancy	Department of Development Services, Engineering Division, and Department of Transportation Engineering shall verify compliance prior to issuing occupancy permits.
Impact 5.6-13: Cumulative impacts to freeway ramp queues under near term plus project condition	5.6-13 Implement Mitigation Measures 5.6-17(a) and 5.6-2.	The applicant shall pay a fairshare contribution to the Downtown-Natomas-Airport Light Rail Extension (DNA)	Department of Development Services, Engineering Division, and Department of Transportation Engineering	Prior to occupancy	Department of Development Services, Engineering Division, and Department of Transportation Engineering shall verify compliance prior to issuing occupancy permits.
Impact 5.6-17 Cumulative impacts to study intersection under long term plus project condition	5.6-17a At the 3rd Street / J Street intersection, implement the near-term Mitigation Measure (a) (modification of signal phase splits) and also modify the lanes on the southbound I-5 off-ramp approach (eastbound) to provide one combination left/through lane, one through lane, one combination through/right lane, and one exclusive right turn lane. This mitigation measure would reduce average vehicle delay during the a.m. peak hour by 32.5 seconds and would improve traffic operations during the p.m. peak hour to LOS C.	The applicant shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.	Department of Development Services, Engineering Division, and Department of Transportation Engineering	Prior to occupancy	Department of Development Services, Engineering Division, and Department of Transportation Engineering shall verify compliance prior to issuing occupancy permits.

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>This mitigation measure would reduce the long-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-17b At the 3rd Street / L Street intersection, implement the near-term Mitigation Measure (b) (modification of the westbound approach lanes) and also modify the traffic signal phase splits during the p.m. peak period by increasing the southbound 3rd Street approach to 23 seconds, decreasing the westbound L Street signal phase time to 38 seconds, and decreasing the northbound 3rd Street left-turning movement to 9 seconds. This mitigation measure would reduce average vehicle delay by 43.5 seconds during the p.m. peak hour and provide LOS C traffic operations during the a.m. peak hour. This mitigation measure would reduce the near-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-17c At the 3rd Street / N Street intersection, implement the near-term Mitigation Measure (c) (modification of signal phase splits). This mitigation measure would improve traffic operations to LOS C during the a.m. peak hour and would reduce the long-</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-17d At the 3rd Street / P Street intersection, implement the near-term Mitigation Measure (d) (modification of signal phase splits). This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the long-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-17e At the 5th Street / I Street intersection, modify the traffic signal phase splits during the p.m. peak period by increasing the signal phase time to 30 seconds for the northbound and southbound 5th Street approaches and decreasing the westbound I Street approach to 70 seconds. This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the long-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-17f At the 5th Street / L Street intersection, implement the near-term Mitigation Measure (e) (modification of</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>signal phase splits). This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the long-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retrimming of this intersection.</p> <p>5.6-17g At the 7th Street / L Street intersection, implement the near-term Mitigation Measure (f) (modification of signal phase splits). This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the long-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retrimming of this intersection.</p> <p>5.6-17h At the 8th Street / L Street intersection, implement the near-term Mitigation Measure (g) (modification of signal phase splits). This mitigation measure would improve traffic operations to LOS B during the p.m. peak hour and would reduce the long-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retrimming of this intersection.</p> <p>5.6-17i At the 9th Street / J Street intersection, implement the near-term Mitigation Measure (h) (modification of</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>signal phase splits). This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the long-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-17j At the 10th Street / J Street intersection, implement the near-term Mitigation Measure (j) (modification of signal phase splits). This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the long-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-17k At the 12th Street / J Street intersection, modify the traffic signal phase splits during the p.m. peak period by increasing the eastbound J Street approach to 23 seconds and decreasing the southbound 12th Street and northbound right-turn movement signal phase time to 27 seconds. This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the long-term cumulative impact to a less-than-significant level.</p> <p>5.6-17l At the 15th Street / J Street intersection, implement the near-term Mitigation Measure (k) (modification of</p>				

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
	<p>signal phase splits). This mitigation measure would reduce average delay by 59.2 seconds during the p.m. peak hour and would reduce the long-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-17m At the 15th Street / X Street intersection, implement the near-term Mitigation Measure (l) (modification of signal phase splits). This mitigation measure would reduce average vehicle delay by 32.8 seconds during the p.m. peak hour and would reduce the long-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p> <p>5.6-17n At the 16th Street / H Street intersection, implement the near-term Mitigation Measure (m) (modification of signal phase splits). This mitigation measure would improve traffic operations to LOS C during the p.m. peak hour and would reduce the long-term cumulative impact to a less-than-significant level. The applicant of the proposed project shall pay a fair share to recover the costs of the City's Traffic Operation Center monitoring and retiming of this intersection.</p>				
Impact 5.6-18: Cumulative impacts to freeway mainline	5.6-18 Implement Mitigation Measure 5.6-2.	The applicant shall pay a fairshare	Department of Development Services,	Prior to occupancy	Department of Development Services,

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
under long term plus project condition		contribution to the Downtown-Natomas-Airport Light Rail Extension (DNA)	Engineering Division, and Department of Transportation Engineering		Development Engineering Division, and Department of Transportation Engineering shall verify compliance prior to issuing occupancy permits.
Impact 5.6-19 Cumulative impacts to freeway merge/diverge/ weave areas under long term plus project condition	5.6-19 Implement Mitigation Measure 5.6-2.	The applicant shall pay a fairshare contribution to the Downtown-Natomas-Airport Light Rail Extension (DNA)	Department of Development Services, Engineering Division, and Department of Transportation Engineering	Prior to occupancy	Department of Development Services, Engineering Division, and Department of Transportation Engineering shall verify compliance prior to issuing occupancy permits.
Impact 5.6-20: Cumulative impacts to freeway ramp queues under long term plus project condition	5.6-20 Implement Mitigation Measures 5.6-17(a) and 5.6-2.	The applicant shall pay a fairshare contribution to the Downtown-Natomas-Airport Light Rail Extension (DNA)	Department of Development Services, Engineering Division, and Department of Transportation Engineering	Prior to occupancy	Department of Development Services, Engineering Division, and Department of Transportation Engineering shall verify compliance prior to issuing occupancy permits.
5.7 Urban Design					
Impact 5.7-2: Light and glare on roadways and	5.7-2 (a) Prior to the issuance of building permits, construction drawings shall indicate that the configuration of exterior light fixtures emphasize close	Project proponent shall provide construction drawings to	Developer The City Design Review staff shall	Prior to issuance of building permits	The Building Division shall verify prior to issuing building permits.

5.0 MITIGATION MONITORING PLAN

Impact	Mitigation Measure	Action	Implementing Party	Timing	Monitoring Party
sidewalks	spacing and lower intensity light that is directed downward in order to minimize glare on adjacent uses. 5.7-2 (b) Highly reflective mirrored glass walls shall not be used as a primary building material for facades. Instead, Low E glass shall be used in order to reduce the reflective qualities of the building, while maintaining energy efficiency.	Design Review with appropriate materials	include conditions in the project's final design approvals, and forward to the Building Division.		Applicant shall submit a copy of construction conditions to the City Project Coordinator
Impact 5.7-4 Cumulative light and glare on roadways and sidewalks	Implement Mitigation Measures 5.7-2 (a) and (b)	Project proponent shall provide construction drawings to Design Review with appropriate materials	Developer The City Design Review staff shall include conditions in the project's final design approvals, and forward to the Building Division.	Prior to issuance of building permits	The Building Division shall verify compliance prior to issuing building permits. Applicant shall submit a copy of construction conditions to the City Project Coordinator

APPENDIX A

UPDATED URBEMIS 2002 EMISSIONS MODEL WORKSHEETS

APPENDIX A

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Metropolitan.urb
 Project Name: Metropolitan
 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)	7.93	54.94	62.74	0.03	11.84	2.29	9.55

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day,unmitigated)	5.21	32.83	43.88	0.00	1.47	1.36	0.11

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	21.39	2.55	2.51	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	15.30	13.12	131.15	0.07	12.13

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	36.69	15.67	133.66	0.07	12.14

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Metropolitan.urb
 Project Name: Metropolitan
 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: 15.6
 Total Land Use Area to be Developed: 0.955 acres
 Maximum Acreage Disturbed Per Day: 0.955 acres
 Single Family Units: 0 Multi-Family Units: 320
 Retail/Office/Institutional/Industrial Square Footage: 13000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	5.04	-	5.04
Off-Road Diesel	3.43	23.87	26.85	-	0.96	0.96	0.00
On-Road Diesel	0.88	17.32	3.25	0.03	0.44	0.37	0.07
Worker Trips	0.03	0.06	0.64	0.00	0.00	0.00	0.00
Maximum lbs/day	4.34	41.25	30.74	0.03	6.44	1.33	5.11
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	9.55	-	9.55
Off-Road Diesel	7.91	54.93	62.48	-	2.29	2.29	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.02	0.01	0.26	0.00	0.00	0.00	0.00
Maximum lbs/day	7.93	54.94	62.74	0.00	11.84	2.29	9.55
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	4.54	34.01	34.07	-	1.49	1.49	0.00
Bldg Const Worker Trips	0.73	0.44	9.33	0.00	0.12	0.01	0.11
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	5.27	34.45	43.39	0.00	1.60	1.49	0.11
Max lbs/day all phases	7.93	54.94	62.74	0.03	11.84	2.29	9.55
*** 2008***							
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	4.54	32.42	35.19	-	1.35	1.35	0.00
Bldg Const Worker Trips	0.67	0.41	8.69	0.00	0.12	0.01	0.11
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	5.21	32.83	43.88	0.00	1.47	1.36	0.11
Max lbs/day all phases	5.21	32.83	43.88	0.00	1.47	1.36	0.11

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Mar '07

Phase 1 Duration: 2.7 months

Building Volume Total (cubic feet): 682500

Building Volume Daily (cubic feet): 12000

On-Road Truck Travel (VMT): 666

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Rubber Tired Loaders	165	0.465	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: May '07

Phase 2 Duration: 1.4 months

On-Road Truck Travel (VMT): 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Off Highway Trucks	417	0.490	8.0
1	Rubber Tired Dozers	352	0.590	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jul '07

Phase 3 Duration: 11.5 months

Start Month/Year for SubPhase Building: Jul '07

SubPhase Building Duration: 11.5 months

Off-Road Equipment

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

SubPhase Architectural Coatings Turned OFF

SubPhase Asphalt Turned OFF

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.20	2.54	1.13	0	0.00
Hearth - No summer emissions					
Landscaping	0.21	0.01	1.38	0.00	0.00
Consumer Prdcts	15.66	-	-	-	-
Architectural Coatings	5.33	-	-	-	-
TOTALS(lbs/day,unmitigated)	21.39	2.55	2.51	0.00	0.01

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Condo/townhouse high rise	9.73	7.30	74.90	0.04	7.16
General Retail Space	5.57	5.82	56.25	0.03	4.97
TOTAL EMISSIONS (lbs/day)	15.30	13.12	131.15	0.07	12.13

Includes correction for passby trips.
 Includes the following double counting adjustment for internal trips:
 Residential trips: 35.38 % reduction. Nonresidential trips: 28.06 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2008 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Condo/townhouse high rise	0.96	2.89 trips/dwelling unit	320.00	924.00
General Retail Space		99.77 trips/1000 sq. ft.	13.00	1,297.00
			Sum of Total Trips	2,221.00
			Total Vehicle Miles Traveled	7,976.38

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

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)
 General Retail Space 2.0 1.0 97.0

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Condominium/townhouse high rise have changed from the defaults 5.26/5. to 4.46875/.955

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths

Changes made to the default values for Area

The hearth option switch changed from on to off.
The landscape year changed from 2005 to 2008.

Changes made to the default values for Operations

The pass by trips option switch changed from off to on.
The double counting option switch changed from off to on.
The operational emission year changed from 2005 to 2008.

APPENDIX B

NOP AND DRAFT EIR MAILING LIST

APPENDIX B

NAME	ADDRESS	CITY	STATE	ZIP
12th & K St Mall Partners Llc	30012 Ivy Glenn Dr 200	Laguna Niguel	CA	92677
4050 Lakeside Limited Partnership	2128 Cuttings Wharf Rd	Napa	CA	94559
718 K Street Llc	1025 9th St 205	Sacramento	CA	95814
911 K Street Investors	1001 Sixth St 200	Sacramento	CA	95814
925 L Street Inc	191 Peachtree St Ne 1500	Atlanta	GA	30303
Abukhdair Ismail/Hiba	1301 Sierra Oaks Ct	Newcastle	CA	95658
Adams Capital Management Co	221 Main St 440	San Francisco	CA	94105
Adrian L/Michelle J Randolph Family Revocable Trus	1660 12th St	Sacramento	CA	95814
Adsa Revocable Trust	5 Jenney Ct	Sacramento	CA	95831
Alfonso Z Gonzalez Trust/Donna L Reed	103 Breckenwood Wy	Sacramento	CA	95864
American River Partners Llc/Blue Bronco Llc/Etal	1112 11th St	Sacramento	CA	95814
Aris N Kufasimes Family Trust A/Etal	511 35th St	Sacramento	CA	95816
Association California School Administrators	1517 L St	Sacramento	CA	95814
Association Of California Water Agencies	910 K St	Sacramento	CA	95814
Bassett Family Trust/Etal	524 Wildflower Pl	Alamo	CA	94507
Benson Charles/Jaclyn/L Edward Elliott/Terry E	7019 N Parkridge Ct	Riverbank	CA	95367
Bing Kong Tong Sacramento Inc	918 5th St	Sacramento	CA	95814
Bowman/Bay Building Joint Venture	901 H St	Sacramento	CA	95814
Cal Del Presidio Investments Ltd L P	2530 I St	Sacramento	CA	95816
Calif Assn Hosp/Hlth Sym(Tsakopoulos Fam Llc/Etal)	1201 K St 1840	Sacramento	CA	95814
Calif Dental Assn-Rotunda Llc (Cda-Rotunda Ptns)	1201 K St	Sacramento	CA	95814
California Medical Association Properties Inc	211 Main St	San Francisco	CA	94120
California Restaurant Assn Educational Fdn	1011 10th St	Sacramento	CA	95814
California Teachers Association	1705 Murchison Dr	Burlingame	CA	94010
Capitaol Regency Llc	222 Kearny St 550	San Francisco	CA	94108
Carol A Scheiber Rev Trust/Noyes Family Trust/Etal	Po Box 621	Lincoln	CA	95648
Cathedral Building Llc	1600 El Camino Real D	Belmont	CA	94002
Ccaa Partners Llc/Bruce W Bell/Etal	1801 I St 202	Sacramento	CA	95814
Cim/Sacramento Llc	Po Box 131071	Carlsbad	CA	92013
City Centre Properties Revocable Trust	Po Box 15453	Sacramento	CA	95851
City Of Sac(Sac Hotel Corp)(Public Mkt Bldg Llc)	1030 15th St 250	Sacramento	CA	95814
City Of Sacramento	720 10th St	Sacramento	CA	95814
City Of Sacramento	915 I St 200	Sacramento	CA	95814
Cnpa Services Inc	1225 8th St 260	Sacramento	CA	95814
Conservative Investments Company	1000 G St 200	Sacramento	CA	95814
Cordano Enterprises Llc	1112 11th St	Sacramento	CA	95814
Corum Family Partnership	1005 12th St	Sacramento	CA	95814
County Of Sacramento	10545 Armstrong Av 201c	Mather	CA	95655
County Of Sacramento	700 H St	Sacramento	CA	95814
County Of Sacramento -	730 I St	Sacramento	CA	95814
County Supervisors Association Of California	1100 K St 101	Sacramento	CA	95814
Crhmf Homebuyers Fund	801 12th St	Sacramento	CA	95814
Cummings William W/Marvin L Oates Trust/Etal	1107 9th St	Sacramento	CA	95814
David Revocable Inter Vivos Trust	2604 Marty Wy	Sacramento	CA	95818
Davies Julie M N/Etal	1825 Gillespie Wy 101	El Cajon	CA	92020
Dennis J Hock 2004 Family Trust/Terry R Rule	2533 7th Av	Sacramento	CA	95818
Diocese Of Sacto Education/Welfare	2110 Broadway	Sacramento	CA	95818
E W L Partnership	916 J St	Sacramento	CA	95814
Edgar R/Carrol J Quint Revocable Trust	3637 Montclair Rd	Shingle Spgs	CA	95682
Eleventh/J Devco Llc/St Anton Investors Llc	1112 11th St	Sacramento	CA	95814
Esther Berger Revocable Trust /Etal	713 9th St	Sacramento	CA	95814
Fahn Stanley/Cecelia Linder	155 Edgars Ln	Hastings Hdsn	NY	10706
Fong Holland Trustee	6440 Havenside Dr	Sacramento	CA	95831
Fruitridge/Stockton Llc/Etal	5046 Sunrise Blvd 1	Fair Oaks	CA	95628
Geisreiter Family Trust	3015 Arlington Dr	Aptos	CA	95003

Gordon E/Dorothy M Maccormack Family Rev Trust	1021 H St 5	Sacramento	CA	95814
Green/Azevedo Investments	1234 H St	Sacramento	CA	95814
Hafeez Family 1997 Revocable Trust	7622 Greenwood Ct	Granite Bay	CA	95746
Halls Capital Plaza	1025 9th St	Sacramento	CA	95814
Health Property Assoc (Cda Rotunda Ptns Llc/Etal)	1201 K St	Sacramento	CA	95814
Herbert K/Inez F Yee Revocable Trust	1301 Normandy Ln	Sacramento	CA	95822
Hill Susan C/Julie M Davies N/Etal	1825 Gillespie Wy	El Cajon	CA	92020
Hobbs William W	500 20th St	Sacramento	CA	95814
J Street Reformation Partnership	2150 River Plaza Dr 150	Sacramento	CA	95833
James/Roxanne Leon Revocable Trust/Etal	Po Box 890	Fair Oaks	CA	95628
Janmohamed Sajad/Sakina S/M H Mohanna	1025 9th St 205	Sacramento	CA	95814
Jb Management L P	1825 Bell St 100	Sacramento	CA	95825
John/Wendy Virga Living Trust	6 Moonlit Cir	Sacramento	CA	95831
Judson R/Sharon C Landis 1994 Family Trust	3701 Winding Creek Rd	Sacramento	CA	95864
June Z Cordano Surviving Spouses Trust/Etal	1112 11th St	Sacramento	CA	95814
Kenny/Kathleen Wong Living Trust	5421 Pleasant Dr	Sacramento	CA	95822
Khan Mohammed N/Etal	3960 67th St	Sacramento	CA	95820
Legacy Ventures Llc	27369 Eagle View Ct	El Macero	CA	95618
Luong Huey/Ha T Dang/Nguyen Luong	5931 Sternsburg Way	Sacramento	CA	95823
Man Y Lui Family Trust	1300 Valley Brook Av	Sacramento	CA	95831
Marjorie H Pedder 2001 Revocable Living Trust/Etal	Po Box 2590	Sacramento	CA	95812
Mart Family Holding Company Llc/Etal	100 Embarcadero 200	San Francisco	CA	94105
Marvin L Oates Trust/Obf	8615 Elder Creek Rd	Sacramento	CA	95828
Masonic Temple Assn	1123 J St	Sacramento	CA	95814
Matosevich Milan/Marica	10 Nautilus Ct	Sacramento	CA	95831
Mcclatchy Charles Kennan /Etal	P O Bx 13519	Arlington	TX	76094
Mohanna M H	1025 9th St 205	Sacramento	CA	95814
Mw Trust/Kathleen T Anapolsky/Lawrence G	11800 Melones Cir	Gold River	CA	95670
Nana Lal/Sitaben N Patel Family Rev Trust/Etal	906 12th St	Sacramento	CA	95814
Osmundson Anthony D/Stacy A	5 Jenney Ct	Sacramento	CA	95831
Palladian Props Llc	1425 River Park Dr 404	Sacramento	CA	95815
Patino Nelly B	928 Stern Cir	Sacramento	CA	95822
Patino Nelly B/Morgan John/Alex Padilla/Etal	816 H St	Sacramento	CA	95814
Peter/Sylvia Greenstein Family Living Trust	1136 Volz Dr	Sacramento	CA	95822
Phillip Cunningham Family Trust/Bruce A Monighan	2821 Lacy Ln	Sacramento	CA	95814
Porter Family Trust	5250 Valhalla Dr	Carmichael	CA	95608
Porter Sprague Incorporated	722 12th St	Sacramento	CA	95814
Procida George L/Bonnie J	1208 J St	Sacramento	CA	95814
Quint Edgar R/Carrol J/Co-Tr /Etal	722 12th St	Sacramento	CA	95814
Rah Partnership L P	9th St 7th Fl	Sacramento	CA	95814
Realty Advisors Inc	501 S St 1	Sacramento	CA	95814
Redevelopment Agency City Of Sacramento	P O Bx 1834	Sacramento	CA	95814
Regents Of The University Of California	1111 Franklin St 6 Fl	Oakland	CA	94607
Resilent Floor Covering Pension Fund	Po Box 1865	Loomis	CA	95650
Richter David	Po Bx 1030	Shingle Spgs	CA	95682
Ridgeway Hotel Investors	1006 4th St 701	Sacramento	CA	95814
Roman Catholic Bishop	2100 Broadway	Sacramento	CA	95820
Rt Sacramento Funding Company Inc	1200 Market Tower	10 West Market IN		1
Saca Revocable Trust	77 Cadillac Dr 210	Sacramento	CA	95825
Sacramento City Financing Authority	555 Capitol Mall 1200	Sacramento	CA	95814
Sacramento Co Emp Credit Union	800 H St	Sacramento	CA	95814
Sacramento Hotel Corporation	1030 15th St 250	Sacramento	CA	95814
Sacramento Metropolitan Air Quality Management	777 12th St	Sacramento	CA	95814
Samarzich Wayne N/Cheryl A	2729 I St	Sacramento	CA	95816
Scurfield Family Limited Partnership/Etal	1144 E Market St Dpt 824	Akron	OH	44316
Shigetoshi Eishun H/Fumi	945 Cobble Shores	Sacramento	CA	95831

Shorten Judy K/Michael D	1210 H St	Sacramento	CA	95814
Special District Risk Management Authority	1112 I St 300	Sacramento	CA	95814
St Anton Investors Llc/Eleventh/J Devco Llc	1112 11th St	Sacramento	CA	95814
State Of California	1010 L St	Sacramento	CA	95814
Strumwasser Michael J/Silvia M	100 Wilshire Bl 1900	Santa Monica	CA	90401
Teachers Ins/Annuity Assoc Of America	730 3rd Av	New York	NY	10017
Teachers Insurance/Annuity Assn Of America	915 L St 1030	Sacramento	CA	95814
Thea Stidum Trust	915 11th St	Sacramento	CA	95814
Theresa M Knight Revocable Trust 1992	1070 Sagamore Wy	Sacramento	CA	95822
Thunderbird Lodge Sacramento	1000 Marina Vlg Pkwy 100	Alameda	CA	94501
Thunderbird Lodge Sacramento	815 11th St	Sacramento	CA	95814
Tiu Alexander Y/Ofelia P/Abc Partners Llc/Etal	331 J St 200	Sacramento	CA	95814
Tuberculosis/Health Assn Sacto	P O Bx 417127	Sacramento	CA	95841
United States Of America	801 I St	Sacramento	CA	95814
Urban Innovation Partners Llc	1025 9th St 205	Sacramento	CA	95814
Utah Partners Llc	6601 26th St	Rio Linda	CA	95673
Valencich Matthew C/Rene M Worley	2621 P St	Sacramento	CA	95816
Vertex Investments Llc	370 Convention Way	Redwood City	CA	94063
Victorian Gem On G State Llc	3104 O St 254	Sacramento	CA	95816
Virga John William/Margaret Ann	721 Eleventh St	Sacramento	CA	95814
Whitworth College	1825 Gillespie Wy 101	El Cajon	CA	92020
Yee Moo Kai Assn	1233 Broadway	Sacramento	CA	95818
Zeiden Properties Llc	1855 W 139th St	Gardena	CA	90249
Zinfandel Acquisitions Inc	2500 Venture Oaks Way 17	Sacramento	CA	95833
Patrick Kennedy	717 K Street, Suite 423	Sacramento	CA	95814
Michael Zwahlen	4242 Arlington Ave.	Sacramento	CA	95820
Frank Cirill	P.O. Box 19866	Sacramento	CA	95819
c/o Pam McRoberts	1409 Carriage Path Way	Sacramento	CA	95814
Mary Brill	P. O. Box 22898	Sacramento	CA	95822
Kathleen Green	2014 11th Street	Sacramento	CA	95818
c/o Jodi Samuals	904 Q Street	Sacramento	CA	95814
Donna Schinowsky	1524 17th Street	Sacramento	CA	95814
Melinda Eppler	2800 Huntington Road	Sacramento	CA	95864
Linda Whitney	P.O. Box 162140	Sacramento	CA	95816
Bates Botting	1636 10th Street	Sacramento	CA	95814
Paul Trudeau	P.O. Box 1421	Sacramento	CA	95812
Kristine Silva	320 T Street	Sacramento	CA	95814
Don Gerring	1519 P Street	Sacramento	CA	95814
Owner	1800 K Street	Sacramento	CA	95814
Kim Alexander	2420 T Street	Sacramento	CA	95818
Offices of McCracken, Wilcox and Bertoux	601 University Avenue, Ste 236	Sacramento	CA	95825
Anne Geraghty	909 12th Street	Sacramento	CA	95814
Paul Tsamtsis	1630 F Street	Sacramento	CA	95814
Dave Jenest, Director	1818 H Street, # 1	Sacramento	CA	95814
Matt Piner or Bruce Holmes	P. O. Box 162555	Sacramento	CA	95816
Phyliss A. Newton, Esq. Executive Director	616 Alhambra Bl, Ste 1	Sacramento	CA	95816
Alkali Flat PAC - Catherine Camacho	517 8th Street	Sacramento	CA	95814
John Saca, Saca Development	77 Cadillac Dr. Ste. 150	Sacramento	CA	95825
Gair Ervin Consulting	8561 Almond Bluff Ct	Orangevale	CA	95662
SACOG	1415 L Street Suite 300	Sacramento	CA	95814
Downtown Plaza Merchants Association	547 L Street	Sacramento	CA	95814
Downtown Sacramento Partnership	909 J Street, 2nd Floor	Sacramento	CA	95814
Walk Sacramento	909 12th Street	Sacramento	CA	95814
Mansion Flats Neighborhood Association	1509 G Street	Sacramento	CA	95814
Governor's Square E/W - Margarett Weybur	520 P Street #35	Sacramento	CA	95814
Saratoga Townhomes Association	916 Q Street	Sacramento	CA	95814

New Era Park Neighborhood Association	2315 D Street	Sacramento	CA	95816
Washington Park NIG	1630 F Street	Sacramento	CA	95814
Bridgeway Tower Homeowners Association	500 N Street, Apt. 1209	Sacramento	CA	95814
Cal Trans - Off. Of Trans, Plng, & Div. of Aeronautics	PO Box 942874 - MS 41	Sacramento	CA	95814
Regional Transit	PO Box 2110	Sacramento	CA	95810
Midtown Business Association	PO Box 161147	Sacramento	CA	95816
Central City Alliance of Neighborhoods	801 21st Street	Sacramento	CA	95814
SOCA	PO Box 1022	Sacramento	CA	95814
Sacramento TMA	917 7th Street	Sacramento	CA	95814
CADA	1522 14th Street	Sacramento	CA	95814
SMUD	PO Box 15830	Sacramento	CA	95852
Neighbor	1001 I St	Sacramento	CA	95814
Neighbor	1005 10th St	Sacramento	CA	95814
Neighbor	1009 10th St	Sacramento	CA	95814
Neighbor	1009 8th St	Sacramento	CA	95814
Neighbor	1009 J St	Sacramento	CA	95814
Neighbor	1010 1/2 10th St	Sacramento	CA	95814
Neighbor	1010 11th St	Sacramento	CA	95814
Neighbor	1011 12th St	Sacramento	CA	95814
Neighbor	1013 J St	Sacramento	CA	95814
Neighbor	1014 J St	Sacramento	CA	95814
Neighbor	1017 10th St	Sacramento	CA	95814
Neighbor	1017 11th St	Sacramento	CA	95814
Neighbor	1019 H St Apt 1	Sacramento	CA	95814
Neighbor	1019 H St Apt 10	Sacramento	CA	95814
Neighbor	1019 H St Apt 11	Sacramento	CA	95814
Neighbor	1019 H St Apt 12	Sacramento	CA	95814
Neighbor	1019 H St Apt 2	Sacramento	CA	95814
Neighbor	1019 H St Apt 3	Sacramento	CA	95814
Neighbor	1019 H St Apt 4	Sacramento	CA	95814
Neighbor	1019 H St Apt 5	Sacramento	CA	95814
Neighbor	1019 H St Apt 6	Sacramento	CA	95814
Neighbor	1019 H St Apt 7	Sacramento	CA	95814
Neighbor	1019 H St Apt 8	Sacramento	CA	95814
Neighbor	1019 H St Apt 9	Sacramento	CA	95814
Neighbor	1019 K St	Sacramento	CA	95814
Neighbor	1020 11th St # 210	Sacramento	CA	95814
Neighbor	1020 9th St	Sacramento	CA	95814
Neighbor	1020 J St	Sacramento	CA	95814
Neighbor	1021 9th St # A	Sacramento	CA	95814
Neighbor	1021 H St Apt 1	Sacramento	CA	95814
Neighbor	1021 H St Apt 2	Sacramento	CA	95814
Neighbor	1021 H St Apt 3	Sacramento	CA	95814
Neighbor	1021 H St Apt 4	Sacramento	CA	95814
Neighbor	1021 H St Apt 5	Sacramento	CA	95814
Neighbor	1021 H St Apt 6	Sacramento	CA	95814
Neighbor	1021 H St Apt 7	Sacramento	CA	95814
Neighbor	1022 10th St	Sacramento	CA	95814
Neighbor	1023 H St Apt 1	Sacramento	CA	95814
Neighbor	1023 H St Apt 2	Sacramento	CA	95814
Neighbor	1023 H St Apt 3	Sacramento	CA	95814
Neighbor	1023 H St Apt 4	Sacramento	CA	95814
Neighbor	1024 1/2 J St	Sacramento	CA	95814
Neighbor	1025 9th St	Sacramento	CA	95814
Neighbor	1027 10th St	Sacramento	CA	95814
Neighbor	1027 K St	Sacramento	CA	95814

Neighbor	1100 11th St	Sacramento	CA	95814
Neighbor	1100 H St	Sacramento	CA	95814
Neighbor	1101 11th St	Sacramento	CA	95814
Neighbor	1106 11th St	Sacramento	CA	95814
Neighbor	1106 G St Apt 1	Sacramento	CA	95814
Neighbor	1106 G St Apt 2	Sacramento	CA	95814
Neighbor	1106 G St Apt 3	Sacramento	CA	95814
Neighbor	1106 G St Apt 4	Sacramento	CA	95814
Neighbor	1106 G St Apt 5	Sacramento	CA	95814
Neighbor	1108 G St	Sacramento	CA	95814
Neighbor	1110 11th St Apt 1	Sacramento	CA	95814
Neighbor	1110 11th St Apt 22	Sacramento	CA	95814
Neighbor	1110 11th St Apt 26	Sacramento	CA	95814
Neighbor	1110 11th St Apt 31	Sacramento	CA	95814
Neighbor	1110 11th St Apt 32	Sacramento	CA	95814
Neighbor	1110 11th St Apt 33	Sacramento	CA	95814
Neighbor	1110 11th St Apt 34	Sacramento	CA	95814
Neighbor	1110 11th St Apt 35	Sacramento	CA	95814
Neighbor	1110 11th St Apt 36	Sacramento	CA	95814
Neighbor	1110 11th St Apt 41	Sacramento	CA	95814
Neighbor	1110 11th St Apt 42	Sacramento	CA	95814
Neighbor	1110 11th St Apt 43	Sacramento	CA	95814
Neighbor	1110 11th St Apt 44	Sacramento	CA	95814
Neighbor	1110 11th St Apt 45	Sacramento	CA	95814
Neighbor	1110 11th St Apt 46	Sacramento	CA	95814
Neighbor	1110 11th St Unit 51	Sacramento	CA	95814
Neighbor	1110 11th St Unit 52	Sacramento	CA	95814
Neighbor	1110 11th St Unit 53	Sacramento	CA	95814
Neighbor	1110 11th St Unit 54	Sacramento	CA	95814
Neighbor	1110 11th St Unit 55	Sacramento	CA	95814
Neighbor	1110 11th St Unit 56	Sacramento	CA	95814
Neighbor	1111 H St	Sacramento	CA	95814
Neighbor	1112 G St	Sacramento	CA	95814
Neighbor	1116 G St	Sacramento	CA	95814
Neighbor	1118 G St	Sacramento	CA	95814
Neighbor	1120 G St Unit 1	Sacramento	CA	95814
Neighbor	1120 G St Unit 2	Sacramento	CA	95814
Neighbor	1120 G St Unit 3	Sacramento	CA	95814
Neighbor	1120 G St Unit 4	Sacramento	CA	95814
Neighbor	1123 J St	Sacramento	CA	95814
Neighbor	1125 9th St Unit 151	Sacramento	CA	95814
Neighbor	1125 9th St Unit 152	Sacramento	CA	95814
Neighbor	1125 9th St Unit 153	Sacramento	CA	95814
Neighbor	1125 9th St Unit 154	Sacramento	CA	95814
Neighbor	1125 9th St Unit 155	Sacramento	CA	95814
Neighbor	1125 9th St Unit 156	Sacramento	CA	95814
Neighbor	1125 9th St Unit 157	Sacramento	CA	95814
Neighbor	1125 9th St Unit 158	Sacramento	CA	95814
Neighbor	1125 9th St Unit 159	Sacramento	CA	95814
Neighbor	1125 9th St Unit 160	Sacramento	CA	95814
Neighbor	1125 9th St Unit 202	Sacramento	CA	95814
Neighbor	1125 9th St Unit 204	Sacramento	CA	95814
Neighbor	1125 9th St Unit 206	Sacramento	CA	95814
Neighbor	1125 9th St Unit 208	Sacramento	CA	95814
Neighbor	1125 9th St Unit 210	Sacramento	CA	95814
Neighbor	1125 9th St Unit 212	Sacramento	CA	95814

Neighbor	1209 L St Unit Manage	Sacramento	CA	0
Neighbor	1211 K St	Sacramento	CA	95814
Neighbor	1212 J St	Sacramento	CA	95814
Neighbor	1215 K St # 700	Sacramento	CA	95814
Neighbor	1217 K St	Sacramento	CA	95814
Neighbor	1226 H St	Sacramento	CA	95814
Neighbor	1227 K St	Sacramento	CA	95814
Neighbor	1229 K St	Sacramento	CA	95814
Neighbor	715 11th St Apt 1	Sacramento	CA	95814
Neighbor	715 11th St Apt 2	Sacramento	CA	95814
Neighbor	715 11th St Apt 3	Sacramento	CA	95814
Neighbor	715 11th St Apt 4	Sacramento	CA	95814
Neighbor	715 11th St Apt 5	Sacramento	CA	95814
Neighbor	715 11th St Apt 6	Sacramento	CA	95814
Neighbor	715 11th St Apt 7	Sacramento	CA	95814
Neighbor	715 11th St Apt 8	Sacramento	CA	95814
Neighbor	825 K St	Sacramento	CA	95814
Neighbor	831 K St	Sacramento	CA	95814
Neighbor	906 1/2 12th St	Sacramento	CA	95814
Neighbor	906 12th St Unit 1	Sacramento	CA	95814
Neighbor	906 12th St Unit 10	Sacramento	CA	95814
Neighbor	906 12th St Unit 11	Sacramento	CA	95814
Neighbor	906 12th St Unit 12	Sacramento	CA	95814
Neighbor	906 12th St Unit 13	Sacramento	CA	95814
Neighbor	906 12th St Unit 14	Sacramento	CA	95814
Neighbor	906 12th St Unit 15	Sacramento	CA	95814
Neighbor	906 12th St Unit 16	Sacramento	CA	95814
Neighbor	906 12th St Unit 17	Sacramento	CA	95814
Neighbor	906 12th St Unit 18	Sacramento	CA	95814
Neighbor	906 12th St Unit 19	Sacramento	CA	95814
Neighbor	906 12th St Unit 2	Sacramento	CA	95814
Neighbor	906 12th St Unit 20	Sacramento	CA	95814
Neighbor	906 12th St Unit 21	Sacramento	CA	95814
Neighbor	906 12th St Unit 22	Sacramento	CA	95814
Neighbor	906 12th St Unit 23	Sacramento	CA	95814
Neighbor	906 12th St Unit 24	Sacramento	CA	95814
Neighbor	906 12th St Unit 25	Sacramento	CA	95814
Neighbor	906 12th St Unit 26	Sacramento	CA	95814
Neighbor	906 12th St Unit 27	Sacramento	CA	95814
Neighbor	906 12th St Unit 28	Sacramento	CA	95814
Neighbor	906 12th St Unit 29	Sacramento	CA	95814
Neighbor	906 12th St Unit 3	Sacramento	CA	95814
Neighbor	906 12th St Unit 30	Sacramento	CA	95814
Neighbor	906 12th St Unit 31	Sacramento	CA	95814
Neighbor	906 12th St Unit 32	Sacramento	CA	95814
Neighbor	906 12th St Unit 33	Sacramento	CA	95814
Neighbor	906 12th St Unit 34	Sacramento	CA	95814
Neighbor	906 12th St Unit 35	Sacramento	CA	95814
Neighbor	906 12th St Unit 36	Sacramento	CA	95814
Neighbor	906 12th St Unit 4	Sacramento	CA	95814
Neighbor	906 12th St Unit 5	Sacramento	CA	95814
Neighbor	906 12th St Unit 6	Sacramento	CA	95814
Neighbor	906 12th St Unit 7	Sacramento	CA	95814
Neighbor	906 12th St Unit 8	Sacramento	CA	95814
Neighbor	906 12th St Unit 9	Sacramento	CA	95814
Neighbor	911 K St	Sacramento	CA	95814

Neighbor	914 12th St	Sacramento	CA	95814
Neighbor	915 11th St	Sacramento	CA	95814
Neighbor	917 8th St	Sacramento	CA	95814
Neighbor	917 K St	Sacramento	CA	95814
Neighbor	919 K St	Sacramento	CA	95814
Neighbor	925 L St	Sacramento	CA	95814
Neighbor	980 9th St	Sacramento	CA	95814
Neighbor	988 J St	Sacramento	CA	95814

APPENDIX C

INTERSECTION LOS SUMMARIES

Downtown Sacramento Traffic Study
2013 Cumulative Conditions - Mitigated
AM Peak Hour

Scenario Report

2013 AM Project
2013 AM PROJ
2013AM NO Project
Cumulative AM
Default Impact Fee
AM Add Projects
Project
Project
Default Routes
Default Configuration

Downtown Sacramento Traffic Study
2013 Cumulative Conditions - Mitigated
AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 3rd St/J St
Cycle (sec): 100
Loss Time (sec): 9 (Y+R = 4 sec)
Optimal Cycle: 109
Approach: North Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 15 15 15 0 35 35 35 50 50
Lanes: 0 0 0 2 2 0 1 0 0 1 2 1 0 0 1 1 0

Volume Module: Base Vol: 0 0 99 118 200 0 4 1747 635 11 1698 449
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 99 118 200 0 4 1747 635 11 1698 449
Added Vol: 0 0 0 0 7 0 0 157 93 0 41 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 99 118 207 0 4 1904 728 11 1739 449
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 99 118 207 0 4 1904 728 11 1739 449
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 99 118 207 0 4 1904 728 11 1739 449
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 99 118 207 0 4 1904 728 11 1739 449

Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 0.67 0.55 0.90 1.00 0.79 0.79 0.79 0.79 0.79 0.79
Lanes: 0.00 0.00 2.00 2.00 1.00 0.00 0.01 2.99 1.00 0.02 2.37 0.61
Final Sat.: 0 0 2558 2093 1710 0 9 4468 1492 23 3577 924

Capacity Analysis Module: Vol/Sat: 0.00 0.00 0.04 0.06 0.12 0.00 0.43 0.43 0.49 0.49 0.49 0.49
Crit Moves: 0.00 0.00 0.14 0.14 0.14 0.00 0.32 0.32 0.32 0.32 0.32 0.32
Green/Cycle: 0.00 0.00 0.28 0.41 0.88 0.00 1.33 1.33 1.52 1.06 1.06 1.06
Volume/Cap: 0.0 0.0 44.2 47.2 80.4 0.0 187.9 188 273.7 67.3 67.3 67.3
Delay/Veh: 0.0 0.0 44.2 47.2 80.4 0.0 1.00 1.00 1.00 1.00 1.00 1.00
User DelAdj: 1.00 1.00 44.2 47.2 80.4 0.0 187.9 188 273.7 67.3 67.3 67.3
AdjDel/Veh: 0.0 0.0 4 7 17 0 68 68 89 56 56 56
HCM2k95th: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

Downtown Sacramento Traffic Study
2013 Cumulative Conditions - Mitigated
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 3rd St/L St

Cycle (sec): 70 Critical Vol./Cap. (X): 0.490
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 20.6
Optimal Cycle: 79 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected		Protected		Protected		Protected		
Rights:	Include		Include		Include		Include		
Min. Green:	10	44	0	34	34	0	0	26	26
Lanes:	1	0	2	0	0	2	1	0	2

Volume Module:
Base Vol: 43 30 0 0 845 312 0 0 184 381 45
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 43 30 0 0 845 312 0 0 184 381 45
Added Vol: 0 0 0 0 99 0 0 0 2 109 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 43 30 0 0 944 312 0 0 186 490 45
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 43 30 0 0 944 312 0 0 186 490 45
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 43 30 0 0 944 312 0 0 186 490 45
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 43 30 0 0 944 312 0 0 186 490 45

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 0.86 1.00 0.79 0.79 1.00 1.00 1.00 0.77 0.86 0.77
Lanes: 1.00 2.00 0.00 0.00 2.25 0.75 0.00 0.00 0.00 2.00 1.00
Final Sat.: 1625 3249 0 0 3379 1117 0 0 1454 3249 1454

Capacity Analysis Module:
Vol/Sat: 0.03 0.01 0.00 0.00 0.28 0.28 0.00 0.00 0.13 0.15 0.03
Crit Moves: ****
Green/Cycle: 0.13 0.56 0.00 0.00 0.43 0.43 0.00 0.00 0.33 0.33 0.33
Volume/Cap: 0.21 0.02 0.00 0.00 0.65 0.65 0.00 0.00 0.39 0.46 0.09
Delay/Veh: 33.3 7.8 0.0 0.0 19.5 19.5 0.0 0.0 22.8 22.4 18.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 33.3 7.8 0.0 0.0 19.5 19.5 0.0 0.0 22.8 22.4 18.7
HCM2k95th: 3 0 0 0 16 16 0 0 9 10 2

Downtown Sacramento Traffic Study
2013 Cumulative Conditions - Mitigated
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 3rd St/N St

Cycle (sec): 70 Critical Vol./Cap. (X): 0.700
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 33.8
Optimal Cycle: 79 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected		Protected		Protected		Protected	
Rights:	Include		Include		Include		Include	
Min. Green:	0	15	15	34	34	0	21	21
Lanes:	0	0	1	0	0	1	2	0

Volume Module:
Base Vol: 0 64 4 630 358 0 0 334 135 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 64 4 630 358 0 0 334 135 0 0
Added Vol: 0 0 0 0 93 65 0 0 62 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 64 4 723 423 0 0 396 135 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 64 4 723 423 0 0 396 135 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 64 4 723 423 0 0 396 135 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 64 4 723 423 0 0 396 135 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.99 0.99 0.88 0.88 1.00 1.00 0.91 0.91 1.00 1.00
Lanes: 0.00 0.94 0.06 1.00 2.00 0.00 0.00 1.49 0.51 0.00 0.00
Final Sat.: 0 1774 111 1675 3351 0 0 2590 883 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.04 0.04 0.43 0.13 0.00 0.00 0.15 0.15 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.19 0.19 0.43 0.43 0.00 0.00 0.27 0.27 0.00 0.00
Volume/Cap: 0.00 0.19 0.19 1.00 0.29 0.00 0.00 0.58 0.58 0.00 0.00
Delay/Veh: 0.0 28.1 28.1 49.8 14.9 0.0 0.0 27.7 27.7 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 28.1 28.1 49.8 14.9 0.0 0.0 27.7 27.7 0.0 0.0
HCM2k95th: 0 3 3 7 0 0 0 12 12 0 0

Downtown Sacramento Traffic Study
 2013 Cumulative Conditions - Mitigated
 PM Peak Hour

Scenario: 2013 PM Project Scenario Report
 Command: 2013 PM PROJ
 Volume: 2013 PM NO Project
 Geometry: Cumulative PM
 Impact Fee: Default Impact Fee
 Trip Generation: PM Add Projects
 Trip Distribution: Project
 Paths: Project
 Routes: Default Routes
 Configuration: Default Configuration

Downtown Sacramento Traffic Study
 2013 Cumulative Conditions - Mitigated
 PM Peak Hour

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #2 3rd St/L St
 Cycle (sec): 70 Critical Vol./Cap. (X): 1.015
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 59.7
 Optimal Cycle: 85 Level Of Service: E
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected Protected Protected
 Rights: Include Include Include Include Include Include
 Min. Green: 10 30 0 0 20 20 0 0 0 0 0 0 40 40
 Lanes: 1 0 2 0 0 0 2 1 0 0 0 0 0 1 0 2 0 1

Volume Module:

Base Vol:	82	70	0	0	599	437	0	0	0	443	1492	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	70	0	0	599	437	0	0	0	443	1492	81
Added Vol:	0	0	0	0	42	0	0	0	0	36	293	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	70	0	0	641	437	0	0	0	479	1785	81
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	82	70	0	0	641	437	0	0	0	479	1785	81
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	70	0	0	641	437	0	0	0	479	1785	81
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	82	70	0	0	641	437	0	0	0	479	1785	81

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	1.00	1.00	0.77	0.77	1.00	1.00	1.00	0.77	0.86	0.77
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.00	2.00	1.00
Final Sat.:	1625	3249	0	0	2922	1461	0	0	0	1454	3249	1454

Capacity Analysis Module:

Vol/Sat:	0.05	0.02	0.00	0.00	0.00	0.22	0.30	0.00	0.00	0.00	0.33	0.55
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.13	0.38	0.00	0.00	0.25	0.25	0.00	0.00	0.00	0.51	0.51	0.51
Volume/Cap:	0.40	0.06	0.00	0.00	0.87	1.18	0.00	0.00	0.00	0.65	1.09	0.11
Delay/Veh:	37.4	15.6	0.0	0.0	36.5	122.4	0.0	0.0	0.0	18.8	68.6	10.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.4	15.6	0.0	0.0	36.5	122.4	0.0	0.0	0.0	18.8	68.6	10.5
HCM2k95th:	5	1	0	0	18	36	0	0	0	19	57	3

Downtown Sacramento Traffic Study
2013 Cumulative Conditions - Mitigated
PM Peak Hour

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 12th St/J St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.740
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 32.2
Optimal Cycle: 56 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 28	28 28 28	0 22 22	0 0 0 0
Lanes:	0 0 0 1	1 0 2 0	0 0 2 1	0 0 0 0

Volume Module:
Base Vol: 0 0 249 373 556 0 0 1519 143 0 0 0

Growth Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	0 0 249 373 556	0 0 1519 143	0 0 0	0 0 0
Added Vol:	0 0 0 55	0 0 417 1	0 0 0	0 0 0
PasserByVol:	0 0 0 0	0 0 0 0	0 0 0	0 0 0
Initial Fut:	0 0 249 373 611	0 0 1936 144	0 0 0	0 0 0
User Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	0 0 249 373 611	0 0 1936 144	0 0 0	0 0 0
Reduc Vol:	0 0 0 0	0 0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 249 373 611	0 0 1936 144	0 0 0	0 0 0
PCE Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MUF Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 0 249 373 611	0 0 1936 144	0 0 0	0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment:	1.00 1.00 0.87	0.77 0.95	1.00 1.00 0.90	1.00 1.00 1.00
Lanes:	0.00 0.00 1.00	1.00 2.00 0.00	0.00 2.79 0.21	0.00 0.00 0.00
Final Sat.:	0 0 1644	1461 3610	0 0 4780 356	0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.15

Crit Moves:	0.26 0.17	0.00 0.41	0.41 0.41	0.00 0.00 0.00
Green/Cycle:	0.00 0.00	0.50 0.50	0.00 0.39	0.39 0.00 0.00
Volume/Cap:	0.00 0.00	0.30 0.51	0.34 1.03	0.00 0.00 0.00
Delay/Veh:	0.0 0.0	9.2 11.9	8.9 0.0	0.0 45.5 0.0
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0	9.2 11.9	8.9 0.0	0.0 45.5 0.0
HCM2k95th:	0 0 6	11 7	0 0 35	35 0 0

Downtown Sacramento Traffic Study
2013 Cumulative Conditions - Mitigated
PM Peak Hour

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #35 15th St/J St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.928
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 39.0
Optimal Cycle: 84 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	20 20 0	0 30 30	0 0 0 0
Lanes:	0 0 0 0	0 1 2 0	0 0 2 1	0 0 0 0

Volume Module:
Base Vol: 0 0 286 1062 0 0 1832 603 0 0

Growth Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	0 0 286 1062	0 0 1832 603	0 0 0	0 0 0
Added Vol:	0 0 0 0	0 0 0 0	0 333 75	0 0 0
PasserByVol:	0 0 0 0	0 0 0 0	0 0 0	0 0 0
Initial Fut:	0 0 286 1062	0 0 2165 678	0 0 0	0 0 0
User Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	0 0 286 1062	0 0 2165 678	0 0 0	0 0 0
Reduc Vol:	0 0 0 0	0 0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 286 1062	0 0 2165 678	0 0 0	0 0 0
PCE Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MUF Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 0 286 1062	0 0 2165 678	0 0 0	0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment:	1.00 1.00 1.00 1.00	1.00 0.91 0.91	1.00 1.00 0.88	0.88 1.00 1.00
Lanes:	0.00 0.00 1.00	0.64 2.36	0.00 0.00 2.28	0.72 0.00 0.00
Final Sat.:	0 0 0	1101 4086	0 0 3808 1192	0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00

Crit Moves:	0.26 0.26	0.26 0.26	0.00 0.57	0.57 0.00 0.00
Green/Cycle:	0.00 0.00	0.36 0.36	0.00 0.54	0.54 0.00 0.00
Volume/Cap:	0.00 0.00	0.73 0.73	0.00 1.06	1.06 0.00 0.00
Delay/Veh:	0.0 0.0	17.1 17.1	0.0 49.4	49.4 0.0 0.0
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0	17.1 17.1	0.0 49.4	49.4 0.0 0.0
HCM2k95th:	0 0 0	16 16	0 0 48	48 0 0

Downtown Sacramento Traffic Study
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Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)
 Intersection #40 15th St/X St

Cycle (sec): 70 Critical Vol./Cap. (X): 0.877
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 46.9
 Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 17 17	28 28 0	0 28 28	0 0 0
Lanes:	0 0 2 1 0	1 1 2 0 0	0 0 1 1 0	0 0 0 0 0

Volume Module:
 Base Vol: 0 1020 70 853 1270 0 0 527 255 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1020 70 853 1270 0 0 527 255 0 0
 Added Vol: 0 0 0 183 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 1020 70 1036 1270 0 0 527 255 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1020 70 1036 1270 0 0 527 255 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1020 70 1036 1270 0 0 527 255 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 1020 70 1036 1270 0 0 527 255 0 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.90 0.90 0.89 0.89 1.00 1.00 0.90 0.90 1.00 1.00 1.00
 Lanes: 0.00 2.81 0.19 1.80 2.20 0.00 0.00 1.35 0.65 0.00 0.00 0.00
 Final Sat.: 0 4805 330 3039 3725 0 0 2314 1119 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.21 0.21 0.34 0.34 0.00 0.00 0.23 0.23 0.00 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.21 0.21 0.34 0.34 0.00 0.00 0.34 0.34 0.00 0.00 0.00
 Volume/Cap: 0.00 1.02 1.02 1.00 1.00 0.00 0.00 0.67 0.67 0.00 0.00 0.00
 Delay/Veh: 0.0 66.3 66.3 45.3 45.3 0.0 0.0 24.5 24.5 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 66.3 66.3 45.3 45.3 0.0 0.0 24.5 24.5 0.0 0.0 0.0
 HCM2k95th: 0 27 27 32 32 0 0 18 18 0 0 0

 Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)
 Intersection #41 16th St/H St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.821
 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 29.1
 Optimal Cycle: 56 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 26 26	0 0 0 0	18 24 0	0 0 0
Lanes:	0 0 2 1 0	0 0 0 0 0	2 1 0 0 0	0 0 0 0 1

Volume Module:
 Base Vol: 0 2191 20 0 0 0 798 521 0 0 0 0 46
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 2191 20 0 0 0 798 521 0 0 0 0 46
 Added Vol: 0 223 0 0 0 0 43 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 2414 20 0 0 0 841 521 0 0 0 0 46
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 2414 20 0 0 0 841 521 0 0 0 0 46
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 2414 20 0 0 0 841 521 0 0 0 0 46
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 2414 20 0 0 0 841 521 0 0 0 0 46

Downtown Sacramento Traffic Study
 2013 Cumulative Conditions - Mitigated
 PM Peak Hour

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)
 Intersection #41 16th St/H St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.821
 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 29.1
 Optimal Cycle: 56 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 26 26	0 0 0 0	18 24 0	0 0 0
Lanes:	0 0 2 1 0	0 0 0 0 0	2 1 0 0 0	0 0 0 0 1

Volume Module:
 Base Vol: 0 2191 20 0 0 0 798 521 0 0 0 0 46
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 2191 20 0 0 0 798 521 0 0 0 0 46
 Added Vol: 0 223 0 0 0 0 43 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 2414 20 0 0 0 841 521 0 0 0 0 46
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 2414 20 0 0 0 841 521 0 0 0 0 46
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 2414 20 0 0 0 841 521 0 0 0 0 46
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 2414 20 0 0 0 841 521 0 0 0 0 46

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.91 0.91 1.00 1.00 1.00 0.94 0.97 1.00 1.00 1.00 1.00
 Lanes: 0.00 2.98 0.02 0.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 1.00
 Final Sat.: 0 5139 43 0 0 0 3575 1843 0 0 0 1644

Capacity Analysis Module:
 Vol/Sat: 0.00 0.47 0.47 0.00 0.00 0.00 0.24 0.28 0.00 0.00 0.00 0.03
 Crit Moves: ****
 Green/Cycle: 0.00 0.46 0.46 0.00 0.00 0.00 0.32 0.43 0.00 0.00 0.00 0.11
 Volume/Cap: 0.00 1.01 1.01 0.00 0.00 0.00 0.73 0.66 0.00 0.00 0.00 0.26
 Delay/Veh: 0.0 36.3 36.3 0.0 0.0 0.0 18.4 13.5 0.0 0.0 0.0 23.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 36.3 36.3 0.0 0.0 0.0 18.4 13.5 0.0 0.0 0.0 23.8
 HCM2k95th: 0 32 32 0 0 0 13 14 0 0 0 2

 Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)
 Intersection #41 16th St/H St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.821
 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 29.1
 Optimal Cycle: 56 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 26 26	0 0 0 0	18 24 0	0 0 0
Lanes:	0 0 2 1 0	0 0 0 0 0	2 1 0 0 0	0 0 0 0 1

Volume Module:
 Base Vol: 0 2191 20 0 0 0 798 521 0 0 0 0 46
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 2191 20 0 0 0 798 521 0 0 0 0 46
 Added Vol: 0 223 0 0 0 0 43 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 2414 20 0 0 0 841 521 0 0 0 0 46
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 2414 20 0 0 0 841 521 0 0 0 0 46
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 2414 20 0 0 0 841 521 0 0 0 0 46
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 2414 20 0 0 0 841 521 0 0 0 0 46

Downtown Sacramento Traffic Study
 2030 Cumulative Conditions - Mitigated
 AM Peak Hour

Downtown Sacramento Traffic Study
 2030 Cumulative Conditions - Mitigated
 AM Peak Hour

Scenario Report

Scenario: 2030 AM Project
 Command: 2030 AM PROJ
 Volume: 2030 AM NO Project
 Geometry: Cumulative AM
 Impact Fee: Default Impact Fee
 Trip Generation: AM Add Projects
 Trip Distribution: Project
 Paths: Project
 Routes: Default Routes
 Configuration: Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

 Intersection #1 3rd St/J St

Cycle (sec): 100
 Loss Time (sec): 9 (Y+R = 4 sec)
 Optimal Cycle: 109

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted		Split Phase		Split Phase	
	Include	Exclude	Include	Exclude	Include	Exclude
Rights:	0	0	0	0	0	0
Min. Green:	0	0	10	10	40	40
Lanes:	0	0	2	0	1	1

Volume Module:
 Base Vol: 0 0 117 181 200 0 4 1747 635 13 1698 449
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 117 181 200 0 4 1747 635 13 1698 449
 Added Vol: 0 0 0 0 7 0 0 157 93 0 41 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 117 181 207 0 4 1904 728 13 1739 449
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 0 117 181 207 0 4 1904 728 13 1739 449
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 117 181 207 0 4 1904 728 13 1739 449
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 0 117 181 207 0 4 1904 728 13 1739 449

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 1.00 1.00 0.67 0.56 0.90 1.00 0.79 0.79 0.79 0.79 0.79 0.79
 Lanes: 0.00 0.00 2.00 2.00 1.00 0.00 0.01 2.89 1.10 0.02 2.37 0.61
 Final Sat.: 0 0 2558 2136 1710 0 9 4312 1649 27 3574 923

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.05 0.08 0.12 0.00 0.44 0.44 0.44 0.44 0.49 0.49
 Crit Moves: *****
 Green/Cycle: 0.00 0.00 0.09 0.09 0.09 0.00 0.37 0.37 0.37 0.37 0.46 0.46
 Volume/Cap: 0.00 0.00 0.50 0.92 1.32 0.00 1.20 1.20 1.20 1.20 1.06 1.06
 Delay/Veh: 0.0 0.0 54.5 96.0 231 0.0 130.6 131 130.6 67.7 67.7 67.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 54.5 96.0 231 0.0 130.6 131 130.6 67.7 67.7 67.7
 HCM2k95th: 0 0 6 14 25 0 61 61 61 61 56 56

Downtown Sacramento Traffic Study
 2030 Cumulative Conditions - Mitigated
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Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 3rd St/L St
 Cycle (sec): 70 Critical Vol./Cap. (X): 0.495
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 20.6
 Optimal Cycle: 79 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	10 44 0	0 34 34	0 0 0	26 26 26
Lanes:	1 0 2 0 0 0 2 1 0	0 0 0 0 0 0 0 0 1	0 0 0 0 0 0 0 0 1	0 2 0 1

Volume Module:	North Bound	South Bound	East Bound	West Bound
Base Vol:	43 30 0	0 845 312	0 0 0	191 381 45
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	43 30 0	0 845 312	0 0 0	191 381 45
Added Vol:	0 0 0	0 99 0	0 0 0	2 109 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	43 30 0	0 944 312	0 0 0	193 490 45
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	43 30 0	0 944 312	0 0 0	193 490 45
Reduced Vol:	0 0 0	0 0 0	0 0 0	0 0 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MUF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	43 30 0	0 944 312	0 0 0	193 490 45

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.86 0.86 1.00	1.00 0.79 0.79	1.00 1.00 1.00	0.77 0.86 0.77
Lanes:	1.00 2.00 0.00	0.00 2.25 0.75	0.00 0.00 0.00	1.00 2.00 1.00
Final Sat.:	1625 3249 0	0 3379 1117	0 0 0	1454 3249 1454

Capacity Analysis Module:

Vol/Sat:	0.03 0.01 0.00	0.00 0.00 0.28	0.00 0.00 0.00	0.13 0.15 0.03
Crit Moves:	0.13 0.56 0.00	0.00 0.43 0.43	0.00 0.00 0.00	0.33 0.33 0.33
Green/Cycle:	0.21 0.02 0.00	0.00 0.65 0.65	0.00 0.00 0.00	0.40 0.46 0.09
Volume/Cap:	33.3 7.8 0.0	0.0 19.5 19.5	0.0 0.0 0.0	23.0 22.4 18.7
Delay/Veh:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
User DelAdj:	33.3 7.8 0.0	0.0 19.5 19.5	0.0 0.0 0.0	23.0 22.4 18.7
AdjDel/Veh:	3 0 0	0 16 16	0 0 0	9 10 2

Downtown Sacramento Traffic Study
 2030 Cumulative Conditions - Mitigated
 AM Peak Hour

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 3rd St/N St
 Cycle (sec): 70 Critical Vol./Cap. (X): 0.741
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 34.3
 Optimal Cycle: 79 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 15 15	34 34 0	0 21 21	0 0 0
Lanes:	0 0 1 0 0	0 1 2 0 0	0 0 1 1 0	0 0 0 0 0

Volume Module:	North Bound	South Bound	East Bound	West Bound
Base Vol:	0 74 4	630 358 0	0 418 160	0 0 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	0 74 4	630 358 0	0 418 160	0 0 0
Added Vol:	0 0 0	0 93 65	0 0 62	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 74 4	723 423 0	0 480 160	0 0 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	0 74 4	723 423 0	0 480 160	0 0 0
Reduced Vol:	0 0 0	0 0 0	0 0 0	0 0 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MUF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 74 4	723 423 0	0 480 160	0 0 0

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	1.00 0.99 0.99	0.88 0.88 1.00	1.00 0.91 0.91	1.00 1.00 1.00
Lanes:	0.00 0.95 0.05	1.00 2.00 0.00	0.00 1.50 0.50	0.00 0.00 0.00
Final Sat.:	0 1790 97	1675 3351 0	0 2607 869	0 0 0

Capacity Analysis Module:

Vol/Sat:	0.00 0.04 0.04	0.43 0.13 0.00	0.00 0.18 0.18	0.00 0.00 0.00
Crit Moves:	0.00 0.19 0.19	0.43 0.43 0.00	0.00 0.27 0.27	0.00 0.00 0.00
Green/Cycle:	0.00 0.22 0.22	1.00 0.29 0.00	0.00 0.69 0.69	0.00 0.00 0.00
Volume/Cap:	0.0 28.4 28.4	49.8 14.9 0.0	0.0 30.4 30.4	0.0 0.0 0.0
Delay/Veh:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
User DelAdj:	0.0 28.4 28.4	49.8 14.9 0.0	0.0 30.4 30.4	0.0 0.0 0.0
AdjDel/Veh:	0 4 4	38 7 0	0 15 15	0 0 0

Downtown Sacramento Traffic Study
 2030 Cumulative Conditions - Mitigated
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Downtown Sacramento Traffic Study
 2030 Cumulative Conditions - Mitigated
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Scenario Report

Scenario: 2030 PM Project
 Command: 2030 PM PROJ
 Volume: 2030 PM NO Project
 Geometry: Cumulative PM
 Impact Fee: Default Impact Fee
 Trip Generation: PM Add Projects
 Trip Distribution: Project
 Paths: Project
 Routes: Default Routes
 Configuration: Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

 Intersection #1 3rd St/J St

Cycle (sec): 0
 Loss Time (sec): 9 (Y+R = 4 sec)
 Optimal Cycle: 74
 Level Of Service: C
 Critical Vol./Cap. (X): 0.854
 Average Delay (sec/veh): 31.5

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted		Split Phase	
Rights:	Include	Exclude	Include	Exclude
Min. Green:	0 0 0 4	4 4 4 0	4 4 4 4	4 4 4 4
Lanes:	0 0 0 2	2 0 1 0	0 1 1 1	0 1 1 1

Volume Module:

Base Vol:	0	0	315	421	375	0	2	472	436	10	968	407
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	315	421	375	0	2	472	436	10	968	407
Added Vol:	0	0	0	0	8	0	0	149	35	0	129	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	315	421	383	0	2	621	471	10	1097	407
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	315	421	383	0	2	621	471	10	1097	407
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	315	421	383	0	2	621	471	10	1097	407
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	315	421	383	0	2	621	471	10	1097	407

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.67	0.54	0.90	1.00	0.77	0.77	0.77	0.79	0.79	0.79
Lanes:	0.00	0.00	2.00	2.00	1.00	0.00	0.01	2.27	1.72	0.02	2.17	0.81
Final Sat.:	0	0	2558	2070	1710	0	11	3304	2506	30	3247	1205

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.12	0.20	0.22	0.00	0.19	0.19	0.19	0.34	0.34	0.34
Crit Moves:	0	0	0	0	0	0	0	0	0	0	0	0
Green/Cycle:	0.00	0.00	0.26	0.26	0.26	0.00	0.22	0.22	0.22	0.40	0.40	0.40
Volume/Cap:	0.00	0.00	0.47	0.78	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85
Delay/Veh:	0.0	0.0	25.3	35.6	44.2	0.0	35.1	35.1	35.1	25.9	25.9	25.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	25.3	35.6	44.2	0.0	35.1	35.1	35.1	25.9	25.9	25.9
HCM2k95th:	0	0	7	16	19	0	16	16	16	23	23	23

Downtown Sacramento Traffic Study
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Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 3rd St/L St

Cycle (sec): 70 Critical Vol./Cap. (X): 1.011
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 65.1
Optimal Cycle: 85 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 9 30 0 0 23 23 0 0 0 0 0 38 38 0
Lanes: 1 0 2 0 0 0 2 1 0 0 0 0 0 1 0 2 0 1

Volume Module:

Base Vol: 82 70 0 0 824 437 0 0 447 1492 190
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 82 70 0 0 824 437 0 0 447 1492 190
Added Vol: 0 0 0 0 42 0 0 0 36 293 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 82 70 0 0 866 437 0 0 483 1785 190
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 82 70 0 0 866 437 0 0 483 1785 190
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 82 70 0 0 866 437 0 0 483 1785 190
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 82 70 0 0 866 437 0 0 483 1785 190

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 0.86 1.00 0.78 1.00 1.00 1.00 0.77 0.86 0.77
Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 1.00 2.00 1.00
Final Sat.: 1625 3249 0 0 2957 1478 0 0 1454 3249 1454

Capacity Analysis Module:

Vol/Sat: 0.05 0.02 0.00 0.00 0.29 0.30 0.00 0.00 0.00 0.33 0.55 0.13
Crit Moves: ****
Green/Cycle: 0.11 0.41 0.00 0.00 0.29 0.29 0.00 0.00 0.00 0.48 0.48 0.48
Volume/Cap: 0.44 0.05 0.00 0.00 1.01 1.02 0.00 0.00 0.00 0.69 1.14 0.27
Delay/Veh: 40.2 14.4 0.0 0.0 54.5 57.0 0.0 0.0 21.5 92.7 13.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 40.2 14.4 0.0 0.0 54.5 57.0 0.0 0.0 21.5 92.7 13.2
HCM2k95th: 6 1 0 0 28 28 0 0 20 63 6

Downtown Sacramento Traffic Study
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Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 3rd St/P St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.984
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 32.6
Optimal Cycle: 85 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 18 18 0 0 0 0 0 32 32 0
Lanes: 0 0 0 0 0 0 1 1 2 0 0 0 0 0 1 2 0 0

Volume Module:

Base Vol: 0 0 0 0 744 833 0 0 170 2753 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 744 833 0 0 170 2753 0
Added Vol: 0 0 0 0 0 0 130 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 744 1026 0 0 170 2883 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 744 1026 0 0 170 2883 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 744 1026 0 0 170 2883 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 0 744 1026 0 0 170 2883 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 0.87 0.76 1.00 1.00 1.00 0.91 0.91
Lanes: 0.00 0.00 0.00 0.00 1.56 2.44 0.00 0.00 0.00 0.17 2.83
Final Sat.: 0 0 0 0 2568 3541 0 0 289 4898 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.29 0.29 0.00 0.00 0.00 0.59 0.59 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.00 0.32 0.32 0.00 0.00 0.00 0.57 0.57 0.00
Volume/Cap: 0.00 0.00 0.00 0.00 0.90 0.90 0.00 0.00 0.00 1.03 1.03 0.00
Delay/Veh: 0.0 0.0 0.0 0.0 25.4 25.4 0.0 0.0 0.0 36.8 36.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 0.0 25.4 25.4 0.0 0.0 0.0 36.8 36.8 0.0
HCM2k95th: 0 0 0 0 21 19 0 0 0 35 35 0

Downtown Sacramento Traffic Study
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Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 5th St/I St

Cycle (sec): 100 Critical Vol./Cap. (X): 0.844
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 31.8
Optimal Cycle: 106 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 30 30 0 0 0 0 30 0 0 0 0 0 0 0 70 70
Lanes: 2 0 2 0 0 0 0 0 2 0 0 0 0 0 0 0 3 1 0

Volume Module:
Base Vol: 419 954 0 0 0 46 0 0 0 2877 70
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 419 954 0 0 0 46 0 0 0 2877 70
Added Vol: 64 11 0 0 0 0 0 0 0 151 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 483 965 0 0 0 46 0 0 0 3028 70
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 483 965 0 0 0 46 0 0 0 3028 70
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 483 965 0 0 0 46 0 0 0 3028 70
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 483 965 0 0 0 46 0 0 0 3028 70

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.54 0.86 1.00 1.00 1.00 0.67 1.00 1.00 1.00 1.00 0.82 0.82 1.00 0.82 0.82 1.00 0.82 0.82
Lanes: 2.00 2.00 0.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 2034 3249 0 0 0 2558 0 0 0 2558 140 0 0 0 6066 140 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.24 0.30 0.00 0.00 0.00 0.02 0.00 0.00 0.00 0.00 0.50 0.50 0.00 0.50 0.50 0.00 0.50 0.50
Crit Moves: ****
Green/Cycle: 0.28 0.28 0.00 0.00 0.00 0.28 0.00 0.00 0.00 0.00 0.66 0.66 0.00 0.66 0.66 0.00 0.66 0.66
Volume/Cap: 0.84 1.05 0.00 0.00 0.00 0.06 0.00 0.00 0.00 0.00 0.76 0.76 0.00 0.76 0.76 0.00 0.76 0.76
Delay/Veh: 49.5 81.5 0.0 0.0 0.0 27.9 0.0 0.0 0.0 0.0 13.5 13.5 0.0 13.5 13.5 0.0 13.5 13.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.5 81.5 0.0 0.0 0.0 27.9 0.0 0.0 0.0 0.0 13.5 13.5 0.0 13.5 13.5 0.0 13.5 13.5
HCM2k95th: 16 35 0 0 0 1 0 0 0 0 29 29 0 29 29 0 29 29

Downtown Sacramento Traffic Study
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Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 5th St/L St

Cycle (sec): 70 Critical Vol./Cap. (X): 0.830
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 25.7
Optimal Cycle: 82 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 42 42 0 0 0 0 45 0 0 0 0 0 0 0 28 28
Lanes: 1 0 3 0 0 0 0 0 2 0 0 0 0 0 0 0 3 1 0

Volume Module:
Base Vol: 482 1065 0 0 0 172 0 0 0 1631 140
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 482 1065 0 0 0 172 0 0 0 1631 140
Added Vol: 21 94 0 0 0 0 0 0 0 350 64
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 503 1159 0 0 0 172 0 0 0 1981 204
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 503 1159 0 0 0 172 0 0 0 1981 204
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 503 1159 0 0 0 172 0 0 0 1981 204
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 503 1159 0 0 0 172 0 0 0 1981 204

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.69 0.82 1.00 1.00 1.00 0.67 1.00 1.00 1.00 1.00 0.81 0.81 1.00 0.81 0.81 1.00 0.81 0.81
Lanes: 1.00 3.00 0.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 3.03 3.03 0.00 3.03 3.03 0.00 3.03 3.03
Final Sat.: 1315 4668 0 0 0 2558 0 0 0 2558 573 0 0 0 5564 573 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.38 0.25 0.00 0.00 0.00 0.07 0.00 0.00 0.00 0.00 0.36 0.36 0.00 0.36 0.36 0.00 0.36 0.36
Crit Moves: ****
Green/Cycle: 0.51 0.51 0.00 0.00 0.00 0.51 0.00 0.00 0.00 0.00 0.38 0.38 0.00 0.38 0.38 0.00 0.38 0.38
Volume/Cap: 0.75 0.48 0.00 0.00 0.00 0.13 0.00 0.00 0.00 0.00 0.94 0.94 0.00 0.94 0.94 0.00 0.94 0.94
Delay/Veh: 23.2 13.7 0.0 0.0 0.0 10.7 0.0 0.0 0.0 0.0 33.9 33.9 0.0 33.9 33.9 0.0 33.9 33.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 23.2 13.7 0.0 0.0 0.0 10.7 0.0 0.0 0.0 0.0 33.9 33.9 0.0 33.9 33.9 0.0 33.9 33.9
HCM2k95th: 23 12 0 0 0 3 0 0 0 0 30 30 0 30 30 0 30 30

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Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #16 7th St/L St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.870
 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 27.7
 Optimal Cycle: 64 Level Of Service: C

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected				Protected											
Rights:	Include				Include											
Min. Green:	0	0	0	0	28	28	0	0	0	0	0	0	22	22	0	0
Lanes:	0	0	0	0	0	0	2	1	0	0	0	0	1	0	3	0

Volume Module:

Base Vol:	0	0	0	0	810	478	0	0	158	1398	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	810	478	0	0	158	1398	0
Added Vol:	0	0	0	0	35	76	0	0	270	461	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	845	554	0	0	428	1859	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	845	554	0	0	428	1859	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	845	554	0	0	428	1859	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	845	554	0	0	428	1859	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	0.77	0.77	1.00	1.00	0.90	0.82	1.00
Lanes:	0.00	0.00	0.00	0.00	2.00	2.00	1.00	0.00	3.00	3.00	0.00
Final Sat.:	0	0	0	0	2929	1464	0	0	1710	4668	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.29	0.38	0.00	0.00	0.25	0.40	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.00	0.50	0.50	0.00	0.00	0.39	0.39	0.00
Volume/Cap:	0.00	0.00	0.00	0.00	0.58	0.76	0.00	0.00	0.64	1.01	0.00
Delay/Veh:	0.0	0.0	0.0	0.0	10.8	14.2	0.0	0.0	18.3	41.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	10.8	14.2	0.0	0.0	18.3	41.5	0.0
HCM2k95th:	0	0	0	0	11	17	0	0	13	31	0

Downtown Sacramento Traffic Study
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Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #19 8th St/L St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.693
 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 18.1
 Optimal Cycle: 56 Level Of Service: B

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected				Protected											
Rights:	Include				Include											
Min. Green:	25	25	0	0	0	0	0	0	0	0	0	0	25	25	0	0
Lanes:	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	1

Volume Module:

Base Vol:	261	510	0	0	0	0	0	0	0	1448	158
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	261	510	0	0	0	0	0	0	0	1448	158
Added Vol:	89	113	0	0	0	0	0	0	0	442	169
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	350	623	0	0	0	0	0	0	0	1890	327
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	350	623	0	0	0	0	0	0	0	1890	327
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	350	623	0	0	0	0	0	0	0	1890	327
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	350	623	0	0	0	0	0	0	0	1890	327

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.86	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.80
Lanes:	1.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	1.00
Final Sat.:	1710	3249	0	0	0	0	0	0	0	4566	1522

Capacity Analysis Module:

Vol/Sat:	0.20	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.21
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.45	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.45
Volume/Cap:	0.46	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.48
Delay/Veh:	12.8	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4	11.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.8	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4	11.3
HCM2k95th:	9	8	0	0	0	0	0	0	0	26	9

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Level Of Service Computation Report
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Intersection #21 9th St/J St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.844
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 34.3
Optimal Cycle: 58 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 22 22 0 0 28 28 0 0 0 0 0 0

Lanes: 0 0 0 0 0 1 2 0 0 0 2 1 0 0 0 0 0 0

Volume Module:

Base Vol: 0 0 139 904 0 0 1475 294 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 139 904 0 0 1475 294 0 0
Added Vol: 0 0 0 54 0 0 511 83 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 139 958 0 0 1986 377 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 139 958 0 0 1986 377 0 0
Reduc Vol: 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 139 958 0 0 1986 377 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 139 958 0 0 1986 377 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.38 2.62 0.00 0.00 2.52 0.48 0.00 0.00 0.00
Final Sat.: 0 0 0 592 4077 0 0 3829 727 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.23 0.23 0.00 0.00 0.52 0.52 0.00 0.00 0.00
Crit Moves: *****
Green/Cycle: 0.00 0.00 0.00 0.39 0.39 0.00 0.00 0.50 0.50 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.60 0.60 0.00 0.00 1.04 1.04 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 14.9 14.9 0.0 0.0 43.3 43.3 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 14.9 14.9 0.0 0.0 43.3 43.3 0.0 0.0 0.0
HCM2k95th: 0 0 0 10 10 0 0 31 31 0 0 0

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #26 10th St/J St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.883
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 31.8
Optimal Cycle: 79 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 22 22 0 0 0 0 28 28 0 0 0 0 0 0

Lanes: 0 0 2 1 0 0 0 0 0 0 1 2 0 0 0 0 0 0

Volume Module:

Base Vol: 0 940 181 0 0 132 1479 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 940 181 0 0 132 1479 0 0 0
Added Vol: 0 52 0 0 0 95 416 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 992 181 0 0 227 1895 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 992 181 0 0 227 1895 0 0 0
Reduc Vol: 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 992 181 0 0 227 1895 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 992 181 0 0 227 1895 0 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.80 0.80 1.00 1.00 1.00 0.82 0.82 1.00 1.00 1.00 1.00
Lanes: 0.00 2.54 0.46 0.00 0.00 0.00 0.32 2.68 0.00 0.00 0.00 0.00
Final Sat.: 0 3857 704 0 0 499 4169 0 0 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.26 0.26 0.00 0.00 0.00 0.45 0.45 0.00 0.00 0.00 0.00
Crit Moves: *****
Green/Cycle: 0.00 0.35 0.35 0.00 0.00 0.00 0.45 0.45 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.72 0.72 0.00 0.00 0.00 1.01 1.01 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 20.2 20.2 0.0 0.0 0.0 38.2 38.2 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 20.2 20.2 0.0 0.0 0.0 38.2 38.2 0.0 0.0 0.0 0.0
HCM2k95th: 0 15 15 0 0 0 24 24 0 0 0 0

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Intersection #32 12th St/J St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.826
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 27.0
Optimal Cycle: 56 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 27	27 27 27	0 23 23	0 0 0 0
Lanes:	0 0 0 1	1 0 2 0	0 0 2 1	0 0 0 0

Volume Module:
Base Vol: 0 0 249 476 556 0 0 1519 171 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 249 476 556 0 0 1519 171 0 0 0
Added Vol: 0 0 0 0 55 0 0 417 1 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 249 476 611 0 0 1936 172 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 249 476 611 0 0 1936 172 0 0 0
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 249 476 611 0 0 1936 172 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 249 476 611 0 0 1936 172 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj: 0.87 0.77 0.95 1.00 1.00 0.90 0.90 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 1.00 1.00 2.00 0.00 0.00 2.76 0.24 0.00 0.00 0.00
Final Sat.: 0 0 1644 1461 3610 0 0 4707 418 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.15 0.33 0.17 0.00 0.00 0.41 0.41 0.00 0.00 0.00
Crit Moves: *****
Green/Cycle: 0.00 0.00 0.48 0.48 0.48 0.00 0.00 0.41 0.41 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.31 0.68 0.35 0.00 0.00 1.00 1.00 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 9.9 16.3 9.6 0.0 0.0 36.5 36.5 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 9.9 16.3 9.6 0.0 0.0 36.5 36.5 0.0 0.0 0.0
HCM2k95th: 0 0 6 15 7 0 0 33 33 0 0 0

Intersection #35 15th St/J St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.954
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 38.9
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	20 20 0	0 0 30	0 0 0 0
Lanes:	0 0 0 0	0 1 2 0	0 0 2 1	0 0 0 0

Volume Module:
Base Vol: 0 0 0 407 1062 0 0 1832 603 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 407 1062 0 0 1832 603 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 333 75 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 407 1062 0 0 2165 678 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 407 1062 0 0 2165 678 0 0 0
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 407 1062 0 0 2165 678 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 407 1062 0 0 2165 678 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj: 0.91 0.91 0.91 1.00 1.00 0.88 0.88 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.83 2.17 0.00 0.00 2.28 0.72 0.00 0.00 0.00
Final Sat.: 0 0 0 1437 3750 0 0 3808 1192 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.28 0.28 0.00 0.00 0.57 0.57 0.00 0.00 0.00
Crit Moves: *****
Green/Cycle: 0.00 0.00 0.00 0.36 0.36 0.00 0.00 0.54 0.54 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.79 0.79 0.00 0.00 1.06 1.06 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 18.6 18.6 0.0 0.0 49.4 49.4 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 18.6 18.6 0.0 0.0 49.4 49.4 0.0 0.0 0.0
HCM2k95th: 0 0 0 18 18 0 0 48 48 0 0 0

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2000 HCM Operations Method (Future Volume Alternative)

Intersection #35 15th St/J St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.954
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 38.9
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	20 20 0	0 0 30	0 0 0 0
Lanes:	0 0 0 0	0 1 2 0	0 0 2 1	0 0 0 0

Volume Module:
Base Vol: 0 0 0 407 1062 0 0 1832 603 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 407 1062 0 0 1832 603 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 333 75 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 407 1062 0 0 2165 678 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 407 1062 0 0 2165 678 0 0 0
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 407 1062 0 0 2165 678 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 407 1062 0 0 2165 678 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj: 0.91 0.91 0.91 1.00 1.00 0.88 0.88 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.83 2.17 0.00 0.00 2.28 0.72 0.00 0.00 0.00
Final Sat.: 0 0 0 1437 3750 0 0 3808 1192 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.28 0.28 0.00 0.00 0.57 0.57 0.00 0.00 0.00
Crit Moves: *****
Green/Cycle: 0.00 0.00 0.00 0.36 0.36 0.00 0.00 0.54 0.54 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.79 0.79 0.00 0.00 1.06 1.06 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 18.6 18.6 0.0 0.0 49.4 49.4 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 18.6 18.6 0.0 0.0 49.4 49.4 0.0 0.0 0.0
HCM2k95th: 0 0 0 18 18 0 0 48 48 0 0 0

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2000 HCM Operations Method (Future Volume Alternative)

Intersection #40 15th St/X St

Cycle (sec): 70 Critical Vol./Cap. (X): 0.922
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 46.9
Optimal Cycle: 85 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 17 17 28 28 0 0 28 28 0 0 0
Lanes: 0 0 2 1 0 1 1 2 0 0 0 0 1 1 0 0 0 0 0

Volume Module:
Base Vol: 0 1020 70 853 1270 0 0 673 255 0 0 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 1020 70 853 1270 0 0 673 255 0 0 0

Added Vol: 0 0 0 183 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 1020 70 1036 1270 0 0 673 255 0 0 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 1020 70 1036 1270 0 0 673 255 0 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 1020 70 1036 1270 0 0 673 255 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol.: 0 1020 70 1036 1270 0 0 673 255 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adj: 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89

Lanes: 0.00 2.81 0.19 1.80 2.20 0.00 0.00 1.45 0.55 0.00 0.00 0.00

Final Sat.: 0 4805 330 3039 3725 0 0 2511 951 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.21 0.21 0.34 0.34 0.00 0.00 0.27 0.27 0.00 0.00 0.00

Crit Moves: ****

Green/Cycle: 0.00 0.21 0.21 0.34 0.34 0.00 0.00 0.34 0.34 0.00 0.00 0.00

Volume/Cap: 0.00 1.02 1.02 1.00 1.00 0.00 0.00 0.79 0.79 0.00 0.00 0.00

Delay/Veh: 0.0 66.3 66.3 45.3 45.3 0.0 0.0 27.8 27.8 0.0 0.0 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 0.0 66.3 66.3 45.3 45.3 0.0 0.0 27.8 27.8 0.0 0.0 0.0

HCM2k95th: 0 27 27 32 32 0 0 23 23 0 0 0

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2000 HCM Operations Method (Future Volume Alternative)

Intersection #41 16th St/H St

Cycle (sec): 50 Critical Vol./Cap. (X): 0.820
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 30.7
Optimal Cycle: 56 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 26 26 0 0 0 0 0 18 24 0 0 0 0 0 0 0 0 0 0 6

Lanes: 0 0 2 1 0 0 0 0 0 0 2 1 0 0 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 2191 20 0 0 0 0 798 751 0 0 0 0 0 0 0 0 0 0 0 47

Growth Adj: 1.00

Initial Bse: 0 2191 20 0 0 0 0 798 751 0 0 0 0 0 0 0 0 0 0 0 47

Added Vol: 0 223 0 0 0 0 0 43 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0

Initial Fut: 0 2414 20 0 0 0 0 841 751 0 0 0 0 0 0 0 0 0 0 0 47

User Adj: 1.00

PHF Adj: 1.00

PHF Volume: 0 2414 20 0 0 0 0 841 751 0 0 0 0 0 0 0 0 0 0 0 47

Reduct Vol: 0

Reduced Vol: 0 2414 20 0 0 0 0 841 751 0 0 0 0 0 0 0 0 0 0 0 47

PCE Adj: 1.00

MLF Adj: 1.00

Final Vol.: 0 2414 20 0 0 0 0 841 751 0 0 0 0 0 0 0 0 0 0 0 47

Saturation Flow Module:
Sat/Lane: 1900

Adj: 0.91

Lanes: 0.00 2.98 0.02 0.00 0.00 0.00 2.00 1.00 0.00 2.00 1.00 0.00 2.00 1.00 0.00 2.00 1.00 0.00 2.00 1.00 0.00

Final Sat.: 0 5139 43 0 0 0 0 3590 1851 0 0 0 0 0 0 0 0 0 0 0 1644

Capacity Analysis Module:
Vol/Sat: 0.00 0.47 0.47 0.00 0.00 0.00 0.23 0.41 0.00 0.23 0.41 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.03

Crit Moves: ****

Green/Cycle: 0.00 0.46 0.46 0.00 0.00 0.00 0.32 0.43 0.00 0.32 0.43 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.11

Volume/Cap: 0.00 1.01 1.01 0.00 0.00 0.00 0.73 0.95 0.00 0.73 0.95 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.27

Delay/Veh: 0.0 36.3 36.3 0.0 0.0 0.0 18.1 27.1 0.0 18.1 27.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.23 8

User DelAdj: 1.00

AdjDel/Veh: 0.0 36.3 36.3 0.0 0.0 0.0 18.1 27.1 0.0 18.1 27.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.23 8

HCM2k95th: 0 27 27 32 32 0 0 23 23 0 0 0 0 0 0 0 0 0 0 0 2
