Railyards Specific Plan
Final Environmental Impact Report

SCH No. 2006032058

November 2007 (P05-097)

Prepared for
City of Sacramento

Prepared by
PBS&J

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1.0 INTRODUCTION

1.0 INTRODUCTION

PURPOSE OF THIS DOCUMENT

This document includes all agency and public comments received on the Draft Environmental Impact Report (Draft EIR) for the proposed Railyards Specific Plan (proposed project). Written comments were received by the City of Sacramento during the public comment period held from August 20, 2007 to October 4, 2007. Oral comments were received at a public meeting on September 13, 2007. This document includes written responses to substantive comments received on the adequacy of the Draft EIR. The responses correct, clarify, and amplify text in the Draft EIR, as appropriate. These changes do not alter the conclusions of the Draft EIR.

This document also provides revisions to the Draft EIR made in response to comments, staff review, and/or changes to the proposed project.

This Final EIR document has been prepared in accordance with the California Environmental Quality Act (CEQA) and together with the Draft EIR (and Appendices) constitutes the EIR for the proposed project.

SUMMARY OF PROPOSED PROJECT

The project proposes adoption and implementation of the proposed Railyards Specific Plan and approval of related entitlements. The proposed Railyards Specific Plan (Specific Plan) is a regulatory document defining clear parameters for development and redevelopment in the Railyards Specific Plan Area (Specific Plan Area). It establishes a comprehensive framework of development policies to create unique mixed-use neighborhoods consisting of high-density housing complemented by cultural opportunities, office development, hotels, entertainment and commercial uses, and parks and urban plazas. The proposed project includes the proposed Specific Plan and related approvals (e.g., Design Guidelines), related General Plan and Central City Community Plan amendments, revisions to the Railyards Specific Plan/Richards Boulevard Area Plan Facility Element, and relocation of the Union Pacific Railroad (UPRR) tracks. A more complete list of anticipated approvals is provided at the end of this chapter.

This Environmental Impact Report (EIR) has been prepared to assess the potential environmental impacts associated with implementation of the proposed project in accordance with the principles, goals, and policies set forth in the Specific Plan. As required under the CEQA, the Draft EIR evaluates and describes potentially significant environmental impacts, identifies mitigation measures to avoid or reduce the significance of potential impacts, and evaluates the comparative effects of potentially feasible alternatives to the proposed Specific Plan.

Project approval requires the City of Sacramento to approve the proposed project and to issue required City permits or affirm compliance with other agency requirements. Below are summarized the discretionary actions sought by the project applicant for the Railyards project that the City of Sacramento will consider during its review. A detailed description of required permits and approvals is included in Chapter 3, Project Description, of the Draft EIR. The City actions that may be considered include, but are not limited to:

- Certification of this EIR;

- Adoption of a Mitigation Monitoring and Reporting Program (MMRP);
- Rescission of the existing onsite entitlements and adoption of the Specific Plan;
- Approval of the Special Planning District, including development standards;
- Approval of Design Guidelines;
- Approval of a Development Agreement;
- Master Tentative Map;
- Approval of a General Plan amendment;
- Approval of a Zoning Code amendment;
- Community Plan amendment;
- Financing Plan;
- Approval of a Redevelopment Plan;
- Owner Participation Agreement;
- Approval of amendments to sections 18.36 et seq. and 18.48 et seq. of the City Code; and
- Adoption of Historic District Ordinance, per Chapter 17.134 of the Sacramento Municipal Code.

In addition to the approvals required from the City of Sacramento, development of the proposed project would require entitlements, approvals, and permits from other local, state, and federal agencies. Such other project approvals may include, but are not limited to the following:

- Redevelopment Agency of Sacramento;
- National Pollutant Discharge Elimination System (NPDES) permit from the RWQCB;
- General Construction Permit from RWQCB;
- Department of Toxic Substances Control (DTSC) clearances;
- Sacramento Metropolitan Air Quality Management District (SMAQMD) permit to operate required for any commercial and office uses;
- Federal Transit Administration for relocation of the tracks;
- California Public Utilities Commission for relocation of the tracks;
- Potential actions by the State Lands Commission;
- Encroachment permit from the State Reclamation Board;
- Authorization under Section 404 of the Clean Water Act for construction of the Sacramento River outfall;
- Streambed Alteration Agreement from the California Department of Fish and Game for construction of the Sacramento River outfall; and
- Encroachment permits from Caltrans for construction and connection of roads to adjacent state and federal highways.

DOCUMENT ORGANIZATION

The Final EIR is organized as follows:

Chapter 1 – Introduction: This chapter summarizes the project under consideration and describes the contents of the Final EIR.

Chapter 2 – Index to Comments and Responses: This chapter provides an index of all of the comments received on the Draft EIR and where responses to each of the comments can be found within the Final EIR. This chapter also 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, individual and date.

Chapter 3 – Changes to the Draft EIR Text and Figures: This chapter summarizes the text changes to the Draft EIR. These revisions are in response to comments made on the Draft EIR and/or staff-initiated text changes. Changes to the text of the Draft EIR are shown by either a line through the text that has been deleted or underlining where new text has been inserted. The revisions contain clarification, amplification, and corrections that have been identified since publication of the Draft EIR. The text revisions do not result in substantive changes in the analysis and conclusions presented in the Draft EIR.

Chapter 4 – Responses to Comments: This chapter contains the responses to comments submitted during the public review period. All comment responses are group by chapter and by issue topic. In situations where the project issue(s) was identified in multiple letters, a "Master Response" was prepared to address the general concern. In such cases, each of the appropriate comment letter binomials were referenced in the response. If a subject matter of one letter overlaps that of another letter, the reader may be referred to more than one group of comments and responses to review all information on a given subject. Where this occurs, cross-references are provided.

Chapter 5 – Comment Letters: This chapter contains the comment letters received on the Draft EIR. Each comment letter is presented with brackets indicating how the letter has been divided into individual comments. Each comment is given a binomial with the letter number appearing first, followed by the comment number. For example, comments in Letter 1 are numbered 1-1, 1-2, 1-3, and so on.

Chapter 6 – Mitigation Monitoring and Reporting Plan: This chapter contains the Mitigation Monitoring and Reporting Plan (MMRP) to aid the City in its implementation and monitoring of measures adopted in the EIR.

Appendices – This section includes documentation and technical information referenced in the Final EIR.

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 proposed project 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 March 10, 2006. The 30-day public review comment period for the NOP ended on April 10, 2006.
- A public scoping meeting for the EIR was held on March 29, 2006.
- A Notice of Completion (NOC) and copies of the Draft EIR were filed with the State Clearinghouse on August 20, 2007. An official 45-day public review period for the Draft EIR was established by the State Clearinghouse, ending on October 4, 2007 and a Notice of Availability (NOA) was distributed to interested groups, organizations, and individuals.
- A public meeting to receive comments on the Draft EIR was held on September 13, 2007.
- Copies of the Draft EIR were available for review at the following locations:

  City of Sacramento Development Services Department
  North Permit Center
  2101 Arena Boulevard, Suite 200
  Sacramento, CA 95834
  (Open to the public from 7:30 am to 3:30 pm and until 5:00 pm with prior arrangement)

  City Hall
  915 I Street
  Development Services Department, 3rd Floor
  Sacramento, CA 95814

  Sacramento Public Library
  828 I Street
  Sacramento, CA 95814

2.0 INDEX TO COMMENTS AND RESPONSES

2.0 INDEX TO COMMENTS AND RESPONSES

At the end of the circulation period, a total of 39 written comment letters and e-mails addressing the Draft EIR were received. In addition, verbal comments were made at the September 13, 2007, hearing on the Draft EIR. All of the written comments have been assigned a letter number and a comment number which corresponds with the specific issue identified in the letters (Comment 2-3 refers to the third comment identified in letter two as identified in the list of commenters).

Multiple comments were received with respect to most key issues. To provide comprehensive responses regarding the issues raised, the City prepared responses addressing all comments relating to each substantive issue within each resource area. Each of these responses provides some background regarding the specific issue, how the issue was addressed in the Draft EIR, and additional clarification and explanation as appropriate in response to the concerns raised in the comments. At the beginning of each response section, the comments the response addresses are identified. An index is also included in this chapter to assist the commenter in determining where the response to his or her specific comment is located in Chapter 4.

LIST OF AGENCIES AND PERSONS COMMENTING

CLEARINGHOUSE

1. State of California, Governor's Office of Planning and Research, State Clearinghouse and Planning Unit, Terry Roberts, Director, State Clearinghouse, October 5, 2007.

FEDERAL AGENCIES

2. United States District Court, Eastern District of California, Office of the Clerk, Lance Olson, Esq., Member, Federal Bar Association, Victoria Minor, Clerk of Court, October 3, 2007.

3. United States Department of Justice, Eastern District of California, U.S. Marshals Service, Antonio Amador, United States Marshal, October 2, 2007.

STATE AGENCIES

4. Department of Toxic Substances Control, Fernando Amador, P.E., October 3, 2007.

5. Office of Historic Preservation, Department of Parks and Recreation, Milford Wayne Donaldson, FAIA, State Historic Preservation Officer, October 3, 2007.

6. California Regional Water Quality Control Board, Central Valley Region, Steven W. Meeks, P.E., Water Resource Control Engineer, October 3, 2007.

7. California State Lands Commission, Grace Kato, Public Land Management Specialist, October 3, 2007.

8. California Department of Transportation, District 3 – Sacramento Area Office, Bruce De Terra, Chief, Office of Transportation Planning - South, October 3, 2007.

9. California Department of Water Resources, Christopher Huitt, Staff Environmental Scientist, Floodway Protection Section, August 27, 2007.

10. California Public Utilities Commission, Kevin Boles, Environmental Specialist, Rail Crossings Engineering Section, Consumer Protection and Safety Division, October 2, 2007.

11. California State Railroad Museum, Paul Hammond, Museum Director, October 3, 2007.

LOCAL AGENCIES

12. Taylor & Wiley, Attorneys, James B. Wiley, October 3, 2007.

13. County of Sacramento, Department of Transportation, Jaskamal Singh, Associate Transportation Engineer, August 31, 2007.

14. Sacramento Metropolitan Air Quality Management District, Jeane Borkenhagen, Associate Air Quality Planner Analyst, October 3, 2007.

15. Sacramento Regional County Sanitation District, Carmen K. Lee, Associate Civil Engineer, October 1, 2007.

16. Sacramento Regional Transit District, Don Smith, Senior Planner, September 10, 2007.

17. County Sanitation District 1, Salam A. Khan, P.E., Department of Water Quality, Development Services, September 10, 2007.

18. Sacramento City Unified School District, William T. West, Assistant Superintendent, October 3, 2007.

INDIVIDUALS AND ORGANIZATIONS

19. Pacific Gas and Electric Company, Land Services Office, Donald Kennedy, Land Agent, August 24, 2007.

20. Sacramento Audubon Society, Keith G. Wagner, President, September 28, 2007.

21. Sacramento County Historical Society, Susan Ballew, President, October 3, 2007.

22. Sacramento Old City Association, Linda K. Whitney, President, October 2, 2007.

23. Friends of the Yee Fow Museum, Steve Yee, Chair, October 2, 2007.

24. Remy, Thomas, Moose, and Manley, LLP, Attorneys at Law, Katy C. Cotter, October 3, 2007.

25. William D. Kopper, Attorney at Law, on behalf of Robert Castro, Jr., Linda Powers, and Chris Rich, October 3, 2007.

26. Soluri & Emrick, A Law Corporation, Patrick M. Soluri, October 3, 2007.

27. Franchise of Americans Needing Sports, Michael C. Ross, J.D., October 2, 2007.

28. MCR Public Affairs and Advocacy, on behalf of Moller International, Michael C. Ross, J.D., October 2, 2007.

29. Friends of the Earth, Fred Millar, Ph. D., August 29, 2007.

30. Laura Lough and Dan Frankfield, September 21, 2007.

31. Daniel A. Airola, September 19, 2007.

32. Charlotte Delgado, October 3, 2007.

33. Roxanne Fuentez, October 3, 2007.

34. Mark C. Huck, October 2, 2007.

35. Steve Nagrabski, August 25, 2007.

36. Jack Sales, October 3, 2007.

37. James Young, September 27, 2007.

38. Steve Yee, October 2, 2007.

39. Michael Lee, Andrea Lee, Barbara Hailer, Robert Lee, Brianna Littlejohn, Phylis L. McGarvey, Niefu and Lindsey Zupansic, Nicole Wasson, Andrew Reeves, April Farnham, September 27, 2007.

40. City Planning Commission Public Hearing, Transcript of Proceedings, September 13, 2007.

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INDEX TO COMMENTS AND RESPONSES

Letter Number	Name	Agency / Affiliation	Commenter Code	Section	Subsection
1	Roberts, Terry	Director, State Clearinghouse	1-01	Project Desription	4.1.2
2	Minor, Victoria & Olson, Lance	US District Court, Eastern District of CA	2-01	Project Description	4.1.8
			2-02	Transportation and Circulation	4.15.7/4.15.8
			2-03	Transportation and Circulation	4.15.7/4.15.9
			2-04	Project Description	4.1.2
			2-05	Project Description	4.1.6
3	Amador, Antonio C.	United States Marshall, US Department of Justice, Eastern District of California	3-01	Transportation and Circulation	4.15.7/4.15.10
4	Amador, Fernando	Department of Toxic Substances Control	4-01	Hazards and Hazardous Substances	4.8.1
			4-02	Hazards and Hazardous Substances	4.8.1/4.8.2/4.8.5
			4-03	Hazards and Hazardous Substances	4.8.4/4.8.5
			4-04	Hazards and Hazardous Substances	4.8.5/4.8.16
			4-05	Hazards and Hazardous Substances	4.8.5/4.8.14
			4-06	Hazards and Hazardous Substances	4.8.5/4.8.15
5	Donaldson, Milford Wayne	Officer, Office of Historic Preservation, Department of Parks & Recreation	5-01	Cultural Resources	4.6.1/4.6.17
			5-02	Project Description/Cultural Resources	4.1.3/4.6.1
			5-03	Cultural Resources	4.6.17
			5-04	Cultural Resources	4.6.17
			5-05	Cultural Resources	4.6.8/4.6.17
			5-06	Cultural Resources	4.6.17
			5-07	Cultural Resources	4.6.22
			5-08	Cultural Resources	4.6.16
			5-09	Cultural Resources	4.6.17
			5-10	Cultural Resources	4.6.17
			5-11	Cultural Resources	4.6.19
			5-12	Cultural Resources	4.6.10

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			5-13	Cultural Resources	4.6.18/4.6.21
			5-14	Cultural Resources	4.6.11
			5-15	Cultural Resources	4.6.4/4.6.5/4.6.7
			5-16	Project Description/Cultural Resources	4.1.12/4.6.1
			5-17	Cultural Resources	4.6.31
			5-18	Cultural Resources	4.6.24
6	Meeks, Steven W.	Engineer, CA Regional Water Quality Control Board, Central Valley Region	6-01	Hazards and Hazardous Substances	4.8.1/4.8.2/4.8.5/4.8.15
			6-02	Hazards and Hazardous Substances	4.8.5
			6-03	Hazards and Hazardous Substances	4.8.5
			6-04	Hazards and Hazardous Substances	4.8.5/4.8.14
			6-05	Hazards and Hazardous Substances	4.8.14/4.8.15
			6-06	Hazards and Hazardous Substances	4.8.2
			6-07	Hydrology and Water Quality	4.9.1/4.9.11
			6-08	Hazards and Hazardous Substances	4.8.12/4.8.13
			6-09	Hazards and Hazardous Substances	4.8.14
			6-10	Hazards and Hazardous Substances	4.8.2
			6-11	Hazards and Hazardous Substances	4.8.4/4.8.14
			6-12	Hazards and Hazardous Substances	4.8.4/4.8.14
			6-13	Hazards and Hazardous Substances	4.8.3
			6-14	Hazards and Hazardous Substances	4.8.1
			6-15	Hazards and Hazardous Substances	4.8.2
			6-16	Hazards and Hazardous	4.8.5

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				Substances	
			6-17	Hazards and Hazardous Substances	4.8.3
			6-18	Hazards and Hazardous Substances	4.8.5
			6-19	Hazards and Hazardous Substances	4.8.3/4.8.14
			6-20	Hazards and Hazardous Substances	4.8.19
			6-21	Hazards and Hazardous Substances	4.8.4
			6-22	Hazards and Hazardous Substances	4.8.13
			6-23	Hazards and Hazardous Substances	4.8.4
			6-24	Hazards and Hazardous Substances	4.8.3/4.8.4/4.8.12
			6-25	Hazards and Hazardous Substances	4.8.14/4.8.16
			6-26	Hazards and Hazardous Substances	4.8.4
			6-27	Hazards and Hazardous Substances	4.8.19
			6-28	Hazards and Hazardous Substances/Hydrology and Water Quality	4.8.13/4.9.3
			6-29	Hydrology and Water Quality	4.9.1
			6-30	Hydrology and Water Quality	4.9.1
			6-31	Hydrology and Water Quality	4.9.3
			6-32	Hydrology and Water Quality	4.9.3
			6-33	Hydrology and Water Quality	4.9.1
7	Kato, Grace	Public Land Management Specialist, CA State Lands Commission	7-01	Project Description	4.1.11

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8	De Terra, Bruce	CA Department of Transportation (Caltrans)	8-01	Transportation and Circulation	4.15.1
			8-02	Transportation and Circulation	4.15.6
			8-03	Transportation and Circulation	4.15.6
			8-04	Transportation and Circulation	4.15.6
			8-05	Transportation and Circulation	4.15.6
			8-06	Transportation and Circulation	4.15.6
			8-07	Transportation and Circulation	4.15.6
9	Huitt, Christopher	Staff Environmental Scientist, CA Department of Water Resources	9-01	Hydrology and Water Quality	4.9.14
10	Boles, Kevin	Environmental Specialist, CA Public Utilities Commission	10-01	Project Description	4.1.2
11	Hammond, Paul	Director, CA State Railroad Museum	11-01	Project Description	4.1.5
			11-02	Project Description	4.1.3/4.1.5
			11-03	Project Description	4.1.12
			11-04	Cultural Resources	4.6.19
			11-05	Cultural Resources	4.6.8
			11-06	Cultural Resources	4.6.11
			11-07	Project Description/Cultural Resources	4.1.3/4.6.1
			11-08	Cultural Resources	4.6.2
			11-09	Cultural Resources	4.6.11
			11-10	Cultural Resources	4.6.20
			11-11	Cultural Resources	4.6.2
			11-12	Cultural Resources	4.6.9/4.6.10
			11-13	Cultural Resources	4.6.21
			11-14	Cultural Resources	4.6.16
			11-15	Cultural Resources	4.6.16
			11-16	Cultural Resources	4.6.29
			11-17	Other CEQA Required Considerations	4.18.1

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			11-18	Biological Resources	4.5.4
			11-19	Cultural Resources	4.6.27
			11-20	Cultural Resources	4.6.28
			11-21	Cultural Resources	4.6.29
			11-22	Cultural Resources	4.6.27
			11-23	Cultural Resources	4.6.29
			11-24	Cultural Resources	4.6.20
			11-25	Cultural Resources	4.6.27
			11-26	Cultural Resources	4.6.8
			11-27	Cultural Resources	4.6.30
			11-28	Cultural Resources	4.6.30
12	Wiley, James B.	Taylor & Wiley Attorneys	12-01	Project Description	4.1.5
			12-02	Project Description	4.1.2
			12-03	Project Description	4.1.12
			12-04	Cultural Resources	4.6.19
			12-05	Cultural Resources	4.6.8
			12-06	Cultural Resources	4.6.11
			12-07	Project Description/Cultural Resources	4.1.3/4.6.1
			12-08	Cultural Resources	4.6.2
			12-09	Cultural Resources	4.6.11
			12-10	Cultural Resources	4.6.20
			12-11	Cultural Resources	4.6.2/4.6.17
			12-12	Cultural Resources	4.6.9/4.6.10
			12-13	Cultural Resources	4.6.21
			12-14	Cultural Resources	4.6.8
			12-15	Cultural Resources	4.6.16
			12-16	Cultural Resources	4.6.9
			12-17	CEQA Consideration	4.18.1
			12-18	Project Description	4.1.2
13	Singh, Jaskamal	Associate Transportaion Engineer, County Department of Transportation	13-01	Project Description	4.1.2
14	Borkenhagen	Associate Analyst, Sacramento Metropolitan Air Quality Management District	14-01	Air Quality	4.4.7
			14-02	Air Quality	4.4.14
			14-03	Air Quality	4.4.15

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			14-04	Air Quality	4.4.4
			14-05	Air Quality	4.4.1
			14-06	Air Quality	4.4.2
15	Lee, Carmen K.	Associate Civil Engineer, Sacramento Regional County Sanitation District	15-01	Hydrology and Water Quality	4.9.6
			15-02	Hydrology and Water Quality	4.9.6
16	Smith, Don	Senior Planner, Sacramento Regional Transit District	16-01	Transportation and Circulation	4.15.11
			16-02	Transportation and Circulation	4.15.12
			16-03	Transportation and Circulation	4.15.12
			16-04	Air Quality	4.4.19
			16-05	Air Quality	4.4.20
			16-06	Air Quality	4.4.20
			16-07	Air Quality	4.4.21
			16-08	Air Quality	4.4.21
			16-09	Air Quality	4.4.21
			16-10	Air Quality	4.4.21
17	Khan, Salam A.	Department of Water Quality Development Services, County Sanitation District	17-01	Project Description	4.1.2
18	West, William T.	Assistant Superintendent, Sacramento City Unified School District	18-01	Public Services	4.13.1
			18-02	Hazards and Hazardous Substances	4.8.17
			18-03	Hazards and Hazardous Substances	4.8.4/4.8.17
			18-04	Hazards and Hazardous Substances	4.8.17
			18-05	Hazards and Hazardous Substances	4.8.17
			18-06	Hazards and Hazardous Substances	4.8.17
			18-07	Hazards and Hazardous Substances	4.8.17

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			18-08	Hazards and Hazardous Substances	4.8.17
			18-09	Hazards and Hazardous Substances	4.8.17
			18-10	Hazards and Hazardous Substances	4.8.17
			18-11	Hazards and Hazardous Substances	4.8.17
			18-12	Project Description/Hazards and Hazardous Substances/Public Services	4.1.5/4.8.17/4.13.1
			18-13	Plans and Policies	4.2.1
			18-14	Energy/Global Warming	4.4.1/4.4.6
			18-15	Biological Resources	4.5.1
			18-16	Biological Resources	4.5.2
			18-17	Biological Resources	4.5.3
			18-18	Biological Resources	4.5.3
			18-19	Seismicity Soils and Geology	4.7.1/4.7.2
			18-20	Seismicity Soils and Geology	4.7.1/4.7.2
			18-21	Hazards and Hazardous Substances	4.8.17
			18-22	Hazards and Hazardous Substances/Hydrology and Water Quality	4.8.1/4.9.1/4.9.2/4.9.3/4.9.4/4.9.5/4.9.9/ 4.9.10/4.9.11/4.9.12/4.9.13
			18-23	Land Use	4.10.2
			18-24	Noise and Vibration	4.11.6
			18-25	Public Services	4.13.1
			18-26	Transportation and Circulation	4.15.1
			18-27	Transportation and Circulation	4.15.1
			18-28	Transportation and Circulation	4.15.2
			18-29	Transportation and Circulation	4.15.9
			18-30	Transportation and Circulation	4.15.13

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			18-32	Transportation and Circulation	4.15.17
			18-33	Urban Design and Visual Resources	4.16.6
			18-34	Alternatives	4.19.1
19	Kennedy, Donald	Land Agent, Pacific Gas and Electric Company	19-01	Energy	4.17.2
			19-02	Energy	4.17.3
20	Wagner, Kieth G.	President, Sacramento Audubon Society	20-01	Biological Resources	4.5.4
21	Ballew, Susan	President, Sacramento County Historical Society	21-01	Project Description	4.1.3
			21-02	Cultural Resources	4.6.8
			21-03	Cultural Resources	4.1.3
22	Whitney, Linda K.	President, Sacramento Old City Association	22-01	Cultural Resources	4.6.8
			22-02	Cultural Resources	4.6.11
			22-03	Cultural Resources	4.6.26
			22-04	Cultural Resources	4.6.13
			22-05	Cultural Resources	4.6.9
			22-06	Cultural Resources	4.6.12/4.6.19
			22-07	Cultural Resources	4.6.14
			22-08	Cultural Resources	4.6.2
			22-09	Cultural Resources	4.6.22
			22-10	Cultural Resources	4.6.9
23	Yee, Steve	Chair, Friends of the Yee Fow Museum	23-01	Cultural Resources	4.6.13
24	Cotter, Katy C.	Remy, Thomas, Moose & Manley, LLP	24-01	Transportation and Circulation	4.15.1
			24-02	Land Use	4.10.1
			24-03	Noise and Vibration	4.11.5
			24-04	Noise and Vibration	4.11.5
			24-05	Project Description/Noise and Vibration	4.1.2/4.11.5
			24-06	Urban Design and Visual Resources	4.16.8

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			24-07	Noise and Vibration	4.11.5
25	Castro, Robert Jr.; Greenburg, Alvin J.; Grismer, Mark; Kopper, William; Pless, Petra; Rich, Chris; Smith, Daniel	William D. Kopper, Attorney at Law	25-01	Project Description	4.1.5
			25-02	Project Description	4.1.3
			25-03	Project Description	4.1.9
			25-04	Project Description	4.1.1/4.1.4
			25-05	Project Description	4.1.12
			25-06	Project Description	4.1.3
			25-07	Plans and Policies/Transportation and Circulation	4.2.2/4.15.14/4.15.15/4.15.16/4.15.17
			25-08	Population and Housing	4.3.1
			25-09	Population and Housing	4.3.1
			25-10	Population and Housing	4.3.1
			25-11	Population and Housing	4.3.2
			25-12	Population and Housing	4.3.3
			25-13	Population and Housing	4.3.2
			25-14	Air Quality	4.4.17
			25-15	Air Quality	4.4.2/4.4.4
			25-16	Air Quality	4.4.5
			25-17	Air Quality	4.4.4
			25-18	Air Quality	4.4.2
			25-19	Air Quality	4.4.1
			25-20	Air Quality	4.4.8
			25-21	Hazards and Hazardous Substances	4.4.18
			25-22	Air Quality	4.4.9
			25-23	Hazards and Hazardous Substances	4.8.1/4.8.10
			25-24	Hazards and Hazardous Substances	4.8.2
			25-25	Hazards and Hazardous Substances	4.8.1
			25-26	Hazards and Hazardous Substances	4.8.1/4.8.10
			25-27	Hazards and Hazardous Substances	4.8.5/4.8.10
			25-28	Hazards and Hazardous Substances	4.8.1

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			25-30	Hazards and Hazardous Substances	4.8.6/4.8.7/4.8.10/4.8.18
			25-31	Hazards and Hazardous Substances	4.8.4
			25-32	Hazards and Hazardous Substances	4.8.4
			25-33	Hazards and Hazardous Substances	4.8.4
			25-34	Hazards and Hazardous Substances	4.8.12
			25-35	Hazards and Hazardous Substances	4.8.4
			25-36	Hazards and Hazardous Substances	4.8.12
			25-37	Hazards and Hazardous Substances	4.8.12
			25-38	Hazards and Hazardous Substances	4.8.12
			25-39	Hazards and Hazardous Substances	4.8.16
			25-40	Hazards and Hazardous Substances	4.8.7/4.8.18
			25-41	Hydrology and Water Quality	4.9.3
			25-42	Hydrology and Water Quality	4.9.1/4.9.3
			25-43	Land Use	4.10.3
			25-44	Noise and Vibration	4.11.1
			25-45	Noise and Vibration	4.11.1/4.11.2
			25-46	Noise and Vibration	4.11.2/4.11.7
			25-47	Noise and Vibration	4.11.1
			25-48	Noise and Vibration	4.11.2/4.11.3
			25-49	Noise and Vibration	4.11.2
			25-50	Noise and Vibration	4.11.2
			25-51	Noise and Vibration	4.11.4
			25-52	Hydrology and Water Quality	4.9.1/4.9.7

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			25-53	Public Utilities	4.14.1/4.14.5
			25-54	Transportation and Circulation	4.15.20
			25-55	Urban Design and Visual Quality	4.16.4/4.16.7
			25-56	Energy	4.17.1
			25-57	Transportation and Circulation	4.15.6/4.15.18
			25-58	Transportation and Circulation	4.15.19
			25-59	Transportation and Circulation	4.15.1/4.15.20
			25-60	Transportation and Circulation	4.15.5
			25-61	Transportation and Circulation	4.15.1/4.15.21
			25-62	Transportation and Circulation	4.15.2
			25-63	Transportation and Circulation	4.15.5
			25-64	Transportation and Circulation	4.15.22
			25-65	Transportation and Circulation	4.15.1/4.15.23
			25-66	Transportation and Circulation	4.15.24
			25-67	Transportation and Circulation	4.15.25
			25-68	Transportation and Circulation	4.15.26
			25-69	Project Description	4.1.5
			25-70	Project Description	4.1.12
			25-71	Project Description	4.1.3
			25-72	Air Quality	4.4.10
			25-73	Air Quality	4.4.4/4.4.11
			25-74	Air Quality	4.4.2/4.4.3
			25-75	Air Quality	4.4.16
			25-76	Air Quality	4.4.2/4.4.4/4.4.11
			25-77	Air Quality	4.4.12

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			25-79	Air Quality	4.4.13
			25-80	Hydrology and Water Quality	4.9.1/4.9.8
			25-81	Hydrology and Water Quality	4.8.1
			25-82	Hydrology and Water Quality	4.9.1/4.9.2
			25-83	Hydrology and Water Quality	4.9.1
			25-84	Hydrology and Water Quality	4.9.3
			25-85	Hydrology and Water Quality	4.9.3
			25-86	Hazards and Hazardous Substances	4.8.1/4.8.13
			25-87	Hydrology and Water Quality	4.9.9
			25-88	Hazards and Hazardous Substances	4.8.1/5.8.14
			25-89	Project Description/Hazards and Hazardous Substnaces	4.1.2/4.8.12
			25-90	Hazards and Hazardous Substances	4.8.12
26	Broughton, Gregory; Hilliard, Jon R.; Silvern, Paul J.; Soluri, Patrick M.; Vivian, Georgiena M.; Whitney, William H.	Soluri & Emrick, a Law Corporation	26-01	Project Description/Transportation and Circulation	4.1.2/4.15.1
			26-02	Project Description	4.1.5
			26-03	Hazards and Hazards Substances	4.8.1/4.8.10
			26-04	Project Description	4.1.10
			26-05	Project Description	4.1.5/4.1.6
			26-06	Project Description	4.1.3
			26-07	Air Quality	4.4.2/4.4.4/4.4.5/4.4.6
			26-08	Air Quality	4.4.1
			26-09	Cultural Resources	4.6.3/4.6.4/4.6.7/4.6.23
			26-10	Transportation and Circulation	4.15.1
			26-11	Transportation and	4.15.3

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			26-13	Parks and Open Space	4.12.1
			26-14	Public Services	4.13.2
			26-15	CEQA Consideration	4.18.1
			26-16	CEQA Consideration	4.18.1
			26-17	CEQA Consideration	4.18.1
			26-18	CEQA Consideration	4.18.1
			26-19	Urban Design and Visual Resources	4.16.1/4.16.2
			26-20	Hazards and Hazardous Substances	4.8.19
			26-21	Hydrology and Water Quality	4.9.1
			26-22	Hydrology and Water Quality	4.9.1
			26-23	Public Utilities	4.14.1/4.14.2/4.14.5/4.14.6/4.14.8
			26-24	Public Utilities	4.14.2/4.14.3/4.14.4/4.14.5
			26-25	Public Utilities	4.14.6/4.14.7
			26-26	Public Utilities	4.14.2/4.14.8
			26-27	Alternatives	4.19.2
			26-28	Project Description	4.1.5
			26-29	Parks and Open Space	4.12.1
			26-30	Parks and Open Space	4.12.1
			26-31	Public Services	4.13.2
			26-32	CEQA Consideration	4.18.1
			26-33	CEQA Considerations	4.18.1
			26-34	CEQA Consideration	4.18.1
			26-35	Alternatives	4.19.3
			26-36	Alternatives	4.19.3
			26-37	Alternatives	4.19.2
			26-38	Hydrology and Water Quality	4.9.1
			26-39	Air Quality	4.4.2
			26-40	Air Quality	4.4.2
			26-41	Air Quality	4.4.4
			26-42	Air Quality	4.4.3/4.4.5/4.4.6

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			26-44	Air Quality	4.4.1
			26-45	Cultural Resources	4.6.23
			26-46	Cultural Resources	4.6.6
			26-47	Cultural Resources	4.6.3
			26-48	Urban Design and Visual Resources	4.16.3/4.16.4
			26-49	Project Description	4.1.2
			26-50	Transportation and Circulation	4.15.1
			26-51	Transportation and Circulation	4.15.1
			26-52	Transportation and Circulation	4.15.2
			26-53	Transportation and Circulation	4.15.3
			26-54	Transportation and Circulation	4.15.4/4.15.28
			26-55	Transportation and Circulation	4.15.29
			26-56	Transportation and Circulation	4.15.6/4.15.30
27	Ross, Michael C.	Franchise of Americans Needing Sports	27-01	Project Description	4.1.7
28	Ross, Michael C.	MCR Public Affairs and Advocacy (on behalf of Moller International)	28-01	Project Description	4.1.2
			28-02	Project Description	4.1.2
29	Millar, Fred	Friends of the Earth	29-01	Hazards and Hazardous Substances	4.8.9/4.8.11
			29-02	Hazards and Hazardous Substances	4.8.6/4.8.8
			29-03	Hazards and Hazardous Substances	4.8.8/4.8.11
			29-04	Hazards and Hazardous Substances	4.8.6/4.8.7/4.8.9/4.8.11/4.8.18
			29-05	Hazards and Hazardous Substances	4.8.11/4.8.17
			29-06	Hazards and Hazardous	4.8.6/4.8.8

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			29-07	Hazards and Hazardous Substances	4.8.6/4.8.8/4.8.11
			29-08	Hazards and Hazardous Substances	4.8.6/4.8.8/4.8.9/4.8.11
30	Frankfield, Dan & Lough, Laura	Alkali Flat Redevelopment Advisory Committee	30-01	Project Description	4.1.2
			30-02	Project Description	4.1.2
			30-03	Project Description	4.1.2
			30-04	Project Description/ Transportation and Circulation	4.1.2/4.15.31
31	Airola, Daniel A.		31-01	Biological Resources	4.5.4
			31-02	Biological Resources	4.5.4
			31-03	Biological Resources	4.5.4
			31-04	Biological Resources	4.5.4
			31-05	Biological Resources	4.5.4
			31-06	Biological Resources	4.5.4
			31-07	Biological Resources	4.5.4
			31-08	Biological Resources	4.5.4
			31-09	Biological Resources	4.5.4
			31-10	Biological Resources	4.5.4
			31-11	Biological Resources	4.5.4
			31-12	Biological Resources	4.5.4
32	Delgado, Charlotte		32-01	Hazards and Hazardous Substances	4.8.1
33	Fuentez, Roxanne		33-01	Urban Design and Visual Resources	4.16.3
			33-02	Biological Resources/ Urban Design and Visual Resources	4.5.1/4.16.5
			33-03	Urban Design and Visual Resources/Energy	4.16.5/4.17.4
			33-04	Cultural Resources	4.6.8/4.6.9/4.6.12/4.6.13
			33-05	Cultural Resources	4.6.10
			33-06	Project Description	4.1.2
			33-07	Cultural Resources	4.6.25
34	Huck, Mark		34-01	Cultural Resources	4.6.16
35	Nagrabski, Steve		35-01	Project Description	4.1.5

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36	Sales, Jack		36-01	Biological Resources/ Urban Design and Visual Resources	4.5.1/4.16.5
37	Young, James		37-01	Hazards and Hazardous Substances	4.8.6/4.8.7/4.8.18
38	Yee, Steve		38-01	Cultural Resources	4.6.13
39	Farnham, April; Hailer, Barbara; Lee, Andrea; Lee, Michael; Lee, Robert; Littlejohn, Brianna; McGarvey, Phylis; Reeves, Andrew; Wasson, Nicole; Zupancic, Liefu; and Zupancic, Niefu		39-01	Project Description	4.1.2
40		Planning Commission	40-01	Urban Design and Visual Resources	4.16.5
			40-02	Biological Resources	4.5.1
			40-03	Cultural Resources	4.6.13
			40-04	Project Description	4.1.2
			40-05	Cultural Resources	4.6.13
			40-06	Cultural Resources/Hazards and Hazardous Substances	4.6.4/4.8.1
			40-07	Project Description	4.1.2
			40-08	Hazards and Hazardous Substances	4.8.2
			40-09	Cultural Resources	4.6.13
			40-10	Cultural Resources	4.6.4

3.0 CHANGES TO THE DRAFT EIR TEXT AND FIGURES

3.0 CHANGES TO THE DRAFT EIR TEXT AND FIGURES

INTRODUCTION

This chapter presents minor corrections and revisions made to the Draft EIR initiated by the public, staff, and/or consultants based on their on-going review. 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.

The changes identified below are clarifications or amplification of the information and analysis contained in the Draft EIR. None of the changes identified below results in a significant impact that was not already identified in the Draft EIR. Furthermore, none of the impacts identified in the Draft EIR were found to be substantially more severe as the result of the following changes. For these reasons, recirculation of the Draft EIR is not warranted.

The proposed Specific Plan and Design Guidelines have changed since the Draft EIR was prepared. None of the changes alter the type, location, or amount of development analyzed in the Draft EIR Analysis Scenarios. Most of the changes are minor, and do not address impacts evaluated in the EIR. In some cases, policies and guidelines are made more forceful by replacing "should" with "shall." Because none of the changes to the Specific Plan or Design Guidelines would alter the analysis of impacts, findings of significance or mitigation measures, they are not identified in this chapter.

Chapter 2, Summary of Environmental Effect

Mitigation Measure 6.2-7 on pages 2-20 and 2-21 is changed as follows:

6.2-7	**Construction near I-5 and the I Street Bridge could result in increased mortality and reproductive success of purple martins if construction would result in the loss of a breeding colony.**	S	6.2-7 a) Prior to the realignment of the Union Pacific Railroad tracks and/or removal of the existing overhead utility lines, the following measures shall be implemented to reduce impacts to the purple martins. 1. To offset the loss of nesting material gathering site sand and reduce potential predation from feral cats using tall vegetation as ambush points, during railroad track realignment the project applicant shall conduct weed abatement measures (e.g., weed whacking) bi weekly from March 15th to May 15th. The area to be maintained is the area that extends out 600 feet north of the existing railroad, as detailed on Figure 5.5-1. The plant waste shall be left in place from March 15th to May 15th to allow the purple martins to use the "waste" for nest building material. This measure is temporary and shall only occur while the existing railroad tracks are being realigned.	LS

		2. To offset the potential impacts from loss of perching wires the project applicant shall erect permanent perching structures, in close proximity to the colony but within the footprint of the project, before the removal of the existing utility lines and poles (wires for perching should be 3/8-3/4 inch in diameter and shall be at least 19.5 feet off the ground. Pole mounted structures could be mounted on light poles or fencing for stability). In the event that the perching structures are not a feasible alternative within the project footprint, the project applicant shall consult with the California State Railroad Museum as to the possibility of the perches being erected within state lands. 3. As identified in Figure 5.5-1, landscaping within 120 feet of the colony shall be planned as to not disrupt the flight access to the colony, small and medium size non fruit-bearing trees shall be incorporated to the landscaping plans. Landscaping plans shall also consider the option of prohibiting fruit-bearing trees within 500 feet of the site and not removing all the clippings from the area during maintenance specifically at the beginning of the nesting season (March 15th to May 15th) as to allow the purple martins to use the clippings as nesting materials. i) Until the proposed open space that is adjacent to the I Street Colony is landscaped as detailed in 6.2-7 (a3), the project applicant shall, from March 15th to May 15th, supply nesting material (straw, pine needles, etc.) in designated areas close to the colony for use by the purple martins while the planted trees and shrubs develop. The areas should be no further than 200 feet from perching wires. 4. So long as the I Street Colony is active, landscaping trees adjacent to the purple martin colony shall include pine species (*Pinus* spp.) to provide a permanent source of nesting material. The pine needles shall not be removed during	

		landscape maintenance from January 1st to May 15th. ~~a) Prior to beginning construction activities the project applicant shall prevent nest establishment on the areas of the structure that would be directly affected. Nest prevention methods include, but are not limited to, installation of a barrier (such as netting) to prevent bird access to the structure and/or continued removal of deposited mud material under the structure early in the nesting season to prevent construction of habitable nests. If nest prevention cannot be accomplished prior to the start of construction, and birds establish nests, the nests shall be protected from construction activity that would disrupt nesting activities until the nestlings fledge (per 6.2-7(b)). After the nestlings have fledged, the nests shall be inspected by a qualified biologist to confirm the absence of eggs and nestlings, prior to nest removal and commencement of construction activities.~~	
		b) Although purple martins are tolerant of human activities, if active nests are present no construction shall be conducted within 100 feet of the edge of the purple martin colony (as demarcated by the active nest hole closest to the construction activity) during the beginning of the purple martin breeding season from March 15th to May 15th ~~April 15 to August 1~~. The buffer area shall be avoided to prevent destruction or disturbance to the nest(s) until it is no longer active. The size of the buffer area may be adjusted if a qualified biologist and CDFG determine it would not be likely to have adverse effects on the martins. The site characteristics used to determine the size of the modified buffer should include; a) topographic screening; b) distance from disturbance to nest; c) the size and quality of foraging habitat surrounding the nest; and d) sensitivity of the species to nest disturbances. No project activity shall commence within the buffer area until a qualified biologist confirms that any nests are no longer active. In addition, no equipment shall be parked or stored beneath the I Street on-ramp or the I-5 overpass at the I Street on-ramp during the breeding season (April 15th to August 1st).	

Mitigation Measure 6.3-1 on pages 2-26 and 2-27 is changed as follows:

		e) All ~~E~~earth-moving activities within the Specific Plan Area ~~areas identified in the ATP~~ shall be monitored by an archaeologist approved by the City of Sacramento Preservation Director. Prior to any earth-moving activities, for each phase of the project a focused Monitoring and Unanticipated Discovery Plan shall be written by a qualified archaeologist and submitted to the City of Sacramento Preservation Director for approval. In the event that unanticipated archaeological resources or human remains are encountered, compliance with federal and state regulations and guidelines regarding the treatment of cultural resources and human remains shall be required. The following details the procedures to be followed in the event that new cultural resource sites or human remains are discovered.	
		i. If the monitoring archaeologist believes that an archaeological resource has inadvertently been uncovered, all work adjacent to the discovery shall cease, and the appropriate steps shall be taken, as directed by the Preservation Director in consultation with the archaeologist, to protect the discovery site. The area of work stoppage will be adequate to provide for the security, protection, and integrity of the archaeological resources in accordance with Federal and State Law. At a minimum the area will be secured to a distance of 50 feet from the discovery. Vehicles, equipment, and unauthorized personnel will not be permitted to traverse the discovery site. The archaeologist will conduct a field investigation and assess the significance of the find. Impacts to cultural resources shall be mitigated to a less-than-significant level through data recovery or other methods determined adequate by the archaeologist and that are consistent with the Secretary of the Interior's Standards for Archaeological Documentation. All identified	

			cultural resources shall be recorded on the appropriate DPR 523 (A-L) form and filed with the North Central Information Center.	

Mitigation Measure 6.3-2 on page 2-29 is changed as follows:

6.3-2	**The proposed project could cause a substantial adverse change in to the Southern Pacific Railroad Shops, a historical resource as defined in Section 15064.5 of the State CEQA Guidelines, through the potential alteration and demolition of character-defining features of contributing elements of the Historic District.**	PS	6.3-2 a)	An Architectural Historian qualified under the Secretary of the Interior's Standards shall be retained to prepare the necessary documentation to formally list the Central Shops Historic District as a locally Adopted Historic District. The Central Shops Historic District shall be adopted by the City prior to alteration of any of the buildings on site beyond stabilization recommendations included in the ARG report.	LS

Mitigation Measure 6.5-2 on page 2-34 is changed as follows:

6.5-2	**Development of the proposed Specific Plan would occur on property that is known to contain contaminated soil and groundwater, which could present a hazard to people during occupancy of the proposed project if not properly managed.**	S	6.5-2	In areas where the groundwater contamination has the potential to reach water, sewer or storm drainage pipelines due to fluctuations in the elevation of the groundwater table, or where volatile contaminants in soil vapor could enter porous utility lines, measures such as concrete trenches, membrane barriers and venting will be used to prevent infiltration in accordance with DTSC requirements. Routine monitoring shall be performed by the landowners, reported to DTSC and CVRWQCB, and corrective actions implemented if the results indicate adverse changes in water quality.	LS

Mitigation Measure 6.5-3(e) on page 2-35 is changed as follows:

		e)	Compliance with building design requirements, to be included in the building code ordinance, for preventing the intrusion of subsurface vapors into buildings and enclosed spaces and the buildup of soil vapors in enclosed spaces where applicable, shall be required if determined by DTSC to be necessary.	

Impact 6.5-4 and Mitigation Measure 6.5-4 on page 2-36 is changed as follows:

6.5-4	**Construction of site features such as infrastructure and buildings could interfere with <u>existing and/or planned</u> remediation efforts.**	PS	6.5-4	a) Project developers and their contractors shall coordinate with the City of Sacramento, DTSC, and other involved agencies, as appropriate, to assure that project construction shall not interfere with any adjacent and/or on-site <u>existing and/or planned</u> remediation activities or unduly delay any ~~or~~ <u>existing and/or planned</u> site remediation activities.	LS

Mitigation Measure 6.6-2 on page 2-38 is changed as follows:

6.6-2	**Operation of the proposed project would generate new sources of polluted runoff that could violate water quality standards or waste discharge requirements for receiving waters.**	S	6.6-2	The proposed Specific Plan shall ~~limit~~ <u>prohibit</u> discharges to the Sacramento River from the cistern that do not meet the water quality <u>requirements</u> ~~standards~~ set by the City and the CVRWQCB. If the cistern cannot meet the required water quality <u>requirements</u> ~~standards~~, then the proposed Specific Plan shall incorporate BMPs ~~using the best available technology~~ as provided in the Stormwater Quality Design Manual for the Sacramento and South Placer Regions (Manual) (May 2007) to reduce urban pollutant discharges to the Sacramento River <u>to the maximum extent practicable</u>.	LS

Mitigation Measure 6.8-4 on page 2-41 is changed as follows:

6.8-4	**Construction of the Specific Plan could temporarily increase levels of groundborne vibration.**	S	6.8-4	Implement Mitigation Measure 6.8-1 and the following measure during all phases of project construction: a) During 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 further structural damage.	SU

Mitigation Measure 6.11-8 (d) on page 2-53 has been changed as follows:

			~~The~~ If selected as appropriate mitigation, implementation of this mitigation measure ~~w~~could require environmental analysis to assess if the construction or operation of new wells ~~w~~could have any adverse environmental consequences ~~and would require environmental evaluation~~. The new wells, appurtenances and infrastructure could result in the following potentially significant environmental impacts:	

Mitigation Measure 6.12-3 on page 2-67 is changed as follows.

6.12-3	**The Initial Phase would add traffic to the study freeway mainline segments and cause the level of service to degrade below LOS E.**	S	6.12-3	~~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 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.~~None available.	SU

Mitigation Measure 6.12-22 on page 2-108 is changed as follows:

		m)	At the Bercut Drive / South Park Street intersection, the applicant shall install an additional northbound lane to provide one through lane and one right turn lane or as an alternative to this mitigation measure the applicant shall install a signal. With implementation of this mitigation measure, the level of service would be improved to LOS B (10.3 seconds delay) in the a.m. peak hour and to LOS C (20.2 seconds delay) in the p.m. peak hour. These results are shown in Table 6.12-31. With the implementation of the alternate signal mitigation, the intersection would improve to LOS A (9.1 seconds delay).	

Mitigation Measure 6.12-27 on page 2-118 is changed as follows:

6.12-27	**The Full Project would increase demand on the public transit system.**	PS	6.12-27	Implement of Mitigation Measure 6.12-6. Additionally, the project applicant shall coordinate with RT to provide modifications to both bus and light rail services and to help fund necessary improvements in order to serve the transit demand generated by the Full Project.	LS

Chapter 5, Population and Housing

The fifth paragraph on page 5-4 and continued on page 5-5 is changed as follows:

> In 2005, the City of Sacramento had an employment base of 214,267, which is defined by the number of residents aged 16 years and older. This is not necessarily reflective of the number of jobs available in the City. For example, SACOG estimates that there were 309,210 jobs in the City in 2005, indicating that people who do not reside in the City commute from other areas to work in Sacramento. As stated above, there were 168,782 occupied housing units within the City. Based on the number of jobs in the City and the number of occupied housing units, this would indicate that the City has an employee per housing unit ratio of approximately 1.83.~~with a total of 182,045 housing units. Of these housing units, 168,782 were occupied, and 13,263 were vacant.[20] Based on the number of occupied housing units, the employee per housing unit ratio was 1.3.[21]~~ Another estimate by SACOG indicates an employee per housing unit ratio of 1.78 in 2005.[22]
>
> ~~20 U.S. Census American Fact Finder, Sacramento city, California, 2005 American Community Survey Data Profile Highlights, http://factfinder.census.gov, accessed May 30, 2007.~~
>
> ~~21 An employee per unit ratio that exceeds 1.0 reflects the fact that there are more jobs than housing units within the City. An employee per unit ratio of 1.0 would mean that there is one job per housing unit.~~

Chapter 6, Environmental Analysis

Section 6.2, Biological Resources

Table 6.2-2 on page 6.2-6 of the Draft EIR is changed as follows:

TABLE 6.2-2

PLANT SPECIES OBSERVED WITHIN THE SPECIFIC PLAN AREA

Scientific Name	Common Name
Ailanthus altissima	Tree-of-heaven
Avena ~~fatwa~~ fatua	Wild oats
Brassica rapa	Birdsrape mustard
~~Bromes~~ Bromus dianthus	Rip gut brome
~~Centauries~~ Centaurea solstitialis	Yellow star~~t~~ thistle
Cephalanthus occidentalis	Buttonbush
Convolvulus arvensis	Field bindweed
Cynodon dactylon	Bermuda grass
Epilobium brachycarpum	Annual fireweed
Eriodictyon californicum	Yerba santa
Erodium botrys	Filaree, storksbill
Erodium cicutarium	Red-stemmed filaree
Eucalyptus sp.	Eucalyptus
Ficus carica	Common fig
Juglans californica	California black walnut
Lactuca serriola	Prickly lettuce
Liquidambar styraciflua	Sweet gum tree
Lolium perenne	Perennial ryegrass
Lotus purshianus var. purshianus	Spanish clover
Lotus wrightii	Deer vetch
Melilotus alba	White sweet clover
Nerium oleander	Oleander
Nicotiana glauca	Tree tobacco
Plantago major	Broadleaf plantain
Polypogon monspeliensis	Rabbitfoot
Populus fremontii	Fremont cottonwood

TABLE 6.2-2

PLANT SPECIES OBSERVED WITHIN THE SPECIFIC PLAN AREA

Scientific Name	Common Name
Prunus glandulosa	Flowering almond
Prunus spp.	Almond tree
Quercus agrifolia	Live oak
Quercus lobata	Valley oak
Raphanus sativus	Wild radish
Rubus discolor	Himalayan blackberry
Salix exigua	Narrow leaf willow
Salix gooddingii	Goddings willow
Salix lasiolepis	Arroyo willow
Senecio vulgaris	Common groundsel
Silibum marianum	Milkthistle
Sorghum ~~halapense~~ halepense	Johnsongrass
Tamarix ramosissima	Salt cedar
Trifolium spp.	Clover
Ulmus ~~P~~parvifolia	Chinese elm
Ulmus spp.	Elm tree
Verbascum thapsus	Common mullein
Vicia villosa	Hairy vetch
Vitis californica	California wild grape
Washingtonia filifera	California fan palm

Source: PBS&J, 2006.

The following sentence in the third paragraph on page 6.2-37 of the Draft EIR is changed to read:

Under these conditions, low quality nutrient rich water with low dissolved oxygen levels ~~that had been in the cistern throughout the dry season~~ could be discharged into the river.

Mitigation Measure 6.2-7 on page 6.2-42 is changed to read:

~~6.2-7 a) *Prior to beginning construction activities the project applicant shall prevent nest establishment on the areas of the structure that would be directly affected. Nest prevention methods include, but are not limited to, installation of a barrier (such as netting) to prevent bird access to the structure and/or continued removal of deposited mud material under the structure early in the nesting season to prevent construction of habitable nests. If nest prevention cannot be accomplished prior to the start of construction, and birds establish nests, the nests shall be protected from construction activity that would disrupt nesting activities until the nestlings fledge (per 6.2-7(b)). After the nestlings have fledged, the nests shall be inspected by a qualified biologist to confirm the absence of eggs and nestlings, prior to nest removal and commencement of construction activities.*~~

6.2-7 a) *Prior to the realignment of the Union Pacific Railroad tracks and/or removal of the existing overhead utility lines, the following measures shall be implemented to reduce impacts to the purple martins.*

1. To offset loss the loss of nesting material gathering site sand and reduce potential predation from feral cats using tall vegetation as ambush points, during railroad track realignment the project applicant shall conduct weed abatement measures (e.g., weed whacking) bi weekly from March 15th to May 15th. The area to be maintained is the

area that extends out 600 feet north of the existing railroad, as detailed on Figure 5.5-1. The plant waste shall be left in place from March 15th to May 15th to allow the purple martins to use the "waste" for nest building material. This measure is temporary and shall only occur while the existing railroad tracks are being realigned.

2. *To offset the potential impacts from loss of perching wires the project applicant shall erect permanent perching structures, in close proximity to the colony but within the footprint of the project, before the removal of the existing utility lines and poles (wires for perching should be 3/8-3/4 inch in diameter and shall be at least 19.5 feet off the ground. Pole mounted structures could be mounted on light poles or fencing for stability). In the event that the perching structures are not a feasible alternative within the project footprint, the project applicant shall consult with the California State Railroad Museum as to the possibility of the perches being erected within state lands.*

3. *As identified in Figure 5.5-1, landscaping within 120 feet of the colony shall be planned as to not disrupt the flight access to the colony, small and medium size non fruit-bearing trees shall be incorporated to the landscaping plans. Landscaping plans shall also consider the option of prohibiting fruit-bearing trees within 500 feet of the site and not removing all the clippings from the area during maintenance specifically at the beginning of the nesting season (March 15th to May 15th) as to allow the purple martins to use the clippings as nesting materials.*

   i) *Until the proposed open space that is adjacent to the I Street Colony is landscaped as detailed in above in 6.2-7 (a3), the project applicant shall, from March 15th to May 15th, supply nesting material (straw, pine needles, etc) in designated areas close to the colony for use by the purple martins while the planted trees and shrubs develop. The areas should be no further than 200 feet from perching wires.*

4. *So long as the I Street Colony is active landscaping trees adjacent to the purple martin colony shall include pine species (Pinus spp.) to provide a permanent source of nesting material. The pine needles shall not be removed during landscape maintenance from January 1st to May 15th.*

b) *Although purple martins are tolerant of human activities, if active nests are present no construction shall be conducted within 100 feet of the edge of the purple martin colony (as demarcated by the active nest hole closest to the construction activity) during the beginning of the purple martin breeding season from ~~April 15 to August 1~~ March 15th to May 15th. The buffer area shall be avoided to prevent destruction or disturbance to the nest(s) until it is no longer active. The size of the buffer area may be adjusted if a qualified biologist and CDFG determine it would not be likely to have adverse effects on the martins. The site characteristics used to determine the size of the modified buffer should include; a) topographic screening; b) distance from disturbance to nest; c) the size and quality of foraging habitat surrounding the nest; and d) sensitivity of the species to nest disturbances. No project activity*

shall commence within the buffer area until a qualified biologist confirms that any nests are no longer active. In addition, no equipment shall be parked or stored beneath the I Street on-ramp or the I-5 overpass at the I Street on-ramp during the breeding season (April 15th to August 1st).

Section 6.3, Cultural Resources

The first sentence of the second paragraph on page 6.3-48 is changed as follows:

All ~~E~~earth-moving activities within the Specific Plan Area ~~areas identified in the ATP~~ shall be monitored by an archaeologist approved by the City of Sacramento Preservation Director.

Mitigation Measure 6.3-1 (e) on page 6.3-48 is changed as follows:

e) *All ~~E~~earth-moving activities within the Specific Plan Area ~~areas identified in the ATP~~ shall be monitored by an archaeologist approved by the City of Sacramento Preservation Director. Prior to any earth-moving activities, for each phase of the project a focused Monitoring and Unanticipated Discovery Plan shall be written by a qualified archaeologist and submitted to the City of Sacramento Preservation Director for approval. In the event that unanticipated archaeological resources or human remains are encountered, compliance with federal and state regulations and guidelines regarding the treatment of cultural resources and human remains shall be required. The following details the procedures to be followed in the event that new cultural resource sites or human remains are discovered.*

i. *If the monitoring archaeologist believes that an archaeological resource has inadvertently been uncovered, all work adjacent to the discovery shall cease, and the appropriate steps shall be taken, as directed by the Preservation Director in consultation with the archaeologist, to protect the discovery site. The area of work stoppage will be adequate to provide for the security, protection, and integrity of the archaeological resources in accordance with Federal and State Law. At a minimum the area will be secured to a distance of 50 feet from the discovery. Vehicles, equipment, and unauthorized personnel will not be permitted to traverse the discovery site. The archaeologist will conduct a field investigation and assess the significance of the find. Impacts to cultural resources shall be mitigated to a less-than-significant level through data recovery or other methods determined adequate by the archaeologist and that are consistent with the Secretary of the Interior's Standards for Archaeological Documentation. All identified cultural resources shall be recorded on the appropriate DPR 523 (A-L) form and filed with the North Central Information Center.*

Mitigation Measure 6.3-2 on page 6.3-51 is changed as follows:

6.3-2 a) *An Architectural Historian qualified under the Secretary of the Interior's Standards shall be retained to prepare the necessary documentation to formally list the Central Shops Historic District as a locally Adopted Historic District. The Central Shops Historic District shall be adopted by the City prior to alteration of any of the buildings on site beyond stabilization recommendations approved in the ARG report.*

Section 6.5, Hazards and Hazardous Substances

The third sentence of the first paragraph on page 6.5-8 under the subheading "Volatile Organic Compounds" is changed as follows:

> ...They are found in surface soils at significantly lower concentrations because they ~~volatize~~ volatilize into the atmosphere.

The following subsection is added to the bottom on page 6.5-9 and before the subheading "Remediation Project Status" on page 6.5-10:

> *Groundwater Quality*
>
> Groundwater quality at the Railyards cleanup site, and areas outside the site where contaminant plumes have been detected, is routinely monitored for contaminants of concern. The results are reported to DTSC and the RWQCB in accordance with a RWQCB-adopted "Monitoring and Reporting Program (MRP) Order No. R5-2005-0835." Figure 6.6-2 in Section 6.6, Hydrology and Water Quality, shows the locations of groundwater monitoring wells at the Railyards cleanup site. Monitoring wells are also located in downtown Sacramento and north of the site. Groundwater samples are collected from four water-bearing zones beneath the site and in the downtown area: sand zone (upper and lower), gravel zone, the interbedded B zone, and interbedded D zone. VOCs, SVOCs, TPH, and metals have all been detected in groundwater. Results of the latest round of sampling are as summarized below.
>
> Wells in the Central Shops area (upper and lower sand zone) are showing an overall decrease in VOC contaminant levels, indicating the plume is not expanding. VOCs in the gravel zone extend south from the Railyards site into downtown near P Street and northwest toward the California State Printing Plant. There have been both increases and decreases in VOC levels, but overall the levels have remained essentially static and the plume has not shown evidence of expanding. Similarly, VOCs in the interbedded B and D zones are consistent with historical data. Plume dimensions have remain unchanged. Several VOCs detected in the lower sand and gravel zones along the plume margins are not associated with Railyards sources. SVOC levels are consistent with previous data. TPH (gasoline and diesel hydrocarbons) data show only minor fluctuations over time. Two wells with increased concentrations at the downgradient edge of the South Plume will be further investigated as part of the RAP process for the South Plume.
>
> Groundwater is extracted at several locations as part of the DTSC-approved cleanup at the Railyards. The extraction has influenced the distribution and extent of chemicals in groundwater. The effectiveness of the extraction systems and the effects on groundwater characteristics is also monitored and reported to the RWQCB in "Remediation Systems and Operation and Maintenance Reports."

The last sentence of the paragraph beginning "Remediation of site soils in the Central Corridor/Car Shop Nine..." on page 6.5-11 is changed as follows:

> ~~Stockpiles~~ Tested and classified ~~of~~ Railyards soils have been placed ~~beneath the planned soil cap~~ in the northwest corner of the LSA (i.e., the "Vista") where ~~the a~~ planned soil cap ~~would~~ will be constructed (see "Northwest Corner (Lagoon Study Area) Soil Cap (Proposed Vista Park)" subheading). These soils meet approved placement criteria.

The last full paragraph on page 6.5-11 is changed as follows:

> .... These interim removal actions included the removal of contaminated soils and the installation of groundwater treatment systems, which are still in operation and will remain in operation and monitored for many years. In addition, a ~~Remedial~~Removal Action Workplan (RAW) has been prepared for the northern part of the Intermodal Facility portion of the Specific Plan. This portion of the planning area is within the Central Shops study area directly south of the existing buildings. Only foundations from former buildings and some asphalt remain. The RAW is a separate action within the Central Shops study area designed to facilitate relocation of the freight tracks by removing contaminated soil that would present a health risk in that area. It is anticipated that the remainder of soil remediation for the Central Shops will be completed in 2009.

The third paragraph on page 6.5-21 is changed as follows:

> The SFD provides fire suppression, emergency medical services, fire prevention, and special operations services within the City of Sacramento. The SFD has a *Hazardous Materials Program (HazMat)*, which provides a daily capability for emergency hazardous materials response. Currently, this program includes a minimum of 108 firefighters trained to the Hazardous Materials Specialist level. Four fire companies serve~~Serving~~ in dual roles as ~~a~~ first responding fire companies~~y~~ and as part of two, ~~there are three~~Hazardous Materials Response Teams (HMRTs) including a ~~and on~~ Decontamination unit~~Team~~ (Decon). Each team is staffed with a minimum of seven ~~four~~ Hazmat specialists.

In its comment letter on the Draft EIR, DTSC staff requested the addition of a fifth item to the deed restrictions listed on page 6.5-29 (text change):

> 5. Residential uses are permitted with additional measures that mitigate the risks of exposure to residual contaminants.

The text on page 6.5-30 and Mitigation Measure 6.5-2 is changed as follows:

> Because the development of the proposed Specific Plan would be consistent with the remediation action plans and deed restrictions, the proposed project would not substantially increase the risk of exposure of construction workers or future occupants to hazardous substances contamination in soil or groundwater at the project site~~,~~. However, development of the proposed project would include the installation of underground utility lines. ~~p~~Porous utility lines could be infiltrated by contaminated groundwater or volatile contaminants in soil vapor that could contaminate water flowing through the pipes. This is considered a *significant impact*.
>
> Mitigation Measure
>
> 6.5-2 *In areas where the groundwater contamination has the potential to reach water, sewer or storm drainage pipelines due to fluctuations in the elevation of the groundwater table, or where volatile contaminants in soil vapor could enter porous utility lines, measures such as concrete trenches, membrane barriers and venting will be used to prevent infiltration in accordance with DTSC requirements. Routine monitoring shall be performed by the landowners, reported to DTSC and CVRWQCB, and corrective actions implemented if the results indicate adverse changes in water quality.*

Mitigation Measure 6.5-3(e) on page 6.5-31 has been revised as follows:

Mitigation Measures

6.5-3 e) *Compliance with building design requirements, to be included in the building code ordinance, for preventing the intrusion of subsurface vapors into buildings and enclosed spaces and the buildup of soil vapors in enclosed spaces where applicable, shall be required if determined by DTSC to be necessary.*

Impact statement 6.5-4 and Mitigation Measure 6.5-4 on page 6.5-31 are changed as follows:

6.5-4 Construction of site features such as infrastructure and buildings could interfere with existing and/or planned remediation efforts.

Mitigation Measures

6.5-4 a) *Project developers and their contractors shall coordinate with the City of Sacramento, DTSC, and other involved agencies, as appropriate, to assure that project construction shall not interfere with any adjacent and/or on-site existing and/or planned remediation activities or unduly delay any ~~or~~ existing and/or planned site remediation activities.*

Section 6.6, Hydrology and Water Quality

Figure 6.6-1 on page 6.6-5 has been revised and is included at the end of this chapter.

Mitigation Measure 6.6-2 on page 6.6-22 is changed as follows:

"The proposed Specific Plan shall ~~limit~~ prohibit discharges to the Sacramento River from the cistern that do not meet the water quality standards set by the City and the CVRWQCB. If the cistern cannot meet the required water quality standards, then the proposed Specific Plan shall incorporate BMPs using the best available technology as provided in the Stormwater Quality Design Manual for the Sacramento and South Placer Regions (Manual) *(May 2007) to reduce urban pollutant discharges to the Sacramento River to the maximum extent practicable."*

Section 6.8, Noise

The following text has been added to page 6.8-15 under Standards of Significance.

Thresholds of significance are established by the Title 24 standards and by the City's General Plan Noise Element and the City Noise Ordinance. For the purposes of this EIR, noise impacts are considered significant if the proposed project would result in:

- Exterior noise levels at the proposed project that are above the upper value of the normally acceptable category for various land uses, according to the City General Plan, caused by noise level increases due to the project;
- Residential interior noise levels of 45 L_{dn} or greater;
- Noise level increase at a sensitive receptor of 3 dB (L_{eq} or L_{dn}); or

- Construction noise levels not in compliance with the City of Sacramento Noise Ordinance.

The third paragraph on page 6.8-20 is changed as follows:

> The East End District includes residential land use designations on parcels near the UPRR alignment and 7th Street near the proposed light rail alignment. Parcels adjacent to or near the UPRR alignment include parcels 49a, 49b, 49c, 51, and 52S. These parcels are designated RCMU, ORMU, and RMU, which all allow residential uses. The EIR Analysis Scenario assumes residential units would be built on parcels 49a, 51, and 52S. Parcel 49a is also identified as a potential location for a new school proposed for the project site (see Figure 3-17).

The following text has been added after fifth paragraph page 6.8-20:

> In addition to traffic and rail noise within the East End district, the residential uses in this district would also be subject to noise from the existing industrial sources to the north and east of the project site. Noise from off-site sources would be required to comply with the City's Noise Ordinance, which does not allow noises that disturb neighborhoods. Further, future development adjacent to these industrial uses would also be required to meet all applicable noise standards for residential uses, including Title 24, so noise levels near industrial uses would also be acceptable.

Mitigation Measure 6.8-4 on page 6.8-23 has been changed as follows:

> 6.8-4 *Implement Mitigation Measure 6.8-1 and the following measure during all phases of project construction:*
>
> a) *During 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 further structural damage.*

The second paragraph on page 6.8-28 has been changed as follows:

> The East End District has the potential for vibration impacts due to the freight/commuter track relocation and the DNA light rail extension. Five parcels (parcels 49a, 51, 52N, 52S, and 53S) were found to be within the critical distance for potential vibration impact due to freight and commuter train operations. Future ~~residential buildings~~ sensitive receptors within these parcels could have the potential for impacts and warrant additional vibration analysis. For receptors along 7th Street, screening distances suggested that buildings on both sides of the light rail alignment (assumed to run down the middle of 7th Street) could be impacted. Based on the Screening Analysis, eight parcels (parcels 54S, 54a, 68S, 68N, 57S, 57N, 69S, and 69N) could be adversely affected by light rail (LRT) vibration in the East End District.

Section 6.9, Parks and Open Space

The fourth paragraph on page 6.9-1 is changed as follows:

> The City of Sacramento Department of Parks and Recreation (Parks Department) maintains more than 2,000 acres of developed parkland, and manages more than 210 parks, ~~81 miles of on- and off- road bikeways and trails,~~ 17 lakes, ponds, or beaches, over 20 aquatic facilities, and 18 community or neighborhood centers, and provides park and recreation services at city-owned facilities within the City of Sacramento.[2] The Parks Department and the City of Sacramento Department of Transportation maintain 81 miles of on- and off-road bikeways and trails. Several facilities within the City of Sacramento are owned or operated by other jurisdictions, such as the County of Sacramento and the State of California. The City of Sacramento Parks and Recreation Master Plan (PRMP) guides park development in the city.

The sixth sentence in the last paragraph beginning on page 6.9-1 is changed as follows:

> Additional recreational facilities include community or neighborhood centers; bocce ball courts; and equestrian trails.

Table 6.9-1 on page 6.9-3 is changed as follows:

TABLE 6.9-1

EXISTING PARKS IN THE CENTRAL CITY PLANNING AREA

Park Name and Address	Total Acres	Dvlpd. Acres	Class I Picnic Area	Class II Picnic Area	Class III Picnic Area	Ball-field	Full Size and Bntm. Soccer	Vollybl. and Basktbl.	Tennis Court *lights	Advntr. and Tot Play Areas	Swmng. and Wading Pools	Indoor Comm. Facility	Rest room	Other Amenities
Chavez Plaza (Cesar E.); 910 I Street	3.05	3.05		2	3								1	Fountain; Café; Farmer's Market May-November
Crocker Park; 211 O Street	6.10	6.10			4									Crocker Art Museum
Fremont Park; 1515 Q Street	3.05	3.05		2	2					AP			1	Seating Plaza; Farmer's Market May-November
Grant Park; 205 21st Street	2.61	2.61		1	2	1 Lighted	1 Full						1	Overlay Soccer Field
Jibboom Street Park Site - Jibboom Street at Sac. River	6.0	2.0												Water Spray Area; Bike Trail; First phase done; see master plan for information
Johnson Park (J. Neely); 516 11th Street	1.17	1.17			1									community garden
Marshall Park (John); 915 27th Street	3.05	3.05			2							1		Hart Sr. ~~Citizen's~~ Center; Horseshoe Pit
Muir Park (John); 1515 C Street	2.69	2.69		1	2	1	1 Bantam	1V; 1B		AP				Water Play Misters; Small Softball Backstop; Perimeter Security Fence
O'Neil Park; 715 Broadway	6.45	6.45				2 Lighted	1 Full						1	
Roosevelt Park (Theodore); 1615 9th Street	3.05	3.05		1	2	1 Lighted	1 Full	2B					1	Overlay Soccer; Farmer's Market May-November
Sacramento River Pkwy; 100 J Street	25.73													Old Sacramento State Park; Bicycle Trail
Saint Rose of Lima Park; 705 K Street	0.51	0.51												Stage, Seasonal Ice Rink

TABLE 6.9-1

EXISTING PARKS IN THE CENTRAL CITY PLANNING AREA

Park Name and Address	Total Acres	Dvlpd. Acres	Class I Picnic Area	Class II Picnic Area	Class III Picnic Area	Ball-field	Full Size and Bntm. Soccer	Vollybl. and Basktbl.	Tennis Court *lights	Advntr. and Tot Play Areas	Swmng. and Wading Pools	Indoor Comm. Facility	Rest room	Other Amenities
Southside Park; 2115 6th Street	19.99	19.99		4	3			1B	2*	AP; TP	SP; WP	1	3	Clubhouse; Lake; Jogging Trail 3/4 mile; Community Garden; Handicap Accessible Playground/Fishing
Stanford Park (Leland); 205 27th Street	3.05	3.05		1	2	1							1	John Sutter's Landing Memorial
Sutter's Landing Park; (John) 20 28th Street	172.60	8.0											1	Bicycle Trail, Access to American River, 28th & B Skate Park
Tiscornia Park; 195 Jibboom Street	9.83	5.00											1	American River Access; Beach; Bicycle Trail
Washington Park; 1631 F Street	1.56	1.56			2					AP				Adjacent to Washington School; Shade Structure
Winn Park (Albert); 2715 P Street	3.05	3.05			4									
Zapata Park (Emiliano); 905 E Street	1.37	1.37		1	2			1B		AP				Shade Structure
TOTAL	**274.91**	**75.75**												

Notes:
PICNIC AREAS
Class I Picnic Areas - 1.0-2.0 acres, Group area with 10 or more tables, food preparation area and barbecue.
Class II Picnic Areas - Tables only, for group or individuals, with or without barbecue.
Class III Picnic Areas - Shaded grass area
BALLFIELD
Skinned: Skinned Infield
Grass: Grass Infield (Skinned Baselines) Call (916) 808-6060 to identify which infields are Skinned or Grass
Lgtd: Ballfield is lighted.
SOCCER
Bantam Soccer: Approximately 120' X 180'
Full Size Soccer: Approximately 170' X 300' (or larger) (Intermediate & Regulation fields)
Source: City of Sacramento, Department of Parks and Recreation website, Parks in Central Area, http://www.cityofsacramento.org/parksandrecreation/parks/central.htm, accessed August 9, 2007.

The second paragraph on page 6.9-7 is changed as follows:

> Additional recreational resources in the vicinity of the Specific Plan Area, but outside of the Central City area, include public parks, marinas, boat launches, and golf courses. Other nearby City-owned recreational resources include ~~Tiscornia Park (6 acres), Jibboom Street Park (9 acres),~~ McKinley Park (4 acres), William Land Park (167 acres), Miller Park (57 acres), and Garcia Bend Park (24 acres). Sacramento County operates Discovery Park (275 acres) and the City of West Sacramento operates Yolo County Park (4 acres). Although not all of these areas are not located within the Central City, they are included in the discussion because they are within usable distance of the Specific Plan Area.

The first paragraph on page 6.9-11 is changed as follows:

> The City of Sacramento Parks and Recreation Department prepared the *2005-2010 Parks and Recreation Master Plan*, which was adopted by the City Council on December 7, 2004. The Master Plan is considered part of the City's General Plan (minor amendments approved on April 19, 2005)~~, Conservation and Open Space Element~~. The Master Plan calls for a ratio of approximately 13~~ten~~ park acres per thousand population, including all categories of parks. This Service Level Goal is intended to be implemented city-wide, and is not intended to be applicable or enforceable for every project proposed within the city. The categories of City Parks and Service Level Goals are as follows:[5]

The last sentence in the last paragraph on page 6.9-13 is changed as follows:

> Other recreational amenities provided in the Specific Plan Area include ~~open space~~public plazas, ~~a greenbelt~~Box Car parks, and small parks near residential areas.

The fourth paragraph on page 6.9-14 is changed as follows:

> It should be noted that the City's Service Level Goals for neighborhood and community parks can be met by a combination of different sizes of parks and open space.~~does not differentiate between urban and suburban projects or suggest that every project should contain its portion of every type of park. For example, a 10-acre residential project could not reasonably contain its portion of a regional park, which could be 75 acres in size. Rather the goals are citywide, and recognize that parkland will be distributed throughout the city.~~ Due to the lack of available undeveloped area in the downtown urban area, it would be infeasible to require each proposed project in an urban area to provide large amounts of active and/or passive parkland. ~~Further,~~However, the Specific Plan proposes dedication of more parkland than any other previously approved urban project in Sacramento.

Mitigation Measure 6.9-1 on page 6.9-14 is changed as follows:

> 6.9-1 *Prior to the recordation of the tentative map, the project applicant shall reach agreement with the City on an appropriate urban park service level~~standard~~ and on which of the proposed project elements and acreage meet ~~these~~ parkland dedication requirements. The project applicant shall pay in-lieu fees (Quimby ~~and/or PIF~~) on the difference in acreage between the City parkland requirement and the amount of parkland the proposed project would supply, or provide "turnkey" improvements equal to the value of in-lieu fees owed, if any.*

Section 6.10, Public Services

The third sentence of the third paragraph on page 6.10-11 is changed as follows:

> In 2007, the SFD employed approximately 570~~535~~ fire suppression personnel and 50~~100~~ fire prevention personnel and support staff.[10]

Figure 6.10-3 Sacramento Fire Department Station Locations has been amended to include Station #14 and is included at the end of this chapter.

The fourth sentence of the second paragraph on page 6.10-19 is changed as follows:

> The Specific Plan identifies two potential sites for a new fire station, although the Specific Plan does not indicate how the station would be acquired and/or how the station would be funded. If one of these locations is selected to be developed with a fire station, it would likely be co-located with a police sub-station in a multi-story mixed-use building with other uses. The building that would house these facilities would be developed whether or not the police and/or fire station are developed. The new fire station would be funded through the City's General Fund and other sources.

The sixth paragraph on page 6.10-11 is changed as follows:

> The Specific Plan Area is currently served by multiple stations. The northern portion of the Specific Plan Area, nearest to Richards Boulevard, is served by Station 14, located at 1341 North C Street.[13] Station 14 houses one ~~an~~ engine company ~~and hose tender~~.[14] The southern portion of the site, adjacent to downtown, is served by either Station 1, located at 624 Q Street, or Station 2, located at 1229 I Street.[15] Station 1 houses an engine and a medic unit. Station 2 ~~is located on the first floor of the Fire Headquarters and~~ houses an engine, a truck, and a medic unit. The station is also equipped with swift water rescue cache, and a CO_2 trailer.[16]

The second sentence of the seventh paragraph on page 6.10-11 is changed as follows:

> At a full station, which would include an engine, a truck, and a medic unit, there would be 10 suppression personnel ~~staff~~ per shift, for twenty-four hours a day coverage. ~~three shifts per day.~~[17]

~~17 Angie Shook, Sacramento Fire Department, written notes, June 22, 2006.~~

The second sentence of the first paragraph on page 6.10-15 is changed as follows:

> The SRFECC is a Joint Powers Authority comprised of the SFD, Sacramento Metropolitan Fire District, Cosumnes River Fire Protection District ~~Elk Grove Fire Department~~, Folsom Fire Department, and Galt Fire Protection District.

The first sentence of the second paragraph on page 6.10-15 is changed as follows:

> The SRFECC also provides dispatch services for the Courtland Fire Protection District, Herald Fire Protection District, ~~McClellan Air Force Base Fire Department~~, Walnut Grove Fire Protection District, and Wilton Fire Protection District.[19]

The third paragraph on page 6.10-15 is changed as follows:

> In 2006, SFD responded to more than 69,000 calls for service.[21] The average response time for all SFD engine companies in 2006 was 4.5 minutes. A first-arriving emergency unit arrives on scene in less than four minutes for over 90% of all emergency incidents., ~~except~~ In ~~in~~ cases where additional resources are dispatched ~~needed~~ on the initial response, it~~, which~~ currently takes an average of~~more than~~ 9 minutes for all units to arrive on scene.[22] In recent years, response times have increased in some areas due to increasing population. Other areas have experienced improved response times due to increased coverage, most notably the North Natomas area due to the opening of Station.[30]
>
> ~~22 Lloyd Ogan, Deputy Chief, Operations, Sacramento Fire Department, written communication, May 8, 2007.~~

Section 6.11, Public Utilities

The last paragraph of Mitigation Measure 6.11-8 (d) on page 6.11-36 has been changed as follows:

> (d) *~~The~~ If selected as appropriate mitigation, implementation of this mitigation measure ~~w~~could require environmental analysis to assess if the construction or operation of new wells ~~w~~could have any adverse environmental consequences ~~and would require environmental evaluation~~. The new wells, appurtenances and infrastructure could result in the following potentially significant environmental impacts:*

Section 6.12, Transportation

Mitigation Measure 6.12-22(m) on page 6.12-122 is changed as follows:

> 6-12-22(m) *At the Bercut Drive / South Park Street intersection, the applicant shall install an additional northbound lane to provide one through lane and one right turn lane or as an alternative to this mitigation measure the applicant shall install a signal. With implementation of this mitigation measure, the level of service would be improved to LOS B (10.3 seconds delay) in the a.m. peak hour and to LOS C (20.2 seconds delay) in the p.m. peak hour. These results are shown in Table 6.12-31.*

Mitigation Measure 6.12-27 on page 6.12-133 is changed as follows:

> 6.12-27 *Implement Mitigation Measure 6.12-6. Additionally, the project applicant shall coordinate with RT to provide modifications to both bus and light rail services and to help fund necessary improvements in order to serve the transit demand generated by the Full Project.*

Section 6.13, Urban Design and Visual Resources

The following text is added to the end of page 6.13-37.

> **Sports and Entertainment Facility Overlay**
>
> In the event that the Sports and Entertainment Facility Overlay is implemented, portions of the Specific Plan Area (Parcels 48, 47a, and a portion of 49a) would be developed as an event/sports arena, rather than the mixed-use buildings called for in the underlying zoning. The building has not been designed, and could take many different forms. Considering that

height and signage is not considered a significant issue in the heart of the Railyards, it is anticipated that there would be no significant effects as a result of the future design of such a facility. It is not anticipated that the analysis of visual effects would be materially different than that presented for the proposed project because the building profile in the Sports and Entertainment Overlay area would not be materially different in height and bulk than those anticipated under the base plan. Each of the concerns associated with development of the plan area analyzed above would be addressed by the same urban design guidelines and mitigation measures as would otherwise apply to development in the plan area. No mitigation measures would be required in addition to those included for the plan area as described above.

Section 6.14, Energy

The following text is added after the second sentence of the second paragraph under Impact 6.14-2 on page 6.14-14.

Although there is an adequate supply of natural gas, the proposed Specific Plan would require a space with a minimum width of 20 feet and length of 40 feet for a future easement to be granted to PG&E. This space would contain a gas regulator station to supply the project site with natural gas. The planning of this infrastructure would be coordinated by the developer with PG&E to determine the best location for the regulator.

Appendix O – Health Risk Assessment

The cover of the appendix has been changed as follows:

~~August~~ November 2007

The following text on page 2-1 has been changed as follows:

~~Air emissions from construction activities were estimated by EIP/PBS&J using URBEMIS 2002 and included the following pollutants: reactive organic gas (ROG), carbon monoxide (CO), nitrogen oxides (NO_x), sulfur dioxide (SO_2), total respirable particulate matter (PM_{10}), PM_{10} exhaust and PM_{10} dust.~~

~~The URBEMIS output files were provided to ENVIRON International Corporation[2] and contained the annual and daily emissions and the operating schedule for the following categories of sources during each year of the five planning phases from 2011 to 2030:~~

- ~~Demolition Emissions~~
  - ~~Fugitive Dust~~
  - ~~Off-Road Diesel~~
  - ~~On-Road Diesel~~
  - ~~Worker Trips~~
- ~~Site Grading Emissions~~
  - ~~Fugitive Dust~~
  - ~~Off-Road Diesel~~

[2] ~~Email communication from Mr. Bodipo-Memba at EIP/PBS&J on July 5, 2007.~~

- ~~o On-Road Diesel~~
- ~~o Worker Trips~~

- ~~Building Construction~~
  - ~~o Building Construction Off-Road Diesel~~
  - ~~o Building Construction Worker Trips~~
  - ~~o Arch Coatings Off-Gas~~
  - ~~o Arch Coatings Worker Trips~~
  - ~~o Asphalt Off-Gas~~
  - ~~o Asphalt Off-Road Diesel~~
  - ~~o Asphalt On-Road Diesel~~
  - ~~o Asphalt Worker Trips~~

This HHRA focused on the emissions of chemicals that will occur at the project site. This would include the fugitive PM_{10} dust emissions during ~~the demolition and~~ site grading, and the PM_{10} exhaust emissions (i.e. DPM from off-road diesel equipment during ~~demolition,~~ site grading and building construction):

- ~~Demolition Emissions~~
  - ~~o Fugitive Dust (dust PM_{10} only)~~
  - ~~o Off-Road Diesel (exhaust PM_{10} only)~~
- Site Grading Emissions
  - o Fugitive Dust (dust PM_{10} only)
  - o Off-Road Diesel (exhaust PM_{10} only)
- Building Construction
  - o Building Construction Off-Road Diesel (exhaust PM_{10} only)

EIP/PBS&J used URBEMIS 2002 to estimate ~~emissions for~~ the daily and monthly fugitive dust emissions and the Sacramento Metropolitan Air Quality Management District (SMAQMD) emission factors to estimate the daily equipment exhaust emissions for each month during the five planning phases from 2011 to 2030. The monthly exhaust DPM emissions were calculated from the hourly emissions using the monthly operating days that EIP/PBS&J presented in the fugitive emission calculations.~~annual averaging periods. According to its output files, the construction equipment will operate six to eight hours per day.~~ The maximum hourly emissions were estimated by dividing ~~from~~ the maximum daily emissions with eight hours per day, as assumed in the SMAQMD daily emission factors~~, by conservatively assuming six hours of operation per day~~.

This HHRA was performed for the ~~unmitigated emissions, although the URBEMIS 2002 runs also estimated~~ mitigated fugitive dust emissions, estimated in URBEMIS 2002 with~~emissions of fugitive dust, assuming~~ a 50% control efficiency of PM_{10} from watering exposed surfaces three times per day. It is also noted that fugitive dust emissions from off-road diesel equipment are not accounted for in URBEMIS 2002, even though soil could be disturbed and released into the air by the operation of the equipment on dirt roads at the site.

The first paragraph on page 2-3 has been changed as follows:

> Only one phase of construction activity will take place in any one year during the 20-year construction program. It is assumed that ~~demolition,~~ site grading and building construction activities could occur anywhere within the lands developed for that phase. Thus, the total annual emissions were proportionally divided, based on the sizes of the areas (see Table 1), to estimate the annual emissions for each area of that phase. For the short term averaging periods, it is assumed that the emission could occur in any area developed for that phase. Annual and hourly emissions of DPM and soil fugitive PM_{10} from each of the construction areas are summarized in Table 1.

The second paragraph on page 2-3 has been changed as follows:

> Concentrations of chemicals in the soil at the Railyards site have been investigated for the groundwater and soil remediation purposes. Soil samples from the remedial investigation were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), total and soluble metals, and polychlorinated biphenyls (PCBs). The statistics of compounds detected in the samples were summarized for each study area in Table D-1 of the Draft Environmental Impact Report of the 7th Street Extension project. EIP/PBS&J has stated that these concentration values are appropriate for the speciation of fugitive soil dust emissions. For the purposes of this HHRA, it is assumed that the average soil concentrations listed for each chemical in each of the five soil study areas (Northern Shops Study Area, Central Shops Study Area, Central Corridor, Car Shop Nine, and Lagoon Soil Area) are representative of the chemical composition of dust emissions that would be present in those areas during ~~demolition,~~ grading and building construction. All detected SVOCs, TPH, metals and PCBs were included for evaluation in the HHRA. VOCs were not included, as it was assumed that the differences in VOC emissions during construction activities and for the 'no project alternative' would be minimal.

The second bullet on page 3-5 has been changed as follows:

- Only the inhalation pathway was assessed. Therefore, <u>risk</u> ~~risks~~ from other pathways that may exist as a result of particulate deposition was not considered. As a result, risks may be higher than estimated here.

The last sentence of the second paragraph on page 4-7 has been changed as follows:

> This threshold is the same threshold used for most air quality permitting evaluations <u>for stationary sources</u> and is the threshold for ~~stationary source~~ warnings under California's Proposition 65.

The following text has been added after the second paragraph on page 4-7:

> <u>There is currently very little guidance in the state about what risks are considered to be significant from mobile sources. Many air agencies set risk thresholds for the permitting of stationary sources. However, the setting of risk thresholds from mobile sources is much more difficult.</u>
>
> <u>Reasons why the setting of risks for mobile sources is more difficult include:</u>
>
> 1. <u>The background risk for diesel particulate matter (DPM) statewide is greater than 500 in a million</u>

2. The California Air Resources Board (CARB) is actively working to reduce diesel risk on a statewide level by imposing strict new requirements on new and existing diesel equipment.

Because the background risks from diesel exhaust is so high, using a threshold of 10 in a million would be setting a significant impact threshold at approximately 2% of background. Importantly, the risk from DPM statewide is being addressed through CARB's diesel risk reduction program. Therefore for the purpose of this evaluation, the NCP target risk range of one in a million (1×10^{-6}) to one hundred in a million (1×10^{-4}) has been used.

The first sentence of the second full paragraph on page 4-8 has been deleted:

~~The majority of the demolition and grading takes place in the first year of each construction phase.~~

The last paragraph on page 4-8 has been changed as follows:

The estimated cancer risks and noncancer hazard indices for the maximum boundary receptors are shown in Table 4. For dust emissions, the maximum estimated cancer risk at a boundary receptor, assuming residential land use is $1.7\text{~~4~~} \times 10^{-8}$ and the maximum chronic HI is 0.02.~~07.~~ These levels are well below agency target risk levels. The maximum acute HI is estimated to be 1.0.~~2. When mitigation is considered, this value will likely be below the target level of 1.~~ For DPM, the estimated cancer risk at the maximum boundary receptor, assuming residential land use is $1.\text{~~2.~~}2 \times 10^{-\text{~~5~~}4}$; with an HI of 0.81~~16~~.

The text under heading 5.0 conclusions on page 5-10 has been changed as follows:

In this HHRA, potential health risks to surrounding businesses were assessed for both soil and DPM fugitive emissions from construction activities. Chemicals present in site soils may be released into air during ~~demolition and~~ site grading of the redevelopment project. For dust emissions, the maximum estimated cancer risk at a boundary receptor, assuming residential land use is $1.7\text{~~4~~} \times 10^{-8}$ and the maximum chronic HI is 0.02.~~07.~~ These levels are well below agency target risk levels. The maximum acute HI is estimated to be 1.0.~~2. When mitigation is considered, this value will likely be below the target level of 1.~~

Diesel construction equipment exhaust contains DPM. DPM emissions from mobile sources were evaluated during ~~demolition,~~ grading and construction. For DPM, the estimated cancer risk at the maximum boundary receptor, assuming residential land use is $1.\text{~~2.~~}2 \times 10^{-\text{~~5~~}4}$; with an HI of 0.81.~~16.~~ As presented, the risks from DPM are slightly higher than 100 in a million. It is our understanding~~likely~~ that the project will be required to reduce DPM from construction equipment by 45 percent through implementation of the Air Quality Management Plan. Implementation of this plan would result in risks ~~Mitigationmitigation of construction equipment, including the addition of diesel particulate filters, reduction in idling of equipment and the use of newer construction equipment shouldwill results in risks~~ lower than 100 in a million bringing the total risks within the NCP target risk range of 1×10^{-4} to 1×10^{-6}. ~~in a million.~~

Appendix Q – Traffic

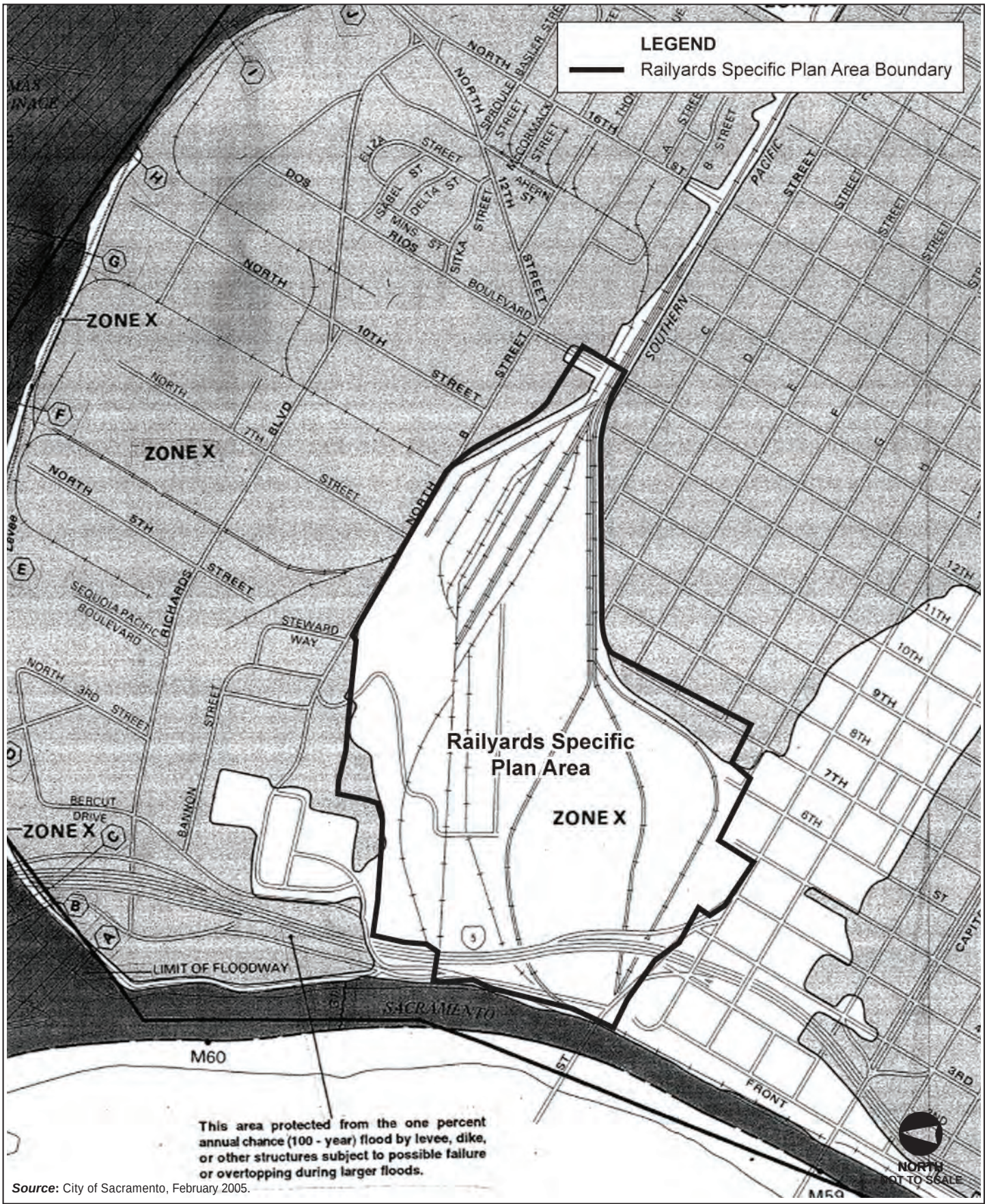
The follow pages replace pages 2,204 and 2,236.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	74	64	267	47	129	315
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	1825		1770	1863
Flt Permitted	0.95	1.00	1.00		0.56	1.00
Satd. Flow (perm)	1770	1583	1825		1052	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	74	64	267	47	129	315
RTOR Reduction (vph)	0	49	10	0	0	0
Lane Group Flow (vph)	74	15	304	0	129	315
Turn Type		Perm			Perm	
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	12.1	12.1	29.9		29.9	29.9
Effective Green, g (s)	12.1	12.1	29.9		29.9	29.9
Actuated g/C Ratio	0.24	0.24	0.60		0.60	0.60
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	428	383	1091		629	1114
v/s Ratio Prot	c0.04		0.17			c0.17
v/s Ratio Perm		0.01			0.12	
v/c Ratio	0.17	0.04	0.28		0.21	0.28
Uniform Delay, d1	15.0	14.5	4.8		4.6	4.9
Progression Factor	1.00	1.00	1.00		1.17	1.17
Incremental Delay, d2	0.2	0.0	0.6		0.5	0.4
Delay (s)	15.2	14.5	5.5		5.9	6.1
Level of Service	B	B	A		A	A
Approach Delay (s)	14.9		5.5			6.0
Approach LOS	B		A			A

Intersection Summary			
HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	38.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	191	146	437	107	149	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	1813		1770	1863
Flt Permitted	0.95	1.00	1.00		0.38	1.00
Satd. Flow (perm)	1770	1583	1813		715	1863
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	191	146	437	107	149	390
RTOR Reduction (vph)	0	109	14	0	0	0
Lane Group Flow (vph)	191	37	530	0	149	390
Turn Type		Perm			Perm	
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	12.6	12.6	29.4		29.4	29.4
Effective Green, g (s)	12.6	12.6	29.4		29.4	29.4
Actuated g/C Ratio	0.25	0.25	0.59		0.59	0.59
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	446	399	1066		420	1095
v/s Ratio Prot	c0.11		c0.29			0.21
v/s Ratio Perm		0.02			0.21	
v/c Ratio	0.43	0.09	0.50		0.35	0.36
Uniform Delay, d1	15.7	14.3	6.0		5.4	5.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.7	0.1	1.7		2.3	0.9
Delay (s)	16.3	14.4	7.7		7.7	6.3
Level of Service	B	B	A		A	A
Approach Delay (s)	15.5		7.7			6.7
Approach LOS	B		A			A

Intersection Summary			
HCM Average Control Delay	9.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

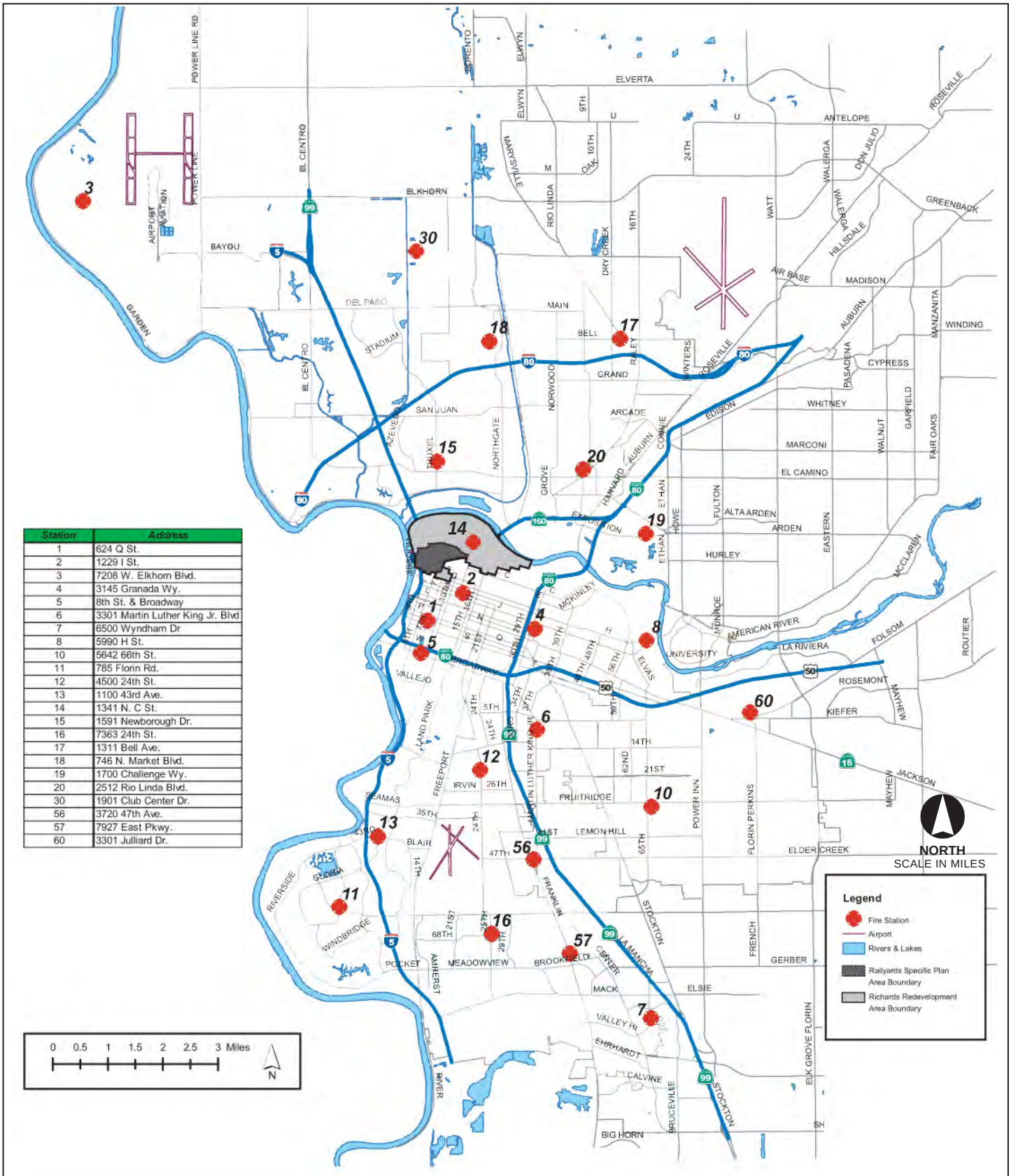


***Source*:** City of Sacramento, February 2005.

EIP ASSOCIATES
A division of PBS&J

FIGURE **6.6-1**
Flood Insurance Rate Map

06189 | JCS | 07



***Source*:** City of Sacramento, Fire Department, January 25, 2007.

FIGURE **6.10-3**

Sacramento Fire Department Station Locations

4.0 RESPONSES TO COMMENTS

4.1 PROCESS, SUMMARY, AND PROJECT DESCRIPTION

4.1 PROCESS, SUMMARY, AND PROJECT DESCRIPTION

4.1.1 DRAFT EIR EXCEEDS150/300 PAGES

Response to Comment 25-4

Section 15141 of the CEQA Guidelines is included under Article 10. "Considerations in Preparing EIRs and Negative Declarations." Since this section of the Guidelines was written the environmental analysis conducted for projects has become more sophisticated. Also, due to the evolution of CEQA's legal requirements as set forth in applicable case law, a considerable amount of additional information, analysis, and evaluation is included in an EIR as required by the courts.

In accordance with Section 15121 of the Guidelines, "[A]n EIR is an informational document which will inform public agency decision-makers and the public generally of the significant environmental effects of a project". It is important that an EIR be thorough and disclose all aspects of construction and future operation of a project and identify all potential impacts associated with project implementation. The Draft EIR prepared for the Railyards Specific Plan analyzes impacts in 14 technical issue areas, and discusses the project with respect to two non-technical issue areas (Land Use and Population and Housing). Due to the unique location of the project site and the unique issues associated with developing the site, the Draft EIR provides a thorough evaluation of all the potential project impacts.

An effort was made to limit discussion of impacts that would not result from the Specific Plan. Issues that were considered but not further evaluated are identified on page 6-4 of the Draft EIR, and include conflicts with a recognized Habitat Conservation Plan, soils capability of supporting septic tanks, impacts resulting from seiche, tsunami or mudflow, and loss of important mineral resources. The City concluded that these potential impacts were not potentially significant and thus did not require detailed evaluation. The City concluded that other impacts were potentially significant and/or required additional analysis in order to fully disclose the environmental effects of the proposed Specific Plan. This contributed to making the document longer than the preferred 150 to 300 page limit established in the CEQA Guidelines.

4.1.2 PLAN ELEMENTS

Response to Comments 1-1, 2-4, 10-1, 12-2, 12-18, 13-1, 17-1, 21-3, 24-1, 24-5, 25-32, 25-81, 26-1, 26-49, 28-1, 28-2, 30-1, 30-2, 30-3, 30-4, 33-6, 35-1, 39-1, 40-4, and 40-7

There were several comments received during the public comment period that do not directly address specific issues in the Draft EIR or physical impacts generated by the proposed project. These comments range in subject matter from an acknowledgement of receipt of the Draft EIR to comments from agencies stating that they have no comment. Additional comments addressed the commenter's opinion about the project and recommended components, while others stated that the analysis found in the Draft EIR is deficient but did not provide specific information about the particular issue deemed to be inadequate in the Draft EIR. Some commenters requested more time to review the EIR. Similar comments call for recirculation of the Draft EIR or non-approval of the project without providing specific reasoning or justification for recirculation or commenting on the actual content of the Draft EIR. Some comments addressed issues outside of or unrelated to the Specific Plan. The Final EIR responds to substantive comments related to the technical analysis found in the Draft EIR, particularly those that address concerns about the impacts analysis. Comments received in response to the Draft EIR that did not include a specific comment or concern

on the content the Draft EIR will be included in the administrative record for the project, and will be part of the record upon which the City will consider the project.

It should be noted that the EIR in isolation does not determine whether or not a project is to be approved, but rather provides the public and the decision makers with objective information regarding impacts on the physical environment. This is part of the overall information on the project that will be considered during the decision making process.

As discussed on page 3-1, there have been some changes to the Specific Plan and Design Guidelines since the Draft EIR was prepared. However, none of the changes altered the conclusions of significance or required mitigation.

4.1.3 TYPE OF EIR/SUBSEQUENT CEQA REVIEW/APPROVALS

Response to Comments 5-2, 11-7, 12-2, 12-7, 21-1, 25-2, 25-3, 25-31, 25-71, and 26-6

The Railyards Specific Plan EIR evaluates the proposed project at a level of detail commensurate with the amount of information currently available. As with any project, the specifics could change over time. Any differences between the future project approvals and the Specific Plan would be reviewed and, if the changes could result in a new or substantially more severe significant impact, additional CEQA review would be undertaken pursuant to CEQA guidelines Section 15162(a)(1). Subsequent activities, such as specific retail or office developments, will be considered in light of the EIR to determine whether additional CEQA analysis is required [CEQA Guidelines Sections 15168(c) and 15162]. As stated on page 1-3 of the Draft EIR, projects that raise environmental issues that could not have been anticipated by this EIR due to the specific characteristics of the project design or other factors may be subject of further CEQA documentation as deemed appropriate by the City as lead agency. Projects that are consistent with the Specific Plan and the EIR assumptions (as described in Appendix C of the Draft EIR), and that would not result in new or more severe significant impacts or require new mitigation measures due to project-specific components would not require a further CEQA document, pursuant to Section 15168(c). This approach is consistent with Section 15162, which addresses subsequent EIRs, and Section 15182, which addresses the exemption of residential projects undertaken pursuant to and in conformity with an adopted specific plan.

The City as lead agency will determine the appropriate level of CEQA review for each project at the time that an application is received. As discussed above, projects that are consistent with the Specific Plan and within the scope of this EIR pursuant to Section 15168(c) may not require additional CEQA review. In particular, CEQA exempts residential projects that are part of a Specific Plan and would not result in any significant impacts that were not evaluated in the Specific Plan EIR (CEQA Guidelines Section 15182). For retail, infrastructure, office and other non-residential projects, the City will determine whether each project is consistent with the Specific Plan and Specific Plan EIR and whether the project would raise new environmental issues due to the specific characteristics of the project design or other factors. If a project is not consistent or would raise new environmental issues, then, pursuant to Section 15168(a), the City will prepare an initial study and determine the appropriate level of CEQA review (e.g., Negative Declaration, Supplemental EIR, Focused EIR). Two exceptions are a Sports and Entertainment Facility, which, as stated on page 3-25 of the Draft EIR, would require additional CEQA review and compliance, and the Sacramento Intermodal Transportation Facility (SITF), which is addressed programmatically in the Draft EIR but is likely to be subject to additional CEQA and NEPA review.

There are a number of entitlements and related actions that will be approved with or after the Specific Plan is approved. These approvals include the Special Planning Ordinance, Tentative maps, Development Agreement, Design Guidelines, General Plan Amendments, Community Plan Amendments, Tri Party Memorandum of Understanding, and Historic District Ordinance (see page

3-61, as revised, for a more complete list). All of these approvals are contemplated in this EIR. Some of these items were available at the time that the Draft EIR was prepared (e.g., Design Guidelines). Others have since been prepared or will be prepared in the future, after the Specific Plan is approved. The EIR covers all of these entitlements and the potential impacts of these approvals, which are essentially implementing instruments for the Specific Plan, as long as they are consistent with the Specific Plan and EIR assumptions. It is common practice for such entitlements to be considered subsequent to a plan approval. For example, tentative maps may be prepared years after a specific plan is adopted, so long as they are consistent with the plan and associated CEQA document. Some comments asserted that all of these proposed entitlement documents must be available during the Draft EIR review. These documents all implement the Railyards Specific Plan, however, and that Plan was available for review during the comment period. The Specific Plan and the subsequent entitlements were also described in the EIR in compliance with CEQA. As stated in the CEQA Guidelines Section 15124, an EIR's project description includes a "list of permits and other approvals required to implement the project."

Regardless of timing, all of the approvals discussed herein will be (or already are) available for public review and input as specified in the Special Planning District (SPD) Ordinance, which is currently available for review.

4.1.4 SUMMARY LENGTH

Response to Comment 25-4

As required by the CEQA Guidelines (see Section 15123) an EIR must include a Summary that contains a review of the proposed actions and consequences of the proposed Specific Plan along with an overview of the project's significant effects and proposed mitigation measures. Chapter 2, Summary of Impacts and Mitigation Measures, includes a brief description of the project; a summary of effects determined to be less than significant; a summary of both project-specific and cumulative impacts of the project determined to be significant and unavoidable; a list of project alternatives; and, a brief summary of environmental effects found not to be significant and therefore not evaluated further in the EIR (specifically, Agricultural Resources and Mineral Resources). This brief overview of the project is provided in a total of five pages. Pages 2-6 through 2-121 include a comprehensive table listing all of the project impacts and identifying the significance of the impact both prior to and post mitigation. This table is designed to assist the reader to quickly and easily identify project impacts. It is not designed to intentionally confuse the reader or to discourage public participation in the EIR review process. Many lead agencies prefer to have a table up front that lists all the project impacts and the level of significance both before and after mitigation.

The provision of a table that summarizes all the project and cumulative impacts and indicates the level of significance both before and after mitigation does not preclude the public from being able to comment on the adequacy of the EIR. No other comment letters received indicate that the summary table was confusing or hindered the public's ability to review or comment on the Draft EIR.

4.1.5 DRAFT EIR PROJECT DESCRIPTION: SPECIFIC PLAN LAND USES OR THE EIR ANALYSIS SCENARIO LAND USES

Response to Comments 11-1, 11-2, 12-1, 25-1, 25-69, 26-2, 26-5, and 26-28

The proposed project is the Railyards Specific Plan, which allows for a wide range of land uses and densities throughout the Specific Plan Area. The proposed Specific Plan is intended to be responsive to future market conditions by maximizing flexibility with respect to designated land uses. Any project that is consistent with the Specific Plan could be approved by the City Council as a subsequent project.

As discussed on page 3-19 of the Draft EIR, the EIR cannot analyze every possible combination of land uses allowed by the Specific Plan. Therefore, an EIR Analysis Scenario was prepared to guide the analysis of traffic, air quality, public services and other impacts that are based on the number of residential units and/or amount of square footage that would be developed. A clear breakdown of the EIR Analysis Scenario components, including the commercial and retail designations, is provided in Figures 3-2, 3-3, and 3-4 of the Draft EIR. Table 3-5 provides a description of the assumptions made as a part of the quantitative analysis of the potential impacts to or from historic/cultural uses planned for the site. The proposed specific plan does not have a specific retail or historic/cultural land use designation; therefore, the analysis scenario provides a tool for the EIR to evaluate the anticipated impacts associated with the development and operation of the proposed project with those uses.

For the most part, the EIR Analysis Scenario is similar to the maximum development levels identified in the proposed Specific Plan, including the maximum number of residential units. The Specific Plan allows for slightly more office space (2.4 msf versus 2.37 msf) and retail space (1.4 msf compared to 1.384 msf). For the flexible mixed use category, each impact analysis assumed that the land use with the greatest impacts would be maximized. For example, traffic assumed the maximum amount of office space would be developed because office development generates more trips than residential development, while the public services analysis assumed the maximum number of residential units, because residential demand is the basis of impacts on services. As individual development projects are proposed in the Specific Plan Area, the City will determine whether the proposal is consistent with both the Specific Plan and the EIR Analysis Scenario. If a proposal is inconsistent with the Specific Plan, a Specific Plan amendment would be required in order to approve the proposal. If a proposal is inconsistent with the EIR analysis, the City will determine the appropriate level of subsequent CEQA review needed to address the proposal.

While specific projects associated with the Railyards Development are currently unknown, the Railyards Development Agreement sets forth the property owner's proposed schedule for development of the proposed Specific Plan which depicts the location of the public facilities, including roadways, bicycle facilities, pedestrian facilities and park and open spaces, for each phase of the development Plan. The Phasing Plan includes the Initial Phase Development Plan, which is shown in Figure 3-6 of the Draft EIR, and the Roadway and Parking Phasing Plan, which is more particularly described in Exhibit B to the Development Agreement. The Phasing Plan is a conceptual plan for development of the Plan Area based on current market conditions and, accordingly, is subject to change as provided in the Development Agreement.

For purposes of environmental impact analysis, the Draft EIR evaluates the whole of the action based on the assumptions provided in Appendix C of the Draft EIR. In those cases where interim development could have impacts that differ from full buildout impacts, such as traffic, an Initial Phase is evaluated as well. The Initial Phase is described on pages 3-19 and 3-22 and more specifically on pages 4.12-51 and 4.12-52 of the Draft EIR.

No analysis of a supposed "worst-case" scenario is provided, as such a scenario is unlikely to occur. CEQA requires an EIR to evaluate the environmental impacts of the project which are reasonably foreseeable. (*Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1123.) However, CEQA requires neither "prophecy" nor the consideration of impacts which are unreasonable. (*Id.* at 1360.) In other words, CEQA does not require an EIR to evaluate of the impacts of an unforeseeable "worst-case" scenario. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 453; *Napa Citizens for Honest Govt. v. Napa County Bd. Supervisors* (2001) 91 Cal. App.4th 342, 373; *Towards Responsibility in Planning v. City Council of the City of San Jose* (1988) 200 Cal.App.3d 671, 681). Although the EIR does not evaluate a "worst-case" scenario, it does include a conservative analysis that probably overstates

project impact to some extent, by assuming that the land use with the greatest impacts in any particular impact category would be maximized.

The CEQA Guidelines set forth the extent to which an EIR must evaluate potential impacts of the project:

> An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible.

(CEQA Guidelines § 15151.) Similarly, *Berkeley Keep Jets over the Bay Committee v. Board of Port* Commissioners *of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1356, enunciates the standard for adequate review by stating:

> The determination of EIR adequacy is essentially pragmatic. Whether an EIR will be found in compliance with CEQA involves an evaluation of whether the discussion of environmental impacts reasonably sets forth sufficient information to foster informed public participation and to enable the decision makers to consider the environmental factors necessary to make a reasoned decision.

As a result this EIR is not required to evaluate every potential scenario imaginable for risk of speculation. Similarly, in both *Napa Citizens for Honest Govt. v. Napa County Bd. Supervisors*, *supra*, 91 Cal.App.4th at 373 and *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, *supra*, 40 Cal.4th at 453, the courts held the identification of long-term water sources for phased projects must, to the extent possible, identify impacts of providing water to the entire proposed project. However, the project need not analyze all possible resources that might serve the project and need not analyze a worst-case scenario. (*Napa Citizens for Honest Govt. v. Napa County Bd. Supervisors*, *supra*, 91 Cal.App.4th at 373 ["An EIR is not required to engage in speculation in order to analyze a "worst case scenario"]; *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, *supra*, 40 Cal.4th at 453 ["An EIR, in particular, need not analyze a worst case scenario"].).

4.1.6 Explanation of What Land Uses Will Occur and in What Locations, Amounts and Densities

Response to Comments 2-5, 25-69 and 26-5

Significant future investment, both public and private, will be needed to support the City's vision for reuse of the Railyards site. In light of the challenges of redeveloping an infill brownfields site (defined by the U.S. EPA as "…real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant")[1] and the long-term nature of the Railyards Specific Plan, the City has formulated a comprehensive but flexible framework of land use regulations, development standards, and design guidelines for the Plan Area.

1 The planning and land-use literature has begun to acknowledge the hurdles to infill development. *Building Livable Communities: A Policymakers Guide to Infill Development* (Bragado, Perrlee, and Zykofsky 2001) identified the following six obstacles: (1) infill and redevelopment projects often cost more to build than raw-land projects; (2) policymakers tend to overlook the public cost savings of the strategy; (3) many community members actively oppose infill and mixed-use development, in part due to past experience with poor-quality examples; (4) developers often avoid infill or redevelopment projects in the inner city due to the fear of reduced marketability; (5) finance and capital markets can be a barrier; and (6) the prevailing Euclidian model of segregating uses is not conducive to infill. Similar observations were noted in a San Francisco study: "Impediments [to infill] involve land availability, fiscal disincentives to local government . . . outdated zoning requirements, excessive parking standards, financing difficulties, neighborhood opposition, lengthy permitting processes, toxic contamination of sites, and poor schools and a lack of amenities in older communities." (Wheeler, Stephen, "*Smart infill: Creating more livable communities in the Bay Area: A guide for Bay Area leaders,"* San Francisco, CA: Greenbelt AllianceWheeler, 2002, page 3.)

In particular, as explained on page 3-12 of the Draft EIR, the Specific Plan designates land uses within the boundaries of the Plan Area and establishes the type, location, and intensity of future development. As such, the Specific Plan is the primary policy and regulatory document that will guide redevelopment of the Railyards site. The Railyards SPD, as set out in Chapter 17.124 of the City's Zoning Code, establishes procedures to implement the policies, development standards, and design guidelines of the Specific Plan. For each of the land use designations in the Railyards Specific Plan, the City's SPD ordinance identifies allowed uses, uses requiring a Special Permit, and prohibited uses. The SPD ordinance also identifies applicable development standards for each land use designation, including floor area ratio (FAR) and density, build-to lines and street wall heights, building heights, lot coverage, open space and parking requirements.

The project Design Guidelines will provide additional guidance related to the design, height, and scale of proposed buildings. Additional review of design modifications shall take place with the appropriate Federal, State, and Local agencies to ensure that adequate measures are incorporated into the site design. Due to the project's proximity to major institutional site's such as the Federal Court House, the RT and Amtrak Rail lines, and the State Railroad Museum, coordination with varying public agencies would be required.

This land use regulatory framework promotes the City's vision for high quality redevelopment of the Railyards as an integral part of the Central City/Downtown area while also promoting plan flexibility to attract private investment and enable public-private partnerships or other entities to capitalize on unique opportunities to provide creative designs and innovative commercial and residential developments, civic-oriented facilities and community amenities within the Specific Plan Area.

4.1.7 ARENA DISCUSSION

Response to Comment 27-1

This comment addresses comment letter 27-1, which states that an analysis of the Arena and its impacts on transportation, pollution, and economics was not included in the Draft EIR. The Draft EIR evaluated the impacts associated with the development pursuant to the Specific Plan. A range of land uses were provided in the Specific Plan and the anticipated project land uses subsequently evaluated in the EIR as the "EIR Analysis Scenario" land uses. The proposed Sports and Entertainment facility was not included as a specific land use within the Draft Specific Plan and was therefore not quantitatively evaluated in the Draft EIR. However, in an effort to evaluate the effects of a Sports and Entertainment venue within the proposed area, the Specific Plan included a Sports and Entertainment Facility Overlay and the Draft EIR and provided a description and analysis of the Sports and Entertainment Facility Overlay. A comparative qualitative analysis of the change in impacts associated with the Sports and Entertainment Facility in relation to the proposed project was provided in each technical chapter of the Draft EIR. As stated on page 3-25 of the Draft EIR, when an arena is proposed, it will be subject to CEQA review before consideration by the City Council. Please see Draft EIR Chapter 6.0, Introduction to the Environmental Analysis for additional discussion.

4.1.8 TRACK RELOCATION

Response to Comment 2-1

This responds to comment 2-1 which expresses the desire to maintain a minimum distance of 680 feet between the Federal Courthouse and the relocated railroad tracks. The commenter's assumption is correct and is appropriately noted in the Draft EIR.

4.1.9 OUTSIDE JURISDICTION REVIEW

Response to Comment 25-3

This comment responds to comment 25-3 which notes that some elements of the project could impact West Sacramento and Yolo County and therefore suggests that surrounding jurisdictions should be identified in the Draft EIR as a responsible agencies under CEQA and appropriately contacted. The complete distribution list for the Railyards Specific Plan NOP and Draft EIR are included as Appendix B of this Final EIR. Copies of the NOP and Draft EIR were sent to adjacent local jurisdictions, including the City of West Sacramento and Yolo County. No comments were received from any adjacent local jurisdictions with the exception of Sacramento County. Responses to Sacramento County's comments are included in this Final EIR. While the proposed project is located adjacent to I-5 and provides connections to West Sacramento via the I Street Bridge, no portions of the proposed project extend into West Sacramento or Yolo County. Therefore, neither jurisdiction is not a responsible agency (Public Resources Code, §21069 (responsible agency means a public agency, other than the lead agency, which has responsibility for carrying out or approving a project).

4.1.10 SITF ANALYSIS

Response to Comment 26-4

This comment claims the EIR impermissibly segments the City's acquisition of the SITF site. The comment is incorrect.

The EIR states that the Specific Plan is intended to coordinate with the City's plan to expand the SITF. The Draft EIR describes the SITF site, the conceptual plans that have been discussed as part of the City's outreach, and the fact that no proposed project or design has been developed (see Draft EIR pp. 3-33 to 3-36).

The acquisition of the SITF site effected only a change in ownership and did not approve any development on the site, and the contract specifically requires CEQA review prior to acquisition of Parcel B and prior to any approval of development plans for the site, in compliance with CEQA.

Acquisition and development of the SITF are not a part of the Specific Plan, but instead are independent actions. The SITF site and conceptual proposals are described in the EIR and reflected in the cumulative analysis, in compliance with CEQA.

The statement in the City staff report about the public-private partnership does not make the SITF acquisition part of the Railyards Specific Plan. As stated in that staff report, Thomas Enterprises requested this action prior to closing escrow. The creation of this public-private partnership[2] was one of several preliminary steps towards the City's consideration of whether to approve the Specific Plan. There were many other preliminary steps, including contracting for preparation of the EIR and arranging for payment of the EIR costs. These types of preliminary arrangements and agreements do not commit the City to approve a project and do not trigger CEQA review, under CEQA Guidelines Section 15378(b)(4) and interpretive case law.

2 No formal entity or partnership was created. The term "public-private partnership" indicates a commitment to work together in considering a proposal, and does not constitute a commitment to approve a particular project.

4.1.11 CALIFORNIA STATE LANDS COMMISSION

Response to Comment 7-1

The comment relates to the timing of the City's consideration of the plan and related entitlements and does not comment on the Draft EIR. As such it will be forwarded to the decision-makers for their consideration. It is also noted that the property interest claimed by commenter is disputed and may require resolution by agreement or litigation. The timing of resolution of these title issues does not affect the City's consideration of the physical environmental effects of the proposed development program.

4.1.12 REFERENCES AND SUPPORTING DOCUMENTATION

Response to Comments 5-16, 11-3, 12-2, 21-3, 25-5, and 25-70

A wide range of documents were used to prepare the Draft EIR analysis. Many of the calculations and studies prepared by the EIR preparers are appended to the Draft EIR. In some cases, information used to form assumptions for the EIR analysis were provided by the applicant and/or City through memos and/or personal communication. For example, the construction air emissions analysis is broken into phases. There is no phasing plan for the proposed project, but preliminary phasing assumptions were prepared by the applicant and used in the emissions calculations. The phasing assumptions were for analytical purposes only. Actual emissions will depend on the specific projects that are ultimately developed under the proposed project. Similarly, assumptions for an Initial Phase, described on page 3-19 of the Draft EIR, was prepared to enable the traffic analysis to consider interim conditions.

Documents and formal communications used in the Draft EIR preparation are identified in Chapter 10, References, of the Draft EIR. Most references are not appended to the Draft EIR, because to do so would require many volumes, often for a relatively small piece of information. Instead, documents and other references that are cited in the Draft EIR but not included in the appendix are available for review by appointment at the City of Sacramento North Permit Center, 2101 Arena Boulevard, Suite 200 in Sacramento.

4.2 PLANS AND POLICES CONSISTENCY ANALYSIS

4.2 PLANS AND POLICES CONSISTENCY ANALYSIS

4.2.1 SCHOOL LAND USE COMPATIBILITY

Response to Comment 18-13

The comment states that the proposed school location identified in the project description lacks the suitable "land area" needed for siting of a school facility. The California Department of Education (CDE) of has established regulations regarding school size, shape, and compatibility attributes for all California Schools. The CDE's siting standards related to size and shape are intended for new schools within a suburban context. According to the CDE regulations [Cal. Code Regs., Title 5 Section 14010, subd. (a)] schools within an urban infill context where land is scarce, are not subject to the same siting criteria as suburban schools and can often be developed on smaller parcels. While the proposed project's urban setting would eliminate established requirements for minimum school sizing, the project would still be required to maintain required setbacks from rail lines, identified high pressure gas and water pipelines, and specific facilities emitting hazardous materials. The proposed school location was evaluated programmatically in the Railyards Specific Plan Draft EIR and was determined to be in compliance with CDE standards based on the information available. As more site specific information becomes available regarding the proposed school site, a subsequent CEQA document shall be prepared to address any potentially significant siting impacts or issues.

4.2.2 POLICY CONSISTENCY ANALYSIS

Response to Comment 25-7

The comment states that the policy consistency analysis presented in Chapter 4.0 of the Draft EIR draws inaccurate conclusions related to issues addressed in the EIR. The comment does not specify why an alternate conclusion should be found. Instead the comment requests additional clarification of issues that are specifically addressed in the technical analysis of the EIR. The commenter should refer to the technical analysis found in Chapters 5.0, 6.0, and 7.0 of the Draft EIR for further clarification. A detailed analysis of the project's contribution to Population and Housing, Land Use, Urban Decay, Transportation and Circulation, Urban Design and Visual Quality, and Energy can be found in the aforementioned chapters. The information in these chapters are stated in the policy consistency table's determination.

4.3 POPULATION AND HOUSING

4.3 POPULATION AND HOUSING

4.3.1 SPECIFIC PLAN HOUSING DEMAND

Response to Comments 25-8, 25-9, and 25-10

As stated in Comment 25-8, the Draft EIR analysis uses Sacramento Area Council of Governments (SACOG) projections for population to determine the proposed project's impact on anticipated regional population growth. According to SACOG's projection methodology, *Projection of Employment, Population, Households, and Household Income in the SACOG Region for 2000-2050* (prepared by the Center for Continuing Study of the California Economy and DB Consulting, 2005), projections are based on current population, including data from the U.S. Census Bureau and California Department of Finance, and take into account historic growth rates; natural growth (number of births minus number of deaths); economic growth, including job growth, household income, and housing trends; net migration; and demographic characteristics such as age and different fertility and survival rates among different races and ethnicities.

The Draft EIR methodology specifically reflects that decreasing affordability rates of housing in the region may translate to reduced job growth, which could in turn, affect population growth. In addition, the methodology also considers a state-wide reduction in fertility rates and lower survival rates among older populations, showing natural growth rates beginning to decrease after 2010-2015. Similarly, the methodology reflects substantial reductions in net migration beginning in the 2005-2010 period, which may reflect changes in immigration policies during that time. Although limitations on immigration from Mexico may be implemented, immigration into the region is expected to continue; however, when combined with falling birthrates, the net migration is anticipated to decline.

In any case, SACOG projection data is not expected to provide exact numbers of future population, jobs, and housing, but rather are long-term estimates and are based on known trends and historical data. Short-term fluctuations in growth caused by factors such as policy changes or economic downturns are generally subsumed by long-term projections. SACOG projections are accepted and used by jurisdictions throughout the region in long-term and cumulative analyses for many projects. Based on this information, the use of SACOG projection data is appropriate for this EIR.

The statement on page 5-3 of the Draft EIR stating that the housing market in the region has slowed is reflective of the recent slowing trend in home sales throughout the region. The *California Policy Review Regional Economic Outlook for the Sacramento Region* (prepared by the Sphere Institute, 2005) indicates that increases in short-term interest rates, on which many adjustable rate mortgages are based, compared to historically low interest rates experienced during the regional housing boom between 2002 and 2004, along with decreasing housing affordability, and decreases in regional job growth compared to the job boom of the 1990s have contributed to the downturn in the regional housing market. The analysis is based on these assumptions.

Chapter 5.0 of the Draft EIR is intended to provide basic background information on regional population and housing conditions in order to establish a baseline for determining the physical environmental impacts that would occur as a result of increased population under the proposed project, as explained on page 5-1 of the Draft EIR. The information in the Draft EIR is sufficient to conduct this analysis.

Comment 25-9 suggests that the number of vacant housing units in the City could reduce the need for additional projects to be constructed, including the proposed project. Page 5-3 of the Draft EIR says that approximately 13,263 housing units out of a total of 182,045 were vacant in 2005, which would constitute a vacancy rate of nearly 7.3 percent. It is normal to have vacant housing units within a city. A five percent vacancy rate within a jurisdiction is considered to be normal. Rates below that cause increases in housing pressures. It should also be noted that vacant housing units are not necessarily available to accommodate growth, since they may include second homes, normal rental vacancies, unoccupied homes for sale, and homes that are considered unfit for occupancy.

The City is expected to continue to experience high levels of population growth. Page 5-2 of the Draft EIR states that the U.S. Census estimated that the City's 2004 population was 458,342. The Draft EIR also stated that population projections for the City estimate that the population will increase to 517,035 by 2020. SACOG projection data for 2025 shows that the City's population is projected to increase to 538,303.[1] This would result in the addition of approximately 80,000 new residents to the City by 2025, which would clearly result in the need for additional housing units beyond the vacant housing units currently within the City. The Draft Regional Housing Needs Allocation released in July 2007 estimates that a total of 26,435 new housing units will need to be constructed within the City and annexation areas between 2006 and 2013 to accommodate anticipated population growth.[2] Beyond 2013, even more homes would be required to accommodate projected growth. SACOG projections are approved for use by jurisdictions within the six-county SACOG area, including the City of Sacramento. The need for the proposed project and any other future projects within the City will be determined by the City Planning Commission based on these factors.

The employee per housing unit ratio of 1.3 was inadvertently calculated using the number of City residents in the workforce (people aged 16 and older) rather than the number of jobs available in the City. The number of jobs in the City is higher than the number of City residents in the workforce since residents of other areas commute into the City for work. The SACOG ratio is based on the number of jobs in the City, regardless of the place of employee residence; therefore, the 1.78 ratio reflects an accurate estimate of the City's employee to housing unit ratio in 2005. Page 5-4 of the Draft EIR has been modified as follows to reflect this change.

> In 2005, the City of Sacramento had an employment base of 214,267, which is defined by the number of residents aged 16 years and older. This is not necessarily reflective of the number of jobs available in the City. For example, SACOG estimates that there were 309,210 jobs in the City in 2005, indicating that people who do not reside in the City commute from other areas to work in Sacramento. As stated above, there were 168,782 occupied housing units within the City. Based on the number of jobs in the City and the number of occupied housing units, this would indicate that the City has an employee per housing unit ratio of approximately 1.83.~~with a total of 182,045 housing units. Of these housing units, 168,782 were occupied, and 13,263 were vacant.[20] Based on the number of occupied housing units, the employee per housing unit ratio was 1.3.[21]~~ Another estimate by SACOG indicates an employee per housing unit ratio of 1.78 in 2005.[22]
>
> ~~20 U.S. Census American Fact Finder, Sacramento city, California, 2005 American Community Survey Data Profile Highlights, http://factfinder.census.gov, accessed May 30, 2007.~~
>
> ~~21 An employee per unit ratio that exceeds 1.0 reflects the fact that there are more jobs than housing units within the City. An employee per unit ratio of 1.0 would mean that there is one job per housing unit.~~

1 SACOG Projections, Projection Data, 12-16-04, http://www.sacog.org, accessed June 26, 2006.

2 SACOG, Regional Housing Needs Allocation, adopted July 19, 2007, Table 2 – Draft Income Category Distribution from Adopted Methodology.

The employee per housing unit ratio of 1.83 is based on the number of housing units rather than the number of residents in the workforce. SACOG estimates an employee per housing unit ratio of 1.78[3] which is comparable to the City's estimate of 1.83. For purposes of this analysis, an employee per housing unit ratio of 1.83 is used.

Variations in the housing market, vacancy rates, job market, and changes in population all affect the demand for housing, and would affect the need for the proposed project. Factors such as these could determine the rate at which the project is built out, if approved. This EIR can only estimate future demand, as situations may always rise which could change the need for housing in the area. It is not the responsibility of the EIR to determine the need for a project, but rather to provide information that may aid the decision-making authorities in reaching that determination. Ultimately, it is the responsibility of the City Council not the EIR to determine the need for this and any other project, based on known facts regarding existing housing supply, projects currently approved or under construction, current and projected needs, and economic trends.

4.3.2 AFFORDABLE HOUSING REQUIREMENTS

Response to Comments 25-11 and 25-13

Comment 25-11 requests that the EIR provide the number of very-low income households that exist within the City of Sacramento. According to the City's 2002 Housing Element, there were 44,209 very low income households, 28,132 low income households, 31,248 moderate income households, and 56,306 above moderate income households in the City in 2000.[4]

As stated on page 5-8 of the Draft EIR, the precise details regarding the number of affordable housing units within the proposed project have not yet been developed, but the proposed project will be subject to the requirements of state and local affordable housing law, including the City's Mixed Income Housing Ordinance. The proposed project will comply with this requirement. All individual projects within the Specific Plan Area will be subject to all applicable laws and regulations pertaining to the provision of affordable housing. As required by Chapter 17.190 (Inclusionary Housing Ordinance) of the City of Sacramento Municipal Code, projects that are not exempt from the ordinance are to ensure a minimum of 15 percent of all residential units are affordable. For rental units, 10 percent of the units must be affordable to very low-income households and five percent must be affordable to low-income households. For ownership units, 5 percent of the units may be affordable to very-low income households and 10 percent may be affordable to low-income households. Page 5-6 of the Draft EIR states that in addition to compliance with the Inclusionary Housing Ordinance, the Specific Plan Area is also subject to state redevelopment laws since it is within a redevelopment area, as well as the affordable housing goals of the voluntary SACOG Compact, since the City is a participating jurisdiction. However, the requirements of the Inclusionary Housing Ordinance are more stringent than those of the Affordable Housing Compact, so the proposed project would provide more affordable housing than required by the Compact, as required by the City Code. Although the exact number of affordable housing units to be developed within the Specific Plan Area has not yet been determined, assuming that the proposed project's maximum buildout scenario of 12,100 dwelling units, there would be a minimum of 1,815 affordable housing units developed within the Specific Plan Area, in compliance with the Inclusionary Housing Ordinance. Assuming all rental units, affordable housing would include 1,210 units (10 percent) affordable to very low-income households, and 605 units (5 percent) affordable to low-income households. Those percentages could be reversed for ownership units. Furthermore, although the Inclusionary Housing Ordinance requires affordability covenants of 30 years for both rental and

3 Sacramento Area Council of Governments, SACOG Projections, City of Sacramento, March 15, 2001, http://www.sacog.org, accessed May 30, 2007.

4 City of Sacramento, City of Sacramento General Plan Housing Element, 2002, page 3.3-7.

ownership units, redevelopment law, with which the proposed project will comply, requires affordability covenants of 55 years for rental units and 45 years for ownership units. These numbers may vary from the final count of affordable housing units developed by the proposed project, as the exact dwelling unit count of the proposed project has not yet been finalized. Comment 25-13 states that the City has fallen short of meeting its share of regional housing needs for very-low and low-income housing units by citing the City's Housing Element, approved in 2003, using information from 2002. According to a staff report to the City Planning Commission dated September 20, 2007, by the end of 2006, the City had met 99 percent of its total goal for affordable housing units under the current Housing Element for 2002-2007. The need for very-low, moderate, and above moderate housing had already been met. At the time of this report, the City had met 92 percent of its goal for low income housing units. Note that these numbers do not include the number of housing units that have been rehabilitated to meet affordable housing needs.

Comment 25-13 also states that the Draft EIR does not state the proposed project's consistency with the General Plan requirement for housing projects in the downtown area to include housing affordable to a range of incomes, including low income people. One of the proposed project's objectives is to create a mixed-use community with a mixture of housing products, including affordable housing. This objective is clearly consistent with this General Plan requirement.

Summary Paragraph

The proposed project would comply with affordable housing requirements and would in fact, provide enough affordable housing to meet the strictest of affordable housing requirements, the City's Inclusionary Housing Ordinance, since the SACOG Affordable Housing Compact requires fewer affordable housing units. The project aims to provide a mix of housing options, affordable to a range of housing types, consistent with the General Plan.

4.3.3 REDEVELOPMENT PROJECT AREA REQUIREMENTS

Response to Comment 25-12

The entire Railyards Specific Plan Area is located within the Richards Boulevard Redevelopment Area. The Railyards Specific Plan and Richards Boulevard Area Plan (adopted in 1994) call for the transition of the area from a primarily industrial district into an urban, mixed-use district, consistent with the objectives of the proposed project.[5]

5 City of Sacramento, *Downtown Development, Richards Boulevard Redevelopment Project Area*, http://www.cityofsacramento.org, accessed October 25, 2007.

4.4 AIR QUALITY

4.4 AIR QUALITY

4.4.1 GLOBAL WARMING/GREENHOUSE GAS EMISSIONS

Response to Comments 14-5, 18-14, 25-19, 26-8, and 26-44

As explained on pages 6.1-16 through 6.1-19 of the Draft EIR, the City of Sacramento acknowledges and recognizes the current debate about global warming, and the increasing recognition of the role of greenhouse gas emissions in contributing to potential climatological changes around the globe. As explained in the Draft EIR, the City has acknowledged and acted upon these concerns in a variety of ways, including the 2001 adoption of Smart Growth Principles which seeks to change urban development patterns by supporting projects that through the density and mix of land uses, transportation management, and infrastructure design and construction discourage urban sprawl, promote infill development, reduce vehicle emissions and minimize air pollutant emissions: the City believes that the present project is an example of such "smart growth" which minimizes the contribution of new growth to regional greenhouse gas emissions. The City has also initiated the preparation of a Sustainability Master Plan as well as an ordinance to require LEED certification for new buildings in the City. In all of these ways, the City of Sacramento is taking leadership in the region in addressing the emission of greenhouse gases and the related global warming effects.

Nonetheless, the City also recognizes the limitations of the current state of the art to effectively create a nexus between the calculated greenhouse gas emissions of individual projects, even a project of the size and scale of the proposed Railyards Specific Plan, and the predicted environmental changes that could be caused by global temperature increases. Further, the City believes that to engage in such speculative analysis falls outside of the limitations established under CEQA which pertain to speculation (see CEQA Guidelines section 15145) and the geographic limitation of impact analysis (see CEQA Guidelines section 15130(b)(3)). The scientific literature indicates that it is not possible to determine the significance of any particular project or plan's contribution to global temperature increases. For example, the Intergovernmental Panel on Climate Change has stated that "difficulties remain in attributing temperature on smaller than continental scales and over time scales of less than 50 years. Attribution at these scales, with limited exceptions, has not yet been established."[1] As such, as explained in the Draft EIR, the City does not believe that it is appropriate to undertake an analysis of greenhouse gas emissions that cannot be conclusively tied to a physical change on the environment.

Nonetheless, the City has recently engaged in discussions with the SMAQMD and representatives of the State Attorney General's office, and recognizes that there is a difference of opinion about the appropriate and necessary method of addressing this growing environmental concern in CEQA documents. In recognition of this difference of opinion, and in respect to the valued opinion of the professionals at these other agencies, the City has undertaken a quantitative analysis of greenhouse gas emissions as well as a comparison of recommended measures appropriate to minimize the greenhouse gas emissions of future projects. That analysis and comparison is presented below.

1 Intergovernmental Panel on Climate Change, 2007. G.C. Hegerl, "Understanding and Attributing Climate hange" Chapter 9, Contribution of Working Group I to the Fourth Assessment Report of the ntergovernmental Panel on Climate Change. Similarly, the 2005 report of the National Research Council entitled *Radiative Forcing of Climate Change: Expanding the Concept and Addressing Uncertainties* states that the mechanisms involved in land-atmosphere interactions "are not well understood, let alone represented in climate models."

Introduction

This section addresses impacts of construction and operation of the proposed Specific Plan on global greenhouse gas emissions and the potential for emissions to cumulatively contribute to global climate change. The issue of global climate change is inherently a cumulative issue as the greenhouse gas emissions of projects cannot be shown to have any material effect on global climate. This section is intended to amplify and expand upon the discussion of greenhouse gas emissions contained in section 6.1, Air Quality of the Draft EIR.

Generally, this analysis focuses on the major sources of greenhouse gases including Carbon Dioxide (CO_2), Nitrous Oxide (N_2O), and methane (CH_4). Transportation related emissions, energy consumption emissions, and solid waste emissions are quantified and other potential sources of greenhouse gases are discussed qualitatively in this section.

Sources provided for this section include quantitative data from the Sacramento Metropolitan Air Quality Management District (SMAQMD), the Sacramento Municipal Utility District (SMUD), and the Sacramento Area Council of Governments (SACOG); the California Air Resources Board (CARB) website, Alternative Approaches to Analyzing Greenhouse Gas Emissions and Global Climate Change in CEQA Documents by the Association of Environmental Professionals (AEP), the Office of the California Attorney General Global Warming Mitigation Measures, and More Than an Inconvenient Truth: Making Sense of the California Global Warming Solutions Act of 2006 by Morrison & Foerester LLP. Qualitative information was also included from the Global Climate Change Analysis for the Rich Haven Specific Plan for the City of Ontario, the 2007 Draft Environmental Impact Report for Regional Transportation Plan for San Diego Association of Governments (SANDAG), and the Intergovernmental Panel on Climate Change (IPCC) Climate Change 2007: Fourth Assessment Report.

Environmental Setting

Global climate change refers to the change in the average weather of the earth that may be measured by changes in wind patterns, storms, precipitation, and temperature. Projected climate changes could impact California's public health through changes in air quality, weather related disasters, and a possible increase in infectious disease. If extreme precipitation and severe weather events become more frequent, and if sanitation and water-treatment facilities have inadequate capacity or are not maintained, increases in infectious diseases may result.[2] The baseline by which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. Many of the recent concerns over global climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of greenhouse gas emissions needed to stabilize global temperatures and climate change impacts. The IPCC predicted that the range of global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1°C to 6.4°C. Regardless of analytical methodology, global average temperature and sea level are expected to rise under all scenarios.[3]

This Assessment makes it clear that the impacts of future climate change will be mixed across regions. For example, according to the IPCC Fourth Assessment report, there may be large

2 California EPA, AB 1493 (Pavley) Briefing Package Global Warming and Greenhouse Gas Emissions from Motor Vehicles.

3 Intergovernmental Panel on Climate Change, 2007. R.B. Alley et al. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Summary for Policymakers.

differences in regional population, income and technological development under alternative scenarios, which are often a strong determinant of the level of vulnerability to climate change. To illustrate, in a number of recent studies of global impacts of climate change on food supply, risk of coastal flooding and water scarcity, the projected number of people potentially affected is considerably greater in areas characterized by relatively low per capita income and large population growth. This difference is largely explained, not by differences in changes of climate, but by differences in vulnerability.[4]

Greenhouse Gas Emissions

Gases that trap heat in the atmosphere are called greenhouse gases (GHG), analogous to the way a greenhouse retains heat. Common GHG include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Global atmospheric concentrations of carbon dioxide, methane and nitrous oxide have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values determined from ice cores spanning many thousands of years. The accumulation of GHG in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHG, the earth's surface would be about 34 degrees °C cooler (CAT 2006). However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Climate change is driven by forcings and feedbacks. A feedback is "an internal climate process that amplifies or dampens the climate response to a specific forcing" (NRC 2005). Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. The global warming potential (GWP) is the potential of a gas or aerosol to trap heat in the atmosphere; it is the "cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas."[5]

Individual GHGs have varying GWP and atmospheric lifetimes (see Table 1, below). The carbon dioxide equivalent is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent metric. The reference gas for GWP is carbon dioxide; carbon dioxide has a GWP of one. By comparison, methane's GWP is 21, methane has a greater global warming effect than carbon dioxide on a molecule per molecule basis.[6] One teragram (Tg) (equal to one million metric tons) of carbon dioxide equivalent (Tg CO_2 Eq.) is the mass emissions of an individual GHG multiplied by its GWP.

Of all greenhouse gases in the atmosphere, water vapor is the most abundant, important, and variable. It is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from ice and snow, and transpiration from plant leaves.

4 Intergovernmental Panel on Climate Change, 2007. R.B. Alley et al. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Summary for Policymakers.

5 U.S. Environmental Protection Agency, Office of Atmospheric Programs. April 2006. The U.S. Greenhouse Gas Emissions and Sinks: Fast Facts.

6 U.S. Environmental Protection Agency. 2006. Non CO_2 Gases Economic Analysis and Inventory. Global Warming Potentials and Atmospheric Lifetimes.

TABLE 1

GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES OF SELECT GREENHOUSE GASES

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	21
Nitrous Oxide	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetraflouromethane (CF_4)	50,000	6,500
PFC: Hexaflouroethane (C_2F_6)	10,000	9,200
Sulfur Hexaflouride (SF_6)	3,200	23,900

Source: **U.S. Environmental Protection Agency. 2006. Non CO_2 Gases Economic Analysis and Inventory. Global Warming Potentials and Atmospheric Lifetimes. Website http://www.epa.gov/nonco2/econ-inv/table.html. Accessed December 20, 2006.**

Carbon dioxide (CO_2) is an odorless, colorless gas, which has both natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources of carbon dioxide are from burning coal, oil, natural gas, and wood. Concentrations of carbon dioxide were 379 parts per million (ppm) in 2005, which is an increase of 1.4 ppm per year since 1960.[7]

Methane (CH_4) is a flammable gas and is the main component of natural gas. When one molecule of methane is burned in the presence of oxygen, one molecule of carbon dioxide and two molecules of water are released. There are no ill health effects from methane. A natural source of methane is from the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.

Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas. Higher concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, racecars, and as an aerosol spray propellant.

Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol in 1987.

Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs for automobile air conditioners and refrigerants.

7 Intergovernmental Panel on Climate Change. 2007. R.B. Alley, et al. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Summary for Policymakers.

Perfluorocarbons (PFCs) have stable molecular structures and do not break down though the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above the earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane. Concentrations of tetrafluoromethane in the atmosphere are over 70 parts per trillion (ppt).[8] The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur hexafluoride (SF6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It has the highest GWP of any gas evaluated, 23,900. Concentrations in the 1990s were about 4 ppt (EPA 2006d). Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Ozone is a greenhouse gas; however, unlike other GHG, ozone in the troposphere is relatively short-lived and, therefore, its effects are not globally important. It is difficult to make an accurate determination of the contribution of ozone precursors (nitrogen oxides and volatile organic compounds) to global climate change.[9]

Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Aerosols can also affect cloud formation. Sulfate aerosols are emitted when fuel-containing sulfur is burned. Black carbon (or soot) is emitted during bio mass burning or incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

Federal and State Inventory

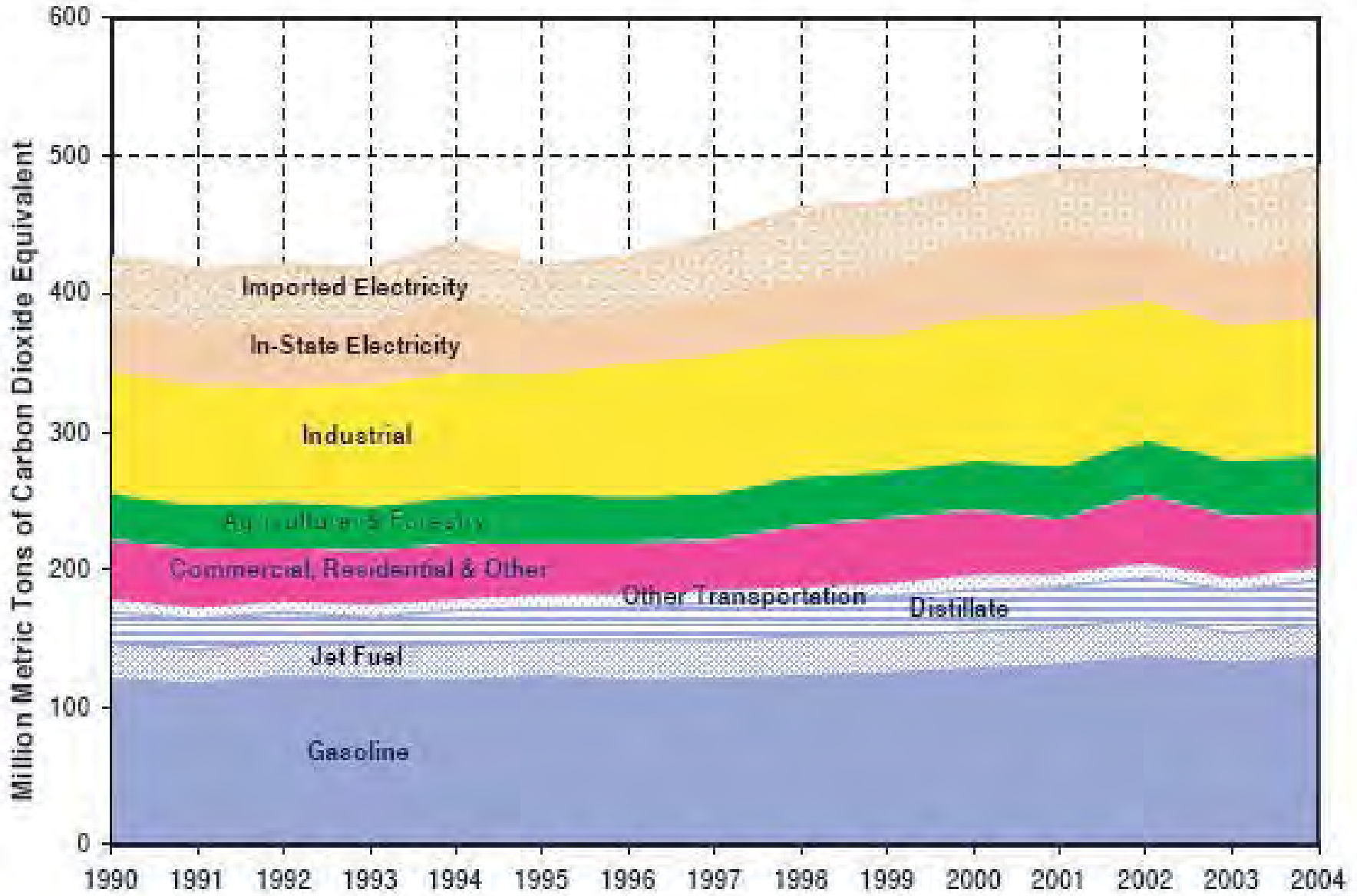
In 2004, total worldwide GHG emissions was estimated to be 20,135 Tg CO_2 Eq., excluding emissions/removals from land use, land use change, and forestry. (Note that sinks, or GHG removal processes, play an important role in the GHG inventory as forest and other land uses absorb carbon.) In 2004, GHG emissions in the U.S. were 7074.4 Tg CO_2 Eq. In 2005, total U.S. GHG emissions were 7,260.4 Tg CO_2 Eq., a 16.3 increase from 1990 emissions, while U.S. gross domestic product has increased by 55 percent over the same period. Emissions rose from 2004 to 2005, increasing by 0.8 percent. The main causes of the increase: (1) strong economic growth in 2005, leading to increased demand for electricity and (2) an increase in the demand for electricity due to warmer summer conditions. However, a decrease in demand for fuels due to warmer winter conditions and higher fuel prices moderated the increase in emissions. California is a substantial contributor of GHG as it is the second largest contributor in the U.S. and the sixteenth largest in the world. In 2004, California produced 492 Tg CO_2 Eq., which is approximately seven percent of U.S. emissions and 2.44% of global emissions. The major source of GHG in California is transportation, contributing 41 percent of the State's total GHG emissions. Electricity generation is the second largest source, contributing 22 percent of the State's GHG emissions.[10]

The CAT report (2006) contains baseline emissions as estimated by CARB and the California Energy Commission, as shown in Figure 1 below. As shown in the exhibit, the emission reduction

8 U.S. Environmental Protection Agency. 2006. High Global Warming Potential (GWP) Gases. Science. http://www.epa.gov/highgwp/scientific.html, Accessed December 2006.

9 California Environmental Protection Agency, Air Resources Board. July 21, 2004. Technical Support Document for Staff Proposal Regarding Reduction of Greenhouse Gas Emissions from Motor Vehicles Climate Change Overview.

10 City of Ontario, Rich Haven Specific Plan EIR, Global Climate Change Analysis, June 28, 2007.



***Source*:** California Energy Commission, Greenhouse Gas Inventory, December 2006.

FIGURE **1**

California's Gross GHG Emissions Trends

strategies would reduce greenhouse gas emissions to the targets contained in AB 32. The emissions in 1990 were estimated to be 426 Tg. CO_2 Eq.; therefore, the 2020 target is to result in emissions of the 1990 levels.

Regulatory Setting

International and Federal Climate Change Legislation

The Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol governs compounds that deplete ozone in the stratosphere—chlorofluorocarbons (CFCs), halons, carbon tetrachloride, and methyl chloroform. The Protocol provided that these compounds were to be phased out by 2000 (2005 for methyl chloroform). In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change (IPCC) to assess "the scientific, technical and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation".[11]

On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change (UNFCCC). Under the Convention, governments: "gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change."[12]

A particularly notable result of UNFCC efforts was a treaty known as the Kyoto Protocol. Countries sign the treaty to demonstrate their commitment to reducing GHG emissions or to engaging in emissions trading. More than 160 countries representing 55 percent of global emissions (not including the United States) are currently participating in the protocol. In 1998, U. S. Vice President, Al Gore, symbolically signed the Protocol; however, in order for the Protocol to be formally ratified the U.S. Congress must adopt it, which has not yet occurred.

In October 1993, President Clinton announced his "Climate Change Action Plan," with the goal of returning greenhouse gas emissions to 1990 levels by the year 2000. This was to be accomplished through 50 initiatives, relying on innovative voluntary partnerships between the private sector and government aimed at producing cost-effective reductions in greenhouse gas emissions. As of September 2007, 20 states have completed comprehensive Climate Action Plans that detail the steps that each state can take to reduce their contribution to climate change. However, without specific targets for emissions reductions, incentives for cleaner technologies, or other clear policies, climate action plans cannot achieve real reductions in GHG emissions.[13]

The United States Environmental Protection Agency (EPA) currently does not regulate GHG emissions from motor vehicles. Massachusetts v. EPA (Supreme Court Case 05-1120) was argued before the U. S. Supreme Court on November 29, 2006, in which it was petitioned that EPA regulate four GHG, including carbon dioxide, under §202(a)(1) of the Clean Air Act. A decision was rendered on April 2, 2007, in which the Court held that petitioners have standing to challenge the EPA and that the EPA has statutory authority to regulate emission of GHG from motor vehicles.

11 City of Ontario, Rich Haven Specific Plan EIR, Global Climate Change Analysis, June 28, 2007.
12 Intergovernmental Panel on Climate Change. 2004. 16 Years of Scientific Assessment in Support of the Climate Convention. December 2004.
13 http://www.pewclimate.org/what_s_being_done/in_the_states/action_plan_map.cfm, accessed 10/ 12/07.

California Legislation

California Code of Regulations Title 24

Although it was not originally intended to reduce greenhouse gases, California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The latest amendments, made in October 2005, currently require new homes to use half the energy they used only a decade ago. Energy efficient buildings require less electricity, and electricity production by fossil fuels results in greenhouse gas emissions. Therefore, increased energy efficiency results in decreased greenhouse gas emissions.

California Assembly Bill 1493

California Assembly Bill 1493 (Pavley) enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHG emitted by passenger vehicles and light duty trucks. Regulations adopted by CARB will apply to 2009 and later model year vehicles. CARB estimates that the regulation will reduce climate change emissions from the light duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030.[14]

Executive Order S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. The California Climate Action Team's (CAT) Report to the Governor in 2006, contains recommendations and strategies to help ensure the targets in Executive Order S-3_05 are met.[15]

California Assembly Bill 32

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG in California. GHG as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. AB 32 requires the California Air Resources Board (CARB), the State agency charged with regulating statewide air quality, to adopt rules and regulations that would achieve greenhouse gas emissions equivalent to statewide levels in 1990 by 2020. On or before June 30, 2007, CARB is required to publish a list of discrete early action GHG emission reduction measures that can be implemented by 2010. The law further requires that such measures achieve the maximum technologically feasible and cost effective reductions in GHGs from sources or categories of sources to achieve the statewide greenhouse gas emissions limit for 2020.

AB 32 also requires that by January 1, 2008, CARB shall determine what the statewide greenhouse gas emissions level was in 1990, and approve a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020. While the level of 1990 GHG emissions has not yet

14 California Air Resources Board. December 10, 2004. Fact Sheet, Climate Change Emission Control Regulations.

15 State of California, Environmental Protection Agency, Climate Action Team. March 2006. Climate Action Team Report to Governor Schwarzenegger and the California Legislature.

been approved, reported emissions vary from 425 to 468 Tg CO_2 Eq. In 2004, the emissions were estimated at 492 Tg CO_2 Eq.[16]

CARB published its final report for Proposed Early Actions to Mitigate Climate Change in California, which describes recommendations for discrete early action measures to reduce GHG emissions in October 2007. The measures included are part of California's strategy for achieving GHG reductions under AB 32. One of the sources for the potential measures includes the CAT Report. Three new regulations are proposed to meet the definition of "discrete early action greenhouse gas reduction measures," which include the following: a low carbon fuel standard; reduction of HFC-134a emissions from non-professional servicing of motor vehicle air conditioning systems; and improved landfill methane capture (CARB 2007). CARB estimates that by 2020, the reductions from those three measures would be approximately 13-26 million metric tons of carbon dioxide equivalent.

Under AB 32, CARB has the primary responsibility for reducing GHG emissions. However, the CAT Report contains strategies that can be undertaken by many other California agencies. In addition, ARB staff are working on several non-regulatory measures including guidance documents and protocols to encourage the public, local government and businesses to take positive steeps to reduce GHG emissions.

Executive Order S-01-07

Governor Arnold Schwarzenegger enacted Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The process for meeting the 2020 target includes coordination between the California Environmental Protection Agency, the University of California, the California Energy Commission to develop and propose, a draft compliance schedule to meet the 2020 Target by June 30, 2007. The order also requires that a Low Carbon Fuel Standard for transportation be established for California.

Senate Bill 1368

Senate Bill (SB) 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (PUC) to establish a GHG emission performance standard for baseload generation from investor-owned utilities by February 1, 2007. Similarly, the CEC was tasked with establishing a similar standard for local publicly-owned utilities by June 30, 2007. These standards cannot exceed the GHG emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and the CEC. In January 2007, the PUC adopted an interim GHG Emissions Performance Standard, which requires that all new long-term commitments for baseload generation entered into by investor-owned utilities have emissions no greater than a combined cycle gas turbine plant (i.e., 1,100 pounds of CO_2 per megawatt-hour). A "new long-term commitment" refers to new plant investments (new construction), new or renewal contracts with a term of 5 years or more, or major investments by the utility in its existing baseload power plants. In May 2007, the CEC approved regulations that prohibit the state's publicly owned utilities from entering into long-term financial commitments with plants that exceed the standard adopted by the PUC of 1,100 pounds of CO per megawatt hour.

16 California Energy Commission. December 2006. Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004. Staff Final Report.

Senate Bill 1078

SB 1078 establishes a renewable portfolio standard (RPS) for electricity supply. The RPS requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 20 percent of their supply from renewable sources by 2017. This target date was moved forward by SB 107 to require compliance by 2010. In addition, electricity providers subject to the RPS must increase their renewable share by at least 1 percent each year. The outcomes of this legislation will impact regional transportation powered by electricity.

Senate Bill 97

The provisions of Senate Bill 97, enacted in August 2007 as part of the State Budget negotiations, direct the Office of Planning and Research to propose CEQA Guidelines advising lead agencies how to mitigate the impacts of greenhouse gas emissions. OPR has been directed to promulgate such guidelines by July 2009, and the Resources Agency has been directed to adopt such guidelines by January 2010. At this time, however, there are no CEQA Guidelines or other formal direction from regulatory agencies regarding the analysis of greenhouse gas emissions.

Additional California Climate Change Initiatives

The Western Regional Climate Action Initiative was signed on February 26, 2007 by five states: Washington, Oregon, Arizona, New Mexico, and California. British Columbia, Canada joined on April 20, 2007. The Initiative calls for collaboration to identify, evaluate, and implement ways to reduce GHG emissions in the states collectively and to achieve related co-benefits. The Initiative calls for designing a regional market-based multi-sector mechanism, such as a load-based cap and trade program by August 2008. In addition, a multi-state registry will track, manage, and credit entities that reduce GHG emissions. California is also exploring the possibility of cap and trade systems for greenhouse gases. The Market Advisory Committee to CARB published draft recommendations for designing a greenhouse gas cap and trade system for California.[17]

Thresholds of Significance

Currently no State or regional regulatory agency has formally adopted or widely agreed upon thresholds of significance for greenhouse gas emissions, or issued guidance regarding the analysis of greenhouse gas emissions in EIRs. CEQA Guidelines §15064.7 states that “each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects.” This provides justification for lead agencies to determine their own climate change thresholds. The Association of Environmental Professionals (AEP) recommends that "If a Lead Agency chooses to address GCC [Global Climate Change] in a [CEQA] document, it should be addressed in the context of a cumulative (versus project-specific) impact."

The following methods are used to assess the significance of the project’s cumulative contribution to global climate change:

1. **Inventory:** An inventory of project greenhouse gases (i.e., CO_2, CH_4, and N_2O), including motor vehicles, energy use, and solid waste sources, is developed and compared with emissions from City, County and State sources.

2. **Compliance with AB 32:** Project compliance with the emission reduction strategies of the California Climate Action Team’s (CAT) Report to the Governor and the Attorney General's

17 City of Ontario, Rich Haven Specific Plan EIR, Global Climate Change Analysis, June 28, 2007.

suggested Global Warming Mitigation Measures is assessed. The CAT report proposes a path to achieve the Governor's greenhouse gas reduction targets contained in Executive Order S-3-05. While the CAT report and Executive Order S-3-05 do not specifically mention CEQA, they do include a list of various measures that can be employed to achieve the GHG reduction targets. Project implementation of feasible and relevant actions listed in the emissions reduction strategies could be the basis for finding a less-than-significant project impact to global climate change in CEQA documents. Similar to Executive Order S-3-05, AB 32 also contains the same reduction target for the year 2020 (i.e., reduction of 2020 greenhouse gas emissions to 1990 levels).

3. **Incorporation of Greenhouse Gas Reduction Measures:** All circumstances where the project incorporates feasible greenhouse gas reduction features and mitigation are identified.

Impacts and Mitigation Measures

Method of Analysis

Even a very large development project cannot individually generate enough greenhouse gas emissions to measurably influence global climate change. A project contributes to a potentially significant impact by its incremental contribution to the cumulative increase in greenhouse gas emissions from all sources, which together can produce measurable global climate changes. The impact analysis for this project estimates and compares project greenhouse gas emissions with available data on state, regional, and City of Sacramento greenhouse gas emissions. It also compares the greenhouse gas reduction potentials of proposed project design features and of the mitigation measures proposed in this EIR with statewide reduction strategies as identified in the CAT Report and by the Attorney General's office. The analysis also discusses characteristics of the project which help to reduce greenhouse gas emissions and achieve state goals for such reductions, such as the location of the project near transit hubs.

Project Inventory of Greenhouse Gases

In California, the most common GHG is CO_2, which constitutes approximately 84 percent of all GHG emission.[18] CO_2 emissions in California are mainly associated with in-state fossil fuel combustion and with fossil fuel combustion in out-of-state power plants supplying electricity to California. Other activities that produce CO_2 emissions include mineral production, waste combustion, and land use changes that reduce vegetation.

By percentage, the transportation sector is the largest contributor to greenhouse gas emissions in California, followed by residential and commercial energy use. California's transportation sector is heavily dependent upon oil, with petroleum-based fuels currently providing nearly all (96 percent) of California's transportation energy needs (State of California 2007). Transportation-related activities represent almost half (48 percent) of California's petroleum-based fuel consumption. Within the transportation sector, light vehicles (i.e., cars, light trucks, and motorcycles) account for about 60 percent of the petroleum-based energy consumption. Electricity generation is the second largest category of GHG emissions in California, followed by natural gas combustion and solid waste processing/disposal. Tables 4 and 5 below display City, County and State greenhouse gas emissions data from electricity generation, natural gas combustion and solid waste processing/disposal in comparison to similar project sources.

An inventory of the project's three most important greenhouse gas emissions (i.e., CO_2, CH_4, and N_2O) is presented below. The emissions of the individual gases were estimated and then converted

18 California Energy Commission. December 2006. Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004. Staff Final Report.

to their CO_2 equivalents (CO_2e) using the individually determined global warming potential (GWP) of each gas. Thus, total GHG emissions = total CO_2 emissions + total CO_2e emissions form CH_4 and N_2O.

Implementation of the proposed Specific Plan would generate greenhouse gases through the construction and operation of new residential, commercial, and recreational uses as stated in the Draft EIR. Greenhouse gas emissions from the project would specifically arise from project construction and from sources associated with project operation, including direct sources such as motor vehicles, natural gas consumption, solid waste handling/treatment, and indirect sources such as electricity generation. Emissions from these sources are estimated and presented below.

The project evaluation below calculates the projected emissions from the project as proposed. There are many characteristics of this project that tend to reduce the total greenhouse gas emissions compared to a comparable level of development that would occur elsewhere in the region. In particular, as an infill project, located at the center of the region and in immediate proximity to transit (in fact, every housing unit in the project would be located within easy walking distance to at least one form of transit and most units would be within walking distance to multiple forms of transit), the project would result in a relatively high use of non-polluting modes of transportation (such as walking, biking, transit, etc.), and those single-occupant vehicle trips would tend to be shorter than those from development built further from the center of the region. As an example, in the studies leading to the approval of the Sacramento Blueprint, SACOG concluded that development consistent with the Blueprint would generate approximately 74 percent of the VMT (on a per capita basis) as development traditionally seen in the region.[19] The proposed project is an example of the type of project encouraged by the Blueprint and one that would have much lower VMT than a similar level of development elsewhere in the region. These same characteristics would reduce the per capita greenhouse gas emissions from this project.

Also, it is valuable to note one important qualification regarding the calculation and inventory of the project greenhouse gas emissions. Models and methodologies used in this analysis evaluate and model aggregate emissions. With respect to the global impact of climate change, however, these models do not demonstrate how much these aggregate emissions relating to a particular project are "new" emissions specifically attributable to development pursuant to the proposed plan. For example, while motor vehicle greenhouse gas emissions are calculated below, many (and perhaps the large majority) of drivers who will be going to and from to the proposed development are already driving and generating greenhouse gas emissions in some other location, and they will effectively relocate those emissions as the project is developed. Likewise, the residents who will generate solid waste greenhouse gas emission, to some extent, are already generating such emissions elsewhere. Thus, in evaluating the project's contribution to greenhouse gas emissions, these aggregate emission figures are disclosed, but the determination of significance is based upon the consistency of the project with AB 32 and mitigation measures such as those that have been recommended by the California Climate Action team.

Construction Emissions

The project would emit greenhouse gases during construction of the project from the operation of construction equipment and from worker and building supply vendor vehicles. Emissions during construction were estimated using the URBEMIS2007 model. The project construction emissions of CO_2 are shown in Table 2 below. Emissions of nitrous oxide and methane are negligible in comparison and were not estimated. Emissions estimates for each phase were based on

19 Sacramento Area Council of Governments, Base Case and Preferred Blueprint Scenario, Key Statistics, 2005.

TABLE 2

PROPOSED PROJECT CONSTRUCTION CO_2 EMISSIONS

Phase; Start/End (Duration)	CO_2 Emissions (Tons)
Phase 1A; Begin 2010 to End 2011 (2 years)	3,460.3
Phase 1 B; Begin 2012 to End 2013 (2 years)	4,577.7
Phase 2; Begin 2014 to End 2018 (5 years)	5,368.7
Phase 3; Begin 2019 to End 2023 (5 years)	8373.9
Phase 4; Begin 2024 to End 2029 (6 years)	6562.6
Total CO_2 Project Construction Emissions (over 20 years)	**124,164.6***

Notes:
* Average annual CO_2 emissions during each phase, as shown in the column entries above, are multiplied by the phase duration before being summed to get the total project construction CO_2 emissions over the entire project construction period.
Source: URBEMIS 2007. Calculation sheets are provided in the Appendix c.

construction phasing and square footage data for each project land use category as provided by the project applicant.

Operational Emissions

Motor Vehicle Greenhouse Gas Emissions

The largest source of greenhouse gas emissions associated with the project would be on- and off-site motor vehicle use. CO_2 emissions, the primary greenhouse gas from mobile sources, are directly related to the quantity of fuel consumed. Two important determinants of transportation-related greenhouse gas emissions are vehicle miles traveled (VMT) and vehicle fuel efficiency. VMT in the California region has steadily increased over the last quarter-century. According to 2004 data for Sacramento County, annual County VMT was 32,244,000.

CO_2 emissions during operation of the project at full buildout were estimated using URBEMIS2007. as shown in Table 3 below. Total CO_2 emissions would be 216,101.5 tons per year, which is 0.05 percent of California's 2004 emissions (i.e., 478.7 million tons). The project inventory is 0.003 percent of 2005 U.S. emissions (i.e., 8003.1 million tons) and 0.001 percent of reported 2004 global emissions (i.e., 22,195 million tons).

TABLE 3

PROJECT OPERATIONAL CO_2 EMISSIONS FROM MOTOR VEHICLES AT FULL BUILDOUT IN THE YEAR 2030

Project Land Use Type	Annual CO_2 Emissions (Tons)
Residential	59,158.8
Office	35,977.7
Retail	116,179.2
Other	4,785.7
Total	**216,101.5**

Source: URBEMIS 2007. Calculation sheets are provided in the Appendix

Combustion of fossil fuels also generates CH_4 and N_2O. Since URBEMIS 2007 does not currently calculate CH_4 and N_2O emissions, emissions factors for each gas were obtained from the California Climate Action Registry (CCAR 2007) and were used with data on the fleet mix, fuel type and VMT for the proposed project to calculate their emissions, as shown in Table 4 below.

TABLE 4

PROJECT OPERATIONAL N_2O AND CH_4 EMISSIONS AND THEIR CO_2 EQUIVALENTS FROM MOTOR VEHICLES IN THE YEAR 2030

Source Type	Annual VMT‡	N_2O (Tons)	CH_4 (Tons)	Total N_2O Emissions (Tons CO_2e)[i]	Total CH_4 Emissions (Tons CO_2e) [i]	Total Emissions (Tons CO_2e)
Project Motor Vehicle Fleet	$4.28x10^8$	31.1	26.4	9650.0	554.7	10,204.7

Notes:
‡ VMT information provided by the URBEMIS model.
i. N_2O emissions were converted to CO_2e by total emissions x 310 (GWP factor for N_2O)
ii. CH_4 emissions were converted to CO_2e by total emissions x 21 (GWP factor for CH_4)
Source: PBS&J, 2007.

Although motor vehicle energy consumption would increase under the proposed project, the transportation demand management plan and traffic improvements proposed for the project are designed to the improve energy efficiency of the transportation system by increasing use of more fuel-efficient public transit, carpools, and vanpools, and improving circulation system levels of service. Any reductions in traffic congestion realized through implementation of enhanced transit operations would also allow for more energy-efficient vehicular travel.

Electricity and Natural Gas Combustion Greenhouse Gas Emissions

The proposed project would use electricity for its commercial, residential, retail and other components, which would contribute to greenhouse gas emissions. The generation of electricity through the combustion of fossil fuels typically yields CO_2 and, to a much smaller extent, CH_4 and N_2O. In order to determine emissions from electricity consumption, annual electricity use must be established. The project related electricity emissions were estimated by using project electricity and natural gas use estimates from Table 6.14-1 and Table 6.14-2 on page 6.14-9 of the Draft EIR, Energy section The emissions factors for electricity use and natural gas combustion were obtained from the California Climate Action Registry (CCAR 2007). Greenhouse gas emissions from these two sources are as shown in Tables 4A and 4B below.

TABLE 4A

PROJECT OPERATIONAL GREENHOUSE GAS EMISSIONS FROM ELECTRICITY USE

Geographic Region and Emissions Source	Energy Use MWh/year	N_2O (Tons)[i]	N_2O CO_2e (Tons)	CO_2 (Tons)[ii]	CH_4 M (Tons)[iii]	CH_4 CO_2e (Tons)	Total CO_2e (Tons)
State of California	272,464,000	504.1	156,258	109,604,093	912.8	19,167	109,779,519
Sacramento County	10,574,000	19.6	6,064	4,253,603	35.4	743.9	4,260,411
City of Sacramento	3,363,000^	6.2	1,929	1,352,834	11.3	236.6	1,354,999
Project	587,000	1.1	336.6	236,132	2.0	41.3	236,510

Notes:
^ Calculated based on percentage of statewide energy use according to ratio from U.S. Bureau of the Census, California Dept. of Finance, Population Estimates.
N/A - data not available, or not available as a separate emissions item.
i Emissions Factor of .0037 was used for N_2O.
ii Emissions Factor of 804.54 was used for CO_2.
iii Emissions Factor of .0067 was used for CH_4.
iv Data from 2004 Statewide Inventory.
v Same source.
vi Calculated for each area by multiplying MWh per year of energy use x electricity use emissions factor.
Source: PBS&J, 2007.

TABLE 4B

PROJECT OPERATIONAL GREENHOUSE GAS EMISSIONS FROM NATURAL GAS COMBUSTION

Geographic Region and Emissions Source	Energy Use Therms/year	N_2O (tons)[i]	N_2O CO_2e (tons)	CO_2 (tons)[ii]	CH_4 (tons)[iii]	CH_4 CO_2e (tons)	Total CO_2e (tons)
State of California (2004)[iv]							1,354,000
Project (2030)	24,532,000	0.27	83.8	142,780	15.05	335.0	143,199

Notes:
^ Calculated based on percentage of statewide energy use according to ratio from U.S. Bureau of the Census, California Dept. of Finance, Population Estimates
N/A - data not available, or not available as a separate emissions item.
i Data from 2004 Statewide Inventory.
ii Same source.
iii Calculated for each area by multiplying annual kWh per year of energy use x natural gas emissions factor.
iv Natural Gas total plus indirect electricity emissions.
Source: PBS&J, 2007.

Solid Waste Greenhouse Gas Emissions

Since the project involves residential and commercial uses, solid waste generated by the project would also contribute to greenhouse gas emissions. Treatment and disposal of municipal, industrial and other solid waste produces significant amounts of CH_4. In addition to CH_4, solid waste disposal sites also produce biogenic CO_2 and non-methane volatile organic compounds (NMVOCs) as well as smaller amounts of N_2O, nitrogen oxides (NO_x) and carbon monoxide (CO). CH_4 produced at solid waste sites contributes approximately 3 to 4 percent to the annual global anthropogenic greenhouse gas emissions (IPCC, 2001).[20]

In many industrialized countries, waste management has changed much over the last decade. Waste minimization and recycling/reuse policies have been introduced to reduce the amount of waste generated, and increasingly, alternative waste management practices to solid waste disposal on land have been implemented to reduce the environmental impacts of waste management. Also, landfill gas recovery has become more common as a measure to reduce CH_4 emissions from solid waste disposal sites. Therefore, an important factor in estimating solid waste emissions is the amount of waste diverted through the project Waste Diversion and Recycling Plan. In the case of the project, more than 50 percent of project waste (56 percent) would be diverted through the Waste Diversion Plan.

CH_4 and CO_2 emissions from solid waste generated by the project were estimated based on formulas provided in the State Workbook: Methodologies for Estimating Greenhouse Gas Emissions (pages 5-1 to 5-3). Estimates were obtained by multiplying the tons of solid waste landfilled annually (provided in Table 6.10-1 of the Public Services section on page 6.10-27 of the Draft EIR) by the percent of degradable material they contain, by the percent dissimilated and by the pounds of gas produced per pound of biomass). Landfill gas is approximately 50 percent CH_4 and 50 percent CO_2. Total project emission of greenhouse gases from landfill material is shown in Table 5 below. N_2O emissions from landfills are considered negligible (because the microbial environment in landfills is not very conducive to the nitrification and denitrification processes that result in N_2O emissions) and are; therefore, not explicitly modeled as part of greenhouse gas emissions generated through solid waste.

20 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 3, Solid Waste Disposal, page 3.6.

TABLE 5

GREENHOUSE GAS EMISSIONS FROM SOLID WASTE

Geographic Region	Solid Waste tons/year	CH_4 [i] tons	CO_2 tons	Total CO_2e
State of California				
2004				6,876,000
City of Sacramento				
2005	291,691	12,039	21,068	273,880
2005 (including private hauling)	632,800	26,117	45,705	594,160
Sacramento Railyards				
2030 Maximum Operational Solid Waste	22,194	916	1603	20,839
2030 - Operational Emissions After Waste Diversion Plan is implemented	12,464	514	900	11,703

Note:
i Landfill gas emissions = Tons landfilled x.22x.77x.67.

Other Greenhouse Gas Emissions

Ozone is a greenhouse gas; however, unlike the other greenhouse gases, ozone in the troposphere is relatively short-lived and therefore is not global in nature. According to CARB, it is difficult to make an accurate determination of the contribution of ozone precursors (NO_x and ROGs) to global warming (CARB 2004b). Therefore, it is assumed that project emissions of ozone precursors would not significantly contribute to global climate change. At present, there is a federal ban on CFCs; therefore, it is assumed the project will not generate emissions of these greenhouse gases. The project may emit a small amount of HFC emissions from leakage and service of refrigeration and air conditioning equipment and from disposal at the end of the life of the equipment (EPA 2004c). However, the details regarding refrigerants to be used in the project and the capacity of these are unknown at this time. PFCs and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated the project would contribute significant emissions of these additional greenhouse gases.

Project Compliance with AB 32

Under AB 32, CARB has the primary responsibility for reducing greenhouse gas emissions. However, the CAT Report contains strategies that many other California agencies can implement. The CAT published a public review draft of Proposed Early Actions to Mitigate Climate Change in California.[21] Most of the strategies were in the 2006 CAT Report or are similar to the 2006 CAT strategies. As the 2007 report is only a draft and is not the final, this assessment will assess project compliance with the 2006 CAT Report. The 2006 CAT Report strategies that apply to the project are contained in Table 6 below. As shown in the table, the project complies with all feasible and applicable measures to bring California to the emission reduction targets. Therefore, the project would be in compliance with AB 32.

21 State of California, Environmental Protection Agency, Climate Action Team. Climate Action Team Proposed Early Actions to Mitigate Climate Change in California. Draft for Public Review. April 20, 2007.

TABLE 6

SACRAMENTO RAILYARDS GREENHOUSE GAS EMISSIONS REDUCTION MITIGATION MEASURES/DESIGN STRATEGIES

California Climate Change Greenhouse Gas Emissions Reduction Strategies	Proposed Project Design/Mitigation Measure for Compliance
It should be noted that many of the emissions reduction strategies in this table relate to technologies that are evolving and will evolve, or become available, during buildout of the Project. Some of these measures also relate to emissions reduction strategies that must be implemented on an area-wide or regional basis. Thus, several of these measures will be implemented over time as implementation becomes practicable, and the wording of these additional measures reflects that condition.	
CALIFORNIA CLIMATE ACTION TASKFORCE RECOMMENDATIONS	
Transportation Related Emissions	
CCAT Standard **Vehicle Climate Change Standards:** AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB in September 2004.	These are CARB enforced standards and vehicles that access the project are required to comply with the standards. Therefore, the project would be required to be consistent with these strategies, as appropriate.
CCAT Standard **Other Light Duty Vehicle Technology:** New standards would be adopted to phase in beginning in the 2017 model.	
CCAT Standard **Heavy-Duty Vehicle Emission Reduction Measures:** Increased efficiency in the design of heavy-duty vehicles and an education program for the heavy-duty vehicle sector.	
CCAT Standard **Diesel Anti-Idling:** In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling. Post signs that restrict idling; education for truck drivers regarding diesel health impacts.	The project would limit vehicle idling time during construction to five minutes or less (see Draft EIR Mitigation Measure 6.1-2) City Code 8.116.040 regulates the idling of vehicles, prohibiting idling longer than 5 consecutive minutes, or 5 minutes during one hour. City Code 8.116.070 requires property owners to notify drivers, owners, and operators of vehicles and TRUs of the limitations on the idling of vehicles.
California Attorney General Strategy **Diesel Anti-Idling:** Set specific limits on idling time for commercial vehicles, including delivery vehicles.	The project would limit vehicle idling time during construction to five minutes or less (see Draft EIR Mitigation Measure 6.1-2) City Code 8.116.040 regulates the idling of vehicles, prohibiting idling longer than 5 consecutive minutes, or 5 minutes during one hour.
CCAT Standard **Alternative Fuels - Biodiesel Blends:** CARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	Applicable to industrial project components. No specific measures proposed at this time.
CCAT Standard **Alternative Fuels - Ethanol:** Increased use of ethanol fuel.	Applicable to industrial project components. No specific measures proposed at this time.
CALIFORNIA ATTORNEY GENERAL'S OFFICE RECOMMENDED STRATEGIES	
California Attorney General Strategy **Alternative Fuels – General:** The project shall include the necessary infrastructure to encourage the use of alternative fuel vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).	The project will require the installation of facilities to support the use of alternative fuel vehicles, if feasible and available based on market conditions.

TABLE 6

SACRAMENTO RAILYARDS GREENHOUSE GAS EMISSIONS REDUCTION MITIGATION MEASURES/DESIGN STRATEGIES

California Climate Change Greenhouse Gas Emissions Reduction Strategies	Proposed Project Design/Mitigation Measure for Compliance
Alternative Fuel Standards for Construction – SMAQMD Guidelines	The project includes the following mitigation: e) The project applicant shall coordinate with the SMAQMD for payment of fees into the Heavy-Duty Low-Emission Vehicle Program designed to reduce construction related emissions within the region. f) Construction equipment shall be kept in optimum running condition at all times. g) When appropriate, use alternative fueled (such as aqueous diesel fuel) or catalyst equipped diesel construction equipment. h) When appropriate, replace fossil-fueled equipment with electrically driven equivalents, provided they are not run via a portable generator set. (See Draft EIR Mitigation Measure 6.1-2)
California Attorney General Strategy **Transportation Emissions Reduction:** Coordinate controlled intersections so that traffic passes more efficiently through congested areas. Where signals are installed, require the use of Light Emitting Diode (LED) traffic lights.	The project will require the use of LED traffic lights, where feasible.
California Attorney General Strategy **Transportation Emissions Reduction:** The project applicant shall promote ride sharing programs e.g., by designating a certain percentage of parking spaces for high-occupancy vehicles, providing larger parking spaces to accommodate vans used for ride-sharing, and designating adequate passenger loading and unloading and waiting areas.	The project includes the following mitigation: Transportation Demand Management: Strategies for transportation demand management ("TDM") can increase transportation system efficiency by changing travel behavior – frequency, mode, destination or timing (eg., shifting from peak to off-peak). TDM strategies are numerous, and may include alternative work schedules, bicycle improvements, bike/transit integration, security improvements, park & ride, pedestrian improvements, ridesharing, shuttle services, improved taxi service, telecommuting, traffic-calming, and transit improvements. (See Draft EIR Mitigation Measure 6.12-9)
	City Code 17.184.080 requires major project to develop and implement a Transportation Management Plan that will achieve a 35% trip reduction goal. City Code 17.184.090 allows the City to enforce the Code measure through administrative measures.
California Attorney General Strategy **Transportation Emissions Reduction:** Create a car-sharing program. Accommodations for such programs include providing parking spaces for the car-share vehicles at convenient locations accessible by public transportation.	The project sponsor will support the implementation of a car-sharing program through physical measures such as identifying preferential parking spaces, if feasible and if such a program is implemented on an area-wide or regional basis.
California Attorney General Strategy **Transportation Emissions Reduction:** Impose parking fees and residential parking permit limits to increase the cost of driving and parking private vehicles.	The project includes the following mitigation: All daily parking will be charged at rates that are equal to or greater than the cost of Sacramento Regional Transit day passes plus 20%. Monthly charges for parking will be equal to or greater than the cost of an RT monthly pass plus 20%. There will be no customer or employee validations for parking. (See AQMP Mitigation Measure 10a.)
California Attorney General Strategy **Transportation Emissions Reduction:** Offer public transit discounts to residents.	Measures not currently proposed.

TABLE 6

SACRAMENTO RAILYARDS GREENHOUSE GAS EMISSIONS REDUCTION MITIGATION MEASURES/DESIGN STRATEGIES

California Climate Change Greenhouse Gas Emissions Reduction Strategies	Proposed Project Design/Mitigation Measure for Compliance
California Attorney General Strategy **Transportation Emissions Reduction:** Design a regional transportation center where public transportation of various modes intersects.	The proposed project includes the Sacramento Intermodal Transportation Facility (SITF), which is envisioned as a regional transportation hub that maximizes transit service, connectivity and patronage. The facility would offer service and transferring among multiple modes, including long distance passenger rail, commuter rail, light rail transit, local bus service, intercity bus, bicyclists, pedestrians, taxis, shuttles, automobiles and future high speed rail, regional rail and trolleys.
California Attorney General Strategy **Transportation Emissions Reduction:** Encourage the use of public transit systems by enhancing safety and cleanliness on vehicles and in and around stations.	The project includes the following mitigation: The proposed project will provide safe and convenient pedestrian and bicycle access to all transit stops. (see AQMP Mitigation Measure 15)
California Attorney General Strategy **Transportation Emissions Reduction:** Contribute transportation impact fees per residential and commercial unit to the City, to facilitate and increase public transit service.	The project includes the following mitigation: The project applicant shall coordinate with RT to provide modifications to both bus and light rail services and to help fund necessary improvements in order to serve the transit demand generated by the Initial Phase. The project applicant shall also dedicate right of way for the Downtown Natomas Airport (DNA) light rail system for the alignment and station located within the Specific Plan Area and pay a fair share contribution to fund construction of the DNA light rail system to mitigate the impacts of the project on transit capacity (see Draft EIR Mitigation Measure 6.12-6). It should further be noted that all of the housing units in the proposed Specific Plan Area would be within walking distance to transit.
California Attorney General Strategy **Transportation Emissions Reduction:** Provide shuttle service to public transit.	The project includes the following mitigation: Transportation Demand Management: Strategies for transportation demand management ("TDM") can increase transportation system efficiency by changing travel behavior – frequency, mode, destination or timing (eg., shifting from peak to offpeak). TDM strategies are numerous, and may include alternative work schedules, bicycle improvements, bike/transit integration, security improvements, park & ride, pedestrian improvements, ridesharing, shuttle services, improved taxi service, telecommuting, traffic calming, and transit improvements. (see Draft EIR Mitigation Measure 6.12-9) Specific shuttle measures not currently proposed.
California Attorney General Strategy **Transportation Emissions Reduction:** Incorporate bicycle lanes into the project circulation system.	The project includes the following mitigation: The project will include Class 1 bike trails and Class 2 bike paths that run through the entire project and connect with existing Sacramento bike paths. The entire project will lie within 1/2 mile of existing Class 1 and 2 bike lanes. (See AQMP Mitigation Measure 4.)
California Attorney General Strategy **Transportation Emissions Reduction:** Create bicycle lanes and walking paths directed to the location of schools and other logical points of destination in the project area.	The project includes the following mitigation: All streets will have wide sidewalks on both sides and will be a minimum of 5 feet wide. All sidewalks will have vertical curbs. (See AQMP Mitigation Measure 5.)

TABLE 6

SACRAMENTO RAILYARDS GREENHOUSE GAS EMISSIONS REDUCTION MITIGATION MEASURES/DESIGN STRATEGIES

California Climate Change Greenhouse Gas Emissions Reduction Strategies	Proposed Project Design/Mitigation Measure for Compliance
	The Railyards project has been designed to accommodate pedestrians, bicycles and transit. It contains several pedestrian safety/traffic calming design measures including marked crosswalks, sidewalks of 5 feet or more in width, separation of sidewalks from roads by bike lanes, on-street parking, and/or planter boxes. (See AQMP Mitigation Measure 9.)
California Attorney General Strategy **Transportation Emissions Reduction:** Provide on-site bicycle and pedestrian facilities (showers, bicycle parking, etc.) for commercial uses, to encourage employees to bicycle or walk to work.	The project includes the following mitigation: The project will supply one bicycle parking facility for every ten (10) off-street vehicle parking spaces as required by Sacramento Municipal Code 17.64.050. At least fifty (50) percent of the required bicycle parking facilities will be Class I and the remaining facilities will be Class I, Class II, or Class III. (See AQMP Mitigation Measure 1.) Under City Code 17.184.080, inclusion of showers/lockers in a TMP provides a 5% credit toward the 35% trip reduction required for all major projects.
California Attorney General Strategy **Transportation Emissions Reduction:** Provide public education and publicity about public transportation services.	Under City Code 17.184.080, membership in a TMA as part of a TMP provides a 10-15% credit toward the 35% trip reduction required for all major projects. The project sponsor will ensure that participation in a TMA and in the Spare the Air program are included in future TMPs, where feasible and appropriate.
Solid Waste and Energy Emissions	
CCAT Standard **Zero Waste - High Recycling:** Additional recycling beyond the State's 50 percent recycling goal. 1) Design locations for separate waste and recycling receptacles. 2) Utilize recycled components in the building design.	City Code 17.72.030 establishes recycling requirements for all new uses developed in the City. In addition, in March 2007, the Sacramento Regional Solid Waste Authority adopted Ordinance #17 which requires all businesses and all non-residential properties that subscribe to garbage service of four (4) cubic yards or greater per week to have a recycling program.
CCAT Standard **Enteric Fermentation:** Cattle emit methane from digestion processes. Changes in diet could result in a reduction in emissions.	No cattle will be involved in the project. Not applicable.
CCAT Standard **Landfill Methane Capture:** Install direct gas use or electricity projects at landfills to capture and use emitted methane.	Not applicable.
CCAT Standard **Manure Management:** The proposed San Joaquin Valley Rule 4570 will reduce volatile organic compounds from confined animal facilities through implementation of control options. In projects that address confined animal facilities, project design as recommended in proposed Rule 4570 would reduce GHG emissions.	No animal facilities are included in this project. Therefore, this measure is not applicable.
California Attorney General Strategy **Solid Waste Reduction Strategy:** Project construction shall require reuse and recycling of construction and demolition waste.	The project sponsor will require the reuse or recycling of construction waste materials in all construction contracts, as appropriate and feasible.

TABLE 6

SACRAMENTO RAILYARDS GREENHOUSE GAS EMISSIONS REDUCTION MITIGATION MEASURES/DESIGN STRATEGIES

California Climate Change Greenhouse Gas Emissions Reduction Strategies	Proposed Project Design/Mitigation Measure for Compliance
California Attorney General Strategy **Solid Waste Reduction Strategy:** Project shall ensure that each unit includes recycling and composting containers and convenient facilities for residents and businesses.	City Code 17.72.030 establishes recycling requirements for all new uses developed in the City.
California Attorney General Strategy **Solid Waste Reduction Strategy:** Project shall extend the types of recycling services offered (e.g., food and green waste recycling).	City Code 17.72.030 establishes recycling requirements for all new uses developed in the City, however food and green waste recycling are not addressed. City Code 13.10.400 provides for the separate collection of garden wastes from residential properties in the City. The residential green waste is taken to two different facilities for processing into compost and mulch.
California Attorney General Strategy **Solid Waste Reduction Strategy:** Project applicant shall contribute funding for methane recovery in local landfills and wastewater treatment plants to generate electricity.	Measures not currently proposed.
CCAT Standard **Water Use Efficiency:** Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions. Use both potable and non-potable water to the maximum extent practicable; low flow appliances (i.e., toilets, dishwashers, shower heads, washing machines, etc.); automatic shut off valves for sinks in restrooms; drought resistant landscaping; Place "Save Water" signs near water faucets.	City Code 15.76.030 requires that all shower fixtures be fitted with low-flow features. City Code 15.92.080 establishes maximum water usage for landscaping, limits the use of turf, and requires the use of climate-adapted landscaping. In the future, all development in the Specific Plan Area will be fitted with water meters, consistent with the requirements of state law.
California Attorney General Strategy **Water Use Efficiency:** Require measures that reduce the amount of water sent to the sewer system- see examples in CCAT standard above. (Reduction in water volume sent to the sewer system means less water has to be treated and pumped to the end user, thereby saving energy.)	The project sponsor will require the installation of water saving devices that reduce the flow of wastewater to the sewer system, to the extent feasible.
CCAT Standard **Green Buildings Initiative:** Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels.	The project includes the following mitigation: The Railyards project design will exceed Title 24 requirements by 20%, if feasible. (See AQMP Mitigation Measure 29.)
California Attorney General Strategy **Energy Efficiency and Renewable Energy Standards:** Project shall comply with LEED certified green building standards.	The project includes the following mitigation: The overall project will be submitted for LEED-ND (Leadership in Environmental and Energy Design - Neighborhood Development) and buildings will be designed to meet LEED-ND standards, or the equivalent, if feasible. The Railyards project design will exceed Title 24 requirements by 20%, if feasible (see AQMP Mitigation Measure 29).

TABLE 6

SACRAMENTO RAILYARDS GREENHOUSE GAS EMISSIONS REDUCTION MITIGATION MEASURES/DESIGN STRATEGIES

California Climate Change Greenhouse Gas Emissions Reduction Strategies	Proposed Project Design/Mitigation Measure for Compliance
	The project would comply with the City's Green Building Ordinance, when such an ordinance is adopted on a Citywide basis.
CCAT Standard **California Solar Initiative:** Installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses; increased use of solar thermal systems to offset the increasing demand for natural gas; use of advanced metering in solar applications; and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.[22] A project could increase its energy efficiency percent beyond Title 24 requirements. In addition, the project could implement other green building design measures (i.e., natural daylighting and on-site renewable, electricity generation).	The project includes the following mitigation: The project will include both solar photovoltaic systems on individual buildings and landfill gas combustion from the district co-generation system. (See AQMP Mitigation Measure 28.) The Railyards project design will exceed Title 24 requirements by 20%, if feasible. (See AQMP Mitigation Measure 29.)
California Attorney General Strategy **Energy Efficiency and Renewable Energy Standards:** Incorporate on-site renewable energy production (through, e.g., participation in the California Energy Commission's New Solar Homes Partnership). Require project proponents to install solar panels, water reuse systems, and/or other systems to capture energy sources that would otherwise be wasted.	The project includes the following mitigation: The project would include both solar photovoltaic systems on individual buildings and landfill gas combustion from the district co-generation system. (See AQMP Mitigation Measure 28.)
CCAT Standard **Building Energy Efficiency Standards in Place and in Progress:** Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings). Project required to achieve a greater reduction in combined space heating, cooling and water heating energy compared to the current Title 24 Standards.	The project includes the following mitigation: The Railyards project target will exceed Title 24 requirements by 20%, if feasible. (See AQMP Mitigation Measure 29.)
CCAT Standard **Appliance Energy Efficiency Standards in Place and in Progress:** Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	Measure above would apply. No update scheduled at this time.
California Attorney General Strategy **Energy Efficiency and Renewable Energy Standards:** Require energy efficient design for buildings. This may include adhering to local building codes for new construction and renovation to require a higher level of energy efficiency.	The project includes the following mitigation: All roofing materials used in commercial/retail buildings will be Energy Star certified. All roof products will also be certified to meet ATSM high emissivity requirements. (See AQMP Mitigation Measure 27.)

22 Effective in January 2007, approved solar systems will receive incentive funds based on system performance above building standards. This program will result in 400 MW of new, emissions-free generating capacity.

TABLE 6

SACRAMENTO RAILYARDS GREENHOUSE GAS EMISSIONS REDUCTION MITIGATION MEASURES/DESIGN STRATEGIES

California Climate Change Greenhouse Gas Emissions Reduction Strategies	Proposed Project Design/Mitigation Measure for Compliance
California Attorney General Strategy **Energy Efficiency and Renewable Energy Standards:** Fund and schedule energy efficiency "tune-ups" of existing buildings by checking, repairing, and readjusting heating, ventilation, air conditioning, lighting, hot water equipment, insulation and weatherization. (Improvement of energy efficiency in existing buildings could offset in part the global warming impacts of new development.)	Measures not currently proposed.
California Attorney General Strategy **Lighting Efficiency Standards:** Require that the project include efficient lighting. (Fluorescent lighting uses approximately 75% less energy than incandescent lighting to deliver the same amount of light.)	The project sponsor will require future building owners and tenants to use energy efficient lighting, to the extent feasible and appropriate.
California Attorney General Strategy **Energy Efficiency and Renewable Energy Standards:** Contribute funds for energy management services, research and development for energy efficient equipment and vehicles, and public education and publicity about energy efficiency programs and incentives.	Measures not currently proposed.
CCAT Standard **Hydrofluorocarbon Reduction:** 1) Ban retail sale of HFC in small cans; 2) Require that only low GWP refrigerants be used in new vehicular systems; 3) Adopt specifications for new commercial refrigeration; 4) Add refrigerant leaktightness to the pass criteria for vehicular Inspection and Maintenance programs; 5) Enforce federal ban on releasing HFCs.	This measure applies to consumer products. When CARB adopts regulations for these reduction measures, any products that the regulations apply to will comply with the measures.
CCAT Standard **Transportation Refrigeration Units (TRU), Off-Road Electrification, Port Electrification:** Strategies to reduce emissions from TRUs, increase off-road electrification, and increase use of shore-side/port electrification. If TRUs access the site, implement measures to reduce emissions; install electrification in applicable projects (i.e., truck stops, warehouses, etc.)	The project sponsor will require the installation and use of electrical support for TRUs at loading docks, to the extent feasible and practicable.
CCAT Standard **Cement Manufacturing:** Cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry.	The project sponsor will require the use of "green" cement (which contains recycled materials and is produced using emission-reducing technologies), if available, structurally appropriate for the intended use, and where feasible and practicable.
Land Use Measures, Smart Growth Strategies, and Carbon Offsets	
CCAT Standard **Urban Forestry:** A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs. Trees near structures shall be planted to act as insulators from weather, thereby decreasing energy requirements. Trees also store carbon.	The project includes the following mitigation: Trees and other shade structures will be incorporated into residential development to maximize summer shade and to minimize winter shade. (See AQMP Mitigation Measure 30.)

TABLE 6

SACRAMENTO RAILYARDS GREENHOUSE GAS EMISSIONS REDUCTION MITIGATION MEASURES/DESIGN STRATEGIES

California Climate Change Greenhouse Gas Emissions Reduction Strategies	Proposed Project Design/Mitigation Measure for Compliance
CCAT Standard **Afforestation/Reforestation Projects:** Reforestation projects focus on restoring native tree cover on lands which were previously forested and are now covered with other vegetative types. Residential development on the project site shall be clustered to preserve forest/woodland resources; increase density; and preserve and restore open space.	The Railyards Specific Plan proposes a series of public parks that would span the development with pedestrian and bicycle trails linking residents to the regional open space system and the Sacramento River. Reforestation measures not currently proposed.
CCAT Standard **Smart Land Use and Intelligent Transportation Systems (ITS):** Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity, and a quality environment.	This project is promoting jobs/housing proximity and high-density residential development and would be consistent with this strategy. The Railyards Specific Plan would be a transit-oriented development. Due to its proximity to downtown Sacramento and its projected residential density, bus accessibility is intended for all residences. In addition, the project will have access to the light rail station in the Depot District and along 7th Avenue. Also, several RT bus routes provide service to the Amtrak station and along 7th Avenue adjacent to the Railyards project. In addition, a future light rail station is proposed for 7th Avenue and Railyards Boulevard. As stated in the traffic section of the EIR, this light rail stop is projected to have 15 minute headway during peak periods. (See AQMP Mitigation Measure 7.)
California Attorney General Strategy **Smart Land Use and Intelligent Transportation Systems (ITS):** Encourage mixed-use and high-density development to reduce vehicle trips, promote alternatives to vehicle travel and promote efficient delivery of services and goods. (A city or county could promote "smart" development by reducing developer fees or granting property tax credits for qualifying projects.)	This project is promoting jobs/housing proximity and high-density residential development and would be consistent with this strategy. The Railyards Project is designated as a transit oriented development. Due to its proximity to downtown Sacramento and its projected residential density, bus accessibility is intended for all residences. In addition, the project will have access to the light rail station in the Depot District and along 7th Avenue. Also, several RT bus routes provide service to the Amtrak station and along 7th Avenue adjacent to the Railyards project. In addition, a future light rail station is proposed for 7th Avenue and Railyards Boulevard. As stated in the traffic section of the EIR, this light rail stop is projected to have 15 minute headway during peak periods. (See AQMP Mitigation Measure 7.)
California Attorney General Strategy **Smart Land Use and Intelligent Transportation Systems (ITS):** Impose measures to address the "urban heat island" effect by, e.g., requiring lightcolored and reflective roofing materials and paint; light-colored roads and parking lots; shade trees in parking lots; and shade trees on the south and west sides of new or renovated buildings.	The project includes the following mitigation: Project buildings will have passive solar design features that include roof overhangs or canopies that block summer shade, but that allow winter sun, from penetrating south facing windows. Trees and other shade structures will be incorporated into residential development to maximize summer shade and to minimize winter shade. (See AQMP Mitigation Measure 30.) The Railyards project will meet the non-roof surfaces requirement through a combination of shade coverage, open grid pavement, and paving materials that meet the solar reflectance index requirements, if feasible and practicable (see AQMP Mitigation Measure 31).

TABLE 6

SACRAMENTO RAILYARDS GREENHOUSE GAS EMISSIONS REDUCTION MITIGATION MEASURES/DESIGN STRATEGIES

California Climate Change Greenhouse Gas Emissions Reduction Strategies	Proposed Project Design/Mitigation Measure for Compliance
California Attorney General Strategy **Smart Land Use and Intelligent Transportation Systems (ITS):** Incorporate public transit into project design.	The project includes the following mitigation: The proposed project will provide safe and convenient pedestrian and bicycle access to all transit stops. (See Mitigation Measure AQMP 15.)
California Attorney General Strategy **Smart Land Use and Intelligent Transportation Systems (ITS):** Facilitate "brownfield" development.	The project a "brownfield" infill site. As such, the project represents the type of "smart land use" that is referred to herein.
California Attorney General Strategy **Smart Land Use and Intelligent Transportation Systems (ITS):** Require pedestrian-only streets and plazas within the project site and destinations that may be reached conveniently by public transportation, walking, or bicycling.	The project includes the following mitigation: The Railyards Specific Plan has been designed to accommodate pedestrians, bicycles and transit. It contains several pedestrian safety/traffic calming design measures including marked crosswalks, sidewalks of 5 feet or more in width, separation of sidewalks from roads by bike lanes, on-street parking, and/or planter boxes. (See AQMP Mitigation Measure 9.)
California Attorney General Strategy **Smart Land Use and Intelligent Transportation Systems (ITS):** The project proponent shall fund off-site projects (e.g., alternative energy projects) that would reduce carbon emissions, or could purchase "credits" from another entity that will fund such projects.	The project includes the following mitigation: The City will further mitigate emissions from freeway impacts by requiring the project applicant to pay a fair share contribution to fund the DNA light rail system that will provide an alternative transportation mode. (See Draft EIR Mitigation Measure 6.12-1)
California Attorney General Strategy **Smart Land Use and Intelligent Transportation Systems (ITS):** Discourage "leapfrog" development. Enact ordinances and programs to limit sprawl.	The Railyards Specific Plan proposes to integrate the Railyards site into the existing downtown area by raising Fifth and Sixth Streets gradually over the Union Pacific Railroad tracks, and by the extension of light rail to the site. On a regional and statewide level, the project incorporates existing transportation linkages and the City's plans for the Sacramento Intermodal Transportation Facility, consisting of a variety of transportation services that would integrate cross-country passenger rail, regional rail, light rail and buses, taxis, and other automobiles, bicycles and pedestrians. Transit providers and services are anticipated to include, but are not limited to, Amtrak Capitol Corridor and long-haul trains, Regional Transit buses and trains, Greyhound buses, charter buses, taxis, and possibly high-speed rail. Therefore, this project encourages in-fill development, rather than leap-frog development.
California Attorney General Strategy **Carbon Emissions Offsets:** In some instances, a lead agency may find that measures that will directly reduce a project's emissions are insufficient. A lead agency may consider whether carbon offsets would be appropriate. The lead agency should ensure that any mitigation taking the form of carbon offsets is specifically identified and that such mitigation will in fact occur.	Measures not currently proposed.

Source: PBS&J, October 4, 2007.

Project Incorporation of Greenhouse Gas Reduction Measures

Construction Emissions

CO2 emissions associated with the entire course of project construction over the 20 year construction period (124,165 tons) represents 20% of the total annual project operational

greenhouse gas emissions at buildout in the year 2030 (617,719 tons) prior to any emissions reduction. Mitigation Measures 6.1-2(a) – (h) included in the Draft EIR to reduce air quality impacts related to construction would reduce emissions of carbon dioxide during construction from worker trips and the construction equipment. In addition, mitigation that requires the use of alternative fuel when feasible would also reduce emissions from construction.

Operational Emissions

For most projects, the main contribution to greenhouse gas emissions is from motor vehicles, but how much of these emissions are "new" is unknown. The project contains mixed uses and improved public transit access for residents, which could actually reduce the number of vehicle miles traveled that a person drives. In addition, mitigation measures contained in the project AQMP will increase overall project energy efficiency, which would result in a 15% reduction in natural gas consumption from the project.

TABLE 7

TOTAL OPERATIONAL GREENHOUSE GAS EMISSIONS GENERATED BY THE PROJECT AT BUILDOUT IN THE YEAR 2030

Emissions Source	Total Annual CO_2e (tons)
Mobile Sources	226,307
Electricity	236,510
Natural Gas	143,199
Solid Waste	11,703
Total Project Sources	**617,719**

Source: PBS&J, 2007.

Based on project operational greenhouse gas emissions estimates, it is not anticipated that the project emissions alone will substantially add to the global inventory of greenhouse gas emissions. The net increase in greenhouse gas emissions from the project (617,719 tons), in relation to California's current greenhouse gas emissions (478.65 million tons, according to the 2004 inventory), would be 0.13% at the buildout year 2030. Therefore, the quantitative analysis above indicates that the project's GHG emissions contributions would not be cumulatively considerable.

In addition, the project would comply with all applicable policies, ordinances, and regulations that would reduce greenhouse gas emissions. Measures that would reduce air quality impacts of the project would also reduce the cumulative contribution of the project to greenhouse gas emissions. For example, the City Council adopted Smart Growth Principles into the General Plan in 2001, which recommends changing development patterns through the incorporation of 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 also 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 (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 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, which help to reduce the production of greenhouse gases throughout the City.

The City also 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 State and federal funds that come to the region for programs designed to meet goals which include: clean air; design of communities to encourage local walk, 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.

Although building designs have not yet been prepared, some or all of the following energy conservation measures that would reduce greenhouse gas emissions would be included in individual building designs for the project when feasible and appropriate:

Architectural Items

- Specified products will consider locally produced and manufactured items as much as possible where appropriate.
- The specified products will include options for use of recycled content.
- Exterior wall systems will be fully insulated beyond minimum Energy Code standards.
- The roofing systems will include insulation that meets or exceeds minimum Energy Code requirements.
- Glazing will specify insulated Low-E glass with thermal break window frame systems.

Mechanical & Plumbing Systems

- Variable Frequency Drives (VFDs) will be specified for hot and chilled compressors and water pumps.

- Air Handling Units (AHU) will utilize a 100% Outside Air Economizer Cycle.
- "Low flow" water efficient fixtures will be specified throughout.
- Electronic faucets will be specified where appropriate.
- Hot water circulating systems will minimize wait time and water loss at fixtures. The systems will be specified to operate on a timer to maximize hot water system efficiency.
- The VFDs will modulate to match actual building demands.

Electrical Systems

- All light fixtures for indoor use will be Fluorescent type with T-8 or T-5 lamps and Electronic Ballasts.
- All exterior Light fixtures will be HID type.
- Use occupancy sensors for all areas allowed by code, such as offices and conference rooms.
- Use VFD's as a means of motor starting on mechanical equipment.
- Energy star rated motors and fixtures will be specified for the project.

Landscape

- The landscape plans will call for the use of drought tolerant plant species wherever possible in order to avoid excessive water demand.
- Use of mulch will be specified for landscape areas to further retain moisture.

Irrigation

- Irrigation systems will be designed so that the application rate does not exceed the infiltration rate of the soil, and will minimize overspray and runoff.
- Control valves will be installed to account for different site-specific characteristics (i.e. full sun/full shade, level/sloping, shrub/lawns, street trees, etc.).
- Rain sensors will interrupt the normal irrigation cycle when significant amounts of rainfall are detected.

Because the project's contribution to greenhouse gas emissions in California would low by comparison to a comparable level of development undertaken in a more traditionally suburban location and density, because the project would represent the type of growth that will help the State achieve consistency with AB 32, and because the project would incorporate all feasible greenhouse gas reduction measures, project impacts to greenhouse gas emission would be considered **less than significant and the project's contribution to cumulative greenhouse gas emissions would be considered less than considerable**.

As is noted above, it is the conclusion of this analysis that the effects of the project related to greenhouse gas emissions would be considered a less-than-significant effect and a less-than-considerable contribution to cumulative effects. It was suggested by at least one commenter that this FEIR should be recirculated for public review and comment with the analysis of greenhouse gas emissions. CEQA Guidelines section 15088.5 provides direction that an EIR is required to be recirculated "when significant new information is added to the EIR" after the public review of the

Draft EIR. Importantly, the Guideline states that "[n]ew information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement." Since the analysis presented above documents that the project effect is clearly less than significant and the project contribution to cumulative effects is less than considerable, such recirculation is not required in this circumstance.

4.4.2 MOBILE SOURCE HRA SIGNIFICANCE THRESHOLD

Response to Comments 25-15, 25-18, 25-74, 25-76, 26-7, 26-39, 26-40, and 26-43

In January 2007, the Sacramento Metropolitan Air Quality Management District (SMAQMD) published a document, *Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways,* that proposed methods to evaluate risks that urban roadways with annual average daily trips (AADT) in excess of 100,000 in an urban area, or in excess of 50,000 in a rural area may impose. The guidance document includes risk assessment methods and data that were used in ENVIRON's evaluation of risks that may result from the location of residences near high-volume roadways. As stated in the guidance itself, the "document does *not* provide an acceptable cancer risk level or a regulatory threshold; therefore it does not establish which projects are acceptable and which are not". As is true with most guidance from a commenting agency with technical expertise, the guidance is intended to assist with the provision of analytical tools. Lead agencies set standards of significance and determine whether a project imposes significant impacts.

There is currently very little guidance from the state about what risks are considered to be significant from mobile sources. Many air agencies set risk thresholds for the permitting of stationary sources. The threshold for permitting of stationary sources without additional controls is typically one cancer in a million and chronic and acute risks less than 1.0, and allow cancer risks up to 10 in a million with additional control technology. However, the setting of risk thresholds from mobile sources is much more difficult.

There are several reasons why the setting of risks for mobile sources is more difficult:

1. The background risk for diesel particulate matter (DPM) statewide is greater than 500 in a million
2. The California Air Resources Board (CARB) is actively working to reduce diesel risk on a statewide level by imposing strict new requirements on new and existing diesel equipment.
3. The CARB guidance on locating sensitive receptors does not restrict the location of sensitive receptors near freeways based on risk

Because the background risks from diesel exhaust is so high, setting a threshold of 10 in a million would be setting a significant impact threshold at approximately 2 percent of background. Importantly, the risk from DPM statewide is being addressed through CARB's diesel risk reduction program. As a result, risks that are estimated today from living near a freeway are being reduced as a result of these programs. This makes the assessment of risk where long-term exposure is considered, very difficult to evaluate. The risks from mobile sources are constantly decreasing with the implementation of CARB's diesel risk reduction program.

Finally, the difficulty of setting a risk threshold for these sources is also found in CARB guidance issued in April 2005 on air quality and land use.[23] This document specifically offered guidance on

23 California Air Resources Board (ARB). Air Quality and Land Use Handbook: A Community Health Perspective. April 2005.

the acceptable siting of sensitive land uses near sources of air toxics. This document evaluated appropriate distance separation between sensitive receptors and several potential environmental hazards: high-volume roadways; ports, railyards, distribution centers, chromium platers, gasoline stations, and refineries. Where the guidance was able to reduce risks to less than ten in a million with a 1000 foot separation or less, it recommended risks no greater than that level. This was true for gasoline stations, refiners, and distribution centers. Where risks were higher than that level, the guidance relied on reducing risks more than 70 percent from its peak. This is the approach that CARB took with freeways, and the approach that SMAQMD used in developing its site-specific guidance. As a result, no significance threshold is used, rather the significance threshold is the reduction of risks by 70 percent, which is incorporated into the SMAQMD guidance which was followed in this assessment. If future regulations are adopted, the project would comply with them, thereby further reducing emissions.

4.4.3 QUANTITATIVE ANALYSIS OF CONSTRUCTION IMPACTS

Response to Comments 25-74 and 26-42

The risks resulting from the emissions from contaminated soil during construction are very low, approximately 0.17 percent of the typical significance level considered for risk evaluations of stationary sources. Thus, is highly unlikely that modeling onsite receptors would result in risks greater than this significance threshold. An evaluation of soil contaminant levels was performed by ERM as a part of the Remedial Investigation/Feasibility Study and Remedial Action Plan required by DTSC. According to the DTSC studies, all remediation activities for areas containing contaminated soils would occur prior to excavation activities. In addition, no development would be allowed within the Specific Plan Area until after soil remediation is completed to Target Cleanup Level Standards, which would provide adequate safety for receptors with the highest risk of impact (construction workers), as defined by the DTSC. Implementation of Mitigation Measure 6.5-1 of the Draft EIR provides additional safeguards to ensure that construction impacts from soils remain below a level of significance to the nearest receptors.

In order to evaluate the potential DPM impacts on off-site receptors generated from construction equipment emissions, the HRA revised their analysis to ensure consistency with the equipment assumptions included in the Draft EIR construction emissions calculations. The estimated risk from exposure to DPM was slightly above 100 in a million (120) with a chronic hazard index of 0.81.As a mobile source, the DPM impacts from construction vehicles would be subject to evaluation using the NCP target risk range of 1×10^{-4} to 1×10^{-6} and a chronic hazard risk standard of 1.0. The project has measures in place including implementation of the AQMP that would reduce DPM impacts to below established mobile source thresholds established by the NCP. Standard measures including the use of diesel particulate filters would also ensure that impacts remain at a less than significant level. The risks from large area sources, such as are being modeled in this evaluation are a combination of exposure time, and the area emissions rate (grams per second per area of construction) of the area nearest to the receptor. A quantitative analysis of the construction impacts of on-site receptors was not preformed because any on-site residences would have a shorter exposure duration than the off-site receptors, who are exposed to construction during the entire construction project. For diesel risks and chronic hazard, the highest area emissions rate was from Area 4. Area 4 has boundary receptors to the northeast. The second highest emission rates are from Area 2. Area 2 is adjacent to residential receptors to the southeast (2F) and northwest. As a result, impacts from all areas but those areas to the southeast are well-represented by the highest emissions rates. It is unlikely that on-site modeling would result in risks substantially higher than were presented in this assessment.

4.4.4 FREEWAY EMISSIONS

Response to Comments 14-4, 25-15, 25-17, 25-73, 25-76, 26-7, and 26-41

Appendix O of the Draft EIR discussed the potential health impacts from freeway DPM emissions on the proposed residences, to the east (downwind) of Interstate 5 (I-5) and to the south of the Richards Boulevard, at the Railyards Redevelopment site. In that evaluation, it was concluded that if residences were located at least 200 feet from the freeway, there would be no need for a site specific HRA, as the risks would be below the evaluation criteria. This point on the look-up table is shown highlighted in yellow below.

In addition, Residential Mixed Use (RMU) and Residential/Commercial Mixed-Use (RCMU) have been proposed to the west of I-5. The potential cancer risks from freeway DPM emissions at the residences located to the west of I-5 are assessed using the same approach, as discussed in Appendix O for the residences on the east side of I-5.

Following the ARB (California Air Resources Board) land use guidance[24] and SMAQMD (Sacramento Metropolitan Air Quality Management District) recommendations,[25] a screening approach was used to assess the incremental potential cancer risks from vehicles DPM emissions of the section of freeway near to residences. Incremental risk is that risk above background. The screening process involved the use of look-up tables that estimate DPM cancer risks based on the project characteristics, which include freeway orientation, traffic volume of the freeway, and location of the project relative to the freeway. The screening approach assumes current diesel truck emissions per vehicle mile, rather than the lower diesel emissions that will results during full project buildout. As a result, it is conservative.

As discussed in Appendix O, the peak hour traffic volumes of the adjacent freeway section are estimated to be up to 20,000 trips. Based on Table 2 from the SMAQMD guidance (attached below), if the nearest new residence is placed no closer than 100 feet to the west (upwind) of I-5, the cancer risks from the freeway DPM are estimated to be below 315 per million, also highlighted in yellow on the table. This level does not exceed the evaluation criteria selected by the SMAQMD (446 per million), and a site specific HRA is not recommended. The EIR erroneously identified the SMAQMD's evaluation criteria as a threshold, when instead the value is used as a guidance figure. Since no such threshold exists for the City or the AQMD, an accepted value measurement was used to determine whether additional impact analysis would be required. Based on the accepted value measure approach, an additional assessment is not needed.

24 Air Resources Board (ARB). *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.

25 Sacramento Metropolitan Air Quality Management District (SMAQMD). 2007. *Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways*

TABLE 2

DIESEL PM CANCER RISK (POTENTIAL INCREMENTAL CANCER CASES PER MILLION PEOPLE) EAST AND WEST OF A NORTH-SOUTH ROADWAY

Peak Hour Traffic (vehicle/hr)	Receptor Distance from Edge of Nearest Travel Lane (feet)							
	10	25	50	100	200	300	400	500
	Incremental Cancer Risk Per Million: East (downwind)							
4000	249	213	168	117	75	57	45	36
8000	495	423	336	237	150	111	90	72
12000	744	636	504	354	225	168	132	111
16000	990	849	672	474	303	222	177	147
20000	1239	1062	840	591	378	279	222	183
24000	1488	1272	1008	711	453	336	267	219
	Incremental Cancer Risk Per Million: West (upwind)							
4000	159	123	93	63	39	27	21	18
8000	315	249	183	126	78	57	45	36
12000	474	375	276	189	117	87	69	54
16000	633	501	369	252	156	114	90	75
20000	792	627	459	315	198	144	114	93
24000	948	750	552	378	237	174	135	111

Source: Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways (ARB, January 2007).

4.4.5 MULTIPLE SOURCE EXPOSURE

Response to Comments 25-16, 26-7, and 26-42

Potential effects arising from exposure to multiple sources (mobile sources along I-5, rail operations, and construction activities).

A screening assessment was conducted to evaluate the potential cancer risk due to DPM for the new development resulting from its location proximate to the freeway and railway line. DPM from both sources was evaluated using the protocol recommended by the SMAQMD. Potential risks due to construction activities (grading and construction) were determined using CalEPA and USEPA risk assessment methodology and included emission estimation, modeling, and risk calculations. Each method is designed to predict the maximum risk at the maximum point of impact. It is very unlikely that the maximum point of impact from these three sources is identical. As a result, while one could add the risks from all three sources to generate a cumulative risk that would result in a substantial overestimate of risks. It is possible that the maximum point of impact from the construction exhaust and soil contaminants will be co-located. However, the potential risks from the contaminated soils are so low that the addition of contaminated soil risk to the risk from DPM is negligible.

As discussed in the EIR, there is insufficient information to allow a detailed evaluation of the health risks that may results from the SITF. The SITF was qualitatively evaluated by comparison to similar projects in Vallejo an Union City, California. Development of the SITF would be subject to subsequent environmental review related to HRA impacts upon availability of project specific information.

4.4.6 CONSTRUCTION IMPACTS – WORKER VEHICLE TRIPS

Response to Comments 18-14, 26-7, and 26-42

The commenter notes that the Draft EIR does not include construction worker vehicle trips in the determination of significance for the project's impacts from the generation of ozone precursors.

Ozone precursor emissions, specifically NO_x, from worker commute vehicles were not included in the Draft EIR calculations because most of the worker commute vehicles would be gasoline-powered, a relatively minor source of NO_x in comparison with the large diesel-powered engines of the construction equipment. Based on experience with calculating worker commute NO_x emissions for other similar projects, emissions of the former typically amount to at most a few percent of the total emissions. Even without worker commute emissions added, the construction equipment emissions alone far exceed the SMAQMD significance threshold for construction phase NO_x, as the Draft EIR pointed out in Impact 6.1-2. Also, worker commute NO_x emissions would not be included in the calculation of the SMAQMD's Off-Site Construction Mitigation Fee, which is the primary means of offsetting project construction NO_x emissions. The SMAQMD's *Construction Air Quality Mitigation Plan Protocol* states:

> "If the projected construction related emissions for a project are not reduced to the District's threshold of significance (85lbs/day) by the application of the standard construction mitigation, then an off-site construction mitigation fee should be applied. This fee is used by the District to purchase off-site emissions reductions. This is done primarily through the District's Heavy Duty Incentive Program through which select owners of heavy duty equipment in Sacramento County can re-power or retrofit their old engines with cleaner engines or technologies."

This makes it fairly clear that the focus of SMAQMD NO_x mitigation efforts is on reducing emissions from heavy duty equipment. The primary regulatory mechanism for reducing NO_x emissions from on-road motor vehicles is the Air Resources Board's increasingly stringent emission regulations, which are mandatory for all motor vehicles sold in California, not just the project construction workers commute vehicles.

Particulate Matter Emissions

The commenter notes that the Draft EIR does not address the impacts from fine particulate matter ($PM_{2.5}$). However, the Draft EIR does present the findings of project-specific health risk analyses of fine particulate matter in the forms the have the most potential for significant impacts to on- and near-site receptors: diesel particulate matter from project construction equipment, motor vehicles using I-5 and trains running on the UPRR line, and soil contaminants that would be contained in the particulate matter suspended during on-site excavation and grading activity. The full text of the risk assessments are included as Appendix O and their results are summarized in the Draft EIR air quality section.

4.4.7 CONSTRUCTION PHASE NO_x METHODOLOGY

Response to Comment 14-1

The commenter, in this case the Sacramento Metropolitan Air Quality Management District (SMAQMD), make a number of valid points about the project construction-phase NO_x emissions estimates: 1) that it was a manual calculation (though it was performed in accordance with the procedures outlined in the SMAQMD CEQA Guide); 2) that it used "generic" assumptions about the equipment to be used for project construction in the absence of specific equipment data from the project sponsor (though the equipment and its scheduled use were chosen in accord with the SMAQMD CEQA Guide); 3) that the pollutant emissions rates were kept constant, but are likely to decrease with time (though the rates chosen were those specified in SMAQMD CEQA Guide for the year of construction activity, or the last year specified in the Guide, and so in either case represent maximum pollutant emissions for a worst case air quality analysis); and 4) that the analysis did not specifically include removing/moving the UPRR rail lines (though the total acreage of the construction site did include the area occupied by the UPRR rail lines and so, under the generic "worst-case" procedures specified in the SMAQMD Guide, a case could be made for inclusion of the emissions from the rail relocation).

Most of the subsequent comments concerns a proposal for an alternative mitigation plan for assuring that construction NO_x is correctly accounted for and appropriate mitigation fees are paid, when specifically involved a "phased payment approach with annual reconciliation and the provision of a construction monitor." The City is committed to exploring alternative mitigation strategies that the SMAQMD believes would better guarantee acceptable air quality during project construction phases and will coordinate with the SMAQMD on issues of pollutant control strategies, the timing of their implementation, mechanisms for payment of fees, etc. prior to issuance of the first building permit.

4.4.8 EMISSIONS CONCLUSIONS

Response to Comment 25-20

The commenter notes correctly that the Draft EIR includes estimates construction NO_x emissions with the conclusion that proposed mitigations would reduce the NO_x impact to an insignificant level, but does not offer analysis to support such a conclusion. The conclusion is based on project commitment to implement all required SMAQMD construction phase NO_x reduction measures, specifically that the project sponsor will use construction equipment that are at least 20 percent cleaner that the present statewide-average and will pay a mitigation fee to the SMAQMD on all remaining NO_x emissions that exceed the SMAQMD's significance threshold. This fee will be used to reduce NO_x emissions from other sources in Sacramento County. The general sufficiency of the reductions and fees, when applied to all construction projects in Sacramento County, to adequately mitigate any significant air quality impacts relating to such emissions was determined by the SMAQMD as part of the analysis for its regional ozone control plan. Consequently, project specific construction NO_x impact analysis is not required if an EIR's mandatory mitigations include the specific construction-phase NO_x reduction measures specified in the SMAQMD CEQA Guide.

4.4.9 ODOR

Response to Comment 25-22

The commenter notes that the Draft EIR contains no analysis of the potential for odor impacts on residential uses on parcels near the Sacramento River Water Treatment Plant (SRWTP). There are no plans for residential or other odor-sensitive uses on the project site parcels adjacent to or near the SRWTP.

4.4.10 PROJECT INFORMATION

Response to Comment 25-72

The commenter states that information contained in the Draft EIR on project phasing, construction scheduling, proposed land use type/size/location, etc. a not sufficiently detailed at this time to allow a project-level air quality impact assessment, and, further, that the air quality analysis presented in the Draft EIR is based on average or typical condition, rather than worst case conditions.

Project information needed for an accurate, project-specific air quality analysis pertaining to both construction and operational phases was available for Draft EIR analysis and all data used in the analysis was included either in the Draft EIR or its technical appendices. This included a detailed project description, construction phasing, size and locations of the land uses, and project-specific traffic, utilities and energy analysis, etc. Air quality related emissions estimates and modeling of carbon monoxide and TAC impacts were based on reasonable worst-case assumptions regarding proposed activities that would produce air pollutant emissions, including equipment used, time taken and areas graded during project construction, and energy used or traffic generated during project operation.

4.4.11 FUGITIVE PM METHODOLOGY

Response to Comment 14-1, 25-73, and 25-76

The commenter questions the adequacy of the Draft EIR's analysis of fugitive PM during construction in that the project analysis relied on the SMAQMD CEQA Guide which the commenter contends is applicable only to much smaller projects. Although, taken as a whole, the proposed project would be considered large by almost any standard, project development is expected to occur in several phases over various sub-areas of the entire project site during a development period of about 20 years. At any given time, construction activity will be occurring over portions of the project site much smaller than the entire site. The SMAQMD Guide was consulted for construction particulate control measures appropriate to the intensity and area of activity for each project phase, and such SMADMD recommendations were incorporated into the Draft EIR. Further, dispersion modeling was performed to assess the level of risk associated with TAC contained in on-site soils that would be disturbed during construction. Such modeling was based on estimated equipment used and maximum area worked during each phase. The results of the modeling study were summarized in the Draft EIR and a complete technical report on its methods and findings was included as a technical appendix. No significant air quality impacts were identified for particulate pollutant or their component TACs.

4.4.12 MITIGATION/CONTROL MEASURES

Response to Comment 25-77

The commenter states the need for obtaining additional PM_{10} emission reductions for construction activity and then includes a detailed list of specific control measures to obtain them. The SMAQMD determined that the PM_{10} reduction measures that it has listed in Appendix B of its CEQA Guide are sufficient to avoid significant PM_{10} impact during construction activities. All measures from Appendix B that were appropriate to the proposed project were included as required mitigation measures in the Draft EIR. If the SMAQMD has any reason to believe that further PM_{10} control measures are desirable or feasible for the proposed project, it can pursue them during the pre-construction conference with the project developer/contractor.

4.4.13 NO_x MITIGATION MEASURES

Response to Comments 25-78 and 25-79

The commenter states the need for obtaining additional NO_x emission reductions for construction equipment and then includes a detailed list of specific reduction strategies, including alternative fuels, equipment replacement, engine retrofit, add-on control devices, etc., available for obtaining such reductions. There is no doubt that NO_x from heavy-duty, diesel-powered construction equipment is a major contributor of ozone precursor emissions in the Sacramento area. Accordingly, the following strategies for reducing NO_x emissions from such sources were included in the Sacramento Area Regional Ozone Attainment Plan (SMAQMD 1994):

- Replace diesel powered vehicles with vehicles powered by cleaner fuels.
- Replace older, more polluting diesel engines with newer, cleaner diesel engines.
- Repower existing construction equipment with newer, lower-emitting engines or emissions control technologies.
- Retrofit existing construction equipment with low-emissions emissions control equipment.
- Encourage the fuel industry to make cleaner fuels more available and more competitive.

The SMAQMD determined that a reduction 5 tons per day in NO_x emissions from mobile sources was necessary to keep the Sacramento metropolitan area on track toward ozone standard attainment. Accordingly, the SMAQMD adopted a construction emissions threshold of 85 pounds per day of NO_x as its CEQA significance standard and as part of its CEQA Guide, set a 20 percent reduction goal for NO_x emissions from construction equipment for each development project that exceeds its significance threshold, and imposed a mitigation fee on emissions from projects that exceed the threshold after the 20 percent reduction. The SMAQMD believes that these measures are sufficient to maintain adequate progress toward regional attainment of the ozone standard. If the SMAQMD has any reason to believe that further NO_x emission reductions are desirable or feasible for the proposed project, it can pursue them during the pre-construction conference with the project developer/contractor.

All background documentation is located in Appendix C, Greenhouse Gas Emissions.

4.4.14 AIR QUALITY MANAGEMENT PLAN

Response to Comment 14-2

Operation-Related Mitigation

The commenter suggests that compliance with the AQMP be required not only as a mitigation measure, but also as a condition of approval of the Specific Plan. As part of the entitlement package being considered by the City, if the project is approved, the requirements of the AQMP will be binding on the applicant not only through the Mitigation Monitoring Plan ("MMP"), but also through the development agreement between the applicant and the City as well as through the Special Planning District ("SPD") ordinance. Project implementation will be based on the requirements of the entire entitlement package and a process for ensuring compliance is set out in the SPD. Perhaps unlike a typical project that does not include such a compliance process, the AQMP is memorialized not only in the MMP or merely as a condition of approval, but also through the City's zoning ordinance in the form of the development agreement and SPD. This addresses the commenter's concern that in the future the Mitigation Monitoring Plan may be separated from the project documents.

4.4.15 DRAFT AIR QUALITY MITIGATION PLAN IN EIR

Response to Comment 14-3

The commenter's provisional endorsement of the Draft AQMP is noted. The AQMP as revised is included in the FEIR.

4.4.16 URBEMIS MODEL ASSUMPTIONS

Response to Comment 25-75

The commenter states that the URBEMIS modeling that provided input data for the construction health risk assessment included a number of flawed assumptions or model short comings. Every attempt was made to have the URBEMIS modeling of construction air quality emissions done for the Draft EIR include the most accurate input data based on the proposed project development plans current at the time the modeling was carried out. Since then, as project plans have evolved and data discrepancies have come to light, it has been necessary to re-do the construction modeling. For this updated run, a manual calculation of PM_{10} emissions from construction equipment was completed based on the SMAQMD guidance for manual calculations. Because the SMAQMD does not provide a method for manual calculation of fugitive dust emissions, but rather provides guidance for using either an air dispersion model. URBEMIS can also calculate the PM_{10} emissions from grading activities, and as such, URBEMIS was used to calculate fugitive dust emissions.

URBEMIS was initialized with the most current project-specific data, if available; otherwise, the URBEMIS model default parameters were used. The following details of the new URBEMIS runs (for fugitive dust emissions from grading) relate to the commenter's specific points of instances of flawed assumptions or model short comings:

- For the amount of project site acreage worked per day per phase, the URBEMIS default assumption of 25% of the total project site per phase was used.
- For the amount of fugitive dust generated per acre, the 10 lbs. per acre worked that was used in the calculations is the URBEMIS default assumption for average conditions. The average conditions were used for this calculation as there is no clear reason why the worst-case conditions should apply, and a worst-case analysis scenario is not required under CEQA guidelines.

As noted, the revised calculations used the SMAQMD's manual calculation guidance to determine PM_{10} emissions from grading during each of the project phases. Equipment assumptions for the manual calculations were based on guidance from the SMAQMD. As this calculation is based on the SMAQMD guidance, the equipment fleet was not "undersized" for the construction work to be accomplished. The commenter also notes that cut and fill activities should be accounted for during construction. According to the SMAQMD guidance for equipment assumptions, small cut and fill activities would require the use of one bulldozer and one water truck for every 10 acres of project size. The manual calculations included the recommended construction equipment for grading activities (one bulldozer, one motor grader, and one water truck) during the entire grading phase (which includes cut and fill activities). Therefore, because the pieces of equipment that are recommended for grading phase are more conservative than those recommended for the cut and fill activities, the emissions calculations for grading would be sufficient to account for potential impacts from any cut and fill activities that may occur during the grading phase.

The commenter also notes that URBEMIS does not calculate emissions from on-road vehicles. In fact URBEMIS can calculate on-road vehicle trips for load hauling based on the total miles per day for on-road vehicle trips; however, the revised calculations were completed using the SMAQMD's manual calculation method, which does not require the calculation of emissions from these activities.

The commenter notes that the previous calculations were based on a site acreage of approximately 180 acres. The 180 acres represents the land use development areas that would be occupied by the project structures. The revised URBEMIS modeling and manual calculations increased the site acreage from the 180-acre land use development area to about 237 acres, which includes the on-site roadway network. The 237-acre area used in the model matches that of the EIR analysis scenario acreage as clarified in Appendix C of the Draft EIR Appendix.

The pollutant emissions produced by the new URBEMIS runs were input into the dispersion model used for the construction phase health risk assessment. No significant health risks were found to occur (see Section 6.1). Thus, the revised calculations did not result in a different conclusions than those reached in the Draft EIR.

In addition, the commenter requests that additional reductions of emissions beyond the SMAQMD recommended 45 percent reduction of particulate matter emissions. While there may be available measures that would reduce the project's emissions beyond the 45 percent reduction, the SMAQMD does not provide any recommendations for the additional emission reductions called for by the commenter, and therefore are not warranted under SMAQMD guidance.

4.4.17 TAC ANALYSIS

Response to Comment 25-14

The comment notes correctly that health risk assessment (HRA) conducted for the Draft EIR concluded that toxic air contaminant (TAC) impact at the point of closest approach of proposed residential uses to the I-5 freeway would not exceed the threshold set in the SMAQMD Guidance, and therefore found the impact would not be significant. However, the comment cites a recent study by Gauderman et al that purports to find evidence of adverse impacts to children living close to freeways. The significance threshold used in the Draft EIR was based on the preponderance of scientific evidence to date and is therefore the best available measure of significance for CEQA purposes. It is possible that this criterion would be altered in the future based in new findings, which may include the cited study. But at this time the consensus on the choice of criterion is in favor of the one the Draft EIR used.

4.4.18 AQMP MITIGATION MEASURES

Response to Comment 25-21

The comment claims that a project needs to adopt all feasible mitigation measures when an impact is identified as significant but immitigable, but that the project's AQMP did not adopt all such feasible ozone precursor emission reduction measures, and further that the project's AQMP did not identify how it determined the reduction effectiveness of the measures it did adopt. The AQMP was based on a master list of feasible mitigation measures and their expected control effectiveness, as determined by the SMAQMD and presented in Appendix F of their CEQA Guide. The project included all applicable mitigations from this list with their respective control effectiveness. The entire project AQMP was in included as an appendix to the Draft EIR.

4.4.19 AQMP ASSUMPTIONS

Response to Comment 16-4

Commenter correctly notes that the stated acreage of the Specific Plan Area in the Draft AQMP is incorrect. The Final AQMP correctly states that the Plan area consists of 244 acres. Additionally, commenter correctly notes that the project objectives in the Draft AQMP are different from the project objectives in the Draft EIR. The AQMP has been changed so that the project objectives are the same. The Final AQMP as revised is included in the FEIR.

Commenter also notes that the housing numbers provided in the Draft AQMP is different than the numbers stated in the Draft EIR. The housing numbers purposely differ from the housing numbers stated in the project description of the Draft EIR. The housing numbers used for the AQMP were the same numbers used for the traffic and circulation analysis. Table 6.12-12 of Draft EIR on p. 6.12-55 acknowledges the difference between the numbers used for the traffic study and the numbers stated in the Draft EIR Project Description. The numbers used for the traffic study were the same used for AQMP analysis. The higher numbers are based on maximum office space build-out. Office space is the most intensive transportation use and therefore provides a better analysis of potential environmental impacts. Regardless, the higher residential housing numbers will have no impact on the Final AQMP. As the numbers currently are in the AQMP, they provide analysis for the highest possible environmental impact. In the event that the project obtains approval for 12,500 residential units (or less), the result would be a more conservative plan, and therefore, a decreased environmental impact than what is currently presented in the AQMP.

4.4.20 AQMP CONSISTENCY WITH PROJECT DESCRIPTION

Response to Comments 16-5 and 16-6

Both comments refer to specific elements within the Project Description portion of the AQMP. The AQMP states, "The project is fully described in the Introduction and Project Description chapters of the Draft EIR. The following serves as a summary of pertinent information relevant to the AQMP." (Final AQMP, p. 2.) Absence of a particular transit station, either in a map or body of the discussion, would not affect the findings of the AQMP, or the importance of a particular station in the implementation of any mitigation measure.

Specifically, commenter requests that the 7th Street Light Rail Station be identified on Figure 3. Figure 3 is provided to give the reader understanding of the allowable land uses for each parcel within the Specific Plan Area. Additionally, commenter requests specific mention of the 7th Street Light Rail Station in the discussion of Light Rail Transit in the Project Description. As stated above, the project description is intended to only give an overview of the pertinent elements of the Specific Plan in relation to the AQMP. Light Rail Transit is a critical component of reducing environmental impacts from the increased population that development of the Specific Plan will bring.

4.4.21 AQMP MITIGATION METHODOLOGY

Response to Comments 16-7, 16-8, 16-9, and 16-10

AQMP Mitigation Measure 18 awards points for developing high-density residential development. A natural conclusion from high-residential development is the need for bus service through the newly developed area. The AQMP recognizes this logical conclusion and states that Mitigation Measure 6.12-6, enforceable and distinct from the AQMP Mitigation Measures, will address the increased demand for bus service. Outside of providing context for the entire project and how Mitigation Measures will work together to achieve project objectives, Mitigation Measure 6.12-6 does not directly impact the points awarded from implementation of AQMP Mitigation Measure 18.

Comment 16-8 states that AQMP Mitigation Measure 6 should discuss removing pedestrian barriers between activity areas and transit. Mitigation Measure 6 specifically pertains to minimizing barriers to pedestrian access and interconnectivity. The AQMP states, "The only barriers will be those designed to protect pedestrian safety by preventing access to railroad tracks." (Final AQMP, p. 15.) Additionally, the AQMP highlights the presence of a pedestrian tunnel in Figure 6, which will provide greater interconnectivity between transit areas and the rest of the Railyards.

Comment 16-9 disagrees with the credit allocation under AQMP Mitigation Measure 10a. The commenter feels that providing parking with in ¼ mile of transit is not transit-friendly and subsequently believes the credit should not be given. Any final determination of credit allocation will be made by the SMAQMD. Currently, the project far exceeds the required 15 percent reduction. In the event that any point allocation is reduced, the project will still be able to meet the 15 percent emissions reduction requirement.

4.5 BIOLOGICAL RESOURCES

4.5 BIOLOGICAL RESOURCES

4.5.1 LIGHT AND WATER QUALITY IMPACTS ON BIOLOGICAL RESOURCES

Response to Comments 18-15, 33-2, 36-1, and 40-2

This response addresses comments 18-15, 36-1, and 40-2. Several comments were received regarding the impacts of the Specific Plan Area to wildlife movement, effects on listed fish species due to construction of the outfall to the Sacramento River, and the effect of light sources on wildlife. As discussed in Impact 6.2-9 of the Draft EIR, the *terrestrial* (emphasis added) portions of the Specific Plan Area do not serve as wildlife corridors or linkages, and the construction and operation of the Specific Plan Area or the stormwater outfall would not result in disturbance to the extent that it would permanently and substantially interfere with the movement of resident or migratory fish or wildlife species, nor would it substantially affect habitat quality. The Sacramento River does function as a wildlife corridor for aquatic species but as discussed in Impact 6.2-3 of the Draft EIR, implementation of Mitigation Measures 6.2-3(a) through 6.2-3(f) would restrict in-channel work to times outside the peak in and out migration (Table 6.2-5), replace permanently impacted habitat, implement Best Management Practices (BMPs) to prevent accidental loss and reduce potential construction impacts, and restore the removed riparian vegetation to mitigate for loss of riparian habitat (see Best Management Practices For Industrial Storm Water Pollution Control; Stormwater Quality Program, County of Sacramento). This, in combination with compliance with the California Endangered Species Act, the Federal Endangered Species Act, Clean Water Act (CWA) Regulations, National Pollution Discharge Elimination System (NPDES) Regulations, local water quality, and runoff standards, and implementation of Mitigation Measures 6.6-2(a) and (b), and 6.6-5 would reduce the project's impacts to the riverine migratory species, including long-term operational impacts and those associated with high storm events to a less-than-significant level by avoiding and minimizing those impacts to migratory species within the river, ensuring stormwater water quality discharged to the river is within permitted discharge limits, and are designed to protect the designated beneficial uses of the river. Further, the following sentence in the third paragraph on page 6.2-37 of the Draft EIR is changed to read,

> Under these conditions, low quality nutrient rich water with low dissolved oxygen levels ~~that had been in the cistern throughout the dry season~~ could be discharged into the river.

Also, see response to comment 4.9.1 in Section 4.9, Hydrology and Water Quality in this Final EIR for operation of the cistern during dry season flows.

As discussed in Impact 6.2-9, exposure to artificial light can create problems for species adapted to using light- or the absence of light- to aid in orientation, feeding, and mating. In these cases, ecological light pollution may interrupt natural behaviors, expose individuals to higher predation levels, reduce feeding or foraging activities, or disrupt navigational abilities. Although the Specific Plan Area is located within the highly illuminated area of Sacramento, to reduce project-related light and noise impacts to fish and wildlife species in and adjacent to the project area Mitigation Measure 6.2-9 will be implemented. This measure contains specific mechanisms to reduce potential night lighting impacts by ensuring light spillover is minimized to the extent practicable in areas within 500 feet of the river. The proposed lighting within this 500 foot buffer would include shields, and would be directed and controlled in order to prevent spillage onto the river and riparian area so as to not affect the wildlife use of these areas. The use of downcast luminaries and wattage restrictions in exterior light fixtures would result in close spacing and lower intensity light that is directed downward in order to minimize glare on adjacent uses and minimize impacts to night sky views. As a result, this impact

would be reduced to a less-than-significant level by minimizing spill-over to the adjacent riparian area.

Additional light-reducing measures required by Mitigation Measure 6.2-9 include vegetative screening along the river portion of the Specific Plan Area to avoid degradation of habitat values for wildlife along the river portion of the site. The vegetative screen would be chosen so that it would be effective year-round and would be maintained during the year in accordance with the City's landscaping requirements and the standards set forth in the proposed Design Guidelines, subject to review by the City Design Commission, Planning Commission, and the City Council.

Although overall ambient lighting would increase within and adjacent to the Specific Plan Area, the project purposes, and other factors such as; City lighting requirements and safety considerations limit the use of more intense lighting restrictions (such as the exclusive use of fully shielded lights). This, in addition to the practicality of extending lighting restriction to other portions of the site. However, as currently proposed, the mitigation and avoidance measures identified above, would ensure that the additional lighting resulting from the development of the Specific Plan would not interfere substantially with the movement of resident or migratory fish or wildlife species, migratory wildlife corridors, or impede the use of native wildlife nursery sites.

4.5.2 VALLEY ELDERBERRY LONGHORN BEETLE

Response to Comment 18-16

This response addresses comment 18-16, which involves the Valley Elderberry Longhorn Beetle (VELB) and the current state of a United States Fish and Wildlife Service (USFWS) "take" permit. As discussed in Impact 6.2-4 of the Draft EIR, the USFWS issued a renewable take permit for the Railyards Remediation Project, (TE023739) which allows the removal of 87 plants with up to 261 stems greater that one inch. Although the exact number of stems removed under this permit is currently not known, discussions with staff from the Remediation Project indicate that most of the 44 elderberry shrubs identified within the Specific Plan Area are covered by this take permit. However, as discussed within the Draft EIR, until the permit is renewed allowing regrowth to be removed, it cannot be positively stated that all of the 44 bushes are covered. Consequently, any take of VELB would be considered a significant impact because it is a federally listed threatened species. However, compliance with the federal regulatory regime for the recovery of VELB, as identified within Impact 6.2-4, ensures that removal of elderberry shrubs in the Specific Plan Area would be less than significant and no additional mitigation is necessary. Maintenance of the 244-acre project site to ensure that recolonization of elderberry bushes does not occur outside of appropriate open space areas (e.g., the riverine riparian) would continue throughout the construction and operation of the project.

4.5.3 CLARIFICATION OF TERMINOLOGY

Response to Comments 18-17 and 18-18

This response addresses comments 18-17 and 18-18 that address CWA jurisdiction and plant terminology. As discussed in paragraph 2 of page 6.2-25 of the Draft EIR, the Sacramento River is a "Navigable Waters of the U.S.," as defined in the Federal Register (33 CFR part 329). Any development within the river, must comply with Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the CWA (33 U.S.C. 1344). As discussed in Impact 6.2-8 of the Draft EIR, it is anticipated that grading and construction associated with the stormwater outfall could require fill to be placed below the ordinary high watermark of the Sacramento River. As identified above this would require permitting under Section 404 (and 401) of the CWA. However, this riverine habitat is not a wetland or special aquatic site and therefore, when related to the threshold identified in Impact 6.2-8, there would be no impact.

The commenter also identified several grammatical errors within Table 6.6-2 and the following changes to the Draft EIR will occur to correct these.

TABLE 6.2-2

PLANT SPECIES OBSERVED WITHIN THE SPECIFIC PLAN AREA

Scientific Name	Common Name
Ailanthus altissima	Tree-of-heaven
Avena ~~fatwa~~ fatua	Wild oats
Brassica rapa	Birdsrape mustard
~~Bromes~~ Bromus dianthus	Rip gut brome
~~Centauries~~ Centaurea solstitialis	Yellow star~~t~~ thistle
Cephalanthus occidentalis	Buttonbush
Convolvulus arvensis	Field bindweed
Cynodon dactylon	Bermuda grass
Epilobium brachycarpum	Annual fireweed
Eriodictyon californicum	Yerba santa
Erodium botrys	Filaree, storksbill
Erodium cicutarium	Red-stemmed filaree
Eucalyptus sp.	Eucalyptus
Ficus carica	Common fig
Juglans californica	California black walnut
Lactuca serriola	Prickly lettuce
Liquidambar styraciflua	Sweet gum tree
Lolium perenne	Perennial ryegrass
Lotus purshianus var. purshianus	Spanish clover
Lotus wrightii	Deer vetch
Melilotus alba	White sweet clover
Nerium oleander	Oleander
Nicotiana glauca	Tree tobacco
Plantago major	Broadleaf plantain
Polypogon monspeliensis	Rabbitfoot
Populus fremontii	Fremont cottonwood
Prunus glandulosa	Flowering almond
Prunus spp.	Almond tree
Quercus agrifolia	Live oak
Quercus lobata	Valley oak
Raphanus sativus	Wild radish
Rubus discolor	Himalayan blackberry
Salix exigua	Narrow leaf willow
Salix gooddingii	Goddings willow
Salix lasiolepis	Arroyo willow
Senecio vulgaris	Common groundsel
Silibum marianum	Milkthistle
Sorghum ~~halapense~~ halepense	Johnsongrass
Tamarix ramosissima	Salt cedar
Trifolium spp.	Clover
Ulmus ~~P~~parvifolia	Chinese elm
Ulmus spp.	Elm tree
Verbascum thapsus	Common mullein
Vicia villosa	Hairy vetch
Vitis californica	California wild grape
Washingtonia filifera	California fan palm

Source: PBS&J, 2006.

4.5.4 PURPLE MARTIN

Response to Comments 11-18, 20-1, and 31-1 through 31-12

Several comments were received regarding the impacts of the Specific Plan Area to the purple martin (*Progne subis*) colony under the I Street Bridge eastern offramp. In general the commenters raise the following: 1) The use of sufficient published information about the I Street colony, 2) The adequacy of mitigation for impacts to the colony, 3) The analysis of long-term operational impacts, and 4) Cumulative impacts analysis. The following discussion addresses each of these by topic.

Published Information

The Biological Resources section of the Draft EIR contains 27 citations for literature or sources used. These sources were the best available information and were deemed adequate for the programmatic analysis contained in the Draft EIR. Non-cited background literature included numerous additional electronic publications as well as purple martin-specific publications such as Zeiner et al. 1990, Airola and Grantham 2003, and the California Department of Fish and Game (CDFG). The City is aware that Mr. Airola has published numerous articles on the Sacramento purple martin colonies but many of these were published in limited-distribution circulations (e.g., *Central Valley Bird Club Bulletin* and the *Purple Martin Update*) which are not readily available or easily obtainable. Consequently, the best available information was used in the analysis. However, in reference to the adequacy of the Draft EIR, as stated in Section 15204(a) of the CEQA Guidelines, the adequacy of an EIR is determined in terms of what is reasonably feasible in light of factors such as the geographic scope of the project, the magnitude of the project, and the severity of the likely environmental impacts. As further expressed in Section 15151 of the CEQA Guidelines, "An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." In this case, the literature used was what was reasonably feasible to obtain and sufficient to use to assess impacts to this species. This included published data from the CDFG, and other pertinent and reliable sources that were more readily available.

The City appreciates the additional documentation provided by the commenter and have used it in formulating the following responses.

Appropriate Mitigation

The commenters assert that the Draft EIR does not contain adequate mitigation for potential impacts and that the project's mitigation may have additional detrimental effects. Specifically, the concern is that the proposed mitigation does not address the potential significant effects of reducing reproduction through displacement.

As stated in Impact 6.2-7 of the Draft EIR, the loss of this colony, or disruption such that the project-related disturbance causes abandonment of active nests or an increased mortality or reduced reproductive success that would lead to the local extirpation of, or reduction in the population at this colony below self-sustaining levels, would be a significant impact.

It is important to note that the areas of the I Street Bridge where the colony currently nests will not be physically impacted by the proposed Specific Plan. As discussed on the proposed project's Project Description, the elevated portion of Jibboom Street will be removed but the I Street Bridge, where the colony currently nests, will remain intact. Other indirect impacts, including potential disturbance from nearby construction and the loss of nesting material collection sites and perching areas would occur. To offset these potentially significant impacts the Draft EIR included Mitigation Measures 6.2-7(a) and 6.2-7(b), which, in part, would exclude martins from nesting areas that would be physically impacted by construction; thus limiting the chance that nesting birds would be impacted.

However, recent studies performed by Mr. Airola have shown that exclusion of birds may, in itself, prevent future nesting from occurring as the colony could be permanently displaced. Consequently, the following changes to the proposed mitigation shall occur; they have been developed with the aid of Mr. Airola and are specifically designed for the I Street colony:

Mitigation Measure 6.2-7(a) shall be replaced with the following:

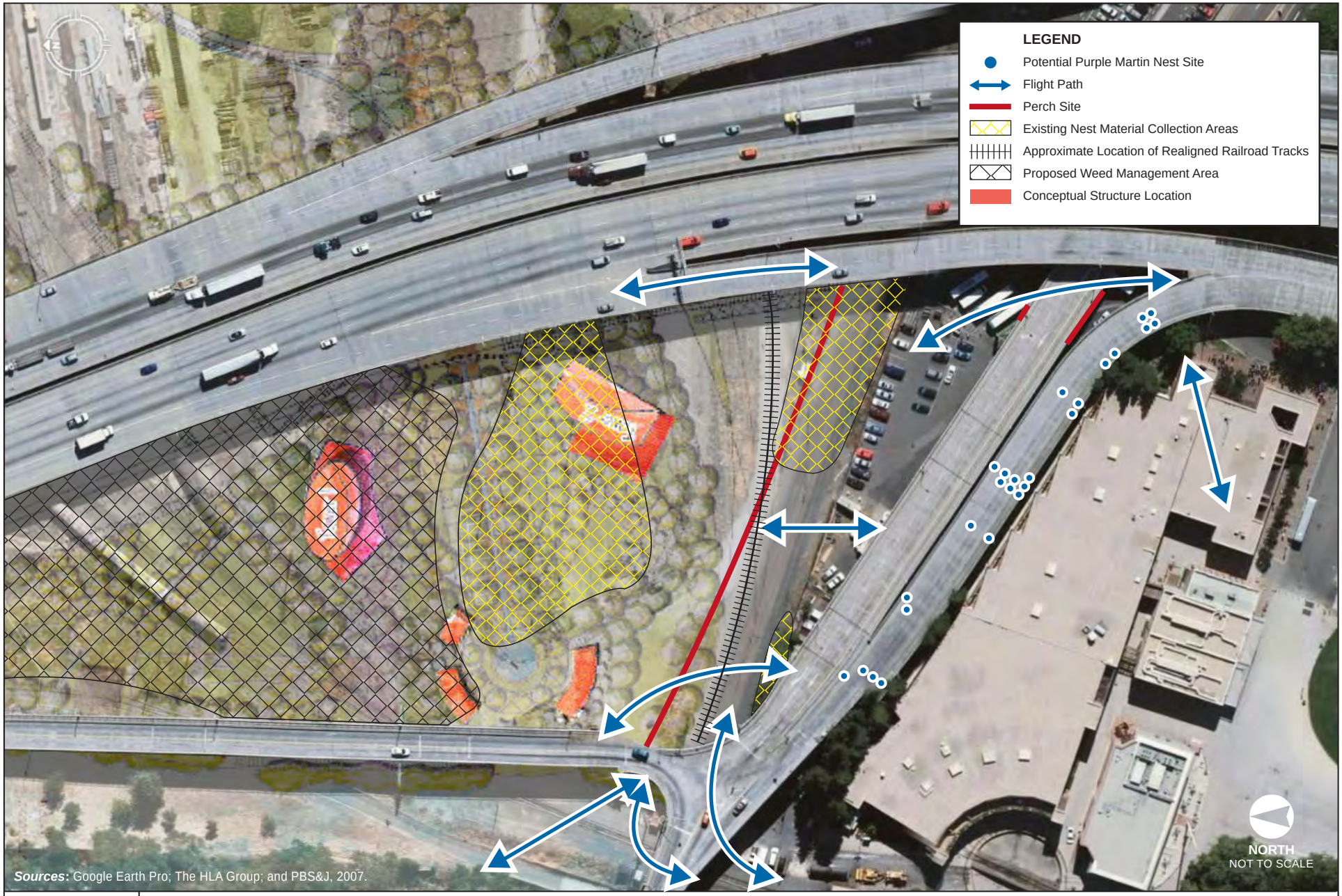
~~6.2-7 a) *Prior to beginning construction activities the project applicant shall prevent nest establishment on the areas of the structure that would be directly affected. Nest prevention methods include, but are not limited to, installation of a barrier (such as netting) to prevent bird access to the structure and/or continued removal of deposited mud material under the structure early in the nesting season to prevent construction of habitable nests. If nest prevention cannot be accomplished prior to the start of construction, and birds establish nests, the nests shall be protected from construction activity that would disrupt nesting activities until the nestlings fledge (per 6.2-7(b)). After the nestlings have fledged, the nests shall be inspected by a qualified biologist to confirm the absence of eggs and nestlings, prior to nest removal and commencement of construction activities.*~~

6.2-7 a) *Prior to the realignment of the Union Pacific Railroad tracks and/or removal of the existing overhead utility lines, the following measures shall be implemented to reduce impacts to the purple martins.*

1. *To offset loss the loss of nesting material gathering sites and reduce potential predation from feral cats using tall vegetation as ambush points, during railroad track realignment the City shall ensure that weed abatement measures are conducted (e.g., weed whacking) bi weekly from March 15th to May 15th. The area to be maintained is the area that extends out 600 feet north of the existing railroad, as detailed on Figure 2. The plant waste shall be left in place from March 15th to May 15th to allow the purple martins to use the "waste" for nest building material. This measure is temporary and shall only occur while the existing railroad tracks are being realigned.*

2. *To offset the potential impacts from loss of perching wires the project applicant shall erect at least 230 feet of permanent perching structures within 200 feet the colony. The wires shall be erected, before the removal of the existing utility lines and poles and should be 3/8-3/4 inch in diameter and shall be at least 19.5 feet off the ground. Pole mounted structures could be mounted on light poles or fencing for stability. The project applicant may also consult with the California State Railroad Museum as to the possibility of the perches being erected, within their state lands.*

3. *As identified in Figure 2, landscaping within 120 feet of the colony shall be planned as to not disrupt the flight access to the colony, small and medium size non fruit-bearing trees shall be incorporated to the landscaping plans. Landscaping plans shall also consider the option of prohibiting fruit-bearing trees within 500 feet of the site and not removing all the grass and tree clippings from the area during maintenance specifically at the beginning of the nesting season*



Sources: Google Earth Pro; The HLA Group; and PBS&J, 2007.

FIGURE **2**

Purple Martin Area Detail

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(March 15th to May 15th) as to allow the purple martins to use the clippings as nesting materials.

i) Until the proposed open space that is adjacent to the I Street Colony is landscaped as detailed in above in 6.2-7 (a)(3), the project applicant shall, from March 15th to May 15th, supply nesting material (straw, pine needles, etc.) in designated areas close to the colony for use by the purple martins while the planted trees and shrubs develop. The areas should be no further than 200 feet from perching wires.

*4. So long as the I Street Colony is active, landscaping trees adjacent to the purple martin colony shall include pine species (*Pinus *spp.) to provide a permanent source of nesting material. The pine needles that have dropped to the ground shall not be removed during landscape maintenance from January 1st to May 15th.*

Mitigation Measure 6.2-7 (b) shall be revised as follows:

b) *Although purple martins are tolerant of human activities, if active nests are present no construction shall be conducted within 100 feet of the edge of the purple martin colony (as demarcated by the active nest hole closest to the construction activity) during the beginning of the purple martin breeding season from ~~April 15 to August 1~~ March 15th to May 15th. The buffer area shall be avoided to prevent destruction or disturbance to the nest(s) until it is no longer active. The size of the buffer area may be adjusted if a qualified biologist and CDFG determine it would not be likely to have adverse effects on the martins. The site characteristics used to determine the size of the modified buffer should include; a) topographic screening; b) distance from disturbance to nest; c) the size and quality of foraging habitat surrounding the nest; and d) sensitivity of the species to nest disturbances. No project activity shall commence within the buffer area until a qualified biologist confirms that any nests are no longer active. In addition, no equipment shall be parked or stored beneath the I Street on-ramp or the I-5 overpass at the I Street on-ramp during the breeding season (April 15th to August 1st).*

With incorporation of these revised mitigation measures impacts would remain less than significant.

Long-Term Operational Impacts

The commenters assert that the Draft EIR does not address the potential long-term impacts of the proposed project. Specifically, the commenters assert that impacts of the project, including the loss of perching wires, loss of nesting materials collecting sites, loss of foraging space and access, increased exposure to competition from European Starlings, predation from feral cats, and increased mortality from vehicular collisions could result in significant impacts.

Although Impact 6.2-7 of the Draft EIR recognizes the potentially significant impact that development of the Specific Plan could have on the colony, as stated above, the I Street Bridge where the colony currently nests will not be physically impacted by the proposed project. Only the elevated portion of Jibboom Street will be removed and the I Street Bridge, where the colony currently nests, will remain intact. Consequently, there would be no direct impacts to the colony from demolition activities associated with the Specific Plan and the analysis in the Draft EIR is sufficient.

Potential impacts due to the loss of nesting material collection sites and perching areas would be mitigated per the revised Mitigation Measure 6.2-7, and these issues are addressed on the preceding section of this response to comment. Consequently, the impact would remain less than significant, the analysis in the draft EIR is sufficient.

Potential impacts associated with loss of foraging habitat would not occur. The commenter, Mr. Airola, noted in a meeting conducted at the site in response to this comment, that the primary foraging areas of the martins are south of the project site, outside of the Specific Plan boundaries. Consequently, the impact would remain less than significant.

Potential impacts associated with loss of access to the nesting areas would not be expected to occur as the I Street Bridge would not be physically altered and the area immediately adjacent to the nesting site would not be altered in such a way as to significantly impact the approach to the nesting areas. Specifically, the areas surrounding the colony, including the I Street Bridge onramp, would remain as a transportation–orientated parcel, the same type of land use that currently exists at the site. Consequently, the access to the nesting area would not be substantially different from its current state and the impact would remain less than significant. Therefore, the analysis in the draft EIR is sufficient.

The commenters state that the proposed Specific Plan would result in significant impacts from increased competition from European starlings. However, increased competition from European starlings would not likely result in significant impacts as the landscaping requirements identified within Mitigation Measure 6.2-6 would limit the location of fruiting (i.e., starling-friendly) trees, and the northern approach ramp to the I street Bridge would remain and would continue to discourage starlings from using the I Street Bridge for nesting. Therefore, with the current design and implementation of Mitigation Measure 6.2-7 the impact would remain less than significant.

The commenters expressed concern that proposed project would result in increased exposure to predation from feral cats. The City is currently working on an ordinance that would help reduce the feral cat population within the City, and development of the project site would reduce the habitat available for feral cats. Therefore, the impact of feral cats on purple martins would be minimized. Homes within the project are planned in the eastern side, well away from the purple martin population, and thus any domestic cats would be kept away from the colony. The impact would remain less than significant.

The commenters had additional concerns regarding increased mortality from vehicle collisions. However, the area surrounding the martin colony, where collisions would be most likely, would remain in its current transportation-oriented land use and the majority of the changes in circulation would occur away from the nesting area. As the land uses would not change and the traffic volumes in the immediate area of the nesting sites are not expected to significantly increase (see Section 6.2 of the Draft EIR) the proposed project would not be expected to result in a substantial increase in vehicular-related martin deaths. Therefore, the impact would remain less than significant.

Cumulative Analysis

The commenters assert that the Draft EIR does not sufficiently address the potential cumulative impacts of the proposed Specific Plan on purple martins and that the cumulative impacts for the proposed project should be considered significant. Impact 6.2-11 of the Draft EIR recognizes that the conversion of plant and wildlife habitat on a regional level as a result of cumulative development would result in a regional significant cumulative impact on special status species and their habitats, including purple martins. It also states that construction of the Specific Plan would contribute to a loss of regional biological resources through the incremental conversion of habitat for special-status species to human use, and thus limit the availability and accessibility of remaining natural habitats to

regional wildlife. Mitigation Measures 6.2-5 through 6.2-10 provide mechanisms to identify sensitive species prior to ground disturbance and require mitigation that would result in no net loss of these species. Mitigation Measure 6.2-7 is specifically designed to avoid and /or mitigate potentially significant impacts to purple martins. Implementation of these mitigation measures, in combination with compliance with State and FESA's, CWA Regulations, NPDES permit requirements, and the Fish and Game Code of California would reduce the Specific Plan Area's cumulative contribution to the Regional loss of special-status and sensitive plant and wildlife and their habitat to less-than-significant levels and additional mitigation for cumulative impacts to purple martins would not be required.

4.6 CULTURAL RESOURCES

4.6 CULTURAL RESOURCES

4.6.1 CIRCULATION OF REFERENCE MATERIALS

Response to Comments 5-1, 5-2, and 5-16

The ARG Report was not incorporated by reference. Rather, the report was reviewed in preparation of the Historical Resources Impact Analysis Report prepared by JRP and cited accordingly. Relevant information from the ARG report was included in the JRP Report which was appended to the Draft EIR. As required by CEQA, the ARG Report has been and is available for review at the City's North Permit Center at 2101 Arena Boulevard, Suite 200, Sacramento.

4.6.2 LEVEL OF DETAIL REGARDING TENANTS AND USES

Response to Comments 11-8, 11-11, 12-8, 12-11, and 22-8

As stated in the Draft EIR, the Specific Plan identifies the proposed land use and zoning designations for the plan area which in conjunction with the Design Guidelines provides the maximum height and massing of buildings as well as allowed uses in each of areas. The Draft EIR recognizes that specific uses do not need to be known to assess the environmental impacts. The Draft EIR states that the buildings will be retained and all work within the Historic District will conform with the Secretary of the Interior's Standards for the Treatment of Historic Properties, regardless of the uses to which the resources are put.

4.6.3 MITIGATION MEASURES FOR ARCHAEOLOGICAL RESOURCES

Response to Comments 26-9 and 26-47

This response addresses Comment 26-47, which asked why the mitigation measures for archaeological resources only applied to the Archaeologically Sensitive Areas (ASA). While some mitigation measures are appropriate for just the ASAs the monitoring mitigation measure was intended to apply to the entire Specific Plan Area. The following text change is proposed to Mitigation Measure 6.3-1(e) on page 6.3-48 of the Draft EIR to correct that error. No change to the finding of less than significant with mitigation incorporated would result from this change.

e) *All ~~E~~earth-moving activities within the Specific Plan Area ~~areas identified in the ATP~~ shall be monitored by an archaeologist approved by the City of Sacramento Preservation Director. Prior to any earth-moving activities, for each phase of the project a focused Monitoring and Unanticipated Discovery Plan shall be written by a qualified archaeologist and submitted to the City of Sacramento Preservation Director for approval. In the event that unanticipated archaeological resources or human remains are encountered, compliance with federal and state regulations and guidelines regarding the treatment of cultural resources and human remains shall be required. The following details the procedures to be followed in the event that new cultural resource sites or human remains are discovered.*

   i. *If the monitoring archaeologist believes that an archaeological resource has inadvertently been uncovered, all work adjacent to the discovery shall cease, and the appropriate steps shall be taken, as directed by the Preservation Director in consultation with the archaeologist, to protect the discovery site. The area of work stoppage will be adequate to provide for the security, protection, and integrity of the archaeological resources in accordance with Federal and State*

Law. At a minimum the area will be secured to a distance of 50 feet from the discovery. Vehicles, equipment, and unauthorized personnel will not be permitted to traverse the discovery site. The archaeologist will conduct a field investigation and assess the significance of the find. Impacts to cultural resources shall be mitigated to a less-than-significant level through data recovery or other methods determined adequate by the archaeologist and that are consistent with the Secretary of the Interior's Standards for Archaeological Documentation. All identified cultural resources shall be recorded on the appropriate DPR 523 (A-L) form and filed with the North Central Information Center.

4.6.4 TREATMENT AND RECOVERY PLAN FOR ARCHAEOLOGICAL RESOURCES

Response to Comments 5-15, 26-9, 40-6, and 40-10

A *Remedial Design and Implementation Plan* (RDIP) was prepared by ERM-West, Inc. in April 2004. The RDIP was prepared in order for soil remediation activities to commence on the former Southern Pacific Transportation Company Sacramento Rail Yard. Per requirement from the City of Sacramento, UPRR agreed to provide monitoring of excavations for industrial, pre-industrial, and pre-historic artifacts and an *Industrial Artifact Handling Plan* (IAHP) was prepared and appended to the RDIP. The IAHP provides detailed procedures for monitoring and handling industrial, pre-industrial, and pre-historic artifacts encountered during the remediation project. UPRR also retained a qualified representative from the California State Railroad Museum to assess industrial artifacts and a team of archaeologist to assess pre-industrial and pre-historic artifacts. (ERM-West, Inc., *Union Pacific Railroad Company Remedial Design and Implementation Plan Former Southern Pacific Transportation Company Sacramento Rail Yard Sacramento,* California, April 2004, page 1-4) Dana McGowan of Jones and Stokes prepared the *Sacramento Rail Yard Cultural Resources Monitoring Status Summary Memo* (August 13, 2007), which was prepared based on a review of the existing documentation related to the remediation activities, a review of the existing monitoring activities, and conversations with the current qualified archaeologist conducting monitoring at the project site. The memo concluded the level of monitoring to date has been sufficient in identifying important archaeological remains in the project site.

4.6.5 PRESERVATION IN PLACE CONSIDERATION

Response to Comment 5-15

As stated on page 6.3-48 of the Draft EIR, upon a discovery, all preservation options shall be considered as required by CEQA, including possible avoidance, capping, or data recovery of the resource. Preservation in place is the preferred method of mitigating impacts on significant archaeological resources. If avoidance is not possible and data recovery excavation is the only feasible mitigation, a data recovery plan must be prepared and adopted before any excavation. Mitigation Measure 6.3-6 provides for the preservation in place of any remaining features of the First Transcontinental Railroad as stated on page 6.3-54 of the Draft EIR. Mitigation Measure 6.3-2 provides for the preservation in place of the Central Shops (p. 6.3-49 of the Draft EIR). For any currently unknown archaeological resources that are discovered during earth-moving activities, Mitigation Measure 6.3-1(e) provides for the monitoring archaeologist to take steps to mitigate impacts to a less-than-significant level through data recovery or other methods determined adequate by the archaeologist and that are consistent with the Secretary of the Interior's Standards for Archaeological Documentation" (see Mitigation Measure 6.3-1 on page 6.3-48 of the Draft EIR and text change noted above for Mitigation Measure 6.3-1(e)).

Prehistoric-Era Resources

Two ASAs, Slater's Addition and Central Shops, have extensive open space, which may provide an opportunity to preserve some aspect of the archaeological record in place. Previous excavations along H Street have shown that prehistoric archaeological sites in the immediate vicinity may not be encountered until excavations reach a depth of nine feet below surface. If prehistoric resources are confined to these greater depths, it may be possible to cap the sensitive areas prior to any development.

Historic-Era Resources

The Specific Plan Area offers limited opportunities to preserve historic-era resources in place, notably the preservation of the historic structures within the historic core of the Central Shop. In other areas, if preservation in place is not possible, other options that may be used to convey the historic significance of the area.

4.6.6 JUSTIFICATION OF ASAS

Response to Comment 26-46

Settlement pattern consisted of permanent or winter settlements of 15 to several hundred people situated on low knolls near streams and above marshy floodplains. Village sites varied according to topography. In the Sacramento Valley they were located along the rivers, which were better protected from flooding and offered access to a variety of resources located in and around the rivers, marshes and sloughs. Ethnographic data suggest that Native American hunted and gathered seeds, grasses, and insects in the meadows, marshes, and sloughs.

While cultural resources are more likely to occur in the archaeological sensitivity of areas it is possible that cultural resources exist outside of the ASAs. Possible prehistoric cultural resources include village settlements, temporary camps, dietary remains, toolstone quarries, and human remains. Possible historic resources include domestic features; domestic, industrial, or commercial architecture; flood control; and land reclamation features. Mitigation Measure 6.3-1(e) addresses the discovery of resources anywhere in the Railyards.

The Draft EIR provided background and justifications for each of the ASA. The following provides the name of the ASA as well as the Draft EIR page number where the information can be found:

- Slater's Addition – pp. 6.3-12, and 6.3-15
- The 6th-7th Street Corridor – p. 6.3-15
- Sutter Lake – p. 6.3-15
- The Central Shops Area – pp. 6.3-15 and 6.3-16
- The Brass Foundry Area – p. 6.3-16
- The General Foundry Area – p. 6.3-16

4.6.7 TREATMENT OF ARCHAEOLOGICAL RESOURCES

Response to Comments 5-15 and 26-9

These comments raised several concerns regarding the treatment of archaeological resources. These concerns can be distilled into two core issues: field methodology and research issues.

Issue One: Field Methodology

The identification of historic resources consists of three phases: identification of a resource, evaluation of the resource for listing on the CRHR, and mitigation of the resource if it is eligible for listing on the CRHR.

Regarding the compression of the treatment of archaeological resources within the SPA, the first phase of evaluation, the identification phase has been performed. A pedestrian survey for cultural resources of the entire Specific Plan Area was conducted in 1990 by ASC. All of the property that could "reasonably be expected to contain visible archaeological resources" (Praetzellis and Praetzellis 1990:5) was examined. No archaeological sites were discovered during this effort.

The second phase, test excavations was addressed in the EIR. As stated on page 6.3-37 of the EIR, the proposed Specific Plan has the potential to cause a substantial adverse change to historical resources through alteration of those resources and their immediate surroundings. As described in Chapter 3 of the Draft EIR, the Specific Plan Area is largely conceptual, with flexibility in how the goals of the Specific Plan are executed. As stated on page 6.3-47 of the EIR, Mitigation Measure 6.3-1(a) states that prior to any ground-disturbing activity in an ASA, a focused Archaeological Testing Plan shall be prepared and implements to determine the present of archaeological resources and to assess their eligibility to the CRHR. Each ATP shall reflect the cultural resource issues specific to the ASA. The plans shall be written by a qualified archaeologist and submitted to the City for approval. The text change is proposed to Mitigation Measure 6.3-1(e) on page 6.3-48 of the Draft EIR requires a that prior to any earth-moving activities within the Specific Plan Area, a qualified archaeologist shall write a focused Monitoring and Unanticipated Discovery Plan for each phase of the project which will be submitted to the City of Sacramento Preservation Director for approval.

The third phase, mitigation, is required only for an archeological site that is an historical resource (i.e., listed or eligible for listing in the California Register) or meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2. As stated on page G-75 of the EIR, significance evaluations will be determined by the project's co-principal investigator, the field director, and an archaeologist from the Office of Historic Preservation.

It may be possible during the test phase to identify a site that is an historical resource as defined by CEQA and therefore require mitigation. A site may be assessed during the test phase by examining the site's stratigraphy for discrete, well-defined anthropogenic sediment layers; documenting the distribution of time-sensitive artifacts; identifying the range of artifact types present; interpreting the vertical and horizon relationship of the artifacts and features; and submitting obsidian artifacts or radiocarbon samples for chronometric analysis during test excavation. Together, these data may be used to determine if the archaeological deposit retains its integrity or has been disturbed by natural post-depositional processes (e.g., rodent burrowing, soil erosion, weathering, sediment deposition, flooding episodes) or human actions (e.g., construction, development), and if the site possesses research potential.

Contributing to a Resource listed on the CRHR

For each archaeological deposit or resource identified during any phase of the project, a qualified archaeologist in consultation with the City Historic Preservation Director will assess if the resource is a contributing factor to a property currently listed or eligible for listing on the CRHR or NHRP.

Timing of Cultural Resource Studies

The schedule time required to complete the cultural resource studies required for each phase will vary greatly. The focused Archaeological Treatment Plan will provide a timeline for each activity and product required for cultural resources compliance, based on the size and complexity of the ASA.

Issue Two: Research Issues

The second core issue pertains to the research themes and questions offered in Appendix G. As stated on page 6.3-47 of the EIR, Mitigation Measure 6.3-1 a) states that prior to any ground-disturbing activity in the ASA, a focused Archaeological Testing Plan shall be prepared and implements to determine the present of archaeological resources and to assess their eligibility to the CRHR. The plans shall be written by a qualified archaeologist and submitted to the City for approval. Research issues are important aspects of any archaeological program, as they identify the temporal, spatial, and compositional structure of an archaeological site and its integrity, which are used to determine eligibility. Second, the research issues address areas of interest to researchers and the public, as the questions try to answer unknown aspects of the archaeological record or address old research issues using newly acquired data.

Appendix G of the Draft EIR offered a sample of potential prehistoric and historic research issues; the following elaborates and clarifies how these themes and questions are in the public interest and have been discussed as part of this project.

Prehistoric Research Concerns

Site Structure and Chronology

As stated on page G-49 of Appendix G of the EIR, chronometric control of archaeological contexts is fundamental to archaeological investigations. Identification of intact deposits and features, well-dated contexts and their associated assemblages are essential in order to build a chronologic sequence of land use patterns for the project area and the Sacramento region. A well-substantiated cultural chronology has not been established for the Sacramento region. Most archaeologists apply Fredrickson's (1973) model, in which economic and sociopolitical trends simultaneously occurred over much of northern California, to the Sacramento Valley. It is uncertain if earlier modern-day or historic-period construction has impacted the integrity of prehistoric deposits or if intact deposits remain in the project area. Rather than rely on an extra-local chronology, data from the Railyards project will be used to construct an independent, cultural chronology for the Sacramento Valley, which can then be compared to other models in order to explore similarities and differences in regional prehistory.

A search of the NAHC sacred lands database did not identify known Traditional Cultural Properties (TCP) within the Specific Plan Area. Places of religious significance and other areas of economic and social importance to Native Americans are examples of these important resources. While some types of TCPS are easy to recognize based on the presence of artifacts or burials, in some instances Native American use of an area may not have left any physical evidence, such as an area where food resources were gathered. Because TCPs may be difficult to identify, investigation of these resources within the Specific Plan Area will be conducted in consultation with the Native American community, the NAHC, ethnographers, and ethnohistorians.

Paleoenvironment

As stated on page G-49 of Appendix G of the Draft EIR, better understanding of how humans interacted with the environment is a central research issue. While substantial paleoenvironmental data are not available for the project area, it is probable that over time the Sacramento area witnessed similar significant ecological changes observed in other parts of northern California. Prolonged periods of drought and increased temperatures (i.e., the Medieval Climatic Anomaly) and times of flooding are known or believed to have impacted nearby areas, and similar occurrences in the Sacramento Valley likely resulted in dramatic shifts in local biotic communities. Temporal variation in the distribution and extent of riparian and wetland habitats associated with the rivers may have affected the kinds of resources exploited or the time of the year when resources were

procured. These and other yet unrealized regional climatic shifts likely contributed to significant changes in the distribution of resources.

Changes in Subsistence Strategies

There has been extensive documentation throughout California that indigenous subsistence strategies underwent substantial changes, particularly during the late Holocene. Generally referred to as resource intensification, the extant archaeological record from other parts of northern California suggests an increase use in high-cost low-return resources, the introduction of intensive harvesting and processing practices, and greater use of previous underutilized resource patches. The current project offers and excellent opportunity to explore diachronic changes in prehistoric subsistence practices in the Sacramento Valley.

Settlement Centralization and Sedentism

Previous studies in northern California have proposed greater settlement centralization, increased sedentism, and better defined territories during the late prehistoric period. If theses changes occurred locally, there should be indications of these changes in the archaeological record. Observable shifts in technological organization may indicate changes in social geography and sedentism, while differences in obsidian source ratios over time may highlight changes in social organization and the mode of exchange.

Historic Research Concerns

In 1996, National Park Service issued a revision to their *History in the National Park Service: Themes and Concepts* bulletin. This thematic framework is a conceptual tool that archaeologists can use to evaluate the significance of cultural resources. The framework outlines major themes and concepts in American history, which guides the identification, description, and assessment of important cultural resources.

Early Settlement

The archaeology in the project area has the potential to address the early historic record of local Native American groups and Euro-American settlement of the region. Evidence of the Valley Nisenan, the village site Momol, and the earliest settlements in the area may illuminate how the native population and the settlers interacted. Assemblages attributed to the Gold Rush Era may provide information on unknown aspects of this time period, and may offer new data on three groups that are not as well-represented in the archaeological or historic record: minorities, women, and children.

Community and Neighborhood

Historically, the Specific Plan Area contains several ethnic communities, including Chinese, African-American, Jewish, Japanese, Mexican, and European. Previous research has suggested differences in the distribution of these ethnic communities; Chinese immigrants often concentrate in a certain area, while African-Americans were more dispersed. Currently, only a small amount of history of these local ethnic groups is known. The proposed project would offer an opportunity to explore a range of questions that relate to one or several groups.

Differences between communities and neighborhood composition offer an opportunity to explore residences and artifacts from select locations. Assemblages and residences of predominately minority communities may be compared to Euro-American communities and neighborhoods. Residences along alleys have been associated with lower class, while residences on lettered or numbered streets are associated with the middle and upper classes. Comparison of assemblages

from residences within the project area with those from other residential areas offers an opportunity to examine the concept of social class in Sacramento.

Religious Institutions in Sacramento

The fact that many different ethnic and religious groups immigrated to Sacramento at different times offers an opportunity to explore how various groups expressed religious and cultural values. Some were here early in Sacramento's history; other moved into the area later. In addition, several religious properties related to these groups are known to occur within or immediately adjacent to the project area: the Chinese joss house, the Chinese Christian church, and St. Andrews AME Church. Communities within the Initial Phase Area include historic Chinatown, along I street, from 2nd to 6th Streets; China Slough, a Chinese encampment near Sutter Lake; the Jewish community along 7th Street; and Shooksville, a predominately minority encampment. The development, continuance, and interaction of these communities is an important part of Sacramento's history which could be explored through cultural resource studies.

Transportation and Communication

The railyards' influence on the commercial development of Sacramento's and northern California's is an important issue. Unlike most other railyards, which were located next to "company towns" in rural areas, the Sacramento Shops were in an urban setting. The Sacramento location was one of the most important terminals, since it linked California with the rest of the United States. Over time, the area developed into one of the largest industrial complexes in the Western United States.

Workers and Work Culture in Sacramento

Changes to Sacramento's work-force offer an opportunity to explore how Sacramento's ethnic communities changed over time. Between 1880 and 1920s approximately 15 percent of Sacramento's labor force worked at the railyard shops. Up to 1906, the work force at the Sacramento Shops included Japanese, Mexicans, Italians, Jews, Yugoslavians, and Hindis. Later, workforce diversity diminished. During the 20th Century, the Sacramento Shops workforce did not include a large number of minorities; nearly all employees were white men. By 1950s the railyard shops employed a large number of Italians, Eastern Europeans, and Russians. Until the 1960s few African-Americans or Asians work for the railyards. Sacramento Packing and Drying Company was another major employer in the area. Many of its employees were from ethnic and minority groups as well.

The role of women in Sacramento's workforce is another important issue that the project may be able to address. During WWI, the Sacramento Shops hired female employees. The first women were hired to perform "housekeeping" activities like car cleaning and scrap sorting. Many women left their jobs after the end of WWI, but some stayed on to do certain types of "fine work" in the pattern department and other shops. During WWII, hundreds of women employed at the railyards. By 1942 nearly 2,000 women worked at the Sacramento Shops as "railroadettes" in all departments. When men returned from the war, women disappeared from the shops and were seldom hired in the shops.

There is little archaeological evidence of Chinese women in California. Few Chinese women immigrated during early 1850s, as the Chinese men who immigrated to California were supposed to return to China. Any opportunity to better examine the role of women would be a contribution to our knowledge of Sacramento's history.

Railyards Labor Organizations and Protests

The formation of labor unions in Sacramento is an important part of the local and regional history. One significant labor protest was the Pullman Strike of 1894. Protestors derailed trains and attempted to halt the rail system. President Cleveland deployed nearly 1,000 National Guard troops and 500 Federal troops to Sacramento to stop the strike and secure the railyards. Unlike other cities involved in the strike, soldiers occupied Sacramento for two months, and camped within the Shops complex.

4.6.8 HISTORIC DISTRICT BOUNDARIES

Response to Comments 5-5, 11-5, 11-26, 12-5, 12-14, 21-2, 22-1, and 33-4

This response addresses Comments 5-5, 11-5, 11-26, 12-5, 12-14, 21-2, 22-1, and 33-4 which claimed that there was inadequate information and justification regarding the proposed Historic District Boundary. Comments were also concerned that there was not enough information on the character defining features of each of the buildings, which also feeds into the justification of the Historic District boundary. The boundary for the Central Shops Historic District , as discussed on page 6.3-21, was determined by the applicant in consideration with ARG based on the guidelines for selecting boundaries delineated in the National Park Service publication, *How to Complete the National Register Registration Form* (National Park Service, Division of Cultural Resources, *National Register Bulletin: How to Complete the National Register Registration Form* (1997) pp. 56-57) (referred to herein as "NPS Boundary Guidelines").

The NPS Boundary Guidelines for historic districts provide:

> **HISTORIC AND ARCHITECTURAL DISTRICTS**
>
> Select boundaries to encompass the single area of land containing the significant concentration of buildings, sites, structures, or objects making up the district. The district's significance and historic integrity should help determine the boundaries. Consider the following factors:
>
> 1. **Visual barriers** that mark a change in the historic character of the area or that break the continuity of the district, such as new construction, highways, or development of a different character.
> 2. **Visual changes** in the character of the area due to different architectural styles, types or periods, or to a decline in the concentration of contributing resources.
> 3. **Boundaries at a specific time** in history, such as the original city limits or the legally recorded boundaries of a housing subdivision, estate, or ranch.
> 4. **Clearly differentiated patterns** of historical development, such as commercial versus residential or industrial.

The Central Shops Historic District boundary is fully consistent with the NPS Boundary Guidelines because the Central Shops Historic District is a geographically definable area which possesses a significant concentration, linkage, and continuity of contributing resources that are united by past events, aesthetic features, and physical development as further described on page 6.3-21 of the Draft EIR and the ARG Report. The proposed boundaries of the Central Shops Historic District encompass each of the remaining contributing resources that were part of the original Central Shops complex. The proposed boundary of the Central Shops Historic District also accounts for new construction that will be forthcoming on adjacent parcels as part of the project buildout.

The Railroad Museum has prepared a nomination for the Central Shops Historic District to the NRHP. The project applicant has prepared a nomination to the City register using the NRHP form. The district boundaries in the two nominations differ, but the subject areas overlap substantially. While the Railroad Museum encompasses a larger area than the boundary included in the Specific Plan and Sacramento Register nomination both nominations include the extant Central Shops buildings and the proposed project includes the retention of these buildings. The Sacramento Register nomination includes a longer period of significance and both nominations include the same significance dates and significant associations with regards to people. The larger project area for the NRHP nomination includes two additional structures and three sites that are not included in the Sacramento Register Nomination. While there are regulations and guidelines for the preparation of NRHP nominations there is room for varied interpretations among professionals as is demonstrated in these two nominations.

4.6.9 PROTECTION OF THE HISTORIC INTEGRITY OF THE SHOPS BUILDINGS AND DISTRICT

Response to Comments 11-12, 12-12, 12-16, 22-5, 22-10, and 33-4

The purpose of the Historic Transition Zone is to ensure that new development adjacent and immediately proximate to the historic Central Shops complements these historic resources. Accordingly, the boundary for the Historic Transition Zone encompasses those development parcels which are directly adjacent to the Central Shops Historic District.

The boundary for the Historic Transition Zone also tracks the current land use plan for the proposed Specific Plan site. (See Draft EIR, Figure 3-4.) As planned, the Historic Transition Zone and the Central Shops Historic District together form a single, distinctive area which represents the proposed Specific Plan's core. This is emphasized by the fact there are no major streets that traverse the Historic Transition Zone or Central Shops Historic District. Rather, this area is bounded by 5th Street to the East, Camille Lane to the North, Bercut Lane to the West, and the Union Pacific Railroad tracks to the South. The Historic Transition Zone boundary encompasses this core area of the proposed Specific Plan.

Design guidance in the Sacramento Railyards Design Guidelines ("Design Guidelines") also ensures that new construction in the Historic Transition Zone protects the Central Shops' historic integrity. (See Sacramento Railyards Design Guidelines, p. 5-4.) Under the Design Guidelines, new construction within the Historic Transition Zone is to be designed with sensitivity "to context, scale, materials and expression." (Sacramento Railyards Design Guidelines, p. 5-4.) To implement this goal, the Design Guidelines contain specific building requirements for the Historic Transition Zone. These requirements are as follows:

- New buildings shall respect the fabric of historic buildings by being placed a minimum of 20 feet from any historic building.
- The height of historic buildings shall be respected by setting neighboring buildings height at the same level or by establishing an upper floor setback, or with other design treatments, and by conforming with the maximum building heights shown in Figure 5-2 of the Specific Plan.
- The massing of neighboring buildings shall be compatible with the scale and delineation of the massing of the historic buildings and elevations should respect the datum lines of architectural elements of adjacent historic buildings. New structures on parcels adjacent to the historic Central Shops shall refer to the historic buildings for guidance on massing and composition.
- New buildings, streetscape and plaza designs should incorporate contemporary versions of elements used on historic resources, such as window detailing, materials, building ornament,

paving, furniture, signs and lighting. New features should be distinguishable from historic structures and features and should not create a false sense of historical or architectural authenticity.

- Open spaces in the Transition Area shall be designed following the specific design guidance found on pages 3-5 through 3-56 of these Design Guidelines. A map of the areas delineated on these pages is to the right.
- New buildings in the Transition Zone shall be designed to be slender or modulated to allow intermittent views into the Central Shops Area from the I-5 freeway, Camille lane, and Fifth Street.
- Windows and balconies on new buildings in the Transition Zone shall allow views to the Central Shops Area.

Thus, the Design Guidelines would ensure that development within the Historic Transition Zone is not only compatible with, but is also protective of, the historic integrity of the Central Shops.

4.6.10 TRACK RELOCATION

Response to Comments 5-12, 11-12, 12-12, and 33-5

These comments question the less than significant determination based on the implementation of the Secretary of the Interior Standards and why the Sacramento Depot has no definite boundaries or list of contributing and non-contributing elements. The Depot has been investigated multiple times (1975, 1994, and 1998) and is listed on the NRHP. Contributing elements, as outlined in the Draft EIR on page 6.3-27-29, include the REA Building and platform amenities. Impact 6.3-4 on page 6.3-53 of the Draft EIR states "Moving the tracks could cause a substantial adverse change to the Sacramento Depot and REA Building because it may require the demolition of the platform amenities, which have been determined eligible as contributing elements to the NRHP-listed Depot." If the platform amenities were demolished it would constitute a significant impact and would not meet the Secretary of the Interior's Standards. If the tracks were relocated without removing the platform amenities the track relocation could meet the Secretary of the Interior's Standards resulting in a less-than-significant impact. The relocation of the tracks may be partially dependant on funding from the Federal Government in which case it would require Section 106 review per the National Historic Preservation Act of 1966.

4.6.11 CHARACTER DEFINING FEATURES OF THE ERECTING SHOP, BOILER SHOP, ROUNDTABLE, AND TRANSFER TABLE

Response to Comments 5-14, 11-6, 11-9, 12-6, 12-9, and 22-2

Comments were received that were concerned with the lack of description of character defining features and analysis of the buildings, especially the Erecting Shop, Boiler Shop, Roundtable and Transfer Table, as well as resources within the buildings (e.g. cranes, rails, tools) which would lead to insufficient mitigation measures to protect this resource from significant impacts. Impact 6.3-2 on pages 6.3-49 of the Draft EIR addressed the impacts to the Southern Pacific Railroad Shops, which includes the Erecting Shop, Boiler Shop, Roundtable (referred to as the turntable), and the Transfer Table. Mitigation Measure 6.3-2 on page 6.3-51 of the Draft EIR requires that the necessary documentation be prepared to formally list the Central Shops Historic District as a locally Adopted Historic District. This process would include a full description of all of the buildings including the Erecting Shop. Identification of the character-defining features of all the contributing resources within the City's Central Shops Historic district is being included in the Preservation Commission's November 7, 2007 Staff Ordinance for City Council's adoption on November 20, 2007. This documentation would provide the information on character defining features needed in order to

ensure that those features are protected in the process of renovating the shop buildings for new uses. As a result the following character defining features have now been identified in relation to Erecting Shop, Boiler Shop, and Roundtable.

Erecting Shop, Exterior

- brick walls
- steel framing
- metal gable roof over the Engine Rebuild Shop and Component Rebuild Shop
- metal deck roof of the Erecting Bays
- parallel roof systems
- gambrel roof at north end
- gabled clerestory with multi-paned windows
- exterior articulated bays with arched multi-paned windows and brick pilasters
- brick moldings
- shallow stepped cornice
- double-hung windows with cast iron sills
- large rectangular windows and articulated bays at east end

Erecting Shop, Interior

- cast iron posts with paired brackets
- exposed wood truss system
- interior bays
- large interior open space
- extant mechanical equipment - This equipment is non-functioning

Boiler Shop, Exterior

- corrugated metal siding
- gable roof
- shed roof extensions on east and west elevations
- window openings

Boiler Shop, Interior

- wood framed construction
- wood truss ceiling
- large interior open space
- extant mechanical equipment - This equipment is non-functioning

Roundtable (Turntable)

- circular shape
- concrete pit
- tracks
- steel framework
- table
- metal cab

4.6.12 First Transcontinental Railroad Markers Need to be Included as Mitigation

Response to Comments 22-6 and 33-4

Comments were received requesting that the historic transcontinental rail alignment be marked as an interpretative trail. This is already required by Mitigation Measure 6.3-6(b) on page 6.3-55 of the Draft EIR that states "The historical information about the resource (First Transcontinental Railroad) shall be integrated into the interpretation displays and signage along the route."

4.6.13 Additional Proposed Mitigation Measures

Response to Comments 22-4, 23-1, 33-4, 38-1, 40-3, 40-5 and 40-9

The comments recommend the inclusion of mitigation measures that would require all new construction in the Transition Zone to be reviewed by the Preservation Commission, and require a Chinese Garden, Interpretive Walk, and a Chinese American Museum be included in the proposed project.

All future projects in the project area will be reviewed to determine consistency with the Specific Plan, Design Guidelines, SPD, and Historic District Ordinance. The SPD is the tool that establishes the procedures to evaluate future individual projects against the approved policy documents. The SPD establishes that all future individual projects will be required to receive a Planning Director Urban Development Permit. This process establishes specific requirements for applicants; it requires review and recommendation on each individual application within the Transition Zone for consistency with the Specific Plan, Design Guidelines, SPD, and Historic District Ordinance by the Preservation Director, and projects within the Central Shop Historic District, which is subject to Preservation Commission review and approval consistent with Chapter 17.134. The Preservation Director's recommendation would be forwarded to the Planning Director.

Chapter 3 of the Design Guidelines (as revised) provides for a Chinese Garden in the Specific Plan Area, although a location has not specifically been established. The Depot District is referenced as a possible location. A Chinese Museum would also be an allowable use in the Depot District.

4.6.14 Preservation of the Flat Transfer Table

Response to Comment 22-7

The flat transfer table is discussed in Impact 6.3-2 of the Draft EIR, starting on page 6.3-50. It is noted in that discussion that the previous ARG report did not cover the flat transfer table. Mitigation Measure 6.3-2(c) requires that a Historic District Plan be prepared. The National Register of Historic Places nomination form prepared by Kyle L. Wyatt of the California State Railroad Museum listed the Transfer Table as a non-contributing structure to the Historic District due to its compromised

integrity. The running rails are noted as being redesigned, rebuilt and extended at various periods in history from 1910 to 1945 and the table itself is noted as being built in 2003 "in the style of the original."

4.6.15 LIGHTING IN THE CENTRAL SHOPS HISTORIC DISTRICT

Response to Comment 36-1

While new buildings should complement historic buildings it is not generally recommended that false history be created in new buildings or in additions to historic buildings. The Guidelines put forth by the Secretary of the Interior vary depending on what level of treatment is being achieved: preservation, rehabilitation, restoration, or reconstruction.

4.6.16 VIBRATION DAMAGE TO THE CENTRAL SHOPS AND OTHER SURROUNDING BUILDINGS

Response to Comments 5-8, 11-14, 11-15, 12-15, and 34-1

Comments expressed concerns with vibration impacts to the central shops buildings. Draft EIR Chapter 6.8, Noise and Vibration, Impact 6.8-4 determined that there would be a significant and unavoidable impact on receptors and historic structures due to vibration impacts. Noise reducing Mitigation Measure 6.8-1 would also reduce vibrations. Mitigation Measure 6.8-5 is designed reduce vibrations such that they to do not cause substantial annoyance or structural damage. Subsection c) of that measure specifically cites the protection of the buildings in the Central Shops Historic District.

4.6.17 RESOURCE IDENTIFICATION

Response to Comments 5-1, 5-3, 5-4, 5-5, 5-6, 5-9, 5-10, and 12-11

The resources listed on the attached table (Table 4.6-1) were identified in the Draft EIR for the Railyards Specific Plan. The table includes the list of resources, that status of the resource, and who made the status determination. It should also be noted that the Pioneer/Sperry Mill site is owned by the State Department of Parks and Recreation and would not be impacted by the proposed Specific Plan.

TABLE 4.6-1

RESOURCE IDENTIFICATION

Resource	Status	Determined by
Paint Shop	Contributor to the Central Shops Historic District	Inventoried and evaluated by HEC, 1998. (Not submitted to SHPO)
Car Machine Shop	Contributor to the Central Shops Historic District	Inventoried and evaluated by HEC, 1998. (Not submitted to SHPO)
Planing Mill	Contributor to the Central Shops Historic District	Inventoried and evaluated by HEC, 1998. (Not submitted to SHPO)
Privy	Contributor to the Central Shops Historic District	Inventoried and evaluated by HEC, 1998. (Not submitted to SHPO)
Car Shop No. 3	Contributor to the Central Shops Historic District	Inventoried and evaluated by HEC, 1998. (Not submitted to SHPO)
Blacksmith Shop	Contributor to the Central Shops Historic District	Inventoried and evaluated by HEC, 1998. (Not submitted to SHPO)
Erecting Shop	Contributor to the Central Shops Historic District	Inventoried and evaluated by HEC, 1998. (Not submitted to SHPO)
Boiler Shop	Contributor to the Central Shops Historic District	Inventoried and evaluated by HEC, 1998. (Not submitted to SHPO)
Turntable	Contributor to the Central Shops Historic District	Inventoried and evaluated by HEC, 1998. (Not submitted to SHPO)

TABLE 4.6-1

RESOURCE IDENTIFICATION

Resource	Status	Determined by
Flat Transfer Table	Non-contributor to the Central Shops Historic District	NRHP Nomination form prepared by Kyle Wyatt, Curator of History and Technology at the California State Railroad Museum, 2007.
Water Tower	Contributor to the Central Shops Historic District	Carey & Company, 1999. (7th Street Ex project)
I Street Bridge	Listed on the NRHP	
Jibboom Street Overhead	Ineligible for the NRHP	Andrew Hope (Caltrans Architectural Historian)
I Street Viaduct	Ineligible for the NRHP	Andrew Hope (Caltrans Architectural Historian)
J Street Viaduct	ineligible for the NRHP	Andrew Hope (Caltrans Architectural Historian)
Route of the First Transcontinental Railroad	Not evaluated on the project site, recorded in 1997-98 (focused on tunnels near Donner Pass).	John Snyder of PS Preservation Services, 1997-98.
Sacramento Depot	Listed on the NRHP in 1975 (REA Building listed in 1994, platform elements listed in 1998)	JRP, 1998.
Pioneer/Sperry Grain Mill	Not listed with any register-unlikely to contain sufficient integrity to be listed.	JRP, 2007.
Northern Embankment	Not listed with any register-preliminary assessment indicates that it does not appear to meet the criteria for listing in the NRHP.	JRP, 1998 and 2007.

4.6.18 MITIGATION MEASURE 6.3-2

Response to Comment 5-13

Formal adoption of a City-designated Historic District is intended. The following mitigation measure has been altered to reflect that intention.

6.3-2 a) *An Architectural Historian qualified under the Secretary of the Interior's Standards shall be retained to prepare the necessary documentation to formally list the Central Shops Historic District as a locally Adopted Historic District. The Central Shops Historic District shall be adopted by the City, or approved by the Historic Preservation Officer, prior to alteration of any of the buildings in the District on the project site beyond stabilization recommendations approved in the ARG report.*

4.6.19 FIRST TRANSCONTINENTAL RAILROAD ROUTE

Response to Comments 5-11, 11-4, 12-4, and 22-6

Comments state that page 6.3-30 of the Draft EIR talks about the location of the route of the First Transcontinental Railroad being unknown. While the Draft EIR does talk about the route not being recorded through the project site the location is known and discussed on page 6.3-54 of the Draft EIR. The Draft EIR indicates that what is unknown is whether physical features of the route still exist that mark its presence. Through previous site investigations the route has not been formally recorded. This is the reason that Mitigation Measure 6.3-6 was included, to record and inventory the route through the project site. The Specific Plan also provides for markers along the alignment. To be listed on the National Register of Historic Places, a property must not only be shown to be significant under the criteria, but it also must have integrity. On page 6.3-32 of the Draft EIR the concept of integrity with relation to the evaluation of historic resources is defined. All properties

change over time. It is not necessary for a property to retain all its historic physical features or characteristics. The property must retain the essential physical features that enable it to convey its historic identity.

4.6.20 OLD SACRAMENTO HISTORIC DISTRICT

Response to Comments 11-10, 11-24, and 12-10

The comments claimed that the Draft EIR did not address impacts to the Old Sacramento Historic District. While the Old Sacramento Historic District is in close proximity to the project site it is substantially visually and physically divided by an elevated portion of I-5 that separates the Old Sacramento Historic District from the project site and the rest of downtown Sacramento. The proposed Specific Plan would not cause any direct or indirect changes to the Old Sacramento Historic District and changes occurring on the project site would be visually blocked by I-5.

4.6.21 APPENDIX H

Response to Comments 5-13, 11-13, and 12-13

Commenters were concerned that the Applicant was not being required to nominate the Historic District to the National Register as recommended in the technical report contained in Appendix H. Mitigation Measure 6.3-2 (a), as modified above, requires the applicant to nominate the Central Shops Historic District to the local register, which would provide the same protections under CEQA as a National Register property. It should also be noted that a resource need not be listed on a historic register to be afforded these protections under CEQA; it only need be determined eligible.

4.6.22 IMPACTS TO HISTORIC DISTRICT FROM NOISE AND VIBRATIONS

Response to Comments 5-7 and 22-9

Impacts due to noise and vibrations are discussed in Chapter 6.8 Noise and Vibration of the Draft EIR and do address potential impacts to historic structures (see page 6.8-27 of the Draft EIR). The relocation of the tracks near the Central Shops would not adversely affect the significance of this historic resource with implementation of Mitigation Measure 6.8-5. The Central Shops were built as part of the SP Railyards for various purposes related to train maintenance and construction; therefore, the placement of rail lines in close proximity to these buildings would not damage the setting of the area. Rail lines would be consistent with the context of the area and resource.

4.6.23 TECHNICAL REPORTS FOR ARCHAEOLOGICAL RESOURCES

Response to Comments 26-9 and 26-45

Comments were received that challenged the scope of the Archaeology reports supporting the EIR. Contrary to the comments, which refer to one archaeology report, Appendix G of the Draft EIR actually contains two archaeology reports: Sacramento Railyards, Program-Level Assessment: Archaeology (July 5, 2006) and Sacramento Railyards, Initial Phase: Archaeology (July 23, 2007). The 2006 report provides a program level assessment of the entire project area, the Specific Plan Area, and the 2007 report provides more in depth analysis of what was called the Initial Phase area, which represents a portion of the Specific Plan Area.

4.6.24 SECTION 106 REVIEW

Response to Comment 5-18

The comment is correct that if a 404 permit is required Section 106 review will also be required.

4.6.25 TREE OF HEAVEN

Response to Comment 33-7

The comment notes some of the vegetation on the project site pointing out the presence of a Chinese Tree of Heaven. The presence of this tree is noted in the Biological Resources section and is noted as a non-native, invasive species. Impact 6.2-10 on page 6.2-46 of the Draft EIR analyzed the impacts to protected trees.

4.6.26 INCLUSION OF THE ROUNDHOUSE IN THE HISTORIC DISTRICT

Response to Comment 22-3

This comment is concerned that the foundation of the Roundhouse was not addressed or included in the Historic District. Page 6.3-7 of the Draft EIR notes that while the Roundhouse was an early structure in the Railyards portions of it were demolished in the 1950s. The turntable portion is still extant, as are some remnant foundations of the structure surrounding the turntable.

4.6.27 RAILYARDS MUSEUM

Response to Comments 11-19, 11-22, and 11-25

While museums are an allowable use in the Specific Plan it is not specifically defined in the proposed project and does not need to be analyzed to that level of detail at this time. When a specific project is proposed under the Specific Plan, such as the Railroad Museum, it will be subject to CEQA at that time.

4.6.28 PREVIOUSLY REMOVED RESOURCES

Response to Comment 11-20

The comment requests that information be provided on the level of protection for all remaining historic structures within the Railyards, the buildings and features lost within the last 50 years, and the value and importance of reconstructing historic buildings. The Specific Plan, Design Guidelines, and the Section 6.3 of the Draft EIR all provide information on the various protection measures including the treatment of the buildings to the Secretary of the Interior's Standards, a Transition Zone which both sets new buildings back from historic building and restricts their height. The reconstruction of any previously demolished buildings is not a part of the proposed Specific Plan and as such need not be analyzed in the Draft EIR.

4.6.29 VISUAL INTEGRITY

Response to Comments 11-16, 11-21, and 11-23

The comment requests that the importance of the historic viewsheds in and around the Central Shops District be discussed. The historic setting of the Specific Plan Area is described through text and maps in the Draft EIR and the attached technical reports. As explained in the Draft EIR the Railyards site evolved over its many decades of operation with building being added and removed. The period of significance for the Historic District spans many decades which means that the appearance of the area changed greatly over that time. The comment does not request a certain time period viewshed be addressed. However, generally, while the railyard was in operation there were many more buildings present on the site creating a denser environment where the Central Shops Buildings, as they are known today, would not necessarily be as visible as they are today from the surrounding area.

4.6.30 RAILROAD MUSEUM TRACK ALIGNMENT

Response to Comments 11-27 and 11-28

The comments expressed concern that the track alignment between the Turntable and the Union Pacific Mainline as noted in the Specific Plan and Draft EIR, specifically Figure 3-7 of the Draft EIR, and the Track Relocation Plan are not identical. Figure 3-7 on page 3-27 of the Draft EIR and Figure 5-1 on page 58 of the Specific Plan do show the same general alignment as the Track Relocation Plan map provided in the comment letter. The Track Relocation Plan is a detailed engineered drawing while the figures provided in the Specific Plan and Draft EIR are more conceptual, less detailed by nature.

4.6.31 FEDERAL TAX CREDITS

Response to Comment 5-17

No where in Section 6.3 of the Draft EIR does it state this. Tax credits are only mentioned in the regulatory setting in the context of a City Policy on page 6.3-35.

4.7 SEISMICITY, SOILS, AND GEOLOGY

4.7 SEISMICITY, SOILS, AND GEOLOGY

4.7.1 LEVEE FAILURE DUE TO EARTHQUAKES

Response to Comments 18-19 and 18-20

The standards of significance used in the analysis of potential seismic hazards are listed on page 6.4-14 in Section 6.4, Seismicity, Soils, and Geology, in the Draft EIR. When addressing the environmental impacts of the project, two of the stated standards of significance were if the project could expose people to seismic related ground failure, and if the project construction potentially results in on- or off-site lateral spreading (Draft EIR, pp. 6.4-13 – 6.4-14). These standards of significance would include any levee failure resulting from project construction or seismic actions, and therefore, the environmental analysis would consider levee failure when addressing the significance of impacts.

There are no known active faults in or adjacent to the City of Sacramento (Draft EIR, p. 6.4-2). Further, there has been no documented movement on faults mapped in Sacramento County within the past 150 years (*Id.*). Additionally, the Draft EIR concluded that the Specific Plan Area is not subject to any environmental impacts related to seiche, tsunami or mudflow (Draft EIR, p. 6.6-1).

Nonetheless, despite the low probability of levee failure due to seismic activity, levee failure and flooding has been addressed in the Draft EIR in Chapters 6.4 and 6.6. The Draft EIR defined lateral spreading in the Draft EIR (Draft EIR, p. 6.4-7). "Lateral spreading is the horizontal movement of soil toward an open face such as a stream bank, the open side of a fill embankment, the side of a levee, or the wall of an excavation." The Draft EIR also recognizes that lateral spreading can be caused by seismic vibration.

Any construction, including fill and grading, within Specific Plan Area must comply with applicable local ordinances as well as the California Building Code. Mitigation measure 6.4-3 recognizes that compliance with these regulatory requirements would reduce any risk of exposure to seismic-related ground failure to less-than-significant (Draft EIR, p. 6.4-16). Mitigation measures are not required for effects which are not found to be significant (CEQA §15126.4(a)(3)).

In addition to the analysis within Chapter 6.4, dangers posed by levee failure are also addressed in Chapter 6.6, Hydrology and Water Quality. The Draft EIR states that based on existing topographic elevations in the project site, the Specific Plan Area is protected from the 500-year flood event (Draft EIR, p. 6.6-2). Also, recent improvements to the levees along the Sacramento and American Rivers further reduced the risk of flooding (Draft EIR, p. 6.6-3). Also, added flood protection is provided by coordinated operation of upstream dams and reservoirs. Even though it is not certified by FEMA as a flood prevention facility, the railroad embankment built on the northern boundary of the Specific Plan Area would provide additional evacuation time by slowing inundation of the Specific Plan Area during a flood evacuation. Impact 6.6-4 addresses the increased risk of exposing people to flooding from development of the Specific Plan and draws a conclusion that the effect is less than significant.

4.7.2 CUT AND FILL LOCATIONS AND CONSTRUCTION METHODS

Response to Comments 18-19 and 18-20

Figure 6.4-2 in Section 6.4, Seismicity, Soils, and Geology, in the Draft EIR shows the approximate locations of cut and fill. There are no plans to excavate fill from or cut behind the land side of the levee along the Sacramento River.

The specific location of a school has not been determined. If a school is constructed at the project site, it would not be a "suburban-style" school that would require substantial earthwork. The need for importing fill to a particular location would be determined when the site is selected. DTSC would be responsible for ensuring soils at the selected school site do not contain contaminants at levels that would present a risk to students, faculty, or staff (see Section 6.5, Hazards and Hazardous Substances). Additional analysis provided in Section 6.10, Public Services, of the Draft EIR.

Any construction within the Specific Plan Area must comply with all applicable standards and regulations pertaining to geology, soils and seismicity (Draft EIR, pp. 6.4-9 – 6.4-13). This includes the California Building Code, which requires minimum standards for structural design and site development (Draft EIR, pp. 6.4-9 – 6.4-10). Additionally, any development in the Specific Plan Area must also comply with local building regulations (Draft EIR, pp. 6.4-11 – 6.4-13). Before any soil work on a construction site in the Specific Area can begin, the builder must complete a geotechnical investigation for the site (Draft EIR, p. 6.4-11). The geotechnical report includes analysis of all soils, either present on the site, or proposed in the construction (*Id.*). The construction of any school within the Specific Area will have to comply with these regulations. No additional analysis of fill material for a school site is required in the EIR.

If geotechnical studies indicate driven piles are determined to be necessary to provide a safe foundation for structures, the EIR (Mitigation Measure 6.8-1) requires that quieter "sonic" pile-drivers must be used. The commenter is referred to Section 6.8, Noise, in the Draft EIR for the analysis of noise and vibration impacts related to project construction. Mitigation Measure 6.8-1 identifies specific actions that must be implemented to reduce potential effects on site occupants.

Environmental impacts of pile driving within 1000 feet of students are also analyzed in Chapter 6.8, Noise and Vibration. Figure 6.8-2 sets forth noise standards for a variety of uses, including school sites (Draft EIR, Figure 6.8-2). The Draft EIR sets "Residential designation" as the land use category with the strictest noise impact thresholds (*Id.*). The Draft EIR evaluates noise impacts for the project in the East End District, where the potential school site would be located (Draft EIR 6.8-20.). The Draft EIR concludes that the Specific Plan would require future development in the East End District to meet all "residential" noise standards, and therefore any noise impacts would be acceptable for schools (*Id.*) (Draft EIR Figure 6.8-2; Draft EIR, p. 6.8-20).

Similar to the noise analysis, the Draft EIR includes a vibration study which designates three categories of land use for review of vibration impact (Draft EIR, appen. K, p. 14.). Schools are identified and analyzed under the Institutional Category 3 (*Id*.). Residential land use is categorized in Category 2 and therefore has stricter vibration requirements (*Id*.). The vibration study evaluates the vibration impact to the East End District (Draft EIR, appen. K, p. 16-17.). The vibration study concludes that there would be potential vibration impacts to the residential units in the East End District (*Id.*). However, the project will mitigate the vibration impact, performing soil densification, or implementing base building isolation (Draft EIR, appen. K, 31.).

4.8 HAZARDS AND HAZARDOUS SUBSTANCES

4.8 HAZARDS AND HAZARDOUS SUBSTANCES

4.8.1 EXTENT OF SOIL AND GROUNDWATER CONTAMINATION AND STATUS OF CLEANUP (DRAFT EIR ENVIRONMENTAL SETTING)

Response to Comments 4-1, 4-2, 6-1, 6-14, 18-22, 25-23, 25-25, 25-26, 25-28, 25-81, 25-86, 25-88, 26-3, 32-1, and 40-6

Numerous technical reports have been prepared that document the results of extensive soil and groundwater investigation and cleanup efforts at the Specific Plan Area (Draft EIR p. 6.5-1). The 1994 Railyards Specific Plan/Richards Boulevard Area Plan EIR also evaluated, at a programmatic level, the potential human health effects of development of the Railyards with respect to known and potential soil and groundwater contamination associated with historic uses. Since certification of the Specific Plan/RBAP EIR, extensive investigation and cleanup activities have been performed at the Specific Plan Area, which were summarized in the "Environmental Setting" in the Draft EIR (pp. 6.5-2 – 6.5-13).

Appendix I in the Draft EIR is a bibliography of all technical documents that identify specific criteria for investigations at the site and completion of remediation. The availability of documents that require public participation (e.g., draft Remedial Action Plans [RAPs]) has been publicly noticed as required by state law, and subject to environmental review under CEQA, where applicable (see also Section 4.8.10 "Soil and Groundwater Remediation and Relationship to Development of the Railyards Specific Plan - Draft EIR Methods of Analysis and Standards of Significance" below, for further information about CEQA requirements for the cleanup).

The Railyards is a State of California Superfund site (Draft EIR p. 6.5-2). It is not a federal Superfund site. Cleanup of the Railyards site is privately funded and does not rely on federal Superfund funding.

Figure 6.5-1 in the Draft EIR shows the locations of cleanup areas relative to planning district boundaries. The text under the subheading "Remediation Project Status" on page 6.5-10 in the Draft EIR clearly explains which areas have been remediated, which have not, and the timeline for completion. Pages 6.5-10 – 6.5-13 presents information about these activities.

Figure 6.6-2 in Section 6.6, Hydrology and Water Quality, shows the location of groundwater monitoring and extraction wells within the Railyards Specific Plan Area, which are an integral part of the cleanup and restoration activities. The analysis in the Draft EIR (Impact 6.5-4, in particular) considers the extent to which development of the proposed Railyards Specific Plan could affect these wells.

As further noted on page 6.5-4 in the Draft EIR,

> [cleanup] has been completed for a majority of the Specific Plan Area and has been subject to a *separate CEQA review process* [emphasis added] conducted by DTSC as part of the RAP approval process and the City in its review of earlier development plans for the Railyards. Appendix I (Site Investigation and Cleanup Bibliography) includes a bibliography of the technical reports that have been prepared to document the results of the site investigations and work plans for site cleanup. Each of the site investigation and remediation reports listed in the bibliography in Appendix I have been reviewed by DTSC and in some cases the CVRWQCB to ensure compliance with applicable laws and regulations pertaining to the cleanup of hazardous substances contamination...

Cleanup at the Railyards began in the 1980s, at which time numerous technical studies began, and the results provided to state agencies, including the RWQCB. The Draft EIR (p. 6.5-4) notes that "UPRR has completed the investigation of most parts of the Railyards, and has completed the RI/FS/RAP process for all soil study areas except the Central Shops study area. The types and extent of chemical impact to soil is, therefore, well known and has been well documented through the RI/FS process. This information, as well as the selected remedies, *have been reviewed by the public* [emphasis added] and approved by DTSC through the RAP process." The Sacramento Public Library contains an extensive collection of Railyards cleanup documents, and public notification has been performed in accordance with state laws and regulations pertaining to the cleanup of the site. As such, the public has had opportunities to review and provide input into the cleanup process for the Plan Area for over 20 years.

Four land use covenants have been imposed on the Railyards site to date by DTSC: 7th Street Corridor (Book 20010711 Page 1499), Battery Shop (Book 19900628 Page 1056), and Pond and Ditch (Book 19940519 Page 1438). A fourth land use covenant referenced on page 6.5-13 is for the Sacramento Station portion of the Railyards site (Book 19940519 Page 437). These land use covenants are recorded at Sacramento County and are also available for public review on DTSC's website at http://www.dtsc.ca.gov/SiteCleanup/Projects/Sac_Rail_Yard.cfm.

Groundwater Quality

As stated at the top of page 6.5-4 in the Draft EIR, results of the site investigation and cleanup studies that are listed in Appendix I in the Draft EIR were summarized to provide the reader with information about the types and locations of contaminants at the site. Some information was also provided in Section 6.6, Hydrology and Water Quality, in the Draft EIR on pages 6.6-7 and 6.6-11, and in Figure 6.6-1. The following information is being provided to clarify and elaborate on groundwater quality data provided in the Draft EIR. The inclusion of this information does not alter the conclusions of the analysis. The following subsection is added to the bottom on page 6.5-9 and before the subheading "Remediation Project Status" on page 6.5-10 in Section 6.5 in the Draft EIR:

> *Groundwater Quality*
>
> Groundwater quality at the Railyards cleanup site, and areas outside the site where contaminant plumes have been detected, is routinely monitored for contaminants of concern. The results are reported to DTSC and the RWQCB in accordance with a RWQCB-adopted "Monitoring and Reporting Program (MRP) Order No. R5-2005-0835." Figure 6.6-2 in Section 6.6, Hydrology and Water Quality, shows the locations of groundwater monitoring wells at the Railyards cleanup site. Monitoring wells are also located in downtown Sacramento and north of the site. Groundwater samples are collected from four water-bearing zones beneath the site and in the downtown area: sand zone (upper and lower), gravel zone, the interbedded B zone, and interbedded D zone. VOCs, SVOCs, TPH, and metals have all been detected in groundwater. Results of the latest round of sampling are as summarized below.
>
> Wells in the Central Shops area (upper and lower sand zone) are showing an overall decrease in VOC contaminant levels, indicating the plume is not expanding. VOCs in the gravel zone extend south from the Railyards site into downtown near P Street and northwest toward the California State Printing Plant. There have been both increases and decreases in VOC levels, but overall the levels have remained essentially static and the plume has not shown evidence of expanding. Similarly, VOCs in the interbedded B and D zones, are consistent with historical data. Plume dimensions have remain unchanged. Several VOCs detected in the lower sand and gravel zones along the plume margins are not associated with Railyards sources. SVOC levels are consistent with previous data. TPH (gasoline and

diesel hydrocarbons) data show only minor fluctuations over time. Two wells with increased concentrations at the downgradient edge of the South Plume will be further investigated as part of the RAP process for the South Plume.

Groundwater is extracted at several locations as part of the DTSC-approved cleanup at the Railyards. The extraction has influenced the distribution and extent of chemicals in groundwater. The effectiveness of the extraction systems and the effects on groundwater characteristics is also monitored and reported to the RWQCB in "Remediation Systems and Operation and Maintenance Reports."

Specific information about lead in groundwater was obtained from these DSTC-approved remedial investigation reports, which have been submitted to RWQCB. Dissolved metals are also part of the groundwater testing MRP.

The status of groundwater cleanup is noted on page 6.5-10 in the Draft EIR. Treatment of contaminated groundwater is ongoing and will continue until the results of regular monitoring show a reduction in contaminant levels to those identified in the specific RAPs for the groundwater units. There are no plans to use groundwater in the Specific Plan Area because domestic water would be supplied by the City of Sacramento from existing treated surface supplies. Existing mechanisms are in place to manage extraction of groundwater during construction to ensure proper disposal in accordance with City of Sacramento regulations (see Impact 6.5-3 and Mitigation Measure 6.5-3(g)).

The third sentence of the first paragraph on page 6.5-8 under the subheading "Volatile Organic Compounds" contained a typographical error. This sentence has been revised as follows:

...They are found in surface soils at significantly lower concentrations because they ~~volatize~~ volatilize into the atmosphere.

One commenter questioned whether two of the bulleted items on page 6.5-11 are duplicates. The first bullet addresses exposure to *non*carcinogenic constituent concentrations. The second bullet refers to carcinogenic constitutent concentrations. No changes to the Draft EIR are necessary.

The last sentence of the paragraph beginning "Remediation of site soils in the Central Corridor/Car Shop Nine..." on page 6.5-11 should read:

~~Stockpiles~~ Tested and classified ~~of~~ Railyards soils have been placed ~~beneath the planned soil cap~~ in the northwest corner of the LSA (i.e., the "Vista") where ~~the a~~ planned soil cap ~~would~~ will be constructed (see "Northwest Corner (Lagoon Study Area) Soil Cap (Proposed Vista Park)" subheading). These soils meet approved placement criteria.

The conceptual design for the soil cap is described on pages 6.5-11 and 6.5-12, which indicates that controls to minimize contaminant migration to soil will be developed in a Remedial Design and Implementation Plan (RDIP) that will require DTSC approval before the cap can be constructed.

Clarification of Difference Between Remedial Action Plan and Removal Action Workplan

A Remedial Action Plan (RAP) and a Removal Action Workplan (RAW) are two types of documents that identify measures that will be taken to remediate a hazardous substances release (California Health and Safety Code Section 25356.1). The RAW is prepared for actions that are projected to cost less than $1 million. If a cleanup will cost more than $1 million, a RAP is required. Both documents are subject to state law and regulations requiring a public review period for the draft document and analysis of environmental effects under CEQA. The statement on page 6.5-11

("Remedial Action Workplan") should have read "Removal Action Workplan". The last full paragraph on page 6.5-11 is revised as follows:

> .... These interim removal actions included the removal of contaminated soils and the installation of groundwater treatment systems, which are still in operation and will remain in operation and monitored for many years. In addition, a ~~Remedial~~ Removal Action Workplan (RAW) has been prepared for the northern part of the Intermodal Facility portion of the Specific Plan. This portion of the planning area is within the Central Shops study area directly south of the existing buildings. Only foundations from former buildings and some asphalt remain. The RAW is a separate action within the Central Shops study area designed to facilitate relocation of the freight tracks by removing contaminated soil that would present a health risk in that area. It is anticipated that the remainder of soil remediation for the Central Shops will be completed in 2009.

4.8.2 REMEDIATION METHODS IN GENERAL (DRAFT EIR ENVIRONMENTAL SETTING)

Response to Comments 4-2, 6-1, 6-6, 6-10, 6-15, 25-24, and 40-8

A range of remediation methods selected for the Railyards site were evaluated and presented in the DTSC-approved Feasibility Studies, which were also made available to RWQCB for comments. There are no aspects of the Railyards Specific Plan that would affect how the different types of remediation systems are operated, including bioremediation, excavation, or recycling of road materials or other materials that contain petroleum hydrocarbon contamination, or how stormwater runoff controls are used on graded portions of the site that are or will be undergoing active remediation to minimize adverse effects on groundwater quality. DTSC maintains an ongoing active role to assess the impact of infiltration for both current soil and groundwater conditions and for planned soil and groundwater remediation. Infiltration has not been prohibited at the site by DTSC. Future redevelopment consideration of infiltration and related activities will be subject to DTSC review and approval, and will include an evaluation of where site conditions may allow infiltration.[1]

Interim soil and groundwater remediation systems were installed in the Central Shops in the mid-1990s to control the migration of contaminated groundwater. These interim removal actions included the removal of contaminated soils and the installation of groundwater treatment systems, which are still in operation and will remain in operation and monitored for many years. DTSC is responsible for ensuring compliance with any environmental controls established for that system. A Remedial Investigation (RI) report, draft Feasibility Study (FS), and Health Risk Assessment (HRA) have been completed (Draft EIR, p. 6.5-11) for Central Shops, which were reviewed by DTSC. In the FS for Central Shops (ERM 2004, p. 3-2 [see Appendix I in the Draft EIR]), the potential migration of soil and groundwater contaminants to surface water and storm drainage runoff were determined to not be an exposure pathway because stormwater from the Central Shops area is collected in the City of Sacramento sewer system and discharged to a wastewater treatment plant. The RWQCB was provided copies of all documents for review and comment. The Draft EIR does not need to further evaluate how existing contaminants in stormwater runoff will be managed.

The selected methods identified in the final RAPs were approved by DTSC are not subject to evaluation in the EIR because the City has no discretionary authority over the cleanup, and DTSC has conducted CEQA review in accordance with state law. See also Section 4.8.10 "Soil and Groundwater Remediation and Relationship to Development of the Railyards Specific Plan - Draft EIR Methods of Analysis and Standards of Significance" below.

1 California Department of Toxic Substances Control, "Information Regarding Remediation Comments on Draft Environmental Impact Report, Former Union Pacific Sacramento Downtown Railyards," letter from Fernando Amador, Chief, Sacramento Responsible Party Unit, to Scott Johnson, City of Sacramento North Permit Center, October 15, 2007.

Impact 6.5-4 identifies Mitigation Measure 6.5-4 to ensure development of the Railyards Specific Plan does not interfere with existing or planned remediation systems. See Section 4.8.15 "Potential for Specific Plan Development to Interfere with Remediation Efforts – Impacts and Mitigation Measures" below).

4.8.3 SOIL CONTAMINANTS, DEPTH OF EXCAVATIONS, AND DISPOSAL OF SOILS ON- AND OFF-SITE

Response to Comments 6-13, 6-17, 6-19, and 6-24

DTSC has approved soil remediation standards and remedies that are intended to be protective of human health and groundwater. Levels of contaminants in soils that could remain on-site or would require off-site disposal were determined through RI/FS and RAP process under DTSC oversight. Pages 6.5-2 – 6.5-13 in the Draft EIR explain the steps that have been implemented for each area of the site. Any contaminated soils requiring off-site disposal were accounted for in the DTSC-approved RAPs. For the pedestrian tunnels at the Sacramento Station site (Draft EIR p. 6.5-13), the Draft EIR states "remediation of these areas will occur prior to excavation or initiation of any redevelopment activities in those areas."

The cut-and-fill plan shown in Figure 6.4-2 in Section 6.4 (Geology, Soils, Seismicity) illustrates locations where site soils would be placed. It does not show topography or the depth.

There is no approved soil remediation approach that is depth-limited.[2] No development would be allowed at any location in the Specific Plan until after soil remediation is completed to Target Cleanup Level standards, and DTSC issues approval of implemented RAPs applicable to a given area. It is unlikely contaminated soils exceeding DTSC Target Cleanup Level standards for the most sensitive group (construction workers) would be encountered during cut-and-fill; nonetheless, the Draft EIR identifies Mitigation Measure 6.5-1 to account for the possibility that previously unidentified hazards may be found despite implementation of all required cleanup actions.

4.8.4 PROCESS AND SCHEDULE ASSUMPTIONS FOR REMEDIATING THE RAILYARDS AS IT RELATES TO THE RAILYARDS SPECIFIC PLAN DEVELOPMENT (DRAFT EIR ENVIRONMENTAL SETTING)

Response to Comments 4-3, 6-11, 6-12, 6-21, 6-23, 6-24, 6-26, 18-3, 25-31 through 25-33, 25-35

Tri-Party MOU

In December 1994, a Memorandum of Understanding ("Tri-Party MOU") was established between DTSC, the City, and SPTCo (and its successors) concerning post remediation development (Resolution No. 94-737, adopted by the Sacramento City Council, December 13, 1994, as amended). The 1994 agreement is being replaced by a new MOU between the DTSC, the City, and the project applicant.

The amended Tri-Party Memorandum of Understanding ("Tri-Party MOU") will consist of general provisions for the coordination of remediation and redevelopment of the proposed Specific Plan Area between the California Department of Toxic Substances Control ("DTSC"), project developers, and the City of Sacramento ("City") (collectively referred to as "Parties"). The provisions of the Tri-Party MOU will set forth a program to ensure protection of human health and the environment during

2 California Department of Toxic Substances Control, "Information Regarding Remediation Comments on Draft Environmental Impact Report, Former Union Pacific Sacramento Downtown Railyards," letter from Fernando Amador, Chief, Sacramento Responsible Party Unit, to Scott Johnson, City of Sacramento North Permit Center, October 15, 2007.

redevelopment of the site, and the respective responsibilities of each party in implementing this program.

On March 29, 2006, the California Environmental Protection Agency's Site Designation Committee ("Cal/EPA") designated DTSC as the Administering Agency for the proposed Specific Plan Area pursuant to California Health & Safety Code section 25260 et seq. Accordingly, the Tri-Party MOU will designate DTSC as the responsible agency for overseeing cleanup activities at the proposed Specific Plan Area. (Draft EIR, p. 6.5-34.) Under this role, DTSC may conduct site inspections during construction to ensure compliance. The Tri-Party MOU will specify procedures for handling any previously undiscovered contamination that may exceed cleanup levels for the subject site during excavation, and will identify a process for investigation, remediation, and disposal of such contamination, pursuant to state law under the California Health and Safety Code.

The Tri-Party MOU also defines a role for continued DTSC oversight of site conditions and future land uses following certification of the selected cleanup remedies. Under the Tri-Party MOU, DTSC, the City, and Thomas Enterprises have defined roles for post-cleanup coordination to assure land use and development is consistent with land use controls. In addition, DTSC and Thomas Enterprises are currently developing land-use control mechanisms that will include institutional and engineering controls specific to the future land uses in the Plan Area. This will include preparation of a long-term operations and maintenance agreement for the remedies.[3] Specific Plan Policies HAZ-1.1, HAZ-3.1, and HAZ-5.1 address the issue of timing of development relative to the cleanup.

Land Use Covenants

The Draft EIR (p. 6.5-29) described the process for limiting certain land uses within the Plan Area based on remediation levels. The text referred to the term "deed restriction." The term "land use covenant" is the appropriate term, and is used herein.

After remediation is completed to Target Cleanup Level standards, DTSC will issue a certification of completion for the applicable Remedial Action Plan and record a land use covenant for the property. (Draft EIR, p. 6.5-29) The land use covenant limits uses of the property to those activities that are consistent with the implemented level of remediation. Land use covenant components include the following (Draft EIR, p. 6.5-29):

1. Groundwater cannot be extracted without DTSC approval.
2. Industrial and commercial land uses, including construction and maintenance of utility corridors and street rights-of-way, are allowed under an appropriate management plan.
3. Landscaping is allowed, provided clean soil to appropriate depths is placed in areas where direct soil contact can occur.
4. Post-certification excavation or soil removal is not permitted without prior DTSC approval.

In its comment letter on the Draft EIR, DTSC staff requested the addition of a fifth item to the "deed restrictions" (i.e., land use covenants) listed on page 6.5-29:

3 California Department of Toxic Substances Control, "Information Regarding Remediation Comments on Draft Environmental Impact Report, Former Union Pacific Sacramento Downtown Railyards," letter from Fernando Amador, Chief, Sacramento Responsible Party Unit, to Scott Johnson, City of Sacramento North Permit Center, October 15, 2007.

5. Residential uses are permitted with additional measures that mitigate the risks of exposure to residual contaminants.

These measures allowing residential uses, open space, parks, and other similar uses will be developed and recorded in accordance with the Tri-Party MOU.

Under the Tri-Party MOU the City will be responsible for administering the land use and development-related portion of DTSC land use covenants (Draft EIR, p. 6.5-21). To comply with this provision, the City will incorporate checkpoints into the Railyards Special Planning District Ordinance that ensure: (1) development within the proposed Specific Plan Area can only occur in areas where DTSC has verified that soil and groundwater remediation pursuant to a Remedial Action Plan has been completed; and (2) the proposed development is permitted under the land use covenant (Draft EIR, p. 6.5-33).

Changes in Cleanup Standards

The Tri-Party MOU also will require DTSC to keep City permitting officials informed of changes in cleanup standards for contaminants on the site (Draft EIR, p. 6.5-33).

The Tri-Party MOU will also recognize that, in the future, currently unanticipated land uses may dictate a different level of risk assessment and standards for remediation, and that in the future there may be different approaches for protecting human health from the contaminants that remain at the Railyards site. If a proposed new or modified land use is of a type that is not consistent with existing cleanup standards, an evaluation of risk may be required to establish cleanup levels for the proposed use. In such cases, DTSC will be responsible for approving new remedial measures and ensuring that cleanup levels are appropriate to support the new use. The City may not approve the new use until it receives confirmation from DTSC that appropriate remediation has occurred (Railyards Specific Plan, p. 134). Mitigation Measure 6.5-5 also addresses the Parties' responsibilities in cases where proposed land uses are changed, and/or additional remediation is required (Draft EIR, p. 6.5-32 – 6.5-33).

The Specific Plan requires development in the plan area to be coordinated to ensure that each phase of development will only be opened to the public after soil remediation for the applicable development parcel(s) is complete. Specifically, Goal HAZ-3 provides: Coordinate project phasing with remediation to protect site users from exposure to unacceptable health risks, Policy HAZ-3.1 implements this goal by requiring development to be implemented in accordance with applicable remedial action plan (Specific Plan, p. 52). In addition, the Railyards Special Planning District Ordinance permit process contains a mandatory condition of approval that the property owner demonstrate to the City that the applicable development parcel has been remediate to DTSC Target Cleanup Levels. This checkpoint in the land use entitlement process will further ensure that project build-out will not occur in areas that have not been fully remediated.

Thus, the Tri-Party MOU will ensure that uses within the proposed Specific Plan Area are at all times consistent with the implemented level of remediation for the subject property.

4.8.5 VISTA PARK (DRAFT EIR ENVIRONMENTAL SETTING)

Several comments were directed at how contaminants would be controlled at the proposed Vista Park area in the northwest part of the Railyards Specific Plan, where an engineered cap covering soils with certain types and amounts of contaminants would be placed below grade. If the Specific Plan is approved, the Vista Park would provide for a variety of passive and active open space and park uses.

Response to Comments 4-2 through 4-6, 6-1 through 6-4, 6-16, 6-18, and 25-27

The Draft EIR (p. 6.5-11) explains the approximately 10.3-acre area in the northwest corner of the Plan Area is the "Vista Park" that will contain the encapsulated soils.

As stated on page 6.5-11 in the Draft EIR, DTSC approved an amendment to the RAP for the proposed remediation method that would cap contaminated materials in the northwest corner of the site. In 2003, UPRR proposed modifications to the remedy including: expanding the cap limits to include the former Oil Storage Area, consolidating site soils within the northwest corner to facilitate grading and drainage, changing the cover to a geosynthetic barrier with vegetative soil cover (the proposed "Vista Park" area in the Specific Plan). Following subsequent meetings and correspondence with both DTSC and RWQCB clarifying the proposal, DTSC approved an Explanation of Significant Differences (ESD) in 2007, which updated the concept outlined in the RDIP. The current proposal was described in a letter dated September 13, 2006 from the DTSC to Union Pacific Railroad, which contains the ESD, and a letter dated March 8, 2007 from ERM to DTSC which describes how materials will be placed beneath the cap and testing protocols.

Materials that can be placed under the engineered cap in the northwest corner (area of the proposed "Vista Park") are described on page 6.5-12 in the Draft EIR. The planned approach to constructing the engineered cap and placement of 230,000 cubic yards of material containing a limited number of specific contaminants in the northwest corner has been approved by DTSC. The Explanation of Significant Differences prepared by DTSC described the categories of contaminants that can be placed and the hierarchy for their placement. As specifically stated in a letter from ERM to DTSC (March 8, 2007, previously referenced above and cited in Footnote 4 on p. 6.5-12 in the Draft EIR):

> As presented with correspondence to the RWQCB titled "Definition of Inert Material for Use as Cap Backfill, Lagoon Study Area Northwest Corner" (ERM, 29 March 2005), suitable inert fill material for placement under the cap includes the following:
>
> - Category 1 – soils impacted by only asbestos;
> - Category 2 – soils containing metals concentrations that are less than the ground water protection cleanup goal approved in the LSA RAP;
> - Category 3 – Soils containing metals concentrations in excess of the ground water protection cleanup goal, only after those specific soils are tested for solubility using a deionized water waste extraction test (DI-WET) and found applicable to contain a soluble fraction less than or equal to 10 times the applicable ground water quality standard; and
> - Category 4 – Soils containing metals in excess of the ground water protection cleanup goal and initially in excess of the solubility standard that have been chemically stabilized and have been re-tested to demonstrate that they meet the solubility standard (see Category 3).

As used in the March 2005 letter referenced above, the term "inert" refers to a regulatory classification that refers to the ability of the soils *to affect groundwater*. This does not mean the soils are non-hazardous. As described above, soils containing concentrations of lead and other substances that will be placed under the engineered cap would be considered "hazardous" to people if there were direct exposure to the substances. The proposal to encapsulate the soils according to the DTSC-approved plan eliminates that risk.

In accordance with DTSC approvals, the soils placed under the northwest corner cap will not include soils with organic chemical concentrations (i.e., VOCs, SVOCs, or TPH) above the remedial goals that are protective of groundwater.

Consistent with the Site Designation Process, the RWQCB has been provided all documents describing the data, health risk assumptions, feasibility reports, and plans for the proposed encapsulation that would ultimately be developed as the proposed Vista Park area in the Specific Plan.

One comment addressed the design of the cap system and groundwater monitoring controls that would be necessary to ensure the long-term effectiveness of the engineered cap for protecting groundwater, and that the Draft EIR should have evaluated this system. The proposed project evaluated in this Draft EIR is the Railyards Specific Plan and related entitlements. No further environmental review of the approved remediation plans is required for this Draft EIR, and the Draft EIR does not need to identify any mitigation. Comments regarding the design of the planned engineered cap are more appropriately directed to DTSC, as the City has no approval authority over the remediation systems and long-term operation of such systems.

Notification of the availability of the proposal for the method of encapsulating soils under the engineered cap was published by DTSC in the Sacramento Bee in September 2006, and the ESD was placed on file at the Sacramento Public Library downtown.[4] DTSC also completed required CEQA environmental review of the proposal at that time. A Notice of Determination (NOD) under CEQA was filed with the State Clearinghouse on September 28, 2006. Thus, the environmental review for the engineered cap has been completed and has met all requirements for public review under CEQA, and the Draft EIR does not need to analyze the environmental effects of that remediation system (see Section 4.8.10 "Soil And Groundwater Remediation and Relationship to Development of the Railyards Specific Plan (Draft EIR Methods of Analysis and Standards of Significance" below, for further information about CEQA requirements for remediation). The Draft EIR (p. 6.5-12) describes how the cap will be constructed. The specific details of the design, including drainage systems, are being refined at this time and will be subject to review and approval by DTSC as well.

One commenter expressed concern about the safety of the Vista Park site and the potential for encountering contaminants. There would be no need to fence off the Vista Park once the engineered encapsulation system is completed, because, as stated throughout Section 6.5 in the Draft EIR, no development would be allowed at any location in the Specific Plan until after remediation is completed to Target Cleanup Level standards, DTSC issues a certification of completion for the applicable Remedial Action Plan, and records a land use covenant ("deed restriction") for the property (Draft EIR, p. 6.5-38). The land use covenant prohibits certain land uses unless it can be demonstrated to DTSC that "all remedial measures necessary for protection of human health and the environment have been taken" (Land Use Covenant Paragraph 3.01(B)). DTSC has determined that the engineered cap would be "protective of a park land use anticipated in the new redevelopment plans for [the Plan Area]."[5] In addition, the Draft EIR addresses project effects associated with infrastructure development following remediation.

4 California Department of Toxic Substances Control, Explanation of Significant Differences Regarding Northwest Corner RAP Amendment, Union Pacific Railyard-Sacramento Site, letter from Fernando Amador, Chief, Sacramento Responsible Party Unit, to Jim Levy, Union Pacific Railroad, September 13, 2006.

5 California Department of Toxic Substances Control, California Environmental Quality Act Responsible Agency Statement of Findings, Union Pacific Railroad Company Downtown Rail Yard/Explanation of Significant Differences, Lagoon Study Area/Northwest Corner, September 26, 2006.

4.8.6 HAZARDOUS SUBSTANCES USE AND TRANSPORT IN AND AROUND THE RAILYARDS SPECIFIC PLAN AREA (DRAFT EIR ENVIRONMENTAL SETTING)

Response to Comments 25-30, 29-2, 29-4, 29-6 through 29-8, and 37-1

Sacramento County Environmental Management Department maintains a database of all businesses in the City of Sacramento using hazardous materials. The Master List of Facilities within Sacramento County with Potentially Hazardous Materials is downloadable from the County's website (http://www.emd.saccounty.net/Documents/lists/mstr.pdf) and is readily available to the public. Businesses surrounding the Specific Plan Area that use and store hazardous materials in quantities subject to federal and state regulations that require community notification (e.g., under the EPCRA referenced by one commenter) have prepared and submitted the required Hazardous Materials Management Plans (or "Business Plan") and/or Risk Management Plans, as appropriate, to the Sacramento County Environmental Management Department. Sacramento County – as the CUPA (see p. 6.5-18) – is responsible for ensuring these businesses operate in accordance with all applicable federal, state, and local laws and regulations regarding hazardous materials use and storage, reporting, and community notifications.

There are approximately 40 active businesses in the immediate area of the project site. The presence of these businesses, along with the City's Sacramento River Water Treatment Plant adjacent to the site on the north (which is subject to additional hazardous substances release reporting), are noted on page 6.5-15 in the Draft EIR. There is no compelling evidence based on information readily available to the public or the Draft EIR preparers that these businesses would expose project occupants to undue hazards. The public can review the county's list to identify the businesses and their locations that use and store hazardous materials in reportable quantities.

4.8.7 SACRAMENTO WATER TREATMENT PLANT (DRAFT EIR ENVIRONMENTAL SETTING)

Response to Comments 25-30, 25-40, 29-4, and 37-1

The presence of the Sacramento River Water Treatment Plant (WTP) as an adjacent land use to the Plan Area was noted in the Draft EIR on page 6.5-15. An EIR was prepared for the Sacramento River Water Treatment Plant Expansion project, which included the use of large amounts of chlorine gas stored on-site for treatment. The WTP Expansion EIR was certified by the Sacramento City Council and the project approved on November 28, 2000.

All City Department of Utilities facilities that use chlorine are covered by the regulations of either federal EPA's Risk Management Program or California's CalARP (Accidental Release Prevention) program, depending on the amount in use. The purpose of both programs is to prevent accidental releases of regulated substances such as chlorine. The "Regulatory Setting" in Section 6.5 provides information about hazardous materials management requirements.

The SRWTP is registered with federal EPA and the County of Sacramento and is in compliance with both programs. In order to meet the requirements of these programs the City Utilities Department has performed the following activities:

(a) Gathered safety information on chlorine and on the process, and equipment and procedures involving chlorine.

(b) Performed a structured assessment of hazards of the process and external events which might affect the process.

(c) Performed an off-site consequence analysis of defined release scenarios.

(d) Established a written program for prevention and mitigation of releases

(e) Established a written emergency response plan that has been coordinated with the Sacramento Fire Department.

(f) Established a mechanical integrity program to ensure that equipment is designed and installed correctly, as well as operates properly. This program also ensures that maintenance is carried out and documented on all components that involve the chlorine system.

The City's chlorine safety record is very good and has been improved by eliminating the old bulk storage system that was in place at this facility years ago. The risks associated with this system have been eliminated as well. With the existing chlorine system; through continued maintenance, training, and review of standard operating procedures (SOPs), there should be very little concern regarding the possibility of an accidental release affecting the public.

The "catastrophic" events mentioned by commenters would be events outside of the City's control such as an airplane crashing into the Chemical Building or some sort of terrorist act that would involve an explosive device. It is impractical to prepare for every eventuality; however, the external events that were considered for the RMP consisted of:

(1) Fire due to electrical malfunction, hot work, vehicle accident, and grass/brush fire. Consequences: Potential overpressure of containers and gas lines. Safeguards: fusible plugs on ton containers. Chlorine Storage building is of noncombustible construction, fire fighting equipment distributed throughout site, chlorine detection and alarm, 2-way radio and cellular communication available for use if needed, operator surveillance via Supervisory Control and Data Acquisition (SCADA) system, and an Emergency Response Plan.

(2) Sabotage/vandalism. Consequences: Chlorine release to atmosphere, potential personnel exposure, potential off-site detectable odor/potential offsite injury, potential public relation problem, and potential property damage due to chlorine exposure. Safeguards: Storage facilities are fenced and locked, warning signs are posted on all storage structures, all chlorine structures are of non-combustible construction, operator surveillance via SCADA system, chlorine leak detection, and an Emergency Response Plan.

(3) Seismic event resulting in equipment damage. Consequences: Chlorine release to atmosphere, potential personnel exposure, potential off-site detectable odor/potential offsite injury, potential public relation problem, and potential property damage due to chlorine exposure. Safeguards: Containers are all strapped down to trunnions, chlorine leak detection, operator surveillance via SCADA, and chlorine leak scrubber. Operators also routinely inspect the storage area and would notice any problems. Two-way communication is available for use if needed, and an Emergency Response Plan.

As stated in the Draft EIR (pages 6.5-21 through 6.5-23) and as noted in Section 4.8.9, above, the City of Sacramento has a comprehensive emergency response program in place to handle hazardous materials incidents.

4.8.8 FREIGHT RAIL HAZARDOUS SUBSTANCES TRANSPORTATION DATA (DRAFT EIR ENVIRONMENTAL SETTING)

Response to Comments 29-2, 29-3, and 29-6 through 29-8

The Draft EIR preparers reviewed federal and state agency databases that are readily available to the public via the internet to determine if the information suggested by one commenter for inclusion in the Draft EIR could be obtained, and that would be specific to the proposed project site. The Draft EIR preparers also contacted Union Pacific Railroad.

As stated in footnote 7 on page 6.5-14 in the Draft EIR, UPRR was not able to provide specific information about hazardous materials routing through the Railyards plan area. Hazardous materials transport data for a specific carrier is not in the public domain for obvious security reasons but is readily available to emergency responders in the event of an incident. If such information were obtainable, it would represent a condition that would exist regardless of whether the proposed project is implemented, and there are no aspects of the project that would change the nature of those shipments by rail. It is not within the City's authority to regulate the rail shipment of hazardous substances through the Specific Plan Area.

A commenter suggested the U.S. Surface Transportation Board (STB) as a possible source of information. According to the STB's website, this agency "is an economic regulatory agency that Congress charged with the fundamental missions of resolving railroad rate and service disputes and reviewing proposed railroad mergers." Upon review, it is unclear what data the STB would provide of relevance to the proposed project. The U.S. Federal Rail Administration (FRA) is a more appropriate resource for rail safety data involving hazardous materials incidents. The FRA Office of Safety maintains a database that contains information regarding all aspects of rail accidents from 1975 through 2007. The Draft EIR preparers did, in fact, review the data compiled by the FRA as part of the analysis for the proposed project. Since 1975, there have been only few accidents involving trains carrying hazardous materials in Sacramento County, and only one resulted in the release of hazardous materials from a rail car as a result of an accident, which occurred in 1986. The FRA data shows that rail incidents in Sacramento decreased by 50 percent in 2003-2005 and by 66 percent in 2005-2006. The Draft EIR preparers also reviewed data obtained from the State Office of Emergency Services (OES), which comprises a far more comprehensive listing of hazardous materials incidents than the FRA. The OES database is searchable for a specific location. There was no substantial evidence in the OES database that freight rail carrying hazardous materials through the proposed Specific Plan Area had been a source of frequent or serious releases of hazardous substances. In other words, there was no information to report that is directly applicable to the proposed project that should have been included in the Draft EIR regarding freight rail incidents in Sacramento involving a serious release of hazardous substances that adversely affected human health or the environment.

Rail Car Delays. The U.S. Transportation Security Administration (TSA) issued "Supplemental Security Action Items for the Rail Transportation of Toxic Inhalation Hazard Materials" in late 2006.[6] The TSA document provides industry analysis of the reason for and solution to railcar delays. Specifically, it does the following:

- Identifies risk factors as population density, number of Toxic Inhalation Hazard (TIH) shipments, length of time rail cars or unattended and/or unsecured (Supplemental Security Action Items for the Rail Transportation of Toxic Inhalation Hazard Materials, p. 2).

6 U.S. Department of Homeland Security, "Recommended Security Action Items for the Rail Transportation of Toxic Inhalation Hazard Materials, Supplement No.1", issued November 21, 2006.

- Calls for the development of site-specific security plans which reduce the time TIH cars are held in High Threat Urban Areas (HTUA) (*id*. p. 3.).
- Provides protection or surveillance of unattended TIH cars in HTUA (*id*.).
- Ensures compliance with federal rail regulations (*id*.).
- Prohibits TIH cars within a specified distance from national security events (*id*. p. 4).
- Identifies select areas where TIH cars can be held in emergency situations (*id*.).

UPRRhas, as a matter of policy, incorporated the Supplemental Security Action Items into their operating procedures. The action items discussed above, along with the implementation by UPRR, provide an extensive analysis of delays and the ways to minimize such delays.[7]

Neither the U.S. Department of Homeland Security nor the U.S. Department of Transportation has information available to the public regarding how delays impact potential terrorism incidents. However, funding from the Department of Homeland Security indicates that transit security threats in the Sacramento region have decreased dramatically since 2005. (http://www.dhs.gov/xgovt/grants/gc_1178820367100.shtm).

Rail Safety. The Draft EIR provides a summary of recent developments in the rail safety industry and concerns expressed by both regulators and industry. These issues are summarized on pages 6.5-16 – 6.5-17 in the Draft EIR (under the "Regulatory Setting" subheading), and references are footnoted. In addition to the information presented in the Draft EIR, it is also noted that the CPUC has developed an Action Plan to address this issue on a state level. The goals of the CPUC's Railroad Safety Action Plan of 2005 ("Action Plan") are to collect and analyze railroad data, develop a citation process for rail safety violations, push the FRA to develop more rail knowledge, advocate changes in rail safety legislation and issue public reports on rail incidents (CPUC Railroad Safety Action Plan, p. 1-2). The CPUC does not provide information on the effectiveness of the Action Plan. Therefore, no data that evaluates the Action Plan's effectiveness is publicly available.

4.8.9 EMERGENCY RESPONSE CAPABILITIES (DRAFT EIR REGULATORY FRAMEWORK)

Response to Comments 29-1, 29-4, and 29-8

The Draft EIR includes an evaluation of state and local emergency response measures in the "Regulatory Setting" section of the Draft EIR (Draft EIR 6.5-15-23). These measures include regulations of the California Health and Safety Code, the California Environmental Protection Agency, the California Highway Patrol, the Sacramento Fire Department, the Office of Emergency Services, the Sacramento Multi-Hazard Emergency Plan and the Sacramento County Environmental Management Department.

In addition to the state and local emergency response measures discussed in the EIR, additional government agencies and programs that have jurisdiction to reduce or respond to a potential hazardous materials release in the Project area include:

- The City of Sacramento Transportation Division maintains Hazardous Material Technician trained staff in order to respond to hazardous material incidents (County of Sacramento General Plan, Hazardous Materials Element, p. 41).
- California Department of Transportation maintains a contract with authorized hazardous material emergency response contractors in order to expedite any emergency response

7 Diane K. Duren, Vice President and General Manager, Chemicals, Union Pacific Railroad, letter to UPRR customers, April 11, 2007.

effort necessary (County of Sacramento General Plan, Hazardous Materials Element, p. 42.).

- The Sacramento County Sheriff Emergency Operations Unit ("Emergency Operations Unit") is responsible for terrorist response training and response to the release of hazardous materials. The Emergency Operations Unit maintains a variety of specialized vehicles, including a state-of-the-art Mobile Command Van. This vehicle contains radio and computer systems that enable the Sheriff's Department to communicate with public safety agencies and interface with the California state satellite communications system. The Unit also has two specially equipped cargo utility trucks, a two and a half ton military cargo truck and generators. The Emergency Operations Unit and the vehicles are available 24 hours a day (http://www.sacsheriff.com/organization/ investigative_&_ regional_services/special_operations/emergency.cfm).
- The California legislature passed the Local Community Rail Security Act of 2006 (Pub. Utilities Code §§ 7665 et seq.). This law requires that, by July 1, 2007, all rail facilities operators to provide a risk assessment to CPUC, OES and the state director of Homeland Security, describing:
    a. location and functions of the rail facility;
    b. all types of cargo moved through or stored at the facility;
    c. any hazardous cargo moved through or stored at the facility;
    d. the frequency that any hazardous cargo is moved through or stored at the facility;
    e. a description of the rail operator's practices to prevent sabotage, terrorism or other crimes on the facility;
    f. all training programs the rail operator requires for employees at the facility;
    g. operator's emergency response procedures to deal with sabotage, terrorism or other crimes at the facility;
    h. operator's procedures to communicate with law enforcement personnel, emergency personnel, transportation officials, and other first responders in the even of sabotage, terrorism or other crimes at the facility (Pub. Utilities Code § 7665.2).
- The Local Community Rail Security Act of 2006 also requires that, by January 1, 2008, every operator must develop and implement an infrastructure protection program which:
    a. includes training for all employees working at a facility regarding the recognition, prevention and response to acts of sabotage, terrorism or other crimes;
    b. must be updated annually and copies are to be provided to CPUC, OES and the state Director of Homeland Security;
    c. Each agency shall review the program and provide annual updates (Pub. Utilities Code § 7665.4).
- The Local Community Rail Security Act of 2006 also requires that each operator working at a facility that handles hazardous cargo must:
    a. secure all facilities that handle or store hazardous materials by providing adequate security personnel;
    b. store hazardous materials only in secure facilities designed for storage, which shall not include mainline, branch, industrial or passing racks not so designated or retrofitted;

c. do not leave locomotive equipment running while unattended, or leave any unattended locomotive equipment unlocked;

d. ensure the cabs of occupies locomotives are secured from hijacking, sabotage or terrorism;

e. do not use remote control locomotives to move hazardous materials over a public crossing unless the remote control operator is able to maintain line-of-sight visibility;

f. provide timely alerts to law enforcement and response personnel if an emergency occurs (Pub. Utilities Code § 7665.6).

Additional references are cited in Impact 6.5-8. These include testimony by the Association of American Railroads (footnotes 11 and 19), Homeland Security Secretary Chertoff's 2007 remarks on this topic (p. 6.5-16 in the Draft EIR), and the proposed HM-232 regulation (footnote 18). Additionally, although not mentioned by one commenter, the Draft EIR preparers also considered information published in "Toxic Trains and the Terrorist Threat" (Paul Orum, Center for American Progress, 2007).

4.8.10 SOIL AND GROUNDWATER REMEDIATION AND RELATIONSHIP TO DEVELOPMENT OF THE RAILYARDS SPECIFIC PLAN (DRAFT EIR METHODS OF ANALYSIS AND STANDARDS OF SIGNIFICANCE)

Several comments were directed at the scope of Draft EIR analysis related to the assumptions and implementation of the remediation methods that have been, are, or will be implemented at the former Railyards site that would be developed under the Railyards Specific Plan.

Response to Comments 25-23, 25-26, 25-27, 25-30, and 26-3

The remediation of soil and groundwater at the Railyards is not part of the Railyards Specific Plan project. Rather, it is a separate project that was initiated in 1992 under the oversight of DTSC, which has been acting as a lead agency under CEQA. The City has no discretionary authority over the remediation.

Consistent with its lead agency role, DTSC has been and will continue to be required to conduct CEQA review for any amendments to remediation plans that may impact the project site. DTSC relied on the 1992 "Railyards Specific Plan/Richards Boulevard Area Plan Environmental Impact Report" ("Specific Plan/RBAP EIR") SCH #91042057. The Specific Plan/RBAP EIR analyzed, among other things, the impact of soil and groundwater remediation at the Railyards and concluded that all significant impacts could be mitigated. See Specific Plan/RBAP EIR, Chapter 4.13. The Specific Plan/RBAP was certified by the Sacramento City Council and Redevelopment Agency of the City of Sacramento in December, 1993. In 1994 the City reviewed and approved the "Railyards Specific Plan/Richards Boulevard Area Plan Supplemental Environmental Impact Report" ("Specific Plan/RBAP Supplemental EIR"), also #91042057. The Specific Plan/RBAP Supplemental EIR evaluated, among other things, the effects of lead soil remediation. See Specific Plan/RBAP Supplemental EIR, Chapter 5.6. It concluded that, with proper mitigation, the effects of lead contamination would be less than significant. The City and the Redevelopment Agency later certified the Specific Plan/RBAP Supplemental EIR.

Subsequent environmental review of the remediation was, and continues to be, performed under the authority conferred by Public Resources Code Section 21166 and CEQA Guideline 15162(c) "Subsequent EIRs and Negative Declarations", which provides:

> Once a project has been approved, the lead agency's role in project approval is completed unless further discretionary approval on that project is required. Information appearing after an approval does not

> require reopening of that approval. If after the project is approved, any of the conditions described in subdivision (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any.

Pursuant to this regulation, DTSC has relied on the Specific Plan/RBAP EIR Specific Plan/RBAP Supplemental EIR to approve several remediation plans for the site. For example, on February 16, 2000 DTSC approved the Notice of Determination for a series of RAPs including the Lagoon Study Area Final Amended RAP, the Northern Shops Study Area Final RAP, the Car Shop Nine Study Area Final RAP and the Central Corridor Study Area Final RAP.

The remediation effort is independent from the proposed Railyards Specific Plan project (though neither proceeds in a vacuum). The remediation effort has been ongoing since 1988 when Southern Pacific Transportation Company entered into an Enforceable Agreement with DTSC (Draft EIR p. 6.5-3). During the 1992-94 timeframe, the staging and manner of the remediation was designed to accommodate the development plans in a way that did not sacrifice the remediation goals. During 1995-2005 when there were no development plans the remediation efforts continued, with all appropriate CEQA review by DTSC. While the current development plans, i.e. the proposed project, will certainly require coordination with, and accommodation of, the remediation effort, they will not change the requirement to meet the remediation goals, as discussed on page 6.5-13 in the Draft EIR. Whether there is a project or not, the property will be remediated. Stated another way, the remediation effort has independent utility separate and apart from the proposed project.

Therefore, it is not appropriate for the Draft EIR to discuss or evaluate the "current suitability of the site for construction." The City must consider, however, whether any of the potential approaches that could be implemented prior to, during, or after construction, as identified in the DTSC-approved RAPs and subsequent implementation plans, would affect its *land use decisions* regarding the proposed project. The environmental consequences of these decisions are provided in Impacts 6.5-1 through 6.5-7 on pages 6.5-31 through 6.5-38 in the Draft EIR.

For purposes of the analysis, it was assumed certification of this EIR could occur as early as 2007. This would precede completion of some of the remaining work plans for remediation and ongoing and future implementation of approved work plans. Specific Plan Policies HAZ-1.1, HAZ-3.1, and HAZ-5.1 address the issue of timing of development relative to the cleanup. Therefore, because it could not be documented with any certainty that the entire cleanup would be completed before implementation of the proposed project, if it is approved, the Draft EIR needed to consider the timing of cleanup relative to the phasing of proposed development.

4.8.11 TRANSPORTATION OF HAZARDOUS SUBSTANCES THROUGH THE RAILYARDS SPECIFIC PLAN AREA (DRAFT EIR METHODS OF ANALYSIS AND STANDARDS OF SIGNIFICANCE)

Response to Comments 29-1, 29-3, 29-4, 29-5, 29-7, and 29-8

The City's approach to the impact analysis and conclusion presented in Impact 6.5-8 is based on CEQA Guidelines (14 CCR 15143), which states an "EIR shall focus on the significant effects [of the project] on [emphasis added] the environment," and CEQA Guidelines (15064[d]) as follows:

> o In evaluating the significance of an environmental effect of a project, the lead agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project.
>
> 1) A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project. Examples of direct physical changes in the environment are the dust, noise, and traffic of heavy equipment that would result from construction of a sewage treatment plant and possible odors from operation of the plant.

2) An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment. For example, the construction of a new sewage treatment plant may facilitate population growth in the service area due to the increase in sewage treatment capacity and may lead to pollution.

3) An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be cause by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable.

The CEQA Guidelines set forth the extent to which an EIR must evaluate potential impacts of the project. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible (CEQA Guidelines § 15151.)

Development of the proposed project would increase the number of people in the Specific Plan Area. However, it would not alter the types, frequency, or mode of hazardous substances rail transportation in the plan area, because the City has no jurisdiction or control over PUC-controlled freight rail traffic. Therefore, the proposed project would not increase the risk for an accidental release of hazardous substances that could affect the environment. In other words, there would be no direct physical effect caused by the project. Whether the density of development and types of uses is likely to increase the potential for terrorist attack in an already heavily urbanized area cannot be predicted with any degree of accuracy and would be considered speculative. Further, any terrorist activity would be illegal, and there is no requirement under CEQA to evaluate the effects of an illegal activity. A terrorist attack has not occurred in the Sacramento area. It is not reasonably foreseeable that such an attack will occur *as a result of* the project. Therefore, the Draft EIR's review of potential environmental impacts resulting from a terrorist attack is proper under CEQA.

The precise information a commenter requested be included in the Draft EIR such as "plume maps, blast impact zones" is part of local and regional disaster planning both city-wide and regionally. If the proposed project included activities that could increase the risk to people and the environment due to hazardous materials releases, and if the types and quantities of such materials were subject to the kind of reporting and public notification, then such information would have been appropriate for presentation in the Draft EIR. However, the proposed project does not contain any elements that would in any way alter the use, storage, transport, or disposal of hazardous materials that would materially affect the assumptions used to develop worst-case release scenarios for existing facilities and for which such data have been prepared, and an evaluation of a worst-case scenario that would involve speculation is not required under CEQA. Therefore, the exclusion of this information does not affect the analysis.

CEQA also does not require the Draft EIR to evaluate why state and local legislative bodies have failed to act in response to a federal regulation (CEQA Guidelines § 15378; Northwood Homes v. Town of Moraga (1989) 216 Cal. App. 3d 1197). The Draft EIR does not rely on the "assumed adequacy" of federal regulations. In fact, the Draft EIR focuses much of its discussion in the "Regulatory Setting" section on state and local regulation and response to hazardous materials. Specifically, the Draft EIR notes the Cal-EPA Unified Hazardous Waste and Hazardous Materials Management Regulatory Program which includes the regulation of hazardous materials, response plans, risk management and prevention programs (Draft EIR p. 6.5-18) and the State Office of Emergency Services hazardous response network and the California Public Utilities Commission General Order's coordination of local, state and federal agencies in the even of a hazardous emergency (Draft EIR p. 6.5-18). On the local level, the Draft EIR incorporates the Sacramento City Fire Department's Hazardous Materials Program and the Domestic Preparedness Program which, together, provide training and response teams for hazardous material emergencies 24 hours of each day (Draft EIR p. 6.5-21) and the City of Sacramento's Multi-Hazard Emergency Plan, which

includes an extensive emergency response to a hazardous emergency and a mitigation plan to reduce the likelihood and intensity of a hazardous incident (Draft EIR p. 6.2-22).

The Draft EIR clearly and comprehensively describes the potential effects of bringing a new population into an area where hazardous substances are routinely transported via rail and the potential threat associated with that. Information used to establish the real threat posed by rail traffic is cited throughout the analysis. The analysis is supported by substantial evidence available to the Draft EIR preparers and does not rely on speculation.

The commenter expresses an opinion about the adequacy of federal regulations to provide for safe rail transport of hazardous materials. The analysis of this issue is beyond the scope of the Draft EIR and is not relevant to the impact evaluation because the proposed project would not alter the types and amounts of hazardous substances transported through the Specific Plan Area. Moreover, it is not within the City of Sacramento's authority to regulate freight rail transport through the City. Therefore, it is not necessary to address this issue in the Draft EIR.

Under CEQA, "economic and social changes resulting from a project shall not be treated as significant effects on the environment"]; quoting CEQA Guidelines § 15064(e). The ability of railroads to obtain adequate insurance for financial reimbursement from a hazardous materials emergency is unrelated to implementation of the proposed Railyards Specific Plan, and, therefore, does not require evaluation in the Draft EIR.

The standard of significance referenced by a commenter applies to future occupants of the project site, not just existing. The impact statement on page 6.5-36 reads: "Development of the proposed project would bring new residents [emphasis added] in proximity to existing non-project-related hazardous substances transportation routes such as I-5 and the UPRR rail lines." Moreover, the second full paragraph on page 6.5-38 in the Draft EIR clearly states "new residential uses are proposed to be developed in close proximity to the relocated main [railroad] line, which would continue to be used to transport freight through the Specific Plan Area. During the day, a large number of office workers would also be present in the Specific Plan Area." As such, the impact analysis evaluates the extent to which increased population in the project site as a result of the project could be exposed to hazardous materials releases.

The Draft EIR concluded that the potential impact from a hazardous substances release incident due to the railroad was less than significant (Draft EIR p. 6.5-42). Because the impacts were not found to be significant, the Draft EIR is not required to examine mitigation measures (Laurel Heights Improvement Assn. v. Regents of University of California (1993) 6 Cal. 4th 1112, 1141; CEQA Guidelines 15126.4 ["An EIR shall describe feasible measures which could minimize significant adverse impacts."] (emphasis added).). Therefore, CEQA does not require the Draft EIR to consider re-routing or freight rail carrying hazardous substances as mitigation.

4.8.12 RISKS TO CONSTRUCTION WORKERS DURING EARTH-DISTURBING ACTIVITIES FOR SPECIFIC PLAN SITE DEVELOPMENT (IMPACTS AND MITIGATION MEASURES)

Response to Comments 6-8, 6-24, 25-34, 25-36 through 25-38, 25-89, and 25-90

The locations, depths, and extent of clean soils, artificial soils that do not contain levels of contaminants in excess of DTSC-approved levels, artificial soils ("fill") that contain hazardous substances, and native soils have been thoroughly investigated, documented, and presented to the DTSC for review and approval. A significant amount of remediation has already occurred, and more cleanup is planned under the oversight of DTSC.

During soil remediation activities, air monitoring is performed in accordance with an Air Monitoring Plan (AMP), Asbestos Contingency Plan (ACP), and Health and Safety Plan (HSP). These plans are a requirement of the DTSC-approved Remedial Design and Implementation Plan (RDIP). The AMP and HSP provide guidelines for monitoring and controlling potential exposure to airborne emissions of VOCs, SVOCs, and airborne-dust containing metals. Air monitoring stations are located throughout the Railyards cleanup site. "Action levels" for site worker protection and public protection are also included in the plans. The results of the testing are reported in the annual soil remediation reports that are submitted to DTSC and RWQCB. For 2003 and 2004 (the most current reports available), none of the fence-line air monitoring data showed any exceedences of action levels.

It is the expectation of both the DTSC and the City that remediation will reduce concentrations of chemicals in soil such that they do not exceed specific risk-based thresholds (remediation goals) that have been established through a lengthy and ongoing formal regulatory process involving government agencies and the public, which is described in the Environmental Setting in Section 6.5. As noted in the analysis on page 6.5-25, second paragraph, the construction worker would be a greatest risk of exposure as compared to future occupants, *if contaminant concentrations are not reduced through remedial actions* [emphasis added]. The results of the health risk assessments were used to determine the residual levels of contaminants that will be allowed to remain in site soils that would not present a health risk to the construction workers after remediation is completed for the specific development site.

No development on the site can occur until a particular development site has been cleaned to DTSC Target Cleanup Level standards (p. 6.5-25). Absent any controls, workers could be exposed to *residual* contaminants in soils during construction. Mitigation Measure 6.5-1 was identified to address the potential for hazards after a site has been cleaned up to DTSC-approved levels. The individual measures (a – e) are intended to work in conjunction with each other.

Mitigation Measure 6.5-1(b) specifically indicates that the construction contractor health and safety plan will be "based on the levels of remediation already performed in each project area." The contents of a health and safety plan are mandated under state laws and regulations. The specific testing protocols would be developed by individuals who specialize in the preparation of health and safety plans and would take into account each area of disturbance. Under this plan, workers would be monitored for any potential over-exposure to chemical hazards, should any exist. On-site air quality monitoring is a component of the *construction worker* health and safety plan required under Mitigation Measure 6.5-1(b) and (c) to achieve conformance with OSHA workplace standards. Air quality monitoring results would be used to determine if conditions are present that could present a risk to construction workers. If the results of testing during construction indicate a problem, measures would be implemented immediately to protect the construction worker. This, in turn, would ensure that conditions, if any, that could present a risk to site occupants are mitigated well in advance.

One commenter expressed concern that "visual inspection" (of soils) may not be sufficient to check for contamination at a particular site. However, for the reasons described above, soil cleanup will have already occurred at a particular work site, so there is the expectation that soil sampling at the time of site disturbance would be part of routine monitoring, if required by the site health and safety plan and/or DTSC (e.g., additional confirmatory sampling). At any site that has undergone remediation, there exists the possibility that something may have been missed, despite all feasible efforts. The intent of Mitigation Measure 6.5-1(d) is to ensure that the contractors performing work in remediated areas remain observant so they can report any unusual odors, colors, or conditions that may require additional evaluation before work can safely proceed.

As previously stated, no construction (i.e., earth-disturbing activities) would occur in areas of the Railyards until DTSC-approved Target Cleanup Levels are achieved. This means that a grading permit cannot be issued to any developer in the project site until the soils have been tested and the results reviewed and approved by DTSC. Therefore, construction workers would not be exposed to levels of contaminants that would present a health risk. Additionally, Mitigation Measure 6.5-5 also directs that if there are changes in land use or cleanup levels, the affected site be re-evaluated before it is developed.

One commenter suggested that "[construction] workers will feel pressured to continue to work in the Specific Plan Area even though they may be overexposed to toxins in light of health risk assessment guidelines." No documentation was provided to support the basis for this assertion. In *Towards Responsibility in Planning v. City Council of the City of San Jose*, *supra*, 200 Cal.App.3d at 681, the Court held it is "unnecessary for an EIR to engage in sheer speculation as to future environmental consequences."

In view of the above, Draft EIR does not need to further evaluate potential health risk impacts on construction workers as a result of project development, and no changes to the Draft EIR are necessary as a result of these comments.

4.8.13 GROUNDWATER DISPOSAL DURING CONSTRUCTION (IMPACTS AND MITIGATION MEASURES)

Response to Comments 6-8, 6-22, 6-28, and 25-86

The Draft EIR describes methods that will be in place to ensure groundwater is managed appropriately. This occurs in several places in the document. For example, on page 6.5-29, the Draft EIR notes "groundwater cannot be extracted without DTSC approval." This would apply to dewatering. Mitigation Measure 6.5-3(g) states the requirements for dewatering. Section 6.6, Hydrology and Water Quality, addresses dewatering requirements in greater detail, with specific references to the Sacramento Regional County Sanitation District permitting requirements on pages 6.5-20 in Section 6.5, Hazards and Hazardous Substances, and page 6.6-17 in Section 6.6, Hydrology and Water Quality. The City's requirements are stated on page 6.6-17, and Impact 6.6-3 on page 6.6-22 further explains the discharge and permitting requirements.

4.8.14 RISKS TO SPECIFIC PLAN OCCUPANTS (IMPACTS AND MITIGATION MEASURES)

Response to Comments 4-5, 6-4, 6-5, 6-9, 6-11, 6-12, 6-19, and 6-25

Impact 6.5-3 on pages 6.5-30 – 6.5-31 in Section 6.5, Hazards and Hazardous Substances, addresses the potential for vapors from residual volatile organic compounds (VOCs) in soil to affect indoor air quality in new construction. Soil vapors emanating from contaminated groundwater could also occur. DTSC has stated, "VOC vapor migration is an area of major involvement at the site by the Department as a component of both soil and groundwater cleanup standards, and as a part of future health-protective land use controls for the property."[8]

Mitigation Measure 6.5-3(e) states that if required by DTSC (the agency with oversight authority of the cleanup), buildings shall be designed to prevent the buildup of vapors in enclosed spaces. This would apply to the existing Sacramento Station and Central Shops buildings. In response to a comment from DTSC, Mitigation Measure 6.5-3(e) on page 6.5-31 has been revised as follows:

8 California Department of Toxic Substances Control, "Information Regarding Remediation Comments on Draft Environmental Impact Report, Former Union Pacific Sacramento Downtown Railyards," letter from Fernando Amador, Chief, Sacramento Responsible Party Unit, to Scott Johnson, City of Sacramento North Permit Center, October 15, 2007.

Mitigation Measures

6.5-3 e) *Compliance with building design requirements, to be included in the building code ordinance, for preventing the intrusion of subsurface vapors into buildings and enclosed spaces and the buildup of soil vapors in enclosed spaces where applicable, shall be required if determined by DTSC to be necessary.*

The proposed project under consideration in this EIR is a land use plan and related entitlements. Individual building design and sites have not been identified. Prescribing specific building designs and where land use covenants ("deed restrictions") should be imposed would be premature. The land use covenant process, which is under the oversight of DTSC (not the City), is clearly explained on page 6.5-29 in the Draft EIR. The text further notes, "the property owner, at its discretion, may remediate specific areas of the project site to accommodate more restrictive use standards, thereby eliminating the need for a deed restriction." When a specific development proposal is brought forward for a specific location in the Plan Area, the City would be responsible under Mitigation Measure 6.5-3(e), as revised, and 6.5-3(h) for ensuring that all appropriate measures are included in building design to protect occupants of that site. Inclusion of proper design would need to be demonstrated to the satisfaction of the City prior to issuance of a grading permit, or occupancy for an existing building. Mitigation Measure 6.5-3(h) also provides a mechanism for the City to reconsider a land use if the proper level of protection cannot be achieved.

As stated previously, the proposed project evaluated in the Railyards Specific Plan EIR is the implementation of the land uses and related entitlements for the proposed project. The Draft EIR does not need to analyze the approved remediation approaches for groundwater, nor the environmental effects of remediation. However, to that extent that implementation of the Railyards Specific Plan could interfere with approved and ongoing groundwater remediation effects, this potential is evaluated in Impact 6.5-4 on pages 6.5-31 and 6.5-32.

4.8.15 POTENTIAL FOR SPECIFIC PLAN DEVELOPMENT TO INTERFERE WITH REMEDIATION EFFORTS

Response to Comments 4-6, 6-1, and 6-5

Figure 6.6-2 in Section 6.6, Hydrology and Water Quality, shows the location of groundwater monitoring and extraction wells within the Railyards Specific Plan Area. The analysis in the Draft EIR (Impact 6.5-4, in particular) considers the extent to which development of the proposed Railyards Specific Plan could affect these wells and, thus, evaluates the potential effects of development in conjunction with the ongoing remediation activities. These wells are an integral part of the cleanup and restoration activities for groundwater contamination, which has been documented outside the former Railyards site boundaries in the downtown Sacramento area. There are no aspects of the proposed project that would directly affect monitoring and extraction wells located outside the project site. Figure 6.6-2 in the Draft EIR sufficiently illustrates the appropriate well sites that could be directly affected by implementation of the Railyards Specific Plan.

Mitigation Measure 6.5-4 specifically requires coordination with "DTSC and other involved agencies" (e.g., the RWQCB) to ensure construction does not damage or otherwise interfere with established soil and groundwater remediation systems and controls. This is equally important for planned and anticipated remediation systems. For example, as noted by DTSC, remediation efforts for soil vapor and groundwater near the Central Shops will require below-grade plumbing and above-grade treatment systems, which have not yet been installed. Further, access for long-term operations and maintenance of the remedy systems will be necessary. Impact statement 6.5-4 and Mitigation

Measure 6.5-4 on page 6.5-31 in the Draft EIR have been revised as follows to take into account planned, but not-yet-constructed, remediation systems:

6.5-4 Construction of site features such as infrastructure and buildings could interfere with existing and/or planned remediation efforts.

Mitigation Measures

6.5-4 a) *Project developers and their contractors shall coordinate with the City of Sacramento, DTSC, and other involved agencies, as appropriate, to assure that project construction shall not interfere with any adjacent and/or on-site existing and/or planned remediation activities or unduly delay any ~~or~~ existing and/or planned site remediation activities.*

4.8.16 POTENTIAL FOR CONTAMINANTS TO ENTER UNDERGROUND UTILITY LINES AS A DIRECT RESULT OF SPECIFIC PLAN DEVELOPMENT (IMPACTS AND MITIGATION MEASURES)

Response to Comments 4-4, 6-25, and 25-39

One comment suggested the wording in Mitigation Measure 6.5-5 requires that "utility corridors at groundwater levels must remain clean." This is incorrect. Mitigation Measure 6.5-5 requires that "in utility corridors, cleanup levels be re-evaluated to ensure construction worker health and safety..." Impact 6.5-2 addresses groundwater migration into utility corridors. The Draft EIR states on page 6.5-27 that "infrastructure utility lines will be placed above anticipated groundwater levels [at the site], hence preventing the possible migration of groundwater into utility trenches. Implementation of Mitigation Measure 6.5-2 on page 6.5-30 in the Draft EIR would be necessary to account for fluctuations in groundwater levels to prevent infiltration of contaminants into water, sewer, or storm drainage pipelines. The method(s) would require DTSC approval. Monitoring of groundwater levels and water quality in the pipelines would be routinely performed by the landowners throughout the life of the project and reported to DTSC and the CVRWQCB. If problems are detected, the City would be responsible for immediately correcting the condition and apprising DTSC.

Porous utility lines could also be conduits for volatile contaminants in soil vapor. The text on page 6.5-30 in the Draft EIR has been revised to reflect this comment made by DTSC, and Mitigation Measure 6.5-2 is revised accordingly:

Because the development of the proposed Specific Plan would be consistent with the remediation action plans and land use covenants, the proposed project would not substantially increase the risk of exposure of construction workers or future occupants to hazardous substances contamination in soil or groundwater at the project site~~.~~. However, development of the proposed project would include the installation of underground utility lines. ~~p~~Porous utility lines could be infiltrated by contaminated groundwater or volatile contaminants in soil vapor that could contaminate water flowing through the pipes. This is considered a *significant impact*.

Mitigation Measure

6.5-2 *In areas where the groundwater contamination has the potential to reach water, sewer or storm drainage pipelines due to fluctuations in the elevation of the groundwater table, or where volatile contaminants in soil vapor could enter porous utility lines, measures such as concrete trenches, membrane barriers and venting will be used to prevent infiltration in accordance with DTSC requirements. Routine monitoring shall be performed by the landowners, reported to DTSC and*

CVRWQCB, and corrective actions implemented if the results indicate adverse changes in water quality.

4.8.17 SCHOOL SITING - PRESENCE OF CONTAMINATED SOILS AND HAZARDOUS SUBSTANCES USE AND TRANSPORTATION IN THE SPECIFIC PLAN AREA (IMPACTS AND MITIGATION MEASURES)

Response to Comments 18-2 through 18-12, 18-21, and 29-5

The proposed project being considered by the City is the adoption and implementation of the proposed Railyards Specific Plan and approval of related entitlements (Draft EIR p. 1-1). Related entitlements and other agency approvals are listed on page 3-61 in the Draft EIR. The Railyards Specific Plan indicates that education facilities are allowed under the RCMU, ORMU, and RMU designations (see Figure 3-5 in the Draft EIR for the locations of these proposed land use designations within the Specific Plan Area). As stated on page 3-57 in the Draft EIR, "due to its downtown location, any school facility built within the Specific Plan Area would likely be an 'urban' school, and would include characteristics such as compact hardscape recreation areas, multi-story classroom facilities, and space-saving solutions such as rooftop recreation areas. The specific location for a school site would depend on many factors, including requirements of the California Education Code pertaining to hazardous substances contamination and future land use covenants.

The California Education Code prescribes specific studies and investigations that must be implemented *by the school district* prior to school site selection and the results submitted to DTSC. Among the many requirements pertaining to siting are locations of the site relative to contaminated property, sources of hazardous emissions, or hazards such as high-pressure gas lines. The Draft EIR explains this process on page 6.5-19 in Section 6.5, Hazards and Hazardous Substances, on page 6.10-43 in Section 6.10, Public Services, and in Impact 6.10-10 on page 6.10-47. The requirements in the California Education Code are the direct result legislation enacted by the State of California to address a problem that occurred with school siting in the Los Angeles Unified School District (LAUSD). As the only comprehensive school environmental evaluation program in the U.S., California DTSC's School Property Evaluation and Cleanup Division continues to set the national standard.[9]

The regulations specifically require that DTSC be involved in the review process to ensure selected properties are free of contamination, or if the property is contaminated, that it is cleaned up to a level that is protective of students and faculty who will occupy the new school. Public Resources Code requirements relating to hazardous air emissions are also summarized on page 6.5-19.

Lead, along with all other contaminants of concern identified at the site, would be considered in any subsequent study prepared for DTSC review of a school site.

No development would be allowed at any location in the Specific Plan until the following has occurred: (1) remediation is completed to Target Cleanup Level standards, (2) DTSC issues a certification of completion for the applicable Remedial Action Plan, and (3) records a land use covenant for the property (Draft EIR, p. 6.5-38). The land use covenant limits uses of the property to those activities *that are consistent with* the implemented level of remediation and the approved site-specific additional measures that would allow for less restrictive use. This would apply to schools.

DTSC has approved soil remediation standards and remedies that are intended to be protective of construction worker health and groundwater. Levels of contaminants in soils that could remain on-

9 California Department of Toxic Substances Control, "Evaluating and Cleaning Up School Sites" (http://www.dtsc.ca.gov/Schools/index.cfm#Fact_Sheets_and_General_Information)

site or would require off-site disposal were determined through RI/FS and RAP process under DTSC oversight. Pages 6.5-2 – 6.5-13 in the Draft EIR explain the steps that have been implemented for each area of the site. There is no approved soil remediation approach that is depth-limited.[10] Thus, the Draft EIR does not need to "evaluate the fill material" proposed for any school site that might be constructed in the Specific Plan because any fill generated on-site would either be soils that do not contain contaminants or would consist of soils that have been remediated to Target Cleanup Level standards. Further, DTSC approval of the site would be required in accordance with California Education Code requirements. A suburban-style school (which typically would involve land clearing and fill and at-grade structures) would not be possible without additional measures.

If it is determined an on-site school would need to be developed in response to student demand data (see 5.13, Public Services in the Draft EIR), it could be located in any of the three proposed land use designations in the Specific Plan Area listed above and described in the Project Description where there are no land use covenants issued by DTSC prohibiting such use or other constraints that would made the site(s) unsuitable.

It is not within the City's authority to determine whether a proposed location for a school site is appropriate under the provisions of the California Education Code.

Therefore, because the City does not have the authority to approve a specific school site, only the land use designations that could accommodate a school, the Draft EIR does not need to evaluate in detail specific environmental issues associated with the site shown in Figure 3-17.

4.8.18 HAZARDOUS MATERIALS USE AT SACRAMENTO WATER TREATMENT PLANT (IMPACTS AND MITIGATION MEASURES)

Response to Comments 25-30, 25-40, 29-4, and 37-1

The EIR for the WTP stated "the Sacramento County Hazardous Materials Division has determined that the handling of chlorine at the City's WTP may pose an acutely hazardous materials accident risk," and the EIR included an analysis of potential risks to locations in the vicinity of the plant from a chlorine release. The EIR setting included information on chlorine releases, noting that an incident occurred in 1993 but did not result in any releases that affected personnel or the public.

The certified WTP Expansion EIR[11] concluded:

> The level of risk associated with chlorine handling is reduced to the extent possible by City safeguards for chlorine handling. These include proper design, effective safety features, safe operation and maintenance practices, monitoring of process conditions, and detection of deviations. Although the risk of accidental escape of chlorine cannot be completely eliminated, continued adherence to the Risk Management and Prevention Program and use of onsite operational guides provide the best available means of minimizing hazards impacts. Existing City procedures would reduce the level of impact to less-than-significant.

Because the potential environmental effects of a chlorine release were previously evaluated in a certified EIR, and there are no aspects of the proposed Railyards Specific Plan project that would alter the use of chlorine at the WTP, there is no need for further analysis in this EIR. See also Section 4.8.7, Sacramento Water Treatment Plant, in this Final EIR.

10 California Department of Toxic Substances Control, "Information Regarding Remediation Comments on Draft Environmental Impact Report, Former Union Pacific Sacramento Downtown Railyards," letter from Fernando Amador, Chief, Sacramento Responsible Party Unit, to Scott Johnson, City of Sacramento North Permit Center, October 15, 2007.

11 City of Sacramento, Water Facilities Expansion Project EIR (SCH # 1998032046), September 2000, page 6-78.

4.8.19 RIVERFRONT DISTRICT AREA - WEST JIBBOOM STREET PROPERTY (IMPACTS AND MITIGATION MEASURES)

Response to Comments 6-20, 6-27, 25-29, and 26-20

Impact 6.5-9 in the Draft EIR concludes that because a Phase 2 ESA has not been completed for the West Jibboom Street property, there may be unidentified contamination. The contamination could be in the soil, vadose zone, and/or groundwater. Mitigation Measure 6.5-9 requires that a Phase 2 ESA be completed and the results submitted to DTSC. When the Phase 2 ESA is prepared, besides soil contamination, it will take into account the potential for vadose zone contamination and groundwater containing pollutants emanating from the Manufactured Gas Plant (MGP) within the former Railyards to affect groundwater conditions beneath the West Jibboom Street Property. This measure further states that development of the parcel will not be allowed until it is remediated to health-protective levels for the most sensitive land use.

The West Jibboom Street Property is a parcel currently owned by California Department of Parks and Recreation adjacent to but not within the area subject to investigation and cleanup as part of the Railyards cleanup. If a more extensive process is required to further investigate and remediate potential threats to human health or the environment, the appropriate regulatory process would be followed. If the results of the Phase 2 ESA indicate additional study or remediation is warranted, the actual process that would need to be followed with the consent of DTSC would be determined at that time. A RAP may or may not be the appropriate document for that site because it is currently not subject to the regulatory process that requires a RAP (pp. 6.5-3 and 6.5-4 in the Draft EIR for a description of the process).

If it is determined remediation would be required at the West Jibboom Street Property, an environmental document prepared pursuant to CEQA would be required to disclose significant environmental effects of implementing remediation. Remedial measures, in and of themselves, are intended to result in a long-term net benefit to human health and the environment. When remedial actions are designed, the plans must identify measures that will be taken to protect human health and the environment during remediation. Engineering and environmental controls to minimize the potential for contaminants to be released outside the cleanup area, to prevent discharges to waterways, and to monitor air quality would be in place. Remediation workers would be performing work in accordance with an approved health and safety plan, and various administrative controls such as site security and personnel monitoring would be used. In addition, if off-site transport and disposal of contaminated soil or debris is necessary, the materials would need to be disposed of at a facility permitted to accept such wastes, and all transportation would be required to comply with federal Department of Transportation (Title 29 CFR) placarding and shipping regulations as well as state California Highway Patrol regulations pertaining to the transportation of hazardous substances. Other potential effects of remediation could include noise and traffic generated by remediation itself, but there are no sensitive receptors at that location, and remediation-related traffic would be intermittent and throughout the day (i.e., would not contribute substantially to peak-hour conditions at intersections or freeway segments). There would be no significant effects of implementing a remedial action that could not be reduced to less-than-significant levels through the existing regulatory framework.

4.9 HYDROLOGY AND WATER QUALITY

4.9 HYDROLOGY AND WATER QUALITY

4.9.1 COMMENTS ON STORMWATER COLLECTION, CONVEYANCE, AND TREATMENT

Response to Comments 6-7, 6-29, 6-30, 6-33, 18-22, 25-42, 25-52, 25-80, 25-82, 25-83, 26-21, 26-22, and 26-38

This response addresses comments 6-7, 6-29, 6-30, 6-33, 18-22, 25-42, 25-52, 25-80, 25-82, 25-83, 26-21, 26-22, 26-38 received regarding stormwater collection, conveyance, and treatment. The Draft EIR described and analyzed the stormwater infrastructure proposed by the project applicant. Particularly, Chapter 3.0 (Project Description) of the Draft EIR described proposed infrastructure to collect and dispose of stormwater via a system of stormwater collection inlets throughout the site that would ultimately be conveyed into the proposed cistern and discharged to the Sacramento River and the City's Combined Sewer System (CSS). Construction and operation of the stormwater utilities were analyzed in Section 6.6 - Hydrology and Water Quality and 6.11 – Utilities and the project will obtain coverage under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit. Impacts related to construction of the proposed project were analyzed throughout the Draft EIR. Further, as stated in Section 6.6, Impact 6.6-1 on pages 6.6-19 through 6.6-21, the City will require all construction contractors to obtain a General Construction NPDES Permit from the CVRWQCB and a Stormwater Pollution Prevention Plan (SWPPP) will be prepared identifying BMPs as required prior to construction activities and permit issuance to prevent construction-related materials from entering stormwater and to meet federal, state, and City stormwater quality regulations.

Sections 6.6 and 6.11 of the Draft EIR described how the stormwater system infrastructure would be designed to City design criteria to collect and treat stormwater and achieve City and State water quality treatment requirements prior to discharging into the Sacramento River and the City's Combined Sewer System (CSS). As described in the Draft EIR, the majority of the project site is not currently served by a drainage system, except for the central shops area which drains to the CSS. Stormwater on the undeveloped portions of the project site currently infiltrates into the ground. The proposed project would construct a new drainage system to collect and convey a majority of stormwater runoff to the river, with a small water quality portion to be pumped to the off-site CSS. Post-project runoff calculations were completed for sizing the on-site stormwater drainage utilities to meet the City's design requirements.

The proposed project stormwater system was designed and calculations are included in the City of Sacramento Downtown Railyards Project Storm Drain System Analysis Technical Memorandum prepared by Nolte in August 2007 (see Appendix A of this Final EIR). Nolte has submitted this technical memorandum to the City Department of Utilities (DOU) with the entitlements package for review and approval. Should the City DOU review and have revisions to the calculations made in the technical memorandum, the project applicant will revise and resubmit the plan for final approval. No changes requested by the City DOU are expected to affect the project site layout, utility alignments, or sizing of the cistern because design and layout of the system was conducted with respect to City DOU standards.

In order to more fully describe and clarify the operation of the cistern (discussed on pages 3-44 through 3-51, 6.6-21 to 6.6-22, and 6.11-8 of the Draft EIR), the following is paraphrased from the August 2007 Draft Storm Drain System Analysis Technical Memorandum prepared by Nolte Associates, Inc. included in Appendix A of this Final EIR.

CISTERN - The term cistern was used to denote an underground detention basin in the Draft EIR, the Specific Plan, and technical drainage documents. The cistern will be designed to detain the runoff from the proposed project. The cistern will provide water quality treatment by a combination of detention time and diversion to the CSS and the Sacramento River. The total detention volume will consist of two water quality volume components and one peak-shaving volume component. The two water quality components will be designed using the volume method depth factor from the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions* (May 2007). The proposed project site was assumed to be 80-percent impervious for calculating runoff volumes. Using a 48-hour drawdown, mean storm precipitation depth of 0.55 inches, and the 85-percent project site imperviousness, the depth of runoff will be 0.714 inches. The water quality volume is this depth divided by 12, times the 220 acres of the project watersheds, giving volume of stormwater runoff of 13.09 acre-feet.

A portion of the first flush water quality component will be captured in a compartment of the cistern of approximately 5 acre-feet and will be pumped to the CSS. This will capture the most heavily polluted first-flush storm drainage volume and preventing that volume of stormwater from reaching the balance of the cistern and discharging to the river. When drainage flows exceed the capacity of this compartment, excess flows will flow over a weir (a chamber wall within the cistern) and be captured in the second cistern compartment. After detention, the flows will be pumped to the river at a controlled rate which will discharge 75 percent of the water quality volume in a minimum of 24 hours and the total volume in 48 hours.

DETENTION AND PUMPING OPERATION - The cistern will also reduce high peak storm flows to a more sustainable rate for pumping to the river. Drainage flows which exceed the water quality volume (i.e., after the first flush volume is captured by the cistern) will be monitored and will initiate the large discharge pumps to begin pumping stormwater to the Sacramento River. As described in the Draft EIR on pages 3-44 to 3-51, 6.6-21 to 6.6-22, and 6.11-10 to 6.11-11 three 40-cfs pumps are proposed to pump to the river during the design 100-year 6-hour storm, which will require approximately 13 acre-feet of peak-shaving detention volume plus water quality volume for a total detention volume of approximately 27 acre-feet. Other combinations of pump capacity and detention volume may be used. Actual delivery of each pump will vary somewhat with variations in water levels in the cistern from storm to storm. The first pump would start when the water level in the cistern rises above the total water quality volume elevation.

Nominal dimensions of a cistern to store this volume could be 2.7 acres in area with a storage depth of 10 feet. Dimensions may be reduced by accounting for storage in the large diameter pipelines leading to the cistern is considered, and if regulatory agencies permit infiltration of stormwater for flow reduction.

A portion of the first-flush fraction of the water quality volume will be pumped to the CSS by at a controlled rate of five cubic feet per second for a period no longer than 12 hours. This flow rate is less than the current estimated peak storm flow rate from the existing Railyards pipelines to the CSS. The City Department of Utilities has indicated that it is necessary to constrain the pump rate due to limited pipeline capacity downstream in the CSS. The pumping can be controlled by telemetry to cease operating during brief periods when the CSS in the vicinity of 5th and S Streets is surcharged during storm peaks.

The pumping station will be either adjacent to or integrated into the cistern, and will handle both the small and the large discharges to the Sacramento River. This will require special design to accommodate the location, but design will include the features of a typical city drainage pumping station.

The unused year-round capacity of the CSS connection in the existing 3rd Street sewer pipeline could be used to temporarily accommodate development of up to 2.24 cubic feet per second (cfs) until the new 3rd Street sewer expansion is in operation.

This determination was complicated by the fact that there is storm drainage entering the existing sewer, even though it is in a separated area of the city. Nolte met with Bruce Barboza of DOU to review data on the existing 3rd Street sewer, which was estimated as follows:

- Pipe hydraulic capacity, based on the overall slope: 6.0 cfs (3.8 mgd)
- Existing peak dry weather flow: 0.60 cfs (0.38 mgd)
- Allowance for growth in the adjacent sewer shed: 0.36 cfs (0.23 mgd)
- Allowance for a 10-year 3-hour storm flow: 2.8 cfs (1.8 mgd)

This is based upon runoff from a recent storm metered in Manhole 626. The storm was estimated to be a 3-year storm, with rainfall of 0.85" in 3 hours, discharging 1.9 cfs.

Extrapolating to a 10-year 3-hour storm using a depth/frequency table gave an estimated 2.8 cfs (1.8 mgd) storm flow for the 10-year 3-hour storm.

Allowance for an interim detention bleed flow: 1 cfs (0.64 mgd)

Net remaining capacity: 1.24 cfs (0.80 mgd)

Nolte determined the number of ESD's which can be accommodated, using a peaking factor of 2.35 for 0.80 mgd: 800,000/2.35x400 = 869.6 ESD

If all development is multi-residential, this would accommodate 869.6/0.75 = 1159 units

If all development is office/commercial, this would accommodate 869.6/0.2x1000 = 4,348,000 square feet.

Until the 3rd Street sewer line is completed, stormwater runoff from the project is limited to the 1.0 cfs bleed rate, as noted above, and the sewage flow rate from the project is limited to 1.24 cfs, as noted above.

Based on the variability of market conditions, it is unclear exactly how development in the proposed Specific Plan would progress. The maximum contributing flow rate of 9.43 mgd is contingent on the construction of the 3rd Street sewer line and was used as the benchmark for when the cistern would need to be built due to this uncertainty. Prior to completing the cistern and discharge to the Sacramento River, the proposed project would convey stormwater runoff directly to the CSS. Draft EIR Section 6.11, Impacts 6.11-1 and 6.11-2 on pages 6.11-10 through 6.11-12, analyze impacts related to the project's increase in stormwater runoff requiring conveyance and treatment were analyzed. The Draft EIR concluded that the proposed project's increase in stormwater runoff would require mitigation measures to ensure prior to completing the cistern, peak stormwater flows, in combination with sewer flows, do not exceed existing CSS capacity. The proposed project would be required to submit drainage and wastewater studies prior to the submittal of improvement plans to demonstrate the drainage runoff and sewer generation amounts that will contribute towards the maximum peak flow of 9.43 mgd. Mitigation Measure 6.11-1 dictates that development of the proposed project would not exceed the 9.43 mgd peak flow.

In order to determine how much of the proposed project could be built without exceeding the Mitigation Measure 6.11-1 maximum flow of 9.43 mgd (14.7 cfs) to the CSS upon completion of the 3rd Street sewer line but before completion of the cistern, the specific land uses and densities of a proposed partial development will be identified. This maximum flow value contains both sanitary sewer flow and storm flow. The 10-year storm flows calculated by the method used in the Draft EIR range from about 0.9 to 1.4 cfs per acre depending the size of the area, with the per-acre flow decreasing as the area becomes larger. Without sanitary sewage flow, 9.43 mgd (14.7 cfs) would represent the stormwater flow from approximately 11 acres of urban development. Average daily sanitary sewer flow from multi-family residential development is relatively high (300 gallons per day per unit), and that from commercial and office use is relatively low (80 gallons per day per 1,000 square feet). Flows must be multiplied by the peaking factor given in the City's Design and Procedure Manual. The allowable acreage of partial development would be decreased by an amount which would compensate for the sanitary sewage flow from the mix of land uses proposed to meet the maximum peak flow (9.43 mgd) into the CSS.

As discussed in the Draft EIR (pages 3-44 through 3-51, 6.6-21 to 6.6-22, and 6.11-8) the cistern would be designed to provide 100 percent treatment of dry weather flows and a better level of treatment than standard BMP's as found in the City's Stormwater Quality Design Manual. The stormwater quality (WQ) volume from the project site will be treated using two systems. Approximately 35 percent of the WQ volume will be discharged to the CSS for full treatment and the remaining 65 percent will drain to the cistern and meet the City criteria for water quality detention time holding the runoff for 24-48 hours). The project would comply with existing water quality treatment based on the following:

- The City's last discharge characterization showed that 50 percent of all pollutant load is in non-stormwater discharges. All of this would receive full treatment.
- 35 percent of the WQ volume (up to 216,000 cf) for each storm would include a significant portion of first-flush pollutants.
- The remainder of the water quality volume would drain to the cistern and be held for 24 to 48 hours per the City's standard water quality basin design criteria and then discharge to river.
- Volumes over and above the WQ volume would be discharged directly to the river.

If the CVRWQCB requires the project to implement additional treatment controls, prior to or after the cistern is built, the runoff reduction control measures and treatment control measures contained within *The Stormwater Quality Design Manual for the Sacramento and South Placer Regions* could be used for the project. In addition, the City and other Phase I NPDES permittees in the region will continue to monitor water quality in streams and rivers for effectiveness of urban stormwater quality BMPs as mandated by State NPDES regulations and policies to prevent water quality degradation in receiving waters. If it becomes necessary to only use BMP's that do not infiltrate into the soil, then the following BMP's could be used to comply with stormwater quality requirements:

- Porous Pavement (with underdrain)
- Interceptor Trees
- Green Roofs
- Sand Filters
- Stormwater Planters (with underdrain)
- Vegetated Swales (with underdrain)

Finally, Mitigation Measure 6.6-2 in the Draft EIR, is changed as follows:

> *"The proposed Specific Plan shall ~~limit~~ prohibit discharges to the Sacramento River from the cistern that do not meet the water quality requirements ~~standards~~ set by the City and the CVRWQCB. If the cistern cannot meet the required water quality requirements ~~standards~~, then the proposed Specific Plan shall incorporate BMPs ~~using the best available technology~~ as provided in the* Stormwater Quality Design Manual for the Sacramento and South Placer Regions (Manual) *(May 2007) to reduce urban pollutant discharges to the Sacramento River to the maximum extent practicable."*

Please note the proposed project no longer includes a marina.

4.9.2 STORMWATER QUALITY

Response to Comments 18-22 and 25-82

This response addresses comments 18-22 and 25-82, which concludes that stormwater quality BMPs which allow percolation or infiltration should be considered to reduce project site runoff and improve water quality. The comment is noted as a suggestion because it does not address any particular analysis in the Draft EIR. Stormwater treatment to meet state and City water quality criteria was adequately addressed in the Draft EIR, including mitigation measures. Therefore, no additional mitigation measures are required. Nonetheless, the comments are forwarded to the decision makers for consideration because the suggested use of additional BMPs would reduce the less-than-significant impacts on water quality.

Comment 18-22 also asks if revised or updated versions of the City's Stormwater Quality Improvement Plan (SQIP) will apply to the proposed Specific Plan. The City enforces stormwater quality criteria according to the most updated version of local regulations, and policies, including the SQIP.

4.9.3 COMMENTS REGARDING DEWATERING AND OTHER EFFECTS ON GROUNDWATER

Response to Comments 6-28, 6-31, 6-32, 18-22, 25-41, 25-42, 25-84, and 25-85

This response addresses comments 6-28, 6-31, 6-32, 18-22, 25-41, 25-42, 25-84, and 25-85 regarding dewatering, groundwater recharge, or other effects on groundwater. The proposed project may require dewatering activities in areas of construction that encounter groundwater (e.g., trenches or below-ground foundations). Dewatering was analyzed in Section 6.6 on pages 6.6-22 and 6.6-23 for the project's impact on groundwater quality, flow of groundwater, and groundwater recharge. The proposed project would not require permanent dewatering. Rather, dewatering for construction activities would be short-term and limited to areas of below ground construction. Dewatering activities in areas where groundwater is potentially contaminated would require approval by the State Department of Toxic Substances Control (DTSC). In addition, Mitigation Measure 6.5-1, in Section 6.5 - Hazards and Hazardous Substances, on page 6.5-26 of the Draft EIR provides mitigation for dewatering activities through DTSC approval. Should dewatering occur, the project applicant would be required to discharge any treated and dewatered groundwater into the CSS upon City and Sacramento Regional County Sanitation District (SRCS).

Effects on groundwater recharge were addressed in Section 6.6 of the Draft EIR in Impact 6.6-3. The proposed project would result in an increase in impervious surfaces that would prevent future percolation of stormwater, thus reducing the potential for influencing the direction, flow, and movement of current groundwater contamination. Any influence on groundwater quality via migration of contaminants between underground utilities was analyzed in Section 6.5 of the Draft EIR. The cistern and other structures which may be in direct contact with groundwater will not be

permeable to the groundwater layer. All portions of structures constructed below the groundwater table will be constructed with impermeable materials in order to prevent any pollutants in these structures from entering the ground water, and also to keep groundwater out of these structures. Further, Mitigation Measure 6.5-2 in Section 6.5 on page 6.5-30 of the Draft EIR requires that underground utilities are prevented fro infiltration of underlying groundwater under the direction of DTSC.

Comment 6-32 asks for consideration of groundwater below the project site for beneficial use by redacting the third bullet item at the top of page 6.6-23. However, this bullet identified shallow groundwater within the project site as not usable for potable water not other beneficial uses. The Draft EIR analysis of groundwater uses was adequately addressed, and the comment is noted.

4.9.4 GROUNDWATER MONITORING WELLS

Response to Comments 18-22

Comment 18-22 claims that figure 6.6-2 is partially illegible or unreadable. The figure was included to show the locations of groundwater monitoring wells located throughout the project site, and not to provide the details for each well site. As stated in Section 6.6 on page 6.6-7 of the Draft EIR, the reader is directed to Section 6.5, Hazards and Hazardous Substances for further discussion of groundwater contamination. Section 6.5 describes the current groundwater contamination and remediation on page 6.5-2 through 6.5-10. Further, response to comment 4.8.1 in Section 4.8 – Hazards and Hazardous Substances in this Final EIR contains more information regarding groundwater contaminants.

4.9.5 WATER QUALITY DATA

Response to Comments 18-22

Comment 18-22 asks that water quality data from groundwater testing be included in Section 6.6, Hydrology and Water Quality. Section 6.6 referred readers to Section 6.5, Hazards and Hazardous Substances for further information on soil and groundwater contamination levels and current testing. Further, response to comment 4.8.1 in Section 4.8 – Hazards and Hazardous Substances in this Final EIR contains more information regarding groundwater contaminants.

4.9.6 COMMENT REGARDING SEWER FEES AND PERMITS

Response to Comments 15-1 and 15-2

This response is in reference to comments 15-1 and 15-2. Comment 15-1 refers to language which does not exist on page 3-17 of the Draft EIR. The comment is noted. Comment 15-2 states the permit requirements for connection to the SRCSD and fees associated with required permits for the proposed project. The comment is noted and will be presented to the decision makers for their consideration.

4.9.7 CLARIFICATION OF STORMWATER TREATMENT VERSUS SEWAGE TREATMENT AND THE CSS

Response to Comment 25-52

This response addresses comment 25-52 which asserted that the Draft EIR was unclear whether all discharge from the cistern (except the first 5 acre-feet) would be treated or untreated water passing into the Sacramento River. The commenter may have confused Combined Sewer Overflow (CSO), referred to on Page 6.11-6 of the Draft EIR in the discussion on EPA's National CSO Control Policy, with the city's Combined Sewer System (CSS). CSO's are overflows of a sewer system that

contains sanitary sewage as well as storm drainage. The proposed project would construct separate storm drainage and sanitary sewage collection systems.

Only stormwater would be entering the cistern. Stormwater would be treated on a water quality basis before passing into the Sacramento River as discussed on pages 3-44 through 3-51, 6.6-21 to 6.6-22, and 6.11-8 of the Draft EIR. The proposed stormwater drainage system within the project site (including the cistern) would be a separated system from the CSS except for the pumping of the first 5 ac-ft to the CSS. The EPA policy on page 6.11-6 addresses overflow from the CSS and not from separated storm drainage systems, and therefore does not apply to the proposed project stormwater drainage system except in the interim condition before the cistern is in place.

Overflow of the CSS typically occurs during large storm events when storm water exceeds the capacity of the system. Storm drainage discharge from the Project into the CSS would be detained prior to being discharged into the CSS. This would include stormwater from the interim condition and the first 5 ac-ft of storm water from the cistern for water quality. The stormwater would be discharged to the CSS with a telemetry system to only occur when the CSS is not inundated by the peak flows from storm events and when overflow is not an issue. As stated on page 6.11-6, the City is in compliance with the EPA CSO Control Policy and has exceeded the treatment requirement of 85 percent in past years (up to 92 percent).

In addition the commenter asserted that the Draft EIR failed to explain how limitations on current capacity in the CSS impede the ability of the proposed project to meet state and federal standards. The reader is confused as to jurisdiction on the CSS. The limitations on current capacity in the CSS do not impede the ability of the proposed project to meet state and federal standards. The limitations are part of the criteria to which the proposed project will conform in meeting the applicable standards as required by the City.

4.9.8 CSS EXPANSION

Response to Comment 25-80

This response addresses comment 25-80 which asserted that expansion of the City's CSS is uncertain to occur. While the City's proposed expansion of the CSS has not gone through the CEQA process, the improvement has been on the City's Long Term Improvement Plan for 2007 - 2012. The commenter provides no reason why the CSS expansion would not occur.

4.9.9 COMMENT ON CLIMATE CHANGE AND SEA LEVEL RISE IMPACTS

Response to Comments 18-22 and 25-87

This response addresses comments 18-22 and 25-87 which assert that the Draft EIR should analyze potential impacts of climate change on sea level rise, future flood potential, and effects on water supply. A discussion of global-wide effects on river flows and sea level rise for the proposed project is not guided by the standards of practicality and reasonableness, as defined by CEQA Guideline 15130. Any analysis of sea level rise, river flood stages, and related water supply impacts on the proposed project alone would be highly speculative at this point because the scientific methods used for future projections are currently evolving. Therefore, there is not enough data to support such analyses, associated with individual projects. Further, the analysis of flooding in the Draft EIR was based on the best available information from the City, State, FEMA, and the U.S. Army Corps of Engineers. In regards to the proposed project's contribution to climate change, please see Section 5.4, Air Quality of the Final EIR.

4.9.10 COMMENTS ON FLOODING

Response to Comment 18-22

This response addresses comment 18-22 which suggests that the Draft EIR did not include the most recent information concerning flooding specific to the project site and the Sacramento River levees may not provide adequate flood protection. The Draft EIR fully addressed flooding issues in Section 6.6, on pages 6.6-23 to 6.6-24 and 6.6-25 to 6.6-26. On these pages, the Draft EIR analyzed the potential for flooding on the project site using the latest data provided by the Federal Emergency Management Agency's Flood Insurance Rate Maps most recently updated for the City of Sacramento, in 2005. Figure 6.6-1 on page 6.6-5 is the most recent FIRM map for the project site. The source for the figure is changed to reflect the more recent version and is included in Chapter 3.0, Changes to the Draft EIR Text and Figures, of this Final EIR. As shown in this figure, the project site is in an area designated as protected from the 500-year or below flood event as described in the Draft EIR on page 6.6-3. Further, the analysis of levees and levee maintenance provided in the Draft EIR provides full disclosure of the potential for flooding of the project site from levee failure may indicate that the area proposed to remapped does not include the Railyards site. Because impacts related to flooding were found to be less than significant there is no requirement for mitigation. Further, the commenter confuses the jurisdiction of the project applicant on levee maintenance or improvements. Levee maintenance and improvements are under the jurisdiction of federal, state, and local agencies as described on pages 6.6-2 to 6.6-36, 6-14, 6.6-16, 6.6-18, and on pages 6.6-6, 6-23 to 6.6-24 of the Draft EIR.

4.9.11 COMMENTS REGARDING HAZARDOUS SUBSTANCES IN STORMWATER DURING CONSTRUCTION

Response to Comments 6-7 and 18-22

Comment 18-22 asks how the proposed project will prevent potential spills of hazardous materials during construction activities. Also, Comment 6-7 refers to concerns that contaminated soils will pollute stormwater runoff. Both Sections 6.5, Hazards and Hazardous Substances and 6.6, Hydrology and Water Quality, describe federal, state, and local regulations that control the use, transportation, storage, and disposal of hazardous materials including those used during construction activities. Section 6.6 describes how the CVRWQCB and City enforce the state National Pollutant Discharge Elimination System General Construction Permit to prevent hazardous materials from entering stormwater runoff during construction activities. Further, response to comment 4.8.1 in Section 4.8 – Hazards and Hazardous Substances in this Final EIR contains additional information regarding groundwater contaminants and potential impacts.

4.9.12 CUMULATIVE IMPACTS

Response to Comment 18-22

Comment 18-22 states that the Draft EIR does not include a complete cumulative analysis of hydrologic and water quality impacts on the Sacramento River. The cumulative impacts related to hydrology and water quality are addressed on pages 6.6-24 through 6.6-26 of the Draft EIR. The Draft EIR concluded that the proposed project's contribution to cumulative hydrology and water quality impacts would not be considerable.

4.9.13 STORMWATER RUNOFF TO SACRAMENTO RIVER

Response to Comment 18-22

Comment 18-22 contends that the Draft EIR does not fully address stormwater runoff and flood flows to the Sacramento River, see Response to Comment 4.9-10, above. Impacts due to stormwater

runoff and potential flood impacts are addressed in Chapter 6.6 of the Draft EIR. The comment is vague and does not identify how the analysis in the Draft EIR is lacking.

4.9.14 FLOOD CONTROL PLAN

Response to Comment 9-1

This response addresses comment 9-1 from the Department of Water Resources Reclamation Board, which claims that the project may be in the State Plan of Flood Control. According to the State Reclamation Board's publicly available maps, the project is not located in a Designated Floodway or in the State Adopted Plan of Flood Control. Therefore, the project does not require an encroachment permit from the State Reclamation Board.

4.10 LAND USE

4.10.1 COMPATIBILITY WITH INDUSTRIAL

Response to Comment 24-2

With respect to the discussion of land use compatibility, the Draft EIR references language identified in the Central City Community Plan and the Richard Boulevard Area Plan that encourage the development of residential uses adjacent to proposed high density, high rise office uses. The proposed project would develop office uses, which would be occupied by proposed project residents, as well as residents within existing and future units within the Richards Boulevard Area. This type of development is consistent with the City's goal to provide a mixture of housing with other uses nearby, stated in the CCCP Housing and Residential Goals Sub-Goal 2. This approach is consistent with regional smart growth principals of increasing opportunities for "live/work" environments. In addition, the Richards Boulevard Area Redevelopment Strategy aims to support the type of development identified in the RSP. Specifically, Strategy #2 of the City's redevelopment plan for the Richards Boulevard Area calls for the support of major office projects both within Richards Boulevard and the Railyards site. Strategy #3 also calls for the support of "pioneering" residential project, of which the Railyards Specific Plan would be amongst the few that qualify. Although implementation of the proposed Specific Plan would result in some changes to the existing visual character of the proposed Specific Plan site, the Draft EIR determined that the proposed Specific Plan would be compatible with the surrounding area from a visual and land use perspective and a positive addition to the City's downtown context.

Currently, there is no language in the City's General Plan that states that industrial and residential uses cannot exist within relative proximity with the implementation of appropriate measures to reduce potential impacts. In addition, the proposed project would be developed in multiple phases, with the bulk of the initial development occurring in the western portion of the proposed project site. The parcel that abuts the existing active industrial use (the Sims parcel) is currently proposed for development during the final phase, which would likely occur during between 2025 and 2030. Thus, it is anticipated that the transition of the adjacent industrial land use to commercial use would occur by 2030. However, to remain conservative and evaluate the worst case scenario, the EIR contains a quantitative analysis of air and noise impacts (which are the types of land use incompatibility impacts that could occur during this transition) on project receptors during the last phase of development. The analysis used existing plus project conditions, which incorporated the Sims facility into the results. Appropriate and feasible mitigation measures were recommended to reduce impacts to residential receptors in the appropriate sections of the Draft EIR (Sections 6.1, 6.5, and 6.8).

4.10.2 COMPATIBILITY BETWEEN SCHOOL USE AND POTENTIALLY SURROUNDING USES

Response to Comment 18-23

The proposed project identified a potential location for the placement of a school within a parcel in the eastern portion of the Specific Plan Area north of the proposed rail line. If the proposed school site was developed within the proposed parcel, it would be located adjacent to a proposed Police and Fire Station facility. The commenter believes that the placement of a school facility within the identified location would generate land use compatibility issues. The City of Sacramento General Plan Land Use Element guides development practices for future development. The City of Sacramento has no guidance policy that finds schools incompatible with police or fire stations. Current CDE regulations, which guide the siting of new school facilities also have no such

restrictions associated with the placement of schools near fire or police facilities. The placement of schools near police or fire facilities would not trigger any significant physical environmental impacts as defined by the CEQA Guidelines. It must be noted that the EIR's analysis of the proposed school site is programmatic and would require subsequent project specific analysis at the time a specific facility is proposed. A future project specific analysis of the school would be required to evaluate any potential impacts to or from surrounding land uses associated with the construction and operation of a police or fire facility nearby. The proposed police and fire facilities would be required to store materials and conduct daily operations in accordance with local, state, and federal law, which would reduce the likelihood of future significant impact.

The current CDE Site Selection Criteria identifies a number of factors that are taken into account when siting schools including safety and compatibility. Specific land uses, such as rail lines have been clearly delineated by the CDE as being incompatible with schools. Subsequent measures have been established to ensure that new schools are located within a safe distance from incompatible uses. The CDE requires all rail lines to be minimum of 1,500 feet from a proposed school use. The proposed school site would be required to comply with CDE requirements prior to approval. The proposed urban school uses would be consistent with existing measures of evaluation, including adequate separation from railing, thus reducing overall land us conflicts, and resulting in an overall less-than-significant impact associated with land use compatibility.

4.10.3 FREEWAY OPEN SPACE

Response to Comment 25-43

The proposed project would contain varying types of open space as defined by the City's General Plan. Active greenspace, passive greenspace, ground level hardscape, trails, and intrabuilding recreational areas all constitute as open space according to the City. The SMAQMD and the state ARB places restrictions on active recreational open space areas within proximity of a major freeway. As a result the proposed open space areas that are currently designated for placement below I-5 and adjacent to I-5 would be restricted in their allowable uses passive turf and hardscape open spaces. The proposed project Design Guidelines, SPD, and formalized conditions of approval shall further clarify the limits of proposed open space areas. Disclosure of the site's land use designation and appropriate mitigation is deemed sufficient evidence when determining the level of significance associated with park land use compatibility. The proposed open space uses would be required to comply with existing law. The Draft EIR therefore concluded that the proposed Specific Plan would not have a demonstrable negative effect open spaces and would therefore be less than significant.

4.11 NOISE

4.11.1 SINGLE EVENT NOISE LEVELS

Response to Comments 25-44, 25-45, and 25-47

This response addresses comments 25-44, 25-45, and 25-47. Several comments were received regarding single event noise levels (SEL) at the project site from train and light rail activities near the sight. The Draft EIR presents background information regarding SELs including Table 6.8-4, which includes the relationship between indoor SEL and sleep disturbance. Comment 25-44 indicates that the Draft EIR references a study for the relationship of SEL to sleep disturbance by Finegold and Bartholomew. The commenter notes that this study is not consistent with other studies of sleep disturbance, such as a 1997 study by the Federal Interagency Committee on Aviation Noise (FICAN).[1,2] The Finegold and Bartholomew study that is used for reference in the Draft EIR was completed in 2001, and includes findings that are more recent than the 1997 FICAN study that is referenced by the commenter. The Finegold and Bartholomew study is also used by the Federal Railroad Administration (FRA) in a recent report about the health effects of noise.[3] The report by FRA uses the prediction model from the Finegold and Bartholomew study for sleep disturbance, and is the same prediction model that is presented in the Draft EIR in Table 6.8-4.

Comment 25-47 points out that high SELs are noted to occur in areas along the UPRR line, and comments on the Draft EIR conclusions that the project was determined to have a less than significant impact related to the exposure of sensitive receptors to traffic and rail noise. The determination of significance under this impact was based on comparison to the City's interior standards of 45 dBA and exterior standard of 60 dBA. While the Draft EIR notes the project site would be exposed to a high SEL associated with each train passby, significance was based on the interior and exterior noise standards, which are based on an average noise level for an area, not for single events. See Standards of Significance – Noise below for discussion of the City's established noise standards.

As noted under Impact 6.8-2 (starting on page 6.8-18 of the Draft EIR), the project is expected to result in residential uses in an area where there would be high SELs (greater than 95 dBA at 150 feet) from train passbys, including nighttime train passbys. The occurance of high SEL events was noted in the Draft EIR to have a strong correlation to sleep disturbance. While the occurance of high SEL events would potentially impact future residents within the site, noise impacts to the project was found to overall to be less than significant because the project would be required to comply with the noise standards based on a day-night average, which accounts for potential sleep disturbance by including a penalty for noise events that would occur at night. Interior noise levels would be required to be reduced under the State's Title 24 regulations, which would require the project to reduce the day-night noise levels within the residential units to 45 dBA or less. The measures used to achieve 45 dBA would also reduce SELs by a similar amount.

As stated on page 6.8-20, interior noise levels within project residences would be acceptable and less than significant. The developer could provide additional exterior-to-interior noise reduction

1 Finegold and Bartholomew, *A Predictive Model of Noise Induced Awakenings from Transportation Noise Sources*, Noise Control Engineering Journal, 2001.

2 Federal Interagency Committee on Aviation Noise, *Effects of Aviation Noise on Awakening from Sleep*, June 1997.

3 U.S. Department of Transportation Federal Railroad Administration, *General Health Effects of Transportation Noise*, June 2002.

features beyond the required Title 24 regulations for proposed residential structures adjacent to the UPRR and light rail alignments to further reduce nighttime noise, if desired.

4.11.2 STANDARDS OF SIGNIFICANCE – NOISE

Response to Comments 25-45, 25-46, 25-48, 25-49, and 25-50

Several comments were received regarding standards of significance that were used in the Draft EIR for single events, interior noise, and exterior noise for residential uses. The City of Sacramento has established noise standards for exterior noise levels in the City's General Plan; however, the City has not established interior noise standards or single-event noise level standards associated with trains. As identified in the Draft EIR, the City General Plan identifies a 60 dBA L_{dn} for exterior areas of residential uses. The 60 dBA L_{dn} standard for exterior areas applies to common outdoor areas as defined by the City; outdoor residential spaces such as balconies are not typically considered living space (as opposed to a backyard), so they do not need to meet the exterior standards. The City's General Plan does not provide a clear standard for interior noise levels; however, Title 24 of the California Code of Regulations indicates a performance standard of 45 dBA L_{dn} for interior areas of multi-unit residential uses. This 45 dBA L_{dn} standard is included in the Draft EIR significance standards. The City does not have a standard for SELs of train passbys, and as such, the significance standards for interior and exterior areas are applied to the Draft EIR analysis for exposure of receptors to high SEL noise sources.

Comment 25-45 and 25-49 state that the Draft EIR references that Title 24 requirements would require interior noise levels to be reduced to 45 dBA L_{dn}. Title 24 focuses on achieving the noise level within the structure, it does not reference how that is accomplished (windows open or closed). As such, the 45 dBA L_{dn} noise level may only be achievable with windows closed for areas where there are high exterior noise levels. If noise levels with windows closed achieves 45 dB, than with windows open noise levels may exceed the 45 dBA L_{dn} standard. However, all units are proposed to include mechanical ventilation units, so windows could remain closed if the occupant found the exterior noise disturbing.

Comment 25-50 comments that the 3 dB significance criterion used in Impacts 6.8-2 and 6.8-6 are not listed on page 6.8-15. Therefore, the following change is made:

> Thresholds of significance are established by the Title 24 standards and by the City's General Plan Noise Element and the City Noise Ordinance. For the purposes of this EIR, noise impacts are considered significant if the proposed project would result in:
>
> - Exterior noise levels at the proposed project that are above the upper value of the normally acceptable category for various land uses, according to the City General Plan, caused by noise level increases due to the project;
> - Residential interior noise levels of 45 L_{dn} or greater;
> - Noise level increase at a sensitive receptor of 3 dB (L_{eq} or L_{dn}); or
> - Construction noise levels not in compliance with the City of Sacramento Noise Ordinance.

4.11.3 INTERIOR/EXTERIOR NOISE LEVELS

Response to Comment 25-48

As discussed on page 6.8-20, in Section 6.8, Noise and Vibration, residential development could occur in proximity to the freeway only if Title 24 interior noise standards could be achieved. Title 24,

which requires interior noise levels of 45 dBA or less, could therefore restrict the placement of residential development.

4.11.4 VIBRATION

Response to Comment 25-51

Comment 25-51 requests incorporation of additional vibration mitigation measures for the project. The Draft EIR identifies in Mitigation Measure 6.8-1(d), which would require the use of sonic pile drivers as feasible. However, the feasibility of the use of sonic pile drivers has not been established yet for this project, so the impact was determined to be significant and unavoidable. The commenter is requesting consideration of additional measures as was included in the Metropolitan Project Draft EIR. Feasible mitigation measures referenced by the commenter include pre-drilling of pile holes and halting construction if damage occurs on nearby buildings until the damage is repaired and a qualified engineer determines the vibration limits based on soil conditions and types of buildings. The measures recommended by the commenter shall be included in the Draft EIR; therefore, Page 6.8-23 of the Draft EIR has been modified as follows to reflect this change.

6.8-4 *Implement Mitigation Measure 6.8-1 and the following measure during all phases of project construction:*

a) *During 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 further structural damage.*

Even with incorporation of the above measures, because the pile driving could still occur within 25 feet of a receptor on the project site, implementation of the project could still result in exposure of a receptor to vibration levels above 0.5 inches per second; therefore, this impact would be considered significant and unavoidable.

4.11.5 INDUSTRIAL NOISE SOURCES

Response to Comments 24-3, 24-4, 24-5, and 24-7

Comments were received regarding the potential for impacts from industrial noise sources from existing industrial facilities north of the project site. The commenter states that these industrial facilities, including the Sims recycling facility, currently generate noise levels that may be present at the project site and could affect future residential developments on the site. Although the Draft EIR addresses existing noise sources and identifies the noise generated under existing conditions, the Draft EIR does not specifically address noise from these sources, which would be limited by the City's Noise Ordinance. The Draft EIR does not specifically address the noise impacts from these facilities; however, if noise levels from these facilities would be present at the project site at the time of development, all requirements noted in the Draft EIR for residential indoor and outdoor noise levels would be required to be met. As such, noise impacts from industrial sources on the proposed residential uses would be less than significant.

The following text is added to page 6.8-20:

> Although exterior noise levels near the UPRR alignment and 7th Street currently exceed the City's 60 dBA standard for residential uses, the proposed Specific Plan\ would require future development to meet all applicable noise standards for residential uses, including Title 24, so noise levels would be acceptable.
>
> In addition to traffic and rail noise within the East End district, the residential uses in this district would also be subject to noise from the existing industrial sources to the north and east of the project site. Noise from off-site sources would be required to comply with the City's Noise Ordinance, which does not allow noises that disturb neighborhoods. Further, future development adjacent to these industrial uses would also be required to meet all applicable noise standards for residential uses, including Title 24, so noise levels near industrial uses would also be acceptable.

Comment 24-4 and 24-7 state that there would be a potential for additional noise complaints if new residential units are built on the project site when the industrial facility is operating. Any increase in population to an area increases the potential for noise complaints; therefore, because the project would increase the population in the area, there is the potential for additional nuisance complaints from future residents. However, because off-site noise generators must comply with the Noise Ordinance, and the project residences would be required to comply with the interior noise level standards, the project would not be expected to result in a substantial increase in noise complaints.

4.11.6 Effects of Noise and Vibration on the Proposed On-site School

Response to Comment 18-24

Comment 18-24 notes that the site identified by the project sponsors as a potential location for an on-site school would be within the East End District and comments that no discussion is provided for impacts if this location was developed with a school. The site that is identified as a potential location for the school is Parcel 49a. This parcel is identified on page 6.8-20 as a parcel that would be adjacent to the UPRR and light rail alignments. This location would be within the screening distance for vibration impacts from the UPRR and light rail alignments. Because of the proximity of this site to the UPRR and light rail alignments, this site would also be subject to high noise levels from train activity. While the potential school site is within an area with a potential for noise and vibration impacts from train activity, the Draft EIR identifies this site as a potential sensitive receptor because it could also be developed with residential uses. Therefore, the potential for impacts to a sensitive receptor at this site are identified within the Draft EIR. However, for clarification, page 6.8-20 is revised as follows:

> The East End District includes residential land use designations on parcels near the UPRR alignment and 7th Street near the proposed light rail alignment. Parcels adjacent to or near the UPRR alignment include parcels 49a, 49b, 49c, 51, and 52S. These parcels are designated RCMU, ORMU, and RMU, which all allow residential uses. The EIR Analysis Scenario assumes residential units would be built on parcels 49a, 51, and 52S. Parcel 49a is also identified as a potential location for a new school proposed for the project site (see Figure 3-17).

Page 6.8-28 is revised as follows:

> The East End District has the potential for vibration impacts due to the freight/commuter track relocation and the DNA light rail extension. Five parcels (parcels 49a, 51, 52N, 52S, and 53S) were found to be within the critical distance for potential vibration impact due to

freight and commuter train operations. Future ~~residential buildings~~ sensitive receptors within these parcels could have the potential for impacts and warrant additional vibration analysis. For receptors along 7th Street, screening distances suggested that buildings on both sides of the light rail alignment (assumed to run down the middle of 7th Street) could be impacted. Based on the Screening Analysis, eight parcels (parcels 54S, 54a, 68S, 68N, 57S, 57N, 69S, and 69N) could be adversely affected by light rail (LRT) vibration in the East End District.

4.11.7 NOISE CONTOUR MAP

Response to Comment 25-46

The commenter requests a noise contour map for the Specific Plan Area showing the 60 dBA L_{dn} contour line. While such a map could be useful in determining the rate of noise attenuation from the noise source, a noise contour map does not generally take into account the effects of buildings within the site and shielding that may occur as a result of construction of such buildings. Because a noise contour map would not take into account the locations and shielding of buildings, this map would not provide an accurate account of noise levels that would occur as a result of implementation of the proposed project.

4.12 PARKS AND OPEN SPACE

4.12 PARKS AND OPEN SPACE

4.12.1 INADEQUATE ANALYSIS OF PARKS AND OPEN SPACE IMPACTS

Response to Comments 26-13, 26-29, and 26-30

Table 6.9-2 of the Section 6.9, Parks and Open Space, used a pph rate of 1.76 which appears to be inconsistent with the 2.1 pph rate used in the rest of the Draft EIR analysis. However, for park planning purposes, the 1.76 pph rate was formally adopted as City Code. Therefore the conclusions in the Draft EIR would not change. As discussed in Impact 6.9-1 on page 6.9-13 of the Draft EIR, the Railyards Specific Plan would provide 42.1 acres of parks, plazas, and open space within the proposed Specific Plan site toward meeting the requirements of City Code Section 16.64. As described on page 6.9-14 of the Draft EIR, the proposed Specific Plan would not provide enough parks and open space acreage to meet the City's Service Level Goals for neighborhood or community park acres.

In addition to the parks and open space proposed in the Railyards Specific Plan Area, there are numerous other parks and recreation facilities located near the Railyards Specific Plan Area. As described on pages 6.9-1 through 6.9-7 of the Draft EIR, there are several city operated and non-city operated facilities nearby including the Sacramento River Parkway, American River Parkway, Discovery Park, Jibboom Street Park, Zapata Park, and Johnson Park, just to name a few.

The Service Level Goal also anticipates a mostly suburban style of development. Urban development, like the Railyards Specific Plan and other downtown developments, were not the predominant development type in Sacramento when the goal was formulated. For the Railyards Specific Plan, parkland dedication or payment of in-lieu fees may be addressed through the Development Agreement.

4.13 PUBLIC SERVICES

4.13 PUBLIC SERVICES

4.13.1 ADEQUACY OF ENVIRONMENTAL REVIEW FOR PROPOSED SCHOOLS

Response to Comments 18-1, 18-12, and 18-25

At this time, it is uncertain whether schools will be located within the Railyards Specific Plan Area. Figure 3-17 on page 3-27 of the Draft EIR depicts where a school could potentially be located. Deed restrictions would restrict locating a school in certain areas of the Railyards Specific Plan Area. However, several proposed land use designations within the Railyards Specific Plan Area would allow for the development of education facilities including the Residential/Commercial Mixed Use (RCMU), Office/Residential Mixed-Use (ORMU), and Residential Mixed-Use (RMU) designations. Although specific school sites are not proposed in the Specific Plan, the Plan provides enough flexibility to allow for the development of educational facilities in the future. Once specific sties for schools in the Railyards Specific Plan Area are identified, subsequent environmental review would be required. Any potential school site chosen would be evaluated consistent with California Department of Education and Sacramento City Unified School District (SCUSD) guidelines which would address any site-specific issues including technical studies needed to evaluate land use compatibility and safety issues. Given the urban nature of the site, any future school site would likely not be the typical sprawling, suburban-style school that is common throughout Sacramento. In contrast, any future school developed in the Railyards Specific Plan Area would likely be urban in nature, possibly housed in a multi-story building with hardscape recreational facilities.

The Draft EIR provides a comprehensive analysis of the proposed Specific Plan's impact(s) to the SCUSD in the event a school is not constructed within the proposed Specific Plan Area (Draft EIR, pp. 6.10-37 – 6.10-43).

According to the Draft EIR, the proposed Specific Plan would develop up to 12,501 residences within the Central City, which would generate a population of up to 26,252 new residents (Draft EIR, p. 6.10-37). Of those residents, approximately 1,250 elementary, 250 middle, and 375 high school students would be generated (*id.*). To accommodate the additional students the Draft EIR has identified a potential school site within the Specific Plan Area (Draft EIR, Figure 6.10-2). The identification of this school site does not preclude the identification of additional school sites within the Specific Plan Area. As development of the Specific Plan progresses, if feasible, more school sites as required could be identified.

Any school developed within the Specific Plan Area would comply with all applicable school district, local and state regulations. However, because of the downtown location, any school built within the Specific Plan Area would be an "urban school" (Draft EIR, p. 3-57). This would include multi-story classroom facilities, rooftop recreation areas and other space saving characteristics (*id.*). Commenter states concern that a school within the Specific Plan Area could not comply with the Department of Education ("Department") recommendations regarding school site size requirements. However, the Department's recommendations are not binding. Further, the Department provides exceptions within the requirements for schools that are situated in urban areas where land is scarce (Draft EIR, p. 6.10-43; Cal. Code Regs., tit. 5, §14010, subd.(a)).

Additionally, the Draft EIR provides a comprehensive analysis of the proposed Specific Plan's impact(s) to the SCUSD in the event a school is not constructed within the proposed Specific Plan Area (Draft EIR, pp. 6.10-37 – 6.10-43).

Elementary School Students

The Draft EIR addresses the planned accommodations for elementary school students in the event a school is not constructed in the proposed Specific Plan Area (Draft EIR, pp. 6.10-37 – 6.10-38). According to the Draft EIR, 31 of the elementary school students generated by the proposed Specific Plan could be accommodated at Washington Elementary School under existing conditions (Draft EIR, p. 6.10-37). The remaining 1,219 could not be accommodated at Washington's existing facilities (*id.*). Therefore, additional facilities will need to be constructed on the Washington campus and/or at an alternative location to accommodate these additional students (*id.*). The Draft EIR explains, however, that the proposed Specific Plan applicant will pay impact fees to the SCUSD to develop these school facilities (Draft EIR, p. 6.10-38). Under AB 50, payment of statutory fees by developers fulfills CEQA's requirements to mitigate for impacts of development on school facilities (*id.*). Based on these facts, the Draft EIR concludes that impacts to the SCUSD caused by Project elementary school students will be less than significant (*id.*).

Middle School Students

The Specific Plan Area is within the attendance boundary of Sutter Middle School (Draft EIR, p. 6.10-31). According to the Draft EIR, Sutter Middle School does not have capacity to accommodate the 350 middle school students the proposed Specific Plan is expected to generate (Draft EIR, p. 6.10-38). Therefore, additional facilities will need to be constructed on the Sutter campus and/or at an alternative location to accommodate these additional students (Draft EIR, p. 6.10-38). The Draft EIR explains, however, that the proposed Specific Plan applicant will pay impact fees to the SCUSD to develop these school facilities (*id.*). Under AB 50, payment of statutory fees by developers fulfills CEQA's requirements to mitigate for impacts of development on school facilities (*id.*). Based on these facts, the Draft EIR concludes that impacts to the SCUSD caused by the middle school students generated by the proposed project will be less than significant (*id.*).

High School Students

The Specific Plan Area is within the attendance boundary of McClatchy High School (Draft EIR, p. 6.10-31). According to the Draft EIR, McClatchy High School does not have capacity to accommodate the 375 high school students the proposed Specific Plan is expected to generate (Draft EIR, p. 6.10-38). Therefore, additional facilities will need to be constructed on the McClatchy campus and/or at an alternative location to accommodate these additional students (Draft EIR, pp. 6.10-38 – 6.10-39). The Draft EIR explains, however, that the proposed Specific Plan applicant will pay impact fees to the SCUSD to develop these school facilities (Draft EIR, p. 6.10-39). Under AB 50, payment of statutory fees by developers fulfills CEQA's requirements to mitigate for impacts of development on school facilities (*id.*). Based on these facts, the Draft EIR concludes that impacts to the SCUSD caused by the high school students generated by the proposed project will be less than significant (*id.*).

4.13.2 Adequacy of Environmental Review and Mitigation Measures for Police and Fire Service Impacts

Response to Comments 26-14 and 26-31

It is the purpose of the EIR to identify physical impacts on the environment. The need for public services generated by increasing population due to a project does not create physical environmental impacts, but increasing demand can result for the need for new facilities, which can potentially result in physical impacts on the environment. The proposed project would result in the need for new police and fire facilities in order to maintain current levels of service. The new facilities would likely be located within the Specific Plan Area, so physical environmental impacts that would result from the construction of these facilities are analyzed at a programmatic level in appropriate sections of the Draft EIR. For example, impacts on air quality from construction of the new facilities and traffic

associated with operation of the stations are quantified in the Air Quality section of the Draft EIR. Because this is a Program EIR, a detailed analysis of the exact size and location of the facilities is necessary under CEQA. The analysis assumes that project-level analyses will be done for police and fire facilities once the exact details of those projects have been determined, as is acceptable under CEQA.

Page 6.10-9 of the Draft EIR states that new police facilities within the Specific Plan Area would be funded through the City's General Fund. Similarly, funding for fire stations would also be provided through the City's General Fund. However, since the funding mechanism for the new fire station was not specifically identified in the project-specific impact analysis, page 6.10-19 has been modified to the following:

> The Specific Plan identifies two potential sites for a new fire station, although the Specific Plan does not indicate how the station would be acquired and/or how the station would be funded. If one of these locations is selected to be developed with a fire station, it would likely be co-located with a police sub-station in a multi-story mixed-use building with other uses. The building that would house these facilities would be developed whether or not the police and/or fire station are developed. <u>The new fire station would be funded through the City's General Fund and other sources.</u>

This would ensure that funding would be available for site acquisition, planning and design of the station, including subsequent environmental documentation, construction of the station, equipment, and new personnel. Also, as stated above, the purpose of the EIR is to analyze physical environmental impacts, so fiscal impacts are not considered to be within the scope of this EIR. The analysis states that funding for new police and fire stations would be funded through project contributions into the City's General Fund.

The less-than-significant finding of the EIR demonstrates that although new facilities would be required, the physical environmental impacts anticipated under the program-level analysis and payment into the City's General Fund, there would be no additional physical environmental impacts that would warrant a finding of potentially significant.

4.14 PUBLIC UTILITIES

4.14 PUBLIC UTILITIES

4.14.1 ADEQUACY OF EIR ANALYSIS OF THE WATER SUPPLY

Response to Comments 25-53 and 26-23

As stated in the Draft EIR there are no significant impacts associated with meeting project generated water demand under existing conditions as discussed in detail on pages 6.11-28 – 6.11-29. The Draft EIR clearly states that existing plus project capacity demand of 236 mgd would be met using existing facilities. Physical impacts associated with the construction development of conveyance infrastructure are addressed in project-level analysis for 6.1 Air Quality and 6.8 Noise in the Draft EIR. Under cumulative conditions with the project, a potential maximum day deficit could occur in 2020, which is considered a significant impact. As presented in the Draft EIR, the City has a number of options to reduce the maximum day deficit to less-than-significant level. Those options could have adverse environmental effects of their own, as discussed on pages 6.11-32 – 6.11-38 of the Draft EIR.

The Draft EIR provides additional measures which would ensure that the multiple mitigation options would not result in a significant impact or trigger a new significant impact. This EIR does not have the jurisdictional authority to determine the appropriate method to address this regional issue. Therefore, it would be speculative to assume a specific course of action for mitigating the impact. Instead this document has the responsibility to inform the public about the consequences associated with this discretionary action, which this EIR does.

4.14.2 WATER RIGHTS

Response to Comment 26-23, 26-24, and 26-26

Groundwater Supply

The commenter is correct when stating that "the Draft EIR and the City's UWMP fails to provide any information on the nature of the City's rights to groundwater." And the commenter is also correct when stating, "as a municipal supplier, the City's rights are by appropriation (or by prescription) and not as an overlying user." However, appropriative rights [to groundwater] for municipal suppliers is perfected by constructing well[s], pumping the well and applying the pumped water for beneficial uses. The City's first wells were installed in the 1950's. Furthermore, no water-right permit is required to perfect a groundwater appropriative right. Finally, the State of California does not assign water rights for groundwater extractions, although in highly contentious watersheds or groundwater basins, the courts have stepped in and effectively adjudicated the extraction capacities of that groundwater basin. This is not the case in the North American Subbasin or the Sacramento Groundwater Authority (SGA) area.

The commenter contends through *Peabody v. City of Vallejo* that the City has the right to use surplus water from such basin; however, the significance of *Peabody v. City of Vallejo* was that [the groundwater user] "must show a requirement of reasonable and beneficial use." In this case, the City as a municipal water service can readily show that water diverted or extracted is for the benefit of the City of Sacramento residents. In fact, the City of Sacramento Department of Utilities is committed to providing high quality, reliable, and environmentally sensitive water, sewer and drainage services to the residents of Sacramento. In doing so, the City works to conserve and

preserve our water sources.[1] There will be no potable or irrigation water pumped from groundwater wells on the project site.

4.14.3 GROUNDWATER STABILIZATION

Response to Comment 26-24

In the Draft EIR on page 6.11-17, last sentence of paragraph 4, stated, "Since 1992 a reduction of groundwater pumping has resulted in stabilized groundwater levels.[2,3]"

In the Draft EIR on page 6.11-21, last sentence of paragraph 3, stated "Notably, the BMR shows that between 1997 and 2004 a cone of depression near the central part of the SGA area has rebounded by approximately five feet as a result of less groundwater pumping and utilizing more surface water by the members of the SGA."

4.14.4 GROUNDWATER AVAILABILITY

Response to Comment 26-24

The Draft EIR discussed on pages 6.11-17 – 6.11-21, first, that the City pumps groundwater for potable uses from the SGA area of the North American Subbasin, other wells in the CSCGF are irrigation wells only. The City and other groundwater users within north Sacramento County are members of the SGA. In 2003, the SGA published a Groundwater Management Plan (GMP) that set an annual extraction limit of 131,000 AFA from the SGA area. All SGA users submit annual pumping reports to the SGA in an effort to track groundwater extractions. As stated in the Draft EIR on page 6.11-21, GMPs share a common goal of the responsible management of the groundwater basin through a commitment to not exceed the sustainable yield of 131,000 AFA; therefore, this commitment effectively addresses and prevents potential competing claims amongst the SGA partners. As stated on page 6.11-21 of the Draft EIR, the SGA Basin Management Report (2006) shows recent extractions have been roughly 90,000 AFA, leaving a surplus of approximately 40,000 AFA available for basin recharge or additional pumping if necessary by the City or other SGA pumpers. In regards to groundwater extractions in the greater North American Subbasin; the Draft EIR states that Placer County Water Agency has prepared and adopted GMPs that set Basin Management Objectives (BMO) that set goals and objectives to appropriately manage the extractions within those jurisdictions.[4]

The commenter states that both the Draft EIR and UWMP recognize "some degree" of overdraft in the North American Subbasin due to groundwater pumping prior to 1992. The Draft EIR states on page 6.11-17, paragraph 4, since 1992, both PCWA and SGA have observed stabilized groundwater levels, most of which is attributed to increase use of surface water supplies. Furthermore, according to the SGA 2006 Basin Management Report many of the local water providers have increased their surface water capacities and/or conjunctively using both surface water and groundwater depending on the hydrologic year. The SGA BMR reports that groundwater levels in the SGA area have either stabilized or have increased.[5]

1 City of Sacramento 2006 Water Quality Report, A Consumer Confidence Report for the Citizens of Sacramento.
2 Western Placer County Groundwater Storage Study. Final Report. December 2005, page 3-9.
3 Sacramento Groundwater Authority, Groundwater Management Plan, 2003, page 17.
4 The Department of Water Resources states, that there are no known published reports that discusses groundwater in storage. Sacramento Valley Groundwater Basin, North American Subbasin, DWR Bulletin 118, January 2006.
5 SGA 2006 BMR page 13.

4.14.5 PROJECT WATER DEMAND

Response to Comments 25-53, 26-23, and 26-24

The proposed project's demand was calculated at 4,295 AFA or 3.83 MGD and due to the nature of the City's water service systems both surface water and groundwater is used to meet demands. These supplies are blended in the transmission and conveyance systems prior to distribution to customers; therefore, it not possible to know the portion of groundwater flows from the tap. Table 6.11-4 on page 6.11-22 of the Draft EIR that shows the quantities of surface and groundwater used to meet demands throughout the City's service area. Table 6.11-4 is reprinted here for reference:

TABLE 6.11-4

CITY OF SACRAMENTO HISTORICAL WATER DELIVERIES

	Surface Water and Groundwater Supplies[b]			Total Water Delivered[b]				
Year	Population	Annual Surface Water Delivered (AFA)	Annual Groundwater Delivered (AFA)	Maximum Day Water Delivered (mgd)	Maximum Day to Average Day Ratio	Total Annual Water Delivery (AFA)	Average (mgd)	Percent Increase
1998	392,800	93,131	22,692	212.7	2.06	115,822	107.5	
1999	396,200	109,695	23,694	219.7	1.85	133,389	112.3	15.2%
2000	405,963	110,150	24,130	213.0	1.78	134,280	103.4	0.7%
2001	418,711	115,984	24,156	214.5	1.71	140,140	119.1	4.4%
2002	426,013	115,628	23,236	226.8	1.83	138,864	119.9	-0.9%
2003	433,400	114,674	25,607	223.2	1.78	140,281	125.2	1.0%
2004	441,000	128,903	17,924	NA	NA	146,827	131.1	4.7%
2005	452,959	116,452	22,521	NA	NA	138,974	124.1	-5.3
2006[a]	NA	120,150	18,522	239.9	1.21	138,671	123.5	-0.2%

Notes:
a. City of Sacramento, Department of Utilities, Operational Statistics Report, 2005/2006.
b. Other data from corresponding annual reports.
N/A = Not available.
Source: Adapted from City of Sacramento, Department of Utilities, Operational Statistics Reports, PBS&J, 2007.

4.14.6 WATER SUPPLY BASELINES

Response to Comments 26-23 and 26-25

The Notice of Preparation for the Railyards Draft EIR was filed at the State Clearinghouse on March 10, 2006 and this would establish the baseline conditions. Draft EIR shows in Table 6.11-4 on page 6.11-22, the water use for 2005 was 138,974 AFA [116,452 AFA surface water; 22,521 AFA - groundwater]. If the proposed project's water demand on 4,295 is added to the 2005 quantity, the overall City demand would be 143,269 AFA. The amount specified in the City's USBR water rights settlement contract for 2005 was 205,000 AFA, which in this case leaves an additional available supply of surface water of 61,731 AFA. The USBR contract continues to increase each year culminating in 2030 at 326,800 AFA. Table 6.11-7 on page 6.11-30 of Draft EIR, below, shows total demands in 2030 are estimated at 244,100 AFA, leaving an additional available supply of 82,700 AFA. Furthermore, City water supplies under normal hydrologic conditions could be as high as 356,800 AFA with groundwater.

TABLE 6.11-7

SUPPLY AND DEMAND COMPARISON DURING "CONFERENCE YEARS" (AFA)[a]

	2005	2010	2015	2020	2025	2030
American River	50,000	50,000	50,000	50,000	50,000	50,000
American River diverted from the Sacramento River	73,200	95,700	98,200[b]	98,200[b]	98,200[b]	98,200[b]
Sacramento River	81,800	81,800	81,800	81,800	81,800	81,800
Total Surface Water Supply	**205,000[c]**	**227,500[c]**	**230,000**	**230,000**	**230,000**	**230,000**
Groundwater Supplies[d]	33,600	33,600	33,600	33,600	33,600	33,600
TOTAL WATER SUPPLY[b]	**238,600**	**261,100**	**263,600**	**263,600**	**263,600**	**263,600**
City Demand and Wholesale/Wheeling Demand[e]	146,647	161,401	178,253	196,759	217,182	239,805
Project Demand[f]	~	4,295	4,295	4,295	4,295	4,295
TOTAL DEMAND	**146,647**	**165,696**	**182,548**	**201,054**	**221,477**	**244,100**
AVAILABLE SUPPLY	**91,953**	**95,404**	**81,052**	**62,546**	**42,123**	**19,500**

Notes:
a. "Conference Year", defined by the WFA, when the projected unimpaired inflow to Folsom Reservoir is less than 400,000 acre-feet.
b. Limited by present Sacramento River WTP capacity not WFA agreement.
c. Total Surface water supply is based on maximum amounts specified in the City's USBR settlement contract and not based on the maximum conference year treatment and diversion capacity of 230,00 AFA.
d. Based on City's current groundwater production capacity.
e. Demands during below-Hodge Flow and Conference Years are reduced by 6,616 AFA as no sales from the City to Sacramento Suburban are required.
f. Project Demands were calculated into the City's 2006 Urban Water Management Plan projected demands, therefore the Total Demand is unchanged in all years.

Source: PBS&J, June 2007 adapted from City of Sacramento Urban Water Management Plan.

Table 6.11-7 on page 6.11-30 above, shows a reduction of American River supplies due to hydrologic conditions and shows that a surplus would still remain in each year. In addition, the UWMP included the Railyards project in its 2030 calculations; therefore, the project's contribution is part of the 244,100 AFA.

As indicated by the above discussion, the Railyards Draft EIR clearly described the preproject "baseline condition" for water use, by showing the City's water usage in 2005. The commenter's repeated references to *Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4th 99 are misplaced, because in that case the central issue in dispute was the preproject level of water usage on the property proposed for development, and the court determined that the County's finding of a specific level of preproject water usage was not supported by the evidence. Here, by contrast, both the City's preproject water usage, and the proposed project's water demand, are clearly identified in the Draft EIR, so there is no question or uncertainty regarding the baseline condition for purposes of CEQA review.

The commenter also quotes a statement from the *Save Our Peninsula Committee v. Monterey County Board of Supervisors* case to the effect that any increase of water use over preproject use is a significant environmental impact requiring mitigation, in support of the commenter's contention that the Railyards Draft EIR does not adequately analyze the proposed project's water demand. This statement, that is taken out of context, does not support the commenter's position. The court made this statement based on a draft EIR which determined that, due to the documented water supply shortage in the Carmel Valley area, water usage for a proposed project could not exceed the preproject level of water usage on the property, unless the applicant were to mitigate the impacts created by using additional water above the baseline usage. The court determined that the measures proposed to mitigate these impacts – identification of an off-site groundwater pumping reduction to offset the additional water usage or use of the additional water pursuant to riparian rights – were not supported by the evidence.

Here, by contrast, the proposed project's water demand does not exceed the available water supply. As documented in the Draft EIR, the City's surface water rights, as supplemented and backed up by the City's water rights settlement contract with the USBR, provide for annually increasing diversions to meet water demand associated with municipal growth and development. These rights and USBR contract, which is permanent, provide a specific and certain water supply that, when coupled with the City's existing groundwater production capacity, is more than sufficient to meet anticipated water demands, including the proposed project's water demand, through the year 2030, as shown in Table 6.11-7. Unlike the situation presented in the *Save Our Peninsula Committee v. Monterey County Board of Supervisors* case, there is no need or requirement here to offset the proposed project's water demand with a reduction in water usage elsewhere, nor is there any need or requirement to identify any alternative sources of water supply, since the City's existing water rights and USBR contract will meet all anticipated water demands, as discussed above.

4.14.7 POTENTIAL COMPETING CLAIMS

Response to Comment 26-25

The commenter contends that the Draft EIR is deficient for failing to discuss potential risks to the City's water supply from potential competing claims, and states that "the County of El Dorado is presently considering claims of between 30,000 to 40,000 acre feet of water from the City's claimed rights." The City is aware of no competing claims that would put the City's water supply rights at risk.

The commenter's reference to El Dorado County's potential claim is speculative and does not merit any discussion or analysis since, to the City's knowledge, El Dorado County has not filed any such claim or water right application with the State Water Resources Control Board, which would be the necessary first step. Moreover, even if El Dorado County were to take this step, so that such a claim would no longer be speculative, presumably the County would seek its own water right or water rights under "area of origin" principals, which would not directly affect the City's water rights; nor would the County's exercise of such rights indirectly affect the City's water supply, since the City's USBR contract provides a permanent assurance that sufficient water will be released from USBR facilities to accommodate the City's surface water diversions, up to the limits specified in the contract.

4.14.8 ADEQUACY OF MITIGATION

Response to Comments 26-23 and 26-26

The commenter is correct in noting that the potential deficit of potable water within the City by the year 2020 does not relate to the adequacy of the City's water rights or water supply, but, instead, relates to the capacity of the City's existing surface water diversion and treatment facilities – if no additional capacity is constructed, then beginning in 2020 the City's present capacity may not be sufficient to accommodate the anticipated cumulative future peak day water demand during below-Hodge flow conditions. Although the proposed project water demand represents a very minor contribution to this future condition, the Draft EIR identifies this as a potentially significant cumulative impact.

The commenter is incorrect, however, in contending that the Draft EIR improperly defers analysis of future water supplies to later project phases, in violation of the California Supreme Court's guidance in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412. The Draft EIR on pages 6.11-26 - 6.11-27 presents the total water demand at project buildout of 4.295 AFA or 3.83 MGD, and the Draft EIR at pages 6.11.14 – 6.11-16 provides a detailed discussion of the water supply available to the City of Sacramento under its water rights and USBR contract through the year 2030.

With regard to the construction of future facilities to fully utilize this water supply, as noted in the Draft EIR (p. 6.11-38, n. 39), the *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* decision noted that CEQA does not require that all facilities necessary to treat and deliver the water supply for future build-out of a long-term land use plan be approved or built when the land use plan is approved, as this would require water planning to far outpace land use planning.

As noted by the appellate court in the recent decision of *Santa Clarita Organization for Planning the Environment v. County of Los Angeles* (2003) 106 CalApp.4th 660, 669, 670, the *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* decision articulated four principles for analysis of future water supplies under CEQA:

> "First, CEQA's informational purposes are not satisfied by an EIR that simply ignores or assumes a solution to the problem of supplying water to a proposed land use project. Decision makers must, under the law, be presented with sufficient facts to 'evaluate the pros and cons of supplying the amount of water that the [project] will need.' …
>
> Second, an adequate environmental impact analysis for a large project, to be built and occupied over a number of years, cannot be limited to the water supply for the first stage or the first few years. While proper tiering of environmental review allows an agency to defer analysis of certain details of later phases of long-term linked or complex projects until those phases are up for approval, CEQA's demand for meaningful information 'is not satisfied by simply stating information will be provided in the future.' …
>
> Third, the future water supplies identified and analyzed must bear a likelihood of actually proving available; speculative sources and unrealistic allocations ('paper water') are insufficient bases for decisionmaking under CEQA. [Citation.] An EIR for a land use project must address the impacts of *likely* future water sources, and the EIR's discussion must include a reasoned analysis of the circumstances affecting the likelihood of the water's availability. …
>
> Finally, where … [even a full discussion leaves some uncertainty regarding actual availability of the] anticipated future water sources[,] … CEQA requires some discussion of possible replacement sources or alternatives to use of the anticipated water, and of the environmental consequences of those contingencies."

The discussion and analysis of the potential maximum day capacity deficit set forth in the Draft EIR at pages 6.11-31 through 6.11-38 complies with the above principles. First, the Draft EIR does not ignore the potential cumulative maximum day demand capacity deficit or assume it will be resolved. The Draft EIR provides a detailed description of the potential deficit, and describes various ways in which the deficit is likely to be addressed through the construction of new facilities.

Second, the Draft EIR does not limit itself to an analysis of supplying water for the first stage of the project or for only several years. The Draft EIR analyzes the sufficiency of the City's water rights and water supply facilities to meet anticipated water demands through the year 2030, including the long term demand of the proposed project.

Third, nothing about the City's water supply or the water supply facilities that will be used to deliver this water supply to the proposed project is speculative or unrealistic. As noted previously, the City's water rights and USBR contract, which is permanent, provide a specific and certain water supply that, when coupled with the City's existing groundwater production capacity, is more than sufficient to meet anticipated water demands, including the proposed project's water demand, through the year 2030. The water supply facilities that will be used to deliver water to the proposed project already exist, and facilities to distribute this water on site will be constructed as part of the proposed project. The future water supply facilities that may need to be constructed to meet the potential cumulative maximum day demand capacity deficit that may occur in 2020 cannot reasonably be described as speculative or unrealistic. As noted in the Draft EIR, the USBR and the City and other local agencies are well along in the planning process, begun following the passage of Public Law 106-554 in 2002, for the Sacramento River Water Reliability Study (SRWRS) Project, which is

intended to provide additional surface water diversion and treatment capacity well in advance of the potential cumulative maximum day demand capacity deficit that may occur if no new facilities are constructed.

Fourth, since the potential cumulative maximum day demand capacity deficit is still many years out, and facilities to resolve such deficit have yet to be constructed, consistent with the City's historical practice of constructing such facilities as they are needed to accommodate increasing water supply demands, there necessarily is some uncertainty inherent in forecasting when such facilities will be constructed. In accordance with *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* guidance, the Draft EIR at pages 6.11-33 through 6.11-38, provides a general discussion of the SRWRS Project and possible alternative measures for resolving the deficit, the environmental consequences likely to be associated with the various possible measures, and the mitigation measures that could be implemented to reduce these environmental consequences to less than significant levels.

The Draft EIR did not defer any environmental analysis to some unknown later period of time. The discussion of the Mitigation Measure Options on pages 6.11-33 – 6.11-38 was presented for disclosure of information purposes, in this case, mechanisms that the City could use to reduce the "potential" maximum day demand capacity deficit to a less than significant level. The mitigation measure of "pumping additional groundwater" was presented to overcome the project's contribution to the overall city-wide deficit, and not to solve a city-wide deficit.

The last paragraph of Mitigation Measure 6.11-8 d) on page 6.11-36 is revised to read:

> d) *~~The~~ If selected as appropriate mitigation, implementation of this mitigation measure ~~w~~could require environmental analysis to assess if the construction or operation of new wells ~~w~~could have any adverse environmental consequences ~~and would require environmental evaluation~~. The new wells, appurtenances and infrastructure could result in the following potentially significant environmental impacts:*

4.15 TRANSPORTATION AND CIRCULATION

4.15 TRANSPORTATION AND CIRCULATION

4.15.1 GEOGRAPHIC SCOPE OF THE TRAFFIC ANALYSIS

Response to Comments 8-1, 18-26, 18-27, 24-1, 25-59, 25-61, 25-65, 26-1, 26-10, 26-50, and 26-51

As stated on page 6.12-7, "A set of intersections, street and freeway mainline segments, freeway merge/diverge areas, and freeway ramps were selected for study based upon the anticipated volume and distributional patterns of traffic and known locations of operational difficulty. This selection was made in collaboration with the City of Sacramento and Caltrans staff members." It is the City of Sacramento's standard practice to establish the scope of the traffic analysis for EIRs using this procedure.

No intersections west of intersection #48 in Figure 6.12-1 were identified as being likely to be significantly impacted. This determination was made in part on the response letters to the Notice of Preparation, which did not request an expanded scope of intersection analysis. Traffic studies are not required to analyze all intersection that may attract 100 or more peak hour trips. The 100 peak hour trip generation threshold is used to determine whether a traffic study is required – not whether an intersection must be studied.

The Draft EIR discloses that significant intersection, roadway segment, and freeway impacts are expected to result from the development of the project. The Draft EIR fully discloses the pertinent procedures used to analyze transportation impacts of the project and how the impacts identified in the analysis were derived. It is not feasible to study every transportation implication of a large expansion of the dense urban core in downtown Sacramento, as the proposed project represents. However, the Draft EIR fully discloses all potentially significant traffic impacts of the project. The Draft EIR traffic analysis contains the results of a valid assessment of the likely traffic impacts of the project in the surrounding region and feasible mitigation measures were developed to be implemented within the vicinity of the project to reduce the severity of those impacts.

4.15.2 ADJUSTMENTS TO EXISTING TRAFFIC DATA

Response to Comments 18-28, 25-62, and 26-52

Traffic data for all existing intersections are shown in Figure 6.12-3 and in the intersection capacity analysis worksheets in Appendix Q. It is acknowledged that only 34 of the 39 count sheets were shown in the Appendix and that the intersection of 12th Street and Dos Rios was counted on a Monday. In addition, the traffic data were collected at different times at some of the study intersections. Some of the traffic data were more than a year old at the time of the notice of preparation for the EIR. To account for these data gaps and limitations, existing traffic volumes at the five intersections and at the 12th Street and Dos Rios intersection were adjusted upward as required to provide consistency with adjacent intersections to obtain current traffic data counts. The existing traffic volumes provided in Figure 6.12-3 are the resulting adjusted traffic volumes that show a reasonable balance between all study area intersections.

Freeway mainline and ramp data were taken from a variety of sources. Mainline traffic volumes were taken from the Caltrans Traffic and Vehicle Data Systems Unit web site as directed by Caltrans staff. Ramp volumes were taken from traffic data collected at intersections connected to the ramps where those data were available. Traffic data for other ramp locations were taken from the Caltrans Traffic

and Vehicle Data Systems Unit website. All traffic data taken from the Caltrans website included data from 2005 that was reported in 2006, and it is the best available data for current conditions.

In accordance with The City of Sacramento's standard practice to the traffic analysis selected roadway segments for analysis based upon the anticipated volume and distributional patterns of project-generated traffic and known or expected locations of operational difficulty.

4.15.3 TRIP GENERATION ADJUSTMENTS

Response to Comments 26-11 and 26-53

As stated on page 6.12-52, the adjustments made to project trip generation include adjustments for the interaction of the mixture of land uses in the Specific Plan Area in addition to the adjustments to account for higher transit ridership, and higher levels of walking and bicycle use. The roughly 25 percent trip reduction adjustment includes approximately one-quarter of the total adjustment to account for the mixture of land uses. The procedures for adjusting for the land use mix were followed explicitly from the ITE recommended practice, as described on page 6.12-55. For analysis of the Full Project with Maximum Office scenario, which showed the highest trip generation adjustment (27 percent), the adjustment for transit, walking, and bicycle use was 19.1 percent and was based on information contained in the *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey* (DKS, 2001) and were recognized as reasonable by SACOG staff as discussed on page 6.12-52.

The adjustments to the trip generation estimates are considered to be conservative (lower than might be expected) for the following reasons:

1. The adjustments assume transit use, walking, and bicycling will remain the same in the future as they are today, and
2. No adjustments were made for pass-by trips for retail use.

Further, a public agency may make reasonable assumptions about future conditions. "A public agency can make reasonable assumptions based on substantial evidence about future conditions without guaranteeing that those assumptions will remain true (Environmental Council of Sacramento v. City of Sacramento, 142 Cal.App. 4th 1018, 1036 [citing Pub. Resources Code, § 21080, subd. (e); City of Del Mar v. City of San Diego (1982) 133 Cal.App.3d 401, 412])."

The impacts of the increased transit trips on transit facilities are disclosed in Impact 6.12-6, Impact 6.12-15, Impact 6.12-21, and Impact 6.12-27 and mitigation measures to address those impacts were identified.

4.15.4 TRIP DISTRIBUTION/ASSIGNMENT ADJUSTMENTS

Response to Comment 26-54

The Draft EIR states on page 6.12-57, "The trip assignment process was modified to provide a more precise allocation of trips to specific roadways downtown and in project area. The roadway network in the SACMET model only includes major streets and has land uses defined for Traffic Analysis Zones (TAZs) that include several city blocks. This transportation network is not capable of producing realistic traffic assignments on individual streets in the Central City; therefore, a refined travel demand model was developed for the Draft EIR: Central City Two-Way Conversion Study (Planning Dynamics Group 2006) to provide more precise traffic assignments. This Central City model was modified to include the proposed project and was used to assign the vehicle trips to the roadway network. The trips forecasted between pairs of TAZs through the trip distribution step of the

modeling process were disaggregated to the block level and were assigned to the more detailed roadway network."

4.15.5 DEVELOPMENT ASSUMPTIONS

Response to Comments 25-60 and 25-63

At the time of the Notice of Preparation for the Railyards EIR, only the projects listed on page 6.12-60 of the Draft EIR had been approved. It is acknowledged that other projects were in various stages of planning at the time. It is the City's policy to only include approved projects among those considered as part of baseline conditions.

The list of development projects included in the Draft EIR for baseline conditions would also include the following approved projects (the baseline transportation system would not change from what was studied in the Draft EIR):

- Crocker Art Museum Expansion
- 301 Capitol Mall
- 601 Capitol Mall
- Metro Place Office / Residential
- 15th & L Street Hotel
- CalPERS Headquarters Expansion
- Sutter Medical Center and the Trinity Cathedral
- Discovery Center
- Continental Plaza

The CADA East End Gateway Residential and Capitol West Side Projects were not considered to be reasonable for inclusion in the immediate near-term project list evaluated for baseline conditions. Those projects were included for all analysis of future transportation impacts.

All known projects that were considered to be reasonably foreseeable (applications pending) were included in the analysis of all traffic impact scenarios for 2013 and 2030 and include the following:

- CADA East End Gateway Residential
- Capitol West Side Projects
- Stanford Lofts
- Westfield Mall
- 500 Capitol Mall
- 10th & J (The Metropolitan)
- 11th & J (Cathedral Square)
- The Library Lofts (8th & I)
- Epic Tower
- Township 9

- 800 K
- 831 L St
- 701 L Street

Adjustments were made in the employment and household data for the 2013 and 2030 SACMET land use datasets as necessary to include all the projects listed above. All assessments of transportation impacts and assessments of the effectiveness of mitigation measures for those future years considered development of the projects listed above plus other growth included in the land use assumptions provided in the SACMET travel demand model land use data sets.

4.15.6 MITIGATION OF IMPACTS TO FREEWAYS

Response to Comments 8-2 through 8-7, 25-57, and 26-56

The Draft EIR acknowledges that the project would create a significant impact on the mainline segments and interchanges on the State Highway System (pages 6.12-72 to 6.12-77, 6.12-92 to 6.12-95, 6.12-110 to 6.12-114, and 6.12-129 to 6.12-132). Most of the freeway mainline segments are currently operating at an unacceptable level of service under existing conditions without the project and will continue to operate under the same level of service with or without the project.

The City of Sacramento supports the designation of I-5 as a vital component of the federal Corridors of the Future Congestion Reduction Initiative. I-5 is a vital artery for the movement of people, goods and services throughout Northern California, therefore, improvement of this facility should be a federal, state, and regional responsibility of all partners including the USDOT, Caltrans, City of Sacramento, County of Sacramento and the other cities and counties in the Sacramento Metropolitan region.

The designation of I-5 for the Corridors of the Future Congestion Reduction Initiative (CFCR) includes its length of 1,350 miles from the U.S. border with Canada, through the states of Washington, Oregon, and California, to the U.S. border with Mexico. The projects proposed in the application for designation offer the opportunity for moderate congestion reduction and mobility improvements along the I-5 corridor with federal funding. The Railyards project would not interfere with implementation of the proposed projects included in the application for the I-5 corridor.

As stated in a February 26, 2007 letter from City Manager Ray Kerridge to Caltrans Director Will Kempton, the City of Sacramento is committed to work in good faith with Caltrans and other regional partners to develop feasible mitigation measures to address traffic impacts associated with new development projects that create significant levels of congestion on the State Highway System. To that end, and subsequent to the February 26 letter, the City regularly meets with Caltrans to discuss potential mitigation measure(s) that would further reduce the impacts of development projects, such as the Railyards project, on the freeway mainline system and interchange facilities. As a result of these meetings, the City has agreed to adopt a mitigation measures that will reduce, but not avoid, the impacts to the I-5 mainline and the I-5/Richards Boulevard interchange. The proposed mitigation measures are adequate under CEQA given that to impose additional mitigation measures to add capacity to the I-5 mainline system would be financially infeasible, as supported by the Railyards Finance Plan which identifies significant funding shortfalls and need for additional federal, state and local funding for the other required public infrastructure improvements. The mitigation measures that are required for the Railyards project are described in detail below.

The City will continue working with Caltrans to identify funding that is needed for transportation improvements, both road improvements and transit, to accommodate growth in the City of Sacramento to ensure that an appropriate level of access and mobility are maintained.

As is discussed in the Draft EIR, the project applicant will participate in the combined Facility Element of the Railyards Specific Plan and the Richards Area Plan for off-site improvements funded through development impact fees. These improvements include expansion of the I-5 and Richards Boulevard interchange, extension of 5th Street to Richards Boulevard, as well as expansion of 7th Street, both of which will provide parallel facilities that will relieve impacts on I-5 within the downtown area and at the Richards interchange. The project applicant shall provide "fair-share" funding for these improvements through payment of development impact fees based on a nexus study that will be prepared to implement the Railyards Finance Plan and update the current Railyards, and Richards and Downtown traffic impact fees. The applicant's fair share contribution will be calculated pro rata, on a per unit and/or square foot basis, based upon the land uses identified in development applications submitted to the City. The fair share contribution will be paid to the City prior to the issuance of building permits. The infrastructure improvements in the Railyards and Richards Facility Element will be updated next year, and it is anticipated that the City Council will consider adjusting the Railyards, Richards and Downtown development impact fees shortly thereafter. Because the Facility Element update and the nexus study have not yet been prepared, the specific amount of the potential increase in the applicant's fair share contribution can be determined by reference to the Railyards Finance Plan.

To further relieve congestion on I-5, the City, Regional Transit (RT) and Caltrans have worked together to identify the Downtown- Natomas-Airport Light Rail Extension (DNA) project as a major transportation improvement that will provide regional traffic congestion relief along the mainline I-5 State Highway System.

The Draft EIR assumed construction of the DNA light rail extension and its ridership. For the Initial Phase, the DNA light rail line would extend from the existing 7th and H Street Station, serving a new station at 7th Street and Railyards Boulevard, and terminating at the planned station at Richards Blvd and North 7th Street as the first phase, referred to as the Minimum Operable Segment (MOS). For the build-out condition, the Draft EIR assumed that the DNA would be further extended to South Natomas by construction of a light rail bridge crossing the American River and extending further to residential neighborhoods in North Natomas. The DNA line will ultimately extend to the Sacramento International Airport. The Draft EIR states that the City will mitigate freeway impacts by requiring the project applicant to provide 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 mainline I-5 freeway. The amount determined to be the project’s fair-share includes dedication of all land for the light rail alignment and the station at 7th Street and Railyards Blvd, which are located within the project boundary, and a $5,000,000 contribution for the cost of the 7th Street and Railyards Boulevard Station. This station cost is included in the Railyards Finance Plan and will be funded though payment of development impact fees.

Even with this “fair share” freeway congestion mitigation contribution for funding the local share of the DNA project that serves the Railyards project; the project’s impacts on the mainline of the I-5 State Highway System would remain significant and unavoidable because the dedication of land and the contribution of funds would not ensure that the DNA project would be completed by RT, and the projected transit trip reduction would not fully mitigate the project’s regional traffic impacts. Therefore, the City has concluded that the project’s impacts on the mainline freeway system would remain significant and unavoidable even with a “fair share” contribution from the project applicant for the DNA congestion relief (and air quality mitigation) project.

The approved Facility Element for the Railyards Specific Plan and the Richards Area Plan included the Richards Boulevard Interchange improvements. Expansion of the north ramps at the I-5/Richards Boulevard interchange is included in the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan (MTP), which has funding allocated for implementation

by the year 2013. Additionally, the development of a split-diamond interchange at I-5 and Richards Boulevard is included in the Railyards Financing Plan that has funding allocated for implementation by year 2030. The proposed project is required to provide fair-share funding for these interchange improvements through payment of development impact fees as specified in the Financing Plan. The Draft EIR assumed that these improvements would be implemented as specified in the Facility Element.

The Draft EIR concluded several traffic impacts were significant and unavoidable because the mainline freeway improvements are within the jurisdiction of Caltrans and beyond control of the City and project applicant, and there is no established fee mechanism for contribution for Caltrans recommended mainline freeway improvements.

There were suggestions in the comments for additional mitigation measures to alleviate congestion on I-5. These suggestions included providing proportional share funding contributions to Caltrans I-5 bus/carpool HOV lane project. That project is not part of a capital improvement plan adopted by Caltrans, the state agency with jurisdiction over freeway main line improvements, and the feasibility and desirability of constructing such improvements have not been evaluated, including an analysis under CEQA.

The comment correctly notes that the current SACOG (2005-2007) Metropolitan Transportation Improvement Program ("MTIP") includes funding for the preliminary engineering and environmental phases of the I-5 HOV lanes. As the Draft EIR notes; however, these projects have not gone through or completed the environmental review process and are not guaranteed for funding or construction. Any commitment of resources toward such a project is premature without the proper environmental review and a nexus study to determine the appropriate level of freeway mainline mitigation (fair share contribution) for an individual project. HOV lane projects, like other MTP and MTIP mainline freeway projects, are typically funded through a combination of federal, state and local financing mechanisms, including local Measure A funding, statewide transportation bond funds and federal highway funds.

Another suggestion was that suitable mitigation for freeway impacts would be to develop one or more additional local road bridges parallel to I-5 across the American River. No project for constructing new bridges has undergone any CEQA review and the feasibility and desirability of such a project is uncertain. The only American River bridge that has undergone preliminary environmental review was for the DNA project as a light rail bridge. Any commitment of resources towards new vehicular bridge is premature without the proper environmental review and a nexus study to determine the appropriate level of freeway mainline mitigation (fair share contribution) for an individual development project.

As discussed in the EIR, the Facility Element for the Railyards and Richard areas provides for certain improvements to the I-5 and Richards Blvd interchange and the Railyards Specific Plan calls for infrastructure improvements that will serve as a parallel "reliever" to I-5 via 5th and 7th Streets and the DNA project. The applicant is required to fund these improvements as described above, which will help to substantially lessen the project's traffic impacts to I-5. Therefore, the City has satisfied its obligation to require feasible project mitigation under CEQA.

Some comments state that the City has the responsibility to conduct a nexus study to ascertain appropriate proportional share mitigation for mainline highway impacts. As discussed above, such mainline highway improvements projects have yet to be designed and subject to environmental review. The City cannot conduct a nexus study on potential mitigation measures that have not been determined to be feasible nor desirable and for which no CEQA review has been completed. The City has fulfilled its obligation by determining the project's fair share mitigation for the DNA light rail

project and its fair share for improvements to the Richards Boulevard interchange, and for the off-site extension of 5th Street and the expansion of 7th Street from North B Street to Richards Boulevard through the Financing Plan, which includes the off-site infrastructure improvements as specified in the Facility Element. These improvements have been determined to be feasible and are included as mitigation measures or are part of the project.

It should also be noted that the existing Sacramento Valley Station, which provides both light rail and intercity Capitol Corridor rail service, is within a one-half mile walking distance of almost all of the proposed Initial Phase of the project. In addition, the City plans to significantly expand the transportation service provided at this location through development of the proposed Sacramento Intermodal Transportation Facility (SITF). The SITF project will help to further reduce vehicular trips on the mainline freeway system in the future as commuters to downtown Sacramento are provided with more rail service and connecting bus and light rail transit options.

With the development of up to 12,500 housing units within walking distance of downtown, the trip reduction may be higher than reported in the EIR, so that even fewer people would use the freeways.

In addition, the large office developments proposed within the Railyards will be required to comply with the City's existing Transportation Systems Management Ordinance, which requires developers to provide incentives for commuters to use alternative transportation modes such as transit, biking and walking.

4.15.7 COURT SECURITY

Response to Comments 2-2, 2-3, and 3-1

The description of the LRT tracks in relation to H Street travel lanes on page 6.12-29 was based on design plans for the project that were available at the time and reflects conditions currently in place that were constructed according to the plan.

The figures in the Transportation and Circulation section of the Draft EIR are graphic representations of existing and proposed LRT track alignments and are not intended to show precise alignment in relation to adjacent roadways (although the City believes they provide an accurate schematic depiction of the intended plan for extension of the light rail system). The discussion of planned LRT lines provided on pages 6.12-29 through 6.12-45 for baseline, 2013, and 2030 conditions was reviewed and approved by RT consultants responsible for development of the future light rail system. The SRSP correctly reflects the current plan for the future light frail system.

The location of the light rail lines outside the project boundaries is not under the control of the project applicant or the City and will be determined by RT and addressed in its environmental review of the future DNA light rail extension. Therefore, it is not appropriate to provide consideration of alternative light rail alignments near the courthouse in the Alternatives section of the Final EIR.

Traffic is expected to increase along the streets adjacent to the courthouse like almost all of the other streets in downtown Sacramento. This growth is linked to Smart Growth policies that promote dense development in urban centers and development of transit systems as a means of alleviating auto travel in urban centers.

With respect to courthouse line-of-sight risks, and potential security issues relating to that, the City and the developer will continue to coordinate with the court regarding the possible siting of a government facility adjacent to the courthouse. In addition, when a specific building is proposed, the

design review process will include notice to the court as an adjacent property owner and security considerations can be considered then in the context of a specific proposed design.

Line-of-site risk to some extent is inherent in constructing downtown courthouses and the Railyards area has long been designated for high rise development.

4.15.8 RELOCATION OF REGIONAL TRANSIT LINE

Response to Comment 2-2

The description of the LRT tracks in relation to H Street travel lanes on page 6.12-29 was based on design plans for the project that were available at the time and reflects conditions currently in place that were constructed according to the plan.

The figures in the Transportation and Circulation section of the Draft EIR are graphic representations of existing and proposed LRT track alignments and are not intended to show precise alignment in relation to adjacent roadways (although the City believes they provide an accurate schematic depiction of the intended plan for extension of the light rail system). The discussion of planned LRT lines provided on pages 6.12-29 through 6.12-45 for baseline, 2013, and 2030 conditions was reviewed and approved by RT consultants responsible for development of the future light rail system. The SRSP correctly reflects the current plan for the future light rail system.

The location of the light rail lines outside the project boundaries is not under the control of the project applicant and will be determined by RT and addressed in its environmental review of the future DNA light rail extension. Therefore, it is not appropriate to provide consideration of alternative light rail alignments near the courthouse in the Alternatives section of the Final EIR.

4.15.9 TRAFFIC ROUTING AND MANAGEMENT

Response to Comments 2-3 and 18-29

The “Sacramento Intermodal Transportation Facility Draft WP #10 Preferred SITF Alternative” (August 11, 2004) showed a transit Circulation plan for the SITF that would reroute buses from the 5th and H Street intersection to 3rd Street on the west side of the site and F Street on the east side of the site. This plan is still in draft form and may be revised.

The Draft EIR lists on page 6.12-51 that the implementation of the Westside Access Improvements described as Alternative 1 in the Feasibility Study: West Side Access to the Sacramento Depot (David Evans and Associates, Inc. 2005) would occur as part of Full Buildout of the Railyards project by 2030, and these improvements are not listed under assumptions for 2013 conditions on page 6.12-37. The Westside Access Improvements include access to the depot site from I Street at 3rd and at 4th Streets. These modifications may not be constructed even though that is the current intent unless they are determined to be feasible. The modifications in the West Side Access study are considered to be reasonably foreseeable and were included in the assumptions for future conditions as stated in the Draft EIR.

Similarly, the completion of the Downtown Natomas Airport (DNA) light rail extension is considered to be reasonably foreseeable.

4.15.10 REGIONAL TRANSIT AND TRAFFIC CONCERNS AROUND THE ROBERT T. MATSUI FEDERAL COURTHOUSE

Response to Comment 3-1

The location of the light rail lines outside the project boundaries is not under the control of the project applicant and will be determined by RT and addressed in its environmental review of the future DNA light rail extension. Addressing the request for relocating the planned alignment of LRT tracks adjacent to the UP tracks is beyond the scope of the Railyards project.

Traffic is expected to increase along the streets adjacent to the courthouse like almost all of the other streets in downtown Sacramento. This growth is linked to Smart Growth policies that promote dense development in urban centers and development of transit systems as a means of alleviating auto travel in urban centers.

4.15.11 MITIGATION OF IMPACTS ON PUBLIC TRANSIT FOR FULL PROJECT

Response to Comment 16-1

Mitigation Measure 6.12-27 shall be modified to read:

> 6.12-27 *Implement Mitigation Measure 6.12-6*. *Additionally, the project applicant shall coordinate with RT to provide modifications to both bus and light rail services and to help fund necessary improvements in order to serve the transit demand generated by the Full Project.*

4.15.12 NUMBER OF BUS ROUTES

Response to Comments 16-2 and 16-3

The Draft EIR states on page 6.12-5 that "The Sacramento Regional Transit District (RT) is the major transit provider within Sacramento County, providing . . . fixed-route bus service on more than 70 routes." The comment that there are 96 bus routes is acknowledged.

The requirement on page 6.12-133 to implement Mitigation Measure 6.12-6 requires the project applicant to "dedicate right of way for the Downtown Natomas Airport (DNA) light rail system for the alignment and station located within the Specific Plan Area and pay a fair share contribution to fund construction of the DNA light rail system to mitigate the impacts of the Project on transit capacity."

Currently maps are not available that identify the exact location of the intermodal stations, as they have not been determined at this date.

A statement that the applicant should coordinate development adjacent to the 7th Street Station will be included in the conditions of approval for the project.

It is the convention in the Draft EIR to avoid restatement and duplication but rather to refer to previously stated mitigation measures.

4.15.13 TRIP DISTRIBUTION AND ASSIGNMENT

Response to Comment 18-30

As stated on page 6.12-51 of the Draft EIR, "Typical methods of analysis for relatively small proposed projects use travel demand models to develop traffic volume forecasts for future years without the project and then add trips developed by ITE trip generation procedures to those no-project conditions. That procedure is relatively straightforward when major changes in land use or

substantial changes in the transportation system are not proposed as part of the project. In the case of the proposed Railyards project, major changes in land use and substantial changes in the transportation system are proposed. The procedures used to develop future traffic volumes described below for the Railyards project rely more heavily on the use of travel demand models to forecast future traffic for the project. These procedures (described in more detail, below) are more consistent with those typically used to evaluate the effects of a specific plan for a large area like the proposed Railyards project."

This statement describes why it would not be appropriate to use traditional distribution and assignment of trips for small projects where the transportation system would not be substantially changed. Graphics showing trip distribution would not be informative with regard to the shifting trip patterns that would result from this large-scale project. Traffic volumes resulting from the travel demand forecasting are provided in the appendix.

4.15.14 JIBBOOM STREET CONNECTION

Response to Comment 25-7

The Jibboom Street connection will be maintained through all stages of project development except for temporary closures for demolition of the existing connection and construction of the new connection.

4.15.15 STREET INTERSECTION IMPROVEMENTS

Response to Comment 25-7

The statement that the "EIR determined there would be no street improvements and intersection improvements" is not correct. Street improvements would be made that include additional lanes, traffic signals, and/or other modifications to intersections as part Mitigation Measures 6.12-1(a), 6.12-1(b), 6.12-1(c), 6.12-1(f), 6.12-1(h), 6.12-1(i), 6.12-1(j), 6.12-1(k), 6.12-1(o), 6.12-1(p), 6.12-1(q), 6.12-16(c), 6.12-16(d), 6.12-16(e), 6.12-16(f), 6.12-16(h), 6.12-16(k), 6.12-16(l), 6.12-16(r), 6.12-22(m), and 6.12-22(o).

Mitigation measures at 5th Street & Bannon Street, 7th Street & Bannon Street, and 7th Street & Railyards Boulevard intersections would provide traffic operations consistent with City operating standards (LOS C or better) through all phases of Railyards project development. The proposed system of one-way arterial streets would provide a high level of access control and roadway capacity. In contrast, the residential development in the project area would be served by two-way streets with less access control (more driveways) and lower roadway capacity. Occasionally, congestion on the arterial system may result in the diversion of traffic onto streets in the residential area; however, the residential area is planned to be developed with mid to high-rise structures in a dense urban setting where traffic, if diverted, would not be as onerous as in single-family residential areas.

4.15.16 LEVEL OF SERVICE

Response to Comment 25-7

A citywide goal of LOS C is achievable in areas of moderate density; it is not often reasonably achievable in a densely developed central business district during peak commute periods without creating adverse economic impacts or impediments to alternative modes of travel to the automobile. Conversely, a densely developed central business district promotes walking, bicycling, and transit use as long as adequate facilities for these modes of travel are provided, and can generate a vibrant economic energy. Clustering development in an urban core may result in traffic operations that fail

to maintain the citywide goal in that area, but may prevent more diffuse development in the city that could have a more widespread negative effect on traffic operations.

4.15.17 PARKING

Response to Comments 18-32 and 25-7

The parking requirement was calculated using the ratios shown in Table 6.12-35 on page 6.12-135 of the Draft EIR. These are the current parking requirements in the existing Railyards Special Planning District.

4.15.18 FREEWAY IMPACTS

Response to Comment 25-57

Most of the response to this comment can be found in the master response "Mitigation of Impacts to Freeways." It is acknowledged that the SACMET travel demand model includes one of the mitigation measures proposed by Caltrans; HOV lanes are included in the SACMET 2027 model network. The HOV lanes are included in the model network because they are included in the MTIP. Inclusion of the HOV lanes in the model network provides greater freeway capacity than would be provided without them and therefore results in higher traffic forecasts for the freeways than would otherwise be produced. This conservative approach to forecasting freeway traffic volumes was considered appropriate because it would be less likely to underestimate potential traffic impacts than if the HOV lanes were removed from the model.

Despite the programming of the HOV lanes in the MTIP, their construction is not certain because the feasibility and desirability of constructing such improvements have not been evaluated and the I-5 HOV project has not undergone CEQA review. The analysis of project impacts on the freeway did not assume HOV lanes would be in place, because to do so would overstate the capacity of the freeways if HOV lanes were not constructed. Again, this approach was considered reasonable and would result in a conservative assessment and be less likely to underestimate potential project impacts.

4.15.19 PEDESTRIAN-FRIENDLY STREETS

Response to Comment 25-58

The statement that widening roadways to mitigate (or in some cases to further mitigate) impacts "would be inconsistent with the City of Sacramento goals and objectives to create pedestrian-friendly streets and Smart Growth policies" does not imply that the pedestrian-friendly street goal supersedes the City's level-of-service policy. It is one factor to be considered in determining whether to override a residual significant level-of-service impact. Other considerations including impacts to adjacent properties and financial viability were considered in determining whether additional mitigation would be feasible.

Goals and objectives to create pedestrian-friendly streets do not just apply to local streets, but also to arterial roadways through an area heavily traveled by pedestrians. Attempts were made to mitigate level of service impacts on arterial streets where feasible.

Predicted delays at intersections expected to operate with traffic volumes greater than 20 percent above capacity are outside the range of the methods used to evaluate levels of service. Delays estimated outside the range of reliability often do not occur because travelers may alter their route, mode or time of travel.

4.15.20 I STREET BRIDGE/WEST SACRAMENTO

Response to Comments 25-54 and 25-59

The Draft EIR analyzed the transportation system proposed by the project applicant for each scenario studied as required under CEQA. It is clearly stated on page 6.12-51 that the removal of the existing Jibboom Street elevated connection to I Street and the construction of the new elevated connection between Bercut Drive and I Street would occur as elements of development of the Full Project. The existing Jibboom Street connection to I Street would remain during development of the Initial Phase of the project. The new Bercut Drive connection would be intended to be a replacement of the two lanes on the existing structure with two lanes on the new structure. Therefore, moving the replacement of the existing bridge forward would not help mitigate project impacts.

The Tower Bridge has been closed since September 17, 2007, for a project to widen the sidewalks on the lift span portion of the bridge. The bridge will be re-opened before Thanksgiving. These improvements are part of the Tower Bridge Pedestrian and Bikeway Improvements Project. If the contractor cannot complete the widening of both sides of the sidewalk on the lift span portion during this period, a second closure will be necessary in January 2008. In any case, construction is planned for completion in May 2008. The Tower Bridge was open when the traffic data for the traffic study were collected and will be open again before the Initial Phase of the project is completed.

The development contemplated along the connection between the Tower Bridge and I-80 is represented in the SACMET travel demand model and the effect of changes in potential traffic congestion along the route is reflected in the traffic forecasts developed for analysis of the project's potential impacts.

4.15.21 EFFECTIVENESS OF SIGNAL TIMING AS MITIGATION

Response to Comment 25-61

All analysis of traffic signal timing was performed using the Synchro software package, which takes into consideration the effects of traffic operations at all other intersections in the signal system. For the analysis of the Railyards project, the existing signal timing was used at all existing intersections for the analysis of existing, baseline, and future conditions. The cycle lengths of new signals were developed to be consistent with the cycle lengths of nearby signals, including those in the downtown grid and the timing of new signals was developed in a manner that would optimize traffic progression through adjacent signals. At locations where there would be little through traffic and/or separation between signals that would not justify coordination, different cycle lengths were selected for groups of signals where greater efficiency in traffic operations would be achieved. This common traffic engineering practice was used in the analysis of traffic impacts for the Railyards project.

It is recognized that the signal timing changes identified in the Draft EIR as mitigation measures may need to be adjusted depending on how development in the area and the resulting traffic patterns evolve. That is why the mitigation measures that prescribe signal timing changes were worded to state that "The applicant shall pay a fair share of this mitigation measure and shall pay toward the City of Sacramento traffic operations center for the re-timing and monitoring of the signal to improve vehicle progression. . . ."

4.15.22 EFFECTIVENESS OF MITIGATION

Response to Comment 25-64

Mitigation measures for baseline conditions include the addition of travel lanes and optimization of signal timing at the Richards Boulevard ramps (Mitigation Measures 6.12-1(a) and 6.12-1(b)). Only those improvements are considered in the evaluation and disclosure of traffic operations at this

interchange after mitigation. It is recognized that the further mitigation of freeway impacts by requiring the applicant to pay a fair share contribution to fund the DNA light rail line will only apply to future conditions; however, no credit was assumed for that additional mitigation for conditions prior to 2014.

The off-ramp queue Impact 6.12-5(a) applies to the I-5 J Street ramp – not a Richards Boulevard ramp.

In response to the bullet points in the comment, the level of transit ridership for the project is not extraordinary but is based on survey data contained in the *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey* (DKS, 2001) as described on page 6.12-52. The adjustments to ITE trip generation estimates were based on the difference between transit use in downtown Sacramento and suburban Sacramento transit mode shares.

The existing light rail Sacramento Valley Station is within a one-half mile walking distance of almost all of the proposed Initial Phase of the project. In addition, bus service will provide excellent service between existing light rail stations and the project area. Nevertheless, the adjustment to the ITE trip generation estimates for baseline conditions were estimated at half the adjustment for more long-range conditions when light rail would be extended northward from downtown along 7th Street through the project area.

The assumptions about regional and local traveler shares of traffic to the project and the effect of that mix was assumed to be the same as the effect of the mix of travelers patronizing downtown Sacramento as reflected in the 2000 SACOG Household Travel Survey.

4.15.23 TRAFFIC QUEUES

Response to Comment 25-65

The City of Sacramento's standard practice is to evaluate traffic impact using the Synchro software to produce Highway Capacity Manual estimates of level of service and delay. The City does not currently assess traffic queues except at freeway exit ramps where excessive queuing can impede freeway operations. Excessive queuing on city streets is expected to occur at intersections where level of service and delay estimates are high. Excessive queues on city streets are not as critical as queues that affect freeways because vehicles on city streets may not legally block upstream intersections.

4.15.24 TRAFFIC SHIFTED DUE TO THE PROJECT

Response to Comment 25-66

As stated on page 6.12-57 and 58, the travel demand modeling process used in this study takes two factors into account that may not be considered in other studies. This study considers:

- The potential of new roadways proposed for the project to attract traffic that would otherwise use other roadways, and
- The potential for traffic that would otherwise use existing roadways to be diverted to other roadways because of the introduction of new project traffic.

A response regarding the range of the analysis is provided above under the title, Geographic Scope of the Traffic Analysis.

4.15.25 MAXIMUM RESIDENTIAL ALTERNATIVE TRAFFIC IMPACTS

Response to Comment 25-67

The Maximum Office scenario was selected for evaluation as a worst-case scenario because a rational assessment concluded that no significant impacts identified for the Maximum Residential scenario that would not also occur for the Maximum Office scenario. Both scenarios would generate at least 50 percent more trips during the p.m. peak hour when traffic volumes on the street are also at their daily peak. The Maximum Office scenario would generate more trips inbound toward the project and outbound from the project during the p.m. peak hour than the Maximum Residential scenario except for the Full Project during 2030 conditions, when the Maximum Residential scenario would generate 118 (2 percent) more inbound trips than the Maximum Office scenario. The effects of this slightly higher number of inbound p.m. peak hour trips for this one condition would be more than offset by the 2,494 (38 percent) higher number of trips generated in the outbound direction from the project. The amount of intersection delay is based on an average of all vehicles entering a signalized intersection. As a result, the "worse case" impact for the two development scenarios would be determined by analyzing the Maximum Office scenario.

As state on page 6.12-51, "A detailed analysis of transportation impacts was performed only for the Maximum Office scenario. . . ." No analysis of the Maximum Residential scenario was omitted from the Draft EIR.

4.15.26 OVERALL TRAFFIC ASSESSMENT

Response to Comments 18-31 and 25-68

The analysis of transportation impacts of the proposed Railyards project is comprehensive in several respects. The analysis looks at both extremes of development likely to occur in terms of trip generation and uses the development scenario that would generate the greatest effects to determine the impacts of the proposed project. The analysis evaluates in detail the trip generation characteristics of 25 blocks within the project, assesses the interaction of travel between each pair of blocks, and aggregates the results to determine the effect of the entire project as a whole. The analysis includes consideration of 22 approved or planned projects considered to be reasonably foreseeable at the time the study was commenced. The analysis used the regional SACMET travel demand model which provides coverage of the six-county Sacramento area and includes land use estimates for development projections for twenty years. The assignment of project trips was performed at the block level to provide realistic assignments of traffic to study area streets and highways.

All transportation impacts of the project identified in this exhaustive study were fully disclosed and mitigation measures were developed where feasible. As a result, the Draft EIR has fulfilled its function under CEQA to inform governmental decision-makers and the public about the potential, significant environmental effects of the proposed project, the effects of mitigation measures considered to be feasible, and the resulting traffic impacts that remain significant and unavoidable.

4.15.27 FAIR SHARE AS MITIGATION

Response to Comment 26-12

None of the mitigation measures identified in the comment were stated in the Draft EIR to reduce impacts to a less-than-significant level.

No representation was made in the Draft EIR that the mitigation measures relying on fair-share funding would mitigate impacts to less-than-significant levels.

Please refer to the response to Caltrans comments under "Mitigation of Impacts to Freeways" for response to the comment about the funding of proposed mitigation measures.

4.15.28 TRIP ASSIGNMENT

Response to Comment 26-54

The Draft EIR states on page 6.12-57, "The trip assignment process was modified to provide a more precise allocation of trips to specific roadways downtown and in project area. The roadway network in the SACMET model only includes major streets and has land uses defined for Traffic Analysis Zones (TAZs) that include several city blocks. This transportation network is not capable of producing realistic traffic assignments on individual streets in the Central City; therefore, a refined travel demand model was developed for the Draft EIR: Central City Two-Way Conversion Study (Planning Dynamics Group 2006) to provide more precise traffic assignments. This Central City model was modified to include the proposed project and was used to assign the vehicle trips to the roadway network. The trips forecasted between pairs of TAZs through the trip distribution step of the modeling process were disaggregated to the block level and were assigned to the more detailed roadway network."

4.15.29 SYNCHRO

Response to Comment 26-55

A search of the current version of the SYNCHRO 7 software User Guide did not identify the statements attributed to the User Guide in the comment. Further, the current version of the User Guide states that "Delay based methods such as the HCM are less accurate than capacity based methods. . . . The HCM method requires the analyst to estimate of the affects of coordination and actuated signals. These estimates lead to a further loss of accuracy. The Synchro HCM delay calculation explicitly calculates actuated green times and progression factors, so it will be more accurate for these situations."

The preparers of this EIR used the standard practice for evaluation of traffic impacts at intersections for proposed projects in the City of Sacramento, which is to use the HCM method produced by the SYNCHRO software package.

4.15.30 12TH/16TH RICHARDS INTERSECTION

Response to Comment 26-56

Also, mitigation measures are not required for the 12th St/16th St/Richards Boulevard intersection during the p.m. peak hour because the project would not create an impact according to the City's significance criteria because the intersection would operate at LOS F without the project and the project would not increase the average vehicle delay by 5 seconds or more.

Mitigation measures were developed at all intersections where feasible to reduce project impacts to less-than-significant levels. At intersections where mitigation to less-than-significant levels was not considered feasible, an explanation was provided in the Draft EIR regarding why that was the case.

CEQA does not require mitigation of impacts when such mitigation is determined to be infeasible, would create secondary significant adverse effects, and would conflict with City goals and objectives such as creating pedestrian-friendly street environments and implementing Smart Growth policies. Mitigation measures such as widening streets to achieve vehicle service standards at intersections are often in direct conflict with the pedestrian-friendly street environment and Smart Growth policies, and may require removal of existing buildings and business.

Potential significant impacts were identified for the transit system, bikeways, and pedestrian systems and mitigation measures were identified to improve the function of all of these alternatives to auto travel. Mitigation Measure 6.12-6 requires the applicant to fund improvements to serve the transit demand and to dedicate right-of-way for and help fund the DNA light rail system. Mitigation Measure 6.12-7 requires the applicant to provide bikeway facilities to achieve the intent of the Bikeway Master Plan. Mitigation Measure 6.12-8 requires the applicant to ensure safety for pedestrians by providing sidewalks, gutters and planters.

4.15.31 ALKALI FLAT CUT-THROUGH TRAFFIC

Response to Comment 30-4

The City of Sacramento encourages Alkali Flat neighborhood representatives to participate in the City's Neighborhood Traffic Management Program (NTMP). The NTMP is a community-based program that provides a process for neighborhoods to improve livability and provides resources to reduce speeding, reduce traffic volumes, and address other traffic related issues. The neighborhood must initiate the process by completing a Community Action Request. Information on the NTMP may be obtained from the City's website at http://www.cityofsacramento.org/transportation/engineering/trafficntmp.html or by calling (916) 808-8300.

4.16 URBAN DESIGN AND VISUAL RESOURCES

4.16 URBAN DESIGN AND VISUAL RESOURCES

4.16.1 METHODOLOGY AND STANDARDS

Response to Comment 26-19

As is noted by several commenters, the evaluation of effects on visual resources is inherently non-quantitative, however it need not be, and in the Railyards Specific Plan EIR, it is neither subjective nor arbitrary. Like many other environmental evaluations, the identification of a standard of significance is a discretionary action that a local lead agency makes based on the specific context of the project and based on the goals and values of the local community. In some cases such standards are quantitative, such as the use of levels of service for traffic analyses, or quantitative standards for air emissions. The visual resources analysis similarly looks to local conditions and local expressions of goals and values upon which to base the analysis. In this case, those goals and values are best expressed in the City General Plan, including the Sacramento River Parkway Plan, and the Riverfront Master Plan.

4.16.2 RIVERFRONT DISTRICT

Response to Comment 26-19

The City's planning documents acknowledge that the portion of the riverfront in the project vicinity has historically been developed with industrial uses, and reflect a local vision of the Sacramento Riverfront in the vicinity of the project site as an urban waterfront dominated by commercial and recreational uses. Those plans reflect a vision of the project site that is similar to the more urbanized waterfront in Old Sacramento, and the riverfront that is being planned to the south of the I Street Bridge in the Docks Area. The Sacramento River Parkway Plan describes the riverfront between the Jibboom Street Bridge and the I Street Bridge (including the project site) as "mainly urban with industrial and commercial uses directly adjacent to the riverfront."[1] The City plans also distinguish the riverfront in the project vicinity from the more natural riparian environment that is the dominant feature to the north, in the vicinity of Discovery Park and Tiscornia Park, and further to the south in the Pocket area. Regarding the future uses on the riverfront near the project site, the Sacramento River Parkway Plan states:

> The Sacramento River Parkway between the Jibboom Street Bridge and the I Street Bridge has been designated Urban Waterfront Recreation with the exception of Tiscornia Park which is designated as Recreation Area to reaffirm its existing use. The Urban Waterfront Recreation designation is compatible with existing and proposed land uses in the area."[2]

As such, the EIR's conclusion that development of urban housing and hospitality uses along the riverfront would create less-than-significant effects on visual resources if sensitively designed to set back from and step down toward the river, and if designed so as to facilitate visual permeability so that views of the river would continue for nearby pedestrians, bicyclists, and drivers, is consistent with the long-established goals and values of this community.

The proposed project could result in construction of slender towers, west of I-5, that could reach as high as 450-feet. These towers would be visible from Old Sacramento, West Sacramento, the western portion of Downtown, the Railyards, as well as other vantage points along the Sacramento River in the vicinity. As is stated in Chapter 6.13 of the Draft EIR, the City's General Plan, including

1 City of Sacramento, Sacramento River Parkway Plan, October 21, 2997, page 51,
2 City of Sacramento, Sacramento River Parkway Plan, October 21, 1997, page 52.

the adopted Sacramento River Parkway Plan, identifies the segment of the Sacramento Riverfront between Old Sacramento and Tiscornia Park as urban waterfront that has been and will continue to be dominated by urbanized uses. CEQA Guidelines section 15064 (b) states:

> "[t]he determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data. An ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting. For example, an activity which may not be significant in an urban area may be significant in a rural area."

In this case, the City has clearly stated its goal for the downtown area of the Sacramento Riverfront as a vibrant, intensely developed area. The Sacramento River Parkway Plan identifies the area as Urban Waterfront Recreation and recognizes that it has long been developed with intense uses. The Sacramento Riverfront Master Plan has as a goal to "[e]stablish the riverfront area as an active, vibrant, urban district and public precinct." More specific policies encourage the City to "[p]rovide people-oriented land uses, public space, and amenities that attract people and activity." Consistent with its established policy, the City does not consider the presence of high-rise development that is visible from Old Sacramento to be a substantial adverse change. In fact, such development can be seen from Old Sacramento currently, including the Federal Courthouse, the One Capitol Mall project, the Embassy Suites, the Ziggaraut in West Sacramento, the Raley Landing area projects currently under construction. As such, the mere visibility of high-rise development near the riverfront does not constitute a significant visual effect.

4.16.3 CHANGE IN CHARACTER OF THE SITE

Response to Comments 26-48 and 33-1

One commenter notes that the proposed project cause a "complete visual transition in a large downtown environment" and postulates that the visual impact must necessarily be considered significant. The City would note that the definition of "significant effect on the environment" under section 15382 of the CEQA Guidelines is "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." Thus, for an effect to be significant, it must necessarily be change that is substantial and adverse. While the change of the existing Railyards site would certainly be substantial change, the fact that the site is currently blighted and would be transformed to a developed urban area is not inherently or objectively adverse. And, in light of extensive City policy aimed at redevelopment of the Railyards and urbanization of the relevant portions of the Sacramento Riverfront and the analysis contained in the Draft EIR, the City does not believe that the evidence in the record supports a conclusion that the effects would be adverse, and thus the impacts would not be considered significant.

4.16.4 USE OF VISUAL SIMULATIONS

Response to Comments 25-55 and 26-48

In preparing the Draft EIR, the City determined that it was appropriate to prepare the analysis of visual effects of the proposed Railyards Specific Plan without the use of visual simulations, architectural renderings, or other similar visual aides. The plan as proposed provides significant flexibility in the ultimate design of the proposed buildings in the Railyards. The inclusion of visual simulations in an EIR is appropriate when a specific building design has been proposed, or when a prescriptive set of design guidelines are under consideration. In this case, given the broad range of possible outcomes from the proposed design guidelines, the City determined that any specific visual simulations could be to the reader of the EIR as deceptive as they could be enlightening. Thus, the City decided to conduct the evaluation at a broad level based on the parameters of the proposed planning documents. This is an appropriate determination consistent with CEQA Guidelines section

15146 which states that "[t]he degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR." The Guideline goes on to state that "[a]n EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but *the EIR need not be as detailed as an EIR on the specific construction projects that might follow*" (emphasis added). As it pertains to the Riverfront District, the City believes that the building massing restrictions, as depicted on Draft EIR Figure 3-19, provide adequate protection of views to and from the river, and for the visual permeability of the site as called for in the Parkway Plan, and that the level of detail of the analysis contained in the Draft EIR is adequate and appropriate.

4.16.5 LIGHT AND GLARE

Response to Comments 33-2, 33-3, 36-1, and 40-1

The Draft EIR fully considered the potential effects of the proposed Railyards Specific Plan on ambient nighttime light, including nighttime sky lighting, as well as spillover light that could affect adjacent uses. Mitigation Measures 6.13-3(a)-(c) would reduce potential lighting effects to a less-than-significant level, and Mitigation Measure 6.13-4 would reduce potential glare impacts to a less-than-significant level. No further effects remain unconsidered and no further mitigation measures are necessary to avoid or minimize environmental effects.

4.16.6 SPORTS AND ENTERTAINMENT FACILITY OVERLAY

Response to Comment 18-33

The effects of the Sports and Entertainment Facility Overlay on visual resources are similar to the effects described in Impacts 6.13-1, 6.13-3, and 6.13-4, and Mitigation Measures 6.13-3(a) - (c) and 6.13-4 would apply to and mitigate effects in the Overlay area. However, in order to be consistent, the following shall be inserted at the end of page 6.13-37.

> **Sports and Entertainment Facility Overlay**
>
> In the event that the Sports and Entertainment Facility Overlay is implemented, portions of the Specific Plan Area (Parcels 48, 47a, and a portion of 49a) would be developed as an event/sports arena, rather than the mixed-use buildings called for in the underlying zoning. The building has not been designed, and could take many different forms. Considering that height and signage is not considered a significant issue in the heart of the Railyards, it is anticipated that there would be no significant effects as a result of the future design of such a facility. It is not anticipated that the analysis of visual effects would be materially different than that presented for the proposed project because the building profile in the Sports and Entertainment Overlay area would not be materially different in height and bulk than those anticipated under the base plan. Each of the concerns associated with development of the plan area analyzed above would be addressed by the same urban design guidelines and mitigation measures as would otherwise apply to development in the plan area. No mitigation measures would be required in addition to those included for the plan area as described above.

4.16.7 VIEWS FROM WEST SACRAMENTO

Response to Comment 25-55

The EIR considered the views of the project site from West Sacramento. On page 6.13-17, the Draft EIR states "…views from West Sacramento and the Sacramento River are very limited due to the height of the Sacramento River levee, the elevated section of Jibboom Street, and the elevated I-5."

Figure 6.13-6, Viewpoint 10, includes a photo of the view of the site from the West Sacramento side of the river. It can be seen from that photograph that the view of the site from West Sacramento is of a highly disturbed and urbanized riverfront, with the levee dominated by scrub growth and broken concrete rip-rap and public infrastructure, along with the elevated roads and highway. The replacement of these views with views of developed uses, similar to that which is being constructed in West Sacramento a few hundred yards to the south, is not considered by the City of Sacramento to be a significant adverse effect on the environment.

4.16.8 ADJACENT USES

Response to Comment 24-6

One commenter noted concern about potential visual effects on future Railyards residents exposed to views of current adjacent industrial uses. The City recognizes that the project vicinity is one that contains a variety of uses and is going through a transition from an industrial area to a future residential/commercial neighborhood. The views that are created by proximity of such uses are not from the City's perspective inherently adverse. In fact, there are many successful residential communities that are within the viewshed of industrial areas, including the existing Alkali Flat neighborhood which has been adjacent to the industrial railyards for more than a century.

4.17 ENERGY

4.17 ENERGY

4.17.1 ENERGY DEMAND

Response to Comment 25-56

The comment references the estimated electricity demand calculated for the Railyards Specific Plan in Table 6.14-1 on page 6.14-9 (67.01 MW) of the Draft EIR. This demand was estimated by the electricity provider, SMUD, and provides a conservative approximation of electricity usage for the entire project over the course of a year. However, as discussed on pages 6.14-11 through 6.14-12, the SMUD estimate does not take into account coincidence of loads which refers to the different timing of peak demands from residential and non-residential uses. Thus, when calculating peak electrical demand under Title 24 standards, the actual demand would be lower than the SMUD estimates where the peak demands for each land use were combined. Based on calculations from Title 24 standards, the Railyards Specific Plan would have an estimated peak electrical demand of approximately 30 MW and 200 million kilowatt-hours (kWh) of energy per year, which is less than presented in Table 6.14-1 as estimated by SMUD. Thus, the Draft EIR assumed a conservative demand for peak electricity in the energy analysis for the proposed project.

Energy Mitigation

The comment refers to PRC §21100(b)(3) which states that an EIR shall include mitigation measures to reduce the wasteful, inefficient, and unnecessary consumption of energy. The Draft EIR stated there is an adequate electric supply for the Railyards Specific Plan, and therefore the energy impacts of development of the Specific Plan would be considered less-than-significant (Draft EIR, p. 6.14-13). Mitigation measures are not required for effects which are not found to be significant according to CEQA Guidelines §15126.4(a)(3). Development of the Specific Plan must comply with Title 20 and 24 standards. It should be noted that these energy regulations are far more stringent than the rest of the United States. Nonetheless, even though mitigation measures were not required, the Railyards Specific Plan, where feasible, encourages development to adopt further energy conservation measures (Draft EIR, p. 6.14-13). Additionally, SMUD provides incentives to implement energy efficient practices (Draft EIR, p. 6.14-14). The Draft EIR states that the energy impacts to the environment from development of the proposed project were less-than-significant, and no mitigation measures were required (Draft EIR, pp. 6.14-13 through 6.14-18). However, even when mitigation measures are in fact necessary, the exact details of those measures do not need to be spelled out (*Riverwatch v. County of San Diego* (4th Dist. 1999) 76 Cal. App. 4th 1428, 1447). Therefore, mandating use of photovoltaics or other specific energy efficient methods in the Draft EIR is not required.

Energy Standards of Significance

The commenter also states that the second standard of significance "the project would encourage the wasteful or inefficient use of energy (page 6.14-10 of the Draft EIR)," does not comply with CEQA. As discussed above, PRC § 21100(b)(3) requires that EIRs "shall include a detailed statement setting forth…mitigation measures proposed to minimize significant effects on the environment, including, but not limited to measures to reduce wasteful, inefficient and unnecessary consumption of energy." CEQA Guidelines § 15126.4(a)(1)(C) states, "*Examples* of energy conservation measures are provided in Appendix F (CEQA § 15126.4(a)(1)(C), emphasis added)." The examples in Appendix F do not require specific measures or set standards for what is efficient, nor does the City require specific energy standards of significance. CEQA allows local agencies to adopt their own thresholds of significance as stated in CEQA § 15064.7. Therefore, in the absence

of mandatory standards of significance, the standards of significance stated in the Draft EIR on page 6.14-10 regarding energy consumption are sufficient under CEQA.

Energy Reduction Measures

The commenter also states that the EIR should require specific requirements, such as: 1) LEED silver or higher for all building, 2) lighting conservation, 3) glazing for the project, 4) improved HVAC systems, 5) installation of solar heating systems, photovoltaic systems, and peak-loading cooling systems on all warehouses and commercial buildings, 6) retail buildings comply with ASHRAE standards, and 7) cool roof systems (as described in attachment) for warehouse buildings and commercial buildings.

Nonetheless, one of the stated project objectives of the Railyards Specific Plan is to "create a sustainable community that utilizes green building technology, water conservation and renewable energy sources (Draft EIR, p. 3-11)." All new buildings constructed in California must comply with the regulations of Title 20, Energy Building Regulations, and Title 24, Energy Conservation Standards, of the California Code of Regulations. All construction in the project will comply with these regulations. These regulations set forth standards for energy efficiency and conservation ranging from siting and use of renewable energy sources, to the energy impact of doors, roofs, windows and skylights (Draft EIR, p. 6.14-7). In addition to Title 24 compliance, implementation of the Warren-Alquist Energy Resources Conservation and Development Act will further coordinate "research into energy supply and demand problems to reduce the rate of growth of energy consumption (Draft EIR, p. 6.14-7)." Further, whenever feasible, development of the Railyards Specific Plan will utilize architectural, mechanical, electrical, landscape, and irrigation energy conserving measures beyond the minimum requirements of Title 20 and 24 (Draft EIR, pp. 6.1-18 through 6.1-19). The Railyards Design Guidelines also encourage, where feasible, to obtain Leadership in Energy and Environmental Design ("LEED") certification (Design Guidelines, p. 4-47). Wherever possible, it is the goal of the project to seek to support and develop energy conserving measures, beyond Title 24 compliance. The project will seek to achieve this through a variety of methods. This objective is consistent with the City of Sacramento General Plan Policy 8.A: "Wherever possible, develop, incorporate and support energy conserving programs in the production and rehabilitation of housing to improve the environment and reduce household energy costs. [Draft EIR, p. 4-11]."

In addition, reducing the wasteful and inefficient consumption of energy can be achieved in a variety of different ways. Solutions for reducing energy demand are also tied in to reducing vehicle trips (by providing incentives for alternative modes of transportation or by utilizing smart-growth land use planning), reducing air emissions from project construction and operations, and employing energy conserving designs in buildings and in construction techniques. The Air Quality Mitigation Plan (AQMP) prepared for the proposed project (see Appendix E of the Draft EIR) contains a variety of measures that would reduce the energy demands of the project and would encourage energy efficient design. Specifically, the AQMP contains mitigation measures that require the proposed project to include Energy Star roofs for commercial and retail buildings, solar orientation for at least 75 percent of residential homes, non-roof surfaces that reduce heat island effects, and exceedance of Title 24 requirements by 20 percent, for which the project is submitting for LEED – ND certification (LEED – Neighborhood Development). See pages 20-21 of the AQMP for more details of these mitigation measures.

Environmental Effect of Energy Infrastructure

The comment states that the Draft EIR does not include a discussion of environmental impacts resulting from the construction of new substations and transmission lines and needs to be discussed. The exact details of future substation construction within the Specific Plan Area are

currently unknown. However, an EIR's statement that the impact will be mitigated does not need to elucidate every detail of the mitigation measure (*Riverwatch v. County of San Diego* (4th Dist. 1999) 76 Cal. App. 4th 1428, 1447). Although the exact mitigation details of the construction of the substations are unknown, Impact 6.14-1 states that construction of energy transmission or distribution lines is comprehensively analyzed in sections 6.1, Air Quality; 6.8, Noise; and 6.12, Transportation and Circulation (page 6.14-12 of the Draft EIR). The Draft EIR also acknowledges that planning and construction of all new transmission facilities, distribution facilities and substations must comply with CPUC decision 95-08-038 (Draft EIR, p. 6.14-6). CPUC decision 95-08-038 requires permits for construction of all substations if the voltages would exceed 50 kilovolts. Additionally, the Draft EIR states that all electrical connections will be constructed in accordance with all City Ordinances, Uniform Codes and Public Works standards (Draft EIR, p. 6.14-12). Although specifics for the required substations are not known at this time, the construction of these facilities was considered in the appropriate technical sections of the Draft EIR. In addition, there is adequate electricity supply for the proposed project, and therefore, for new substations and transmission lines that would serve the Railyards Specific Plan Area. Therefore, no additional mitigation or environmental analysis for construction of substations is required.

4.17.2 NATURAL GAS

Response to Comment 19-1

The following text is added after the second sentence of the second paragraph under Impact 6.14-2 on page 6.14-14.

> Although there is an adequate supply of natural gas, the proposed project would require a space with a minimum width of 20 feet and length of 40 feet for a future easement to be granted to PG&E. This space would contain a gas regulator station to supply the project site with natural gas. The planning of this infrastructure would be coordinated by the developer with PG&E to determine the best location for the regulator.

4.17.3 CUMULATIVE DEMANDS

Response to Comment 19-2

The comment refers to impacts on natural gas infrastructure due to cumulative development in the City of Sacramento. To accommodate additional natural gas demand in the City, upgrades or additions may be needed, such as regulator stations, odorizer stations, valve lots, or distribution and transmission lines. The comment goes on to state that "[t]he requesting party will be responsible for the costs associated with the relocation of existing PG&E facilities to accommodate their proposed development." As stated in the Draft EIR on page 6.14-14,

> "…as required by law, all utility connections would be constructed in accordance with all applicable Uniform Codes, City Ordinances, and Public Works standards to ensure an adequately sized and properly constructed electrical transmission and conveyance system. Implementation and extension of utility infrastructure would be constructed prior to occupancy and in a manner that would minimize the potential for utility disruption."

The proposed project would be required to comply with applicable Uniform Codes, City Ordinances, and Public Works standards to ensure adequate infrastructure to meet the needs of the project, as determined by PG&E. In terms of cumulative development, build out of the City's General Plan would result in an increased demand on natural gas which may require the addition or expansion of infrastructure on the project site. While the proposed project would be responsible for infrastructure to serve the demands of the project, the project would not be responsible for expanding

infrastructure due to demands from future development in the City. As stated in the PG&E letter, the "requesting party" will be responsible for the costs associated with upgrading PG&E facilities. If future development in the City creates a demand for natural gas that would require upgrading PG&E facilities, the requesting party would be responsible for the costs associated with these improvements. Thus, the project would not contribute to the cumulative demand for natural gas, because the infrastructure to serve entire buildout of the project site would be constructed prior to occupancy. Further, the construction impacts anticipated to result from implementation of the proposed project, including the construction of natural gas transmission lines, are comprehensively analyzed in the Air Quality, Noise, and Transportation and Circulation Sections of this EIR.

4.17.4 GLASS WALLS

Response to Comment 33-3

One of the stated project objectives of the Specific Plan is to "create a sustainable community that utilizes green building technology, water conservation and renewable energy sources" (Draft EIR, p. 3-11). All new buildings constructed in California must comply with the regulations of Title 20, Energy Building Regulations, and Title 24, Energy Conservation Standards, of the California Code of Regulations. All construction in the project will comply with these regulations. These regulations set forth standards for energy efficiency and conservation ranging from siting and use of renewable energy sources, to the energy impact of doors, roofs, windows and skylights (Draft EIR, p. 6.14-7). In addition to Title 24 compliance, implementation of the Warren-Alquist Energy Resources Conservation and Development Act will further coordinate "research into energy supply and demand problems to reduce the rate of growth of energy consumption" (Draft EIR, p. 6.14-7). Further, whenever feasible, development of the Specific Plan will utilize architectural, mechanical, electrical, landscape and irrigation energy conserving measures beyond the minimum requirements of Title 20 and 24 (Draft EIR, pp. 6.1-18 – 6.19). The Railyards Design Guidelines also encourage, where feasible, to obtain Leadership in Energy and Environmental Design ("LEED") certification (Design Guidelines, p. 4-47). Wherever possible, it is the goal of the project to seek to support and develop energy conserving measures, beyond Title 24 compliance. The project will seek to achieve this through a variety of methods. This objective is consistent with the City of Sacramento General Plan Policy 8.A (Draft EIR, p. 4-11).

4.18 OTHER CEQA REQUIRED CONSIDERATIONS

4.18 OTHER CEQA REQUIRED CONSIDERATIONS

4.18.1 URBAN DECAY ANALYSIS

Response to Comments 11-17, 12-17, 26-15, 26-16, 26-17, 26-18, 26-32, 26-33, and 26-34

As is noted by a number of commenters, under CEQA the analysis of urban decay has been described by the courts as an exploration of the potential for "a chain reaction of store closures and long-term vacancies, ultimately destroying existing neighborhoods and leaving decaying shells in their wake." The analysis of urban decay contained in Chapter 7 (pages 7-7 through 7-12) of the Draft EIR is based upon an urban decay study prepared by the urban economics firm, Keyser Marston Associates, and contained in its entirety in Appendix N of the Draft EIR.

Methodology

The analysis is based upon a rigorous economic market analysis methodology that attempts to answer the question about the competition effects of the addition of the project retail space into the future marketplace in the Sacramento region. The conclusions of the market analysis provide the basis to draw conclusions about the potential types of physical effects that could occur as a result of the predicted market dynamics that emerge from the economic analysis. The five key components of the economic market analysis include (1) definition of retail trade areas, (2) identification of market support segments for the specific retail concepts, (3) projection of total expenditure retail potential for the specific categories of retail uses proposed, (4) identification of competitive supply and projected retail sales requirements to support that existing retail space, and (5) projection of net retail expenditure potential based on a comparison of total expenditure potential with projected retail sales requirements for existing and planned retail centers in the trade areas. Each of these steps was taken and is documented in Appendix N and summarized in Chapter 7 of the Draft EIR.

Selection of Competitive Areas for Analysis

The selection for focused analysis of the four most vulnerable areas in downtown Sacramento was based on a thorough evaluation of the Sacramento retail market, including the Primary Trade Area and the Regional Trade Area. As is noted on pages 14 and 15 of Appendix N, the project at buildout would represent 32 percent of the total retail in the downtown area; by contrast, the project would represent 9 percent of the future retail inventory in the Primary Trade Area and only 4 percent of the future retail inventory in the Regional Trade Area. It was the professional opinion of the Keyser Marston Associates economists and the staff of the City of Sacramento that there was no need to evaluate the potential effects on retail areas outside of downtown Sacramento. Part of the basis for this conclusion was the City's experience with Arden Fair Mall (the closest regional shopping area to downtown Sacramento) when the competing Roseville Galleria opened several years ago. Despite significant concerns about loss of business, there was no material change in the level of business at Arden Fair Mall. The economists consider Arden Fair to be the strongest performing retail mall in the region and invulnerable to competition from downtown retail spaces, including the proposed project.[1] It is interesting to note that the urban decay analysis that was validated in the *Gilroy Citizens for Responsible Planning v. City of Gilroy* (2006) 140 Cal. App. 4th 911 case also examined four commercial areas in the local community which were determined to be most vulnerable to competition; it did not examine every commercial center in the region.

1 Keyser, Jerry A., e-mail communication with Brian D. Boxer, October 29, 2007.

Adequacy of Information

As is noted by one commenter, the *Gilroy Citizens for Responsible Planning v. City of Gilroy* case validated an economic analysis that identified four vulnerable commercial areas and which "stated the number of square feet in commercial use in each major building and each area, identified the uses (for example, general merchandise anchor store, bank, fast food, miscellaneous retail), and noted generally which major stores had closed and which areas had vacancies." Consistent with that approach, the analysis contained in Appendix N describes the "salient retail characteristics" of each of the four major retail areas in downtown Sacramento, as presented below:

> *Westfield Downtown Plaza* (est. 981,000 sq. ft.), a 2-level, regional retail center now anchored by Macy's and a multiplex cinema. Plans have been proposed for an approximately 332,000 sq. ft. (or 110,000 sq. ft. of new new space after renovation of existing center) expansion, with a Target store and an upscale grocer. Residents comprised the major market support segment for this center;
>
> *Old Sacramento* (est. 410,000 sq. ft.), a visitor-oriented, historic-themed center, comprised mainly of restaurants/entertainment and small specialty retail shops;
>
> *K Street Mall* (est. 132,000 sq. ft.), a pedestrian/light rail mall, currently with a large amount of vacancy as it is in transition; city plans call for transformation of the area to a higher-end retail, restaurant/entertainment downtown destination for both residents and visitors. An additional 450,000 sq. ft. of new retail space are under construction or planned in this area;
>
> *Midtown Corridor* (est. 150,000 sq. ft.), a local retail district which has emerged alongside the large number of new housing units recently built in the area, it is anchored by small neighborhood restaurants/bars and one-of-a-kind boutiques. Another 50,000 sq. ft. of retail have been proposed in the Corridor.

Contrary to the interpretation of the commenter, the opinion in the *Gilroy Citizens for Responsible Planning v. City of Gilroy* case does not suggest that the urban decay analysis must, to be adequate, identify vacancies or physical deterioration at a store-by-store level, but rather that the analysis must contain an adequate description of the retail areas that could be potentially affected.

Case Studies

To supplement the quantitative economic market analysis, the Urban Decay Study contained in Appendix N presents information on two selected retail projects that came to the attention of the KMA economists. These two case studies were included in the analysis for comparative purposes and to better inform the City of Sacramento decision-makers and the public, but were in now way required for adequacy of the analysis. There were measures taken in the case studies that were not identified in the list of measures that are recommended on page 29 of Appendix N and in Chapter 7 of the Draft EIR. The recommended measures were those measures that the City's economists thought most appropriate and most likely to succeed in avoiding potential urban decay effects in light of their understanding of the market dynamics of downtown Sacramento. As an example, at the Gateway development in Salt Lake City, the City and the developer agreed that no more than 10 percent of the retailers in the new development would come from existing Main Street merchants. Considering that the existing Westfield Downtown Plaza and K Street Mall are both going through substantive transformation at this current time, and considering that the proposed Railyards retail would not begin to come on line until at least 2012 and would not reach any level of maturity until after 2015, it would not make much sense to lock in potential uses which cannot be known and which may not even exist at those points in the future; thus, this measure was not seen by the City's economists to be fitting and appropriate for the current situation.

Analysis of Physical Change

Chapter 7.0 of the Draft EIR concludes that:

> "[i]t is possible, however, that the more vulnerable comparison retail locations in the trade area could experience a period of soft economic demand that could lead to urban decay. This economic instability could include transfers of sales from weaker to stronger retail venues, and increased vacancy and longer absorption of vacant retail space in the trade area. If the vacancies and closures are sustained over a long period (more than 3 years), they may result in long-term abandonment of decaying building shells and/or deteriorated conditions that significantly impair the proper and safe utilization of the real estate. Those buildings that are abandoned could experience vandalism, graffiti, degraded landscaping, and other similar effects."

The adequacy of the analysis of physical changes that could occur as a result of the future market dynamics in the region and contributed to by the proposed Railyards project must be considered in light of the results of the market analysis, the timeframe for development of the proposed project, and the programmatic nature of the current EIR.

As is reported on page 7-10 of the Draft EIR and page 28 of Appendix N, *with or without the proposed project*, between years 2015 and 2025 the supply of comparison retail shopping space will exceed demand; this is predicted to be true both for the smaller Primary Trade Area and the larger Regional Trade Area. So, downtown retailers will face intense competition in the future from proposed future space throughout the region, not just from the proposed project. With such a broadly based source of competition, specific conclusions about why individual or even types of retailers would face the most competition is impractical.

Further, as is noted above, the Railyards Specific Plan is not proposed and cannot be expected to develop and build out in the near term. The analysis prepared for the Draft EIR anticipated that 2015 would represent the earliest time period in which the retail space in the Railyards could be constructed, occupied, and reach economic stability. By contrast, the majority of urban decay studies that have been mentioned by commenters, including the *Gilroy Citizens for Responsible Planning v. City of Gilroy* case represent an examination of a single user (usually Wal-Mart) that will be constructed and fully operational in the near term. Since it is clear that there will continue to be evolution in downtown Sacramento commercial centers such as Westfield Downtown Plaza and the K Street Mall, it is practically impossible to predict specific types of physical deterioration that could occur at points in the future that are 5-7 years distant.

Lastly, the current EIR is a program-level document that contains an analysis of the potential effect of adoption of a specific plan; it is demonstrably not a project-level EIR that evaluates the effects of a specific proposed retailer, such as a Wal-Mart, or similar specific use. The City has prepared this EIR at the very early specific plan stage of the development process. Concomittantly, little is known about the future retailers that may occupy the project, with the exception of the Bass Pro proposal, which would constitute less than 20 percent of the total retail in the project. CEQA Guidelines section 15146 directs that "[t]he degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR." The Guideline goes on to state that "[a]n EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but *the EIR need not be as detailed as an EIR on the specific construction projects that might follow*" (emphasis added). To suggest that the urban decay analysis in this EIR be comparable in level of specificity to a comparable analysis in an EIR on a specific proposed retail use, such as a Wal-Mart, is inconsistent with the logical direction of the CEQA Guidelines.

Determination of Significance

Several commenters suggested that the Draft EIR analysis of urban decay is inadequate because it did not present the conclusion about the significance of the urban decay effects and the available mitigation measures in the same format as the more specific analyses of physical effects contained in Chapter 6.0 of the Draft EIR. Rather than prepare a full environmental impact section on urban decay, similar to the sections of Chapter 6, the City approached the presentation of urban decay effects consistent with the presentation of growth inducing effects, also a secondary economic effect that can have physical consequences that can be considered significant.

In this case, the City considers the effects described in Chapter 7 and Appendix N to be less-than-significant, for reasons documented therein. As is explained on page 7-11 of the Draft EIR, while there are potential scenarios in the future which could lead to long-term abandonment, "[t]here are several examples in Downtown Sacramento that show that vacancies can be eliminated through the evolution of space to uses that are supported by the market." Examples cited include the on-going transformation of the Downtown Plaza from a specialty retail center to a neighborhood retail center with a Target store and a grocer, the transformation of vacant automotive-retail spaces on 16th Street to restaurant/residential mixed use, the transformation of office space at 13th and I Streets to residential units, the transformation of office space at J and 10th Street to hotel uses, and the transformation of space on the K Street Mall from retail to office to restaurant/entertainment.

These examples are demonstrative of how vibrant downtown economies differ from suburban locations. Suburban commercial spaces are often constructed as single purpose buildings which do not easily adapt to alternative uses. To the contrary, downtown spaces often go through a variety of uses during the useful life of a building. While there may be periods of vacancy, even long periods, the type of building abandonment that would "ultimately destroy[ing] existing neighborhoods and leaving decaying shells in their wake" has not been seen in downtown Sacramento and is not anticipated in the future. While there may be minor vandalism, graffiti and such effects, these fall far short to the destroyed neighborhoods referred to by the courts and seen in eastern cities during the 1970's. As is stated in Appendix N (page 29), "[h]owever, with a coordinated public and private strategy, Downtown Sacramento has already demonstrated its ability to eliminate vacancy by having space evolve to uses that are supported by the market. Through aggressive public and private investment, there are now renovations and/or conversions of existing buildings, which, when completed, will reinforce the competitiveness of Downtown and forestall or eliminate vacancies." Thus, continuation of the revitalization activities that have been undertaken by the City in combination with private developers can be reasonably expected to avoid significant effects from urban decay.

A conclusion about significance of urban decay does not lend itself to a specific methodology or clear-cut, quantitative threshold of significance. The dynamics of the downtown Sacramento economy and the speculative nature of trying to predict the future behavior of building owners necessitate that the conclusion of significance is one that represents a synthesis of understanding the economic parameters of the local retail economy as well as the patterns of land use and re-use in the affected area. In light of these myriad factors, the City's conclusion that the effects of the project on urban decay are less than significant are reasonable and appropriate.

Contrary to the statements by some commenters, the KMA report clearly indicates that through the implementation of revitalization activities, focusing of differentiated retail offerings, development of physical linkages (such as shuttles), development of public amenities (like St. Rose of Lima Park), and the development of downtown residential projects (like the Railyards) the potential urban decay effects of the project and regional retail development can be avoided and/or minimized.

4.19 ALTERNATIVES

4.19.1 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Response to Comment 18-34

The purpose of alternative analysis is to "foster informed decision making and public participation." (CEQA § 15126.6(a)) In this light, the number of alternatives the Draft EIR considered was reasonable to encourage informed decision making and public participation. Commenter is correct that rejecting feasible, environmentally superior alternatives is in violation of CEQA. Public agencies cannot approve projects with significant environmental effects "if there are feasible alternatives or mitigation measures" that can substantially lessen or avoid those effects. (*Mountain Lion Foundation v. Fish & Game Comm'n* (1997) 16 Cal. 4th 105, 134; Pub. Resources Code §21002) On page 8-15 of the Draft EIR, Alternative 3 is identified as the environmentally superior alternative in light of impacts in the vicinity of the Specific Plan Area. However, when considering the environmental impacts beyond the vicinity of the Specific Plan Area, the Draft EIR recognizes that Alternative 3 is not the environmentally superior alternative (Draft EIR, p. 8-15). This conclusion is reinforced by data developed by SACOG through the Sacramento Region Blueprint Transportation and Land Use Study. In that study, SACOG documented that compared to the "business as usual" Base Case (following traditional development patterns in the region), the Preferred Blueprint Scenario (which generally reflected the proposed Railyards Specific Plan) would be environmentally beneficial based on a wide array of parameters, including:

- New urbanized land: 304 acres with the Blueprint compared to 661 acres under the Base Case;
- Loss of important farmlands: 102 acres under the Blueprint compared to 168 acres under the Base Case;
- Exterior water consumption: 67 percent under the Blueprint compared to 100 percent under the Base Case;
- Mode of travel: 84 percent auto under the Blueprint compared to 94 percent auto under the Base Case;
- Vehicle Miles Traveled per day per household: 34.9 miles under the Blueprint compard to 47.2 miles under the Base Case; and
- Vehicle Auto Emissions per capita: 85 percent under the Blueprint compared to 100 percent under the Base Case.[1]

"Projects with a regionally significant impact should consider the regional context." (CEQA §15126.6(f)(1)) [This guideline addresses the factors that may be taken into account when addressing the feasibility of alternatives. This language is relevant to the explanation for why Alt 3 is rejected.]

CEQA's overarching objective in discussing project alternatives is to avoid, where feasible, significant environmental impacts. (Pub. Resources Code § 21002) According to the CEQA guidelines, the Specific Plan is a project of areawide, regional and statewide significance. (CEQA

1 Sacramento Area Council of Governments, *Base Case and Draft Preferred Blueprint Scenario, Key Statistics*, www.sacregionblueprint.org/sacregionblueprint/the_project/discussion_draft_ preferred_ scenario.cfm, accessed October 31, 2007.

§ 15206(b)(2)) If the Draft EIR was to ignore its regional and areawide impacts when considering its environmental impacts and alternatives, the EIR would not be achieving the goal of CEQA. Even project-specific EIRs must consider "regional needs and cumulative impacts." (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 573) The City of Sacramento population is anticipated to increase to 72,000 by 2020. (Draft EIR, Chapter 5; Draft EIR, p. 8-15) Although Alternative 3 would reduce some of the significant and unavoidable environmental impacts of the proposed project with respect to the project site and the immediate vicinity, the reduced building density would require development of those displaced dwelling units elsewhere. (Draft EIR, pp. 8-13, 8-15) This would result in a greater dependence on automobiles, more vehicle miles traveled, and more land converted to urban land uses, resulting in negative environmental impacts. (Draft EIR, p. 8-13) In this context Alternative 3, the Reduced Density/Intensity Alternative, would cause higher overall environmental impacts than the Specific Plan. (Draft EIR, pp. 8-13, 8-15) Therefore the EIR appropriately concluded that the Specific Plan is the environmentally superior alternative (Draft EIR, p. 8-15)

4.19.2 RE-PHASED ALTERNATIVE

Response to Comments 26-27 and 26-37

CEQA Guidelines section 15126.6(a) provides a clear explanation of the primary intent and guidance for selection of alternatives to be evaluated in an EIR, as follows:

> An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decisionmaking and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

The Draft EIR fully evaluated the comparative effects of four alternatives to the proposed project, including: Alternative 1: No Project/No Development Alternative that assumes the existing Specific Plan Area would remain undeveloped with the exception of the existing depot (Intermodal Facility) and the Central Shops structures, currently used to store and repair old train cars; Alternative 2: No Project/General Plan Buildout that assumes that the Plan Area would be redeveloped consistent with the existing land use designations identified in the current General Plan. The No Project/General Plan Buildout Alternative allows for the development of over 9.6 million sf of office, 527,000 sf of retail, 320,000 sf of public/cultural space, 2,800 residential units, and 640 hotel rooms; Alternative 3: the Reduced Density/Reduced Intensity Alternative that would generate approximately 7,400 du, 956,143 sf of retail, 343,700 sf of mixed use, 720 hotel rooms, 1,571,360 sf of office, 339,773 sf of cultural space, and 41.6 acres of open space; and Alternative 4: Water Supply Constrained Alternative that assumes the development of the proposed project would be reduced to an enlarged Initial Phase, which would allow the project to be completed by 2020, when it is anticipated that a potable water treatment capacity deficit may occur within the City without a new Sacramento River diversion and WTP, based on the proposed maximum day demand. At maximum buildout, the Water Supply Constrained Alternative would generate approximately 4,678 du, 1,720,190 sf of retail (including the Central Shops), 491,000 sf of mixed use, 600 hotel rooms, 1,045,200 sf of office, and 35.51 acres of open space by the year 2020.

The EIR did not evaluate an alternative that incorporated an alternative phasing for several reasons. The proposed Specific Plan does not include any specific phasing program. Because the project is not phase, per se, a "rephrased" project does not represent an alternative to the project. Further, both the City and the applicant believe that the future development of the Railyards must respond to

market demands and have purposely not planned for a specific phasing plan. Notwithstanding the lack of a project phasing program, because the EIR, especially the traffic and related analyses, requires the use of specific horizon years for analytical purposes, the Draft EIR presented a set of assumptions about an initial phase of the project that were used in the analysis, as discussed in Chapter 3 of the Draft EIR. While it is important for the reader of the EIR to understand the development assumptions that went into the analysis of Year 2015 conditions and how it differs from the development assumptions that have gone into the year 2025 analysis, those assumptions represent the City's best information as to the pace of development by type in the Railyards area and do not represent a prescribed development phasing program.

Beyond the need to let the market determine the pace and order of development, the applicant has presented the City with documentation that successful marketing of the Railyards as a location for housing will require initial steps to create a sense of "place" through adaptive reuse of the historic Central Shops with cultural and commercial uses surrounded by an intensely developed commercial area with entertainment/restaurant, retail, and residential uses. The creation of the Railyards as a regional destination is anticipated to create the basis for the creation of a market demand for housing at a variety of medium to high densities throughout the remainder of the Railyards.

For these reasons, the City does not believe that an alternative that is based on a strategic rephasing of the order and pace of development with the intent to avoid interim short-term environmental and economic effects is either feasible or consistent with the major objectives of the project pursuant to CEQA Guidelines section 15126.6 (c).. The City has been engaged in replanning of the Railyards for about 20 years. The 1988 City of Sacramento General Plan had this to say about the Railyards:

> The 260 acre Railyards Area is largely vacant and under single ownership. Its reuse is planned as a mixture of office, commercial, residential, cultural and community-oriented uses that will provide a seamless extension of the downtown fabric, and provide new open space and recreational opportunities. The extension of light rail service and the creation of a "state of the art" intermodal transportation terminal within the development will enhance the viability of rail and promote transit as a convenient alternative to the automobile. At full buildout, the Railyards Area will support 42,000 jobs and a new residential neighborhood of 2,800 residential units.[2]

The City does not believe that policies that would restrict the pace and order of development that would otherwise be allowable and supportable by infrastructure in the proposed project constitute a feasible alternative for consideration in the EIR.

Furthermore, re-phasing of the project would only change the timing of impacts but ultimately because the full project would still be built out and would not reduce or eliminate any of the significant impacts.

4.19.3 URBAN DECAY EFFECTS OF ALTERNATIVES

Response to Comments 26-35 and 26-36

As is discussed under section 5.18, Other CEQA Required Considerations, the urban decay effects of the proposed project are considered by the City to be less than significant. As such, there is not a requirement under CEQA to seek an alternative that would avoid the effects of the project. However, it is clear that the four alternatives evaluated in the Draft EIR would include varying amounts of commercial/retail space, ranging from a low of 527,000 sf under Alternative 2 to 1,244,800 sf under Alternative 4. The alternatives would also result in the construction of a varying

2 City of Sacramento, *General Plan*, Adopted January 19, 1988, Reflects Amendments through 2002, page 1-18.

number of residential units, ranging from 2,800 under Alternative 2 to 7,400 units under Alternative 3.

Presuming the same mix of commercial use types, that the lesser the amount of commercial/retail space included in each alternative less competitive space would be available in the marketplace that would compete with existing downtown retailers. However, even Alternative 2 would represent about 10 percent of downtown commercial space. It should also be noted that the alternatives include substantially lower levels of residential development, which would reduce the demand for commercial/retail space both in the Railyards and in other commercial areas in the Downtown area. In terms of the trade areas, by 2015 the Primary Trade Area is anticipated to grow by over five (5) million sf and the Regional Trade Area is anticipated to grow by over 14 million sf. In that light, the conclusion of the urban decay analysis contained in Appendix N is that "with or without the proposed Railyards project," in 2015 there would be an excess of comparison retail space in the Regional Trade Area and the Primary Trade Area, and a slight excess of Eating and Drinking space. By 2025, the demand for space is expected to increase sufficiently to meet the space supply that is currently proposed. Based on a review of the market analysis for the Downtown, Primary Trade Area, and Regional Trade Area, it does not appear that the differing levels of retail space in the proposed project would make a material difference in the conclusions of the urban decay analysis.

5.0 COMMENT LETTER RESPONSES

LETTER 1

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

RECEIVED
OCT 10 2007

October 5, 2007

Scott Johnson
City of Sacramento
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

Subject: Railyards Specific Plan
SCH#: 2006032058

Dear Scott Johnson:

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 October 4, 2007, 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

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

LETTER 1

Document Details Report
State Clearinghouse Data Base

SCH# 2006032058
Project Title Railyards Specific Plan
Lead Agency Sacramento, City of

Type EIR Draft EIR

Description The project would involve the development of between 10,000 and 12,500 dwelling units, 1,384,800 square feet of retail, 491,000 square feet of mixed use, 1,100 hotel rooms, 2,337,200 square feet of office, 485,390 square feet of historic/cultural space, and 41.16 acres of open space. The project would include low-, medium-, and high-rise single use and mixed use residential, retail, office, and hotel structures. The project also provides cultural/recreational facilities, public parks and walkways, and a performing arts and education center. The project would develop public streets with vehicular, bicycle, and pedestrian access, aboveground and subgrade parking facilities and above surface and subsurface energy, water, wastewater, and drainage infrastructure and facilities. The project would also include approximately 32 acres designated for the development of the Sacramento Intermodal Transit Facility, which would provide multiple modes of public transit service including bus, rail, light rail, and passenger auto. The proposed project would also involve the realignment of the tracks running from 3rd Street to 7th Street for use by Amtrak, Union Pacific, Sacramento Regional Transit, and the potential future construction of a regional high speed rail.

Lead Agency Contact

Name Scott Johnson
Agency City of Sacramento
Phone (916) 808-5842 **Fax**
email
Address 2101 Arena Boulevard, Suite 200
City Sacramento **State** CA **Zip** 95834

Project Location

County Sacramento
City Sacramento
Region
Cross Streets I Street and 5th Street
Parcel No. 001-0210-013, 016; 002-0010-018, 019, 025, 035, 036, 037, 038, 039, 041, 043
Township **Range** **Section** **Base**

Proximity to:

Highways I-5 and SR 160
Airports Sacramento International
Railways UPRR
Waterways Sacramento River, American River
Schools
Land Use General Plan: Special Planning District; Central City Community Plan: Parks/Open Space, Riverfront Commercial Recreational, Central Shops Historical District, Residential Mixed Use, Downtown Commercial Mixed Use, Transit Oriented Commercial Mixed Use, Public Utilities, and Transportation/Rail Intermodal.

Zoning: Heavy Industrial [M-2-T-SPD, M-2-SPD(C), and M-2-SPD (W)], Transportation Corridor (TC-SPD), Central Business District (C-3-SPD), and Office (OB-SPD); Overlay Zones: Residential Mixed Use (RMUD), Downtown Commercial Mixed Use (CMUD-1), Transit-oriented Commercial Mixed Use (CMUD-2), Central Shops (CSD), Riverfront Commercial Recreational (RCRD), Corridor/Rail Intermodal Terminal (TR), Parks and Open Space (OS), and Public Utilities (PU).

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

LETTER 1

Document Details Report
State Clearinghouse Data Base

Project Issues	Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Landuse; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wildlife
Reviewing Agencies	Resources Agency; Regional Water Quality Control Bd., Region 5 (Sacramento); Department of Parks and Recreation; Native American Heritage Commission; Public Utilities Commission; Reclamation Board; Office of Historic Preservation; Department of Housing and Community Development; Department of Fish and Game, Region 2; Department of Conservation; California Highway Patrol; Caltrans, District 3; Caltrans, Division of Aeronautics; Air Resources Board, Transportation Projects; Caltrans, Division of Transportation Planning; State Lands Commission; Department of Toxic Substances Control; Department of Water Resources

Date Received 08/20/2007 ***Start of Review*** 08/20/2007 ***End of Review*** 10/04/2007

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

LETTER 2

UNITED STATES DISTRICT COURT
Eastern District of California
Office of the Clerk
501 "I" Street, Suite 4-200
Sacramento, California 95814-7300
Phone: 916-930-4000
Fax: 916-930-4015
Website: www.caed.uscourts.gov

Victoria C. Minor
Clerk

Divisional Office:
2500 Tulare Street, Room 1501
Fresno, California 93721

Marianne Matherly
Chief Deputy Clerk

VIA E-MAIL

October 3, 2007

Scott Johnson
City of Sacramento
915 I Street
Sacramento, CA 95814
srjohnson@cityofsacramento.org

Re: Sacramento Railyards Draft EIR: Comments

Dear Mr. Johnson:

As members of the community that takes a special interest in the Robert T. Matsui Federal Courthouse, we are writing with the following comments on the Draft EIR for the proposed Railyards project as embodied in the Railyards Specific Plan (the DEIR).

As you may know, since at least as early as September 2003, friends of the federal courthouse have been communicating with representatives of the City of Sacramento, Regional Transit, and representatives of those intending to develop the railyards property. The purpose of our communications has been to ensure that all concerned are aware of certain parameters prescribed by the railyards' proximity to the federal courthouse. In particular, we have done our best to make certain that those with the ability to shape the railyards development in its final form appreciate the opportunity they have to create an environment that does not exhibit inherently unacceptable safety and security flaws. We believe with foresight and proper planning, such flaws can be avoided. Our comments on the DEIR are consistent with this philosophy and comments we have made previously.

Relocation of UP Mainline. We understand the DEIR assumes that under any development scenario, the Union Pacific main tracks will be relocated so as to run roughly through the middle of the railyards property. After relocation, these tracks will lie at the closest approximately 680 feet from the courthouse, measured from the corner of 5th and H Streets. See, e.g., DEIR, Figures 3-5, 3-7; see also Sacramento Railyards Specific Plan (SRSP), pages 92-94. This relocation will address

2-1

one of our primary concerns, namely security and the desirability of a perimeter buffer zone around the courthouse. As long as our understanding regarding this matter is correct, we do not have any comments on this aspect of the project as set forth in the DEIR. 2-1 (con't.)

Relocation of Regional Transit Line. Based on information provided by Regional Transit, we understand the Regional Transit line that currently runs in the north lane of H Street between 5th and 6th Streets will be relocated, as railyards development proceeds, such that it will run on the land north of and completely off of H Street; any additional tracks planned for this vicinity will be located even further northward. In connection with track relocation and expansion of light rail service serving the area, any new light rail station will be located well within the railyards property, with the closest edge of any station positioned approximately 300 yards from the corner of 5th and H Streets. Based on information provided by City of Sacramento staff, we understand that the maps and plans evaluated in the DEIR do not correctly reflect the ultimate alignment of the Regional Transit line in the area of H Street as described here. See, e.g., DEIR, Chapter 6.12 (and particularly page 6.12-29); SRSP, pages 87-88, 96. Therefore, we request that the final EIR reflect the correct alignment. 2-2

Our preference is for any light rail lines to be located even further away from the courthouse than as currently planned, to fully address our security concerns. Therefore, we request that alternative light rail alignments, providing a greater buffer between light rail lines and the courthouse, be considered in the Alternatives section of the final EIR.

Traffic Routing and Management. Based on information provided recently by City staff, we understand that several features of the proposed railyards development plan will help alleviate bottlenecking of traffic and eliminate bus traffic at and around the corner of 5th and H Streets. While not all of these features are fully depicted in the Specific Plan or identified in the DEIR, we understand they do represent assumptions on which the DEIR's analyses are based. Specifically, these features include: the incorporation of a grid style street system throughout the development, allowing traffic to connect through to the Richards Boulevard area; the restoration of 5th Street as a one way street with traffic north of I Street flowing north; the construction of a signalized driveway at 4th and I Streets and the extension of 3rd Street from I Street into the west end of the depot, both in the 2007-2012 time frame, providing additional ingress and egress for traffic and particularly bus traffic accessing the area serving the train depot. See, e.g., DEIR, Chapter 6-12; SRSP, pages 73-98 (assumptions not made express). All of these features address concerns we have been articulating for several years now; therefore we appreciate their inclusion as key assumptions of the proposed development. Given our understanding that they are key assumptions, we have no additional comment on transportation components of the DEIR. 2-3

Open Space. For some time now, we have been requesting that the area located directly across 5th Street from the courthouse plaza, at 5th and I Streets, incorporate an open space element to complement and extend the plaza, and serve as a gateway to the railyards area. We understand this area is not the subject of any development proposal currently as part of the railyards project, or by the owners of the underlying land. See, e.g., DEIR, Figure 3-5 (carving this parcel out of area covered by DEIR); see also id., Chapter 9. Nevertheless, given that contiguous land is covered by 2-4

the DEIR, we request that special attention be paid to the nature of uses proposed for the contiguous land, and that any such uses be compatible with a signature gateway space at the corner of 5th and I. We also specifically request that the project's design guidelines be amended to identify the intersection at 5th and I as a "key intersection." See Sacramento Railyards Design Guidelines, page 4-55. To the extent uses compatible with a signature gateway space need to be identified in the Alternatives section of a final EIR, we request such identification be explicit and fully evaluated.

2-4 (con't.)

Building Height and Design Standards. As we have shared with representatives of the City and private sector interests in the past, our security concerns extend to the design and orientation of buildings constructed in close proximity to the courthouse. Specifically, building height, roof access and viewshed issues, among others, may require assessment by security professionals and coordination with the U.S. Marshals Service. The need for taking courthouse security into account needs to be acknowledged in any final EIR, as it does not appear to be incorporated into the DEIR. See, e.g., DEIR, Chapter 6-13; cf. SRSP, pages 54-56.

2-5

Thank you for your attention to our comments. We look forward to reviewing the final EIR when it is issued.

Sincerely,

Victoria C. Minor

Victoria Minor
Clerk of Court

Lance Olson, Esq.
Member, Federal Bar Association

cc: Nathan Dietrich, District Director for Congresswoman Doris Matsui
Chief Judge Garland E. Burrell, Jr.
All Sacramento Judges
United States Attorney McGregor W. Scott
United States Marshal Antonio Amador
James Kane, GSA Pacific Rim Region

LETTER 3

U.S. Department of Justice

United States Marshals Service

Eastern District of California

Sacramento, CA 95814-2322

via e-mail

October 2, 2007

Scott Johnson
Principal Planner
City of Sacramento
915 I Street, City Hall
Sacramento, CA 95814
srjohnson@cityofsacramento.org

Re: Public Comment on the Draft Environmental Impact Report for the Proposed Sacramento Railyards Project

Dear Mr. Johnson:

As citizens of Sacramento we are excited to see the Railyard developed although, from a building security perspective we have some concerns about risk factors. One, of course, is the setback and others are building heights and potential risks associated with traffic and congestion.

The Robert T. Matsui Federal Courthouse is a Level IV facility.[1] As a Level IV facility the recommended minimum standard for perimeter security protection is at least a fifty-foot setback to protect the building from bomb blasts and firearms.[2] Currently, the Regional Transit (RT) tracks accommodated this with a fifty-foot setback with no expected modifications in the Sacramento Railyards Design Guidelines. We would prefer relocating the RT tracks adjacent to the new Union Pacific (UP) tracks creating a 680-foot setback. This would help mitigate two perimeter security risks - a greater setback of the trains and reducing the potential risks associated traffic and congestion. 3-1

Dr. Beverly Scott, then General Manager for the RT, conveyed the RT tracks running along H Street between 5th and 6th Streets would be relocated north during initial meetings in 2006. Dr. Scott's assurance of the temporary condition of the tracks led us to believe that the risk factor of having tracks running next to a federal courthouse would ultimately be resolved in our favor. I strongly object to your intention of adding more traffic and an additional track to the line. A reminder of the explosions in Madrid, Spain in 2004 coupled with the lack of security checks for passengers on trains especially an RT train only adds to our concerns.

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[1] United States Department of Justice, *Vulnerability Assessment of Federal Facilities*, June 28, 1995.

[2] Interagency Security Committee (ISC), *Security Design Criteria for New Federal Office Buildings and Major Modernization Projects*, September 2004.

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Re: Public Comment on the Draft Environmental Impact Report for the Proposed Sacramento Railyard Project

October 2, 2007

The current proposal includes building a multiple use facility directly across the street from the federal courthouse on H Street. This has the potential of creating a line-of-sight risk if the structure is above six stories. Although, federal guidelines have yet to limit adjacent building heights specifically, they have learned lessons from the killing of Judge Chuck Weller. In June 2006, Judge Weller was shot and killed through his third story office window at the Washoe County Courthouse in Reno, Nevada. Line-of-sight risks are concerns and any structure above six stories in a two-block radius of the federal courthouse would be a serious security risk.

The line-of-sight risk might be mitigated if another government organization were to build a facility or house the adjacent building to the federal courthouse. At the September 19, 2007, meeting with City and RT staff, they brought to our attention the Sacramento County Superior Courts were considering additional facilities. If the county courts were housed across the street from the federal courthouse on H Street, this could lower security risk factors and create an additional layer of physical security.

Our final security risk factor is the vehicle and foot traffic and congestion in the vicinity of the courthouse. We have seen a tremendous increase in traffic since the completion of the train station and shops. And, we understand with growth traffic and congestion will continue to increase. Our primary concerns are the buses and trucks which will be entering the train station area and using 5th Street to gain access to the Railyard development. We support your plan to manage traffic around the courthouse, specifically - restoring 5th Street to a one way northbound street, constructing a signalized driveway at 4th and I Streets, and strongly support the extension of 3rd Street into the train station for bus traffic. It is imperative street parking continue to be prohibited on 5th Street and the surrounding areas and aggressive traffic enforcement be imposed.

These security risk factors have been expressed for several years. Therefore, we appreciate their inclusion as assumptions of this proposed development or any future proposals. Thank you for this opportunity to express our comments please feel free to contact me for any further assistance.

3-1 (con't.)

Sincerely,

Antonio C. Amador

Antonio C. Amador
United States Marshal

LETTER 4

Linda S. Adams
Secretary for
Environmental Protection

Department of Toxic Substances Control

Maureen F. Gorsen, Director
8800 Cal Center Drive
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Arnold Schwarzenegger
Governor

October 3, 2007

Mr. Scott Johnson
Associate Planner
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North Permit Center
2101 Arena Blvd., Suite 200
Sacramento, California 95834

DTSC RECEIPT AND REVIEW OF THE RAILYARDS SPECIFIC PLAN, DRAFT ENNVIRONMENTAL IMPACT REPORT (AUGUST 2007)

Mr. Johnson:

Department of Toxic Substances Control (DTSC) staff have received and reviewed the August 2007 *Railyards Specific Plan, Draft Environmental Impact Report* (Draft EIR), prepared for the City of Sacramento by PBS&J/EIP. DTSC provides the following recommendations for revision of the document into Final EIR:

1. Page 6.5-8. The term "volatize" is used to describe volatile organic compounds. The correct term should be "volatilize". 4-1

2. Page 6.5-12. This section makes multiple references to onsite soils to be used as foundation material beneath an engineered cover in the Northwest Corner (Lagoon Study Area) Soil Cap (Proposed "Vista Park") as "inert" soils. The inert classification in this case is a regulatory term which refers to the ability of the soils to impact groundwater. The term's usage in this section could be interpreted to suggest the soils are non-hazardous, when in fact they may contain concentrations of lead and other substances that would be hazardous if directly exposed to people or the environment. The final engineered cap for the structure will be designed to prevent direct exposure to people or the environment. The soils may more accurately be described as "contaminated soils". 4-2

3. Page 6.5-29. A new item should be added to the description of deed restriction components 1-4 on this page. The item should provide recognition that residential uses are permitted with additional measures that mitigate the risks of residual contaminants. 4-3

4. Page 6.5-30. This section should acknowledge that porous utility lines may also be conduits for volatile contaminants in soil vapor, in addition to groundwater. 4-4

5. Pages 6.5-30 and 6.5-31. Item (e) on page 6.5-31 should be reworded to state that where applicable, building design requirements will also prevent the intrusion of subsurface vapors into buildings and enclosed spaces, in addition to preventing their buildup. 4-5

6. Page 6.5-31. Section 6.5-4 ("Construction of site features such as infrastructure and buildings could interfere with remediation efforts") evaluates the impacts of site construction on existing remediation systems. This section should be revised to include or reference the evaluation of proposed development impacts on planned and anticipated remediation systems, particularly remediation efforts for soil vapor and groundwater near the Central Shops area which require below-grade plumbing and above-grade treatment systems. The EIR should also acknowledge that accommodations for equipment and access for long-term O&M of the remedy systems will be necessary. 4-6

If you have any questions regarding this letter or the attached documents, please contact Paul Carpenter at (916) 255-6534.

Sincerely,

Fernando Amador, PE
Sacramento, Responsible Party Unit

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STATE OF CALIFORNIA - THE RESOURCES AGENCY
Arnold Schwarzenegger, Governor

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October 3, 2007

Scott Johnson
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Railyards Specific Plan Draft Environmental Impact Report (DEIR) # 2006032058

- sent by facsimile (916) 566-3968 and United States Postal Service -

Dear Mr. Johnson:

The State Office of Historic Preservation (OHP) has broad responsibility for the implementation of federal and state historic preservation programs in California. We thank you for the opportunity to comment on the above project. Our main concern with the document are its inadequate and deferred resource identification and inadequate impact analysis and mitigation measures which presume to mitigate all impacts below a level of significance at the program level. The DEIR has not determined what the historical resource(s) is for purposes of CEQA. 5-1

The Railyards Specific Plan (the project) is a program EIR and is anticipated to be the primary environmental document for the project implementation of the Specific Plan within the Specific Plan Area. Developments requiring further discretionary approvals will be examined in the light of this EIR and determined whether additional environmental review must occur. Development projects which are found to be consistent with the principles, goals, and policies and not requiring further discretionary approvals will not undergo further environmental review. Projects which raise environmental issues that could not have been anticipated in this EIR due to specific characteristics of project design or other factors, may be subject to further CEQA documentation as deemed appropriate by the City as the lead agency. (DEIR 1-3)

The project is a Specific Plan which is a land use plan and development program proposing to guide the physical development in the Specific Plan Area. Upon approval, the policy document, the Specific Plan, will be implemented by a new Special Planning District Ordinance (SPD), Design Guidelines, and a Central Shops Historic District Ordinance. While the SPD will establish the zoning, the Historic District Ordinance "will identify contributing resources and character-defining features and utilize development standards pursuant to Chapter 17.134 of the Sacramento Municipal Code." (Sacramento Railyards Specific Plan public review Draft, 8/20/2007, 1) 5-2

We believe that the two ordinances, the SPD and the Central Shops Historic District Ordinance, are part of the project (project as a whole) and, therefore, should be

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circulated as part of the DEIR for public review. If you are in the process of crafting these documents, please circulate copies of the draft ordinances for review. If the ordinances are not circulated as part of the Railyards project, please let us know whether these ordinances will undergo a project-level environmental review under CEQA or let us know the City's standard practice.

5-2 (con't.)

According to CEQA, as part of a program EIR those probable environmental effects that can be identified should be identified. For those environmental effects that cannot be predicted without undue speculation or for which deferrals or specific analysis is appropriate an agency can defer such analysis until later points in the program approval or implementation process.

However, in order to make informed decisions in the EIR analysis at the program level, without requiring further environmental review at the project level, the environmental setting, the baseline, for a project has to be clearly identified. The document has to say what is there, what the resources are; there is a need to define them and a need to determine their significance through appropriate evaluation. There has to be a sufficient level of documentation supporting how conclusions were reached following established guidelines and practices. The environmental setting for this project is the former Southern Pacific (SP) Railyards with many extant structures and buildings and features on 244 acres. The environmental setting for this project is made up of historical and archeological resources, both pre-historic and historical deposits. These general resources are currently there and known; therefore we do not believe that undue speculation or deferral of analysis is defensible at the program level. An unambiguous identification of historical and archeological resources and their significance, with mitigation measures that include resource preservation and avoidance at the program level, pursuant to CEQA has to occur if no further environmental review at the project level is intended for projects conforming to the goals of the Specific Plan.

5-3

Here is a list of our concerns:

Historical resources:

It is not clear from the DEIR what the historical resources are for purposes of CEQA. Pursuant to CEQA a lead agency is required to make independent findings whether a resource is a historical resource (PRC 21084.1; CEQA Guidelines § 15064.5), whether this resource is significant using the criteria of the California Register of Historical Resources (CRHR) for evaluation, and whether the project, in this case the implementation of the Specific Plan, would cause a substantial adverse change in the significance of the resource(s).

5-4

The DEIR identifies the Central Shops buildings as the historical resource, (as a Historic District), encompassing the buildings only. How the City arrived at this conclusion is not clear. It is not clear how many resources and features are actually part of this district, or what the contributors and non-contributors are. Neither is it clear what the period of significance is for the resource, which historical contexts were used in evaluating the district, whether the resource is significant under California Register

5-5

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criteria 1, 2, 3 & 4 or any combination of these and, lastly, how the boundary for the district (5 feet beyond the building foot prints) was drawn.

According to the DEIR, "Historic Environment Consultants (HEC) concluded in 1998 that nine buildings and structures in the former Southern Pacific railyard appeared to meet the criteria for listing in the NRHP as an Historic District, and the City of Sacramento subsequently adopted those findings in the previous Railyards Special Planning District." (DEIR 6.3-49) The HEC 1998 evaluation did not provide a justification for the boundaries shown for the district nor did it provide a description of the character-defining features of the buildings in the district but the City adopted those findings for the previous Railyards Special Planning District with those "general" boundaries as the historical resource.

Has the DEIR adopted the resource count from the HRC report, but not the district boundary? There is no clear review of the many previous reports, including a HABS/HAER recordation of the Central Pacific Railroad Company Sacramento Shops (2002) which is one of the historic resource inventories that have occurred over the years; there are only summary statements. The most recent report, the Historical Report by Architectural Resources Group (ARG) in 2006 focuses on an overview of the history of the Central Shops site together with brief descriptions of five or six buildings: the Car Machine Shop, the Planing Mill and Privy, Car Shop No. 3, the Blacksmith Shop, and the Paint Shop. "The emphasis of the report is the facades and interiors of the six buildings mentioned above with emphasis on their history and their existing conditions." (ARG Historical Report, 8-11-2006, 1)

5-5 (con't.)

The DEIR states that the ARG report provides the most detailed description of character-defining features of the "historical resource." However, the report excludes from its scope of examination four other buildings and structures such as the Erecting Shop, the Boiler Shop, the Turntable, and the Water Tower. While the Specific Plan calls these four buildings and structures historic resources (Figure 9-1), it is not clear whether they are part of the district in addition to other contributing structures and features of the Railyards historic district?

The DEIR should have a clear description of ALL buildings, structures; including objects, sites and features, including landscapes, street-and hard-scapes, poles, rail lines and other district character defining features which clearly contribute to the setting, feeling, location, design, materials, association and workmanship. The DEIR should clearly state what the boundaries for the resource are. There is no documented justification how the boundaries for the district were determined or which resources and features are part of the district. It is the responsibility of the City to make this determination in the DEIR.

The boundaries for the Central Shops Historic District, as identified in the Sacramento Railyards Specific Plan, do not appear to comply with federal guidelines as defined in the National Register Bulletin: Defining Boundaries for National Register Properties

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(National Register Bulletin No. 21). Additional guidance is also provided in National Register Bulletin: How to Complete the National Register Registration form (National Register Bulletin No. 16A). In California the guidelines apply to both the National Register of Historic Places and the California Register of Historical Resources.

The Bulletins state boundaries should be carefully drawn to encompass, but not exceed the full extent of the significant resources and land area making up the property. All historic features of the property should be included. Buffer zones and acreage not directly contributing to the significance of the property should be excluded. Peripheral areas that no longer retain integrity due to alterations in physical conditions or setting caused by human forces, such as development, or natural forces, such as erosion should be excluded. Small areas that are disturbed or lack significance when they are completely surrounded by eligible resources should be included. "Donut holes" are not allowed.

Bulletin No. 21 additionally states:

> Owner objections may affect the listing of the entire property, but not the identification of the boundaries....Boundaries are based on an objective assessment of the full extent of the significant resources.
>
> Boundaries should include surrounding land that contributes to the significance of the resources by functioning as the setting. This setting is an integral part of the eligible property and should be identified when boundaries are selected. For example, do not limit the property to the footprint of the building, but include its yard or grounds.

5-5 (con't.)

The proposed boundaries for the Central Shops Historic District are too tightly drawn around buildings; in some cases, simply around building footprints. Based on National Register standards and guidelines, which apply to both the National Register and the California Register, boundaries must encompass setting. Setting is the physical environment of a historic property. It refers to the character of the place in which the property played its historic role. It involves how the property is situated and its relationship to surrounding features and open space.

The proposed boundaries for the Central Shops Historic District do not include an adequate setting, or physical environment based on National Register guidelines. Therefore, the determination of the historical resources in the DEIR is inadequate calling into question any impact determination and proposed mitigation measures.

Other Historical Resource issues:

- It is not clear what will be retained, moved, or demolished (Water-Tower; Turn Table, etc.) 5-6
- Impact analysis from the UPPR main line tracks relocation to within 45 feet of the Historic District (the Shops) is lacking. There is no discussion of the potential 5-7

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indirect impacts to buildings, the setting, from noise, etc. that could arise from the move. The DEIR only considers the impacts to the Sacramento Depot and the REA building, but not to the Historic District. It concludes that the use of the Secretary of Interior Standards would mitigate adverse impacts to the Depot to less than significant. We believe that the use of the Standards cannot mitigate these impacts. 5-7 (con't.)

- Vibration Study (Appendix K – 8): This analysis focused ONLY on buildings with vibration sensitive land use, that is, only on those buildings planned for exhibit use at the potential Museum of Railroad Technology. The study did not include buildings planned for retail and office use. But all the buildings in the proposed historic district are of unreinforced masonry. A vibration study should include ALL buildings not from a land use perspective but from an architectural perspective. The potential vibration impacts from trains rumbling by the buildings in the historic districts have not been addressed in the DEIR. (The buildings in the historic district are the resource, not the land use.) Moreover, the relocation of the tracks anticipates that the freight track line is the one running closest to the Historic District with the potential of a third freight track to be added. "Two freight tracks, one of each side of the corridor would be developed with the possibilities of adding a third freight track on the north side of the corridor." (DEIR 3.43) There is no evaluation of the increased potential for an adverse impact resulting from vibrations, noise, dirt, etc. We believe that this is an inadequate level of analysis. 5-8

- The I-Street approach has not been evaluated for the California Register 5-9

- Inadequate level of resource identification and conflicting determinations of whether the Pioneer/Sperry Mill is an historical resource: "based on the information available it appears unlikely that this building currently retains sufficient historic integrity to convey historical significance, if any. Therefore, the remnant portion of the Pioneer/ Sperry Mill does not appear to be an historical resource for purposes of CEQA". (DEIR 6.3-54) Where is the evaluation that has led to his conclusion? The Archeology Report by Anthropological Studies Center at Sonoma State University (ASC) considers the Pioneer Sperry Mill to have potential for industrial features. (Appendix G-47) 5-10

- Inadequate resource identification at the program level for the First Transcontinental Railroad route, California Landmark 780: the DEIR says "that it is not anticipated that the Specific Plan would have any impact to physical features of California Landmark 780, and its route located outside the Specific Plan Area. It is unclear whether any physical structures remain (on the surface), beyond what is part of the Central Shops, that retain enough integrity to convey the significance of the resource." (DEIR 6.3-54)The deferral of the identification of a known extant resource is not defensible; rather the identification of a resource and the evaluation of its significance is required in order to develop mitigation measures which include, pursuant to CEQA, preservation in place, 5-11

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resource avoidance through project change before recordation and interpretation as presented in the DEIR. 5-11 (con't.)

- The Sacramento Depot: since there is no definitive statement of the boundaries of the property and a clear listing of the contributing or non-contributing elements. Therefore, the impacts to the resource cannot be clearly determined and the statement that the use of the Secretary of Interior Standards would mitigate project impacts (relocation of tracks) below a level of significance is unsupported. 5-12

- Mitigation measures: proposed nomination for listing of the Central Shops as a local historic district and preparation of a historic district plan: Mitigation Measure 6.3-2 suggests preparation of a Historic District Plan "consistent with the City's Historic Preservation Ordinance." To be consistent with the city's ordinance, however, the historic district would need to be formally adopted as a historic district. Developing a plan does nothing to protect historic resources; adoption of the historic district under the city's ordinance, and adoption of a local "historic district plan" would begin to offer some degree of protection and mitigation. Moreover, there is no guarantee that the Central Shops Historic District will be added to the City's Register. That is an action that may or may not take place. 5-13

- Interior spaces of the Central Shops: there is no description of the interior spaces and what remains that relates to the manufacturing process of the Railyards Shops. This represents an insufficient level of documentation. Any impacts from the project including proposed rehabilitation for other uses could have a potential to adversely impact historical resources which are significant for the history of technology/industry. 5-14

Archeology:
CEQA requires the lead agency to determine whether the project would cause a substantial adverse change in the significance of an archeological resource and whether the project could disturb any human remains, including those interred outside formal cemeteries. Moreover, public agencies should, whenever, feasible, seek to avoid damaging effects on any historical resource of an archeological nature. CEQA requires consideration and discussion of preservation of the archeological resources in an EIR for a project. This includes, for example, resource avoidance, incorporation of sites within parks or open space, site capping, conservation easements and data recovery as the last option. (CEQA Guidelines § 15064.5 & 15126.4 (b)) We are very concerned that given the documented sensitive areas with high probabilities of subsurface deposits of a prehistoric and historic archeological nature, (the DEIR defines six Archeological Sensitive Areas (ASA)), the City has deferred any testing and any required evaluation of resources. Furthermore, the only mitigation measures which the DEIR proposes are data recovery, based on an assumption that any archeological resource within the Railyards Specific Plan area would only be significant under criterion 4 for its data potential. There is no discussion of preservation in place, or avoidance of archeological resources as is required by CEQA in the EIR process. This is inadequate. 5-15

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The current archaeological inventory that was done for the EIR equates to a Class I survey. This is a literature review with no corroborating fieldwork. The City's identification efforts are presently incomplete. The City has done the kind of background literature and archival research that typically supports identification Class I investigation, and promises to conclude its identification efforts, without benefit of further public input, at an unspecified point in time prior to the construction of individual projects. The testing protocol, in its present form proposed in the DEIR, is inappropriately vague. The testing protocol should be much more specific and needs to explicitly state what the timing of identification phase excavations will be relative to the onset of the construction of individual project phases, and needs to either provide for a process of public input on the identification phase excavation strategy for each individual project or be far more explicit about the typical excavation strategy for the areas of the individual Railyards projects that will be subject to ground disturbance, and, similarly, either provide for subsequent public input into evaluation and data recovery phase strategies, or develop explicit protocols for those types of investigation.

The DEIR proposes what is often referred to in the Cultural Resource Management (CRM) industry as a "compressed" approach to identification, evaluation, and data recovery (Appendix G-70). This office does not believe that such an approach is indicated for the implementation of the Specific Plan and its proposed physical development of the SP Railyards property. While this office would agree that "it is usually most efficient to collapse the identification, evaluation, and, if necessary, data-recovery phases into a single operation," we also believe that such efficiency can easily conflict with a more sound historic preservation policy. The archaeological deposits in the Railyards Specific Plan area that will be impacted and potentially destroyed with the implementation of this Specific Plan, have the potential to provide unique and significant information on prehistoric through early historic Native American cultures, the early Gold Rush period, the development of the Transcontinental Railroad, the interrelationship of different ethnic communities in early Sacramento, and the development of one of the largest industrial complexes on the West Coast. But beyond the deposits' potential information value, they may also have associative values, religious or cultural significance to regional Native American groups and ethnic communities. If so, these values will also have to be taken into consideration and they appear to not have been addressed in this DEIR.

5-15 (con't.)

Moreover, the archaeological deposits in the Railyards Specific Plan area may contribute to the California Register of Historical Resources eligibility of some of the built environment resources in the project area. There is no evidence of this consideration in the DEIR.

We strongly recommend that the identification and evaluation phases of the historical resources in the Railyards Specific Plan Area should be dealt with in discrete phases well in advance of the construction of each individual Railyards project, so that if it should become necessary, the City will be enabled to develop and negotiate more thoughtful and meaningful mitigation solutions to the projects' destruction of significant archaeological deposits. A second option, one that this office prefers, is to conduct

LETTER 5

discrete identification and evaluation phases for the entire Railyards development area. This would permit the more efficient, better coordinated management of the historical resources in the project area. The preservation liability for each development parcel in the Railyards would become a known parameter and substantially reduce the incidence of construction delays.

The OHP believes that the *Preliminary Research Framework* sections of Appendix G are too vague to be appropriate for the evaluation of historical resources on the ground, or as the last draft available for public input. The City needs to either revise the preliminary framework to refine research themes and questions that are demonstrably in the public interest to address, or provide for an explicit evaluation protocol that would provide for public input, subsequent to the certification of the EIR, and in conjunction with each of the individual Railyards projects. 5-16

General Comments:
CEQA requires the circulation of supporting materials for meaningful comment. Not circulated for public review is the ARG report. Also, the summary statements of the previous studies relating to the Railyards are inadequate since they do not provide for meaningful public comment as is required by CEQA. Information that is incorporated by reference, "shall be considered to be set forth in full as part of the text of the EIR.The EIR. . . shall state where the incorporated documents will be available for inspection." (CEQA Guidelines § 15150(a) (b))

There appears to be an assumption on the part of the City that a local level designation of a historical resource would provide a path for National Register eligibility to obtain federal tax credits in the future. Firstly, we want to reiterate that local designation has not yet occurred. Secondly, it is an erroneous assumption because the National Register eligibility criteria are not the same as those used for local designation to the Sacramento Register. This assumption potentially jeopardizes the future eligibility of any buildings for tax credits. 5-17

In addition, this office will likely review the project or a portion of the project once again, under Section 106 of the National Preservation Act, for a 404 permit required from the Corps of Engineers or for any federal permit required in conjunction with the proposed moving of the railroad tracks. Information provided for this project under CEQA should be consistent with Federal environmental requirements that will be required. 5-18

In summary, the DEIR asserts that there are no impacts to historical resources of an adverse nature that cannot be mitigated below a level of significance. However, as we pointed out in this letter this is not supported. There are many deficiencies in the analysis of this DEIR; there is less than a sufficient level of resource identification and evaluation rendering the baseline assumed for this project inadequate. The program EIR has not fully analyzed the effects of the project, the effects of the implementation of the Specific Plan.

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Again, we thank you for the opportunity to comment on the above project. Please understand that our comments herein are specifically related to the environmental review process and adequacy of documents prepared for the environmental review purposes. We do not take positions in support of or against projects, but rather focus on the environmental review process itself.

If you have any further questions, please don't hesitate to contact me at (916) 653-7113 or at mwdonaldson@parks.ca.gov or Michelle C. Messinger, Historian II, CEQA Coordinator Local Government Unit at (916) 653-5099 or at mmessinger@parks.ca.gov.

Sincerely,

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

CC: Paul Romero,Chief Deputy Director, California State Parks
Cathy Taylor, Superintendent, Sacramento History & Railroad Sector, California State Parks
Linda K. Whitney, President, Sacramento Old City Association
Susan Ballew, President, Sacramento County Historical Society
Robert Wilson, President, Sacramento Trust for Historic Preservation
Robert J. Slobe, Chairman, California State Railroad Museum Foundation
Gregory Bitter, Principal Planner, City of Sacramento
Lezley Buford, Environmental Manager, City of Sacramento
William Crouch, Urban Design Manager, City of Sacramento
Sheryl Patterson, Deputy City Attorney, City of Sacramento
Roberta Deering, Senior Preservation Planner, City of Sacramento
Kathleen Forrest, Associate Planner, City of Sacramento
Andrea Matarazzo, Attorney, Diepenbrock-Harrison
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LETTER 6

California Regional Water Quality Control Board
Central Valley Region
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Linda S. Adams
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Arnold Schwarzenegger
Governor

3 October 2007

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COMMENTS ON RAILYARDS SPECIFIC PLAN, DRAFT ENVIRONMENTAL IMPACT REPORT, SACRAMENTO CITY

The California Regional Water Quality Control Board, Central Valley Region (Regional Water Board) staff has reviewed the City of Sacramento's *Railyards Specific Plan; Draft Environmental Impact Report* (EIR) dated August 2007 prepared by PBS&J/EIP on behalf of the City of Sacramento. The Regional Water Board staff appreciates the opportunity to comment on the draft EIR and understands the extensive work that went into preparing this report. With the Regional Water Board's extensive regulatory involvement with this site that dates back to the early 1980s, we hope that our comments will be constructive and provide for the safe development of the Railyards project. Regional Water Board staff has the following general and specific comments:

General Comments:

1. Environmental cleanup of polluted soils and groundwater affected by past operations at the Railyards is a crucial factor in the ultimate success of the development project. The Regional Water Board staff is working cooperatively with the Department of Toxics Substance Control (DTSC) to direct Thomas Enterprises, Inc. to implement an aggressive cleanup plan that will address groundwater beneath the Railyard property and the downtown Sacramento area. The remedial actions must achieve cleanup and restore all beneficial uses of the underlying groundwater in compliance with the Regional Water Board policies and regulations within a reasonable time period. 6-1

   The EIR must include a discussion in section 6.6 on how Thomas Enterprises and the City plan to incorporate construction and operation of long-term remedial treatment systems to address groundwater pollutants that exist on the Railyard property and extend across downtown to at least Q Street. Additionally, Figure 6.6-2 should be updated to show monitoring and extraction well locations that exist in the downtown area as an integral part of the cleanup and restoration activities.

2. There is no discussion in the text of the EIR regarding the landfill that is being created beneath Vista Park. The discussion needs to provide information on the types of waste materials being placed in the landfill, concentrations of wastes, the risk posed if receptors are exposed to the wastes, the type of cap that will be applied and how it reduces the risk to an acceptable level, and how the cap will be inspected and maintained. The EIR should also mention how monitoring of surrounding groundwater will be performed, potentially for decades, to come to ensure that the materials capped under Vista Park do not leach to groundwater in the future and that public health will be protected. Even though the soils designated for placement under the park are designed not to leach to groundwater, monitoring of the groundwater is crucial to ensure that this, in fact, does not occur. Maintenance of the 3 to 1 side slopes for the park should also be mentioned since many existing landfills with this slope have experienced erosion. 6-2 6-3

3. Due to the proposed development of shops, business, and public structures and the fact that residential buildings will be spread throughout the footprint of the Railyards development, vapor transport of residual volatile organic compounds (VOCs) must be evaluated for potential indoor air impacts in all relevant Railyard areas for the protection of human health. Vapor transport of residual volatile organic compounds (VOCs) must also be discussed in the EIR with regards to potential impacts to water quality. 6-4

4. All Infrastructures for existing and future planned remedial systems must be installed contiguous with the Railyards development to ensure that the development process does not interfere with remedial activities for the site or visa versa. 6-5

5. High levels of metals, solvents and petroleum fuels exist in soil and groundwater in the Central Shops Area and the MGP Area on the western portion of the property. It is very likely that both of theses Areas will be undergoing remediation for several years to come. Thomas Enterprises, Inc. development plan currently includes projects entitled; The Commons, Roundhouse Plaza, Powerhouse Court, Railyard Park (see Figure 3-16) in the area of the Central Shops and River Park in the area of the former MGP Area (see Figure 3-16). Groundwater contamination emanates from these areas and percolating water may drive contamination further down gradient exacerbating efforts to restore water quality. 6-6

   Additionally, the current plan before the Planning Commission (see Figure 3-16) shows open space parks in a linear pattern from west to east in the northern portion of the property ending in the 13-acre open space designated as Vista Park (a capped landfill containing contaminated soil). We understand storm water runoff from the 13 acre landfill planned for construction in the northwest corner of the Railyards will be collected in drains and channeled to a retention basin (specific design unclear at this time). Water from the basin can then be gradually released after peak storm water flows to the combined storm-sewer system. 6-7

During construction we are concerned that contaminated soils will pollute storm water runoff. Therefore section 6.6-2 of the EIR should include a discussion of the following points:

a.) Construction should be performed during the dry season however, recognizing the importance the City and the Developer has placed on completing construction of this project, if storm water runoff is generated during construction we recommend:

b.) Runoff be contained and discharged to the combined storm-sewer system for treatment (Sacramento Regional Sewer System) and/or

c.) Runoff be contained and physically treated prior to land discharge or the surface water discharge under permit from the Regional Water Board

During post development, infiltration of surface water to groundwater should be avoided to (1) prevent additional pollutants being released into groundwater from contact with contaminated soils, and (2) prevent the creation a hydraulic gradient exacerbating the ability to capture or spreading the migration of contamination groundwater. Therefore:

a.) The project design must minimize the amount of pervious surfaces. Vegetated swells, open spaces, grass covered open spaces should be lined to prevent percolation into the subsurface. These design features can still be employed but must contain drainage layers and impermeable liner systems. The drainage and liner systems can be designed similar to that of the proposed 13-acre landfill. The soil cover for Vista Park will be comprised of a minimum 2-foot thick clean vegetated soil layer, a drainage layer and an impermeable liner.

b.) Runoff should be retained in a lined basin for discharge to the combined storm-sewer system at an acceptable rate to delay the surge of peak flows to the Storm-sewer. The design should also: provide a means to reduce peak runoff flows to surface waters, provide treatment to reduce pollutants in runoff, use existing drainage master plans or studies to estimate increases in pollutant loads and flows resulting from projected future development and require incorporation of structural and non-structural best management practices (BMPs) to mitigate the projected pollutant load increases in surface water runoff, and the applicant must ensure that all development within the project provides verification of maintenance provisions for post-construction structural and treatment control BMPs.

We understand the City's Storm Water Quality Manual already accounts for sites with constraints that do not allow infiltration through soils due to pollutant impacts. Since the Railyard site would fall under these constraints, we request that all efforts to protect groundwater from existing contaminants and exacerbating further spread and migration, be considered in the design and final approvals for storm water controls at the site.

6-7 (con't.)

Specific Comments:

1. **Page 2-34, Impact 6.5-1, Mitigation Measure d.** How will it be assessed if there is contamination present in excavated areas? A majority of the site has been filled-in with various materials and wastes. Simple visual inspection may not be sufficient. This is particularly true in regards to dewatering. In addition, any dewatering will necessitate obtaining a permit issued by the Regional Water Quality Control Board for discharge of the water, unless the discharge is to the sanitary sewer. The discharge to the sanitary sewer must be under a permit issued by the Sacramento Regional County Sanitation District. 6-8

2. **Page 2-34, Impact 6.5-2.** The mitigation measure listed for the impact: *"Development of the proposed Specific Plan would occur on property that is know to contain contaminated soil and groundwater, which could present a hazard to people during occupancy of the proposed project if not managed properly"* is inadequate. The only concern discussed in the mitigation measure is the potential for contaminated groundwater to reach the ground surface where exposure could occur. There are several other potential exposures that are much more significant, including exposure to contaminated soils and inhalation of volatile organic compounds from contaminated soil and groundwater in ambient and indoor air. What needs to be discussed, as mitigation measures, are the building designs, deed restrictions and remediation efforts that will be used to prevent exposures to unacceptable concentrations of contaminants. 6-9

3. **Page 2-34, Impact 6.5-3, Mitigation Measure h.** Do the cleanup levels for soils take into account the potential adverse impact on surface water quality from stormwater runoff from graded materials? If not, then stormwater runoff from graded portions of the site needs to be maintained on-site until the soils are stabilized or covered. In addition, the beginning of the mitigation measures for Impact 6.5-3 says "with the exception of the Central Shops, development . . ." What will be done for the Central Shops in regards to appropriate mitigation? 6-10

4. **Page 2-36, Impact 6.5-4.** Deed restrictions should be placed on the property that will prevent interference with remediation measures. Appropriate access needs to be allocated to the regulatory agencies and the responsible parties to inspect, monitor, and maintain various aspects of the remediation that will continue for some time to come. 6-11

5. **Page 2-36, Impact 6.5-5.** In order to prevent changes in land use that are unacceptable with the levels of residual contamination, deed restrictions need to be placed on the property.

   Furthermore, this section presents mitigation measures that will take place if a change in cleanup standards occurs before and after development of the parcels. If standards change before the property is developed, a reassessment of the acceptable uses of the property needs to be undertaken and appropriate remedial measures, if needed, taken that will protect the exposed population for the proposed site use. The mitigation measures should include a review of hazardous substances at the time of development permitting 6-12

stage. What happens if the cleanup standards drop and the property has already been developed? When is the analysis of the risks performed and by whom is the analysis initiated? 6-12 (con't.)

6. **Section 6, Seismicity, Soils, and Geology.** It should be pointed out that soils removed from the site must be handled and disposed of properly. From the cut and fill plan, there are areas where it appears soils will be excavated to depths greater than 15 feet. These soils could contain pollutants, that if left in place would be acceptable, but transported to a different location, setting or environment may not be acceptable. It is not apparent that cleanup levels took into account movement of any soils off of the property. 6-13

7. **Page 6.5-7, Metals, last paragraph.** It is stated that lead has not degraded groundwater quality. How can that statement be made if background concentrations of lead in groundwater have not been established? 6-14

8. **Page 6.5-8, Volatile Organic Compounds, first paragraph, last sentence.** The statement that "many VOCs are biodegraded into other compounds by naturally occurring microorganisms in the soil and groundwater" can be misleading. Biodegradation does not occur under all environmental conditions. There are many instances where VOCs do not biodegrade under ambient conditions. In addition, biodegradation may produce less desirable pollutants than the parent compounds. 6-15

9. **Page 6.5-9, Petroleum Hydrocarbons, last paragraph.** In addition to the remedial measures discussed, soils with petroleum wastes will also be land filled into the Vista Park capped area in the northwest corner of the Railyards property. The encapsulated soils will also include soils with elevated metals and SVOCs. 6-16

10. **Page 6.5-11, Status of Contaminated Soil Cleanup, second paragraph.** The reader should be informed as to whether the protection of human health criteria was based on a residential or commercial exposure scenario. It should also be noted that cleanup criteria tend to apply only to the upper 10 feet of the soil column. Thus, soils below that depth may contain concentrations of pollutants that exceed the cleanup criteria. 6-17

11. **Page 6.5-13, Northwest Corner, first paragraph.** The first sentence states that the landfill will contain up to "230,000 yards of inert soil below an engineered cap." This statement is not entirely correct and misleads the reader. The soils beneath the engineered cap may not pose a threat to groundwater quality. However, they do contain hazardous concentrations of some pollutants that render them as a hazard to human health, thus requiring the cap to isolate the soils from human exposure. In addition, the soils if brought to the surface could likely pose an unacceptable risk to surface water quality. The term "inert" should be stricken from the document as it is used incorrectly in the context presented. 6-18

12. **Page 6.5-12, Sacramento Station.** It should be noted, that although it was determined that no further investigation or remediation is necessary for the Sacramento Station site, 6-19

excavated soils may need to be handled and disposed in a manner approved by DTSC and the Regional Water Board. The soils in this area may contain levels of metals and fuels that would pose an unacceptable threat to surface water quality if brought to the surface or disposed in an alternate location. An evaluation also needs to be made for the potential for vapor intrusion from VOC pollution in the groundwater in the area. It is likely that the vapor intrusion pathway was not evaluated 1994 to the standards that are applied today. 6-19 (con't.)

13. **Page 6.5-13, Riverfront District Area, second paragraph.** The pollution emanating from the former Manufactured Gas Plant (MGP) site extends westward beneath this area to the Sacramento River. The UPRR/Thomas Enterprises Inc. report, along with comments from DTSC and the Regional Water Board regarding that report, should be reviewed to assist in the evaluation of the potential hazards associated with development of this area. This pollution will not be visible on the ground surface. 6-20

14. **Page 6.5-23, Specific Plan Assumptions for Site Remediation.** The first sentence, in part, states that the Specific Plan contains goals and policies to ensure "that the redevelopment project is not adversely affected due to environmental conditions." The environmental conditions will be what they are and adverse impacts may not be possible to avoid. As an example, groundwater contamination remediation will not be complete for some time. Redevelopment of the property will likely be completed before the groundwater is sufficiently cleaned up. Therefore, it can be envisioned that the redevelopment would need to be taken in such a manner that there would be no unacceptable exposures to the pollutants in the groundwater or those pollutants that have migrated from the groundwater in the vapor phase. This may cause some changes in the design of the redevelopment project that some may consider to be adverse. 6-21

15. **Page 6.5-24, Project Components, Hazards and Hazardous Substances (HAZ) 1.1.** Dewatering needs to be conducted in a manner that not only meets DTSC requirements, but also those imposed by the Sacramento Regional County Sanitation District, which will require a permit for discharge. 6-22

16. **Page 6.5-24, Project Components, HAZ 2.1 and 2.2.** These policies deal with potential future exposures when either a proposed land use changes or exposure standards are lowered. An evaluation of the potential exposures needs to be done every time an exposure standard is lowered that governs one of the pollutants of concern on the property. The evaluation needs to be done when the standard is lowered and not wait when a change in land use is proposed or development is to proceed. Not only should there be a concern for future development, but for the development that has already occurred. 6-23

17. **Page 6.5-25, Mitigation Measure 6.5-1.** As excavation could occur to depths greater than 10-feet, which is generally the depth to which cleanup values have been set to protect construction workers, it cannot be assumed that the cleanup values are protective in these deeper excavations. The data will need to be evaluated to determine if additional 6-24

protective measures are needed on the excavations that are greater than 10-feet. In addition, as clean fill may have been brought in that does not exist to the entire depth of the proposed excavation, signs for apparent contamination should be also observed for in those clean fill areas. 6-24 (con't.)

18. **Pages 6.5-26 through 6.5-30, Mitigation Measure 6.5-2.** The focus of this mitigation measure is primarily on exposure to contaminated soils. There needs to be an expanded discussion on potential exposure to volatile organic contaminants through inhalation of vapors by both the construction worker and the receptors under the commercial and residential exposure scenarios. An evaluation of the groundwater pollution data using the Johnson-Ettinger model shows a potential adverse exposure through vapor intrusion into future buildings, and not just in the Central Shops area. The VOCs of primary concern are vinyl chloride, trichloroethene and tetrachloroethene.

    If analysis of soil vapor intrusion issues show a potential adverse impact, deed restrictions need to be included that prohibit use of the property without appropriate mitigation measures built into the design and operation of the existing/future buildings that adequately mitigate the threat. Text should be provided that discusses the proposed mitigation measures that deal with the threat of VOCs in the vapor phase and how they will be maintained. There should be a discussion as to what the cleanup levels in groundwater and the vadose zone are for protection of the receptor in a building set over the pollution. It needs to be kept in mind that the groundwater pollution will remain for some time and appropriate mitigation measures taken until the groundwater has been cleaned up sufficiently to protect occupants of the property. 6-25

    The second paragraph on page 6.5-29 discusses remediation to the construction worker cleanup standards. As stated above, other occupational scenarios such as commercial and residential could face an unacceptable exposure due to volatile organic contaminants emanating from the vadose zone and/or groundwater. Construction workers may not be the most sensitive receptor when looking at all exposure routes such as indoor air exposure.

    It is not stated how mitigation measures for VOC intrusion into indoor air will be incorporated into the existing buildings at the Central Shops area prior to their being converted for commercial use.

    The mitigation measure 6.5-2, only addresses groundwater contamination reaching water, sewer or storm drainage pipelines and none of the issues discussed above.

19. **Page 6.5-32 through 6.5-33.** Once again, the focus of the discussion is on contamination remaining in the soil column. That contamination is easiest to address and mitigate. Changing standards for volatile organics in indoor air would pose a greater difficulty to mitigate. There should be a discussion of this issue and not simply exposure to soil contamination. Sites need to be reevaluated when standards change, regardless of the stage of development. Undesirable exposure could persist for a long time if one were to 6-26

wait for change in land use following completion of construction and occupation of a portion of the site. 6-26 (con't.)

20. **Page 6.5-38, Mitigation Measure 6.5-9.** The evaluation of the West Jibboom Street Property needs to undergo an evaluation similar to what is done of the remainder of the property. An evaluation of pollutants in the vadose zone and groundwater and the potential to impact indoor air needs to be conducted according to the latest guidance documents. 6-27

21. **Page 6.6-15, Dewatering Activities.** The dewatering allowed under the General Order discussed does not apply to sites that have groundwater contamination. See Finding No. 5 of the General Permit. An individual permit would be needed. However, if the discharge is to the CSS, then the applicant would not apply for an NPDES permit, but would apply to the Sacramento Regional County Sanitation District. 6-28

22. **Page 6.6-15, Stormwater Discharges.** Since the project will have more than 1 acre of disturbed land, the project will need to obtain coverage under the General Permit for Construction Activities. 6-29

23. **Page 6.6-22, Mitigation Measure 6.6-2.** The incorporation of BMPs provided in the design manual should be standard practice and not tied to the ability of the cistern to meet water quality objectives. The BMPs need to be incorporated into the design of the development, which will occur prior to operation of the cistern. 6-30

24. **Page 6.6-22, Dewatering.** See comment 21, above. 6-31

25. **Page 6.6-23, Groundwater Recharge, third bullet.** The third bullet should be deleted as the groundwater can be used for beneficial uses. 6-32

26. **Page 6.6-25, Mitigation Measure 6.6-5.** This mitigation measure is the implementation of mitigation measure 6.6-2. As stated above, the implementation of 6.6-2 is tied to the ability of the cistern to meet water quality objectives. Given the level of pollutant known to exist in soils on the Railyard property the avoidance BMPs must be incorporated as a mitigation measure up front to reduce the amount of pollutants getting to the cistern. 6-33

The Regional Water Board staff appreciates the opportunity to comment on the draft EIR and hope that with our extensive regulatory history with this site, the above comments will be constructive in the ultimate safe development of the Railyards project.

If you have any questions regarding this correspondence, please contact me by telephone at (916) 464-4678 or by email at smeeks@waterboards.ca.gov.

Steven W. Meeks, P.E.
Water Resource Control Engineer

CC: Paul Carpenter, Department of Toxic Substances Control, Cal Center
Fernando Amador, Department of Toxic Substances Control, Cal Center

LETTER 7

STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

PAUL D. THAYER, *Executive Officer*
(916) 574-1800 FAX (916) 574-1810
Relay Service From TDD Phone **1-800-735-2929**
from Voice Phone **1-800-735-2922**

Contact Phone: **(916) 574-1227**
Contact FAX: **(916) 574-1324**

October 3, 2007

File Ref: G21-01

Scott Johnson, Associate Planner
City of Sacramento, Development Services Department
Environmental Planning Services
North Permit Center
2101 Arena Boulevard, Ste 200
Sacramento, CA 95834

Dear Mr. Johnson:

Staff of the State Lands Commission (SLC) has received a copy of the Draft Environmental Impact Report for the Railyards Specific Plan and offer the following comments.

Portions of the specific plan include state tide and submerged lands acquired by California as an incident of its sovereignty upon entering the Union on September 9, 1850. Sovereign lands also are identified as having the character of being subject to the Public Trust Doctrine; uses of said lands are generally limited to those that are water dependent or related, and include commerce, fisheries, navigation, environmental preservation and recreation. Additionally, tide and submerged lands and the beds of navigable waterways are subject to the Public Trust Easement which is not extinguished by filling, Marks v Whitney 6 Cal. 3rd 251 (1971). The river was redirected in the 1860s. This artificial change does not affect the title to the property. Extinguishment of the State's property interests, including the Public Trust Easement, may only be accomplished under specific criteria as established by law, County of Orange v Heim 30 Cal. App. 3rd 694 (1973). The means for clearing title are through a title settlement agreement or litigation (see Chapter 585, Statutes of 2005, partially codified as Public Resources Code Section 6307). 7-1

Staff of the SLC has been communicating with the City of Sacramento (City) since 1989 regarding the need to resolve title issues regarding the former bed of the American River. Negotiations which were intended to resolve the outstanding title issues with the City, Union Pacific, Thomas Enterprise and California Department of Parks and Recreation (Parks) took place over a number of months and appeared to be close to resolution in 2005. Resolution of title and ownership interests in the Railyards

should be resolved before the City begins to issue entitlements within the area. Staff of the SLC urges the City, Thomas Enterprises and Parks to resolve the property ownership issues so that entitlements and development on the Railyard property can move forward. 7-1 (con't.)

Thank you for the opportunity to comment. If you have any questions, please do not hesitate to contact me at the number referenced above or at kato@slc.ca.gov. Thank you.

Sincerely,

Grace Kato

Grace Kato
Public Land Management Specialist

cc: Cathy Taylor, Director, Capital Division, CA Dept of Parks and Recreation
Suheil J. Totah, Vice President Development, Thomas Enterprises, Inc.

LETTER 8

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
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October 3, 2007

07SAC0146
03-SAC-05 PM 24.645
Railyards Specific Plan (P05-097)
Draft Environmental Impact Report
SCH#2006032058

Mr. Scott Johnson
City of Sacramento
2101 Arena Boulevard
Sacramento, CA 95834

Dear Mr. Johnson:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (DEIR) for the Railyards Specific Plan project (Project). The Project has been characterized by the City of Sacramento as being the largest urban redevelopment project in the United States. City Actions addressed by the DEIR and associated documents include 28 specific items listed on Pages 1-6 and 1-7 of the DEIR, including entitlements, development agreement and finance plan.

The 244-acre Project is located immediately north of downtown Sacramento on both sides of Interstate 5 (I-5), with I-5 providing direct freeway access to the Project via the Richards Boulevard, I Street and J Street interchanges. The Project includes 10,000-12,500 dwelling units, a minimum of 21,500 parking spaces, 1.3 million square feet of retail, 1,100 hotel rooms, 2.3 million sq. ft. of office space, 487,390 sq. ft. of historic/cultural space, and 41.6 acres of open space. New local roads and pedestrian facilities will be constructed throughout the Project area and existing roads will be modified. Union Pacific railroad tracks will be realigned and a Sacramento Regional Transit light rail line will be extended through the Project area. It appears from the DEIR that the Project will be served by only one light rail station, the Sacramento Valley Station at the southern edge of the Project.

The DEIR finds that the Full Project has the potential to generate about 149,000 and 141,000 external trips per day for the Maximum Office and Maximum Residential scenarios, respectively. Weekday morning and evening peak hour trips would range between 7,400 and 15,400 external trips depending on development scenario. For the Year 2030, the Project assumes that the Downtown Natomas Airport (DNA) light rail extension from H Street to Sacramento International Airport will be constructed and will operate on 30-minute headways. The Railyards Full Project will generate 895 and 405

AM peak hour and 1,123 and 633 PM peak hour transit trips for Maximum Office and Maximum Residential uses, respectively. Even with the DNA extension, the Project will create significant impacts to mainline I-5 and its interchanges with local roadways in downtown.

Our comments regarding the DEIR are as follows:

- The DEIR does not adequately address traffic impacts to other freeways, freeway-to-freeway interchanges, or impacts to I-5 north of the American River or South of Q Street in downtown. The extremely limited geographical range of analysis of freeway impacts is inadequate and does not sufficiently consider the significant transportation system impacts generated by the Project. At a minimum, the traffic analysis should have also included the I-5/U.S. Highway 50 and I-5/I-80 interchanges for all traffic movements on all connecting ramps and mainlines, as well as Business 80 (State Route 51), US 50, State Route 160 and State Route 99. Our letter of response (dated April 7, 2006) to the Notice of Preparation for the Project stated that we anticipated that the Project would add significant congestion on the freeways that border and traverse downtown and that the traffic study should consider impacts to all ramps, ramp intersections and the mainline. We did not have the opportunity to review a draft of the traffic study prior to its release with the DEIR. 8-1

- Due to the project's location, scale of development and significant impacts to mainline I-5 and its interchanges, Caltrans views the project as being of regional and interregional significance. The Project will not only affect those accessing downtown for work and other purposes but will also impact those who use I-5 for interregional and interstate personal and business travel and commerce. On September 10, 2007, the United States Department of Transportation announced the selection of Interstate 5 as one of six national highways meriting designation under the Corridors of the Future Congestion Reduction Initiative. The Initiative is focused on alleviating congestion on selected highways. The significant impacts to I-5 generated by the Project will make it more difficult to successfully respond to the Initiative. 8-2

- Freeway access to the Project will rely on existing freeway mainline and downtown interchanges. However, no mitigation is proposed to be implemented on the State Highway System to address the Project's significant mainline impacts. In Impact 2.12-3, the DEIR specifically rejects proportional share funding contributions to the I-5 Bus/Carpool Lane projects that will provide access to downtown from the south and north. The Bus/Carpool Lane projects are currently under development by Caltrans in the Environmental Document phase, have been approved by Sacramento voters for inclusion in the renewed Measure A, and are included within the Sacramento Area 8-3

Council of Governments Metropolitan Transportation Plan. Still, the DEIR finds that the Bus/Carpool Lane projects are infeasible for mitigation and suggests that on-going policy developments may favor other approaches to addressing freeway congestion. The DEIR does not suggest what policies those may be or how the automobiles that will be using the 21,500 parking spaces provided by the Project will access those parking spaces from areas outside of downtown. Further, the DEIR had already assumed construction of the DNA light rail extension and its ridership. The Project cannot assume any further trip off-sets to light rail unless the Project is proposing the double tracking of the DNA line. If that is the likely policy direction, then Project contributions to that endeavor may be appropriate. However, without providing any detail regarding the potential new policy direction addressing freeway impacts, referencing such policy in the DEIR is unsubstantiated and speculative.

8-3 (con't.)

- Impacts to the I-5/Richards Boulevard Interchange are detailed by Impacts 6.12-1, 6.12-4 and 6.12-5 and their associated Mitigation Measures. The extent of mitigation appears to be limited to optimizing signal timing and making ramp improvements on the southbound off-ramp through restriping and minor pavement work. There are also improvements identified for Richards Boulevard in the immediate vicinity of the ramps. Funding for these mitigations will be provided through "fair share" contributions under the Railyards Finance Plan. With these mitigations the Project impact to the ramps would still be significant and cause ramp level of service to degrade below those of the freeway mainline and cause off-ramp queues to exceed the available storage capacity of the ramps. This situation could create a safety hazard on the mainline. The DEIR does not identify any feasible mitigation measures to reduce the impact on the ramps because the interchanges are not under the jurisdiction of the City, right-of-way would be needed, and needed improvements are not included in any of Caltrans' funding mechanisms. The mitigation is stated as being "beyond the control of the City and outside its jurisdiction." Caltrans strongly disagrees with these findings. The City has the responsibility and authority to mitigate the impacts, even where those mitigations would take place on the State Highway System. Due to the potential safety hazards from exiting traffic backing onto the mainline, these impacts must not remain unmitigated. Caltrans would be pleased to meet with the City and the Project Applicant to specifically address this issue.

8-4

- The City is working with Caltrans and other agencies in the Sacramento Region to develop a nexus based transportation impact fee program focusing on the I-5 corridor. In order to address Project impacts to I-5, the City could condition the Project to participate in that fee program when it is eventually approved and set a per/unit cap on fees that could be collected retroactively from the Project. Fees could be assessed at the time building permits are issued. The Project could be required to pay the fees

8-5

retroactively for any building permits that are issued prior to the approval of the fee program. We offer this as an alternative method to mitigate the significant impacts of the project on I-5 and the entire downtown freeway network. 8-5 (con't.)

- For a small number of Sacramento City development projects, Caltrans has accepted the concept of mitigating some mainline highway impacts through "fair share" funding contributions to light rail extensions where those light rail extensions would result in mode shift from auto to transit. Caltrans views the completion of the region's light rail lines as being essential to a complete regional transportation system. However, the scale of transportation demand generated by the Project (140,000 – 149,000 trips per day) far exceeds the capacity of a fully built-out light rail system. The Project must mitigate highway impacts in order to avoid severe impacts to downtown freeway sections, particularly on I-5. Feasible mitigation is available through the Bus/Carpool Lane projects that are currently being developed by Caltrans. The City could also develop additional local road bridges parallel to I-5 to accommodate commuter traffic generated by the Project and other downtown developments. Such bridges would be suitable mitigation. 8-6

- The Project does not propose to conduct a nexus study to ascertain appropriate proportional share mitigation for highway impacts nor does it make clear how it will determine what a reasonable contribution to the DNA extension would be to off-set highway impacts. It is the City's responsibility to conduct such a nexus study. As the City determines the funding contribution, the amount that is intended to off-set highway impacts should be above and beyond what would be provided by the Project for its normal share of funding for the light rail extension. Further, the analysis should include a light rail bridge crossing the American River and extending to residential neighborhoods in North Natomas. 8-7

If you have any questions about these comments please contact Alyssa Begley at (916) 274-0635.

Sincerely,

BRUCE DE TERRA, Chief
Office of Transportation Planning—South

cc: State Clearinghouse

LETTER 9

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

August 27, 2007

Scott Johnson
City of Sacramento
2101 Arena Boulevard, Suite 200
Sacramento, California 95834

Railyards Specific Plan
State Clearinghouse (SCH) Number: 2006032058

The project corresponding to the subject SCH identification number has come to our attention. The limited project description suggests your project may be an encroachment on the State Adopted Plan of Flood Control. You may refer to the California Code of Regulations, Title 23 and Designated Floodway maps at http://recbd.ca.gov/. Please be advised that your county office also has copies of the Board's designated floodways for your review. 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. 9-1

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 me at (916) 574-1249.

Sincerely,

Christopher Huitt
Staff Environmental Scientist
Floodway Protection Section

Enclosure

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.

LETTER 10

STATE OF CALIFORNIA

Arnold Schwarzenegger, *Governor*

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298

October 2, 2007

Scott Johnson
City of Sacramento
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

RE: Railyards Specific Plan, SCH# 2006032058

Dear Mr. Johnson:

As the state agency responsible for rail safety within California, we recommend that any development projects planned adjacent to or near the rail corridor in the City be planned with the safety of the rail corridor in mind. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way (ROW).

Safety factors to consider include, but not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to the increase in traffic volumes and appropriate fencing to limit the access of trespassers onto the railroad right-of-way. Any project that includes a modification to an existing crossing or proposes a new crossing is legally required to obtain authority from the Commission. The light rail portion of the project will have to meet the safety certification requirements in our GO 164-D which entails, among other things, drafting a Safety Certification Plan during the Preliminary Engineering phase of the project. 10-1

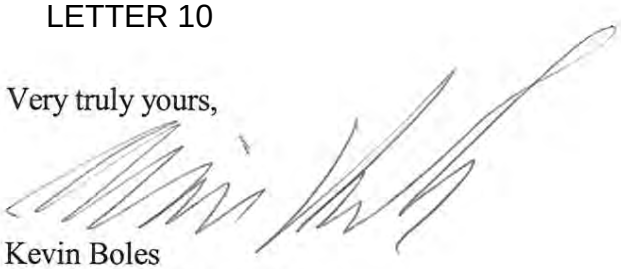
Since the project already proposes grade-separated crossings of the entire Union Pacific Railroad corridor within the project site, continuous vandal-resistant fencing or other barriers should be included as part of the project to provide a closed corridor to deter trespassing. This includes providing locked swing gates for access of the California State Railroad Museum's rolling stock to the historic central shops. Swing gates of this type are routinely used at secure military and industrial facilities that have rail access. This would leave the boarding platforms at the Amtrak station as the only possible access to the ROW, significantly increasing the safety of the project.

The above-mentioned safety improvements should be considered when approval is sought for the new development. Working with Commission staff early in the conceptual design phase will help improve the safety to pedestrians in the City.

If you have any questions in this matter, please call me at (415) 703-2795. To schedule an on-site diagnostic meeting to review the proposed designs for safety, please call David Stewart at (916) 324- 7134. Call Raed Dwairi at (916) 327- 1416 to discuss the light rail extension and safety certification process.

LETTER 10

Very truly yours,



Kevin Boles
Environmental Specialist
Rail Crossings Engineering Section
Consumer Protection and Safety Division

cc: Terrel Anderson, Union Pacific Railroad
Jenny Niello, Sacramento RT

LETTER 11

CALIFORNIA STATE
RAILROAD
MUSEUM

October 3, 2007

Mr. Scott Johnson, Associate Planner
City of Sacramento Development Services Department
North Permit Center
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

Re: Railyards Specific Plan Draft Environmental Impact Report (State Clearinghouse # 2006032058)

Dear Mr. Johnson:

The following comments are submitted on behalf of the California State Railroad Museum, a unit of California State Parks that collects, preserves and interprets the rich heritage of railroading in California in the West. The Museum is widely regarded as the finest and most popular railroad museum in North America, and one of the top two in the entire world.

As you are aware, California State Parks is an interested party because it is a property owner of adjacent land in Old Sacramento and along the Railyards' riverfront, a long-term tenant courtesy of Southern Pacific and Union Pacific Railroads, a current tenant of current property owner Thomas Enterprises, and a potential landowner and museum operator within the Central Shops Historic District within the Railyards. As such, we believe our comments and concerns should warrant your close review and attention.

In this regard, we submitted on April 24, 2007, comments related to the "Notice of Preparation" for the DEIR. These comments were not included in the DEIR appendix and to the best of our ability, we cannot determine that our comments were addressed during preparation of this DEIR. We have attached a copy of the original letter for your reference and inclusion.

The historic resources which comprise the remaining Central Shops of the Southern Pacific Railroad are among the most historically significant buildings anywhere in California. It is imperative that these historic resources be properly and thoughtfully preserved, in an appropriate context and receiving appropriate protections. In this light, we are submitting the following comments, tied to the relevant sections of the Draft EIR:

111 "I" STREET SACRAMENTO, CA 95814 • 916 / 445-7387 • FAX 916 / 327-5655
www.californiastaterailroadmuseum.org

LETTER 11

Chapter 3

Table 3-5 on page 3-32 provides assumptions for "Historical/Cultural Uses" as part of the project description. The notes to this table indicate that the table is illustrative and that actual uses and mix will be "determined by market forces." Does this mean that the entire area could be used for retail, or that there could be a scenario where there are no cultural or historical uses included whatsoever? The DEIR fails to address such a scenario in Cultural Resources Section 6.3. 11-1

Page 3-61 of the DEIR lists, among other project approvals and entitlements, the approval of an SPD Zoning Ordinance, Finance Plan, Development Agreement, and Historical District Ordinance, yet these items were not available for public review and comment as of the due date for making comments on the DEIR. Chapter 3, the Project Description in the DEIR is incomplete and therefore inadequate because the provisions of key entitlements have not been disclosed to the public. In addition, substantial changes are being made to the Specific Plan and Design Guidelines, such that the project description in the DEIR is no longer appropriate.

The public cannot have a meaningful understanding of the Project nor can they adequately evaluate what impacts will occur due to the lack of, and continuous changing of, significant Project information. The public cannot adequately assess whether the proposed mitigation is adequate and/or feasible due to the lacking information. Furthermore, there have been substantial discussions at public meetings about the difficulty in funding the infrastructure necessary for the Project. Accordingly, without the finance plan being available and sufficiently detailed, it is unclear whether mitigations that have been recommended can actually be implemented. 11-2

The DEIR also fails to list amendments to Sections 17.134 and adoption of a Historic District ordinance as required approvals.

Chapter 4

Chapter 4, the Plans and Policies Consistency Analysis, is inadequate because of the lack of significant information, including the SPD Zoning Ordinance, the Finance Plan, the Development Agreement, and the Historic District Ordinance and how these entitlements fit into the analysis. The SPD is to provide the development standards for the Project and a new process for subsequent approvals for the Project. These standards are significant information that the public should be able to review in analyzing the Project's impacts to the environment. 11-3

Chapter 6

Chapter 6, Cultural Resources, is inadequate as it is lacking significant information about the resources on the Project site, it fails to adequately describe the potential Project impacts, and does not provide adequate mitigation.

The DEIR in page 6.3-30 devotes two paragraphs to discussing the inability to determine the precise location of the First Transcontinental Railroad route on the project site. However, this is a significant historic resource that existed at this site, and it had a substantial influence on the development of the City of Sacramento, the State of California and the nation. The First Transcontinental Railroad is the reason the Central Shops are located here in Sacramento. Therefore more effort must be taken to establish the Transcontinental Railroad alignment. This information is necessary to understand the Project's impacts on this significant historic resource. 11-4

The California State Railroad Museum has substantial evidence regarding the original alignment, including maps, diagrams and written alignment descriptions from the period plus aerial photos and archaeological evidence. The Museum can provide this information to the document preparer. Furthermore, the following questions need to be addressed regarding the Transcontinental Railroad: Will there be buildings developed on top of this resource? Why is this resource not included in the proposed historic district? How will this resource be interpreted?

On pages 6.3-50, 51 of the DEIR and in Appendix H, The Historic Impact Analysis, it is stated that there is not adequate information regarding the proposed Historic District Boundary. The Historic Boundary must be defined clearly based upon the related resources, so that any impacts to such resources can clearly be identified and understood. There are critical resources currently not included within the proposed District, such as the Transcontinental Railroad and the Roundhouse "footprint," including remaining evidence of this latter structure's foundations. The impacts to these resources are not adequately addressed. 11-5

On page 6.3-50 of the DEIR and page 15 of Appendix H, it is stated that the Erecting Shop, Boiler Shop, Roundtable, and Transfer Table were not included in the ARG analysis because they were not part of the Specific Plan when the ARG analysis was performed. These historic resources are now, however, a part of the Project, and thus they require the same level analysis as the other historic facilities for the DEIR to be adequate. 11-6

Appendix H indicates on page 5 that the SPD Ordinance was not completed when the analysis was done. It is still not available to the public as of the deadline for filing comments to the DEIR. Appendix H further states that "[t]he SPD is intended to become a City Ordinance that will officially govern the manner in which the Railyards project is 11-7

constructed." Without this information, the public cannot assess what future procedures will be required by the City to protect the historic resources. 11-7 (con't.)

On page 6 of Appendix H, the analysis notes that the Project "does not yet include specific plans or tenants for the Central Shop Buildings or detailed plans for the buildings, parks/open spaces, and other facilities to be located around or near the Central Shops." As discussed above regarding Chapter 3, the impact on the historic resources can not be assessed without understanding the use of the buildings and the mix of uses within the buildings. 11-8

The Cultural Resources Chapter is also inadequate because it does not disclose significant historic resources that are within the buildings that have not been assessed, such as, cranes, rails, and tools, to name a few items. 11-9

The Cultural Resources Chapter also fails to address impacts to the Old Sacramento Historical District. 11-10

The DEIR cannot adequately assess the Project impacts because of the significant information that is missing from the document. For example, there is no discussion on what additional discretionary action would be necessary to develop the historic buildings or on adjacent buildings. Thus, if more specific environmental analysis will be necessitated, the process for triggering such review is unknown. Instead, Appendix H states that "additional studies may occur as the Railyards project proceeds".

The Project Description provided in Chapter 3 provides a list of potential uses for the Historic Shops District. The uses that locate in the buildings and the mix of these uses can have significantly different impacts on the historic context of these important buildings. For instance, a museum that includes use of the buildings in their historic context has a much different impact on the historical nature of the resources than an entertainment or retail use of the same building. A 60 foot brick building adjacent to the 60 feet high turn of the century buildings will have a significantly different impact on the historic resource than a 180 foot tall modern style building. It is inappropriate to conclude that the impact on these historic resources can be mitigated to a less-than-significant level without understanding how these structures are going to be used and what will be surrounding them. 11-11

Accordingly, the DEIR's conclusion that impacts can be mitigated to "less–than-significant" is inappropriate on all the Cultural Resource impacts, because the impacts are uncertain at this point. Applying the Secretary of Interior's standard is a good approach, but it is not a sure way to avoid future conflicts and inappropriate treatments. CEQA Guideline Section 15064.5 (b) (3) uses the term "generally" to describe when the application of the Secretary of Interior's standards allows for the determination of less than significant. 11-12

Here there is significant information that still needs to be assessed in order to understand the impacts on the resources, and whether the area to which the Secretary of Interior's standards will be applicable is appropriate. Furthermore, the Design Guidelines and Specific Plan documents that the DEIR relies upon for setting standards of preservation are not adequate. These documents are still being modified and allow for development within twenty feet of the historic resources that could substantially impact the integrity of the resources individually and as a whole. 11-12 (con't.)

The mitigation measures also do not include a recommendation from Appendix H, that recommendation would require the Applicant to nominate the Historic District for listing in the National Register. 11-13

Chapter 6.8

The Noise and Vibration Chapter fails to address how building adjacent to the central shop buildings (20 foot setback) will impact the historic buildings. How will pile driving occur without damaging the historic resources? This Chapter also fails to describe how building towers on the west side of the I-5 freeway will impact the central shop buildings. It has been stated at public hearings that these buildings will deflect noise from the waterfront. Does this increase the noise impact on the Central Shops? 11-14

In addition to potential impacts on the Central Shops, the existing facilities of the California State Railroad Museum, located at the north end of the Old Sacramento Historic District, are not included in the DEIR. How might pile driving impact the Railroad History Museum, its exhibits, and underground archival storage vaults? What noise impacts might there be for these existing facilities? 11-15

Chapter 6.13

The Urban Design and Visual Resources fails to adequately address impacts to the cultural resources in the Central Shops due to height and design of adjacent buildings and proposed buildings separating these facilities from the River. The development of high-rise buildings adjacent to the shops will have a significant impact on the historic integrity of these buildings. The development of high-rise buildings west of I-5 will negatively impact views to and from the river and the central shops. The proposed Design guidelines provide for limited protection from impacts by stating that the new buildings "<u>should</u> be sited to maximize, to the extent possible, views from the Railyards to the Sacramento River..." This is not a very strong protection of view sheds. 11-16

Chapter 7.0

What is the basis for the assumptions in the Market Support Segments? The Railroad Technology Museum would provide 500,000 visitors a year alone, according a market 11-17

study provided to the Museum. What type of entertainment venues are anticipated in these assumptions and where are they to be located? 11-17 (con't.)

Wildlife Impacts

In addition to the foregoing, we are in receipt of comments to the DEIR from Daniel A. Airola of Sacramento, discussing concerns related to the existence of a colony of Purple Martin birds at the I Street Bridge. The Sacramento Audubon Society wrote an additional letter supporting Mr. Airola's comments. Given the important role of California State Parks in protecting California's most valued cultural and natural resources, copies of both letters are attached. 11-18

Conclusion

The Railyards Specific Plan DEIR requires significant new information to correct its deficiencies. This information is also necessary to understand how these impacts will or will not be feasibly mitigated.

Thank you for this opportunity to comment on the DEIR.

Sincerely,

Paul Hammond
Museum Director
California State Railroad Museum

Cc: Catherine A. Taylor, District Superintendent, Capital District
Nedzlene Ferrario, Senior Planner, City of Sacramento

Attachments

April 24, 2007

Ms. Nedzlene Ferrario
Senior Planner
City of Sacramento
New City Hall
915 I Street
Sacramento, CA 95814

Subject: Response from California State Parks to the Sacramento Downtown Railyards "The Railyards" Project

Dear Ned:

Thank you for the opportunity to review and comment on this preliminary application for entitlements for "The Railyard" project.

As you know, California State Parks is an interested party because it is a property owner of adjacent land, a long-term tenant courtesy of Southern Pacific and Union Pacific Railroads, a current tenant of the new property owner Thomas Enterprises, and a potential land owner and museum operator within the Central Shops Historic District within the Railyards.

BACKGROUND

California State Parks plans an expansion of the popular California State Railroad Museum in Old Sacramento. This project is called the Railroad Technology Museum (RTM). For several years, a site at Front and R Street in Downtown Sacramento was being pursued, and a lease with the Sacramento Housing and Redevelopment Agency existed for a portion of the property not already owned by State Parks. State Parks currently owns approximately 4 acres of land at Front and R Streets. Upon the purchase of Southern Pacific Railroad by the Union Pacific Railroad, the City of Sacramento requested that State Parks relocate the RTM project to the Railyards as a more viable site for the development of the museum than Front and R Streets. The City desires to acquire the State Park property at Front and R Street for the development of "The Docks" project. Related to this request, the City Council acted unanimously to pass a resolution in December of 1999 formally asking State Parks to relocate its project to the Railyards.

California State Parks did so, and has worked with Union Pacific Railroad for the past three years on the disposition of the two buildings in the Railyards for this purpose: the Boiler Shop and the Erecting Shop, noted in the draft plan as parcels 28 and 29. At Union Pacific's request, California State Parks agreed to a property transfer of the two buildings and land subsequent to the closing of the land sale between Union Pacific and Thomas Enterprises. A Letter of Intent (LOI) with Millenia Associates (predecessor to Thomas Enterprises) was drawn up for the purpose of outlining the terms of the transfer, so that Union Pacific and California State Parks were assured a fair and equitable deal would be achieved for the two buildings.

Throughout 2006, Thomas Enterprises assured California State Parks in public and in private that the terms of the LOI would be honored. It is not clear at this time what the status is of the RTM project within the Railyards, as California State Parks and Thomas Enterprises have not yet come to an agreement on a methodology to calculate a fair and reasonable share of infrastructure. Moreover, California State Parks is willing to pay its fair share of the infrastructure so long as a fair and equitable finance plan is adopted and used for all parties in the Railyards. What is clear, however, is that California State Parks is prepared to move forward now on the stabilization and rehabilitation of the two RTM buildings as soon as the EIR is adopted and State Parks has title to the buildings. Given the current opposition of the developer to a "project level" EIR, it is uncertain how the project will be able to move forward in a timely manner.

In addition to this role in the Railyards, California State Parks owns approximately 3.3 acres of land along the waterfront just west of Jibboom Street along the Railyards project location. It is our understanding that either the City and/or Thomas Enterprises desire to obtain this land for open space or commercial development.

A land transfer opportunity has been on the table for the past year or more between the City of Sacramento, State Lands Commission, California State Parks and Thomas Enterprises which would effectively clear many land ownership issues and facilitate a smooth entitlement and EIR process for the project. We believe that land swap needs to be pursued to its conclusion sooner rather than later.

We believe the development of the world-class Railroad Technology Museum in the Railyards will act as a catalyst for the development, making it a major destination and generating well over $50 million per year in economic value to the community in revenue and sales tax benefit from shops, restaurants and hotels. We believe the museum is a critical component of this development which will give "The Railyards" its sense of place, surely to be lost if the development is allowed to obliterate the heritage of this important railroad site.

ISSUES TO BE ADDRESSED

1. Thomas Enterprises must clear ownership and entitlement issues with California State Parks for the two historic Shop buildings (Erecting Shop and Boiler Shop) and adjacent lands

2. Thomas Enterprises may not include State Parks land in the project area, specifically the 3.3 acres of waterfront property adjacent to the Railyards, until a deal has been reached with State Parks to include this property.

3. Thomas Enterprises needs to clear the State Lands Commission public trust property interests on 22 acres in the north part of the Railyards before the lead agency (the City) may issue entitlements on the property. This property is now marked on the planning documents for development in Phase 1A

4. The Plan should protect the view of the historic structures and grounds of the Central Shops District and historic portions of the adjacent West End and Riverfront Districts—in a manner similar to the protection that exists for the State Capitol and Old Sacramento. In exchange, allow higher density and taller buildings outside the historic district. The open space around the seven Central Shops must be preserved and not consumed with large modern buildings encroaching on the historic view and context of the Shops.

5. The Plan should preserve the historic alignment of the Transcontinental Railroad which runs along the north side of the Central Shops District, and defines the northern edge of this historic district. The relocated railroad mainline which runs along the south side of the Central Shops District is an appropriate alignment which is near the original Southern Pacific Railroad freight mainline used for over 100 years.

6. The historic nature of the shop buildings and other portions of the site may require consultation with the State Office of Historic Preservation.

7. The Plan should preserve the visual integrity and availability of the site and shape of the historic Roundhouse for future reconstruction purposes. Currently, the plan obliterates this site with other non-historic structures, and precludes reconstructing it to relate to the remaining shop buildings and enhancing the heritage of the site.

8. Require the locations and names of all new streets and roadways in the area of the Central Shops District, and throughout the Railyards, to reflect the important heritage of the area and the fact that Sacramento is a "Railroad Town."

9. Revise open space in and around the planned Railroad Technology Museum because much of this space is industrial and not appropriate to be called out as "open space." For example, there is a transfer table between the two Shop buildings shown in green, yet this is not a public circulation area. Also, parking and other support areas, such as railroad track, on the site are currently shown as open space.

10. California State Parks has paid for the historic documentation of the Central Shops District buildings through the Historic American Engineering Record. The cost of the documentation was approximately $400,000.

11. California State Parks has done some preliminary safety improvements of the two buildings it occupies, as well as reconstructing the historic Transfer Table. The cost of these improvements was approximately $600,000.

12. California State Parks has committed to paying the City $100,000 toward to completion of the EIR provided the EIR delivers a "project level" review for the RTM project.

COMMENTS ON ITEMS NEEDED FOR THE PREPRATION OF THE EIR

1. Include the Railroad Technology Museum complex in the site map with clearly defined boundaries.

2. Include and review the Railroad Technology Museum complex at a "project level" in the Environmental Impact Report. All necessary documentation has been provided to the City to accomplish a project level of review which would allow the RTM project to proceed quickly upon EIR adoption. 11-19

3. Provide and describe the level of protection for all remaining historic structures within the Railyards, as well as sites of other significant shop buildings and features removed within the past 50 years. Address the value and importance of reconstructing several key historic buildings that have been removed, such as the Roundhouse, Oil House, Power House, and Pattern Shop. 11-20

4. Address the value and importance of historic viewsheds in and around the Central Shop District and adjacent historic areas to preserve the visual and historic integrity of the historic site. 11-21

5. Require a parking and access study specifically including tour bus access and parking, public parking, and staff parking. 11-22

6. Require an analysis of the impacts of any planned new development which encroaches on the Central Shops District and the visual integrity of the historic area. Particular attention should be paid to preservation of open space which enhances the historic context of the area, and is sensitive in height, size and mass in relation to the historic buildings. 11-23

7. Require an analysis of the impacts of any planned new development on adjacent historic Old Sacramento National Historic Landmark District, as well as impacts to other contiguous areas of Sacramento. Particular attention should be paid to viewsheds, public access, and mass and scale of new construction in relation to pre-existing structures in adjacent areas. 11-24

8. Complete a roadway and railroad trackage integration study for the Railyards and surrounding properties, including Railroad Technology Museum trackage and access roads. 11-25

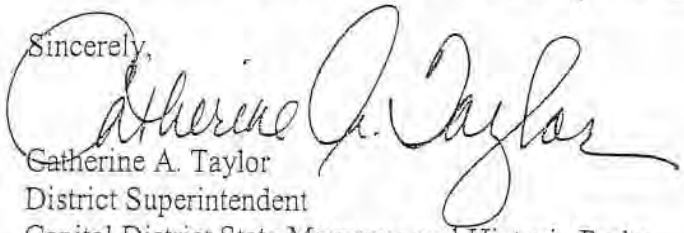
9. Address National Register of Historic Places and National Historic Landmark eligibility for the Central Shops District, as well as those adjacent portions of the West End District and Riverfront District with historic features that should be included in any application (i.e. the Transcontinental Railroad right-of-way). Identify this historic district on the Railyards development plan.

   Enclosed is a copy of the Assessor's Map with an overlay of the historic railroad shops for this historic district. The Central Shops District, the Riverfront District and the West End District all contain significant features which should be included in the historic district, including the original route of the Transcontinental Railroad which once ran along the north side of the shops. Together, these features and the remaining historic structures represent one of North America's most important industrial heritage sites. The railroad's legacy of industrial innovation began in 1867 on this site and came to an end in 1999. 11-26

Thank you for opportunity to comment on this preliminary stage of review. We hope our comments are useful to you in preparing the Environmental Impact Report.

We believe this project will re-shape the cultural and business life of downtown Sacramento, and we are hopeful that the Railroad Technology Museum can be a part of preserving the important railroad heritage of Sacramento. We look forward to working with the City and Thomas Enterprises to make this a reality.

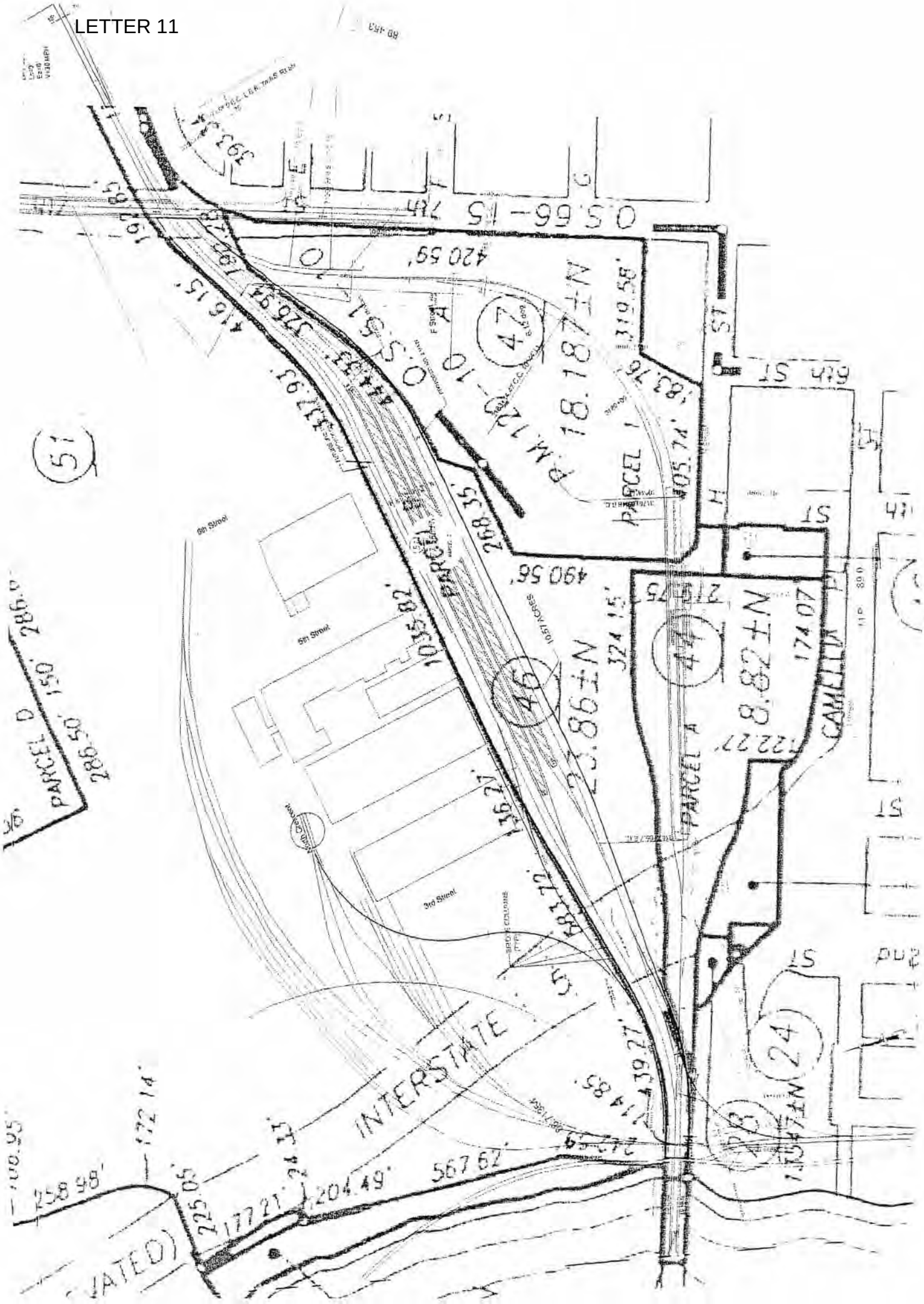
Sincerely,



Catherine A. Taylor
District Superintendent
Capital District State Museums and Historic Parks
California State Parks
111 "I" Street
Sacramento, CA 95814

Enclosures: Overlay Map of Historic District

LETTER 11


PARCEL 1
PARCEL A
PARCEL B
PARCEL D
INTERSTATE
5th Street
6th Street
3rd Street
CAMELIA
18.18± N
18.82± N
23.86± N
S 66° 15' 30" W
420.59'
319.58'
405.74'
490.56'
268.35'
324.15'
174.07'
1035.82'
426.15'
286.50'
286.0'
150'
136.27'
122.27'
439.27'
567.62'
204.49'
177.21'
225.05'
172.14'
158.98'
100.95'

LETTER 11

Daniel A. Airola
2700 6th Ave
Sacramento, CA 95818
September 19, 2007

Scott Johnson
Development Services Department
City of Sacramento
915 I St.
Sacramento, CA 95814

Subject: Comments on the Railyard Specific Plan Draft Environmental Impact Report, Regarding Effects of the Project on the Purple Martin

This letter responds to the analysis of impacts of the Downtown Railyard project Environmental Impact Report (EIR) on the Purple Martin, a state Species of Special Concern. I am an ornithologist and Certified Wildlife Biologist and have led and conducted volunteer-based intensive studies of Purple Martins in Sacramento under permits from the California Department of Fish and Game (DFG) and the California State Railroad Museum, since 1991 (intensively since 2002).

In summary, the EIR analysis does not consider the considerable body of research and management findings on Sacramento Purple Martins that I and my colleagues have published since 2002. The I St. Purple Martin colony is important to the maintenance of the martin population in Sacramento and the recovery of the species in the Central Valley as a whole. The EIR analysis is inadequate, in that it only looks at the potential construction impacts of the project and not the long-term effects of the proposed project. The proposed mitigation measures for construction effects are inadequate, and could result in significant harm to the population. Long-term effects of habitat changes resulting from the project could result in significant direct and indirect impacts to the I St. colony. The EIR also does not consider the cumulative impact of planned and proposed projects at other this and other Sacramento Purple Martin colony sites that support 70% of the remaining population. I recommend a number of feasible mitigation measures that could reduce or compensate for the potential impacts of the project and suggest monitoring measures to evaluate the effectiveness of these measures.

Context for Comments:
Information on the I St. Purple Martin Colony

The only information presented in the EIR on the Purple Martins that nest beneath the I Street Bridge onramp ("I St. Colony") appears to have resulted from limited surveys conducted only during 2006. Because the EIR preparers appear to have been unaware of the extensive published information available on this colony and others in Sacramento, I briefly summarize some relevant information.

The Purple Martin has been eliminated from the Central Valley of California, except for the 10-12 colonies in Sacramento that annually nest in bridges, where they access nesting chambers through "weep-holes" in the undersides of the bridge structures (Airola and Grantham 2003, Airola and Kopp 2007). Martins have survived in Sacramento because they learned to use elevated freeways and overpasses ("bridges") in the 1960-70s before the arrival in California of the European Starling (Airola, in preparation). The starling is widely recognized as an intense nest site competitor with the martin (Brown 1997), and likely eliminated martins from natural nest sites (woodpecker cavities in trees) and other human structures that they once commonly used in the Central Valley (Airola and Grantham 2003, Airola and Williams, in press). The 2007 nesting population in Sacramento was only 106 pairs and the population has declined by nearly 40% over the last 3 years (Airola and Kopp 2007, Airola unpub. data).

The I St. colony has been consistently among the largest martin colonies in the Sacramento area, supporting 11-37 nesting pairs, representing 10-27 % of the total annual nesting population in Sacramento (and thus Central Valley) (Airola and Kopp 2007, Airola unpub. data). This colony also has been the focus of the most intense martin research, including monitoring of population sizes, banding and evaluation of survival rates, reproductive monitoring, testing of monitoring and management techniques, disease evaluation, and genetic and morphological evaluation to determine systematics of western martin subspecies (Airola and Grantham 2003; Airola et al. 2003, 2004, 2006; Airola and Kopp 2005, 2007; Airola in preparation; Airola and Kostka in preparation; Airola and Williams, in press; Baker et al, in press, Cousins and Airola 2005; Kostka et al. 2003, Leeman et al 2003).

The I St. colony is among the most protected from onsite and external influences, because of it presence above the parking lot of the California State Railroad Museum. Unfortunately, this colony has declined by nearly 70% since 2004, most likely at least partly as a result of predation from feral cats that are being fed on Railyard property near the colony (Airola and Kopp 2007, Airola, unpub. data – see later discussion). Thus, the colony is important for its direct biological value, its research value, and its high level of protection relative to other colonies.

Comments on Proposed Construction Impacts and Mitigation

The project EIR identifies that construction activities including the modification of the I St. bridge ramp, removal of the elevated portions of Jibboom St., and realignment of the Amtrak tracks under I-5, could directly affect nesting Purple Martins. I concur that these activities have potential to significantly affect martin nesting. The proposed mitigation measures, however, do not address the population effects of reducing reproduction through displacement, which clearly meet the second CEQA impact significance criteria listed on Page 6.2-30 of the EIR.

The proposed mitigation measures to address construction impacts are not clear. The mitigation measures states that the applicant "...will identify active roost and nest

sites and provide for a construction window that would avoid impact to roosting or nesting Purple Martins". However a more careful reading of measures 6.2-7 a) and b) suggests that construction in existing nesting sites will not be avoided, but rather nesting will be prevented in these areas to allow construction to proceed, and that buffers will be applied only if species are not effectively excluded.

Excluding martins from nest sites prior to the nesting season would prevent disturbance and abandonment of active nests, but it does not eliminate the potential effect of disrupting annual reproduction. As the EIR notes, and our research with color-banded martins confirms, martins show a high degree of fidelity to nest sites used in previous years (Airola and Kostka, in preparation). We also know that previous efforts to exclude martins from the colony at 20th St. resulted in a population decline there from which the species has never recovered (Airola and Grantham 2003, Airola and Kopp 2007, Airola, unpublished data.). Forced displacement of martins during the breeding season is likely to result in reduced reproductive success of displaced individuals. A loss of reproduction from a small population that has declined by 30% over the last 3 years (Airola and Kopp 2007, Airola unpub. data) could contribute to a subsequent population decline in this vulnerable Species of Special Concern, and therefore is a significant impact.

The mitigation measures should specify that effects of construction should be carefully evaluated on a project-specific basis. If construction is determined to be likely to disrupt nesting at the colony site, then construction should be scheduled during the non-nesting period.

The proposed measure to examine nest sites to verify presence or absence of nestlings does not address the important post-fledging use of nest sites by family groups for roosting for up to 3 weeks after fledging occurs (Brown 1997; Airola and Grantham 2003; Kopp unpublished data). This roosting use is mostly completed by August 1st. Detection of roosting use requires evaluation before first light or after sunset.

Direct examination of use nest sites for nestlings would require the use of a camera that can fit into nest-hole entrances. Roosting fledglings also may be examined directly using a camera, but it should employ an infra-red light source to avoid disturbing birds. Indirect evaluation of use by nestlings and roosting birds may be as effective and more efficient than camera use (through observation of feeding behavior of adults, visual and auditory detection of older young, and viewing of returning family groups to roost).

If scheduling of construction outside the nesting season is determined to be infeasible, and martin reproduction is determined to be likely to be disrupted, then the project EIR should recognize this effect as a significant unavoidable impact. The City, however, should not lightly adopt an override statement simply to avoid addressing project impacts. The determination of whether significant impact results depends in part upon the City's willingness to adopt additional mitigation measures that may offset the effects of loss of reproduction by taking active measures to increase populations or reproductive success at other colonies (see below).

The determination as to whether the proposed construction activities would disrupt nesting, when avoidance is infeasible, should be made by a biologist with direct experience with martin responses to construction activities. This evaluation is particularly important, because martins are more tolerant of human activity than is generally recognized, and past projects in Sacramento have needlessly excluded martins when disturbance was unlikely (Airola and Grantham 2003)

The proposed methods used to displace nesting martins described in the EIR are incorrect, and should be modified. Martins do not build mud nests on the bridges, but rather enter weep holes to build within the structures. Therefore, washing mud nests from the structure is not effective as a deterrent (and obviously, absence of mud nests is not a sign of absence of nesting martins). Erecting netting is more expensive and less effective than blocking individual weep holes with wire mesh or inserted "top-hat" hole-blockers (such as was used by Regional Transit at the 20th St. colony during light rail construction).

If construction is determined to be likely to disrupt breeding, and avoidance during the breeding season (March 15-Aug 1) is infeasible, then mitigation should be proposed to increase reproductive success at other Sacramento nesting colonies. Potential measures that should be evaluated could include:

- installing wire nest guards within nest hole entrances to reduce the incidence of nest fallout (Kostka et al 2003, Airola and Grantham 2003),
- direct control of starling populations at those colonies where they are abundant and martin populations have declined,
- habitat management by removing vegetation that blocks martin flight access or encourages starling nest site competition, and/or
- support for an ongoing program to install nest boxes and attract a box-nesting martin population to adjacent rural areas.

Comments on Long-term Impacts of Project Implementation

The EIR analysis does not address the potential longer-term impact of habitat changes on Purple Martin populations. There are important potential effects of the proposed development that could result in significant long-term impacts to the existing I St. martin colony. These potential impacts are discussed below.

Loss of Perching Wires

The primary perching area for the I St. Purple Martin colony is the utility wires that cross the southwestern portion of the Railyard site, just north of the railroad tracks. If these wires are removed or relocated, it could reduce the suitability of the nesting habitat and result in a population decline. This impact would be considered significant.

Mitigation that could be applied to reduce potential impacts includes avoiding removal of wires, or creating alternate perch sites for martins by installing new wires or

other perches closer to the colony. This mitigation is considered feasible to implement at low cost and should be highly effective. It is recommended that alternate perch sites be erected at least several years prior to removal of existing utility wires, to allow the birds to adjust to them and to evaluate their effectiveness. Concurrence from the California State Railroad Museum will be required if the perches are to be erected on state lands.

Eliminating of Foraging Space and Access

The proposed construction of tall buildings immediately to the north of the I St. martin colony has the potential to disrupt foraging spaces and access of martins to the colony. My anecdotal observations suggest that the most martins leave perch and nest sites to forage and return from areas to the south and west of the colony (and thus not over the Railyard). If this pattern is verified and alternate perching habitat is successfully installed, this impact will not be significant. However, the potential for impact to martin flight paths should be studied more comprehensively by mapping the travel routes and access points used by martins at the I St. colony.

If further evaluation shows that travel routes and access points may be impinged upon by proposed project facilities, options to address this impact could including project redesign, modification of other access impediments at the site, or (as a less preferred option) enhancement of access at other Sacramento colony sites for which access is compromised.

Loss of Nesting Material Collecting Sites

Extensive observations conducted during the nesting season at the I St. colony show that nearly all material used by martins to construct nests is collected within the Railyard property (including both within the remaining railroad right-of-way and the proposed development area)(Airola and Kopp 2007). Our direct observations of nest building and video observation of nest sites shows that martins primarily use dried grasses and weed stems for nest construction. The existing nest collection areas are the only suitable sites for nest material collection. At other more developed colony sites, martins also collect leaves and stems from parking lots and un-landscaped weedy areas. The loss of habitat suitable for collection of nesting materials could reduce the martin population or nesting success and thereby would be a significant impact.

Several mitigation measures are readily available to ensure an adequate supply of nesting material, including:

- planting trees onsite that produce suitable nesting material,
- designation of un-maintained nest material collection areas, and
- annual placement of nesting material (straw, pine needles, etc.) in designated areas for use by martin.

The active provision of nesting material has been shown to be effective on an experimental basis at I St. in 2007 (Airola, personal observation). It also has the potential benefit of placing material where martins will be less susceptible to feral cat predation (see **Increased Exposure to Predation from Feral Cats,** below). However, such a method relies on an active human management which may not be sustained over time. I recommend that a combination of all three methods be employed as mitigation, especially while cat predation continues to be a problem for this colony.

Increased Exposure to Competition from European Starlings

The current role of the starling in the population status of bridge nesting Purple Martins is not fully understood, in part due to the difficulty of obtaining research information to evaluate effects. It is generally recognized that bridges provide the only habitat in the Central Valley that are safe enough from starling competition to allow nesting (Airola and Grantham 2003, Airola and Williams in press). Although starling competition with martins in bridges is lower than in other historic nesting substrates, starlings do use "weep-hole" nest sites within existing martin colonies. Recent declines in several colonies where starling numbers have increased suggests that where present in sufficient numbers, starling may depress populations of bridge-nesting martins.

The I St. colony has had among the lowest use rates by starlings, with an average of <1 nesting pair per year over 2002-2007 (Airola unpub. data). Low starling numbers likely reflect the relatively small amount of suitable starling foraging habitat in the surrounding area. In urban environments during the nesting season, starlings forage primarily in areas supporting irrigated turf and in fruit-bearing ornamental trees.

Enhancement of foraging habitats for starlings at the proposed Railyard development has potential to enhance starling habitat and promote competition with Purple Martins at the I St. colony. Creation of turf areas and planting of typical fruiting ornamental species within the Railyard development (as well as colonization of landscaped areas by weedy fruit-bearing trees such as privet [*Ligustrum* sp.]) could substantially increase the carrying capacity for nesting starlings at the I St. colony, with resulting disruption of martin reproduction. Such an impact, if it were to occur, would be a highly significant impact to this remnant population. The fact that the northern ramp to the I St. bridge may help to discourage starlings from nesting by causing all nest holes in the adjacent offramp to be perceived as "interior" holes, which are generally avoided by starlings. However, this cannot be predicted with certainty.

Mitigation for this potential effect is difficult because of : 1) its uncertainty and 2) if it occurs, it is difficult to reverse. For now, I suggest that it is prudent to conduct long-term monitoring of starling use of the I St. colony to determine if starling use increases. If so, more intensive monitoring may help to determine if starlings are disrupting martin reproduction. If such disruption is occurring, strategies to address the impact include direct control (i.e., trapping), temporary blocking of holes each year (since a substantial proportion of starling nesting begins before martins return from migration), or modification of landscape conditions. Of course, designing landscapes to minimize the

amount of suitable foraging habitat for starlings could be incorporated into the project at the start as well.

Increased Exposure to Predation from Feral Cats

Over the past two years, the I St. colony has declined dramatically, from an average of 33 pairs during 2002-2005 to 17 pairs in 2006 and to 11 pairs in 2007 (Airola and Kopp 2007, Airola unpub. data). This decline is attributed at least in part to the predation from a newly established feral cat colony on the Railyard property. Feral cats have been observed stalking and killing martins on the ground when they are collecting nesting material (Airola and Kopp 2007). To date, attempts to discourage the feeding of cats or to remove them, through contacts with the individual who maintains this colony, the City's parking supervisor at the rail depot, and City animal control, have been ineffective. Since the feeding is occurring within the parking lot of the City-leased parking lot, it should be the City's responsibility to resolve this serious threat.

The EIR should evaluate the potential effects of increasing the human population in the Railyard area and the resulting population of free-ranging pets and feral cat colonies. Currently, several areas with high human populations support food-subsidized cat colonies along the Sacramento River between River Park and Old Sacramento. I believe that the project is likely to increase the current detrimental threat of pet and feral cats to Purple Martins. The EIR should find this to be a potentially significant impact, and should adopt a mitigation measure to make it clear that the establishment and maintenance of feral cat colonies in the vicinity of the I St. Purple Martin colony is unlawful. It also should specify that the City will apply necessary animal control services to remove the existing cat colony and prevent the establishment of new cat colonies.

Increased Mortality from Vehicle Collisions

Martin collision with vehicles, both trains and autos, has been documented to be a substantial source of mortality at several martin colonies (Airola and Kopp 2006, 2007). For example, the long-term colony at 34th and T St. has declined by 90% (from 30-35 pairs in the 1990s [Airola and Grantham 2003] to 3 pairs in 2007 [Airola unpublished data]), during a period when traffic volumes beneath the colony increased dramatically following development and expansion of the nearby UC Medical Center and Shriner's Hospital. Currently, vehicle collisions with traffic at the I St. bridge colony appears to be only a moderate source of mortality, with 0-3 mortalities found annually.

The increased human population in the Railyard area, and resulting increase in automobile and train traffic, has the potential to increase vehicle mortality of Purple Martins. I have not studied the project's circulation and traffic modeling projections in detail to make this assessment. The EIR should evaluate this potential source of mortality. The assessment should be highly site-specific, analyzing the local net effects of collisions based on traffic volumes, road heights and configurations, vegetative and other screening, and distances from nest and perch sites. If effects are found to be significant, potential mitigation may include adding screening, enhancing perch sites

away from collision sources, redesigning the project traffic plan, or enacting mitigation to reduce mortality at other colonies.

Cumulative Impacts

The City of Sacramento needs to be aware of, and the EIR needs to reflect, the potential for cumulative impacts to the Purple Martin from multiple projects in Sacramento that are at various stages of planning and approval. The following projects all are proposed in areas that support or are immediately adjacent to Purple Martin colonies:

- Curtis Park Railyard Redevelopment,
- Caltrans' proposal for construction of carpool exit lanes (the "Over-the-top" project) at Interstate 80 at Roseville Road,
- Sacramento State's proposed redevelopment of the area around Highway 50 near 65th St and Redding Road,
- Mercy Hospital's construction and rehabilitation of a parking facility beneath the Capital City Freeway at 29th and R St., and
- The City's rehabilitation of a parking lot beneath the Capital City Freeway at 20th and W St.

Together the colonies in these areas, along with the I St. colony have supported 72-121 nesting pairs of Purple Martins during 2002-2007, representing an average of 70% of the entire remnant Sacramento nesting population (Airola and Kopp, 2007, Airola unpub. data). The effects of these projects need to be evaluated individually in their environmental documents and should be addressed cumulatively in the Railyard EIR. If these projects have received (or are expected to receive) similar cursory treatment of their construction and long-term impacts to Purple Martins, then the cumulative impacts should be considered significant.

An effective mitigation measure for the cumulative impacts of these projects is for the City to work with applicants and cooperating agencies (Caltrans, Sacramento Regional Transit, Union Pacific, DFG) to develop a cumulative assessment and a set of development guidelines for treatment of Purple Martin nesting colonies, based partly on the recommendations provided in this comment letter. Monitoring, management, and protection of this species over the last 6+ years have been largely left to me and my volunteer collaborators. In my view, the continued survival of the Purple Martin in Sacramento, and the eventual repopulation of the Central Valley to recover the species, requires that the City and other agencies step forward and fund a comprehensive plan to protect, manage, and address project impacts at individual colonies and for the population as a whole.

I appreciate the opportunity to comment on the EIR.

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LETTER 11

Scott Johnson
Development Services Department
City of Sacramento
915 I St.
Sacramento, CA 95814

I am writing on behalf on the Sacramento Audubon Society to comment on the draft Environmental Impact Report (DEIR) for the Sacramento Railyard Specific Plan. Our specific concern conveyed in this letter is the potential impacts of the project on the nesting colony of Purple Martins in the I St. bridge onramp above the parking lot of the California State Railroad Museum.

Sacramento Audubon Society has had a long interest in the population of nesting Purple Martins within the City of Sacramento. Specifically, we have monitored and kept records on occurrences of martins at various sites in the City for many years, which has been important in understanding the threats posed by the non-native European starling. We also conduct annual field trips with our members to the I St. Purple Martin colony. WE have heard presentations at our monthly meetings by Daniel Airola about his research and conservation activities and provided honoraria to support this work. Finally, several of our members have served as volunteers to conduct population surveys as a part of the ongoing martin conservation program.

Our organization supports the points made by Daniel Airola in his comment letter of September 19, 2007. Specifically we agree that the EIR does not consider the available research and management findings on Sacramento Purple Martins. The I St. Purple Martin colony is important to maintaining the martin population in Sacramento and to the ultimate the recovery of the species in the Central Valley. The EIR analysis addresses only the potential construction impacts of the project and does not addressing the long-term effects of the proposed project. The mitigation measures for construction effects are inadequate, and some of them could be harmful to the population. Also, the long-term effects of habitat changes resulting from the project are not addressed and could result in significant direct and indirect impacts to the I St. colony. We believe that the mitigation measures Mr. Airola has identified are feasible and reasonable and effective, and should be adopted for the project.

We consider it important to emphasize that the EIR does not consider the cumulative impact of the Rail yard and at least 5 other planned and proposed projects identified by Mr. Airola at other this and other Sacramento Purple Martin colony sites. These sites support 70% of the remaining martin population. A comprehensive plan to address management needs and to provide a set of planning and construction guidelines are needed to address these cumulative issues.

We than you for the opportunity to comment on the EIR.

Sincerely,

LETTER 11

CALIFORNIA STATE
RAILROAD
MUSEUM

October 4, 2007

Mr. Scott Johnson, Associate Planner
City of Sacramento Development Services Department
North Permit Center
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

Re: Railyards Specific Plan Draft Environmental Impact Report (State Clearinghouse # 2006032058) – Addendum to Letter of October 3, 2007

Dear Mr. Johnson:

In reviewing our written comments submitted yesterday to you, relative to the Railyards Specific Plan Draft EIR, we have noted one additional item that we would like to add. This item relates to rail access for the proposed Railroad Technology Museum.

With regard to this item, such access is critical in order for the proposed Railroad Technology Museum to operate. As proposed, the Museum would operate a Restoration Shop in the Boiler Shop, necessitating ongoing movement of railroad locomotives and cars into and out of the facility, and between the Railyards and Old Sacramento, where the balance of the California State Railroad Museum's facilities are located.

11-27

Railroad trackage by nature must be carefully engineered to avoid excessive gradients and provide for adequate turning radii, while avoiding conflict with any and all fixed points such as freeway support pillars, switches proving access to main tracks, and so forth. Large steam locomotives in particular require gentle turning radii to allow their long rigid wheelbase to traverse curvature without adverse situations occurring, such as derailments.

Given these factors, the concept of providing rail access must also be supported by a specific plan carefully engineered to ensure that the contemplated access does indeed meet the needs of the proposed Railroad Technology Museum.

Background

As planning has progressed for the Railroad Technology Museum (RTM) and the Railyards, and in connection with discussions and planning related to the City's Sacramento Intermodal Transportation Facility (SITF), related negotiations have also

occurred between several parties relative to a Track Relocation Agreement. This agreement addresses not only the future alignment of trackage through the Railyards and specifically the SITF, but also addresses the specific, engineered location of switches and tracks necessary to access the Railroad Technology Museum location within the Central Shops Historic District area.

A final Track Relocation Agreement was entered into on July 13, 2006, between Union Pacific Railroad Company, Thomas Enterprises of Sacramento LLC, the National Railroad Passenger Corporation (Amtrak), the Capitol Corridor Joint Powers Authority, and the State of California, Department of Parks and Recreation (developer/owner/operator of the proposed Railroad Technology Museum), and with the full knowledge and concurrence of the City of Sacramento.

Attachment "B" contained within the Track Relocation Agreement details the Union Pacific's Track Relocation Plan, referencing the area and extent of relocated and/or new trackage, and supplying engineering coordinates and other physical references to clearly locate same. A copy of this Track Relocation Plan is attached for reference.

Draft EIR Comments

In Chapter 3, Figure 3-7, the Specific Plan Land Use Map with Arena Overlay shows an approximate location for a single, curving track running between the Turntable in the Central Shops Historic District and the relocated Union Pacific Mainline. The curving track, as illustrated, is not physically located in accordance with the same track as shown in the attached Track Relocation Plan, as noted earlier. As shown, the track is further to the east, and does not allow adequate turning radii as required to support ongoing needs of the Railroad Technology Museum. The location of this track needs to be brought into accordance with the track as shown in the Track Relocation Plan.

Additionally, Figure 3-7 shows the curved access track disappearing from view at its southwestern extreme, and thus no physical connection is shown to the relocated Union Pacific Railroad main line. This connection, as outlined in the attached Track Relocation Plan, involves a "switchback" or tail track that runs just to the north of, and paralleling, the relocated Union Pacific Railroad main line. A switch would allow for additional track access from this switchback, eastward to the Transfer Table located between the Boiler Shop and Erecting Shop buildings. 11-28

This connecting trackage would additionally require an easement or other enabling instrument to allow for locating said tracks in accordance with the Track Relocation Plan. In addition to the curving trackage leading to the Turntable, a relatively thin sliver of land located just north of the relocated Union Pacific Railroad main line, and extending east to the Transfer Table to allow for rail access to this facility, would be affected. The required land is <u>not</u> included within the boundaries of the easement set aside for the relocated

LETTER 11

Addendum: Railyards Specific Plan Draft EIR, Page 3

Union Pacific Railroad main line, as shown in the Track Relocation Plan and as further illustrated in Figure 3-11 of the DEIR.

Pages 3-39 and 3-43 reference the Track Relocation only as this relates to the Union Pacific main line and needs of the Sacramento Intermodal Transportation Facility. We are unable to find any references related to the needs of the Railroad Technology Museum and necessary trackage to access same. The DEIR needs to include these items and locate them on diagrams showing how they will relate to adjacent land uses, using the Track Relocation Agreement and related Track Relocation Plan as the basis.

Attached for additional clarification regarding the above-referenced track alignment, is a Tentative Access Track Alignment plan showing the Turntable Lead and related access trackage. This drawing illustrates the relationship of proposed trackage to existing freeway support pillars (those supporting Interstate 5 above) and referencing additional control points to properly locate the required tracks consistent with the Track Relocation Plan.

11-28 (con't.)

While the attached drawings illustrate the as-designed access trackage arrangement and location, surveys will be required to confirm final design and placement via engineered drawings.

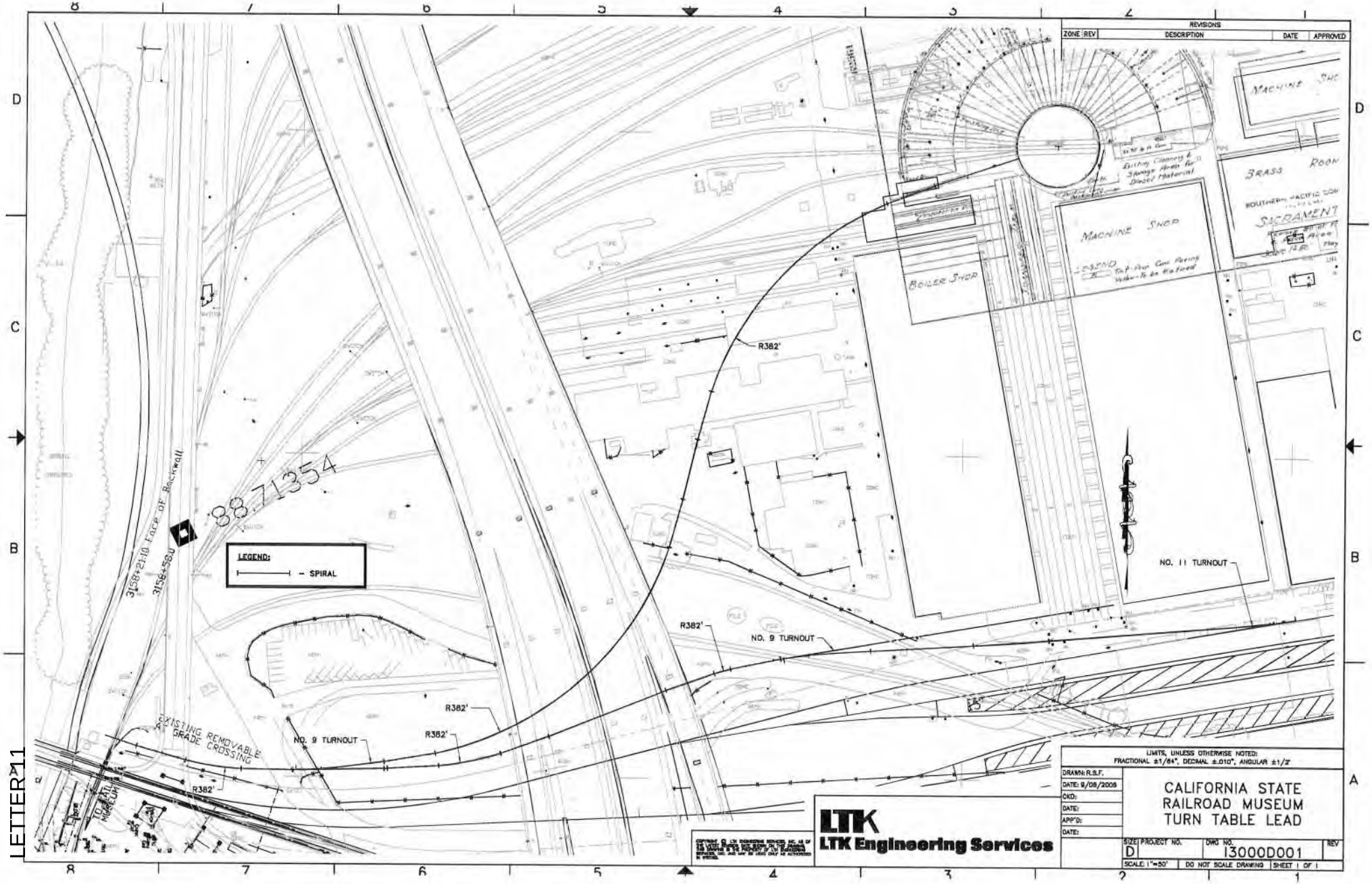
Thank you for this opportunity to provide additional comments on the DEIR.

Sincerely,

Paul Hammond
Museum Director
California State Railroad Museum

Cc: Catherine A. Taylor, District Superintendent, Capital District
Nedzlene Ferrario, Senior Planner, City of Sacramento
Jeff Asay, Legal Counsel, Union Pacific Railroad

Attachments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SOUTHERN PACIFIC CO.
SACRAMENT
BOILER SHOP
MACHINE SHOP
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315+21.10 EOP OF Backwall
315+58.0
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LIMITS, UNLESS OTHERWISE NOTED:
FRACTIONAL ±1/64", DECIMAL ±.010", ANGULAR ±1/2°
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CALIFORNIA STATE RAILROAD MUSEUM
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LETTER11

LETTER 11

TRACK RELOCATION AGREEMENT - SACRAMENTO YARD AND DEPOT

THIS TRACK RELOCATION AGREEMENT – SACRAMENTO YARD AND DEPOT ("Agreement") is made and entered into as of the 13th day of July, 2006, by and between **UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation (successor in interest to Southern Pacific Transportation Company, a Delaware corporation) ("UPRR"), **THOMAS ENTERPRISES OF SACRAMENTO, LLC (f/k/a Millennia Sacramento III, LLC)**, a Delaware limited liability company ("Developer"), **NATIONAL RAILROAD PASSENGER CORPORATION, a corporation organized under the Rail Passenger Service Act (49 USC 24104 et seq.)** ("Amtrak"), **CAPITOL CORRIDOR JOINT POWERS AUTHORITY,** a joint powers authority organized under California law ("CCJPA"), and the **STATE OF CALIFORNIA, DEPARTMENT OF PARKS AND RECREATION** ("CSRM").

RECITALS:

A. UPRR and Developer have entered into that certain Purchase and Sale Agreement and Escrow Instructions ("PSA Agreement") dated as of June 16, 2005 (as amended) pursuant to which Developer intends to purchase, at closing of the transaction on or before the Closing Date as set forth in said PSA Agreement, UPRR's Sacramento Yard and Passenger Depot (the "Railyards") in the City of Sacramento, County of Sacramento, State of California, described in Exhibit A attached hereto and made a part hereof, and on which Developer proposes to develop, inter alia, a mixed residential and commercial project ("Project").

B. Pursuant to said PSA Agreement and the Grant Deed described therein, UPRR has reserved unto itself and its successors and assigns two railroad right of way easements: Railroad Easement I being the existing main line right of way and trackage and Railroad Easement II being the proposed relocated main line right of way and trackage, both of which are shown in general outline for information only on Exhibit A.

C. Pursuant to said PSA Agreement, UPRR and Developer have entered into Construction And Maintenance Agreements relating to the Fifth Street Armature and the Sixth and Seventh Street grade separations at or adjacent to the Railyards (collectively, the "COM Agreements"), which said COM Agreements set forth the rights and obligations of the parties thereto with respect to the Armature and the said grade separations.

D. UPRR plans to relocate UPRR's main line right of way and tracks, including passenger platform tracks for Amtrak and CCJPA passenger service from that portion of Railroad Easement I located generally between the east end of the I Street Bridge to the Seventh Street grade separation to that portion of Railroad Easement II located generally between the same two points but further to the north, as shown on Exhibit A, it being understood that said railroad easements overlap and have the same boundaries between Seventh Street and Twelfth Street, all such relocation to be pursuant to and in accordance with the provisions of the PSA Agreement and this Agreement in order to accommodate the Project and UPRR's rail lines. Developer may arrange with the City of Sacramento's

Sacramento Intermodal Transportation Facility development ("SITF") for construction of the relocated passenger facilities to be utilized by Amtrak and CCJPA on Railroad Easement II, including site preparation, soil compaction, subgrade preparation, and passenger platforms, canopies, access tunnels, utilities, drainage and other related facilities.

E. In conjunction with the aforementioned relocation, UPRR has agreed to construct certain new trackage on and across Railroad Easement II, as further described herein, and to remove the existing trackage on Railroad Easement I, between the I Street Bridge and the Seventh Street grade separation, provided such relocation and construction work is funded by Developer or entities other than UPRR, as set forth herein.

F. Amtrak, pursuant to an existing agreement dated January 1, 2000 with UPRR, ("National Agreement") presently operates a number of long distance passenger trains to and from UPRR's Sacramento Passenger Depot, which structure is included within the sale as part of the PSA Agreement; and Amtrak further operates a number of intercity passenger trains to and from said depot under agreement with the CCJPA and with the California Department of Transportation; and said depot facility is an important component of such passenger service.

G. The parties contemplate continued rail access from the relocated UPRR mainline tracks to the former UPRR shop facilities which may be renovated and partially occupied by CSRM pursuant to separate agreements with Developer. Furthermore, the parties contemplate continued rail access from the relocated UPRR mainline tracks to CSRM - owned railroad tracks in old Sacramento. The locations of the turnouts from the mainline tracks and the connecting tracks to such CSRM trackage are shown on Exhibit B.

H. Pursuant to and in accordance with the terms and conditions of the COM Agreements, Developer plans to construct an "Armature" for the purpose of extending Fifth Street over and across Railroad Easement II, and highway grade separations at Sixth Street and Seventh Street, portions of which will either pass over or under the main line and passenger platform tracks as relocated to and constructed on Railroad Easement II, as shown on Exhibit B;

I. Amtrak, CCJPA and CSRM have been fully briefed and advised as to the nature of the Project and have agreed to the relocation of the freight main and passenger platform tracks, and associated passenger platforms and other facilities, to Railroad Easement II between the I Street Bridge and the Seventh Street grade separation, subject to review and approval of detailed plans and specifications, and each has severally pledged to cooperate and assist Developer in locating the funding and in the implementation of the said relocation; and

J. As a condition of closing of the transaction set forth in the PSA Agreement, and to facilitate the Project, and improve the freight and passenger rail facilities serving and passing through the Railyards, the parties hereto wish to set forth their conceptual approval of the Armature and grade separation structures, as well as the preliminary plans to relocate UPRR's main line and passenger platform tracks to Railroad Easement II as aforesaid, and their commitment to use their best efforts for a reasonable time to seek funding therefor.

AGREEMENT:

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and other good and valuable consideration, it is mutually agreed by and between the parties hereto as follows:

1. UPRR has prepared a Track Relocation Plan and a Material and Force Account Estimate for relocation of its freight and passenger main lines and passenger platform tracks from Railroad Easement I to Railroad Easement II ("Main Line Relocation"), between the east end of the I Street Bridge and the Seventh Street grade separation. The general locations of said railroad easements are shown on Exhibit A attached hereto. UPRR's Track Relocation Plan showing the area and extent of relocation in greater detail (Drawing No. CE05002 dated June 2, 2005, Revision No. 4) is attached hereto as Exhibit B and incorporated herein as though set forth at length. UPRR's preliminary Material and Force Account Estimate dated January 5, 2006 is attached hereto as Exhibit C and incorporated herein as though set forth at length.

2. The parties hereto have been involved for a significant period of time prior to the date of this Agreement in discussions and studies of relocation of UPRR's main line tracks and the passenger platform tracks as shown on Exhibit B. The parties hereto agree that they have been afforded adequate opportunity to review and inspect Exhibits A, B, and C and are knowledgeable and informed as to the content thereof. Each of the parties hereto agrees and acknowledges that the mutual covenants contained herein shall constitute adequate consideration for the obligations set forth herein.

3. Each of the parties hereto, by executing this Agreement, hereby consents and agrees that:

a) Provided that all design and construction work related to relocation of Amtrak and CCJPA's passenger platforms, passenger access tunnels, required passenger access facilities, including escalators and elevators to the extent legally required, canopies, lighting, utilities, drainage, and other required related passenger facilities (hereinafter collectively "Passenger Facilities") have been completed to the reasonable satisfaction of Amtrak, CCJPA and UPRR, and a lease agreement for use of the Sacramento station between Developer (or successors) and Amtrak has been signed, UPRR shall have the right to relocate its freight main lines and the passenger platform tracks utilized by Amtrak and CCJPA from their existing location on Railroad Easement I between the east end of the I Street Bridge and the Seventh Street grade separation, to the location on Railroad Easement II between said points, substantially in accordance with Exhibits B and C (as said Exhibit C may be amended), subject to the provisions of Section 6 hereof and to all other covenants and conditions contained in this Agreement. UPRR shall perform only the work and supply only the materials for such Main Line Relocation as shown on Exhibit C, subject to full reimbursement of the cost of such work and materials by Developer,

or such other parties as Developer may arrange. Amtrak, CCJPA and CSRM will each use their best efforts to assist the Developer in locating and securing the necessary funding for the Main Line Relocation. Notwithstanding anything to the contrary herein or in the PSA Agreement, UPRR shall have no obligation or duty to relocate said freight main lines and passenger platform tracks to Railroad Easement II unless and until UPRR has been assured to its reasonable satisfaction that: (i) the full cost of the Main Line Relocation work as described on Exhibits B and C will be borne by parties or entities other than UPRR; and (ii) that the full preliminary estimated cost of UPRR's relocation work as shown on Exhibit C has been deposited with UPRR (the "Relocation Deposit" as required by the PSA), provided, however, that to the extent the Relocation Deposit would consist of public funds, then written evidence that such funds are available to reimburse UPRR for its work shall suffice. Reciprocally, notwithstanding anything to the contrary set forth herein or in the PSA, Developer, Amtrak, CCJPA or CSRM shall not be obligated to fund the costs associated with the Main Line Relocation plan contemplated hereby if the funds sought pursuant to this Agreement are not available to such parties, but in such event, UPRR shall have no obligation to relocate any trackage to Railroad Easement II.

b) Following completion of the Passenger Facilities and the execution of a lease for use of the station by Amtrak and Developer, and acceptance of the Main Line Relocation work by UPRR and the other parties hereto, UPRR, Amtrak, CCJPA and CSRM (to the extent so required or permitted by other agreements) shall move their rail and passenger operations to the new tracks and Passenger Facilities located on Railroad Easement II and permanently cease operations over the tracks and passenger facilities on Railroad Easement I. Upon relocation of rail operations as provided herein, Amtrak, CSRM and CCJPA shall be deemed to have accepted the new tracks and facilities on Railroad Easement II as the equivalent of the existing tracks and facilities, and shall thereafter utilize such trackage and facilities in place and in stead of the existing tracks and facilities on Railroad Easement I. In connection therewith, Amtrak and CCJPA shall be entitled to use and occupancy of the new tracks and Passenger Facilities on Railroad Easement II to the same extent and in the same manner as they currently use the existing tracks and facilities on Railroad Easement I, including the right to operate additional passenger trains to and from Sacramento pursuant to existing agreements with UPRR. Developer acknowledges that Amtrak and CCJPA shall have the rights described above with respect to the new trackage and facilities on Railroad Easement II, and specifically acknowledges that in the exercise of such rights Amtrak and CCJPA are and shall be entitled to use the new passenger tracks for layover and servicing of their passenger equipment and locomotives in the same manner as such activities are accomplished currently on Railroad Easement I. Developer understands and acknowledges that in the exercise of such rights Amtrak and CCJPA may permit their locomotives to idle continuously while parked at and/or laying over on the new passenger platform tracks, and that such idling and the associated noise, fumes and vibrations are covered by the recorded CC&R's described in the PSA. Developer understands and acknowledges that Amtrak and CCJPA will refuel and service their locomotives and railcars while the same are parked on the new passenger platform tracks on Railroad Easement II, which will require diesel fuel and service trucks to be on and about

Railroad Easement II. Developer understands and acknowledges that UPRR, Amtrak, CCJPA and CSRM require roadway access to Railroad Easement II over Developer's adjoining property in order to conduct their respective activities including repair, servicing, inspection and maintenance of trackage and equipment. Such roadway access shall be in conformance with the Grant Deed (the form of which is Exhibit B to the PSA), which grants UPRR a reasonable right of access and ingress and egress over the Property to and from UPRR's easement areas and such access is to be accomplished using public streets and highways if open and available for such use. This access shall be open and available for use at all times by Amtrak, CCJPA, UPRR and CSRM in the conduct of their respective operations. Developer shall provide access to a point within Railroad Easement II which allows UPRR and the other users to utilize the grade crossing of the main line as shown on Exhibit B hereto. The parties agree that the location of the said grade crossing on Exhibit B is preliminary and that it may be relocated to accommodate the needs of all parties to this Agreement.

c) The Track Relocation Plan as shown on Exhibit B and the preliminary cost estimate as shown on Exhibit C are acceptable in concept to each of the parties hereto, provided that each of the parties shall have the reasonable right to review and comment on all final designs, plans and specifications, and estimates if, as and when prepared and available. Notwithstanding the foregoing, the parties hereto acknowledge and agree that UPRR's then current construction standards shall be applicable to and shall govern construction of the track relocation project. The parties further acknowledge and agree that the Exhibit C cost estimate will be revised by UPRR from time to time and that the costs as shown thereon are subject to modification.

d) UPRR, Amtrak, CCJPA and CSRM agree in concept to the location and design of the Armature and the Sixth Street grade separations (and the columns and supporting abutments therefor if shown on said Exhibit B) which the Developer intends to construct, maintain and operate above such parties' rail operations, subject to Developer's compliance with the terms of the PSA Agreement and the COM Agreements with UPRR, and with other reasonable restrictions on the use of the said structures as customarily required by UPRR for similar structures. The parties have discussed preliminary plans for the Seventh Street grade separation, and the parties hereto will work to finalize agreement on such plans, provided that such plans shall comply with UPRR standards for such crossings. The parties understand that the Seventh Street grade separation is an important component of track relocation and the development of the Property.

e) UPRR shall grant CSRM limited rights, at no cost or expense to CSRM, to operate engines and equipment over the trackage on Railroad Easement II (and over other trackage of UPRR as necessary) in order to allow CSRM to transfer equipment to and from its various facilities and to interchange freight traffic to and from UPRR. All CSRM operations over UPRR trackage shall be governed by a trackage rights agreement or industry track agreement (or equivalent) to be entered into by UPRR and CSRM, which agreement shall contain provisions which are typical for such agreements including safety requirements and allocation of

responsibility for maintenance of the new CSRM turnouts and trackage on Railroad Easement II or adjacent UPRR property (if any). CSRM acknowledges and agrees that its current track connection and crossing over UPRR's main line at the west end of Railroad Easement I shall be permanently removed upon completion of the new turnouts and trackage on Railroad Easement II. Unless otherwise agreed by Developer and CSRM, CSRM shall be responsible for reimbursing UPRR for the cost of installing the turnouts and connecting trackage on Railroad Easement II. Developer acknowledges that Amtrak, CSRM and CCJPA shall have the rights described above with respect to the new trackage and facilities on Railroad Easement II.

4. This Agreement does not contain and shall not be deemed or interpreted as imposing any binding or enforceable obligation, commitment or covenant on the part of UPRR to undertake the Main Line Relocation plan, except as specifically set forth in Sections 3, 10 and 11 hereof. This Agreement does not contain and shall not be deemed or interpreted as imposing any binding or enforceable obligation, commitment or covenant on the part of UPRR to provide any funding for, bear any part of the cost of, or pay any expenses associated with or relevant to, the cost Main Line Relocation plan as shown on Exhibits B and C, nor any part of the cost or expense of the Passenger Facilities work.

5. The parties hereto, other than UPRR, have committed to use their best efforts for a reasonable time to seek funds to assist Developer to pay the costs of the Main Line Relocation. Responsibility for the costs and expenses of the Main Line Relocation may be further governed by other documents and agreements as the parties may individually or collectively enter into (including the Material and Force Account Estimate as set forth below). Developer shall endeavor to deposit funds in a timely manner to facilitate delivery of the notice from Developer to UPRR set forth in Section 10 below. Developer shall send a copy of such notice to all other parties hereto. None of the parties hereto shall have any obligation or liability hereunder to UPRR or any of the other parties hereto other than to utilize its best efforts for a reasonable time. No partnership, joint venture, or other association imputing joint liability among or between the parties hereto is created hereby.

6. UPRR shall prepare and furnish by its own forces or by contractors and/or subcontractors as UPRR shall determine in its sole discretion, all final design work and all preparation of final plans and specifications (the "Plans and Specifications") for the Main Line Relocation from the present location of such facilities on Railroad Easement I to the proposed location on Railroad Easement II, which shall include design of the horizontal and vertical alignment of the track structure, (but shall not include subgrade or subballast design or site preparation which shall be Developer's responsibility or such other party arranged by Developer as set forth in Section 8), signal design and installation, and design and installation of all turnouts and other trackwork, as well as removal of all trackage and facilities from Railroad Easement I . The Plans and Specifications shall be prepared in compliance with all relevant federal and state rules and regulations and shall meet UPRR standards including federal Class V track specifications (including, without limitation, 30 mph speed capacity and the Cooper E-80 load capacity rating), except at the locations noted on the Plans and Specifications, if any, where the geometry of the design does not meet Class V speed standards. The parties agree that the Plans and Specifications for Main Line Relocation shall include three months of seasoning for the new facilities beginning on the date that all parties

permanently cease use of the facilities on Railroad Easement I. UPRR shall furnish and deliver the designs and Plans and Specifications for Main Line Relocation to the parties in such phases or stages as the parties shall mutually agree. UPRR shall use all reasonable efforts to adopt the plans and specifications as shown in Exhibits B and C, subject to customary UPRR design and construction standards and to the terms and conditions of the COM Agreements. All parties hereto shall be afforded reasonable opportunity to review and comment on all further designs, plans, specifications and estimates prepared by UPRR for Main Line Relocation.

7. a) The Plans and Specifications furnished for Main Line Relocation shall include a final "Material and Force Account Estimate" for the work to be performed by UPRR or its contractors, which shall thereupon be deemed substituted for Exhibit C hereto. Developer shall deposit the entire additional amount of such cost estimate, if any, over and above the preliminary deposit (the "Relocation Deposit" as required by the PSA) with UPRR within thirty (30) days of the date of receipt of the final Exhibit C estimate if such final estimate is more than the amount set forth in the preliminary estimate. All costs and expenses related to or associated with the Main Line Relocation shall be funded (or have funding arranged) by the Developer, subject to Amtrak, CCJPA, and CSRM's commitment to use best efforts as provided above to locate funding to assist Developer, (or such funding source arranged by Developer) who shall also be responsible for any cost overruns which UPRR may incur in the performance of the Main Line Relocation work (other than costs resulting from UPRR's unexcused failure to perform the work in accordance with the approved Plans and Specifications).

b) Alternatively, Developer may elect to solicit bids and enter into contracts for that part of the Main Line Relocation work involving the design and installation of ballast, ties and rails only with third-party reputable contractors experienced in the construction of similar rail projects, with the prior approval of UPRR and only so long as such election would not violate UPRR's labor contracts or result in a work stoppage, picketing, labor disruption, wage claims, or other similar disputes. If the Main Line Relocation work is so contracted to such third party contractor, then UPRR will have no obligation to perform that part of the Main Line Relocation work as described herein and Developer shall not have any obligation to deposit funds with UPRR for such work as required herein. Any such third-party contractor shall be instructed to perform the work in compliance with the Plans and Specifications, and otherwise in compliance with all relevant federal and state rules and regulations and UPRR standards.

8. The parties hereto understand and agree that the Plans and Specifications showing the work to be performed by UPRR for the Main Line Relocation shall not include any design and construction work related to installation of the Passenger Facilities on Railroad Easement II, including preparation of the site, soil compaction, subgrade preparation, and all platforms and other facilities (such as utilities and tunnels) for the use of Amtrak and CCJPA passengers, all of which Passenger Facilities are intended by Developer to be designed, funded and installed as part of the Sacramento Intermodal Transportation Facility ("SITF") planned by the City of Sacramento). Nothing herein shall be deemed to require UPRR, Amtrak or CCJPA to be responsible for the cost of providing replacement Passenger Facilities, which funds shall be provided through the SITF process or other third-party sources. Amtrak and CCJPA shall have the right to review and approve all designs for

Passenger Facilities, regardless of whether such designs are prepared by Developer, by third parties, or by the City of Sacramento. Developer agrees that no Passenger Facilities may be constructed except in accordance with final plans and specifications approved by Amtrak and CCJPA, or otherwise approved as part of the SITF planning process. UPRR shall have the right to review and approve all designs and all plans and specifications for the site and subgrade preparation and for the Passenger Facilities; provided, however, that UPRR's scope of review shall be limited to determining whether (i) such items meet acceptable industry and UPRR standards including federal track specifications and CPUC clearance and walkway standards, (ii) there will be any interference with or danger to UPRR freight rail operations during construction and after completion of the Project, and (iii) the other relevant terms and conditions of this Agreement have been satisfied. UPRR shall use best efforts to complete its review within three weeks after receipt, but UPRR may take up to thirty-five days to review such changes, based upon UPRR's scheduling constraints and the complexity of the changes under review. Any tunnels to be constructed under UPRR trackage on Railroad Easement II shall be designed and certified by a state licensed structural engineer as adequate to support railroad freight loadings.

9. Developer shall obtain all required state and local governmental permits and approvals, if any, required for the Main Line Relocation, as part of its work therefor. UPRR shall obtain any required Federal Railroad Administration, CPUC or Surface Transportation Board permits or approvals for the relocation.

10. UPRR agrees to undertake and perform, whether by its own forces or by contractors or subcontractors, all work identified as Main Line Relocation on the final approved Plans and Specifications for Main Line Relocation (subject to the possibility that trackwork may be contracted to a third party as provided in Section 7(b) above), provided Developer has notified UPRR in writing no less than ninety (90) days in advance that UPRR is authorized to begin the Main Line Relocation and to progress such work to completion in accordance with the work schedule which shall be set forth in the final Plans and Specifications, and that the entire amount of the funding required for commencement of the Main Line Relocation (as set forth in the Material and Force Account Estimate for the final Plans and Specifications) has been deposited with UPRR as required by the PSA (or otherwise made available as described in subsection 3(a), in accordance with laws relating to use of public funds). Developer shall send a copy of such notice to all other parties hereto. In the event the Main Line Relocation is permanently abandoned by mutual agreement of the parties hereto, UPRR will refund to each of the depositing parties all funds it has deposited with UPRR pursuant to this Agreement, except to the extent such funds have been expended by UPRR in connection with such Main Line Relocation. All Main Line Relocation work shall be in compliance with all relevant federal and state rules and regulations and shall meet all applicable UPRR standards.

11. Notwithstanding any other provisions in this Agreement, UPRR shall not be obligated to commence the Main Line Relocation work unless and until:

(a). The site of Railroad Easement II has been prepared and the required railroad subgrade (including placement of subballast) has been completed;

(b). The supporting columns, abutments and basic superstructure of the Armature and the grade separations have been installed pursuant to the COM Agreements, unless UPRR has determined that such items can be completed following commencement of Main Line Relocation work

(c). The Passenger Facilities and associated facilities such as refueling, servicing, cleaning and lighting (if any) have been installed, unless UPRR has determined that such items can be completed following commencement of Main Line Relocation work

(c). The notice required by Section 10 hereof has been given to UPRR at: Union Pacific Railroad Company, 1400 Douglas Street, Omaha, Nebraska, 68179; Attn: Vice President Engineering, Mail Stop 0910;

(d). The Main Line Relocation escrow account is fully funded as described in Sections 3(a) and 10 above; and

(e). UPRR and Developer (and such of the other parties as may be necessary and appropriate) have entered into such further agreements, if any, as may be required to facilitate the Main Line Relocation

12. This Agreement may be executed in counterparts each of which shall be deemed an original but all of which taken together shall constitute one and the same instrument.

13. Upon completion of the Main Line Relocation work and transfer of all freight and passenger operations to the new main lines, the passenger platform tracks and Passenger Facilities on Railroad Easement II, Amtrak, CCJPA and UPRR hereby agree that: (a) the National Agreement shall be fully applicable with respect thereto and (b) the National Agreement shall not be applicable in any manner to Railroad Easement I or to any railroad facilities thereon, and Amtrak, CCJPA and UPRR shall have no further rights or obligations under the National Agreement with respect thereto (subject to satisfaction of any accrued rights or obligations pending at such time).

14. The obligations of all parties under this Agreement are expressly conditioned upon the occurrence of the sale of the Property by UPRR to Developer as contemplated by the PSA.

IN WITNESS WHEREOF, the parties have entered into this Agreement as of the date first above written.

UNION PACIFIC RAILROAD COMPANY

By: _____
Name: M W COSBY
Title: GENERAL DIRECTOR

THOMAS ENTERPRISES OF SACRAMENTO, LLC

By:_____
Name:_____
Title:_____

NATIONAL RAILROAD PASSENGER CORPORATION

By:_____
Name:_____
Title:_____

CAPITOL CORRIDOR JOINT POWERS AUTHORITY

By:_____
Name:_____
Title:_____

STATE OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

By:_____
Name: Catherine A. Taylor
Title: District Superintendent – Capital District

LETTER 11

THOMAS ENTERPRISES OF SACRAMENTO, LLC

By:_____
Name:_____
Title:_____

NATIONAL RAILROAD PASSENGER CORPORATION

By:_____
Name: David J. Hughes
Title: Acting President and CEO

FORM APPROVED
Date 3/29/06
Sig
LAW
DEPARTMENT

CAPITOL CORRIDOR JOINT POWERS AUTHORITY

By:_____
Name:_____
Title:_____

STATE OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

By:_____
Name: Catherine A. Taylor
Title: District Superintendent – Capital District

THOMAS ENTERPRISES OF SACRAMENTO, LLC

By:_____
Name:_____
Title:_____

NATIONAL RAILROAD PASSENGER CORPORATION

By:_____
Name:_____
Title:_____

CAPITOL CORRIDOR JOINT POWERS AUTHORITY

By:_____
Name: Eugene K. Skoropowski
Title: Managing Director

STATE OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

By:_____
Name: Catherine A. Taylor
Title: District Superintendent – Capital District

THOMAS ENTERPRISES OF SACRAMENTO, LLC

By:_____
Name:_____
Title:_____

NATIONAL RAILROAD PASSENGER CORPORATION

By:_____
Name:_____
Title:_____

CAPITOL CORRIDOR JOINT POWERS AUTHORITY

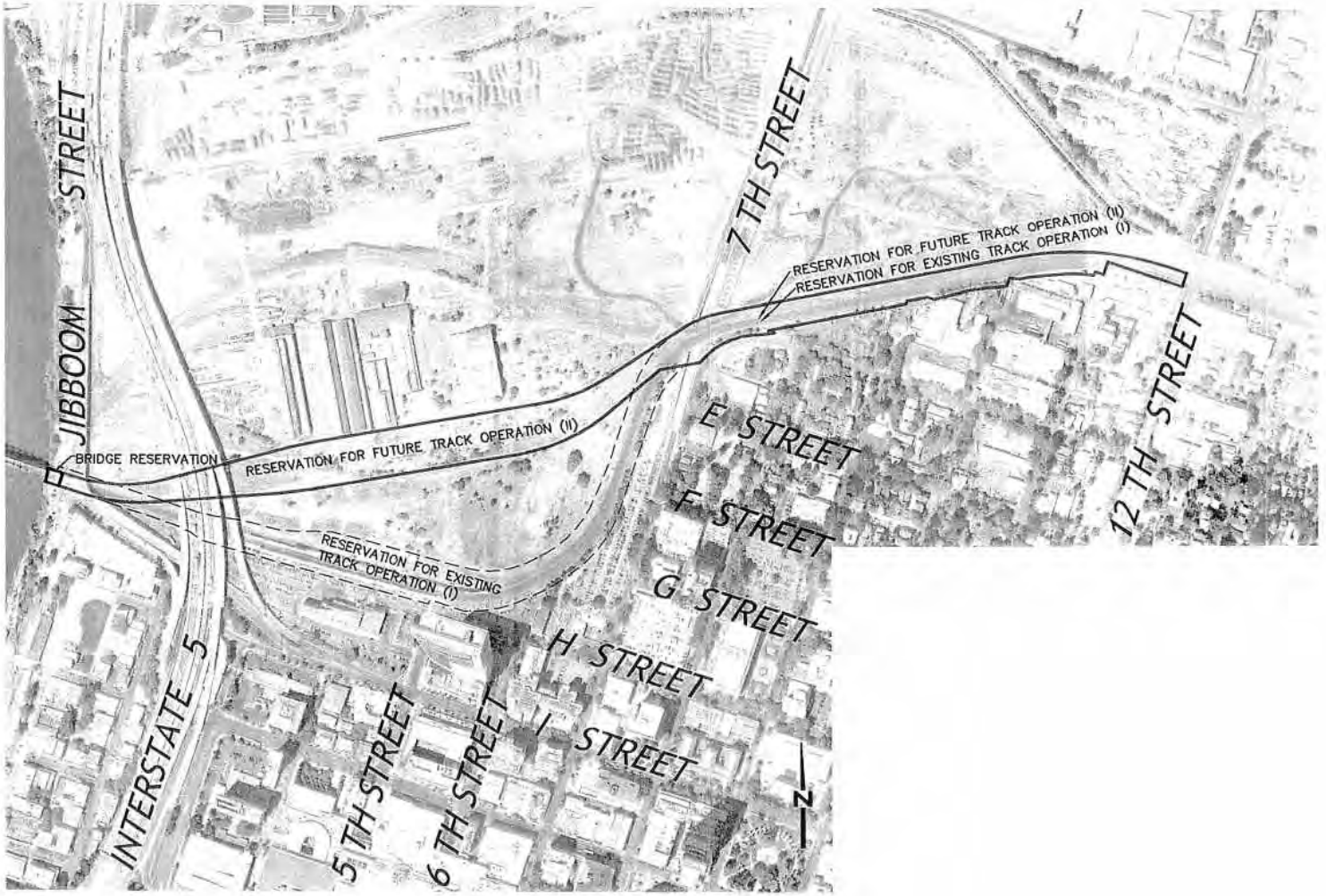
By:_____
Name:_____
Title:_____

STATE OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

By: Catherine A. Taylor 1/26/06
Name: Catherine A. Taylor
Title: District Superintendent – Capital District

EXHIBIT A

LETTER 11



DATE: _____ TIME: _____
SERVER: _____ SERVICE: _____
PATH: _____
DRAWING NAME: _____
PLOTTING VIEW: _____
DESIGNER: _____ PROJ. MGR: _____

XREFS:

NOLTE
BEYOND ENGINEERING
1750 CREEKSIDE OAKS DR. SUITE 200, SACRAMENTO, CA. 95833
916.641.1600 TEL 916.641.8228 FAX WWW.NOLTE.COM

RESERVATION FOR TRACK OPERATION

PREPARED FOR: UP RAILROAD

DATE SUBMITTED: 9/14/05

SHEET NUMBER 1 OF 1 SHEETS

JOB NUMBER SA1371

EXHIBIT B

LETTER 11

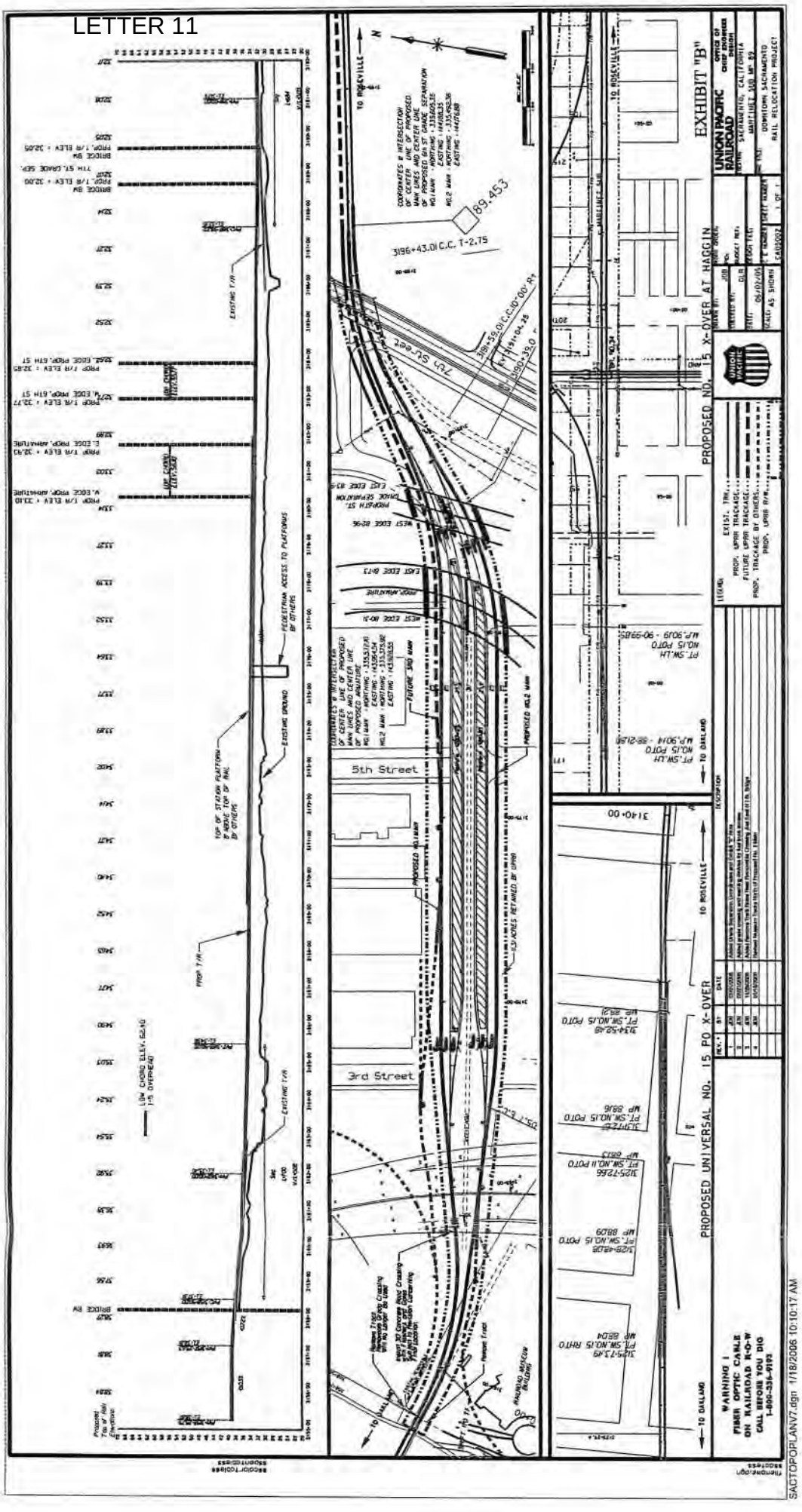


EXHIBIT "B"
PROPOSED UNIVERSAL NO. 15 PO X-OVER
PROPOSED NO. 15 X-OVER AT HAGGIN
UNION PACIFIC RAILROAD
DOWNTOWN SACRAMENTO RAIL RELOCATION PROJECT
WARNING !
FIBER OPTIC CABLE ON RAILROAD R-O-W
CALL BEFORE YOU DIG
1-800-336-9193
7th St. Grade
5th Street
3rd Street
TO ROSEVILLE
TO OAKLAND
SACTOPOPLANV7.dgn 1/18/2006 10:10:17 AM

EXHIBIT C

Material and Force Account Estimate

LETTER 11

Material And Force Account Estimate
ML Relocation Project

Estimate Number: 6943 Version: 3

Standard Rates: Labor Additive = 232% WT Labor Additive = 173.72% Inflation Additive = 0.00%

Estimate Good for 6 Months Until 07/05/06

Location: MARTINEZ SUB, CONN, 75.35-90.06

Description of Work: Sacramento Line Change - Track and Signal Only

COMMENTS	FACILITY	Description	QTY	UOM	UCST	LABOR	MATERIAL	TOTAL
ENGINEERING								
		CONTRACT SURVEYING/STAKING	1	LS	10,000.00	0	10,000	10,000
		ENGINEERING	1	LS	300,000.00	300,000	0	300,000
		FLAGGING	60	MD	660.00	39,600	0	39,600
					Sub-Total =	**339,600**	**10,000**	**349,600**
TRACK CONSTRUCTION - COMPANY								
	TRACK	136#CWRHH0 CTIE SAFLOK3	5311	TF	200.28	541,708	521,975	1,063,683
station tracks	TRACK	136# CWRSS0 24-8' 16" N TP	6226	TF	214.56	867,005	468,847	1,335,853
	TRACK	SHIFT TRACK: M.L. 30% TIES	560	TF	32.49	11,805	6,387	18,192
HAGGIN	PPTO	PPTO 136# #15 PO SMSR	2	EA	180,271.81	140,638	219,906	360,544
station track turnouts	PPTO	PPTO 136# #11 PO XLSR PREPLATE	4	EA	156,940.70	256,271	371,492	627,763
	XTIES	TRANSITION TIE SET 30-50 MPH	4	EA	2,271.20	1,858	7,227	9,085
west of river	XOVER	XOVER 136# #24 PO XLSR PRMWD - 13' TC	2	EA	501,658.89	551,345	451,972	1,003,318
	DERAIL	DERAIL: 136# PO DPSS	8	EA	21,533.85	22,562	149,709	172,271
fuel truck access	RDXING	136# CON ON CON RDX W/8'6"SAFLOK3 TIES	30	TF	1,038.21	22,516	8,630	31,146
museum trks - should be 136#	PPTO	PPTO 141# #11 PO MISR CONC	2	EA	146,244.54	126,069	166,420	292,489
m/l station trk t/o's - should be 136#	PPTO	PPTO 141# #11 PO MISR CONC	4	EA	146,243.54	252,138	332,836	584,974
					Sub-Total =	**2,793,915**	**2,705,402**	**5,499,317**
TRACK REMOVAL - COMPANY								
	TO	REMOVE TO: #14	2	EA	6,732.88	13,466	0	13,466
	TRACK	REMOVE TRACK	10391	TF	9.26	96,252	0	96,252
	TO	REMOVE TO: #10	2	EA	4,264.12	8,528	0	8,528
					Sub-Total =	**118,246**	**0**	**118,246**
SIGNAL - COMPANY								
includes warning devices		SIGNAL: INSTALL	1	LS	4,509,732.00	2,169,433	2,340,299	4,509,732
					Sub-Total =	**2,169,433**	**2,340,299**	**4,509,732**
EQUIPMENT RENTAL								
		EQUIPMENT RENTAL	1	LS	200,000.00	0	200,000	200,000
					Sub-Total =	**0**	**200,000**	**200,000**
HOMELINE FREIGHT								
		HOMELINE FREIGHT	27767	Per Ton	5.45	0	151,296	151,296
					Sub-Total =	**0**	**151,296**	**151,296**
PROJECT LEVEL COST								
	CONTINGENCIES	CONTINGENCY	10	%	108,281.91	542,119	540,700	1,082,819
					Sub-Total =	**542,119**	**540,700**	**1,082,819**
Total Wgt. in Tons = 27,767					**Totals =**	**5,963,313**	**5,947,697**	**11,911,010**

Grand Total = $11,911,010

This estimate using 2006 dollars, includes design engineering, labor and materialcosts to construct the propsed UPRR Main Line Relocation Project, which shall include installation of tracks, turnouts and signal facilities only. It assumes all grading will be performed by a Third Party. The Platform, other Passenger Facilities, Armature and Sixth StreetStructures are not included in this estimateand will be provided by AMTRAK and Millenia Sacramento III, LLC

LETTER 12

JOHN M. TAYLOR
JAMES B. WILEY
JESSE J. YANG
KATE A. WHEATLEY
MATTHEW S. KEASLING

OF COUNSEL
KATHLEEN R. MAKEL

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October 3, 2007

Via E-Mail, Facsimile and US Mail

Mr. Scott Johnson, Associate Planner
City of Sacramento Development Services Department
North Permit Center
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834
srjohnson@cityofsacramento.org

Re: Railyards Specific Plan Draft Environmental Impact Report (State Clearinghouse # 2006032058)

Dear Mr. Johnson:

On behalf of our client, The California State Railroad Museum Foundation, we are submitting these comments on the Railyards Specific Plan Draft Environmental Impact Report (the "DEIR"). As a nonprofit organization that supports railroad heritage preservation, we are very concerned with how the Railyards Specific Plan and associated entitlements (the "Project") may substantially affect historic resources of national and state importance. The curator of Work & Industry at the Smithsonian Institution has stated:

> These are among the most historically significant buildings in all of California. They include the only remaining original structure in the United States built by the California railroad that constructed the western half of the world's first transcontinental rail line. And that building dates from the very year the Golden Spike was driven, 1869.

It is imperative that these historic resources are preserved in their appropriate context and receive appropriate protections. In that light, we are submitting the following comments.

Chapter 3

Table 3-5 on page 3-32 provides assumptions for "Historical/Cultural Uses" as part of the project description. The notes to this table indicate that the table is illustrative and that actual uses and mix will be "determined by market forces." Does that mean that the entire area could be used for retail or that there could be a scenario where there are no cultural or historical uses? The DEIR fails to address such a scenario in the Cultural Resources Section 6.3. 12-1

Page 3-61 of the DEIR lists among other project approvals and entitlements the approval of an SPD Zoning Ordinance, Finance Plan, Development Agreement, and Historical District Ordinance, yet these items were not available for public review and comment as of the due date for making comments on the DEIR. Chapter 3, the Project Description in the DEIR is incomplete and therefore inadequate because the provisions of key entitlements have not been disclosed to the public. In addition, substantial changes are being made to the Specific Plan and Design Guidelines, such that the project description in the DEIR is no longer appropriate. The public cannot have a meaningful understanding of the Project nor can they adequately evaluate what impacts will occur due to the lack of, and continuous changing of, significant Project information. Furthermore, the public cannot adequately assess whether the proposed mitigation is adequate and/or feasible due to the lacking information. As noted by the court in County of Inyo v. City of Los Angeles, 71 Cal.App. 3d 199 (1977), "an accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." Furthermore, there have been substantial discussions at public meetings about the difficulty in funding the infrastructure necessary for the Project, accordingly, without the finance plan it is unclear whether mitigation that has been recommended can actually be implemented. 12-2

The DEIR also fails to list amendments to Sections 17.134 and adoption of a Historic District ordinance as required approvals.

Chapter 4

Chapter 4, the Plans and Policies Consistency Analysis, is inadequate because of the lack of significant information, including the SPD Zoning Ordinance, the Finance Plan, the Development Agreement, and the Historic District Ordinance and how these entitlements fit into the analysis. The SPD is to provide the development standards for the Project and a new process for subsequent approvals for the Project. These standards are significant information that the public should be able to review in analyzing the Project's impacts to the environment. 12-3

Chapter 6

Chapter 6, Cultural Resources, is inadequate as it is lacking significant information about the resources on the Project site, it fails to adequately describe the potential Project impacts, and does not provide adequate mitigation.

The DEIR at page 6.3-30 spends two paragraphs discussing the inability to determine the precise location of the First Transcontinental Railroad route on the project site. However, this is a significant historic resource that existed at this site and had a substantial influence on the development of the City of Sacramento, the State of California and the nation. The First Transcontinental Railroad is the reason the Central shops are located here in Sacramento. Therefore must be more effort taken to establish the Transcontinental Railroad alignment. This information is necessary to understand the Project's impacts on this significant historic resource. The California State Railroad Museum has substantial evidence regarding the original alignment, including maps, diagrams and written alignment descriptions from the period plus aerial photos and archaeological evidence. The Museum can provide this information to the document preparer. Furthermore, the following questions need to be addressed regarding the Transcontinental Railroad: Will there be buildings developed on top of this resource? Why is this resource not included in the proposed historic district? How will this resource be interpreted? 12-4

On pages 6.3-50, 51 of the DEIR and in Appendix H, The Historic Impact Analysis, it is stated that there is not adequate information regarding the proposed Historic District Boundary. The Historic Boundary must be defined clearly based upon the resources so that impacts to such resources can clearly be identified and understood. There are critical resources that are currently not within the proposed District, such as the Transcontinental Railroad and the 12-5

Roundhouse foundation. The impacts to these resources are not adequately addressed. 12-5 (con't.)

On page 6.3-50 of the DEIR and page 15 of Appendix H, it is stated that the Erecting Shop, Boiler Shop, Roundtable, and Transfer Table were not included in the ARG analysis because they were not part of the Specific Plan when the ARG analysis was performed. These historic resources are now, however, a part of the Project and require the same level analysis as the other historic facilities for the DEIR to be adequate. 12-6

Appendix H indicates on page 5 that the SPD Ordinance was not completed when the analysis was done. (It is still not available to the public.) Appendix H further states that "[t]he SPD is intended to become a City Ordinance that will officially govern the manner in which the Railyards project is constructed." Without this information, the public cannot assess what future procedures will be required by the City to protect the historic resources. 12-7

On page 6 of Appendix H, the analysis notes that the Project "does not yet include specific plans or tenants for the Central Shop Buildings or detailed plans for the buildings, parks/open spaces, and other facilities to be located around or near the Central Shops." As discussed above regarding Chapter 3, the impact on the historic resources can not be assessed without understanding the use of the buildings and the mix of uses within the buildings. 12-8

The Cultural Resources Chapter is also inadequate because it does not disclose significant historic resources that are within the buildings that have not been assessed, such as, cranes, rails, and tools, to name a few items. 12-9

The Cultural Resources Chapter also fails to address impacts to the Old Sacramento Historical District. 12-10

The DEIR cannot adequately assess the Project impacts because of the significant information that is missing from the document. For example, there is no discussion on what additional discretionary action would be necessary to develop the historic buildings or on adjacent buildings. Thus, if more specific environmental analysis will be necessitated, the process for triggering such review is unknown. Instead, Appendix H states that "additional studies may occur as the Railyards project proceeds". The Project Description provided in Chapter 3 provides a list of potential uses for the Historic Shops District. The uses that locate in the buildings and the mix of these uses can have significantly 12-11

different impacts on the historic context of these important buildings. For instance, a museum that includes use of the buildings in their historic context has a much different impact on the historical nature of the resources than an entertainment or retail use of the same building. A 60 foot brick building adjacent to the 60 feet high turn of the century buildings will have a significantly different impact on the historic resource than a 180 foot tall modern style building. It is inappropriate to conclude that the impact on these historic resources can be mitigated to a less-than-significant level without understanding how these structures are going to be used and what will be surrounding them. 12-11 (con't.)

Accordingly, the DEIR's conclusion that impacts can be mitigated to "less-than-significant" is inappropriate on all the Cultural Resource impacts, because the impacts are uncertain at this point. Applying the Secretary of Interior's standard is a good approach, but it is not dispositive. CEQA Guideline Section 15064.5 (b) (3) uses the term "generally" to describe when the application of the Secretary of Interior's standards allows for the determination of less than significant. Here there is significant information that still needs to be assessed in order to understand the impacts on the resources and whether the area to which the Secretary of Interior's standards will be applicable is appropriate. Furthermore, the Design Guidelines and Specific Plan documents that the DEIR relies upon for setting standards of preservation are not adequate. These documents are still being modified and allow for development within twenty feet of the historic resources that could substantially impact the integrity of the resources individually and as a whole. 12-12

The mitigation measures also do not include a recommendation from Appendix H, that recommendation would require the Applicant to nominate the Historic District for listing in the National Register. 12-13

The Final EIR should also address that a historic district has been nominated by parties other than the Applicant, and reconcile the difference in boundaries for that district and the one proposed as part of the Project. 12-14

Chapter 6.8

The Noise and Vibration Chapter fails to address how building adjacent to the central shop buildings (20 foot setback) will impact the historic buildings. How will pile driving occur without damaging the historic resources? This Chapter also fails to describe how building towers on the west side of the I-5 freeway will impact the central shop buildings. It has been stated at public 12-15

hearings that these buildings will deflect noise from the waterfront. Does this increase the noise impact on the central shops? 12-15 (con't.)

Chapter 6.13

The Urban Design and Visual Resources fails to adequately address impacts to the cultural resources in the Central Shops due to height and design of adjacent buildings and proposed buildings separating these facilities from the River. The development of high-rise buildings adjacent to the shops will have a significant impact on the historic integrity of these buildings. The development of high-rise buildings west of I-5 will negatively impact views to and from the river and the central shops. The proposed Design guidelines provide for limited protection from impacts by stating that the new buildings "should be sited to maximize, to the extent possible, views from the Railyards to the Sacramento River..." This is not a very strong protection of view sheds. 12-16

Chapter 7.0

What is the basis for the assumptions in the Market Support Segments? The Railroad Technology Museum would provide 500,000 visitors a year alone, according a market study provided to the Museum. What type of entertainment venues are anticipated in these assumptions and where are they to be located? 12-17

Conclusion

The DEIR requires significant new information to correct its deficiencies and, thus, recirculation is required in order for the public to have meaningful understanding of what impacts will result from the project. This information is also necessary to understand how these impacts will or will not be feasibly mitigated. Thank you for this opportunity to comment on the DEIR. 12-18

Very truly yours,

James B. Wiley

cc: Kathy Daigle, Associate Director of CSRM Foundation
Bob Slobe, Board Chair of CSRM Foundation

LETTER 13

Municipal Services Agency

Department of Transportation
Tom Zlotkowski, Director

Terry Schutten, County Executive
Paul Hanh, Agency Administrator

County of Sacramento

August 31, 2007

Mr. Scott Johnson, Associate Planner
City of Sacramento, Development Services Department
Environmental Planning Services
North Permit Center
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

SUBJECT: DEIR – RAILYARDS (P05-097)

Dear Mr. Johnson:

The Sacramento County Department of Transportation has reviewed the DEIR for the above-referenced project. We appreciate the opportunity to review this DEIR and have no comments at this time.

If you have any questions please call me at 875-2844.

Sincerely,

Jaskamal Singh

Jaskamal Singh
Associate Transportation Engineer

MGD:js

c: Steve Hong, IFS

October 3, 2007

Mr. Scott Johnson
City of Sacramento
Development Services Department
2101 Arena Boulevard, Suite 200
Sacramento, CA, 95834

SUBJECT: DEIR and Appendices, Sacramento Downtown Railyards #P05-097
SMAQMD # SAC200500788E

Dear Mr. Johnson:

Thank you for providing the project listed above to the Sacramento Metropolitan Air Quality Management District (District). The District is supportive of this high density, mixed-use project which will provide a vital linkage between downtown Sacramento and the River District and Alkali Flats. There are many issues, however, with the air quality section of the CEQA document which must be addressed. Those issues include the off-site construction fee methodology, the draft Air Quality Mitigation Plan, the Toxic Air Contaminant analysis and interpretation, and the treatment of Global Warming. In addition, there is the issue of the possibility of a change or several changes in the District Thresholds of Significance which would, assuredly, affect the construction mitigation program as it goes forward. Staff comments follow.

Analysis of construction emissions

The Railyards DEIR presents an analysis of the project's estimated construction-related air quality impacts and determines that those emissions will be "significant."[1] The methodology for the analysis was a manual calculation as opposed to the use of URBEMIS. The analyst used emission factors from a generic construction fleet mix, scaled the construction fleet up according to the size of the project and accounted for the usage of the fleet over time. The analysis divided the project into four phases over approximately twenty-two years. The generic construction fleet mix came from District recommendations for users of URBEMIS 8.7. The result of this analysis is distilled onto one page in Appendix D (attached). The results are further summarized in Table 6.1-5.[2] This approach is very generic and is reflective of the fact that probably little is known at this time about specific construction phasing and equipment. 14-1

The analysis could be vastly improved if specific construction equipment was known, however, according to the air quality analyst[3], specific equipment was not known at the time of the analysis. It is obvious that as the project is actually built, the fleet mix of "dozers, graders, water trucks and 'other'" equipment will actually be a variety of equipment whose emission factors will deviate from what is presented in the analysis. In addition, the analyst used the same emission factors for like equipment throughout the 20 year duration project. However, it is probable that construction equipment will

[1] Railyards, DEIR, pg 6.1-21
[2] Railyards, DEIR, pg 6.1-22
[3] Phone conversation, Geoff Hornek, EIP, September 2007

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become less emissive over time but this improvement is not reflected in the analysis. Finally, according to the analyst, the analysis included the removal of the rail lines. However, the District believes the removal and replacement of the UP rail lines is not included in this analysis at all. The District's CEQA guidance related to typical construction equipment for most projects never envisioned that those projects would require the movement of rail lines. The District had specifically asked for an analysis of this activity in its response to the NOP. The equipment needed to remove rails and to compact the earth prior to the installation of new rails will assuredly be diesel equipment, some of it specific to that task.

As generic as the analysis is, it clearly does show that the project will exceed the District's current construction-related threshold of 85 lbs/day by a considerable margin for over 20 years. For example, NOX emissions for the first phase of the first two years of construction will result in average daily emissions of 484 lbs/day NOx. Construction related emissions, then, are determined to be a significant impact.

Construction-related off-site mitigation

In order to mitigate this significant impact, Mitigation Measure 6.1-2 requires the use of the District's "standard on-site construction mitigation." This measure requires the use of cleaner construction equipment. In addition, the document requires the payment of an off-site construction mitigation fee which will, in effect, mitigate the NOx emissions down to the District's threshold. That corresponding mitigation measure states:

> *6.1-2 e) The project applicant shall pay into the SMAQMD's construction mitigation fund to offset construction-generated emissions of NOx that exceed SMAQMD's daily emission threshold of 85 lbs/day. The project applicant shall coordinate with the SMAQMD for payment of fees into the Heavy-Duty Low-Emission Vehicle Program designed to reduce construction related emissions within the region. Fees shall be paid based upon the applicable current SMAQMD Fee. The applicant shall keep track of actual equipment use and their NOx emissions so that mitigation fees can be adjusted accordingly for payment to the SMAQMD.* [4]

14-1 (con't.)

The District recognizes that the Railyards project is a complex one which will be built out over an estimated 20 years. The construction emission calculations for the determination of significance were done in a very generic way. The off-site mitigation fee for this project, based on the estimated emissions listed in table 6.1-5[5] would be very large. According to the District draft worksheet[6], if one assumes 264 work days for every year listed in the table, the fee would be $15,070,956. The District's normal protocol is to have the applicant pay that fee prior to the issuance of the first grading permit. The mitigation measure above is not consistent with the District protocol in that it does not state the fee in the measure nor specify when the fee is to be paid, but it references an after-the-fact adjustment of the fee based on actual equipment usage.

Given the fact it is not possible to know what equipment and schedule will be used for this project during its long build-out, the District proposes a Railyards-specific mitigation

[4] Railyards, DEIR, pg 6.1-23
[5] Railyards, DEIR, pg 6.1-22
[6] Draft District fee calculation worksheet for entire project, 2010-2029, attached

fee payment methodology which departs from normal District protocol. This methodology would involve payment of a fee on an annual basis and an annual adjustment of that fee based on actual equipment. This methodology is explained below:

Proposal: a phased payment approach with annual reconciliation and the provision of a construction activity monitor.

1) Annual fee payment
Prior to the issuance of the first grading permit, the applicant will provide the District the estimated construction equipment and schedule to be used in the first year of construction for any part of the Railyards project. Applicant will also provide a calculation of the estimated NOx emissions for that year's construction activity. The applicant will pay the District the off-site mitigation fee for any unmitigated emissions above the District's then current threshold (currently 85 lbs/day NOx) for that year prior to the issuance of the grading permit. Grading will not start without the payment of the fee. The off-site mitigation fee will be based on the then current cost to reduce a ton of NOx (currently $14,300/ton). In addition, the applicant will provide the then current administrative fee (currently 5% of mitigation fee) for the year.

2) Guaranteed monitoring
In addition, the applicant will provide monitoring funds sufficient for the District to pay an inspector for 10 hours of inspection time per week for the life of the project on an annual basis. This will allow for the inspection of the project's construction activity for the year. The inspector will be employed by District and the hourly rate will be commensurate with District inspectors.

3) On-site mitigation monthly reports
During construction for the life of the project, the proponent will submit monthly construction reports to the District per the requirements of the on-site mitigation fee program. Those reports will comply with the requirements of that mitigation, including a listing of all construction equipment and hours used.

4) Annual reconciliation/ adjustment
The date of the issuance of the first grading permit will be considered the "anniversary date of construction." During the first quarter after each "anniversary date of construction," the District will reconcile the off-site mitigation fee paid the prior year with the cost of mitigation for emissions actually produced during the year. If the applicant is due a partial refund, that amount will reduce the following year's off-site mitigation fee. If the applicant owes more money, that amount will increase the following year's off-site mitigation fee.

For example, using the figures provided in the DEIR, the project's construction-related activities have been estimated to result in 484 lbs/day NOx for the entire first year (2010)[7]. Assuming a year has 264 work days, the construction related off-site mitigation fee for the first year would be $753,152 plus a $37,658 administrative fee.[8]

14-1 (con't.)

[7] Railyards, DEIR, Appendix D1
[8] Draft District fee calculation worksheet for Phase 1A, 2010, attached

If, in the course of the first year, the applicant used less equipment and produced less emissions than was estimated in the construction of the project, then that fact would be reflected in both the monthly reports turned in by the applicant and by the findings of the inspectors. That difference would be captured monetarily during the reconciliation process which would take place during the first quarter of year two and it would be applied to the third year's fee. The reason for the timing is that by the "anniversary date of construction," the applicant would have estimated emissions for the second year and paid the fee for the second year. The reconciliation process for year one would take place after the payment of the second year's fee and during the first quarter of year two. In this example, if the District found that the applicant overpaid the first year by $100,000, then the 3rd year's estimated fee would be reduced by $100,000. If on the other hand, it was found more equipment was used and more emissions produced, the third year's fee would be increased accordingly.

5) Repeat process
This process of the applicant estimating the next year's emissions, paying the appropriate fee prior to the first grading permit or the anniversary date of the first grading permit and then having the District reconcile the fee would be repeated yearly until project build out.

6) End of construction
After all the project's construction is completed, the District would reconcile the previous two years' worth of emissions estimates and actual emissions and either issue a refund of some amount (assuming emission estimate was higher than actual) or request an additional fee amount (assuming emission estimate was less than actual).

The process described above may appear to imply that the "applicant" is a single entity who will be shepherding the construction process for the full duration of the project. In reality, parts of this project may be sold off and a variety of applicants may be seeking entitlements. The District intends for the language suggested below to include all successors and assigns of the "applicant."

14-1 (con't.)

In order to capture this project-specific mitigation fee protocol, Mitigation Measure 6.1-2e should be rewritten as follows:

6.1-2 e) The project applicant (and successors and assigns) shall pay annually into the SMAQMD's construction mitigation fund to offset construction-generated unmitigated emissions of NOx that exceed SMAQMD's then current daily emission threshold (currently 85 lbs/day) until project build out. The project applicant shall estimate construction activities and corresponding emissions on an annual basis. Fees will be paid to the SMAQMD for use by the Heavy-Duty Low-Emission Vehicle Program designed to reduce construction-related emissions within the region. Fees shall be paid prior to the first grading permit and prior to each year's anniversary date of that first grading permit. The fees will be based upon the then applicable current SMAQMD fee (currently $14,300/ton NOx reduced) as well as the then current administrative fee (currently 5% of mitigation fee). The applicant shall provide funds to the District for monitoring of actual equipment use and their NOx emissions so that mitigation fees can be adjusted annually by the SMAQMD. Refer to the description in District letter on the DEIR of October 3, 2007 for details.

Operation-related mitigation

The Railyards DEIR presents an analysis of the project's estimated operation-related air quality impacts and determines that those emissions will also be "significant."[9] The computer generated analysis, contained in Appendix D2 uses URBEMIS 2002, v. 8.7 and its default trip generation values. The analysis does not utilize a project-specific traffic study which could most likely give a better estimate of future trips in the area. It is acceptable, however, to use the default values if specific information is not known.

The mitigation called out for this project is an Air Quality Mitigation Plan (AQMP) designed to reduce the operational air quality emissions by at least 15%. Mitigation Measure 6.1-3 states:

> 6.1-3 *The project applicant shall implement the emission reduction strategies contained in the Railyards AQMP (see Appendix E). The AQMP shall be endorsed by the SMAQMD prior to the first building permit. Documentation confirming implementation of the AQMP shall be provided to the SMAQMD and the City of Sacramento prior to issuance of occupancy permits.*

14-2

In order to ensure the implementation of this measure, we suggest that the endorsed AQMP be not only a mitigation measure but also be called out as a condition of approval. In that way if the Mitigation Monitoring Report ever is separated from the project documents, there will be another mechanism for ensuring its implementation throughout the project's long build-out. In addition, the second sentence of the mitigation measure above implies that there will be several occupancy permits throughout the life of the build-out. We suggest that Railyards project occupancy permits have a checkbox put on them to assure provision compliance. We suggest the mitigation measure be rewritten in this manner:

> 6.1-4 *The project applicant shall implement the emission reduction strategies contained in the FINAL Railyards AQMP (see Appendix **x?** in the FEIR). The AQMP will also be condition of approval of the project. The AQMP shall be endorsed by the SMAQMD prior to the first building permit. Documentation confirming implementation of the AQMP shall be provided to the SMAQMD and the City of Sacramento prior to issuance of each occupancy permit throughout the build-out of the project. A check box will be added to project occupancy permit forms and will require City personnel to assess the submitted documentation to determine whether the AQMP is being complied with.*

Draft Air Quality Mitigation Plan in DEIR

The Draft Air Quality Mitigation Plan (AQMP) in the Railyards DEIR[10] is a twenty-one page document which utilizes the District's new "Recommended Guidance for Land Use Emission Reductions" which was released in 2007. In addition, it has its own Appendix A entitled "Pedestrian Friendly Street Standards." It appropriately scales the project and

14-3

[9] Railyards, DEIR, pg 6.1-24
[10] Railyards, DEIR, Appendix E

its points according to trip generation rates and in some cases, according to acreage. It claims "points" for nineteen measures, each "point" representing a one percent reduction in NOx or ROG. In total, the document claims the project will reduce operational emissions by 25.51 points (percent). The DEIR, however, states:

> *"If all of the above emission reduction measures were implemented, a 35.65 percent reduction could occur."*[11]

We suggest this statement be corrected to reflect the amount of points claimed by the draft AQMP circulated in the DEIR.

The draft AQMP is able to claim 25.51 points largely because of the Blueprint-friendly design characteristics of the project. The Railyards project's high density, gridded streets, mixed-use, pedestrian friendly nature are rewarded by the AQMP evaluation process. In most cases, the draft AQMP adequately justifies the awarding of points for the measure claimed. There are, however, some measures which need additional clarification or justification. They are discussed below. We have conferred with the project's representatives and been assured that there will be a revision to the AQMP based upon the following District comments. The revision is planned to be included in the FEIR. With these assurances in mind, the District can provisionally endorse the AQMP. A final District letter of endorsement will be issued once the revised AQMP is received and reviewed.

Specific Recommendations for the AQMP

Introductory text

- The following statement only applies to projects which are analyzed in a Mitigated negative Declaration: "If mitigation measures do not reduce emissions by 15%, then the applicant may have to pay a mitigation fee."[12] Since Railyards is being analyzed in the context of a DEIR, we suggest the sentence be removed to avoid confusion.

- Table 1 would be more complete if it contained values for the parking related to categories entitled RMU and Total.

14-3 (con't.)

Measure 1- Bike parking
Provide an exhibit and/or text to show where in the project bike parking will be provided. The AQMP claims bike parking will be placed throughout 100% of the project. Where in the residential areas will it be? Where in the commercial areas will bike parking be? Where in the office areas will it be? Please cite some document (Central City Urban Design Plan or Railyards Design Guidelines or something else) which will ensure that these bike parking facilities will be implemented and in what manner.

Measure 4- Proximity to path/bike lanes
Please provide an exhibit which shows the ½ mile distance of the entire project from various referenced bike paths and lanes.

Measure 6- Minimization of barriers
Please provide an exhibit (perhaps on Figure 5) which illustrates the barrier created by the rail lines and the tunnel which will be created to overcome that barrier.

[11] Railyards, DEIR, pg 6.1-26
[12] Railyards, AQMP, pg. 1

Measure 7- Bus shelters for existing transit service
Please give more information about the number and placement of bus shelters throughout the project.

Measure 10a- Employee and /or customer parking
This measure is a particularly powerful measure, very capable of changing individuals' transportation modes. It's important to explain how this measure will be implemented through subsequent purchases or leases of facilities.

Measure 15 – Office/Mixed Use Density
The measure is missing its description and exhibits.

Measure 21- Affordable housing component
There appears to be a typo in the recording of points in Table 4 of the AQMP. Is the measure worth .1 point or .4?

Measure 24- Fireplace
This, again, is a typo. The fireplace measure is measure # 25.

Measure 29- Exceed Title 24
This measure is a very powerful one, however the language of the AQMP about the measure is not strong enough. The statement "The Railyard target is to exceed Title 24 requirements by 20%" should be replaced by "The Railyard project will exceed Title 24 requirements by 20% in all aspects of its building program." If the commitment cannot be made, then credit for the measure should removed from the AQMP. However, this is a laudable goal and it should be moved to a "Goal" section of the AQMP or FEIR.

14-3 (con't.)

Measure 31- Non-roof surfaces
Justification for this measure is too weak at this point. The measure states "A goal of the proposed Railyards project is to meet the non-roofing surfaces requirement through a combination of shade coverage,..." A "goal" is not the same as commitment. Either strengthen the justification or move the goal, which is a laudable one, to a "Goal" section of the AQMP or FEIR.

In addition, in Regional Transit's comment letter of 9/10/07, author Don Smith cited issues with the Draft Air Quality Mitigation Plan. The letter points out several inconsistencies between the AQMP and the DEIR as well as several measures which need elaboration. In general, we concur with those comments and the measures should be corrected or enhanced as noted. With regard to measure 10-a, "customer and employee parking," we maintain that the provision of a program to assure customers and employees must pay for parking at a rate over and above the cost of an RT pass is a strong incentive for people to avoid parking lots and, hopefully, driving. We believe the program (only if it can be assured to occur in the future) should be awarded the points requested.

Toxic Air Contaminant analysis

Because the project is located close to the freeway (Interstate-5) and to train locomotives on a major rail line, the District, in response to the Notice of Preparation of the DEIR, recommended the DEIR deal with the health impacts of Toxic Air

14-4

Contaminants (TACs) from the mobile sources. Section 6.1-5 deals with the issue and finds that the impact of Toxic Air Contaminants to the project is less than significant.[13] In the DEIR's accompanying discussion and analysis, the analyst partially employed the District's guidance contained in its "Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to major Roadways, 2007" as well as a separate health risk assessment (HRA) of the construction activities on the site. The acute and chronic health risks of concern have to do with exposure to toxic air contaminants associated with diesel particulates also know as diesel particulate matter (DPM) in the document. In the document, the analyst considered the health risks associated with the freeways, the rail operations and the Sacramento Inter-modal transportation Facility (SITF). Specific comments about the discussion and analysis follow.

In the determination of significance of cancer risks generated from TACs, the DEIR refers to a threshold in the SMAQMD guidance of 446 increased cancer cases per million. For example, the document states:

> *"cancer risks from the freeway DPM [Diesel Particulate Matter] are considered less than the threshold in the SMAQMD guidance (446 per million.)* [14]

In addition, it states,

> *"the cancer risks from the locomotive DPM are considered lower than the threshold in the SMAQMD guidance (446 per million.)*[15]

The use of the word "threshold" in the DEIR is unfortunate and confusing. The District's look-up table with its shaded and unshaded cells in no way is promulgating a "threshold of significance." In fact, the Forward to the District Protocol specifically states:

> *"this document does **not** provide an acceptable cancer risk level or a regulatory threshold; therefore it does not establish which projects are acceptable and which are not. Local land use jurisdictions retain all authority and decide after considering all relevant factors whether the project is appropriate."*[16]

The District has no Threshold of Significance for TACs from mobile sources. The state of California has not promulgated a Threshold of Significance for TACs from mobile sources. Statements in the DEIR that conclude this project is "not significant" for TACs are not based in fact if the measure of significance is based on some inference from the District's guidance. They are misleading.

Relative to the risks to residential development close to railway lines, the analyst uses a methodology to convert DPM emission rates for freight trains to equivalent peak hour vehicle traffic. Using the District protocol look-up tables again, the analyst concludes that "*no mater where residences are placed, the cancer risks from the locomotive DPM are considered lower than the threshold in the SMAQMD guidance (446* [increased cancer cases] *per million).*[17] The word "threshold" again, is confusing. The term "evaluation criteria" which the Screening HRA uses would, instead, be less confusing.

14-4 (con't.)

[13] Railyards, DEIR, pgs 6.1-26 and 6.1-30
[14] Railyards, DEIR, pg 6.1-29
[15] Railyards, DEIR, pg 6.1-30
[16] Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways, v. 1, Jan 2007, SMAQMD, pg. 2
[17] Railyards, DEIR, pg 6.1-30

The discussion of the risks of exposure to TACs from the vehicle activity at the SITF also concludes "this impact is less than significant." This paragraph cites CARB efforts to lower Diesel Particulate Matter (DPM) emissions from diesel transit fleet vehicles as a reason for the determination that the risk is less than significant. In the absence of a threshold, however, **the District believes a discussion of significance or non significance is not based in fact.**

- **Appendix O, Health Risk Assessment**

Appendix O of the DEIR contains a "Health Risk Assessment" of the project. Using the District's Protocol, Environ consultants assessed diesel particulate matter from the freeway and from the railway. Relative to the discussion on impacts from Interstate-5, they estimated traffic counts for 2030 and used the District's look-up Table 2 for a project that is East and West of a North-South roadway (i.e. I-5). They concluded that:

> *"if the nearest new residence is placed no closer than 200 feet, the cancer risks from the freeway DPM are considered less than the evaluation criteria selected by SMAQMD (446 per million) and a site specific HRA is not recommended."*[18]

The District assumes that the consultant looked at Table 2 of the District's guidance and saw that for a project that is East of a North-South roadway, the Incremental Cancer Risk Per Million is estimated to be 378 increased cancer cases and that for a project that is West of a North-south roadway, the Incremental Cancer Risk per million is 198 increased cancer cases. Both of the cells of the Table in which the values are stored are not shaded, indicating that the District's guidance is that a project health risk assessment is not needed. Hence, the consultant did not perform a project-specific HRA of TACs from operational mobile sources generated by the freeway.

14-4 (con't.)

While the consultant's conclusion that the screening methodology indicated there is no need to do a project-specific HRA, the District is concerned that the analysts did not follow District guidance for presenting the results of the screening assessment. Specifically, Figure 3 of the District's Protocol states that the proponent's responsibilities are to:

1. The project proponent should provide the following information for the screening effort to the agency requesting the analysis:
   - General project information.... Map showing relative location of affecting roadway....
   - Roadway compass orientation, project compass orientation
   - Distance from the edge of the nearest travel lane to the nearest receptor.
   - Peak hour traffic traffic volume...
2. The local agency or its consultant should screen the project and report the project inputs provided by the proponent as well as the following results:
   - Cancer risk value (cases/million) at the nearest receptor
   - The screening matrix used in the process showing risk varying by distance to roadway. [19]

The Screening HRA of Freeway DPM Emissions failed to state how close the nearest residences will be to I-5, both on the west side and east side of the freeway. It also failed

[18] Railyards, DEIR, Appendix O, pg. 2-2.
[19] Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways, v. 1, Jan 2007, SMAQMD, pg 10.

to state the risk number value in the screening table in order that decision makers understand the risk to individuals who will be living close to the freeway. It did not include a map to show distances of residences to the freeway and it did not include the "screening matrix" used to come up with the result. The screening HRA should be redone and presented in the FEIR to follow the District's Protocol completely.

Another point of concern about the HRA is its silence about residences any closer than 200 feet from the Interstate. Unfortunately, the DEIR makes a statement which implies that residences on the west side of Interstate 5 will be 50 feet from the Interstate. It states:

"...if the nearest new residence is placed no closer than 50 feet west of I-5 and 200 feet east of I-5, the cancer risks from the freeway DPM are considered less than the threshold in the SMAQMD guidance (446 per million.)[20]

The Screening HRA, however, never discusses an assessment using residences only 50 feet to the west of a north-south roadway. The District has looked at the screening table in the Protocol document and determined that for a freeway with 20,000 vehicles, residences to the west of a freeway within 50 feet would be exposed to an incremental cancer risk of 459 increases cases of cancer in a 1,000,000 population. This result does indicate a level of risk for which the District's Protocol would recommend a site-specific HRA.

The District believes it's imperative to identify exactly how close the nearest residences and other sensitive receptors will be from the freeway, both to the east and the west, and to perform a Screening HRA or project-specific Health Risk Assessment which discloses actual risk values. If the Health Risk Assessment is not modified to reflect residences which could be closer than 200 feet from the freeway, the following condition of approval needs to be added to the project:

14-4 (con't.)

Recommended condition of approval

The project will not locate any sensitive uses (i.e. residential, schools, hospitals, senior housing) any closer than 200 feet from either side of Interstate 5.

- **Typographical errors**

We believe there is a misstatement in the clause which leads off the first sentence of the discussion: "*As previously mentioned, the proposed project would generate a less-than-significant impact related to cancer risks generated from vehicle emissions....*"[21] The typo has to do with the fact that nowhere in the document previous to this discussion is there a statement that the impact from TACs would be less-than-significant.

There's a word missing in the statement: *"As the proposed Specific Plan allows for residential development railway lines (particularly parcels 17, 35, 44, 47, 48, 49, 51 and 52) on which Union Pacific currently operates freight trains, a cancer risk analysis for railway DPM emissions was preformed and included in the HRA."*[22]

[20] Railyards DEIR, pg 6.1-29
[21] Railyards, DEIR, pg 6.1-26
[22] Railyards, DEIR, pg 6.1-29

Perhaps the author intended to include the word "near" between "development" and "railway?"

14-4 (con't.)

Global Warming

The DEIR contains a ~3.5 page section on Global Climate Change as an "issue not addressed." The section states "*lacking the necessary facts and analysis to support a conclusion as to the 'significance' of global warming, and the lack of any adopted methodology or thresholds of significance the City is unable to determine the effectiveness of potential mitigation measures.*"[23] When discussing potential mitigation for Green House Gases (GHG), the document provides a list of items and states "some or all of the following energy conservation measures that would reduce greenhouse gas emission would be included…" Thus, the project's impact on GHG is not analyzed nor is there a commitment to specific mitigation measures.

Since the release of the document, however, representatives from the State of California Attorney General's Office contacted the proponent and the City to express the opinion that the section was inadequate. Several meetings between the City, proponent and the District have ensued and the proponent is currently working on a revision to the DEIR discussion which will, among other things, establish a baseline per capita Green House Gas (GHG emissions), calculate future GHG emissions from the Railyards project, describe approaches to mitigation and draw qualitative conclusion about significance on a project and cumulative basis.

14-5

This work is currently in progress and we salute the cooperation of the proponent in this emerging issue. We would expect to see the result of this work in the FEIR.

Potential change in District's Thresholds of Significance

The District's Thresholds of Significance for ozone precursor emissions were adopted by the District Board of Directors in April 2002. They were developed under the 1994 1-hour State Implementation Plan. It is against these thresholds that air quality analysts judge whether their land use projects are significant or not. The current threshold for construction emissions is 85 lbs/day of NOx (oxides of nitrogen) and there is no threshold of significance for construction related ROG. The current threshold for operational emissions is 65 lbs/day of NOx (oxides of nitrogen) and 65 lbs/day for ROG. The Railyards project is unusual in that it will take a very long time to build out. It is extremely likely that during the 20 year construction build-out of this project that the District will lower those thresholds once and perhaps more than once. The reason for this has to do with the District's upcoming new 8-hr State Implementation Plan now in development as well as the fact it is likely USEPA will change the SIP ozone standard.

14-6

Given these foreseeable changes in the regulatory framework regarding air quality, the District believes the Railyards project, as it goes forward, will need to mitigate its construction emissions according to whatever new threshold of significance is in place at the time. For example, if ten years for now, the construction threshold for significance is 50 lbs/day NOx, then the Railyards applicant will need to mitigate the construction-related emissions down to the new threshold through use of on-site mitigation and the off-site mitigation fee program.

[23] Railyards, DEIR, pg 6.1-17

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. 14-6 (con't.)

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

Sincerely,

Jeane Borkenhagen

Jeane Borkenhagen
Associate Air Quality Planner Analyst

cc:

	Larry Robinson	SMAQMD
	Suheil Totah	Thomas Enterprises
	Tim Rimpo	Jones and Stokes
	Ned Ferrario	City of Sacramento
	Don Smith	Regional Transit

Enc: DEIR Appendix D1, construction-related emission calculation 2010-2029
District worksheet on off-site construction mitigation fee for entire project 2010-2029
District worksheet on off-site construction mitigation fee for 2010
Regional Transit comment letter on DEIR, dated Sept. 10, 2007
SMAQMD Rules & Regulations

LETTER R4 Railyards DEIR Display page from construction-related emission calculations, Appendix D1

Railyards - NOx Emissions/Fee Calculations

Phase/ Equipment Type	Area (Acres)	Scaling Factor Grade	Scaling Factor Build	NOx Emission Factor (lbs/day)	NOx Emissions (lbs.) January Month	Day	February Month	Day	March Month	Day	April Month	Day	May Month	Day	June Month	Day	July Month	Day	August Month	Day	September Month	Day	October Month	Day	November Month	Day	December Month	Day
Phase 1A (2010 - 2011)																												
Grading/Site Prep																												
Dozer	28.3	2.8		22.61	1408	64	704	64																				
Grader	28.3	2.8		10.22	636	29	318	29																				
Water Truck	28.3	2.8		20.89	1301	59	650	59																				
Building Construction																												
Other	27.6		13.8	12.84					1949	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177
Other	27.6		13.8	12.84					1949	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177
Other	27.6		13.8	12.84					1949	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177	3898	177
NOx Emissions (lbs.)					3345	152	1672	152	5847	532	11695	532	11695	532	11695	532	11695	532	11695	532	11695	532	11695	532	11695	532	11695	532
NOx Emissions after SMAQMD Mandatory 20% Reduction*					2676	122	1338	122	4678	425	9356	425	9356	425	9356	425	9356	425	9356	425	9356	425	9356	425	9356	425	9356	425
Residual NOx Emissions over SMAQMD 85 lbs/day Threshold						37		37		340		340		340		340		340		340		340		340		340		340
NOx Emissions (Average Daily)			464																									

Notes:

Column Heading Definitions: Scaling Factor Grade - Equipment/emissions specified for 10-acre grading sites by SMAQMD must be scaled proportionally for larger/smaller sites.
Scaling Factor Build - Equipment/emissions specified for 10-acre, single-story construction sites by SMAQMD must be scaled proportionally for larger/smaller sites and for multi-story structures.
NOx Emission Factor - Equipment emission rates per 8-hour day for each piece of equipment as specified by the SMAQMD

* The SMAQMD requires construction projects that would emit more than 85 lbs/day of NOx to use equipment that would attain at least a 20% reduction from that of the average existing equipment operating in the state.
** The SMAQMD requires that construction NOx emissions exceeding 85 lbs/day after the mandatory 20% reduction be subject to a mitigation fee of $14,300 per ton on the excess emissions for every work day exceeding the threshold.

Phase/ Equipment Type	Area (Acres)	Scaling Factor Grade	Scaling Factor Build	NOx Emission Factor (lbs/day)	NOx Emissions (lbs.) January Month	Day	February Month	Day	March Month	Day	April Month	Day	May Month	Day	June Month	Day	July Month	Day	August Month	Day	September Month	Day	October Month	Day	November Month	Day	December Month	Day
Phase 1B (2012 - 2013)																												
Grading/Site Prep																												
Dozer	50.0	5.0		22.61	2485	113	1242	113																				
Grader	50.0	5.0		10.22	1123	51	562	51																				
Water Truck	50.0	5.0		20.89	2296	104	1148	104																				
Building Construction																												
Other	32.4		16.2	12.84					2287	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208
Other	32.4		16.2	12.84					2287	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208
Other	32.4		16.2	12.84					2287	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208	4573	208
NOx Emissions (lbs.)					5903	268	2952	268	6860	624	13720	624	13720	624	13720	624	13720	624	13720	624	13720	624	13720	624	13720	624	13720	624
NOx Emissions after SMAQMD Mandatory 20% Reduction*					4723	215	2361	215	5488	499	10976	499	10976	499	10976	499	10976	499	10976	499	10976	499	10976	499	10976	499	10976	499
Residual NOx Emissions over SMAQMD 85 lbs/day Threshold						130		130		414		414		414		414		414		414		414		414		414		414
NOx Emissions (Average Daily)			579																									

Notes:

Column Heading Definitions: Scaling Factor Grade - Equipment/emissions specified for 10-acre grading sites by SMAQMD must be scaled proportionally for larger/smaller sites
Scaling Factor Build - Equipment/emissions specified for 10-acre, single-story construction sites by SMAQMD must be scaled proportionally for larger/smaller sites and for multi-story structures.
NOx Emission Factor - Equipment emission rates per 8-hour day for each piece of equipment as specified by the SMAQMD

* The SMAQMD requires construction projects that would emit more than 85 lbs/day of NOx to use equipment that would attain at least a 20% reduction from that of the average existing equipment operating in the state.
** The SMAQMD requires that construction NOx emissions exceeding 85 lbs/day after the mandatory 20% reduction be subject to a mitigation fee of $14,300 per ton on the excess emissions for every work day exceeding the threshold.

Phase/ Equipment Type	Area (Acres)	Scaling Factor Grade	Scaling Factor Build	NOx Emission Factor (lbs/day)	NOx Emissions (lbs.) January Month	Day	February Month	Day	March Month	Day	April Month	Day	May Month	Day	June Month	Day	July Month	Day	August Month	Day	September Month	Day	October Month	Day	November Month	Day	December Month	Day
Phase 2 (2014 - 2018)																												
Grading/Site Prep																												
Dozer	21.4	2.1		22.61	1065	48	533	48																				
Grader	21.4	2.1		10.22	482	22	241	22																				
Water Truck	21.4	2.1		20.89	984	45	492	45																				
Building Construction																												
Other	20.4		10.2	12.84					1439	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131
Other	20.4		10.2	12.84					1439	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131
Other	20.4		10.2	12.84					1439	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131	2877	131
NOx Emissions (lbs.)					2532	115	1266	115	4316	392	8631	392	8631	392	8631	392	8631	392	8631	392	8631	392	8631	392	8631	392	8631	392
NOx Emissions after SMAQMD Mandatory 20% Reduction*					2025	92	1013	92	3452	314	6905	314	6905	314	6905	314	6905	314	6905	314	6905	314	6905	314	6905	314	6905	314
Residual NOx Emissions over SMAQMD 85 lbs/day Threshold						7		7		229		229		229		229		229		229		229		229		229		229
NOx Emissions (Average Daily)			358																									

Notes:

Column Heading Definitions: Scaling Factor Grade - Equipment/emissions specified for 10-acre grading sites by SMAQMD must be scaled proportionally for larger/smaller sites.
Scaling Factor Build - Equipment/emissions specified for 10-acre, single-story construction sites by SMAQMD must be scaled proportionally for larger/smaller sites and for multi-story structures
NOx Emission Factor - Equipment emission rates per 8-hour day for each piece of equipment as specified by the SMAQMD

* The SMAQMD requires construction projects that would emit more than 85 lbs/day of NOx to use equipment that would attain at least a 20% reduction from that of the average existing equipment operating in the state
** The SMAQMD requires that construction NOx emissions exceeding 85 lbs/day after the mandatory 20% reduction be subject to a mitigation fee of $14,300 per ton on the excess emissions for every work day exceeding the threshold

Phase/ Equipment Type	Area (Acres)	Scaling Factor Grade	Scaling Factor Build	NOx Emission Factor (lbs/day)	NOx Emissions (lbs.) January Month	Day	February Month	Day	March Month	Day	April Month	Day	May Month	Day	June Month	Day	July Month	Day	August Month	Day	September Month	Day	October Month	Day	November Month	Day	December Month	Day
Phase 3 (2019 - 2023)																												
Grading/Site Prep																												
Dozer	53.6	5.4		22.61	2663	121	1334	121																				
Grader	53.6	5.4		10.22	1206	55	603	55																				
Water Truck	53.6	5.4		20.89	2465	112	1232	112																				
Building Construction																												
Other	34.7		17.4	12.84					2453	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223
Other	34.7		17.4	12.84					2453	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223
Other	34.7		17.4	12.84					2453	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223	4907	223
NOx Emissions (lbs.)					6338	288	3169	288	7350	669	14720	669	14720	669	14720	669	14720	669	14720	669	14720	669	14720	669	14720	669	14720	669
NOx Emissions after SMAQMD Mandatory 20% Reduction*					5071	230	2535	230	5888	535	11776	535	11776	535	11776	535	11776	535	11776	535	11776	535	11776	535	11776	535	11776	535
Residual NOx Emissions over SMAQMD 85 lbs/day Threshold						145		145		450		450		450		450		450		450		450		450		450		450
NOx Emissions (Average Daily)			621																									

Notes:

Column Heading Definitions: Scaling Factor Grade - Equipment/emissions specified for 10-acre grading sites by SMAQMD must be scaled proportionally for larger/smaller sites
Scaling Factor Build - Equipment/emissions specified for 10-acre, single-story construction sites by SMAQMD must be scaled proportionally for larger/smaller sites and for multi-story structures
NOx Emission Factor - Equipment emission rates per 8-hour day for each piece of equipment as specified by the SMAQMD.

* The SMAQMD requires construction projects that would emit more than 85 lbs/day of NOx to use equipment that would attain at least a 20% reduction from that of the average existing equipment operating in the state
** The SMAQMD requires that construction NOx emissions exceeding 85 lbs/day after the mandatory 20% reduction be subject to a mitigation fee of $14,300 per ton on the excess emissions for every work day exceeding the threshold

Phase/ Equipment Type	Area (Acres)	Scaling Factor Grade	Scaling Factor Build	NOx Emission Factor (lbs/day)	NOx Emissions (lbs.) January Month	Day	February Month	Day	March Month	Day	April Month	Day	May Month	Day	June Month	Day	July Month	Day	August Month	Day	September Month	Day	October Month	Day	November Month	Day	December Month	Day
Phase 4 (2024 - 2029)																												
Grading/Site Prep																												
Dozer	27.1	2.7		22.61	1348	61	674	61																				
Grader	27.1	2.7		10.22	609	28	305	28																				
Water Truck	27.1	2.7		20.89	1245	57	623	57																				
Building Construction																												
Other	24.2		12.1	12.84					1708	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155
Other	24.2		12.1	12.84					1708	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155
Other	24.2		12.1	12.84					1708	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155	3417	155
NOx Emissions (lbs.)					3202	140	1601	140	5125	466	10250	466	10250	466	10250	466	10250	466	10250	466	10250	466	10250	466	10250	466	10250	466
NOx Emissions after SMAQMD Mandatory 20% Reduction*					2561	116	1281	116	4100	373	8200	373	8200	373	8200	373	8200	373	8200	373	8200	373	8200	373	8200	373	8200	373
Residual NOx Emissions over SMAQMD 85 lbs/day Threshold						31		31		288		288		288		288		288		288		288		288		288		288
NOx Emissions (Average Daily)			426																									

Notes:

Column Heading Definitions: Scaling Factor Grade - Equipment/emissions specified for 10-acre grading sites by SMAQMD must be scaled proportionally for larger/smaller sites.
Scaling Factor Build - Equipment/emissions specified for 10-acre, single-story construction sites by SMAQMD must be scaled proportionally for larger/smaller sites and for multi-story structures
NOx Emission Factor - Equipment emission rates per 8-hour day for each piece of equipment as specified by the SMAQMD.

* The SMAQMD requires construction projects that would emit more than 85 lbs/day of NOx to use equipment that would attain at least a 20% reduction from that of the average existing equipment operating in the state.
** The SMAQMD requires that construction NOx emissions exceeding 85 lbs/day after the mandatory 20% reduction be subject to a mitigation fee of $14,300 per ton on the excess emissions for every work day exceeding the threshold.

LETTER 14

Construction Emissons Mitigation Fee Calculation

PART 1: PROJECT INFORMATION

Project Name:	Railyards (draft fee calculation- whole project) 2016-2029
Control/Application #:	

Single Family Dwelling Units:		*Note: Enter information only in blue bordered cells*	
Multi Family Dwelling Units:		Total Residential Acreage:	
Non-residential Square Feet:		Total Non-residential Acreage:	

PART 2: EMISSIONS INFORMATION

Year	Activity Phase	NOx (lbs/day) unmitigated	NOx (lbs/day) mitigated*	NOx over threshold (lbs/day)	duration (days)	Total significant NOx (lbs)
			0.00			
			0.00	0	0	0.00
	2010		484.00	399.00	264	105336.00
	2011		484.00	399.00	264	105336.00
	2012		579.00	494.00	264	130416.00
	2013		579.00	494.00	264	130416.00
	2014		358.00	273.00	264	72072.00
	2015		358.00	273.00	264	72072.00
	2016		358.00	273.00	264	72072.00
	2017*		358.00	273.00	264	72072.00
	2019		621.00	536.00	264	141504.00
	2020		621.00	536.00	264	141504.00
	2021		621.00	536.00	264	141504.00
	2022		621.00	536.00	264	141504.00
	2023		621.00	536.00	264	141504.00
	2024		426.00	341.00	264	90024.00
	2025		426.00	341.00	264	90024.00
	2026		426.00	341.00	264	90024.00
	2027		426.00	341.00	264	90024.00
	2028		426.00	341.00	264	90024.00
	2029		426.00	341.00	264	90024.00
	Asphalt		0.00	0	0	0.00
	Total project Nox over threshold (lbs)		*2007456.00*			
	Total project Nox over threshold (tons)		*1003.73*			

PART 3: MITIGATION FEE RESULTS

*MITIGATION FEE ($14,300/TON)***	*$14,353,310*
ADMINISTRATIVE FEE (5.0%)	*$717,666*
TOTAL FEE	***$15,070,976***

>>> *Fee is to be paid to the SMAQMD, either in total or on a by acre basis, prior to any ground disturbance.*

** emission figure for 2018 missing in Table 1*

Mitigation Fee ($/acre) **#DIV/0!**

* Assumes a construction mitigation plan which achieves a 20% reduction in NOx from on-site, off-road equipment.

** Or the $/ton of NOx cost-effectiveness value in effect at the time the fee is collected.

LETTER 14

Construction Emissons Mitigation Fee Calculation

PART 1: PROJECT INFORMATION

Project Name: Railyards (draft fee worksheet, 1 year only) 2010

Control/Application #:

Single Family Dwelling Units:		*Note: Enter information only in blue bordered cells*	
Multi Family Dwelling Units:		Total Residential Acreage:	
Non-residential Square Feet:		Total Non-residential Acreage:	

PART 2: EMISSIONS INFORMATION

Year	Activity Phase	NOx (lbs/day) unmitigated	NOx (lbs/day) mitigated*	NOx over threshold (lbs/day)	duration (days)	Total significant NOx (lbs)
			0.00			
			0.00	0	0	0.00
	2010 Phase 1A		484.00	399.00	264	105336.00
	2011			0	264	0.00
	2012			0	264	0.00
	2013			0	264	0.00
	2014			0	264	0.00
	2015			0	264	0.00
	2016			0	264	0.00
	2017			0	264	0.00
	2019			0	264	0.00
	2020			0	264	0.00
	2021			0	264	0.00
	2022			0	264	0.00
	2023			0	264	0.00
	2024			0	264	0.00
	2025			0	264	0.00
	2026			0	264	0.00
	2027			0	264	0.00
	2028			0	264	0.00
	2029			0	264	0.00
	Asphalt		0.00	0	0	0.00

Total project Nox over threshold (lbs) 105336.00

Total project Nox over threshold (tons) 52.67

PART 3: MITIGATION FEE RESULTS

*MITIGATION FEE ($14,300/TON)***	*$753,152*
ADMINISTRATIVE FEE (5.0%)	*$37,658*
TOTAL FEE	***$790,810***

>>> *Fee is to be paid to the SMAQMD, either in total or on a by acre basis, prior to any ground disturbance.*

Mitigation Fee ($/acre) **#DIV/0!**

* Assumes a construction mitigation plan which achieves a 20% reduction in NOx from on-site, off-road equipment.

** Or the $/ton of NOx cost-effectiveness value in effect at the time the fee is collected.

LETTER 15

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

October 1, 2007

Scott Johnson
Environmental Project Manager
City of Sacramento
2101 Arena Blvd, Suite 200
Sacramento, CA 95834

Dear Mr. Johnson:

Subject: Commerce Station Project #P06-018 Draft Environmental Impact Report (DEIR)

Thank you for the opportunity to review the subject document. Sacramento Regional County Sanitation District (SRCSD) has the following comments:

1. The subject project will have no significant impact to SRCSD facilities.

2. As stated in the DEIR, the proposed project is located east of Interstate 5, north of Del Paso Road, and west of East Commerce Parkway in the North Natomas Community Plan Area of the City of Sacramento. On page 3-17 of the subject document, please make revisions to indicate that the SRCSD North Natomas Interceptor is located east, not west, of the project site. 15-1

SRCSD Advisories:
Developing this property will require the payment of sewer impact fees. SRCSD impact fees shall be paid prior to issuance of building permits. The applicant shall contact the Sewer Fee Quote Desk at 876-6100 for sewer impact fee information.

SRCSD will issue a sewer permit to connect to the system if it is determined that capacity is available and the subject property has met all other requirements for service and approval. This process is on a "first come, first served" basis; SRCSD does not guarantee capacity. Once connected, the property has the entitlement to use the system. However, its entitlement is limited to the capacity accounted for by the payment of appropriate fees. 15-2

LETTER 15

County Sanitation District 1 will provide local sewer service for the project and will respond via separate correspondence. If you have any questions regarding these comments, please contact me at (916) 875-9254 or leeca@SacCounty.Net.

Sincerely,

Carmen K. Lee, P.E.
Associate Civil Engineer

CKL:ckl(ckl)

cc: SRCSD Development Services (55-101)
CSD-1 Development Services (55-101)
Tim Raney
Raney Planning and Management, Inc.
1401 Halyard Drive, Suite 120
West Sacramento CA 95691

LETTER 16

Regional Transit

Sacramento Regional Transit District
A Public Transit Agency and Equal Opportunity Employer

Mailing Address:
P.O. Box 2110
Sacramento, CA 95812-2110

Administrative Office:
1400 29th Street
Sacramento, CA 95816
(916) 321-2800
(29th St. Light Rail Station/ Bus 38,38,50,67,68)

Light Rail Office:
2700 Academy Way
Sacramento, CA 95815
(916) 648-8400

Public Transit Since 1973

www.sacrt.com

September 10, 2007

Scott Johnson
Associate Planner
CITY OF SACRAMENTO
Environmental Planning Services
North Permit Center
2101 Arena Boulevard, Suite 200
Sacramento, CA 95814

NAME OF DEVELOPMENT: Railyards
CONTROL NUMBER: 2006032058
TYPE OF DOCUMENT: Draft Environmental Impact Report and Technical Appendices

Regional Transit (RT) staff has reviewed the DEIR for the proposed Railyards and provides the following comments:

DEIR

Page 2-72 – We find that mitigation measure 6.12-6 addresses the impact of the project on the public transit system by the Initial Phase of the project. The same mitigation measure is referred to on page 2-118 pertaining to the Full Project.

The wording of the mitigation measure should be revised so that it addresses both the Initial Phase and the Full Project. We recommend that the end of the first sentence of the mitigation measure 6.12-6 should be changed from "transit demand generated by the Initial Phase." to "transit demand generated by the Initial Phase and Full Project." We believe this would clarify the applicant's commitment to coordinate with RT during the both phases of the project. 16-1

Page 6.12-5, Existing Transit System – there are 96 bus routes, not 70. 16-2

Page 6.12-133 – Full Project and public transit.. This section needs to:
- call out the future light rail station on 7th Street.
- show the Intermodal and 7th Street Stations on appropriate maps for the development (Figure 3-5 is one of these maps).
- maps should also identify the ¼ and ½ mile radii around each station (Figure 3-5 is one of these maps). 16-3
- be discussion about placing intensive transit-oriented development adjacent to the stations (especially the 7th Street station). The applicant should be required to coordinate that development with RT.
- mitigation measure 6.12-6 should also be stated in this section.

Technical Appendices – Draft Air Quality Mitigation Plan

A number of details in this document were inconsistent with what is provided in the DEIR. For example:

Page 2, last paragraph – refers to the Specific Plan as 237 acres, the DEIR refers to it as 244 acres (page 3-1). The 237 acre Specific Plan was the 1994 plan.
Page 3, Project Objectives – The project objectives in the Draft Air Quality Plan (pages 3 and 4) are different than what is found in the DEIR (page 3-11). 16-4

Page 4 – the housing numbers provided in the Draft Air Quality Plan (page 4, 13, 850) and page 5, Table 1, differ from the DEIR (page 3-13; 12,100).

There are likely more inconsistencies between the two documents. These need to be identified and corrected.

Draft Air Quality Plan – Continued

Figure P-101 (two pages after page 4) – this figure needs to show the 7th Street Light Rail Station. 16-5

Page 11 – Light Rail – The text needs to call out the 7th Street Light Rail Station. 16-6

Pages 13 and 14 - The text on page 13, and/or Table 4 should call out the developer's contribution, modifications and improvements for transit (page 18 and mitigation measure 6.12-6). 16-7

Page 16 – Pedestrian Barriers. This section should discuss removing pedestrian barriers between activity areas and transit. 16-8

Page 10a – Customer and employee parking. We disagree that providing parking lots within ¼ of transit is transit-friendly, or that it reduces air pollution. Reduced and constrained parking provides incentive for people to take transit. This credit should not be given. 16-9

Page 18 – This should refer to the mitigation measure (6.12-6) which requires the developer to contribute to transit. 16-10

Thank you for the opportunity to review this project. If you have further questions regarding these recommendations, please contact me at 556-0506 or dsmith@sacrt.com .

Sincerely,

Don Smith
Senior Planner

c: RoseMary Covington, AGM Planning and Transit Service Development, RT
Fred Arnold, Director of Real Estate, RT
Paul Marx, Interim Planning Director, RT
Jeane Borkenhagen, SMAQMD

SMAQMD Rules & Regulations Statement (revised 1/07)

*The following statement is recommended as standard condition of approval or construction document language for **all** development 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 or building design 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 417: Wood Burning Appliances. Effective October 26, 2007, this rule prohibits the installation of any new, permanently installed, indoor or outdoor, uncontrolled fireplaces in new or existing developments.

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.

LETTER 17

CSD-1
COUNTY SANITATION DISTRICT 1
Wastewater Collection For a Growing Sacramento

10545 Armstrong Avenue
Mather
California
95655
Tele: [916] 876-6000
Fax: [916] 876-6160
www.csd-1.com

September 10, 2007
E225.000

Lezley Buford
City Of Sacramento
Development Services Department
North Permit Center
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

Application: Notice Of Availability Of A Draft Environmental Impact Report For The Railyards Specific Plan
APN: 001-0210-013, 016; 002-0010-018, -019, -025, -035, -036, -037, -038, -039, -041, -043

Dear Ms. Buford:

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

The project will not impact CSD-1 facilities. CSD-1 comments and conditions of approval are not needed at this time. 17-1

If you have any questions regarding these comments please call Amandeep Singh at 876-6296 or myself at 876-6094.

Sincerely,

Salam A. Khan, P.E.
Department of Water Quality
Development Services

SK/CJ:clm

cc: File

Buford091007.ltr

LETTER 18

Sacramento City Unified School District

Office of Assistant Superintendent
OPERATIONS SUPPORT SERVICES
5735 47th Avenue • Sacramento, CA 95824-6870
(916) 643-9227 • FAX (916) 643-2575

M. Magdalena Carrillo Mejia Ph.D., *Superintendent*
William T. West, Jr., *Assistant Superintendent*

October 3, 2007

Via E-mail: srjohnson@cityofsacramento.org

Scott Johnson, Associate Planner
City of Sacramento, Development Services Department
Environmental Planning Services
North Permit Center
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

Re: Comments by Sacramento City Unified School District on the Draft Environmental Impact Report for the Railyards Specific Plan

Dear Mr. Johnson:

This letter provides comments on behalf of Sacramento City School District ("School District" or "District") on the Draft Environmental Impact Report ("DEIR") prepared for the Railyards Specific Plan ("Plan").

1.0 Introduction, Purpose and Scope of the EIR (p. 1-3):

Further CEQA review may be required consistent with CEQA Guidelines section 15152, should additional environmental issues arise that could not have been anticipated in the EIR because of the specific characteristics of the project design or other factors.

The City of Sacramento is considered the lead agency and should require additional review should the proposed school location change, or should changes to the proposed land use be made (e.g. site selection near hazardous materials or petroleum product storage, or other hazard), or other factors change.

1.0 Introduction, Purpose and Scope of the EIR (p. 1-3); Figure 3-17, 6.5 Hazard and Hazardous Substances, Environmental Setting, Soil and Groundwater Contamination, Specific Plan Area (p. 6.5-3); and Appendix L: 18-1

Hazardous materials were identified as having potentially significant impacts associated with the construction and/or operation of the proposed project. Determining the risk levels generally was stated to have been substantially completed, and had been subject to CEQA review process conducted by DTSC for the Remedial Action Plan approval.

Not all areas of the Railyard have received DTSC Certification or have had the site cleanup process completed. Some deed restrictions are in place, restricting land use so as to exclude school sites. The DEIR does not state whether the proposed alternative school site depicted on Figure 3-17 is located within an area where risk levels have been evaluated, which is a critical issue in determining whether a school can actually be located there. Additionally, there is a deed restriction in place along 7th Street and the western boundary of the alternative school site depicted on Figure 3-17 (Car Shop Nine study area, Recorded July 11, 2001). This deed restriction could limit the feasibility of the site as an alternative.

Although the proposed school location is depicted on Figure 3-17, the location of the school site within the Specific Plan Area (Plan) is not otherwise described. Appendix L reveals that the preliminary analysis and initial conversations with the school district indicated that the City was to reserve two elementary school sites within the Plan (e.g. two K-6 elementary schools with 450 students, one 900-capacity K-8 school, or a combination of the two). Figure 3-17 only proposes one location for a school site. No school site has been selected according to text in Chapter 6.5. 18-1 (con't.)

The DEIR should more specifically describe the school site or school sites proposed and give assurances that those sites are appropriate and available for the use.

1.0 Introduction, Relationship Between This EIR and CEQA Review for Later Project Approvals Pursuant to the Proposed Specific Plan (p. 1-4):

Proposals for future development of the school site are to be reviewed pursuant to the terms of the Specific Plan and implementing entitlements.

On March 29, 1997, DTSC was named as responsible for administering all state and local laws, ordinances, regulations, and standards that are applicable to and govern the investigation and remediation of the Railyards (p. 6.5-8). DTSC is also responsible for school site selection review and approval. The DTSC role and responsibility (e.g. whether for site cleanup or for school site selection review and approval) should be clearly stated in the applicable effects and mitigation requirements sections of Table 2-1 in which DTSC is named as the responsible agency. Without this information the District is inadequately informed regarding measures needed to reduce or avoid environmental effects of the Plan. 18-2

2.0 Summary of Environmental Effects, Table 2-1, Impact 6.5-1; 6.5 Hazards and Hazardous Substances, Introduction and Regulatory Setting/Overview/Local; and Appendix I:

Potentially significant hazards associated with contaminated soil that may affect construction workers are to be mitigated to less than significant by following DTSC and the Tri-Party Memorandum of Understanding (MOU) requirements. The revised MOU will also identify the respective roles and responsibilities of the vested parties. 18-3

A programmatic level potential human health effects evaluation was conducted and included in the 1994 Railyards Specific Plan/Richards Boulevard Area Plan EIR according to the Introduction in 6.5, Hazards and Hazardous Substances (p. 6.5-1). Additional information concerning constituents of concern and affected areas and additional health risk assessments have been conducted since 1994 (referenced in

Appendix I of the DEIR). The most current health risk information reports should be referenced by the DEIR and addressed relative to the proposed school site selection alternatives and a juvenile population.

The DEIR should outline the respective roles under the 1994 Tri-Party MOU and responsibilities of the vested parties prior to finalizing the EIR and the City's responsibilities in the proposed revised MOU for land use and development related portions of the DTSC deed restrictions will be important considerations for the school site selection process. Without this information it is not clear whether environmental effects of the plan is or can be adequately mitigated. 18-3 (con't.)

2.0 Summary of Environmental Effects, Table 2-1, Impact 6.5-2 and 6.5 Hazards and Hazardous Substances, Specific Plan, Impacts and Mitigation Measures 6.5-2, School Sites:

School sites are generally addressed (p. 6.5-27) and the Specific Plan is referenced. According to the Specific Plan, the potential schools will not be located at ground level and will most likely include indoor play areas, thereby limiting potential exposure (e.g. lead contamination in soil). The DEIR should better inform how Specific Plan requirements are aligned with DTSC requirements. 18-4

2.0 Summary of Environmental Effects, Table 2-1, Impact 6.5-3 and 6.5 Hazards and Hazardous Substances, Specific Plan, Impacts and Mitigation Measures 6.5-2 and 6.5-3:

Potentially significant hazards associated with remediation of contaminated soil and/or groundwater to occupants or visitors are to be mitigated to less than significant by following a variety of requirements including those requirements for vapor intrusion, if required by DTSC. In addition, the occupancy is to be prohibited unless the entire block and area immediately surrounding the block are remediated. 18-5

A school site is likely to occupy more than a city block. Therefore, in the area proposed for school land use, the occupancy prohibition should be based on a larger area that includes the proposed school boundaries and area immediately surrounding the boundaries.

Risk based standards for a proposed school site should include evaluation of a juvenile population in addition to the construction worker, who is considered in the DEIR to be the overall Railyard site population with the greatest exposure potential (6.528). The DEIR fails to adequately address long-term exposure to a juvenile population.

2.0 Summary of Environmental Effects, Table 2-1, Impact 6.5-7 and 6.5 Hazards and Hazardous Substances, Specific Plan, Impacts and Mitigation Measures 6.5-7:

The implementation of the proposed project increase in the use of hazardous substances during construction and occupancy is considered less than significant.

Construction activity may include use and storage of fuels, solvents, and other hazardous substances. Construction staging activity would have to be off-site for this impact to be considered less than significant at a school site. If onsite staging at the school site is to occur, then a potential impact to soil and surface water exists and storm water management, hazardous materials storage, and other environmental requirements are to be met to prevent contamination of the site and impact to storm 18-6

drains and other conduits to waterways during construction. The DEIR should address whether and how environmental effects from construction activities are mitigated. 18-6 (con't.)

2.0 Summary of Environmental Effects, Table 2-1, Impact 6.5-8 and 6.5 Hazards and Hazardous Substances, Specific Plan, Impacts and Mitigation Measures 6.5-8:

The proximity of the proposed development to existing non-project-related hazardous substances transportation routes (e.g. Interstate Highway 5 and the UPRR rail lines) is considered less than significant in the DEIR.

18-7

Relative to school site selection, this environmental effect appears to be potentially significant. According to Figure 3-17, the proposed school location is adjacent to a transportation corridor on which hazardous, radioactive, or other materials can be transported or stored. If this or another location for the school site near a transportation corridor is selected, DTSC and CDE requirements for school sites should be considered in the DEIR.

2.0 Summary of Environmental Effects, Table 2-1, Impact 6.5-9 and 6.5 Hazards and Hazardous Substances, Specific Plan, Impacts and Mitigation Measures 6.5-9:

The proposed school location, included on Figure 3-17, is not located near the West Jibboom Street property, therefore, this section is not immediately relevant. 18-8

If, however, a new school location is selected that is located within the West Jibboom Street property, then the occupancy should be restricted until the West Jibboom Street property is remediated to levels that would be protective of the most sensitive population for the proposed use.

2.0 Summary of Environmental Effects, Table 2-1, Impact 6.5-10 and 6.5 Hazards and Hazardous Substances, Specific Plan, Impacts and Mitigation Measures 6.5-10:

The DEIR lists the potential impacts of off-site projects to construction workers as less than significant.

We consider the potential impacts of off-site projects as potentially significant for school site selection, which does not limit evaluation of potential impacts to construction workers only. DTSC and CDE's requirements for school sites apply. DTSC, may require a Phase I ESA, which includes an evaluation of potential off-site impacts. Also, the impact described as 6.5-10 fails to specify a radius of potential impact to be considered. For instance, a project in the City of Sacramento with contaminated soil that is not located adjacent to the proposed Specific Plan area may not affect the site, however, a groundwater contamination plume may affect the site depending on the type of contaminant, groundwater gradient, soil conditions, and other factors. 18-9

2.0 Summary of Environmental Effects, Table 2-1, Impact 6.5-12 and 6.5 Hazards and Hazardous Substances, Specific Plan, Impacts and Mitigation Measures 6.5-12:

18-10

The effect of the cumulative increase in the use of hazardous substances during construction and occupancy of the projects is listed as less than significant with no mitigation required.

Construction activity (e.g. fueling, maintenance, etc.) is associated with use of fuels, solvents, and other hazardous substances. Construction staging activity would have to be off-site for this impact to be considered less than significant for a school site. If onsite staging is to occur, then stormwater management, hazardous materials storage, and other environmental requirements must be addressed to prevent contamination of the site. 18-10 (con't.)

2.0 Summary of Environmental Effects, Table 2-1, Impact 6.5-13 and 6.5 Hazards and Hazardous Substances, Specific Plan, Impacts and Mitigation Measures 6.5-13:

The contribution of the proposed project to the cumulative increase in the number of people who could be exposed to accidental or intentional release of hazardous substances on rail lines and roadways is less than significant and no mitigation is recommended on Table 2-1. 18-11

The DEIR should consider mitigation measures such as a minimum set-back pursuant to CDE regulations or the construction of a physical barrier separating the transportation corridor(s) from the school site or other sensitive land use.

3.0 Project Description

The project description does not include a development schedule. When would project construction begin, and when is project buildout anticipated? Figure 3-6 identifies the initial phase of the project. What is the time line for the Initial Phase?

Figure 3-17 shows the potential location of a school site within the specific plan area. The site would also include police and fire station facilities. The location comprises two parcels (49a and 49b) totaling 4.62 acres. Co-locating a school with fire and police station facilities would result in land use conflicts duce to noise from sirens and traffic impacts inappropriate for a school site, to name a few. The 4.62 acres is inadequate for a school site; combined with police and fire station facilities it is unacceptable. Please refer to the comments under section 6.10 Public Services – Public Schools below.

The school site is located adjacent to the railroad tracks and 7th Street, the proposed location of the light rail line. The School Facilities Planning Division of the California Department of Education (CDE) has established standards for use by Local Educational Agencies (i.e., school districts and charter school entities) in the selection of safe school sites. These standards have been adopted in the California Code of Regulations (CCR) Title 5, Section 14010 (Standards for School Site Selection). CCR Title 5, Section 14010(d) stipulates that: 18-12

"If the proposed site is within 1,500 feet of a railroad track easement, a safety study shall be done by a competent professional trained in assessing cargo manifests, frequency, speed, and schedule of railroad traffic, grade, curves, type and condition of track, need for sound or safety barriers, need for pedestrian and vehicle safeguards at railroad crossings, presence of high pressure gas lines near the tracks that could rupture in the event of a derailment, and preparation of an evacuation plan. In addition to the analysis, possible and reasonable mitigation measures must be identified."

The proposed school (and police and fire station; Figure 3-17) location is directly adjacent to the relocated railroad tracks (Figure 3-11). Page 6.5-14 indicates that 12 to 14 freight trains consisting of 80 to 100 freight cars each pass through the Site daily. Given the hazard posed by the railroad tracks and

the difficulty of evacuating the schools in a timely manner (given that a rail incident directly adjacent to the school will not allow for any action other than sheltering in place) it is unlikely that the California Department of Education (CDE) will approve the proposed school location. Please revise the DEIR to address how the CDE's concerns regarding railroad risk will be mitigated.

Figure 3-7 shows an Arena Overlay that would cover half of the site area that is also shown as the school site (Figure 3-17). Locating a sports and entertainment facility adjacent to a school represents a potential land use conflict, and would reduce the site area available for development of a school. Figure 3-17 should be revised to locate alternative school sites that are more suitable for a school use. 18-12 (con't.)

A sewer pump station is proposed within the area proposed for school site selection. Hazardous materials may be stored at the sewer pump station (e.g. chlorine). Therefore, DTSC should be contacted for compatibility of the pump station with the school site.

The DEIR inadequately addresses the Plan's impact on school facilities because (1) the proposed site is itself inadequate to accommodate new students generated by the development, and (2) it fails to describe any alternatives to the proposed site.

4.0 Plans and Policies Consistency Analysis

On page 4-19 of the DEIR, the proposed project would not be consistent with "Schools Goal B". The Specific Plan does not provide adequate land area at a suitable location to construct a new school. Table 4-2 should be revised to reflect this. 18-13

6.1 Air Quality

Climate Change

The issue of global climate change is not addressed. The DEIR states three main arguments as to why the potential impacts of greenhouse gases (GHG) were not evaluated. These arguments (discussed below) contradict the information contained in a document released by Larry Greene, an Air Pollution Control Officer for the Sacramento Metropolitan Air Quality Management District ("the District"), on September 6, 2007. The document entitled, "Addressing Climate Change in CEQA Documents" ("Climate Change"), is attached and can be found at:

http://www.airquality.org/climatechange/ClimateChangeCEQAguidance.pdf

1) On page 6.1-16 of the DEIR, it is stated that global climate change is not addressed in the impact analysis because: 18-14

   "The very nature of global warming makes it impossible 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."

   Even though there are no definitive federal, state, or regional "thresholds of significance" for GHG, many government agencies, including the District, are still requiring an evaluation of potential GHG impacts for project approval under the California Environmental Quality Act (CEQA).

Climate Change states the following:

> "To date, local decision-making agencies, the District, the state, and the federal government have not developed specific GHG thresholds of significance for use in preparing environmental analyses under the California Environmental Quality Act (CEQA). The absence of thresholds, however, does not negate the CEQA mandate to analyze all potentially significant impacts, including emissions of greenhouse gases.
>
> Agencies have the discretion to determine, based on a variety of factors, whether a particular impact is significant. To ensure consistency and fairness, the CEQA Guidelines encourage agencies to adopt significance thresholds. Neither the Act nor the Guidelines, however, require the adoption of thresholds as a prerequisite to analyzing impacts. To the contrary, significance criteria are commonly developed by the experts that prepare the CEQA analysis, based on their assessment of the technical evidence. In fact, CEQA may require additional analysis even if a project meets an adopted standard, if other evidence indicates the project may nonetheless have a significant impact.
>
> Consequently, despite the lack of a GHG threshold, the District recommends that CEQA environmental documents include a discussion of anticipated GHG emissions during both the construction and operation phases of a project. This recommendation is consistent with comments made by the previous and current California Attorney Generals on Land Use projects undergoing CEQA review."

18-14 (con't.)

Since the proposed "Railyard Project" falls within the District's jurisdiction, it is prudent to assume that GHG impacts should be evaluated for this project based on the information contained in the Climate Change document. Failure to do so results in an inadequate CEQA analysis of impacts.

2) On page 6.1-17 of the DEIR, it is implied that it would be difficult to identify and quantify the potential GHG emissions from the project:

"To accurately account for CO2 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 Specific Plan Area (presumably from any place in the world)."

However, there are numerous publicly-available models, literature references, and agencies to help identify and quantify GHG emissions for a particular project. For example, the California Climate Action Registry has released a guidance for quantifying GHG emissions due to electricity usage, as well as mobile and stationary sources. Moreover, Climate Change states the following:

"Models are already available to estimate GHG emissions from projects, and the District staff can help agencies select and refine models to accommodate their specific projects."

3) The DEIR states on page 6.1-17 that:

"Lacking the necessary facts and analysis to support a conclusion as to the 'significance' of global warming, and the lack of any adopted methodology or thresholds of significance, the City is unable to determine the effectiveness of potential mitigation measures."

The District has identified numerous mitigation measures that will help reduce the impacts of GHG emissions (included in the Document). The Document states that:

"Analysis of the impacts is not simply a technical exercise. If the analysis demonstrates that a project may have a significant impact, there are many practical climate change mitigation measures available to reduce or eliminate the project impacts. And avoiding feasible mitigation today will require other projects to implement more difficult and costly mitigation in the future as GHG levels increase in the atmosphere. Moreover, many projects include elements that mitigate GHG emissions (energy measures, solar roofs, mixed use housing, etc.) and the benefits of these measures should be noted.

To aid local jurisdictions in identifying feasible mitigation, the District has attached a list of feasible mitigation measures drawn from comments made by the California Attorney General that will reduce GHG emissions by reducing the stationary and travel related energy use associated with the new development. A copy of this list is attached to this letter (the Document)." 18-14 (con't.)

Based on the information presented above, it is necessary and feasible to evaluate and mitigate the potential GHG impacts from this project before the DEIR is approved.

Construction Impacts – Worker Vehicle Trips

Section 6.1-2 ("Construction of the proposed project would generate emissions of ozone precursors") does not address impacts associated with emissions from construction worker vehicle trips. The District's CEQA guidelines require construction related emission estimates include both construction equipment and worker commute trips to determine level of significance.

Construction and Operation Impacts – PM2.5

Section 6.1 does not address the air quality impacts associated with the increases in PM2.5 emissions due to construction equipment and the additional vehicle trips resulting from operation. These emissions could significantly impact the area now that the National Ambient Air Quality Standard has been lowered from 65 ug/m^3 to 35 ug/m^3 (effective December 16, 2006). Ambient air pollutant data from the T Street monitoring station (approximately 1 mile southeast of the project area) shows that the highest reported PM2.5 levels well exceed the new standard.

6.2 Biological Resources

Section 6.2-3 - Development of the Specific Plan could result in take of an endangered and threatened fish species and degradation of designated critical habitat. 18-15

This Section indicates that the operation of the stormwater outfall may significantly affect wildlife in the Sacramento River:

"An increase in contaminated runoff, discharge of water with low dissolved oxygen levels, and/or elevated water temperatures into the Sacramento River could alter instream habitat for any of the three Chinook runs, steelhead, green sturgeon, delta smelt, or Sacramento splittail. The potential for impacts would be greatest during a higher-than-designed storm event when high first flush flows exceed the systems' storage capacity and are directly discharged to the river, resulting in release of concentrated pollutants. Under these conditions, low quality nutrient rich water with low dissolved oxygen levels that had been in the cistern throughout the dry season could be discharged into the river. Although it is conceptually intended that the outfall would only release stormwater during high flow events which would tend to quickly dilute any pollutant concentrations, the lack of operational designs require consideration of the potential for effects from such releases.

Pollutants entering the river could cause mortality to, and reduced growth of, the egg, larval, and juvenile life stages of fish. If pollutants enter the river they could adversely affect Sacramento River winter-run Chinook, designated critical habitat for Chinook, steelhead, and delta smelt as it relates to water quality, or other special-status fish species such as Sacramento splittail or green sturgeon as these species use the Sacramento River for migration, spawning, and rearing." 18-15 (con't.)

However, Section 6.2-9 states that:

"As described within the Environmental Setting the terrestrial portions of the Specific Plan Area do not serve as wildlife corridors or linkages, and the construction and operation of the Specific Plan Area or the stormwater outfall would not result in disturbance to the extent that it would permanently and substantially interfere with the movement of resident or migratory fish or wildlife species."

These two sections appear inconsistent regarding the potential long-term impacts associated with operation of the outfall structure and the findings should be rectified. Mitigation measures addressing the potential for periodic significant impacts associated with high storm events are not clear.

6.2-4 – Analysis of Potential Impacts to Valley Elderberry Longhorn Beetle

Paragraph #4 on page 6.2-17 of the DEIR states the following:

"The USFWS has issued a renewable take permit for the Railyards Remediation Project (TEO23739). The take permit allows the remediation project (a separate and independent project) to remove 87 plants with up to 261 stems greater than 1-inch, and then maintain the property to prevent regrowth and/or recolonization."

It is unclear if the permit issued by the USFWS for the Railyards Remediation Project provides "take" protection for actions associated with the Railyards Specific Plan (a separate and independent project). Are the 44 elderberry shrubs identified in the DEIR included in the 87 plants to be removed under the permit issued for the Railyards Remediation Project? Will the effort to maintain the property to prevent regrowth and /or recolonization apply to just the remediation areas or to the entire 244 acres within the Specific Plan Area? 18-16

The take permit issued by the USFWS for the Railyards Remediation Project may not cover impacts to the VELB that may occur during proposed development described in the Railyards Specific Plan. If this

is the case, will another USFWS permit be required for impacts to the VELB associated with the Railyards Specific Plan? The DEIR does not list any mitigation measures for impacts to the VELB. 18-16 (con't.)

6.2-8 – Analysis of Potential Impacts and Associated Mitigation for Impacts to Jurisdictional Waters and other Sensitive Habitats

The 2nd paragraph of this section on page 6.2-43 of the DEIR states the following:

"It is anticipated that grading and construction associated with the stormwater outfall could require fill to be placed below the ordinary high watermark of the Sacramento River. However, this riverine habitat is not a wetland or special aquatic site and therefore there would be no impact." 18-17

It is our understanding that the Sacramento River is considered a "traditional navigable water" of the United States and as such is considered jurisdictional as defined in the federal Clean Water Act. Any fill placed in this area would be regulated by the United States Army Corps of Engineers and would require federal permitting through Section 401 and Section 404 of the Clean Water Act.

Table 6.2-2 – Plant Species Observed

The table includes several spelling errors for plant species and one incorrect use of capitalization that should be corrected. The correct spelling and capitalization are provided below: 18-18

Avena fatua
Bromus diandrus
Centaurea solstitialis
Sorghum halepense
Ulmus parvifolia

6.4 Seismicity, Soils, and Geology

The geologic assessment is based on a general literature review and no site-specific geotechnical assessment was prepared. This leads to lack of detail regarding quantities of excavation and fill required for site remediation and foundation preparation, which means that trucking trips associated with project construction and resultant air pollutant generation cannot be accurately estimated.

The DEIR indicates (on page 6.4-18) that the cut and fill on the Site will be balanced. Figure 6.4-2 indicates that virtually the entire Site (except for the historical structures) will be either cut or filled. DTSC would not likely allow fill from an industrial site to be used on a school. Hence, the school site(s) should either be all cut or any fill required should be from a non-industrial facility. This, in turn, may result in additional trucking-in of dirt and related potential impacts. Please revise the DEIR to address any environmental impacts resulting from the importation of off-site fill to the school site(s). 18-19

In Table 2-1, the project proponent lists "cost effectiveness" as a criterion for determining whether piles can be used to support structures in the project area. Pile driving for a large structure could take up to three months, which could have a ruinous impact on the educational experience of students within 1000 feet of the pile driving. Please revise the DEIR to address this impact. One possible mitigation would be to indicate that one of the costs the project proponent will account for in any cost-benefit analysis of the

use of piles to support structures in the project area is the relocation of classrooms from any schools within 1000 feet of the pile driving area for the duration of the pile driving. The relocation of the classrooms must be to an equivalent (or better) facility within 2 miles of the affected classrooms.

18-19 (con't.)

The seismic impact assessment (Impacts 6.4-3, 6.4-7) omits any discussion of the potential for site levees to fail in a major earthquake.

It appears that the project proponent is proposing to cut soil from behind the levees along the Sacramento River. Reducing the amount of soil behind the levee reduces the drainage pathway water will take between the river and the land side of the levees. Reducing the drainage path between the river and the land side of the levees increases the pressure gradient along the water flow path. Increasing the pressure gradient could, in an extreme case, lead to blow out of the levee foundation and subsequent failure of the levee (this has been the cause of levee failures in the Sacramento delta and some speculate may have caused the levee failures following hurricane Katrina in New Orleans). Has this potential environmental impact been assessed? If not, please revise the DEIR to address how the impacts of excavation from the land side of the Sacramento River levees will be assessed.

18-20

6.5 Hazards and Hazardous Substances, Environmental Setting, Soil and Groundwater Contamination, Specific Plan Area:

Lead is considered to be found on most of the project area in the surface soil and is a contaminant of concern (COC). Site specific COCs will need to be included in the DTSC Phase I ESA and /or PEA prepared for the school site selected. The selected cleanup methods for metals, VOCs, and other COCs at the school site location selected need to be compatible with DTSC requirements for schools. Soil remediation of the project area is not complete.

18-21

Fill material is proposed for several areas within the project (e.g. Lagoon Study Area, "Vista Park"). The fill material may originate from other sections of the project or from off-site locations. If the school site location is one of the areas that receives fill material, then the DEIR should evaluate the fill material.

6.6 Hydrology and Water Quality

The DEIR raises several project-related hydrology and water quality concerns (DEIR pgs. 481-508). However, the DEIR does not sufficiently analyze potential increases in impervious surfaces from the proposed residential and commercial development within the Specific Plan Area. This potential increase can be analyzed using an accounting of existing land cover and soil conditions and the determination of an estimate for the new impervious areas associated with the proposed development footprint. Similarly, potential increases in stormwater flows associated with the new development can be estimated to characterize the hydrologic impact of the project.

18-22 a

The proposed project area is currently dominated by unpaved and relatively flat ground surfaces on which rainwater percolates into the soil and/or sub-surface. Historically, the project area drainage included a combination of surface runoff into natural drainages, percolation into the soil, and collection in stormwater drainage pipes that discharge to the City's Combined Sewer and Stormwater system (CSS), and ultimately to the Sacramento River. The CSS pipelines serving the project area were designed to lower runoff standards than are used currently, and it is noted that heavy storms have

previously resulted in flooding in parts of the Specific Plan Area. The DEIR states "current flows in the drainage shed that are conveyed to the existing CSS pipeline network are estimated at approximately 10 cubic feet per second." This statement requires clarification with regard to whether this value represents a peak flow or an average flow and an identification of the frequency and duration of the flow.

The proposed project would add significant areas of impermeable surface, including roads, parking areas, driveways, rooftops and other surfaces within the development area as a whole.

This increase in impermeable surface area would substantially reduce the ability of the site to absorb surface water runoff over existing conditions. Despite differences in methodology, most published studies on the topic have seen significant effects associated with 10-15% increases in impervious surface coverage. Increases in impervious cover result in direct increases in stormwater runoff rates and associated decreases in water quality. The post-project runoff would contain varying types and amounts of chemical constituents typical of urban runoff, which are ultimately conveyed to the Sacramento River. Pollutants likely to occur in stormwater from the site include target pollutants identified by the City of Sacramento Stormwater Quality Improvement Plan (SQIP) such as pesticides, metals, and fecal coliform, among other urban pollutants.

Any change to runoff can be cumulatively significant in the Sacramento River watershed, a water body that is impacted by pollutants associated with urban stormwater runoff (i.e. compliance with NPDES permits is insufficient to avoid cumulative impacts for potential pollutants). NPDES permits set discharge guidelines, minimum project size, and maximum cost levels for mitigations. Unless the City or County requires a no-net increase in peak flows, the analysis of impacts that could be significant either individually or cumulatively is not adequately addressed. Reliance on compliance with an NPDES waste discharge requirement is insufficient in and of itself; CEQA mandates that all cumulative impacts be considered and NPDES requirements do not attempt to eliminate all such impacts. 18-22a (con't.)

Section 6.6 states that under existing conditions, wet weather flows have been known to exceed the local CSS capacity during heavy storm events. When the capacities of the pipeline system and treatment plant are surpassed, excess untreated flows flood local streets in the downtown area through existing manholes and catch basins. The existing capacity of the CSS and the required system upgrades that would be required to serve the proposed development are not clearly characterized in the environmental analysis. However, the CSS is already considered an impacted system and the City of Sacramento requires all additional inflow into the system to be mitigated. Additional mitigation measures for flooding impacts (Impact 6.6-4) are not included in this section and the impact analysis states that none are required. Mitigation measures for potential flooding impacts should be included to address additional inflow into the CSS system.

At a minimum, a reference should be provided to the Public Utilities section and the associated mitigation measures (6.11-1 and 6.11-2) that partially address flow increases to the CSS.
The operation of the proposed project would increase stormwater and non-stormwater runoff entering the Sacramento River and the CSS compared to existing conditions. Therefore, the project has included a large cistern to capture the first flush of stormwater runoff and attenuate peak flows. The project is relying on the proposed cistern system to serve as the primary detention and stormwater quality–management facility for the project area. It is assumed that the cistern would be considered effective by simply capturing the "first flush" of a storm event for water quality purposes. The cistern would have

two compartments: the first would capture the most polluted stormwater runoff from the first flush. Up to one-third of the entire water quality volume would be pumped from the first compartment into the CSS. The residual two-thirds of the water quality volume collected in the second compartment would discharge to the Sacramento River over the course of 24 to 48 hours. The DEIR environmental analysis does not provide adequate evidence that the water discharged to the Sacramento River would be free of potential contaminants.

Operational activities of the proposed Specific Plan would be required to meet NPDES and the City of Sacramento SQIP requirements. Meeting these requirements would include implementation of structural and non-structural Best Management Practices (BMPs) that are intended to maximize reduction of the pollutants of concern. However, no specific BMPs are identified, discussed or included as part of the project (other than the cistern). The stormwater "treatment" facilities described in Impact 6.6-2 appear to be a detention cistern and do not appear to include any actual treatment (other than the first flush diversion to the CSS). The remaining stormwater would be discharged directly to the Sacramento River. In addition, the rainfall intensities and runoff volumes that constitutes the "first flush' should be quantified in the DEIR. Finally, for compliance with NPDES requirements for stormwater treatment, this "treatment" facility should be replaced or at least integrated with distributed landscape based stormwater treatment and storage measures incorporated into the overall site design such as vegetated swales and bioretention areas; these features can provide both biological treatment of stormwater and an amenity to the project residents. Although the proposed project would construct the proposed cistern designed to meet the City's water quality criteria, the proposed cistern design has not yet been completed and the Central Valley Regional Water Quality Control Board (CVRWQCB) has not approved of the discharge from the cistern. It is also not well demonstrated that the proposed cistern would function effectively to adequately improve water quality prior to subsequent discharge especially with regard to fine particulates and dissolved contaminants. The proposed project could degrade Sacramento River water quality when stormwater flows exceed the storage capacity of the second chamber and discharges are pumped directly in the river. Therefore, operation of the proposed project could violate water quality standards, exceed wastewater discharge requirements, and/or otherwise degrade water quality. This preceding impact is considered significant as indicated in the DEIR; however, the proposed mitigation measure 6.6-2 (cited below) does not adequately address this impact. It is unclear how the Specific Plan (in practice) will limit discharges to the Sacramento River that do not meet established water quality standards. This will need to be more clearly described. In addition, the identification and incorporation of stormwater BMPs should not be delayed until sometime in the future. Mitigation Measure 6.6-2: "The proposed Specific Plan shall limit discharges to the Sacramento River from the cistern that do not meet the water quality standards set by the City and the CVRWQCB. If the cistern cannot meet the required water quality standards, then the proposed Specific Plan shall incorporate BMPs using the best available technology as provided in the Stormwater Quality Design Manual for the Sacramento and South Placer Regions (Manual) (May 2007) to reduce urban pollutant discharges to the Sacramento River."

18-22a (con't.)

The setting section of the Hydrology DEIR analysis should also be updated to discuss the more recent revelations that Sacramento River levees may not provide adequate flood protection. Flooding has historically been a problem for Sacramento, prompting the City to build levees beginning in the 1860's. The DEIR discussion should note that as FEMA continues to release updated FIRM maps for the County, these maps may de-certify major portions of the Sacramento River levees. The FEMA FIRM map presented in the DEIR (Figure 6.6-1) is dated 1998 and should be updated to reflect 2005 revisions

18-22 b

as discussed in the narrative. Similarly, the discussion of Impact 6.6-4 should be revised to recognize the new FEMA information and recommend mitigation to address the potential flooding of the project site due to levee failure. As written, the discussion addresses impacts related to levee "maintenance" not potentially significant levee "improvements" which could be required by the new FEMA maps.

The flooding analysis also fails to address sea level rise and global climate change. As noted by the CALFED Bay-Delta Program, "the ISB [Independent Science Board] suggests that a mid range rise in sea level this century is likely to be at least 70-100 cm, significantly greater (~200 cm) if ice cap melting accelerates." Thus, sea level rise of 36-80+ inches may occur during the project lifetime. In addition, peak flood flows have been steadily increasing and are projected to continue to increase as substantially more of the precipitation falling on the Sierra Nevada falls as rain instead of snow, resulting in increased numbers of flood events and increased flood volumes. The DEIR should be revised to address the combined impacts of projected sea level rise and higher river flows on possible future flooding at the project site. 18-22b (con't.)

In summary, a brief listing of issues/concerns based on review of Section 6.6 of the DEIR include the following:

- The potential cumulative impact on hydrology and water quality in the Sacramento River is not fully addressed. 18-22 c
- Impacts associated with increased stormwater runoff and floodwater flows to the Sacramento River are not fully addressed. 18-22 d
- It is recommended that the applicant consider modifying the storm drain discharge method/design to the CSS and Sacramento River. The end-of-pipe approach for managing water quality of discharges from the development area is a concern (i.e. effectiveness of the proposed cistern).
- It is recommended that the applicant conduct a defensible floodplain impact assessment now versus during final design to comply with CEQA. The applicant should provide the County Flood Control District with an analysis of the effect of flood plain encroachment showing that the project would not result in a rise in the base flood elevation. The impact of projected sea level rise should also be addressed in the environmental analysis.
- It is recommended that the applicant develop a site landscape management plan designed to abate pollutants in runoff and incorporate this as a project mitigation measure.
- It is recommended that the applicant use reclaimed water for irrigation of landscaping and incorporate this as a project mitigation measure. 18-22 e
- The DEIR environmental analysis should be revised to include a discussion regarding any potential effects or mitigation measures for the construction and operation of the proposed marina facility that is included in the project description.
- Due to the considerable potential for increased runoff it is recommended that calculations be performed and/or a technical study results be presented to quantify the adequacy of sizing and proposed functionality of the proposed drainage facility improvements following heavy rainfall events.

- It is recommended that calculations be performed that quantify and assess percentages of existing impervious surfaces within the watershed with that to be added by the proposed development. It is also recommend that pre- and post-development stormwater runoff flows be calculated for the project.

- The DEIR should include requirements for semi-annual monitoring of water quality during summer low flow and winter storm conditions. Mitigation measures should specify areas where on-site stormwater storage and treatment facilities are required, and to specify that the project must include provisions for annual cleaning of drop inlets and storm drains prior to onset of winter storms.

18-22e (con't.)

- The FEMA FIRM map presented in Figure 6.6-1 is dated 1998 and should be updated to reflect 2005 revisions as discussed in the narrative.

18-22f

- Figure 6.6-2 is partially illegible and difficult to comprehend.

18-22g

- Table 6.6-1 addresses only methodology of groundwater quality sampling but not the results. The text on p. 6.6-12 (Groundwater Quality) also fails to provide any summary of the results. Please expand (or replace) this table to describe the results of the sampling. This text is very vague as to the extent of this issue; this is important because water dewatered from construction pits, if contaminated, could contaminate receiving waters.

18-22h

- The Stormwater Quality Improvement Plan expires in 2008; will it be renewed and applied to project construction, which will occur after 2008? This comment also applies to Impact 6.6-1.

18-22i

- The federal Spill Prevention and Control Program requirements (p. 6.6-20) apply only to petrochemicals. What will be done to mitigate spill potential for other hazardous liquids used in project construction?

- Even though remediation has been completed in some areas and will occur in the near-term in others, it is possible that residual chemicals could remain in site soils or groundwater where they could be encountered during construction and released in dewatering and/or stormwater discharges. This issue should be more fully addressed in the environmental analysis.

18-22j

6.7 Land Use

As described above, co-locating the school with police and fire station facilities would result in land use conflicts. Additionally, adjacent land uses including the railroad tracks, light rail line and Sports and Entertainment Facility Overlay represent potentially significant land use conflicts. Please revise the DEIR to address potential land use conflicts with the proposed location of the school site and adjacent and surrounding land uses.

18-23

6.8 Noise and Vibration

The discussion under East End District on page 6.8-20 of the DEIR does not identify the school site as a sensitive receptor in this district. There is no discussion of noise impacts associated with traffic, the light rail line and the railroad tracks on the school. Please revise the DEIR to identify potential noise impacts on the school site.

18-24

As shown on Figure 6.8-3, the proposed school site is located within the area for potential groundborne vibration for commuter trains and the light rail. Please revise to address the potential impacts of groundborne vibration on the school. 18-24 (con't.)

6.10 Public Services – Public Schools

It is our current understanding that the Plan currently envisions between 10,000 and 12,501 high-density residential units. Based on the maximum number of units, the average density for the residential land use areas would be approximately 150 dwelling units per acre. According to the DEIR, the plan will generate 1,250 elementary, 250 middle, and 375 high school students.

The Railyards Specific Plan is currently within the attendance boundaries of Washington Elementary School, Sutter Middle School and McClatchy High School. For the 2006-07 school year, these schools were over their design student capacity. Therefore, the K-8 students generated by Plan will be considered "unhoused" and new school facilities will be needed to serve the students generated by the Plan. Furthermore, additional high school facilities at McClatchy High School will be required.

Washington Elementary School serves students in grades K-6. Washington has a design capacity of 317 students, and 284 students were enrolled there for academic year 2006-07. Sutter Middle School serves students in grades 7-8. Sutter has a design capacity of 1,293 students, and 1,342 students were enrolled for the 2006-07 school year. McClatchy High School serves students in grades 9- 12. McClatchy has a design capacity of 1,754 students, and 2,362 students were enrolled there for the 2006-07 school year. These facilities are therefore already near or over their capacity. In addition to resulting negative impacts or education, overcrowding also impacts student safety on campus and traffic concerns on and near campus. 18-25

The cumulative impact will be limited to the impact on the Central City boundaries. However, based on our current analysis, the District will need at least 2 elementary school sites within the Plan to serve the students from the Plan. The Board-approved capacity for a K-6 elementary school is 450 students. Alternatively, the District might consider 900-capacity K-8 schools or a combination of the two.

School site size requirements have yet to be determined, but State guidelines recommend 9.6 acres for a typical elementary school and 20.9 acres for a typical middle school. While the DEIR does propose a site, it is unclear whether the site is large enough to meet state guidelines. The DEIR should better identify the proposed site characteristics.

Currently, the DEIR only sets aside a single proposed school site. Hence, it fails to adequately address the Plan's impact on the District's facility needs.

6.12 Transportation and Circulation

Study Area

Page 6.12-7. For a project with such massive trip generation (more than 12,000 AM peak hour trips and more than 20,500 PM peak hour trips in the maximum office scenario), the study area does not appear to be sufficiently large to capture all of the potential transportation impacts to the internal and external street networks. As an example, more than 40 internal intersections are proposed as part of the project; however, only 13 appear to be evaluated in the DEIR. Similarly, only a fraction of the internal street segments are evaluated in the DEIR. 18-26

The number of external intersections considered in the DEIR also appears to be insufficient to describe the full potential impacts of the proposed project. As an example, the intersection of 16th Street and H Street (Number 47 in the DEIR) is significantly impacted by the proposed project. However, in order to get to this intersection, project traffic would need to pass through eight (8) intersections which are not considered in the DEIR. As the project significantly impacts this intersection, it would be reasonable to include intersections between it and the project site, and additional intersections further away from the project site to fully capture all potential project impacts. Very similar arguments could be constructed for other roadways leading to and from the project site which are not analyzed sufficiently in the DEIR, including but not limited to G Street, E Street, I Street, J Street, 3rd Street, 4th Street, 5th Street, 7th Street and 8th Street. As the intersections at the perimeter of the study area are significantly impacted by the project (sometimes with very substantial increases in vehicular delay), the study area is likely too small to fully describe all project impacts. 18-27

Given the extreme levels of traffic and impacts identified in the DEIR, additional transportation facilities should be evaluated to identify the full potential impacts of the proposed project. At a minimum, the DEIR should more fully explain and document the screening analysis used to develop the study area wherein all potential impacts of the project would be captured (i.e. how many trips would need to be added to an intersection to merit its inclusion in the study).

Data Collection

Page 6.12-14. Some of the traffic counts used in the analysis are now approximately three years old. Normally only counts less than two years in age would be used in such a document. 18-28

Future Transportation Improvements

Page 6.12 – 37. The analysis assumes the completion of the City's planned Sacramento Intermodal Transit Facility and the Downtown Natomas Airport (DNA) LRT extension. As these transit facilities are not fully funded and not proposed by the project, the DEIR should include an analysis which would evaluate the impacts of the project should they not be constructed. 18-29

Trip Distribution and Assignment

Neither the DEIR nor appendices contain graphics or descriptions of the project's trip distribution or trip assignment. As a result, these important calculations and assumptions could not be reviewed. We recommend that figures be added that provide this information to the reader, as the EIR is inadequate as an informational document without this information. 18-30

Impacts and Mitigation

Table 6.12-15, Table 6.12-21, Table 6.12-26 and Table 6.12-31 Mitigation measures are routinely proposed which would not fully mitigate the impacts of the proposed project (i.e. the intersection levels of service and delays would be worse in the mitigated condition than in the no-project condition). Mitigations should be proposed which would fully mitigate the traffic impacts of the proposed project. 18-31

Parking

The DEIR identifies that the project does not propose sufficient parking in accordance with City Code requirements. We recommend that the project be modified to provide sufficient parking. In addition to the calculation of required parking in accordance with City Code, we recommend that an analysis of parking demand be undertaken which estimates the likely demand for parking which will occur with the development of the project. Rates from the ITE Parking Demand reference are typically employed in such analyses. The DEIR is inadequate without detailing how increased parking demands will be addressed. 18-32

6.13 Urban Design and Visual Resources

There is no discussion of the Sports and Entertainment Facility Overlay (page 6.13-37 of DEIR). Given the type of advertising; i.e., electronic big screen signage, which would most likely be used with a sports and entertainment facility, visual impacts associated with light and glare would be significant. Please revise the DEIR to address potential light and glare impacts associated with Sports and Entertainment Facility Overlay. 18-33

8.0 Alternatives

The DEIR states that the Reduced Density/Intensity Alternative (page 8-15 of DEIR) would be the Environmentally Superior Alternative except that it actually would result in off-site impacts resulting in greater impacts than with the project, therefore the project is the environmentally superior alternative. With this logic, any alternative that would result in less development than the proposed project would be rejected because the "surplus" development would go elsewhere resulting in significant off-site impacts. This analysis lends to an absurd result and inappropriately rejects feasible, environmentally superior alternatives in violation of CEQA 18-34

Conclusion

It is the District's position that the DEIR does not adequately analyze the Project's potential impacts to schools. The DEIR must address with greater specificity the impacts on school facilities and services. The District encourages the City to work cooperatively with the District and consider alternative measures, such as phasing or land dedication, which can adequately mitigate the impacts on the District's schools.

Sincerely,

William T. West
Assistant Superintendent

LETTER 18

PROOF OF SERVICE

I am employed in the County of Sacramento, State of California. I am over the age of eighteen years and not a party to the within entitled cause; my business address is 1107 9th Street, Suite 910, Sacramento, CA 95814. My business phone is (916) 329-7433.

On October 3, 2007, I served the attached: **COMMENT BY SACRAMENTO CITY UNIFIED SCHOOL DISTRICT ON THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE RAILYARDS SPECIFIC PLAN**

_X_ (By First Class Mail) on the following party(s) in said action, in accordance with Code of Civil Procedure section 1013a, by placing a true copy thereof enclosed in a sealed envelope in a designated area for outgoing mail, addressed as set forth below or on the attached service list. In the ordinary course of business of LOZANO SMITH, this document would be deposited with the United States Postal Service that same day in a United States mailbox, with first class postage thereon fully prepaid to the addressee below.

Scott Johnson, Associate Planner
City of Sacramento, Development Services Department
Environmental Planning Services
North Permit Center
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

_X_ (By Electronic-Mail) : I caused such document to be sent by electronic mail to the addressee at:

srjohnson@cityofsacramento.org

____ (By Certified Mail) causing a true copy of each document to be served by U.S. Mail, *Certified, Return Receipt Requested*, addressed as listed below. I am familiar with this firm's procedure, whereby mail is sealed, given the appropriate postage and place in a designated mail collection area. Each day's mail is collected and then deposited in a U.S. mailbox at the close of the business day.

____ (By Personal Service) by causing to be personally delivered a true copy thereof to the addressee below.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed on October 3, 2007, at Sacramento, California.

Camille Rasmussen

LETTER 19

Pacific Gas and Electric Company
Land Services Office
343 Sacramento Street
Auburn, CA 95603

Direct: (530) 889-5089
Fax: (530) 889-3392
Email: dlkn@pge.com

August 24, 2007

City of Sacramento
Attn: Scott Johnson
915 I Street, Third Floor
Sacramento, CA 95814

RE: SACRAMENTO RAILYARDS DEIR
FILE NUMBER: P05-097

Dear City of Sacramento:

Thank you for giving PG&E the opportunity to review the Draft Environmental Impact Report (DEIR) for the above referenced project. PG&E has the following comments in addition to PG&E's letter dated September 8, 2007 attached hereto:

Due to this large scale development, the developer must reserve a space with a minimum width of 20 feet by 40 for a future easement to be granted to Pacific Gas and Electric Company. This space will consist of gas regulator station to supply the development with such a large capacity. This will need to be coordinated with PG&E to decide the best location for the regulator lot's placement. 19-1

We would also like to note that continued development consistent with the City's General Plans will have a cumulative impact on PG&E's gas systems and may require on-site and off-site additions and improvements to the facilities which supply these services. Because utility facilities are operated as an integrated system, the presence of an existing gas facility does not necessarily mean the facility has capacity to connect new loads. 19-2

Expansion of distribution and transmission lines and related facilities is a necessary consequence of growth and development. In addition to adding a new regulator station, upgrades or additions needed to accommodate additional load on the gas system could include facilities such as regulator stations, odorizer stations, valve lots, distribution and transmission lines.

LETTER 19

We would like to recommend that environmental documents for proposed development projects include adequate evaluation of cumulative impacts to utility systems, the utility facilities needed to serve those developments, any possible relocations, and any potential environmental issues associated with extending utility service to the proposed project. This will assure the projects compliance with CEQA and reduce potential delays to the project schedule.

19-2 (con't.)

The requesting party will be responsible for the costs associated with the relocation of existing PG&E facilities to accommodate their proposed development. Because facilities relocation's require long lead times and are not always feasible, the requesting party should be encouraged to consult with PG&E as early in their planning stages as possible.

PG&E remains committed to working with the City to provide timely, reliable and cost effective gas service to the planned area. We would also appreciate being copied on future correspondence regarding this subject as the project develops.

If you have any questions regarding the above comments, please contact me at (530) 889-5089 or dlkn@pge.com.

Sincerely,

Donald Kennedy
Land Agent

cc: Kris Matulich

LETTER 19

Kennedy, Donald

From: Kennedy, Donald
Sent: Friday, September 08, 2006 7:55 AM
To: 'Nedzlene Ferrario'
Subject: Comments for the Union Pacific Railyards Project (P05-097)

Pacific Gas and Electric Company
Land Services Office
343 Sacramento Street
Auburn, CA 95603

Direct: (530) 889-5089
Fax: (530) 889-3392
Email: dlkn@pge.com

September 8, 2006

City of Sacramento
Attn: Nedzlene Ferrario
915 I Street, 3rd Floor
Sacramento, CA 95814

RE: UNION PACIFIC RAILYARDS – DOWNTOWN SACRAMENTO
FILE NUMBER: P05-097

Dear City of Sacramento:

PG&E has reviewed this project and has the following comments:

PG&E operates and maintains tower lines which are located within or adjacent to the proposed project boundaries. **Land use is restricted within the easement.** One of PG&E's concerns is for continued access to the structures and lines with heavy equipment for maintenance and repair of the towers, insulators, and wires. Another is for adequate ground clearance from the wires as set forth in California Public Utilities Commission General Order No. 95 for the proposed improvements as shown on the plan. Should an infraction occur, the developer will be responsible for the costs of raising or the relocating of the facilities. The planting of trees is considered an unacceptable use within our easements. Unless approved by PG&E's Vegetation Management personal.

PG&E owns and operates gas transmission facilities which are located within or adjacent to the proposed project boundaries along 7th and D Street. To promote the safe and reliable maintenance and operation of utility facilities, the California Public Utilities Commission (CPUC) has mandated specific clearance requirements between utility facilities and surrounding objects or construction activities. To ensure compliance with these standards, project proponents should coordinate with PG&E early in the development of their plans. Any proposed development plans should provide for unrestricted utility access and prevent easement encroachments that might impair the safe and reliable maintenance and operation of PG&E's facilities. When potholing gas transmission facilities to confirm depths, PG&E standby personnel is required. Please contact Charlene Kinard with PG&E at (916) 386-5247 to schedule PG&E standby to monitor potholing activities.

Dedicate a standard 12.5 foot Public Utility Easement for underground facilities and appurtenances adjacent to all public ways, private drives and/or Irrevocable Offer of Dedication.

LETTER 19

Dedicate the Private Drives and the Common Areas as a public utility easement for underground facilities and such underground and aboveground appurtenances and additional areas as required within the Common Areas as required to provide service as a public utility easement for underground facilities and appurtenances.

If PG&E's gas and electric transmission facilities fall within the project limits, they will need to be reviewed by both PG&E's Electric Transmission Supervisor and our Gas Pipeline Engineer. The developer will need to work closely with PG&E in obtaining a no objection letter for this project to ensure the safety and reliability of PG&E's facilities and the public. **Please submit 3 sets of plans and a copy of this letter to the following address:**

Pacific Gas & Electric Company
Attn: Donald Kennedy
Land Services Office
343 Sacramento Street
Auburn, CA 95603

Please show the following information on the plans to be submitted to PG&E for review and approval:

- PG&E's Easement Area in Relation to Project Area
- Tower Structures
- Pipeline Location
- Accurate Potholed Depths of Pipeline
- Wire Shots to determine Wire Height
- Landscaping Plans
- Grading Plans (Existing & Proposed)

Gas service may be available to this project if desired. The developer should contact PG&E's Service Planning Department at (916) 386-5112 as soon as possible to coordinate construction so as not to delay the project.

Please contact me with any questions at (530) 889-5089 or dlkn@pge.com.

Sincerely,

Donald Kennedy
Land Agent

LETTER 20

Sacramento Audubon Society
P. O. Box 160694, Sacramento, CA 95816-0694

September 28, 2007

Via Facsimile and U.S. Mail

Scott Johnson
Development Services Department
City of Sacramento
915 "I" St.
Sacramento, CA 95814

Re: Sacramento Railyard Specific Plan Draft Environmental Impact Report (DEIR).

Dear Mr. Johnson:

I am writing on behalf of Sacramento Audubon Society and its members to comment on the Draft Environmental Impact Report (DEIR) for the above project. Sacramento Audubon Society is concerned about the project's potential impacts to the nesting colony of purple martins in the "I" St. bridge onramp, above the parking lot of the California State Railroad Museum.

Sacramento Audubon Society has had a long interest in the population of nesting purple martins within the City of Sacramento. Specifically, we have monitored and kept records on occurrences of martins at various sites in the City for many years, which has been important in understanding the threats posed by the non-native European starling. We also conduct annual field trips with our members to the "I" St. purple martin colony. We have heard presentations at our monthly meetings by Sacramento Audubon Society member, Daniel Airola, about his research and conservation activities and provided honoraria to support this work. Our members volunteer to conduct population surveys as part of the ongoing martin conservation program.

20-1

Sacramento Audubon Society supports, and incorporates by reference, the points made by Mr. Airola in his September 19, 2007 comment letter. Specifically we agree that the DEIR does not consider an extensive body of available research and management findings on Sacramento purple martins. This research shows that the "I" St. purple martin colony is important to maintaining the martin population in Sacramento, and the recovery of the species in the Central Valley.

The DEIR's analysis is inadequate, because it only analyzes short-term, construction impacts on the "I" St. purple martin colony, but does not address the project's long-term effects. As Mr. Airola also points out, the mitigation measures proposed for construction effects are inadequate, and some could even be harmful to the population. The mitigation measures Mr. Airola has identified are feasible, and should be adopted for the project.

LETTER 20

Finally, Sacramento Audubon Society is concerned about the Railyard project's cumulative impacts on Sacramento's purple martin population. Again, as pointed out by Mr. Airola, the DEIR does not consider the cumulative impact of the Railyard project in combination with at least 5 other planned and proposed projects that are on sites that support 70% of the remaining Sacramento purple martin population. A comprehensive plan to address the population's future management needs, and corresponding planning and construction guidelines, are needed to address these cumulative issues. 20-1 (con't.)

Sacramento Audubon Society thanks you for the opportunity to comment on the Sacramento Railyard Specific Plan DEIR.

Sincerely,

Keith G. Wagner

Keith G. Wagner, President
Sacramento Audubon Society

cc: Dan Airola, Airola Environmental Consulting

LETTER 21

Sacramento County Historical Society

P.O. Box 160065 Sacramento, CA 95816-0065 (916) 443-6265

Comments from the Sacramento County Historical Society relating to the Draft Environmental Impact Report for the Railyards Specific Plan

This letter from the Sacramento County Historical Society is in response to Draft Environmental Impact Report (DEIR) for the Railyards Specific Plan (Specific Plan), dated August 2007. In relation to potential impacts of the project on significant historical resources, we are very concerned about the lack of specifics both in the Specific Plan and in the DEIR—and without such specifics we would strongly argue against approval of the DEIR and adoption of the Specific Plan at this time. The lack of specifics is obvious from the very beginning of the DEIR, where in the Introduction, it is stated, "In addition, implementation of the proposed Specific Plan could require, but not be limited to, the following discretionary actions . . ." This statement regarding follow-up discretionary actions (and the fact that at this time the City isn't even aware if this list is complete) is very concerning to us because it is not apparent that any of these actions (whether they are included in the list in the DEIR or not) would in turn trigger further review under the California Environmental Quality Act (CEQA) or if this DEIR would be considered the required compliance for these actions. If the latter were the intent, then we would strongly argue this DEIR is not complete and does not therefore fulfill the City of Sacramento's responsibilities as lead agency for this project. In fact, the incompleteness of the DEIR, at least in relation to impacts on historical resources, makes it very difficult to comment on the project and the DEIR itself.

21-1

The Sacramento County Historical Society wholeheartedly agrees with the findings in the Historical Resources Impact Analysis Report (Report) in the DEIR that "the Railyards project has the potential to cause a substantial adverse change in the significance of historical resources." However, we take issue with the statement that follows, which says, "Project impacts could be mitigated to a level that is less than significant if the City of Sacramento, as lead agency, can ensure that mitigation measures employed to reduce those impacts are sufficiently implemented." While this is technically true, we find it disquieting in light of the complete lack of specifics included in the project description in terms of what this project will ultimately "look like" on the ground. In this way, the DEIR appears to be much more of a programmatic EIR than a project-specific review and analysis, and as such we would assume that follow-up EIRs would be in order as future discretionary actions are brought before the City and more project specifics are available. This thinking would seem to be reinforced in the Report, which states, "Therefore, the analysis in this report regarding the impacts the project may have on historical resources is at a program-level and assumes that additional studies may occur as the Railyards project proceeds and specific projects are planned, developed, and processed through the City of Sacramento approval process." However, our fear is that this statement is not the case and the City plans to approve the project (and any follow-up discretionary actions) through this single DEIR, which is inadequate for this purpose.

21-2

LETTER 21

The inadequacy of the DEIR is very apparent in its analysis of the historical resources contained within the project site. We are heartened by the fact that the Report admits that additional research is needed to clearly define the historic status, boundaries, and character-defining features of the Central Shops and the historic district of which they are a part. However, this research should have been conducted as part of the DEIR drafting process, not as a later step, for it is information that is required to adequately review the plan and assess impacts as well as alternatives.

By way of example, this lack of analysis and findings leads us to take umbrage with Section 6.3-3 of the DEIR, which states that no mitigation measures are required for new construction in the area of the Central Shops Historic District due to the fact that the "guidelines for the Transition Zone include a setback of 20 feet from the historic buildings, consideration of building heights and massing, and the interaction between new and historic elements." However, if it is not yet known what the boundaries of the historic district are, then how can it be clear that 20 feet from the buildings is adequate setback to mitigate impacts of new construction? This one example, we feel, points to the need to adequately analyze the historical resources on site before adoption of the DEIR and approval of the Specific Plan, not afterwards. And it also very much demonstrates the need for subsequent CEQA review of project-specific impacts as later discretionary actions are taken by the City.

21-2 (con't.)

We are also concerned because several documents referenced in the DEIR have yet to be made available to the public. These standards will include significant information that the public should be able to review in analyzing the project's environmental impacts. These documents include an "SPD Zoning Ordinance," "Finance Plan," "Development Agreement," and "Historic District Ordinance." The SPD Zoning Ordinance in particular is supposed to provide development standards as well as a new process for subsequent approvals related to the process, yet it has not been available as of the deadline for DEIR comments.

21-3

In summary, the Sacramento County Historical Society has grave concerns about the possible impacts of the Railyards Specific Plan on historical resources and does not feel this DEIR adequately describes the project and analyzes those resources and possible impacts to them. Thus we would argue that the DEIR should not be adopted because it requires significant information to correct its deficiencies, and thus should also require recirculation in order for the public to gain a meaningful understanding of the impacts that will result from the project. Additionally, it should be made clear this is a program-level DEIR and that future environmental review under CEQA will be conducted, with specific requirements included as to what would trigger additional review, as more specific information and plans are developed.

Submitted by:
Susan Ballew, President
Sacramento County Historical Society

LETTER 22

SACRAMENTO OLD CITY ASSOCIATION
P.O. Box 162140, Sacramento, CA 95816
www.sacoldcity.org

Mayor & Council Members
City of Sacramento
New City Hall
915 I Street, 5th Floor
Sacramento, CA 95814

Attention: Scott Johnson

October 2, 2007

Response to the DEIR for the Sacramento Railyards

The Sacramento Old City Association has the following concerns and issues with the Sacramento Railyards Draft Environmental Impact Report:

This proposed historic district does not include all of the area, buildings and features of the proposed national register listing. Although there is room for compromise on some of the transition zone lots, the district does not meet the standards that are used in the central city where there is a contiguous district, not a building by building district within the same general location. The central shops are a part of the central city and should be treated with the same respect the city treats a neighborhood designation for a historic district. 22-1

The Erecting shop is listed as a historic resource but all of the character defining features of the internal structure and use of the building are not addressed or described. These are important aspects of the building and contribute to the historical significance. These must be incorporated into the plan as there is no way to mitigate for any loss of this features. 22-2

The remains of the foundation of the roundhouse site are still existing, but they are not addressed or included in the Historic district. This footprint must be clearly identified and any development on this site must take into consideration the form of the roadhouse. This must be included in the Historic District as it is one of the early features of the site. 22-3

Any building within the "transition zone" should come under the review of the preservation and design commissions (jointly if necessary) to ensure, from the view of appointed experts, that these new structures complement the historic district and that any variances on height, mass, or materials are addressed and mitigated to protect the historic district and structures. 22-4

The transition zone, if approved, should ONLY contain specified "lots" and should NOT include any of the "roadways or walkways" as proposed in the diagram in figure 6.3-3. These must remain at the 80 foot distances as shown in that illustration. Lots 13, 22 and 23 may be the exception to the 80 and 20 feet setbacks, but these should be within the historic district and come 22-5

under the review and oversight of the appropriate commissions. 22-5 (con't.)

"Camille Lane" is the historic transcontinental rail line, specifically from the foot of K Street to beyond the roundhouse/transfer station. It should be marked as such, defined clearly for pedestrian traffic as an interpretative trail to enhance the historical significance of the district and its relationship to Old Sacramento and the waterfront. 22-6

The flat transfer table is listed as a Historical Resource in figure 6.3-2 but the preservation of this resource is not addressed or described. This is between the Boiler and Erecting shops that are intended to be used for the rail technology museum. The transfer table will enable the public to see and "feel" how the shops were used in the construction, rebuilding and now the restoration of rail cars. This table is a significant resource that was rebuilt for the public's use/view by the state. It would not be appropriate to give away, by lack of inclusion, the transfer table, thus it must be included in the historic district as a resource that links the two historic shops. Since criteria, as set forth in the DEIR, is the public's use and enjoyment, the inclusion of the transfer table should be a given! 22-7

The hotel proposal on lot 14 needs to be reviewed by the design commission to ensure that the height does not interfere with sight lines and fits within the vision of the historic district area even if it does not get included within the historic district. This structure will sit adjacent to one of the historic shop buildings without the benefit of the 80 foot setback (appears to be 20 feet) which is only the width of an alley way versus a city street (most historic districts in the central city are divided by city streets versus alleys). 22-8

In section 6.4-4 it states that the proposed project could result in damage to the historic Central Shops. There is the potential for damage to the foundations, walls, etc. This must be mitigated and should construction not happen in the near future, the protection of these elements is critical to the preservation of these resources. 22-9

In 6.3-52 the report refers to the transition zone being developed in compliance with the design guidelines. These are not mandatory, and do not require review by any expert other than city staff. If development in the transition zone is to work, it must be reviewed by the appointed experts of the appropriate commission or by mandatory design guidelines that the community and commissioners are in agreement with and find workable. 22-10

If you have any questions, please do not hesitate to contact me.

Sincerely,

Linda K. Whitney
President
(916) 455-2935 (recording)

LETTER 23

Friends of the Yee Fow Museum

Comments on the DEIR

Scott Johnson, Associate Planner
Development Services Department, Environmental Planning Services
North Permit Center
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

October 2, 2007

Mr. Johnson:

The Friends of the Yee Fow Museum is a nonprofit, volunteer-supported, civic group with over 500 members. Its mission is to advocate for the commemoration of the Chinese pioneers who built the Central Pacific Railroad in the Railyards. The Chinese were the first to call the Railyards "home," establishing the Chinatown of Yee Fow in the mid 1800s when the area was proclaimed a cesspool and health hazard and the Chinese were deemed by California constitution as "dangerous to the well-being of the State" eventually driving the Chinese out.

We find that it is our ancestral duty and we would be remiss not to provide comments to the Draft Environmental Impact Report (DEIR). In working with the City of Sacramento and Thomas Enterprises in the project's process from the onset, we are generally pleased with the comprehensive and evidentiary report contained in the DEIR and Appendix G "Sacramento Railyards, Program-Level Assessment, Archeology and Initial Phase Archeology."

As noted throughout the Cultural Resources chapter of the DEIR and Appendix G, the Railyards remains rich in Chinese cultural resources. Invariably, the proposed Specific Plan has the potential to cause a substantial adverse change to those Chinese historical resources through alteration of those resources and their immediate surroundings. We feel the following mitigation measures necessary: 23-1

Firstly, we feel the mitigation measure to incorporate a Chinese Garden and the story of the Chinese of Yee Fow into the Interpretive Walks is fitting.

Secondly and of utmost importance, we feel the most effective mitigation measure is to commemorate the Chinese pioneers with a Chinese American Museum and Center of History, Culture, and Trade. This center will not only honor the workers who built the Central Pacific Railroad but will also tell the story of the Chinese in California, provide a rich and diverse entertainment venue, and segue into opportunities to partner with China in terms of trade and tourism. We feel the City of Sacramento and the State of California deserves nothing less.

Steve Yee, Chair, Friends of the Yee Fow Museum
1614 K Street, Loft 3
Sacramento, CA 95814

LETTER 24

REMY, THOMAS, MOOSE and MANLEY, LLP
ATTORNEYS AT LAW

MICHAEL H. REMY
1944 – 2003

TINA A. THOMAS
JAMES G. MOOSE
WHITMAN F. MANLEY
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AMANDA R. BERLIN
JASON W. HOLDER
LAURA M. HARRIS
KATHRYN C. COTTER

Via hand-delivery

October 3, 2007

Scott Johnson
Associate Planner
City of Sacramento
Development Services Department
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

RE: DEIR for the Railyards Specific Plan

Sims Group has retained our firm to represent its interests with respect to the proposed Railyards Specific Plan. We appreciate the opportunity to review and comment on the Draft Environmental Impact report (DEIR) for the Railyards Specific Plan, released to the public in August 2007. Our client, Sims Group (Sims), operates a metal recycling plant at 130 North 12th Street, at the corner of North "B" Street. Sims is particularly concerned about the impacts the proposed development may have on its operations at this site. Specifically, Sims would like to see the EIR address the impacts of its facility on the proposed project, as well as impacts of the proposed project on its facility. On behalf of Sims, we submit the following comments and concerns for your consideration during preparation of the final EIR.

Traffic/Circulation

The DEIR proposes to extend Railyard Boulevard in the "full buildout" stage of the project directly through Sims' metal recycling plant. (See page 6.12-45 of the DEIR, "additional changes to the transportation system would result from implementation of the Full Project. The additional roadway elements called for in the Facilities Element would be added as part of the Full Project: Extension of Railyards Boulevard as a three-lane one-way westbound street from 12th Street to 7th Street with a traffic signal at No. 10th." See also Figure 6.12-10 which depicts the extension.) There does not appear, however, to

24-1

be any analysis of the environmental impacts of extending this road through a privately-owned metal recycling facility. As Sims noted in its comment on the Notice of Preparation (NOP), the DEIR should have discussed how it intends to acquire this land (i.e., whether it will pursue an eminent domain action, etc.) and whether it plans to compensate Sims for relocation of the site and the moving costs.

A similar road widening appears to be potential mitigation for Traffic Impact 6.12-5, "the Initial Phase would add traffic to the study freeway off-ramps and cause freeway off-ramp queues to exceed the available storage capacity." The City concludes that not only will the additional widening create secondary impacts to adjacent properties but also that the right of way is currently unavailable. Yet, the impacts are not addressed and there is no mention of how the right-of-way will be acquired. The DEIR also notes that such a widening is not included in any of Caltrans' funding mechanisms. (See DEIR p. 2-71.) Clarification of whether this discussion also pertains to the Railyards Boulevard extension is necessary. The DEIR also concludes that widening 12th Street to mitigate for intersection impacts would be inconsistent with the City of Sacramento goals and objectives and Smart Growth policies to create pedestrian friendly streets. Furthermore, the additional widening would also create secondary impacts to adjacent properties through the acquisition of an additional right of way for new vehicle travel lane and that this right of way is currently unavailable. (See DEIR p. 2-78, mitigation 6.12-9 (h).) Clarification is necessary for why the City did not draw a similar conclusion with respect to the placement of Railyards Boulevard through the Sims facility.

24-1 (con't.)

Currently, the DEIR provides no analysis on the diversion of Railyards Boulevard through the Sims facility. While this road extension may not occur until the final stages of buildout, the analysis of this element should be analyzed now to fully apprise Sims of its options and to inform the public of the impacts of constructing a road through the existing metal recycling facility.

Land Use Compatibility

The DEIR indicates that the portion of the Plan area that abuts the Sims facility shall be designated "Residential-Commercial mixed use" (RCMU). This use allows mixed use residential, commercial (including restaurants, clubs, etc), historical uses, and public facilities such as museums, theatres, etc. (DEIR p. 3-17.) This designation emphasizes residential and retail uses. Even though there are only two parcels proposed for this designation that abut the Sims facility, a designation of this sort near an existing industrial use like a metal recycling yard is potentially problematic. The DEIR concludes that while the proposed project could result in short or long-term land use conflicts due to the adjacency or proximity of incompatible uses, no mitigation measures are required. Such an approach violates CEQA.

24-2

The DEIR notes that the Richards Boulevard area directly north of the Plan area is generally characterized by light industrial uses, among other things, and yet it does not appear to include this fact in its analysis. (DEIR p. 6.7-2.) The only true acknowledgement of the facility is the following statement:

> the northern edge of the East End District is adjacent to existing industrial uses in the Richards area. As described above, industrial uses can generate noise and odors that may affect residents of the Specific Plan area. However, the Richards Boulevard Area Plan calls for these industrial uses to transition to office and mixed-use areas, which would be compatible with residential uses.

(DEIR p. 6.7-5.) While we acknowledge that the Richards Boulevard area is a Special Planning District which may contemplate primarily office uses adjacent to the Plan area, there is no discussion in the DEIR of when that transition may occur. The DEIR must analyze the land uses in their current state as well as future uses. The DEIR should also include a more specific discussion of the timing of the transition in use designations in order to accurately depict the potential environmental impacts.

We note that the DEIR goes on to state that the Plan proposes a large open space area and retail/residential mixed use area adjacent to the existing Sacramento Regional Wastewater Treatment Plant (SRWTP). Sims encourages the City to consider placing more open space adjacent to the Sims facility to lessen the current incompatibility of residential uses abutting industrial uses.

24-2 (con't.)

Noise

Noise impacts are considered significant if the proposed project would result in residential interior noise levels of 45 L_{dn} or greater, among other things. (DEIR, p. 6.8-15.) The DEIR does not include an analysis of the noise impacts that existing industrial facilities like Sims could have on the residences that will abut the site under the proposed designation. Even if the area does later transition to commercial uses, the DEIR should include such an analysis, given that the timing of such a transition is not yet clear.

24-3

The DEIR also does not appear to acknowledge that Sims and other industrial operators may be at risk of nuisance claims from the residents who will live adjacent to the Sims recycling facility. This is an especially high risk because of the close proximity of residential and commercial uses nearby. Again, the City assumes that the Sims facility will disappear as soon the project begins and does not analyze the current industrial uses

24-4

in the area. (For example, the DEIR acknowledges that truck activity could expose sensitive receptors in the Plan area to noise produced by on-site stationary sources, but concludes, "the uses proposed for the site do not include large retail, warehouse or industrial, [thus] it seems likely that most deliveries would be by small and medium trucks, rather than heavy trucks.") Such conclusions are not merited at this stage of planning given that industrial uses currently exist in the area.

24-4 (con't.)

The DEIR includes a brief discussion of the potential noise conflict of the RCMU designation and the proposed light rail activities (DEIR, p. 6.8-20), but does not include a discussion of the similar conflict that will exist near the Sims facility. Sims asks that the City include such a discussion in the FEIR.

We ask that the City consider dedicating the portion of the plan that abuts the Sims facility an open space area to buffer the potential land use and noise conflicts that are likely to arise. This buffer would help to mitigate the effects of the noise coming from the facility, and could also ease some of the aesthetic impacts (discussed below). The Parks and Open Space analysis concludes that the proposed Plan would increase the demand for parks and recreation, a significant effect. Currently, the City proposes to accommodate such new parks with in-lieu fees and to meet the parkland dedication requirements (see DEIR, p. 2-43). We believe it would be beneficial to both the City and Sims to dedicate the area abutting the Sims facility as parkland as mitigation for this impact, rather than merely allowing developers to pay fees to construct parks elsewhere. Additionally, the City could designate part of this area as a bike path, as the DEIR also concludes that the Plan would increase the demand for and use of the bicycle path network, a potentially significant impact. These mitigation measures could reduce noise impacts coming from Sims' facility and help satisfy the goals of the proposed project.

24-5

Visual Resources (Aesthetics)

The Sacramento Riverfront Master Plan proposes that the City place housing and other adjacent mixed uses to capture maximum orientation to the river and to the riverfront open space, as well as to parkways and streets, among other things. (DEIR, p. 6.13-22.) The Central City Community Plan promotes a goal of encouraging new residential office and commercial development which is human in scale, sensitive to open space and aesthetic needs and which will minimize air and noise pollution. (DEIR, p. 6.13-20.) We believe that designating that area adjacent to the Sims facility as RCMU conflicts with these goals.

24-6

While the project does not appear to contribute to detract from the aesthetics of the area, the project may expose project inhabitants to concentrated industrial uses, which are often considered unattractive to residential inhabitants. The DEIR concludes:

> Because the Central City portion of Sacramento is a fully-developed urban area, it is anticipated that any future projects would generally be consistent with the community design pattern established in the General Plan and embodied in the CCCP or the Richards Boulevard Redevelopment Plan. In addition, future development will continue to be guided by the General Plan and Zoning Code and would be subject to design review, which would consider the types and placement of planned development throughout the City.

(DEIR, p. 6.13-34.) Again, the City should not assume that the Richards Boulevard Redevelopment Plan or any other Plan will automatically be in place at the moment the proposed project begins. Rather, it should include an analysis of the existing uses in the area.

24-6 (con't.)

Also, as noted in the discussion of potential noise impacts, the DEIR should have discussed how the change in land use may lead to increased nuisance complaints. It is foreseeable that increases in the residential uses that are proposed in this project will lead to more nuisance complaints and result in increased economic pressures and constraints on the industrial facilities around the site. A survey of the current residential area may serve as a good indicator of the significance of an increase in complaints from residential users due to this project.

One potential mitigation measure the City could implement would be to ensure that within this RCMU designation, all commercial uses would be concentrated towards the border of the Plan area, which is also the border of the Sims facility. Placement of theatres and clubs and museums on the perimeter of the site would insulate the residential uses from many of the impacts discussed above, especially aesthetics and noise.

24-7

As we mentioned in our comments on the Notice of Preparation, Sims does not necessarily oppose the project. We hope, however, that the responses to comments and the Final EIR will provide a clearer idea of the timing and true impacts of this project on the Sims facility. We believe this project can achieve all of its goals while also allowing the recycling facility to continue to operate in some fashion.

Sincerely,

Katy C. Cotter

Katy C. Cotter

cc: Jimmie Buckland, Sims Group
Buzz Hines, Farella Braun + Martel

LETTER 25

William D. Kopper

Attorney at Law
417 E Street
Davis, CA 95616
(530) 758-0757
Fax (530) 758-2844

Paralegal
Kristin Rauh

October 3, 2007

Planning Department
City of Sacramento
915 I Street, 3rd Floor
Sacramento, CA 95814

RE: Railyards Specific Plan Draft Environmental Impact Report (SCH No. 2006032058)

Dear Planning Staff:

These comments on the Railyards Specific Plan Draft Environmental Impact report ("DEIR") are submitted on behalf of Robert Castro, Jr., Linda Powers, and Chris Rich, all residents of the City of Sacramento. These are their comments. The comments include those of Dr. Petra Pless, Air Quality Consultant; Daniel Smith, Traffic Engineer; Dr. Mark Grismer, Hydrologist; and Dr. Alvin Greenberg, Consulting Toxicologist. We also incorporate into our comments all the comments of other individuals and organizations, and intend to rely on those comments as well as our own. Furthermore, we oppose the Railyards Specific Plan (the "Project") and the General Plan and community plan amendments necessary for the Project, the development agreements, and other entitlements for the Railyards Specific Plan. In these comments, we highlight some of the deficiencies in the EIR, and we also request information.

My clients believe that the Railyards Specific Plan has not been adequately mitigated. We believe that the development of the Railyards Specific Plan will result in traffic gridlock in downtown Sacramento, will result in traffic gridlock in certain areas of West Sacramento, and will result in significantly reduced Levels Of Service ("LOS") on already congested freeways and freeway ramps. My clients are also concerned that the City has not adequately considered the air pollution impacts of locating residential development so close to a major freeway and railroad line. This Project will increase the suffering from respiratory diseases of people living in the City of Sacramento. More citizens will suffer from asthma, emphazema, and other lung and heart diseases.

1. Project Description.

A Project Description must be accurate. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199.) An accurate description is necessary to determine the scope of environmental review. As the Court stated in *County of Inyo*:

> Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "No Project"

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> alternative) and weigh other alternatives in the balance. An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR. (*Id.* at page 192.)

The adequacy of an EIR's Project description is closely linked to the adequacy of the EIR's analysis of the Project's environmental affects. If the description is inadequate because it fails to discuss the complete Project, the environmental analysis will probably reflect the same mistake. The entire Project being proposed for approval, and not some smaller aspect of it must be described in the EIR. A complete Project Description is necessary to ensure that all the Project's environmental impacts are considered. (*City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1450.) In *City of Santee*, the Court rejected an EIR for county detention facilities that understated the likely duration of temporary detention facilities, thus minimizing traffic and other impacts.

The Railyards' Project Description is unclear and uncertain. The City is required to correct the Project description and recirculate the Draft Environmental Impact Report so that the public may better understand the Project. On page 3-13 of the EIR, the authors state, "The proposed land use districts, building heights, maximum development potential, infrastructure, community services, and phasing are described below." On page 3-19, the EIR discusses the initial phase of the Project. The DEIR states, "The initial phase land uses are based on the parcel-by-parcel assumptions for those parcels that fall within the initial phase boundaries, shown in figure 3-6." Figure 3-6 shows the initial phase boundaries, but does not describe the uses within the initial phase. Further, the Project description does not set forth a period of time for the development of the initial phase. The Project description does not set forth any of the other phases of the Project and when they are projected to be developed. 25-1 (con't.)

On page 6.10-56, the EIR states: "As currently proposed, the proposed project would be implemented in four major phases, Phase I to Phase IV, between 2007 and 2027." This statement was included in the Public Services section of the EIR which provides for library services. The EIR also states on page 2-4, that the EIR examined a water supply consistency alternative, "in which the development of the proposed project would be reduced from four phase to two phases." On page 6.12-1, the EIR states that "The Railyards Specific Plan is composed of five distinct phases (the full Project) and includes development of the Sacramento Intermodal Transfer Facility (SITF)."

The Project Description is unclear because it is inconsistent as to whether there are four phases or five phases of the Project. The Project Description is unclear because it does not state the dates of development for each of the phases of the Project. The Project description is unclear because it does not define the parts of the Project that are included in each phase of development. This necessary information to evaluate the Project and it is not included within the DEIR.

2. <u>The Project Description is not sufficient to support a Project Level EIR</u>.

The Notice of Preparation of the EIR for the Railyards Specific Plan states, "Pursuant to CEQA Guidelines, § 15168, the EIR is being prepared as a program level EIR for the 'Railyards Specific Plan' and Sacramento Intermodal Facility. A Program EIR may be prepared on a series of related actions that can be characterized as one large project. It is also intended that the EIR will provide project level review of development in the project level area of the 'Railyards Specific Plan'. Subsequent development activities in the 'Railyards Specific Plan' area will be examined in light of the program/project EIR to determine whether any further environmental review is required." 25-2

Guidelines[1] § 15168 defines a Program EIR as an EIR which may be prepared on a series of actions that can be characterized as one large project related geographically or in other ways. While a Program EIR can provide a single environmental document that can allow an agency to carry out an entire "Program" without having to prepare additional site-specific EIRs or Negative Declarations; to effectively serve this function, a Program EIR must be very detailed. In other words, the Program EIR must include enough site-specific information to allow an agency to plausibly conclude that, in analyzing "the big picture," the document also addressed enough details to allow an agency to make and form site-specific decisions within the program.

When a Program EIR serves only the function of providing a "First Tier" document, the formulation of details regarding site-specific issues may be deferred until the preparation of later Project EIRs or Negative Declarations. In these situations, the Program EIR may properly focus on "broad policy alternatives and program wide mitigation measures," as well as "regional influences, secondary effects, cumulative impacts . . . and other factors that apply to the program as a whole." (Guidelines § 15168(b)(4), (d)(2)). When an agency prepares a Program EIR with later EIRs or Negative Declarations in mind, the agency should formulate or adopt performance standards or objectives that can function as "First Tier Mitigation" and then be translated into site-specific mitigation measures when site-specific CEQA analysis is prepared.

In this case, it appears that it is primarily the intent of the authors of the EIR for the EIR to serve as a Project Level EIR for all development in the Railyards Specific Plan. The EIR does not mention any subsequent CEQA environmental review that is intended to be completed by the City. 25-2 (con't.)

It does not appear that the project description is sufficient to analyze the Railyards Specific Plan on a project level. For example, there is no time schedule for development or the Project building phases, there is no grading plan, there is no construction schedule. The EIR does not contain a 3-D rendering of the planned development. Further, it does not appear that after any of the planned build-out phases (whether there are four or five completed) there would be any subsequent environmental review before the next phase is initiated. Clearly, it is necessary to know when different parts of the Project will be built to determine at which time additional traffic impacts and air quality impacts will be experienced by the community. It is necessary to have project details to determine whether the EIR adequately evaluates the specific projects within the Specific Plan.

At one point, the City stated as follows: "The environmental review would be phased in terms of timing. We would ask for project-specific details for aspects that are expected to build in the near term. For later phases of development, the entitlements and environmental review would be more programatic. Beyond 15-20 years, a new environmental review would be needed, as the analysis would be stale." (Notes on EIR Scoping Public Meeting, March 29, 2006, Appendix B.) It is therefore unclear whether the EIR is intended to be a Project Level EIR for only Phase I as Carol Shearly stated on March 29, 2006, or whether it is intended to be a Project Level EIR for all the phases of the Project.

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[1] "Guidelines" refers to the CEQA Guidelines which are included in California Code of Regulations Title 14, §§ 15000-15387.

3. Failure to Consult With Sister Agencies.

Guidelines § 15086(a) 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 and 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 the comments in the Notice of Preparation that the City consulted with CALTRANS and provided the Notice of Preparation to CALTRANS. It is also the habit of the City of Sacramento to provide the Notice of Preparation to the City of West Sacramento. However, the materials that we have reviewed provide no indication that the City of Sacramento consulted with the City of West Sacramento. Further, the materials we have reviewed provide no indication that the City of Sacramento provided notice to Yolo County or consulted with Yolo County. The Project will have a definite effect on Yolo County because I-5 enters Yolo County within ten miles of the Project site, and I-80 enters Yolo County within five miles of the Project site. The Project will have a definite impact on the Interstate 80 crossing of the Sacramento River. The EIR fails to address how many additional car trips per day the Project will add to crossings of the Sacramento River. We predict that the added number of car trips per day crossing the Sacramento River will be significant. As pointed out later in these comments, the City of West Sacramento has discouraged use of the Tower Bridge as a crossing of the Sacramento River. The City has converted what was once a through road from I-80 to the Tower Bridge, to a local road with traffic lights and local crossings. The three crossings of the Sacramento River – the I Street Bridge, the Tower Bridge, and I-80 – are likely to experience a significant number of increased trips related to the Project. These trips will have a significant impact in both the City of West Sacramento and Yolo County. These impacts were not addressed in the Environmental Impact Report and are of significant concern to the City of West Sacramento and Yolo County. The fact that Yolo County may not even have been notified of the Project, let alone consulted, is a significant violation of CEQA. 25-3

4. The Summary Section of the Environmental Impact Report does not Comply with Law.

The Summary Section of the Environmental Impact Report appears to be written in a manner that is intentionally confusing and to discourage public participation.

The text of a draft EIR should normally be less than 150 pages, or, for projects of unusual scope or complexity, less than 300 pages. (Guidelines, § 15141). EIRs are to follow a "clear format" and be written in "plain language." (Guidelines, §§ 15006(q), (r), 15120, 15140.) EIRs are to be "analytic rather than encyclopedic." (Guidelines, §§ 15006(o), 15142.) 25-4

In light of these clear mandates that an EIR be of reasonable length, and understandable, the authors of the EIR for the Railyards Specific Plan have produced a tome of 928 pages. The EIR

appears to include extra pages to discourage the public from reviewing and understanding the Project. Guidelines, § 15123, which describes the summary of the EIR, states as follows:

> "The language of the summary should be as clear and simple as reasonably practical." Further, the summary shall identify: "each significant affect the proposed mitigation measures and alternatives that would reduce or avoid that affect." (Guidelines, §§ 15123(a) and (b)."

Guidelines § 15123(c) states: "The summary shall normally not exceed fifteen pages." In the case of the Railyards Specific Plan EIR, the summary section is 120 pages. Beginning on 2-56, Impact 6.12-1 is labeled "The Initial Phase would increase traffic volumes at study intersections and cause the level of service to deteriorate." This section and the following section continues to page 2-68. Beginning on page 2-75 Impact 6.12-10 is entitled, "The Initial Phase would increase traffic volumes at study area intersections and cause a level of service to deteriorate." The Impact and Mitigation Measures then repeat themselves until page 2-86. Beginning again at page 6.12-16, the Impact is entitled, "The Initial Phase would increase traffic volumes at study area intersections and cause the level of service to deteriorate." The Impact and Mitigation Measures again repeat themselves until page 2-100. 25-4 (con't.)

The Summary is obviously incomprehensible. The Summary Table is constructed in such a manner as to be intentionally confusing and repetitive and to discourage public participation in the EIR review process. The Summary Table needs to be revised to comply with the CEQA Guidelines and the EIR needs to be re-circulated so that the Project EIR is sufficiently brief and understandable so that the public may comment on the EIR.

5. A Portion of the Project is Not Available for Public Review at the Time of Circulating the EIR.

Public Sources Code § 21091(a) states that the public review period for a draft Environmental Impact Report shall be at least 45 days. In this case, the 45 day review period should begin when the Project documents and the Draft Environmental Impact Report were complete.

The Notice of Preparations states, "The EIR will analyze potential impacts that may be associated with possible revisions to the approved Remediation Action Plans ("RAPs") for contamination on the site and the related Tri-Party Memorandum of Understanding between the City, Department of Toxic Substance Control (DTSC) and UP Railyards." The new Tri-Party Memorandum of Understanding is not yet available for review, therefore, the public cannot comment on whether the Environmental Impact Report adequately addresses the impacts of the tri-party Memorandum of Understanding between the City, Department of Toxic Substance Control, and UP Railyards. The EIR is clear that there will be a new Tri-Party MOU. The EIR treats the MOU as subsequent mitigation. However, the Notice of Preparation makes clear that the impacts of the new Tri-Party MOU are to be considered in the EIR. Since there was no new Tri-Party MOU at the time of circulation of the DEIR, circulation of the DEIR is premature. 25-5

The Notice of Preparation states that there may be revisions to the approved Remediation Action Plans. However, the EIR does not make clear whether there will be revisions to the approved Remediation Action Plans. The Project Description is, therefore, incomplete.

6. The Project Description is Vague as to the Necessary Approvals and Entitlements.

On page 3-61 of the DEIR is the list of Project approvals and entitlements. The DEIR includes among the City actions, "Approval of a redevelopment plan." The DEIR is unclear as to how the DEIR addresses the approval of a redevelopment plan. The Project Description does not include a "redevelopment plan." The authors of the EIR should clarify what is encompassed within the category, "Approval of a Redevelopment Plan." 25-6

Among the Project approvals and entitlements that the EIR is intended to address are, "approval of amendments to §§ 18.36 et. seq. and 18.48 et. seq. of the City Code." It is unclear from the Project Description, and as far as we can determine from the remainder of the EIR, what amendments to the City Code are to be covered by the DEIR. The authors of the EIR should clarify this matter.

7. EIR Consistency Analysis.

On page 4-10, Table 4-1 addresses the residential goals and policies of the General Plan, including Goal B. Goal B requires the City to "provide affordable housing for all income groups." The EIR Consistency Table finds consistency on the basis that: "The proposed Project would provide a range of housing types, including long-term opportunities for low and moderate-income groups." This statement is not sufficient to provide consistency, since the City's General Plan requires also the provision of housing for very low income groups. The Table should be corrected or the authors of the EIR should explain the inconsistency.

On page 4-11, the EIR discusses Policy 3, which states, "actively support efforts to develop visitor and convention facilities in the downtown area." The EIR finds consistency because the proposed Project "would include a new sports and entertainment facility overlay, which could draw visitors from the greater Sacramento region to the downtown area." The plan does not include a sports and entertainment facility in the Railyards area, and such a facility has specifically been rejected by the voters of the City of Sacramento. The EIR should address whether there are any other planned visitor and convention facilities in the Railyards Specific Plan area. If there are none, it would appear appropriate to find that the Project is inconsistent with Policy 3. 25-7

On page 4-11, the Consistencies Table discusses Goal D. Goal D states that a project is to, "promote economic vitality and diversification of the local economy." The EIR finds that the Project is consistent with this Goal. One basis for consistency is the Project's inclusion of specialty interests such as sports and entertainment. Because the City voters have rejected a sports and entertainment complex, we ask the authors to address how the Project promotes "diversification of the local economy." It would appear that the Project just adds additional office and retail space, which is similar to what the downtown area already includes.

On page 4-11, the EIR sets forth Policy 8.A, which includes, "wherever possible, develop, incorporate and support energy conserving program in the production and rehabilitation of housing to improve the environment and reduce household energy costs." The authors of the EIR should state how the Project is consistent with Policy 8.A. The housing will be built in accordance with Title 24, because all housing and development in the State of California must be in compliance with Title 24. In finding consistency the EIR states: "Development of the proposed Project would provide an opportunity to use innovative energy systems such as combined heating and power, solar panels,

and other building design measures which would provide significant energy savings." All new developments provide the opportunity to use innovative energy systems. The authors of the EIR should describe how the Project is required to use photovoltaics, energy systems that exceed Title 24 guidelines, or any other significant energy saving features. Without such requirements for additional energy savings, it would not appear that the authors of the EIR cannot make the consistency finding with Policy 8.A.

On page 4-2, the City addresses circulation goals and policies (Goal B) which states, "provide all citizens and all communities of the City with access to a transportation network which serves both the City and the region, either by personal vehicle or transit." In finding the Project consistent with this Goal, the EIR states, "the removal of Jibboom Street could hinder traffic flow from Sacramento to West Sacramento, but alternative routes would be available." The EIR fails to describe what "alternative routes" would be available. It would appear that the Jibboom Street connection is the only quick route to the Broderick area of West Sacramento, which is now undergoing new development.

On Page 4-12, the EIR states that the Project is consistent with Streets and Roads Goal C, which states, "create and maintain a street system which protects residential neighborhoods from unnecessary levels of traffic." In finding consistency, the EIR states: "The evaluation determined that the proposed Project would trigger significant and unavoidable traffic impacts at existing and proposed intersections within the vicinity of the specific plan area." The problem with the traffic evaluation is that all impacted intersections and road segments were treated the same whether they were residential streets or streets designated for through traffic. In the case of all studied streets and intersections, the EIR determined there would be no street improvements and intersection improvements. The EIR fails to analyze whether the lack of improvements to the main thoroughfare will create cut through traffic onto the streets of the residential neighborhoods. This impact needs to be analyzed before the City can conclude that the Project is consistent with Streets and Roads Goal C.

25-7 (con't.)

On page 4-12, the EIR includes Streets and Roads Goal D, which states, "work toward achieving an overall level of service C on the City's local and major street systems." In finding consistency, the EIR states: "Failure of individual intersections or street segments in the downtown area to maintain LOS C during the am or pm peak periods does not create an inconsistency with this overall citywide goal." The EIR needs to explain this statement. It would appear that adding traffic to 32 intersections that are already seriously impacted would be inconsistent with the overall citywide goal. This is especially true since many citizens of the surrounding parts of the City and surrounding areas must travel in downtown Sacramento to work.

On Page 4-13, the EIR sets forth the applicable General Plan goal of providing an adequate amount of parking to support continued downtown development prosperity, alternative modes of transportation, and the Central City Urban Design Plan. The EIR finds that the Project is consistent with this goal and would provide a minimum of 21,508 parking spaces. The EIR identifies 1,028 in the Depot District dedicated for transit users. However, the EIR does not identify specifically where any of the other parking spaces will be located. Further, the EIR does not include any calculations or information as to how the 21,508 parking space figure was derived. In order for the public to review the EIR and to determine whether the figure of 21,508 parking spaces is consistent with the General Plan goal of adequate parking, the EIR needs to demonstrate how this number was derived and explain why it is adequate in light of City policies and ordinances.

On page 4-16, Table 4-2 addresses Central City Community Plan Sub-Goal 5, which states: "provide rental and home ownership opportunities to meet the needs of elderly persons, low and moderate income families, and other groups with specialized housing needs." The EIR then finds consistency on the basis that there would be a range of residential densities, and the proposed goals and policies encourage a variety of housing types and long-term affordability of low and moderate-income housing. The EIR further states, "the type of housing proposed could serve the elderly, low income, or those with other specialized housing needs." The authors of the EIR need to explain how the consistency finding was made. The Project apparently does not include any of the requirements for housing that would meet the needs of elderly persons or other groups with specialized housing needs. Without such requirements, how can the authors of the EIR find that the Project is consistent with Sub-Goal 5?

The Central City Community Plan has, as its Energy Goal, "encouraged efficient use of energy and natural sources in the central city." As Sub-Goal 2, the Central City Community Plan states: "encourage implementation of energy saving measures, including passive and solar energy devices which will reduce consumption in existing and new buildings." On page 4-18, the authors of the EIR find that the Project is consistent with these goals because the Project will comply with Title 24. The EIR states that development of the Specific Plan would provide an opportunity to use innovative energy systems. As previously stated, all projects provide the opportunity for innovative energy systems. The authors fail to explain how the Railyards Specific Plan is consistent with the energy conservation goals of the Central Community Plan, since there are no requirements for energy conserving systems beyond compliance with Title 24, which is a minimal requirement of State law. 25-7 (con't.)

On page 4-20, the DEIR discusses the Sacramento Riverfront Master Plan. The DEIR states, in essence, that because the Sacramento Riverfront Master Plan is a study plan, its blueprint for development along the Riverfront is only a vision, and its goals and policies are not binding on the proposed Project. However, the City adopted the Master Plan for the Riverfront in 1994. The Project EIR completely ignores the Riverfront Master Plan for the Riverfront and does not explain how the Project is consistent or inconsistent with the 1994 Master Plan for the Riverfront. The Project EIR needs to address the existing Master Plan for the Riverfront and the City should recirculate the EIR to address the 1994 Master Plan for the Riverfront. If the Sacramento Riverfront Master Plan has no legal effect and is to be ignored by the City in all projects, then the City should address the continuing validity of the Sacramento Riverfront Master Plan.

The Project EIR fails to state whether an existing redevelopment plan includes the area, and if a redevelopment plan involves parts of the Railyards Specific Plan, which areas of the Specific Plan. The Project EIR fails to discuss any interaction between the Specific Plan and a redevelopment plan in the City of Sacramento.

8. Population and Housing.

The EIR assumes substantial growth of the City of Sacramento population based upon SACOG projections. However, the projections do not take into account a number of factors that may cause the population of the City to grow at a slower rate. These factors include: 1) immigration is being limited on the Mexican border; 2) birth rates have declined; 3) the reduced manufacturing jobs and high tech jobs in the Sacramento area; and 4) the housing market is in decline, despite historic low interest rates. The statement on page 5-3 that, "the housing market has slowed considerably recently due to several factors including higher interest rates and economic uncertainty" needs to be 25-8

substantiated. A fair review of the evidence would appear to suggest that interest rates remain at historic low levels. The EIR needs to provide a better analysis of the causes of the weakness in the housing market and how it may effect housing demand and the need for the Project. 25-8 (con't.)

On page 5-3, the EIR suggests that 13,263 housing units are currently vacant. It should then be evident if the vacant units were occupied, half of the need for new housing by year 2020 would be met just by occupying the vacant units, not including the approved but unbuilt housing units. The EIR needs to specify how many housing units in the City are approved, but not yet built. This could provide prospective to the readers of the EIR and the decision makers as to the need for the Project to meet housing demand. 25-9

On page 5-4, the EIR states that based upon the number of occupied housing units, the employee per housing unit ratio in the City was 1.3. The EIR further states that SACOG has estimated that there is a 1.78 employee housing unit ratio in the City of Sacramento. This is a great discrepancy. The authors EIR should explain this discrepancy since the difference could have an impact on the need for the project. 25-10

On page 5-6, the EIR states: "A low income household is defined as one whose income does not exceed 80% of the median Sacramento County income, while a very low income household is one that is defined as one whose income does not exceed 50% of the median Sacramento County income." The EIR does not set forth how many very low income households there are in Sacramento. However, based on a normal bell shaped curve, approximately 15% of the households would be very low income housing. The EIR should explain how many very low income households exist in Sacramento County.

The EIR further states that the City of Sacramento Zoning Ordinance requires that 15% of all residential units within a Project be affordable, with 10% affordable to very low income households, and 5% affordable to low income households. Residential development that is exempted from the provisions of affordable housing as well as alternatives to the standard inclusionary housing component regulations are defined in the Code. 25-11

If there is a claim that the Project is exempt from the City's affordable housing requirements, the exemption should be specified in the EIR. The EIR states that the City of Sacramento has voluntarily joined the SACOG Compact, which provides at least 4% of all new housing construction will be affordable to very low income families. The EIR fails to state how this requirement interacts with the Sacramento Zoning Code. The EIR needs to state what standard will be applied to the Railyards Specific Plan and how much very low income and low income housing the Project shall provide. This information is necessary for the public to evaluate the Project EIR and for the decision makers to determine if they are interested in supporting the Project.

Page 5-6 of the EIR also states that, "the Railyards Specific Plan area is part of a redevelopment project area." The Project EIR fails to identify the part of the Project that is within a redevelopment area. The EIR is further silent as to which redevelopment project area the Railyards is included in, and the requirements of the redeveloped plan. This information needs to be in the EIR. 25-12

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, 25-13

772 very low income units are needed, while the City only produced 194 such 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.

The Housing Element Implementation Program of the General Plan includes the following mandate:

> 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 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).

25-13 (con't.)

The Project EIR provides no discussion as to how the Project is consistent with the requirement of the General Plan that housing projects in the downtown area are to be mixed income developments that are affordable to low income people. The EIR needs to address its inconsistencies with the Housing Element of the City's General Plan.

9. Air Quality Impacts.

Even though the Project is primarily directed toward adults, the Railyards Specific Plan is expected to generate a number of students. The EIR projects 1,250 elementary students, 250 middle school children, and 375 highschool children (page 6.10-44). In addition to the 1875 school-aged children, there will probably be at least another 500-700 pre-school aged children.

California Air Resources Board has published an "Air Quality and Land Use Handbook: A Community Health Prospective." The regulations in the Handbook state that sensitive uses, including residential housing, should be located at least 500 feet from a freeway. The primary reason for the 500 foot buffer is to prevent damage to the health of children who live within the 500 feet zone. The Project EIR makes no reference to any necessary barrier between residential housing and the I-5 freeway. In fact, the Project EIR appears to allow residential housing directly adjacent to the freeway. The EIR appears to justify this result by finding through the health risk analysis that the nearest new residence can be placed as close as 50 feet west of I-5 and 200 feet east of I-5. The EIR reports that with this buffer, the cancer risks from the freeway DPM are considered less than the threshold in the SMAQMD Guidance (446 per million). The DEIR then concludes that the Project would not have a significant impact with respect to "substantial increase and exposure of sensitive receptors to toxic air contaminants." The EIR fails to evaluate a significant impact of locating housing directly adjacent to a freeway. That is the impact of freeway emissions on lung development in children.

25-14

The EIR does not use a correct standard of significance and does not correctly analyze the air pollution impacts of the Project. In the attached article by Dr. W. James Gauderman, et al., "Effect of Exposure to Traffic on Lung Development from 10-18 Years of Age: a study", *The Lancet* 2007; 369:571-577, Dr. Gauderman and his associates studied the long-term health effects to children of growing up alongside freeways. There are a number of studies that have shown that

children living next to highways are more likely to development respiratory problems, such as asthma. Dr. Gauderman study is the first study to show that long exposure to car and truck exhaust actually effects the growth of lungs, and hence lung capacity. The study in *The Lancet*, followed 3,677 children for 8 years, tracking their lung development. The children were 10 at the start of the study, and came from 12 Southern California communities. The air quality differed in each community. The researchers found that lung growth in children who lived within 500 meters of a freeway (about a quarter of a mile) was significantly less than children who lived 1500 meters or more from a freeway. Gauderman's group found that exposure to freeways and regional air pollution had negative and independent affects on the growth of lung function. In addition, there was a significant drop in percentage of expected lung function among 18 year olds who had lived within 500 meters of a freeway. The study indicated that the effects of living near a freeway on lung development were serious, since lung capacity is something that a child cannot develop once a child has stopped growing. The amount of lung capacity is carried throughout adult life. Reduced lung capacity is a known risk for cardiovascular disease and respiratory diseases, such as emphysema. 25-14 (con't.)

The study shows a clear and clinically important association between the proximity of a child's home to a major freeway and deficits in lung function by age 18. The deficits show increased risk of asthma and bronchitis, as well as decreased capacity for physical exertion.

The EIR in this case allows housing to be built next to a freeway. The EIR is inadequate because it does not address the health risks associated with building housing so close to freeways. The increased exposure of children to ozone pollution and other tailpipe polluting are a health risk factor that are not adequately accounted for in the health risk assessment.

With respect to TACs, the EIR states that CARB shows the Project area has an existing estimated risk that is between 750 and 1500 cancer cases per million people in 2010 (6.1-7). On page 6.1-9, the EIR states that CARB has determined that the Project area has an existing estimated risk that is greater than 750 in a million.

The EIR states that the standard of significance is 446 cancer cases per million. This standard is based on the SMAQMD Guidance. The EIR does not cite the document where SMAQMD has adopted a standard of significance for TACs. In fact, the document cited in Appendix O, Sacramento Metropolitan Air Quality Management District Draft Recommended Protocol For Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways, specifically states that the SMAQMD has not adopted a standard of significance for cancer risks related to TACs. The document states, "The evaluation criterion of 446/million was selected as that level of risk corresponding to a 70% reduction from the highest risk calculated at 10 feet from the edge of the nearest travel lane to the nearest receptor for the highest peak traffic volume reported by CALTRANS for Sacramento County (24,000 vehicles per hour east) downwind of a north-south roadway." The highest risk represents the worst case siting situation within the boundaries of the SMAQMD. The document further states that: "Note that the evaluation criterion does not represent a 'safe' risk level or a regulatory threshold; it is simply the point at which a site specific health risk assessment is recommended." 25-15

The health risk assessment is defective because it calculates the risk in the year 2030. In the year 2030, it is assumed that diesel trucks and automobiles will generate much less pollution. However, the first phases of the Project, directly adjacent to the freeway, are planned to be developed in 2007. The EIR needs to complete a health risk assessment based upon current conditions. The

EIR itself states on page 6.1-7, that the area currently has an estimated risk between 750 and 1,500 cases per million in 2010. The current conditions would appear contrary to the conclusion of the EIR on page 6.1-26 to 6.1-30 of the DEIR. 25-15 (con't.)

The EIR relies upon an analysis of the Vallejo Station Project and the Union City Intermodal Station Passenger Rail Project to conclude that the health risk related to emissions from trains and diesel buses will not be significant. However, the Sacramento Train Station is currently the busiest train station in Northern California, and with the addition of bus traffic to the SITF, the terminal will generate substantially more diesel emissions than the Vallejo Station or the Union City Station. The EIR fails to provide sufficient information to conclude that the Vallejo study or Union City study would be dispositive as to the effects of the SITF. It would appear that additional analysis is necessary. 25-16

The Air Quality and Land Use Handbook: A Community Health Prospective (CARB, April 2005) relied upon by the authors of the health risk assessment suggests that there is usually a cancer risk within 300 feet of a freeway that carries 100,000 vehicles per day. (See pages 8-10.) The Project health risk assessment appears to be at substantial odds with the CARB analysis of the same issue. The authors of the DEIR should explain the discrepancy. 25-17

On page 6.1-16, the health risk assessment is reported to consider three primary sources of diesel: diesel trucks operating on the site and along I-5, diesel powered trains that use the railway lines that cross the site, and diesel emissions from vehicles that would use the proposed Sacramento Intermodal Transportation Facility. However, the Project ignores the substantial diesel use in the Richards Boulevard area, which is mostly an industrial area. The health risk assessment should include diesel generated in the Richards Boulevard area due to its close proximity to the Project. 25-18

On page 6.1-17, the EIR states that: "Projections of future changes [in climate] are still highly speculative and dependant upon assumption and generalization." This statement in the EIR is not justified in light of the existing state of the law.

The effect of global warming is not speculative and scientific studies show that it is a measurable impact. On September 27, 2006, Governor Schwarzenegger signed Assembly Bill 32, the "California Global Warming Solutions Act of 2006." It is now a matter of law in the State of California that "global warming poses a serious threat to the economic well-being, public health, natural resources and the environment of California." (Health and Safety Code §38501(a)). Further, it is a matter of law that "the potential adverse impacts of global warming include the exacerbation of air quality problems [and] a reduction in the quality and supply of water to the State from the Sierra snow pack." 25-19

In the recent case of *Massachusetts v. EPA* (2007) ____ U.S. _____, the United States Supreme Court stated as follows:

> "The harms associated with climate change are serious and well-recognized. The government's own objective assessment of the relevant science and a strong consensus among qualified experts indicate that global warming threatens, *inter alia*, a precipitate rise in sea levels, severe and irreversible changes to natural ecosystems, a significant reduction in winter snow pack with direct and important

> economic consequences, and increases in the spread of disease and the ferocity of weather events."

The court stated that greenhouse gases fit within the Clean Air Act's definition of "air pollutant" and that greenhouse gases are to be regulated as an air pollutant.

The Project EIR is completely silent on addressing carbon dioxide as an air pollutant that is to be controlled and regulated as part of the project review process. The California Environmental Quality Act requires that all air pollutants, including greenhouse gases, be addressed as part of the Environmental Impact Report. The Environmental Impact Report needs to include a provision concerning the project's generation of greenhouse gases, and it needs to include mitigation measures for greenhouse gases. The mitigation measures included on 6.1-18 are not meaningful mitigation measures. All buildings in the State of California must comply with Title 24 requirements. All glazing must be low-E glass with a thermal break in the window frame system. It is meaningless for the authors to set forth as mitigation measures the requirements of codes and regulations. 25-19 (con't.)

On page 6.1-21, the EIR concludes that the construction emissions will be reduced to a less than significant impact by the implementation of the mitigation measures included in mitigation measure 6.1-2. However, it is impossible to verify this claim. Although the EIR includes the NOx emissions from construction equipment, it includes no calculations as to how the mitigation measures will reduce the emissions to below the standard of significance, which is 85 pounds per day. The EIR needs to include these calculations. Mitigation measure 6.1-2(e) is fee-based mitigation for those construction emissions that exceed the threshold of 85 pounds per day. However, fee-based mitigation is not adequate mitigation if there is no evidence that the mitigation will actually result. (See *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 693, 727.) The EIR includes no information that the fees will or can be used by SMAQMD to reduce emissions from other NOx sources to the extent necessary to offset the NOx emissions produced by the Project construction. The EIR needs to include some evidence that the fee-based program will produce actual mitigation. 25-20

CEQA requires an agency to adopt all feasible mitigation measures, even when the impact in question cannot be mitigated to a level of less than significance. In the case of daily operational emissions, the proposed AQMP does not adopt all feasible mitigation measures. One of the largest sources of NOx is water and space heating. Solar hot water systems are one of the most effective ways to reduce NOx generation for water heating. Nevertheless, solar water heating systems are not required as part of the Project. In Mitigation Measure 6.1-3, the Project purportedly adopts mitigation measures that will reduce ozone precursor emissions by 15%. However, the actual emission reduction associated with a point system are not revealed in the EIR. It would appear illogical to provide a 12 point reduction for providing parking less than code, while only a .67 point credit for a project that exceeds Title 24 requirements by 20%. The EIR needs to include the documents which justify the claimed 15% reduction. 25-21

In § 6.1-6 (page 6.1-30 to 6.1-31) the EIR concludes that the odors from the Sacramento River Water Treatment Plant (SRWTP) will not be a significant impact on the residential uses several hundred feet away. The EIR fails to set forth exactly how close the closest residential use is to the SRWTP. This information should be included in the EIR. Further, the EIR needs to include some information as to how far down wind the SRWTP produces unpleasant odors. 25-22

10. Hazards and Hazardous Substances.

On page 6.5-7, the EIR states, "heavy metals soil cleanup for a majority of the Railyards has been completed. Remediation activities in areas where elevated levels of heavy metals exist are underway." The EIR needs to provide a map or other information to indicate where the heavy metal soil cleanup has been completed, and where remediation is still needed. This information is necessary so the public can evaluate the current suitability of the site for construction. Likewise, on page 6.5-8, the EIR states: "Soil cleanup for VOCs has been substantially completed in some areas, and is underway in other parts of the Railyards, including the MGP and the central shops." The EIR needs to provide a map or other information to show where cleanup is completed and where it remains to be completed. The EIR further states that present plans for cleanup of ground water of the Specific Plan area site will most likely involve extraction and treatment, natural attenuation and/or in-situ treatment. The EIR needs to specify how long the proposed ground water treatment will take to complete. 25-23

With respect to hydrocarbons, including the recycling of road surface material and road bed material, the EIR states, "a variety of methodologies are being considered for the specific plan area, including excavation, bioremediation, and recycling of road bed and/or road surfacing material." We ask, why there is no plan in place at this time for the extraction and treatment of hydrocarbons. It would appear at this late state in the Project, such plans should be formulated, if not already implemented. 25-24

On page 6.5-11, it appears that the first two bullet points following the second paragraph are the same. Please state if one of these bullet points should be deleted. On the same page, the EIR states, "stockpiles of railyard soils have been placed beneath the planned soil cap in the northwest corner of the LSA (i.e., the "Vista"). We do not understand this statement. How can soils be placed beneath the "planned soil cap", as opposed to an actually existing "soil cap"? What will the soil cap consist of in the northwest corner of the Lagoon study area? How will the soil cap keep polluted soils from leaching their toxins out from underneath the soil cap? 25-25

On page 6.5-11, the EIR states, "the final RAP is expected to be completed in 2008." How can the present Environmental Impact Report serve as the environmental document for the final RAP when the final RAP is not yet completed? A few lines down from the discussion of the final RAP, the EIR states that the interim removal systems for the Central Shop Area will remain in operation for many years. For how many years will the ground water treatment systems need to remain in place, and which party will be responsible for monitoring the ground water systems and ensuring that the ground water is cleaned up? In the next sentence in the Environmental Impact Report refers to a "remedial action work plan" for the northern part of the intermodal facility portion of the Specific Plan. Please describe how a remedial action work plan (RAW) differs from a RAP. 25-26

On page 6.5-12, the EIR discusses remediation of an amount of large inorganic rubble. Please state the materials that constitute the inorganic rubble. In the first paragraph of page 6.5-12, the EIR describes a method of piling and grading a large amount of rubble fill and then placing asphalt concrete on the top deck and vegetative soil on the side slopes. This methodology appears to create a landfill on the Project site with contaminated fill materials. Please state whether the proposed 10.38 acres for this onsite toxic landfill will be used for any purposes. Will the site be fenced off so people do not have access to it? Is the 10.38 acres in the northwest corner of the lagune study area going to be the same area that is used for the proposed Vista Park? It is unclear from the 25-27

EIR whether the Vista Park is going to be on top of the toxic landfill that is toped by asphalt concrete on the top deck. In the second paragraph on page 6.5-12, the Vista Park appears to be comprised of soils that include asbestos or metals that will be encapsulated. The EIR is not clear on how the asbestos or metals will be encapsulated. The EIR does not adequately describe how the soils will be labeled except that the lowest layer may contain asbestos only and no metals. Please state in greater detail how many layers are anticipated and what will be included in the different layers of fill material. Further, the DEIR states that above the foundation will be created an impermeable geomembrane. What will the geomembrane consist of so that it allows the transport of water, but not the migration of the toxins from the layers of soils below it? If the layer above the impermeable geomembrane is composed of clean soils, will the Vista Park have a drainage system that drains the top two feet of clean soils? How will this drainage system be designed? 25-27 (con't.)

The fourth paragraph on page 6.5-12, indicates that there may be a new design available for the Vista Park cap. This design should be included as part of the EIR so the public has an opportunity to review it and understand it.

On page 6.5-13, the EIR refers to deed restrictions for areas that have been cleaned. The deed restriction is part of the closure process. Please provide copies of the deed restrictions so that the public has an opportunity to review the deed restrictions as part of the Project described in the DEIR or as continued mitigation in the DEIR. The DEIR should include a map showing the contaminated areas described in paragraph 2 on page 6.5-13. 25-28

With respect to the riverfront district area, West Jibboom Street property, these commenters wonder why a Phase II environmental assessment was not completed for this area of the Specific Plan. It would appear that the cleanup for the riverfront area is not even ready to begin, and an RAP cannot be completed because there is not even a Phase II assessment. 25-29

On page 6.5-15 to page 6.5-16, the EIR discusses the transportation of hazardous materials through the site and the dangers of inhalation of toxic materials such as chlorine gas. In essence, the EIR concludes that because the freight will move fairly quickly through the site, the hazards for the residents of the Railyards Specific Plan area are no greater than for the other residents of the City of Sacramento. However, there is another source of chlorine in the vicinity that the DEIR does not consider -- the SRWTP. The EIR does not state how close the Sacramento River Water Treatment Plant is to the closest residences in the Specific Plan, but a good estimate is 200-300 feet. This is close enough to cause substantial damage to the residents of the Specific Plan area if there was a significant leak of chlorine at the Sacramento River Water Treatment Plant. The EIR should discuss this hazard. The EIR needs to identify how close the chlorine storage area is to the closest residence in the Specific Plan. The EIR should also discuss how much chlorine is stored in the Sacramento River Water Treatment Plant. 25-30

On page 6.5-21, the EIR states that the 1994 Tri-Party MOU is being replaced by a new Tri-Party MOU between the City, DTSC, and the Project applicant. The new Tri-Party Memorandum of Understanding appears to be a substantial part of the Project. The Tri-Party MOU should be available for review prior to circulation of the DEIR. The Tri-Party MOU should be made available to the public, and the DEIR should be re-circulated so that the public has an opportunity to review it and comment on this important part of the Project. On page 6.5-23, the EIR states, "the following analysis assumes implementation of these goals and public policies would be achieved through two primary means: 2) the new Memorandum of Understanding – "Tri-Party MOU". How can the 25-31

public judge whether the goals and policies can be properly implemented for the Specific Plan site remediation if the new Tri-Party MOU is not available for review? 25-31 (con't.)

On page 6.5-23, the EIR states: "For purpose of analysis, it is conservatively assumed that remediation of the Specific Plan area and confirmation sampling would not occur prior to certification of this EIR and Project approval." Why is it stated that this is "conservatively assumed"? It appears a virtual certainty that the remediation of the Specific Plan area would not occur prior to certification of the EIR, unless the certification is continued for many years. The EIR indicates that in parts of the Specific Plan area where remediation needs to occur, a Level II toxic assessment has not yet been completed. Further, in areas around the future intermodal transportation center, the ground water will have to be cleaned up for many years. Please explain the language: "conservative assumption." 25-32

On page 6.5-25, Mitigation Measure 6.5-1 includes the following: "The City recognizes that the DTSC has ultimate authority regarding approval of health risk assessments. However, through a new Tri-Party MOU, the City may provide input to DTSC if any assumption employed appears to be inaccurate or different from those previously prepared." This mitigation measure is an impermissible future mitigation measure. Generally, future mitigation is impermissible unless it is based on a specific performance standard. (See *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 306-308.) The proposed mitigation will occur in the future when the Tri-Party MOU is developed. The public needs to see the mitigation measure at the current time. 25-33

In Item C, the EIR states that: "Pursuant to the requirements of state and federal law, the site-specific health and safety plan may require the use of personal protective equipment, onsite continuous air quality monitoring during construction, and other precautions." The EIR should explain what standards will be used to trigger these requirements. Specifically, what conditions will trigger the requirement for onsite continuous air quality monitoring? 25-34

In Mitigation Measure 6.5-1(e) the EIR states that: "The DTSC, through new Tri-Party MOU, shall provide for environmental oversight, including site inspection during construction and procedures for detecting previously undiscovered contamination during site excavation." It is clear that the Tri-Party MOU is one of the primary mitigation tools for toxic contaminants. The new Tri-Party MOU must be available before circulation of the DEIR. After the Tri-Party MOU is prepared, the DEIR must be re-circulated. 25-35

On the bottom of page 6.5-28, the EIR discusses a set of health risk assessment assumptions that are intended to reflect realistic construction conditions during redevelopment of the Specific Plan area. The EIR should state what these health risk assumptions are, and what type of exposures are likely to exceed the risk assessment. Does the risk assessment consider 1,000 cancer cases in a million acceptable risk, or is it 2,000 cases? This information needs to be spelled out in the EIR so the public can understand how the risks to workers are being weighed by the City with respect to this Project. This information appears to be hidden from the public view, but should be exposed in the DEIR. Further, if construction work is scarce, which occurs periodically, workers will feel pressured to continue to work in the Specific Plan area even though they may be overexposed to toxins in light of the health risk assessment guidelines. The EIR does not include measures that will allow the Project developers and contractors to keep track of workers and the amount of contact they have had with the toxic conditions at the Project site. The EIR should spell out the methodologies that will be used to ensure that construction workers are not overexposed. 25-36

At the top of page 6.5-30, the EIR states that there are policies to "ensure that the health and safety of those most likely to come in contact with remediated soil, aside from construction worker, is protected." What are these policies and methodologies, and what are the policies and methodologies to protect the most sensitive receptors, the construction workers? The EIR needs to spell these measures out in greater detail. 25-36 (con't.)

Mitigation Measure 6.5-3(a) states that, "with the exception of the central shops, development of any partial site shall only be permitted if relevant soil remediation for an entire block and the full right-of-way of all surrounding streets has been completed. Thus, occupancy of a portion of a block will be prohibited unless the entire block in the area immediately surrounding the block are remediated accordingly." The EIR fails to show how this mitigation measure will be effective. It would seem much more effective to remediate entirely each of the five areas set forth in Figure 6.5-1 before any development is allowed. The way the mitigation measure is structured, in many locations remediation could occur across the street from a residence. The people living in the residences across the street from the remediaton site will be exposed to some dust and toxins related to the remediation. Section 6.5-3(b) states that, "fencing shall prevent access to surface soil in unremediated areas of the site." How will this fencing be designed? Will it have barbed wire on top of it to prevent access? The open surface soil areas are an attractive nuisance for children in the area. It is not an unusual occurrence for children to climb fences and access construction sites. The fact that the EIR proposes to complete remediation block by block, instead of large areas at a time, increases the chance that children will access the unremediated sites and become exposed. 25-37

Mitigation Measure 6.5-3(d) states that construction site air monitoring, if required by site-specific conditions, shall be conducted. The EIR should set for the standards which constitute site-specific conditions which justify site air monitoring. Mitigation Measure 6.5-3(f) raises the question as to what testing will be required of soil prior to the approval of any grading permit. Will the developers have to demonstrate that the soil in the specific area has been tested prior to the issuance of a grading permit? 25-38

With respect to Mitigation Measure 6.5-5, the EIR provides that utility corridors at ground water levels must remain clean. Who will be responsible for testing and enforcing the standards for ground water in utility corridors? 25-39

On page 6.5-37, the EIR records that, the Chlorine Institute estimates that levels (concentrations) "immediately dangerous to the life or health" could occur .6 miles downwind in the event of a release from a 150-pound gas cylinder. We believe it is likely that there are 150-pound cylinders at the Sacramento River Water Treatment Plant. There may be even larger containers at the facility, such as 1-ton containers. If this is the case, it is imperative that the Environmental Impact Report evaluate this risk and demonstrate that there are safety measures to protect the residents of the Railyards Specific Plan. 25-40

11. Hydrology and Water Quality.

Table 6.6-1 sets forth the amount of pollution of metals and organic compounds in the Project site ground water. In light of the high levels of these pollutants, do the authors of the Specific Plan DEIR contend that it will ever be practical to use wells in the Specific Plan area to provide for potable water? If there is such a contention, please state when the ground water will be sufficiently clean that it can be used for drinking water. 25-41

On page 6.6-21, the Project DEIR discusses the cistern proposal to capture polluted storm water, and to also allow storm water to run into the Sacramento River. Commenters believe that the EIR has piecemealed discussion of the cistern project and its environmental impacts.

The California Supreme Court in *Bozung v. Local Agency Formation Com.*, (1975)13 Cal 3d 263, 283-284, admonished against the improper segmentation of projects: "One final overwhelming consideration . . . is the mandate of CEQA that environmental considerations do not become submerged by chopping a large project into many little ones--each with a minimal potential impact on the environment--which cumulatively may have disastrous consequences."

Refining this admonition, the Supreme Court in *Laurel Heights Improvement Assn. v. Regents of University of California* ("*Laurel Heights I*") (1988) 47 Cal.3d 376, 394, approved the test of cumulative impacts in Guidelines section 15355: "The Guidelines explain that a discussion of cumulative effects should encompass 'past, present, *and reasonably anticipated future projects.*'" Under this standard, the Supreme Court held that an EIR should have considered the effects of anticipated expansion of a biomedical research facility: "an EIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects." (*Laurel Heights Improvement Assn. v. Regents of University of California, supra*, at p. 396.)

There is no real description of the cistern and how it will work. Since the cistern will have to contain 27 acre-feet of water, it will have to be at least an acre in size and 27 feet deep. The EIR does not even identify where the cistern might be located and neither does the Specific Plan[2]. While the cistern could be less than 27 feet in depth, if it was any shallower, it would have to take up more space. It would appear that there are many environmental problems with the cistern approach. During high storm events, only 5 acre-feet of water would be treated, and the remainder of runoff from the cistern would be dumped into the Sacramento River untreated. It is the policy of the Regional Water Quality Control Board and the City of Sacramento not to allow untreated water to be discharged into the Sacramento River. The EIR fails to explain how the discharge of large amounts of untreated water (all amounts above 5 acre-feet under high storm conditions) is consistent with existing regulatory standards. The EIR needs to explain the acceptability of discharges to the Sacramento River in greater detail. To the extent the authors of the DEIR contend that the cistern would treat any of the water, the authors of the EIR need to provide details of the cistern so that the public can evaluate whether in fact the second chamber will actually treat the water. We do not understand the statement on page 6.6-21, which states: "Finally, proposed below ground structures would, depending on depth and weather conditions, be in direct contact with the shallow ground water in the specific plan area providing a direct mechanism for contaminants to enter the ground water aquifer." Are the authors of the EIR suggesting that the cistern or other structures would be permeable to the ground water layer, and that pollutants such as petroleum hydrocarbons would be transmitted to the ground water rather than the Sacramento River? This approach would appear to

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[2] Government Code § 65451 requires a Specific Plan to provide the proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal and other essential facilities to be located within the area. The Specific plan fails to comply with the mandate. It does not include the design or location of the cistern.

have significant environmental impacts since it would lead to pollution of the ground water. The EIR needs to evaluate these impacts.

It is impossible for the public to review Mitigation Measure 6.6-2 and determine that the cistern will be successful in filtering storm water runoff so that discharges to the Sacramento River will meet required water quality standards. The EIR needs to set forth what the standards are for discharges to the Sacramento River, and how the cistern will work so that those standards are met. This information is missing from the EIR. The cistern is a very large device. Its design and location need to be addressed in the EIR. The environmental impacts related to the construction and operation of the cistern need to be addressed in the Environmental Impact Report. This information needs to be added to the Environmental Impact Report and the EIR needs to be re-circulated. 25-42 (con't.)

12. Land Use.

On page 6.7-5, the EIR discusses how Interstate 5 crosses the western corner of the Specific Plan area. The EIR further states: "Future residents of the residential/retail mixed use district, however, may experience elevated levels of noise and air pollutants depending on the location and orientation of residential buildings. The freeway may limit the type of uses acceptable within the proposed open spaces." The Project EIR should identify which open space areas are not compatible with the freeway and how the freeway may limit the types of uses acceptable within the proposed open spaces. Without this information, it is unclear how the authors of the EIR could come to the conclusion that Impact 6.7-2 was less than significant. 25-43

13. Noise and Vibration.

On page 6.8-5 of the DEIR, the authors include Table 6.8-4, which includes the relationship between indoor SEL levels and sleep disturbance. The table appears to be taken from an article by Finegold and Bartholomew included in the Noise Control Engineering Journal. However, the table appears to be out of synch with most commonly accepted studies. For example, the Federal Interagency Committee on Aviation Noise (FCAN) completed a study in June of 1997 that demonstrates that approximately 10% of people awake at a level of 80 dBA (SEL). The authors of the EIR need to justify the use of Table 6.8-4 in light of the substantial quantity of literature which demonstrates that a greater percentage of people awaken at the indoor SEL levels shown on Table 6.8-4. The authors of the EIR should produce the relevant authority to justify the table. 25-44

On page 6.8-15 of the DEIR, the authors set forth the standards of significance for noise. Notably absent from the standards of significance for noise is an SEL standard for single events. The analysis of single events is important in the Specific Plan area since there are two major sources of single event noise. These sources of single event noise include the rail line through the Project site and the light rail line through the Project site. Even though the City's General Plan does not include a standard of significance for single events, case law including, *Berkley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, suggests that such a standard of significance should be adopted by the authors of the EIR. 25-45

With respect to the standard of significance for residential noise levels, which the DEIR states is 45 Ldn or greater, please state whether the 45 Ldn is with the windows open in a dwelling. In the Sacramento area, it often cools down at night and people choose to open their windows to take

advantage of the night breeze. It would appear that the 45 Ldn interior noise level should be achieved with windows open. 25-45 (con't.)

The Project description in the Environmental Impact Report is incomplete. The Environmental Impact Report includes no noise contour lines as to where 60 dBA Ldn would be exceeded in the Specific Plan area. Such a noise contour map is typical in Environmental Impact Reports and is necessary for the public and the decision makers to understand the noise environment with respect to the Project. 25-46

The Project Environmental Impact Report states that Impact 6.8-2 is less than significant. This Impact states that, "the proposed specific plan could permanently expose sensitive receptors to traffic and rail noise levels on an ongoing basis." It is difficult to understand how the Project EIR reached this conclusion. The Project EIR states that some of the residential areas would be subject to high SELs from freight train passbys. The SEL metric could exceed 95 dBA several times per night for receptors within 150 feet of the tracks. This would occur at more distant locations until buildings are constructed adjacent to the tracks. The EIR needs to explain how these high SELs will not be a significant noise impact. 25-47

Further, the City of Sacramento General Plan sets as the exterior noise standard for common outdoor areas in residential zones 60 dBA Ldn. The EIR argues that the residential units will be designed to comply with all applicable noise regulations, but outdoor residential spaces such as balconies are not considered living spaces, so they do not need to meet the exterior standards. The EIR fails to provide the residential designs for the Specific Plan area, however, the designs included in the Specific Plan show residential high-rise buildings with common open spaces including park areas and playgrounds for children. It is, therefore, clear that there will be "common outdoor areas" associated with the residential high-rise buildings. The EIR needs to address whether in the residential areas the 60 dBA Ldn level can be met. We suspect that in most areas the 60 dBA Ldn cannot be met. Nevertheless, the EIR cannot ignore the standard of significance, but must find a significant impact. 25-48

On page 6.8-20, the EIR states: "Although exterior noise levels near the UPRR alignment and 7th Street currently exceed the City's 60 dBA standard for residential uses, the proposed Specific Plan would require future development to meet all applicable noise standards for residential uses, including Title 24, so noise levels would be acceptable." If the exterior noise levels exceed 60 dBA in the residential areas, the EIR needs to explain how the application of Title 24 would ensure compliance with applicable standards. Title 24 only affects interior noise levels of buildings. 25-49

Apparently, on page 6.8-20, the EIR states that if the residential units meet Title 24 standards for interior noise (45 dBA max), the Project will have no significant impacts. The EIR needs to explain whether these standards shall be met with the windows open or closed in residential units. Further, the EIR needs to set forth standards for Single Event Level noise and also compliance with exterior noise levels before a finding of less than significance can be made.

In the first complete paragraph on page 6.8-21, the EIR addresses a 3 dB significance criterion. Such a criterion does not appear to be listed in the standards of significance on page 6.8-15. Further, what is the metric that is used for the 3 dB significance criteria? Is it Ldn, Lmax, or some other metric? 25-50

With respect to Impact 6.8-4 (construction of the Specific Plan could temporarily increase levels of ground born vibrations), it does not appear that the authors of the EIR have recommended all feasible mitigation measures. The Metropolitan Project Draft EIR included several feasible mitigation measures for ground born vibrations that are not included as mitigation measures for the Project. These include Mitigation Measures 5.4-1(c) and 5.4-2(d), which are attached to these comments as exhibits. 25-51

14. Public Utilities.

On page 6.11-6, the EIR states that U.S. EPA includes a policy that stipulates that at least 85% of the average annual CSS storm flow would be captured and receive primary treatment with disinfection prior to discharge. The EIR is unclear whether all discharge from the cistern (except the first 5 acre-feet) would be treated or untreated water passing into the Sacramento River. If the vast majority of the water passing through the cistern is going to be untreated water, the EIR needs to explain how the Project will contribute to or detract from the City's obligation to meet EPA standards for CSS storm flows. On page 6.11-8, it appears that there are several problems that remain to be addressed with respect to flows from the Project into the CSS. The EIR suggests that even the first flush of water has to be pumped to the CSS at a controlled rate of 5 cubic-feet per second because of limitations on current capacity in the CSS. The EIR fails to explain how the limitations on current capacity in the CSS impede the ability of the Project to meet state and federal standards.

On page 6.11-10, the EIR discusses Impact 6.11-1 (The proposed Project would increase waste water and storm water flows requiring treatment). The EIR includes as a mitigation measure the completion of the cistern, and states that prior to the completion of the cistern, the combined waste water and storm water flow shall not exceed the Project's peak flow sewage generation rate of 9.43 mgd. The analysis in the EIR is unclear. The dry weather waste water flows will be 9.43 mgd. The EIR does not include any runoff calculations. The EIR states: "Runoff calculations have not been prepared for the Project at this time." It is, therefore, unclear how the authors of the EIR have determined how much of the Project can be built before runoff exceeds acceptable levels. In order to determine when the combined waste water and storm water runoff entering the CSS would exceed 9.43 mgd, it would be necessary to have runoff calculations prepared. The EIR needs to address how much of the Project can be built before the cistern is in place. On page 6.11-10, the EIR states, "however, the timing for building the cistern and outfall to the Sacramento River has not been identified." It would appear that the cistern and outfall need to be designed and the timing of their construction identified in the EIR. The EIR needs to set forth how much of the Project can be built before the cistern is in place. A mitigation measure that simply says that the Project peak outflows will not exceed 9.43 mgd, without anything more than that, is not sufficient to mitigate the Project impacts to a less than significant effect. The EIR needs to calculate how much of the Project can be built before the cistern is constructed. Also, the EIR needs to establish that the cistern is feasible, and this can only be done with project designs and a discussion of the environmental impacts of the cistern. As previously mentioned, this EIR piecemeals the Project by not addressing the construction of the cistern. 25-52

The EIR reports that the City will have a shortfall in water available for the Project before 2020. The Project EIR is inadequate because the water diversion facilities are a necessary and integral part of the Project and the preferred source of delivery (the Sacramento River Diversion) should have been fully described, evaluated, and mitigated as part of the whole action evaluated in 25-53

the DEIR. By vaguely referencing three different ways for water to be provided to the Project, by specifying none of them as part of the Project, the City failed to provide a proper Project description or to meaningfully describe the environment that may be affected by building the infrastructure necessary to deliver water to the Project. The City also appears to piecemeal the water project, which is necessary for the development, from the other aspects of the Project. The EIR should select the appropriate method for providing the water to the Project, and fully address the environment impacts associated with the selected method of providing water. 25-53 (con't.)

15. Transportation and Circulation.

Most of our traffic comments are included in the attached comments of Mr. Dan Smith. One of the most glaring errors in the EIR is the failure of the EIR to evaluate the traffic impacts of the Project in West Sacramento and also on the Interstate 80 bridge over the Sacramento River in the vicinity of West Sacramento. It would appear that the Project will add significant traffic on the I Street Bridge and on the I Street Bridge onramps in the eastbound direction toward the City of West Sacramento. Further, where the I Street Bridge traffic exits the bridge in the City of Sacramento, there will be significant impacts as the traffic merges with the offramp traffic from I-5. The City of West Sacramento should experience impacts from the Project at Third Street and C Street, Fourth Street and C Street, Fifth Street and C Street, and other intersections. These impacts have been entirely ignored in the Project EIR and should be evaluated. With the changes to the approach to the Tower Bridge in the City of West Sacramento, less traffic will use the Tower Bridge to enter downtown Sacramento. It would appear that the Project will have substantial impacts on the access to downtown Sacramento from I-80 and West Sacramento. These impacts should be evaluated in the EIR. 25-54

16. Urban Design and Visual Resources.

The EIR concludes that Impact 6.13-2 will be less than significant. Impact 6.13-2 is "The potential development of high-rise buildings adjacent to the riverfront could represent an introduction of building height and mass that conflicts with the character of the riverfront between Old Sacramento and the Jibboom Street Bridge." This impact cannot be assessed with the information provided in the Environmental Impact Report. The generally accepted procedure for evaluating visual impacts is to prepare simulations that show the proposed buildings and how they will affect the existing visual views. The City of West Sacramento intends to create riverfront parks along the riverfront in West Sacramento. The EIR does not adequately address how the dense high-rise development in the Railyards will affect the views from the West Sacramento riverfront. 25-55

17. Energy.

Buildings in the United States use 65% of all electrical consumption, 36% of total energy use, and produce 30% of all greenhouse gases. The Project EIR indicates that the buildings in the Specific Plan area will comply with Title 24, which are the minimum state energy conservation regulations for buildings. Title 24 is a minimum requirement that all buildings must comply with. The Project uses a tremendous amount of electricity. The 67 Megawatts predicted annual usage in the Specific Plan area is enough to supply the electricity for 120,000 homes in the State of California. 25-56

CEQA requires more than minimum compliance with state energy conservation regulations. Public Resources Code § 21100(b)(3) states as follows: "The Environmental Impact Report shall

include a detailed statement setting forth all of the following: (3) mitigation measures proposed to minimize the significant effects on the environment, including, but not limited to, measures to reduce wasteful, inefficient, and unnecessary consumption of energy." In *People v. Kern County* (1976) 62 Cal.App.3d 761, 774, the Court held that an EIR was fatally defective "because of its failure to include a detailed statement setting forth the mitigation measures proposed to reduce wasteful, inefficient, and unnecessary consumption of energy as required by Public Resources Code § 21100."

In the standards of significance set forth in § 6.14-10, the second standard of significance states the project would not "encourage the wasteful or inefficient use of energy." This statement does not comply with CEQA. In order to comply with CEQA, the standard of significance should be stated as follows: "The Project includes measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." The way this standard of significance is worded in the DEIR, it is meaningless. No project actually encourages the wasteful or inefficient use of energy. If the EIR were to include a proper standard of significance, it cannot be stated that the Project includes feasible measures to reduce "the unnecessary consumption of energy". Feasible measures to reduce the unnecessary consumption of energy in the Project would include all of the mitigation measures in the attached report that was prepared for 500 Capitol Mall, which was an office tower high-rise proposed in the City of Sacramento. The Project EIR should require the following: 1) LEED silver rating or higher for all building in the Project area; 2) lighting conservation which 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; 3) glazing for the Project should include insulated, Low-E glass with solar reflectants of 15% (Viracon, Inc.: solar screen radiant Low-E (VRE) insulating glass, VRE 5-59; and 4) improved HVAC systems with microprocessor controlled energy management systems. The Project should also include a requirement for the installation of solar hot water heating systems, photovoltaic systems, and peak-load cooling systems on all warehouses and commercial buildings. The Project should require that the retail buildings in the Project meet the new proposed ASHRAE Standards, which will reduce energy in commercial buildings by 50%. (The standards are attached.) Further, cool roof systems such as the system described in the attachment, should be required for warehouse buildings and commercial buildings. The present proposals do not meet the requirements of CEQA. The DEIR includes no discussion of peak load requirements and how to reduce peak load demand. 25-56 (con't.)

The other standard of significance for energy stated in the DEIR is that the Project could cause the construction of new energy facilities which would cause significant environmental effects. Since the Project will require such a massive amount of energy, it is likely that new energy facilities may have to be constructed to help meet the electrical demand for the Specific Plan. The EIR states that two new electrical substations will have to be built. The EIR further states: "Details of how SMUD would supply the substations from the 115 kilovolt and 21 kilovolt systems cannot be determined." The EIR does not include a discussion of environmental impacts of constructing new substations and transmission lines. These impacts need to be discussed and detailed in the EIR prior to certification of the EIR. Without details about the electrical transmission systems and construction of the substations, there is no basis in the EIR to conclude that there will be no environmental impacts. Further, the DEIR cannot piecemeal the environmental impacts of necessary Project components.

DATED: October 3, 2007

WILLIAM D. KOPPER

LETTER 25

SMITH ENGINEERING & MANAGEMENT

October 01, 2007

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

Subject: Railyards Specific Plan DEIR

P07015

Dear Mr. Kopper:

Per your request, I have reviewed the draft environmental impact report (hereinafter "the DEIR") for the Railyards Specific Plan project ("the project") in the City of Sacramento (hereinafter "the City") with particular reference to the transportation and circulation component. 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 resume is attached herewith. My current comments follow.

DEIR Discloses Significant Traffic Impacts To Freeway Mainline Sections, Interchanges and Off-Ramps, But Improperly Evades Mitigation Obligations. DEIR Is Also Defective For Failure To Disclose Disagreement Of Responsible Agency In This Matter and For Failure To Reflect Relevant Recent City Actions

The DEIR discloses numerous significant project impacts to freeway mainline segments, interchanges and off ramps in each of the "Baseline + Project"", 2013 + Project" and "2030 + Project" analysis scenarios. Caltrans has identified improvement measures it considers feasible that would mitigate some of the freeway impacts; the DEIR identifies potential mitigation measures for others. But the DEIR characterizes nearly all the potential freeway system mitigations as "infeasible", a characterization that would enable the City to approve the project without mitigation under findings of "overriding considerations". However, the DEIR fails to disclose and acknowledge that Caltrans convincingly disputed the City's unreasonable rationalizations for characterizing the freeway system mitigations as infeasible in a November 27, 2006 letter of comment on the 500 Capitol Mall DEIR. The current Railyards DEIR is written as if the City had no knowledge of the information contained in Caltrans November 27, 2006 letter. The City's perpetuation of the fiction that freeway mitigations are infeasible is an improper effort to evade its obligation under CEQA to require all feasible mitigation, a circumstance that would preclude legitimate certification of this EIR. In addition, the DEIR's failure to disclose that Caltrans, a "responsible agency" under CEQA, has disputed findings of fact contained in the document renders the DEIR critically deficient and inadequate.

25-57

The unreasonableness of the City's position in this matter is highlighted by the fact that the SACMET traffic model runs that the City relies on for the 2013 and 2030 traffic analyses assume the freeway mitigations that Caltrans proposes and that the City claims are infeasible *are in place by both of those forecast years*. Quite obviously, the City is willing to concede the feasibility of the improvements when it is convenient for it to do so; just not so when a development project in the City might have to help pay for the improvements.

We understand that despite the "in-denial" language circulated in the DEIR regarding the feasibility of freeway mitigations, the actual situation re this issue has changed in recent months. The City has joined SACOG and other local jurisdictions in initiating a nexus study to provide the basis for major central area development projects to contribute fair share fees to mitigate freeway system traffic impacts. The "in-denial" language in the DEIR with respect to freeway system related mitigations should be removed and instead language conditioning the project to pay fair share fees consistent with the outcome of the nexus study should be substituted.

25-57 (con't.)

Conflict Between Pedestrian Friendly Street Guidelines and General Plan Traffic Level of Service Policy Improperly Relied On To Evade Mitigation Obligations

In accordance with the City of Sacramento traffic impact analysis guidelines, the DEIR uses as the threshold of significance for traffic impacts the traffic level-of-service policies set forth in the City's General Plan (which, in brief, define level-of-service C as the acceptable level-of-service for intersections except at freeway ramp junction intersections where level-of-service D is acceptable; hence, significant impact occurs when a project causes LOS C to be exceeded at most intersections and LOS D to be exceeded at ramp junction intersections).

Based on this criterion, the DEIR identifies numerous traffic impacts at intersections and on surface street segments in all project analysis scenarios. In the vast majority of cases, the DEIR identifies potential traffic mitigation measures for the impacts. However, in many instances, the DEIR concludes that the mitigations would be infeasible due to conflict with the City's pedestrian friendly streets design guidelines that discourage addition of traffic lanes. This occurs a total of 46 times in the DEIR analysis: six instances in the "Baseline + Project" scenario at impact locations 6.12-1 (c), (f), (g), (i), (j), and (o); fourteen instances in the "2013 + Project Initial Phase" scenario at impact locations 6.12-10 (c), (d), (e), (f), (i), (l), (m), (n), (o), (s), (t), and (u); twelve instances in the "2030 + Initial Phase" scenario at impact locations 6.12-16 (g), (l), (j), (l), (m), (p), (q), (r), (t), (x), (y) and (cc); and in fourteen instances in the "2030 + Full Project" scenario at impact locations 6.12-22 (e), (h), (k), (l), (p), (r), (s), (t), (u), (v), (w), (x), (bb), and (cc).

25-58

The DEIR's summary dismissal of mitigation feasibility at these locations based on the pedestrian friendly streets guidelines carries the implicit assumption that the pedestrian friendly guidelines automatically supersede the General Plan traffic level-of-service criteria. This assumption is incorrect procedurally since, when the pedestrian friendly guidelines were adopted subsequent to the General Plan, it was obvious that they could be in conflict with the General Plan level-of-service policy: in order to make the pedestrian friendly guidelines supersede the level-of-service policy, the General Plan level-of-service policy would have to have been amended when the pedestrian friendly guidelines were adopted.

This was not done, so therefore the DEIR's presumption that conflict with pedestrian friendly guidelines automatically renders infeasible traffic mitigations implementing the General Plan level-of-service policy is incorrect.

The DEIR's assumption that pedestrian friendly guidelines automatically render infeasible mitigations based on General Plan level-of-service policy is also unreasonable in that:

- it fails to distinguish between situations where the level-of-service deficiency is on roads having very localized circulation function versus on roads having major area circulation importance, and
- it fails to distinguish between level-of-service deficiencies that are marginal nuisances in nature (such as delays exceeding the level-of-service impact thresholds by a few seconds) versus level-of-service deficiencies that involve gross delays in excess of the established significance thresholds that have significant adverse consequence to area circulation, public safety and public services (such as delays of double the established impact thresholds or more that gridlock traffic, impede emergency service response, and impede other public services like transit and the ability to carry out street, utility and public landscape maintenance).

25-58 (con't.)

The entire analysis of mitigation feasibility at locations where pedestrian friendly guidelines were relied on as a basis for dismissing potential traffic mitigation measures should be reconsidered at each location individually with the functional role of the streets involved and the severity of exceeding the level-of-service significance thresholds are taken into account In determining whether pedestrian friendly or traffic level-of-service considerations are more important at the particular location.

The same considerations described in this section apply where smart growth policies have been relied on as a justification for declaring traffic mitigations warranted by the General Plan traffic level-of-service criterion to be infeasible.

DEIR Fails to Analyze a Major Circulation Component of the Project – Replacement of the Jibboom-I Street Bridge Connection By a Connection Between Bercut Drive and I Street. DEIR also Fails to Analyze Changes In Demand on I Street Bridge In Light of Closure of Tower Bridge (Applicable to "Baseline + Project" Scenario Only) and Due to Increasingly Diminished Quality of Connection Between Tower Bridge and I-80 and Fails To Analyze Intersections In West Sacramento Affected by Project Traffic

The project includes as a major component of its circulation element a proposal to replace the connection between Jibboom and the I Street bridge with an elevated connection between Bercut Drive and I Street. However, this component of the project is never evaluated in the DEIR. Instead, in all "with project" scenarios evaluated, the Jibboom-I Street connection is presumed to be in place and, where deficiencies related to that connection are indicated, the public is told that the significant impacts will be taken care of because the project really intends to replace the Jibboom connection with a Bercut connection. But there is no analysis showing that the substitution of a Bercut connection to I Street provides any improvement over the Jibboom connection. To be adequate, the DEIR must perform a traffic analysis with the switch of the Bercut connection for the Jibboom connection in place to demonstrate the consequences of this facet of the project. We also note that the DEIR did not select the I Street Bridge as a link for street segment analysis, a

25-59

critical deficiency that must be remedied by additional analysis due to the obvious importance of this roadway as a gateway to the project area and as one of few major circulation links connecting downtown Sacramento to areas west of the Sacramento River barrier.

Moreover, what the traffic analyses that were done in the DEIR do show is that the Jibboom-I Street connection becomes severely impacted, even after certain limited proposed partial mitigations, at the "Baseline + Project Initial Phase" stage – in other words, immediately! It is impacted at a level of average delay per vehicle of 109 seconds in the pm peak hour – more than three times the level of delay that the City considers a significant impact. By 2013 with the initial phase of the project in place, the DEIR indicates that even with partial mitigation through signal timing improvement, the pm peak hour delay would average over 139 seconds per vehicle – almost exactly 4 times the delay level that the City considers the threshold of significant impact. However, the project does not propose to implement the replacement of the Jibboom connection with the Bercut connection until the *final phase* of the project – close to Year 2030. This is an inadequate deferral of needed improvement. If the additionally needed DEIR traffic analysis yet to be performed does prove that the substitution of the Bercut connection to I Street for the Jibboom connection would be beneficial, *implementation of that change should be advanced to the initial phase of the project*.

The importance of dealing effectively with the I Street bridge gateway to/from the project area and to/from downtown Sacramento overall is underscored by uncertainties associated with the Tower Bridge and the connecting link between it and I-80. Tower Bridge is currently closed for major maintenance that will probably impact traffic conditions in the Baseline year that is not reflected in the DEIR's "Baseline" and "Baseline + Project Initial Phase" traffic impact analyses, in particular, increasing the traffic pressure and impacts on the I Street Bridge and its approaches. Over the long term, development activity in the City of West Sacramento are converting the former high-speed connection between the Tower Bridge and I-80 to that of a multi-function urban access arterial of lower through traffic service qualities. This change affects the traffic pressure on the I Street Bridge but may not be reflected in the DEIR traffic analysis performed to date since none of the intersection or segment analyses contained therein monitor conditions at the Tower Bridge or its approaches. Nor have the west-side approach/departure intersections to the I Street Bridge or on the complex eastbound ramp system between the I Street Bridge – Jibboom intersection and the intersection of that ramp system with Third and J Streets been subjected to analysis although it is obvious that all of those locations will be affected by project traffic. These deficiencies must be addressed through additional analysis.

25-59 (con't.)

In specific, the DEIR should perform intersection LOS analyses all signalized intersections in West Sacramento between the Tower Bridge and I-80, at the intersections of 3rd and C, 4th and C and 5th and C streets in West Sacramento (intersections on the western approach/departure to/from the I Street Bridge, a segment analysis on the ramps leading to the I Street Bridge from 3rd and C) in West Sacramento, a segment analysis on the ramp leading eastbound from the I Street Bridge from its intersection with Jibboom to its merge with the southbound I-5/J Street off ramp, and a segment and weaving analysis from that merge point to the intersection with 3rd and J Streets. The DEIR clearly will not have made a good faith effort to disclose all impacts until these additional locations are analyzed.

Effectiveness of Mitigation Measures in the 2008 Baseline Scenario May Be Overstated Due To Competing Claims of Other Concurrent Development Projects to the Capacity of the Same Mitigation Measures

The 2008 "Baseline" scenario includes existing traffic plus anticipated traffic from those projects that were under construction or "approved" by the date of the Railyards EIR Notice of Preparation. However, at that time, several other major downtown projects were in active stages of planning consideration including Metropolitan, Epic Tower, 800 K&L, 500 Capitol Mall, Township 9 and others. These projects now have environmental documents in some stage of circulation that claim some of the *same mitigation measures to absorb their own traffic impacts as does Railyards to mitigate its traffic impacts.* Since the "in-common" mitigation measures have only a discrete capacity to mitigate impacts, and since the cumulative traffic from these projects is not reflected in the analysis, the full effect of the mitigation measures claimed in common by more than one other project would not be available to mitigate Railyards impacts. The situation is analogous to selling one horse to separate parties simultaneously pull several heavily loaded wagons. This is not a criticism of the DEIR technical report itself: the analysts cannot be expected to stop and modify their analysis every time another development project pops up. The point is that when the City reaches the point of issuing approvals and imposing mitigation requirements, it is incumbent upon the City to *act in consideration of all of the planning and environmental documentation it has knowledge of, not just the content of this DEIR*, and where separate projects are each claiming entitlement to the benefit of the same mitigation without having their traffic analyzed cumulatively, the City must make appropriate reasoned adjustments to the projects or to the mitigation requirements that are imposed. 25-60

Signal Timing Changes Proposed as Mitigation for Significant Traffic Impacts in the DEIR May Not Have the Mitigative Effect the DEIR Indicates.

The DEIR proposes to mitigate the significant project and cumulative traffic impacts on numerous intersections by altering the timing of the phase-splits, and in some cases cycle lengths, of the traffic signals at intersections where impacts are disclosed to occur. In essence, the mitigation proposal is to optimize signal timing for the traffic demands at each impacted intersection. However, this approach, which only considers each intersection in isolation, fails to consider the effect on system coordination and drivers' ability to move through a sequence of signalized intersections in a progressive movement. It is entirely possible that cumulative delays to drivers moving through the downtown street system (including added delays at intersections not even analyzed in the subject DEIR) caused by the deleterious effects on progression caused by the proposed changes to signal timing based solely on individualized location optimization (especially proposed changes to signal cycle length) would outweigh the benefits of the individual intersection optimization. The only way to tell whether the signal timing changes proposed as actually create a net benefit is to perform a system analysis of the entire downtown signal system. The City has not performed any such study. Hence, the City does not know whether the proposed 25-61

mitigations involving changes in signal timing will actually be effective or not. Therefore they do not qualify as mitigation under CEQA.

Equally problematic in the case of mitigation through signal timing modifications is the issue described in the point above, that other of projects actively under consideration by the City or already approved are counting on signal timing changes at some of the same locations as the Railyards project to mitigate *their own traffic*, but their traffic has not been included in the Baseline traffic forecast for this DEIR. Some projects may be claiming mitigation from signal timing modifications that are contradictory to those proposed in mitigation of Railyards. It is incumbent upon the City in considering project approvals and mitigation conditions to *act in consideration of all of the planning and environmental documentation it has knowledge of, not just the content of this DEIR*, and where separate projects are each claiming entitlement to the benefit of the same mitigation without having their traffic analyzed cumulatively or have contradictory mitigations proposed, the City must make appropriate reasoned adjustments to the projects or to the mitigation requirements that are imposed. 25-61 (con't.)

Inconsistency of "Existing" Traffic Data and Use of Obsolete Traffic Data In Some Recent City EIRs Prompts Questions Regarding "Existing" Traffic Data in This DEIR

The DEIR states that "existing" traffic counts on surface streets were obtained from September, 2004 through June, 2006. This means that the earliest traffic counts relied upon were nearly two years older than the most recent counts used and are 3 years old as this DEIR comes into circulation. Please explain what measures were taken to factor the older counts to a consistent basis with the newest counts, and if no factoring was done, why not. 25-62

The DEIR also states that freeway mainline and ramp data were taken form the Caltrans Traffic and Vehicle Data Systems web site. The Caltrans web site often contains data that is not the most recent data available from Caltrans. Please identify what year data was obtained from the web site, state whether responsible Caltrans officials were contacted to determine whether more recent data than posted on the web site was available, and if not, why not.

2013 Analysis May Not Reflect Level of Development Sacramento Currently Considering

The 2013 traffic forecasts that are the basis for the estimates of project impacts are derived from SACOG estimates of regional population, housing and jobs. Those estimates may not fully reflect the employment, jobs and households inherent in the central Sacramento developments that have become known to the City may be different than the underlying forecasts of population, households and jobs that are input to the SACMET model runs used in the DEIR. The DEIR contains no evidence that the totals of employment, households and jobs assumed for the 2013 SACMET model runs used in the DEIR are reasonably consistent with the totals in new development projects currently known to the City by being in some stage of the planning/environmental review. The DEIR must document that the development assumptions inherent in the SACMET model runs utilized are reasonably consistent (closely comparable or in excess of) the totals of actual development projects that have become known to the City for the 2006 to 2013 period. 25-63

Some Mitigations Measures the DEIR Proposes Fail the Common-sense Test For Relationship to the Conditions They Purportedly Mitigate

In the 2008 "Baseline + Project Initial Phase" scenario, the DEIR identifies significant project traffic impacts to the Richards Boulevard/I-5 ramp terminus intersections (impacts 6.12-1 (a) and (b)), to the Richards Boulevard/I-5 interchange merge/diverge/weave areas (impacts 6.12-4 (a) and (b)), and involving ramp queue back-ups into freeway mainline lanes at the same interchange (impact 6.12-5 (a)). The DEIR purports to partially mitigate these impacts by requiring the project applicant to contribute fair share funding to the development of the proposed Downtown-Airport-Natomas LRT line. However, that action could not possibly mitigate those particular project traffic impacts for several reasons.

- At the trip generation stage of the analysis, the DEIR has already assumed an extraordinary level of transit ridership for the project based on its location and supposed excellent accessibility to transit service and made corresponding reductions to project traffic generation. All the possible traffic reduction that the supposed mitigation could ever provide has already been assumed in the analysis before the traffic impact was disclosed.
- Latest information available on Sacramento RTD's Downtown-Natomas-Airport LRT line web site indicates that service on the line's minimum operable segment extending only from downtown to Richards Boulevard (not farther on to Natomas or the Airport) would, optimistically, only begin in early 2014. The rest of the DNA LRT line is not expected to begin service until years later. A transit operation that begins service in 2014 is not timely mitigation for traffic impacts that occur starting in 2008.
- The travelers that use the specific impacted locations cited above tend to be predominantly regional travelers. The travelers that could potentially be attracted to the DNA line minimum operable segment when it comes into use in 2014 will be local downtown Sacramento travelers. So even when the line comes into use, it is not likely to reduce traffic at the traffic impact areas it is purported to mitigate in the DEIR.

25-64

It is also noteworthy that the DEIR also purports to mitigate the project's immediate 2008 significant impacts on transit, in part by requiring the applicant to contribute right-of-way and funding to the DNA LRT line. While this condition is laudable in terms of long term benefit, making contributions to services that may only begin as early as 2014 is not timely mitigation for transit impacts that will occur from 2008 onward.

Failure To Analyze Effects of Traffic Queues at Intersections

Although it could easily have done so, the DEIR made no effort to analyze the effects of traffic queues at intersections. With the DEIR's disclosure that many intersections impacted at levels severely into the LOS F range, there is a reasonable expectation that queues from those intersections might stack back sufficiently to impact upstream intersections, creating gridlock conditions. The DEIR is critically deficient for not having evaluated queuing effects.

25-65

Failure To Analyze Impacts of Non-Project Traffic Shifted Due To The Project

The DEIR's traffic impact analyses for the forecast years 2013 and 2030 rely on traffic projections developed through use of SACOG's SACMET transportation model. The

25-66

structure of this model is such that, when new development project trips are added, it shifts the origin-destination patterns of other travelers in reaction to the added trip opportunities inherent in the added project, and shifts the route choices of other travelers in reaction to the presence of project travelers on the transportation network. As the result of these project-caused trip pattern and route selection shifts of other travelers, added traffic can appear on elements of the transportation network well away from the project site. This project involves adding 107,150 daily trips to the regional transportation system in its initial phase and 149,461 daily trips at full project development. These trip totals are respectively *1.56 percent and 2.7 percent of the existing daily trip totals for the entire six-county SACOG region*. Those are certainly project trip increments that could cause a level of shifting of non-project travelers that could cause significant traffic impacts elsewhere on the highway network. The analysts who prepared the DEIR Transportation and Circulation section indicate clear awareness of the SACMET model's characteristic of shifting non-project travelers in reaction to the project. But the DEIR failed to make a good faith effort to disclose the impacts that such shifts could cause because its analysts only sought to discover impact at the points where they thought project traffic would concentrate. Given the scale of the subject project, at a minimum, the DEIR should have analyzed the freeway segments, interchanges, ramps and ramp terminus intersections for the entire freeway ring surrounding the Sacramento central area.

25-66 (con't.)

DEIR Fails Transportation and Circulation Section Fails to Specifically Analyze Maximum Residential Alternative

The DEIR section on trip generation (page 6.12-51) explains that the Maximum Residential Alternative was not analyzed in depth because the Maximum Office Alternative had greater traffic generation, analysis of only the Maximum Office scenario would produce a conservatively high estimate of traffic impacts and mitigation measures that might result under the Maximum Residential Alternative. However, this is not necessarily true. Because residential inbound/outbound splits are generally the opposite of office in the am and pm peaks, and because residential trip distribution patterns are also different from office, the Maximum Residential scenario could impact different locations at different times of day than the Maximum Office and could require different mitigations. The fact is that, since the analysis was omitted from the DEIR, the City simply does not know what the impacts and mitigation requirements of the Maximum Residential Alternative. If the City wishes to seriously consider approving the Maximum Residential Alternative under this EIR, the transportation analysis must be reworked to run a detailed analysis of the Maximum Residential Alternative for, at a minimum, at least one of the 2008, 2013 or 2030 time frames and, by drawing comparisons to the same year forecast for the Maximum Office Scenario, highlight what differences can be expected.

25-67

DEIR Transportation and Circulation Section Lacks Comprehensive Assessment Of Overall Conditions

A critical deficiency of the DEIR Transportation and Circulation section is that it provides no comprehensive synthesis of what all its individual site-by-site impact and mitigation analyses mean when considered together for the study area as a whole. Everything is treated as if each individual traffic impact site existed in isolation. Such a comprehensive analysis should be included in the DEIR.

25-68

If such a comprehensive assessment were written based on the information in the DEIR now, it would conclude that, at each analysis stage, the project would result in a large area of central Sacramento being affected by a circulation system that is significantly impacted and unmitigated, one that is impacted so severely as to gridlock a large portion of the area, and so severely as to impact public safety, emergency services and other services. However, such a conclusion is only necessary because of the DEIR's insistance, as currently written, on considering reasonable traffic mitigation measures as infeasible.

25-68 (con't.)

Conclusion

This completes my comments on the Railyards DEIR. For the above reasons, I believe the document is inadequate relative to Transportation/Traffic impacts and that the deficiencies necessitate revision and recirculation in "draft" status.

Sincerely,

Smith Engineering & Management
A California Corporation

Daniel T. Smith Jr., P.E.

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)
California No. 938 (Traffic)
Nevada No. 7969 (Civil)
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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 21'st 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.

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. Homburger *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.

LETTER 25

DEPARTMENT OF TRANSPORTATION
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November 27, 2006

06SAC0207
03-Sac-05 PM 23.425
500 Capitol Mall (P05-108)
Draft Environmental Impact Report
SCH# 2005112038

Scott Johnson, Associate Planner
City of Sacramento
Development Services Department
Environmental Planning Services
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

Dear Mr. Johnson:

Re: DEIR for 500 Capitol Mall (SCH No. 2005112038)

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (DEIR) for the 500 Capitol Mall Project (Project) (SCH No. 2005112038). The Project is one of eight high-rise projects that were included in the recently completed Downtown Traffic Study (dated June 2006). It is exciting to see the potential of Downtown Sacramento being realized. Because the State highway system provides the primary access to the government, job, and entertainment centers located in the city center, we want to reiterate our desire to work cooperatively with the City of Sacramento to identify potential mitigations for the impacts to the State highway system, that will accompany the planned growth, to ensure that an appropriate level of access and mobility are retained. 5-1

The Project is the first submitted to Caltrans for review that includes the Downtown Traffic Study as a basis for its transportation analysis for the environmental impact assessment. Caltrans supported the concept of a consolidated Downtown Traffic Study as an opportunity for all parties to efficiently analyze the impacts of cumulative development and to develop a more comprehensive approach to mitigation for the impacts. We presume that the City of Sacramento (City) intends to consistently apply the results of the Downtown Traffic Study to all projects that were part of the study and to also use the study's results in evaluating additional downtown projects. We are concerned that study does not fulfill its promise and would like to work with the City to modify the findings. 5-2

The City found the Project's impacts to the State highway system mainline to be significant and unavoidable. Caltrans must disagree with this finding. Although the impacts are significant, they are not unavoidable and there are ways the impacts can be reduced and mitigated. Feasible, nexus based measures are available to mitigate the Project's direct and cumulative impacts to the State highway system mainline. The Project, and other projects included in the Downtown Traffic Study, should contribute proportionally towards reasonable mitigation measures. 5-3

As noted on Page 5.6-40, the City and Caltrans discussed possible mitigation measures for the Project. Caltrans subsequently submitted mitigation projects that we consider appropriate for mitigation via proportional share funding contributions to the projects: 5-4

- Two High Occupancy Vehicle (HOV) lane projects on Interstate 5 serving Downtown Sacramento from the north and south, and
- Widening the Interstate 5 bridges crossing the American River, just north of Downtown.

As reported in the DEIR, Caltrans provided cost estimates to the City for these projects and is available to provide further detail regarding the scope, schedule and cost for each of the projects.

Two additional projects were discussed during our meeting, but Caltrans was unable to determine if the two projects are feasible and was unable to develop cost estimates within the time requirements of the DEIR release date. Caltrans has subsequently determined that one of these two projects (extending the northbound, outside lane between J Street and L Street) is likely feasible, but will require a Project Study Report to adequately scope the project. This potential mitigation project is substantially more complex than simply restriping the lanes. The other project, adding additional mainline freeway lanes through the Interstate 5 Boat Section in Downtown, is still being investigated. It will be several more months before we know if this potential project is feasible. 5-5

In finding that the three potential mitigation projects identified by Caltrans are not feasible (Page 5.6-41), the City misinterpreted the Sacramento Area Council of Governments (SACOG) existing Metropolitan Transportation Plan (MTP), did not acknowledge that the projects are already included in the SACOG Metropolitan Transportation Improvement Program (MTIP) and did not acknowledge that the HOV lane projects are included in the voter-approved "Measure A" program in Sacramento County. 5-6

As noted in the City's discussion, the MTP is the long-range, financially constrained transportation plan for the SACOG region and includes projects to be constructed within the planning horizon of the Plan based on reasonably assured funding. The two HOV projects are included in the MTP for all phases through construction, not just preliminary engineering and environmental as stated on Page 5.6-41. One of the HOV lane projects extends across the American River Bridge to Downtown, and thus, the widening of Interstate 5 across the American River is also included in the MTP. 5-6 continued

There is also a companion document to the MTP that the City did not mention in its discussion, the SACOG Metropolitan Transportation Improvement Program (MTIP). The MTIP is the document that programs Federal funding for projects. The current MTIP includes funding for the preliminary engineering and environmental phase of the two HOV lane projects. As is the case with all high-cost transportation projects, such as the HOV lanes, the MTIP does not program funding for all phases of a project at the same time. Programming is implemented as project phases are completed. The City's statement that, "The proposed freeway improvement projects are not currently approved and funded" is not entirely correct. It is correct that the environmental documents for the projects have not been completed and approved, but the project concepts themselves have been approved for development phases and are active. 5-7

The lack of reference to Measure A is an important oversight regarding the assessment of mitigation project feasibility and funding. Measure A is a voter-approved transportation sales tax measure that identifies funding for a variety of transportation projects and specifically both of the HOV lane projects recommended by Caltrans as mitigation for the Project. Measure A will be providing 50% of the funding for the HOV lane projects. This status contradicts the City's statement that, "there is no fee or other funding mechanism currently in place for future funding." 5-8

Caltrans does not agree as is stated on Page 5.6-41 that "the City cannot determine either the cost of the proposed freeway improvement projects or the proposed 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." Caltrans has provided the City with cost estimates for the three projects. The fair share proportionality determination is based on the Project's traffic study and should be readily determined from the information provided in the study. As the lead agency, the City is responsible for determining the fair share proportionality, but Caltrans is willing to assist the City to develop both interim and permanent processes for adequate mitigation that will not unnecessarily delay projects. 5-9

Page 5.6-41 includes a discussion of the adverse impacts of widening Interstate 5 through the Downtown section, commonly known as the "Boat Section." While Caltrans discussed the possibility of modifying the striping of the section so that it might accommodate an additional traffic lane in each direction, we have not proposed widening the actual pavement section by modifying the floodwall/levee or removing historic buildings in the Old Sacramento District. Although we agree that the widening project is not a feasible mitigation strategy, restriping the facility to add mainline lanes is currently being analyzed by Caltrans. 5-10

Caltrans disagrees with the statement on Page 5.6-41 that, "the City has been unable to identify any feasible mitigation measures that could reduce or avoid the impact of the proposed project on the three I-5 freeway mainline segments to a less than significant level." We reiterate that the three projects that we suggested are feasible, are actively being developed, are in regionally approved transportation planning documents, and have realistic prospects of full funding. Nexus based proportional share funding contributions from the Project and other pending Downtown projects are a logical and appropriate component of the full funding program. The HOV projects and expansion of the Interstate 5 bridges across the American River are specifically intended to serve peak-hour traffic going to Downtown Sacramento, including to new buildings such as the Project. 5-11

The City and Caltrans have limited opportunities to ensure that needed transportation improvements accompany growth. Our recent management consultation meetings with the City regarding major development projects have been productive and have emphasized the importance of a partnership approach to meeting the challenge of maintaining mobility in the Sacramento Region. We would like to continue and expand these efforts. We seek agreement between the City and Caltrans on a consultation and mitigation process that would eliminate much of the uncertainty that accompanies our review of projects, such as the 500 Capitol Mall Project. 5-12

Caltrans would be pleased to meet with the City and Project proponents to discuss and resolve these issues so that the Project can quickly move forward with assurance that impacts to the State highway system will be mitigated. To arrange for such a meeting, please contact Wayne Lewis at (530) 741-4337.

Sincerely,

Jody Jones

JODY JONES
District Director

c: Fran Halbakken, City of Sacramento
Jerry Way, City of Sacramento
Mike McKeever, Sacramento Area Council of Governments
Brian Williams, Sacramento Transportation Authority
Will Kempton
State Clearinghouse

LETTER 25

Comments

on

Draft Environmental Impact Report

for

Railyards Specific Plan
Sacramento, CA

Prepared for

William D. Kopper
Law Offices of William D. Kopper
417 E Street
Davis, CA 95616

Prepared by

Petra Pless, D.Env.
440 Nova Albion Way
San Rafael, CA 94903

October 8, 2007

Table of Contents

COMMENTS

The City of Sacramento ("City"), as the lead agency under the California Environmental Quality Act ("CEQA"), has released a Draft Environmental Impact Report ("Draft EIR") for the Sacramento Railyards Specific Plan ("Specific Plan" or "Project"). The Specific Plan is a long range planning document that is intended to establish a comprehensive framework for the redevelopment of the Sacramento Railyards area, an approximately 244-acre site in the downtown area of the City, over the next 15 to 20 years.[1,2,3] The Railyards Specific Plan would include mixed-use development of between 10,000 and 12,500 dwelling units ("DU"), 1,384,800 square feet ("sqft") of retail space, 491,000 sqft of mixed use space, 1,100 hotel rooms, 2,337,200 sqft of office space, 485,390 sqft of historic/cultural space, and 41.16 acres of parks and open space. This development would include low-, medium-, and high-rise single-use and mixed-use residential, retail, office, and hotel structures. The Railyards Specific Plan area would also include approximately 32 acres designated for the development of the Sacramento Intermodal Transit Facility ("SITF"), which would provide multiple modes of public transit service including bus, rail, light rail, and passenger auto. The Railyards Specific Plan would involve realignment of the rail tracks running from 3rd Street to 7th Street for use by Amtrak, Union Pacific, Sacramento Regional Transit, and the potential future construction of a regional high speed rail.[4]

As discussed in the comments below, the Draft EIR for the Specific Plan does not fulfill its informational duty under CEQA, requiring extensive revisions and recirculation.

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[1] City of Sacramento, Draft Environmental Impact Report, Railyards Specific Plan, SCH No. 2006032058, August 2007.

[2] City of Sacramento, Sacramento Railyards Specific Plan, Public Review Draft, August 20, 2007.

[3] This EIR is intended replace the 1994 Railyards Specific Plan adopted by City Council. The City Council certified the EIR for the existing Railyards Specific Plan and Richards Boulevard Area Plan in December 1993. At that time the City Council approved amendments to the City's General Plan and Central City Community Plan that provided for the land uses proposed in the two plans. The City Council certified a Supplemental EIR for the existing Railyards Specific Plan and the Richards Boulevard Area Plan in late 1994, and approved the existing Railyards Specific Plan on December 13, 1994. The Supplemental EIR addressed several aspects of the Railyards Specific Plan and Richards Boulevard Area Plan that had been further refined including levels of development and timing of infrastructure improvements.

[4] Draft EIR, p. 2-1.

I. The Project Description Is Inadequate

An accurate and complete Project description is the heart of an EIR and is necessary for an intelligent evaluation of the potential environmental impacts of a project. As explained in the discussion following Section 15124 of the CEQA Guidelines,[5] an EIR must describe the proposed project "in a way that will be meaningful to the public, to the other reviewing agencies, and to the decision-makers..."

Here, the project description fails to include sufficient information on the planned phasing of the Project buildout upon which its environmental analyses rely. For example, the air quality impact analysis relies on sequential Project development in four major phases, Phase 1A/1B, 2, 3, and 4.[6][7] The Draft EIR's traffic and circulation section analyzes a so-called "Initial Phase" of development expected to occur in the first few years of development as well as conditions in 2030 when the Project is expected to be fully built out.[8] Yet, the Draft EIR's 67-page project description, which is supported by 5 tables and 19 figures[9], contains no discussion whatsoever of the planned development phases of the 244-acre Project site nor does it include a construction schedule, a map identifying the boundaries and land parcels that make up the individual development phases, or a timeline of their planned implementation.[10] In fact, the Draft EIR's project description does not once mention the various buildout phases of the Project. (With exception of a drawing on the cover page, the Draft EIR also does not include any 3-D rendering of the Project to help the reviewer visualize its layout and relationship of its individual components.) Yet, the environmental impacts resulting from buildout of the Project would differ considerably depending on whether its individual phases would be constructed at the same time or in successive phases. Therefore, the Draft EIR's project description is inadequate.

25-69

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[5] California Code of Regulations, Title 14, Secs. 15000 *et seq.* ("CEQA Guidelines").

[6] Draft EIR, p. 6.1-22, Table 6.1-5.

[7] The only other reference to four major planned development phases is found in the Draft EIR's Appendix N, Urban Decay Study.

[8] Draft EIR, Section 6.12 and Appx. Q.

[9] Draft EIR, pp. 3.1 - 3.67.

[10] The Draft Specific Plan does not contain any additional information regarding Project buildout phases either.

II. The Draft EIR Fails to Include All Information It Relied Upon to Reach Its Conclusions of Significance

The Draft EIR relies on a number of analyses, documents, and information that are not provided in the Draft EIR, precluding independent review of the Draft EIR's conclusions. These include, for example:

- Calculation sheets to verify maximum CO concentrations at modeled intersections, which were supposedly provided in Appendix D, but were not.[11]
- Maps from the administrative draft Railyards Specific Plan, dated May 31, 2007, showing the development of discrete parcels Phases 1A, 1B, 2, and 3, and 4. These maps are used to calculate emissions rates for the Draft EIR's construction health risk assessment.[12] This information is not contained anywhere in the Draft EIR nor are these maps contained in the Draft Railyards Specific Plan, dated August 20, 2007, and posted on the City's website.
- Table D-1 of the Draft Environmental Impact Report of the 7th Street Extension project, prepared by EIP Associates and dated November 1998.[13] This table summarizes the statistics of compounds detected in soil samples at the Project site and which were used for speciation of fugitive dust emissions in the construction health risk assessment.
- Figure 1-2 of the Year 2004 Soil Remediation Summary Report, prepared by ERM-West Inc. and dated November 2006.[14] This figure was used to determine the overlaps of the soil study areas with the land parcels, or construction areas, used in the construction health risk assessment.
- URBEMIS output files provided by EIP/PBS&J on July 5, 2007.[15] The emissions estimates contained in these output files were used in the Draft EIR's construction health risk assessment to determine emissions rates from construction.

25-70

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[11] Draft EIR, p. 6.1-28, footnote to Table 6.1-7.

[12] Draft EIR, Appx. O: Environ Corporation, Sacramento Railyards Redevelopment, Health Risk Assessment of Diesel Particulate Matter (DPM) and Soil Fugitives from Construction Activities, August 2007, p. 2-2.

[13] *Ibid*, p. 2-3.

[14] *Ibid*, p. 2-3.

[15] *Ibid*, p. 2-1.

- Results from the construction health risk assessment ambient air quality modeling with ISCST3.[16]

25-70 (con't.)

There are numerous other instances where the Draft EIR omits pertinent information in the air quality impact analysis and other environmental impact sections, thereby precluding independent verification and, thus, prevent meaningful review.

III. The Draft EIR Does Not Include Sufficient Information to Conduct Project-level Review of the Specific Plan

The land use designations described in the Draft Specific Plan would allow for a range of possible uses or combinations of uses. The Draft EIR states that it does not analyze every possible combination of uses but rather that analyses were based on assumptions assuming a specific level and mix of uses, based on an illustrative concept prepared the applicant.[17] This description of the Draft EIR is consistent with a program-level analysis.

Elsewhere, the Draft EIR states that the City anticipates the EIR for the Specific Plan to be the primary environmental review document for project implementation within the Railyards area.[18] The Draft EIR states that if the Specific Plan is approved, developments that are deemed consistent with the principles, goals, and policies of the Specific Plan, its implementing entitlements and the analysis in this EIR would *not* be subject to any additional environmental review.[19] This description of the Draft EIR is consistent with a project-level review of its individual components.

25-71

Not surprisingly, the environmental analyses contained in the Draft EIR are considerably dissimilar in their scope and assessment of the potential impacts associated with implementing the Specific Plan development. In fact, the Draft EIR does not provide comprehensive environmental assessments of the individual project development phases that would permit foregoing future project-level review, but rather separate assessments of its various environmental impacts to varying degrees of detail. For many analysis areas there is simply not enough detail contained in the Specific Plan or related documents to adequately assess potential

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[16] *Ibid*, p. 3-1i.

[17] Draft EIR, p. 3-19.

[18] Draft EIR, p. 1-3.

[19] Draft EIR, p. 3-12.

environmental impacts of each individual development phase at a project level. These include, for example, impacts on air quality or biology. For other areas, such as traffic, there appears to be sufficient detailed information available to assess potential impacts for several stages of Project implementation. Yet, the Draft EIR discusses the significance of potential significant impacts for development of the entire Railyards Specific Plan as if all phases of development could be adequately assessed at this point and would not need further environmental review under CEQA as long as the mitigation measures specified in the EIR were implemented. This is problematic as it may create a false sense of security regarding the potential environmental impacts of the Project and may encourage the City to forego additional analysis when individual Project components come up for review and implementation.

25-71 (con't.)

The air quality impact analysis, in particular, suffers from a lack of detail that renders the Draft EIR's conclusions regarding the significance of the Project's potential impacts on air quality speculative at best.

IV. Neither the Draft EIR nor the Specific Plan Contain Sufficient Information to Assess Potential Impacts on Air Quality from Construction or Operation of Planned Project Development Phases

The Draft EIR purports to present project-level analyses for potential impacts on air quality from construction of the Specific Plan phases and for the operational phase of the Specific Plan after buildout in 2030.[20] These analyses include health risk assessments for emissions from construction of the four major development phases and for operational emissions at the proposed buildout of the Project in 2030.[21] However, the levels of analyses presented in the Draft EIR are too cursory to ensure that potential air pollutant emissions are properly estimated and the resulting potential adverse impacts on air quality and public health are not adequately mitigated.

25-72

For example, essential information required to assess impacts from construction of individual Project phases or their operation is not included in either the Draft EIR or the Specific Plan. This includes, for example, a map delineating the boundaries of planned development phases and their anticipated land uses, a timeline for their buildout, a detailed construction schedule including start of construction, hours of construction, and length of each construction phase (cut-and-fill, fine grading, building construction, paving, etc.), a grading plan, estimated

[20] Draft EIR, pp. 6.1-20 – 6.1-24.

[21] Draft EIR, Appx. O.

amounts of cut and fill and import/export of materials, the type and number of construction equipment on site, the number of construction workers. None of this information is contained in either the Draft EIR or the Specific Plan. Consequently, the air quality impact analyses presented in the Draft EIR can, at best, provide an order-of-magnitude assessment, particularly since most assumptions are based on average or typical rather than worst-case conditions.

V. The Draft EIR's Air Quality Impact Analyses for Construction of the Specific Plan Development Are Flawed

The Draft EIR's air quality impact analyses are methodically flawed and rest on erroneous assumptions. Consequently, many of the emissions estimates constitute only a portion of the potential emissions that would result from construction of the individual buildout phases.

25-72 (con't.)

V.A Sequential Construction of Buildout Phases Is not Required and Potential Impacts on Air Quality May Be More Severe than Assumed by the Draft EIR

The Draft EIR assumes that the four Project buildout phases would be constructed consecutively.[22] This is not supported by any such restriction in the Specific Plan. If any period of the construction would overlap, for example, building construction of one phase and site grading of the next phase, emissions of particulate matter as well as other pollutants would be considerably higher. Consequently, maximum daily emissions during such a construction period would be higher than estimated by the Draft EIR and potential impacts may be substantially more severe than acknowledged by the Draft EIR.

V.B Fugitive Dust Particulate Matter Emissions from Project Construction Are Not Adequately Analyzed or Mitigated

The Draft EIR presents a mere two-paragraph discussion of potential impacts on local and regional air quality from fugitive dust particulate matter emissions during the 20-year construction period that is anticipated for the buildout of the Specific Plan development. Based on this discussion, the Draft EIR finds that compliance with seven (7) proposed mitigation measures would decrease fugitive dust (PM10) impacts to a level that is considered less than significant. To reach this conclusion, the Draft EIR relies on screening guidance, which was developed by the Sacramento Metropolitan Air Quality Management District ("SMAQMD" or

25-73

[22] *See*, for example, Draft EIR, Appendix D.1.

District") to determine whether particulate matter emissions from construction of a project would likely result in significant impacts on air quality.[23]

While reliance on a screening analysis may be an acceptable procedure for smaller construction projects, the sheer size of the Specific Plan with its multiple developments and uses, its 20-year buildout horizon, and its central location in downtown Sacramento close to numerous sensitive receptors should have compelled the City to require a more detailed analysis to quantify the potential particulate matter emissions from construction of the Railyards development and conduct ambient air quality modeling to assess the impacts on local and regional air quality. It is curious that the Draft EIR does not present the detailed analysis of particulate matter emissions used for the construction health risk assessment and the results of the ambient air quality modeling in its air quality section.[24] The Draft EIR's reliance on a screening procedure is particularly disturbing in light of the fact that the City does not anticipate additional environmental review for most buildout activities. In addition, the Sacramento region is officially in non-attainment status for state PM10 and PM2.5 ambient air quality standards.[25] For this reason alone, a project as large and complex as the proposed Specific Plan development should be required to incorporate *all feasible* construction mitigation to reduce its contribution to an already well-known regional air quality problem and to protect the health and welfare of its residents. Here, the Draft EIR proposes a mere minimum of mitigation, less than is typically required for much smaller construction projects. There are numerous additional feasible mitigation measures available that should be considered for the Project to reduce fugitive dust emissions during the 20-year construction period, as discussed in Comment VII.A.

25-73 (con't.)

Further, the Draft EIR's conclusion of no significant impact after implementation of the proposed mitigation appears to be based on an incorrect interpretation of the District's screening level guidance. The District's guidance provides screening levels for construction projects to determine a) the minimum required mitigation *and* b) whether the project proponent should model particulate matter ambient air quality concentrations from particulate matter emissions with a computer model. In this guidance, the District defines four screening levels based on the "maximum actively disturbed area" of a project site and defines the minimum mitigation required if a project falls within these screening levels.[26] The Draft EIR

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[23] Draft EIR, p. 6.1-20.

[24] *See* Draft EIR, Appx. O.

[25] Draft EIR, p. 6.1-16.

[26] Sacramento Metropolitan Air Quality Management District, Guide to Air Quality Assessment in Sacramento County, July 2004, Appendix B-1, Table B.1.

concludes that fugitive dust PM10 impacts from grading would be reduced to a level that is considered less than significant when implementing SMAQMD level one mitigation, which is equivalent to an actively disturbed area of between 5.1 and 8 acres and requires two mitigation measures.[27,28]

This assumption that only a maximum of 8 acres would be actively disturbed at any given time at the Project site is inconsistent with the information contained in the Draft EIR that indicates that ground disturbance during the Railyards construction is expected to be extensive.[29] The preliminary grading plan shows that substantial earthmoving between individual parcels of land would be required to construct the final topography of the Railyards site.[30] The Draft EIR proposes to balance cut and fill materials on site, requiring a considerable amount of earthmoving between individual land parcels and connecting streets.[31] Information contained elsewhere in the Draft EIR shows that the Railyards project would be constructed in four major phases.[32,33] Phases 1A and 1B, 2, and 3 would each include the development of multiple discrete parcels of land with total sizes of the respective phases of 35.8, 70.1, 30.6 and 61.6 acres; Phase 4 would consists of one land parcel of 39.1 acres.[34] Each of these phases would have to be graded before building construction can begin. Typically, such larger construction sites are mass-graded to prepare the land for building construction. It is unlikely, that construction companies would restrict cut or fill activities to parcels smaller than 8 acres and stockpile excess material until another parcel needs fill material, unless contractually obligated to do so. The Draft EIR does not contain any restrictions on the maximum area that may be actively disturbed during grading, cut-and-fill activities, or building construction. Accordingly, there would likely be large actively disturbed areas in each of the Project buildout phases, considerably larger than the maximum 8 acres assumed by the Draft EIR, to establish the final grade elevations for building construction.

25-73 (con't.)

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[27] Draft EIR, pp. 6.1-20 and 6.1-21.

[28] The Draft EIR requires five additional mitigation measures to further reduce fugitive dust emissions.

[29] Draft EIR, Appx. G, p. G-70.

[30] *See* Draft EIR, Figure 6.4-2 Railyards Preliminary Grading Plan Cut and Fill Locations.

[31] Draft EIR, p. 6.4-18.

[32] Draft EIR, Appx. D: Air Quality Calculations.

[33] Draft EIR, Appx. O: Environ Corporation, Sacramento Railyards Redevelopment, Health Risk Assessment of Diesel Particulate Matter (DPM) and Soil Fugitives from Construction Activities, August 2007, p. 2-2.

[34] *Ibid*, Table 1.

V.C The Draft EIR Fails to Identify and Adequately Mitigate Significant Cancer Risks from Project Construction

The Draft EIR acknowledged that construction of the Project would result in emissions of toxic air contaminants ("TACs"), of which the primary concern is diesel particulate matter ("DPM").[35] In addition, although the Railyards site has undergone considerable investigations and cleanup activities since being listed as a state superfund site in 1988, emissions of TACs may result from the release of residual chemicals into the air during site grading. To address concerns regarding potential health risks to the surrounding community from chemicals that may become airborne due to soil disturbances and DPM, the City contracted a health risk assessment for construction activities, which is contained in the Draft EIR as Appendix O and hereinafter referred to as "construction health risk assessment."[36]

The construction health risk assessment evaluated the potential health risks to the surrounding community from chemicals that may become airborne due to soil disturbance and diesel particulate matter emissions in heavy-duty construction equipment exhaust during construction activities.[37] The construction health risk assessment found a maximum estimated incremental cancer risk for a receptor along the boundary of the Railyards site of 2.2 in 10,000 (or 2.2×10^{-5}) due to diesel particulate matter emissions from construction equipment. This incremental cancer risk exceeds the typical threshold of significance of 1 per 10,000 (or 1×10^{-5}) used to support CEQA documents, which is the same threshold used for most air quality permitting evaluations and the threshold for warnings under California's Proposition 65. Despite this finding, the main body of the Draft EIR fails to identify a significant impact from construction due to emissions of diesel particulate matter from construction equipment. In fact, the air quality section of the Draft EIR fails entirely to even mention the construction health risk assessment. In addition, the construction health risk assessment is severely flawed. 25-74

Most importantly, the construction health risk assessment placed the receptors around the boundary of the Project site. Risks to populations that would move into the Project site as buildout phases are completed were therefore not considered.[38] This, of course, is unacceptable. Residents who would move into the

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[35] Draft EIR, p. 6.1-15.

[36] Draft EIR, Appx. O: Environ Corporation, Sacramento Railyards Redevelopment, Health Risk Assessment of Diesel Particulate Matter (DPM) and Soil Fugitives from Construction Activities, August 2007.

[37] Draft EIR, Appx. O, Construction Health Risk Assessment, p. 1-1.

[38] *Ibid* p. 3-5.

Project site are receptors in the same way as residents who currently live outside the Project area boundaries. The air quality analysis may not treat future residents within the Project area as if they would not breathe, or exist for that matter, for the entire remaining duration of the construction period. If the buildout phases of the Railyards area were analyzed as individual projects under CEQA instead of as components of the Specific Plan, the health risks to sensitive receptors, *i.e.* adjacent residents of the respective phases, would be analyzed for each and every phase individually. The Specific Plan cannot be less protective of the City's residents than if its buildout phases would undergo individual CEQA review. Therefore, the Specific Plans potential health risks must be analyzed in phases with sensitive receptors placed within the completed buildout phases and around the Railyards site. Because residents who would move into Project phases as they are completed would be considerably closer to construction equipment exhaust emissions than assumed by the construction health risk assessment and, consequently, incremental cancer risks and other health risks would be substantially higher. The Draft EIR must be revised to determine the health risks to both off-site and on-site residents according to the proposed buildout phases. This revised health risk assessment should consider both emissions from construction of the remaining phases and operation of the already completed buildout phases.

25-74 (con't.)

The construction health risk assessment relied on fugitive dust and diesel particulate matter emissions estimates provided by the applicant's consulting firm, which were estimated with the URBEMIS computer model.[39] Review of the URBEMIS output files showed that these emissions were significantly underestimated due to a number of flawed assumptions or model shortcomings:

- The modeling assumed an actively disturbed area for all phases of 6.0 acres/day for all buildout phases regardless of the size of the individual phases. As previously discussed, it is unlikely that the actively disturbed area would be restricted to only 6 acres/day. Because the URBEMIS equipment exhaust emissions estimates for site grading are directly proportional to the actively disturbed area, the assumption of 6 acres per day likely considerably underestimates actual diesel particulate matter emissions.
- The URBEMIS modeling for fugitive dust emissions from actively disturbed areas is based on 10 pounds per acre and day ("lb/acre-day")

25-75

[39] These model outputs should have been included in the Draft EIR so that interested parties would be able to independently verify the results and conclusions of the construction health risk assessment; instead these model outputs were only referenced in a footnote. The City provided the URBEMIS model outputs upon request.

for average conditions rather than assuming the default factor in URBEMIS of 38.2 lb/acre-day for worst-case conditions.

- The URBEMIS model runs assumed a 4-month grading period for each buildout phase using 2 scrapers, 1 skid steer loader, 3 tractors/loaders/backhoes, and 2 'other equipment' for Phases 1A, 2, 3, and 4, and one additional 'other equipment' for Phase 1B, with small changes to the total daily number of operating hours.[40]
- The construction fleet assumed for the URBEMIS modeling appears undersized for the amount of earthmoving necessary to move the substantial amounts of cut-and-fill necessary to establish the final topography of the site as shown in the preliminary grading plan. The construction fleets for the building construction phases appear similarly undersized.
- The URBEMIS model runs do not account for emissions associated with cut-and-fill activities.
- The URBEMIS2002, version 8.7, model does not calculate emissions from on-road vehicles, *e.g.*, cement trucks or haul trucks[41], or emissions from entrained road dust.
- The URBEMIS emission estimates do not include emissions from construction of the Sacramento Intermodal Transfer Station, the realignment of train tracks, construction of the 21-kV SMUD substation, or capping of the approximately 10-acre Vista Park. As a result, the combined areas under construction from all four buildout phases analyzed with URBEMIS total only 180.92 acres, which is equivalent to 74%or less than a quarter of the total 244-acre Railyards site.[42]

25-75 (con't.)

Finally, the construction health risk assessment calculated emissions rates in grams per second and square meter ("g/s-m^2") for each individual land parcel of the major construction phases based on the maximum daily diesel particulate matter emissions from construction equipment modeled with URBEMIS. As mentioned before, the maximum daily emissions modeled with URBEMIS covered only 180.92 acres, less than a quarter of the total Project site. In contrast the areas for each land parcel assumed for calculating the emissions rate by the construction health

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[40] 'Other equipment' is an equipment category in URBEMIS that assumes 190 hp, a load factor of 0.62, and 8 hours of operation per day.

[41] SMAQMD CEQA Frequently Asked Questions (FAQ) v1.7, revised January 2007, p. 3, Note to Table 3.1; http://www.airquality.org/ceqa/CEQAFAQ.pdf

[42] (180.92) / (244 acres) = 0.74.

risk assessment covered 237.16 acres, or 97% of the total 244-acre Railyards site.[43] Thus, the construction health risk assessment not only assessed health risks from only a portion of the anticipated construction but additionally spread the emissions from less than a quarter of the Project site over a much larger area, resulting in a considerable dilution of emissions rates that should have been used to calculate health risks. As a result, the estimated health risks are considerably underestimated.

As a result, the Draft EIR fails to require more than the current standard mitigation for reducing emissions from heavy-duty construction vehicles recommended by the SMAQMD, *i.e.* a project-wide fleet-average 45% reduction of particulate matter emissions compared to the most recent California Air Resources Board ("CARB") fleet average at the time of construction.[44] Because large diesel engines can operate for many decades without requiring significant repairs, a 45% reduction compared to the CARB fleet-average at the time of construction is not a particularly stringent requirement for one of the largest proposed projects in the Sacramento region with a projected buildout period of two decades. Many additional feasible mitigation measures are available that would substantially reduce diesel particulate matter emissions from construction equipment beyond the proposed 45% reduction, which would be far more protective of the health of Sacramento's residents during the two decades of construction of the Railyards development. These mitigation measures are discussed in Comment VII.B. As an alternative, the City could specify a higher percentage of late model equipment in the fleet. 25-75 (con't.)

The construction health risk assessment for the Project should be revised to address the above-discussed issues and included in a recirculated EIR.

VI. The Draft EIR's Conclusions Regarding Health Risks due to Operational Emissions from the Project Is Flawed

The Railyards Project has planned to place residences within 500 feet of Interstate 5 and next to rail lines for use by Amtrak, Union Pacific, Sacramento Regional Transit, and the potential future construction of a regional high speed rail. Residential uses would also be located adjacent to the planned 32-acres Sacramento Intermodal Transit Facility, which would provide multiple modes of public transit service including bus, rail, light rail, and passenger auto.[45,46] Further, the Specific 25-76

[43] Sum of areas used in construction health risk assessment, Table 1.

[44] Mitigation Measure 6.1-2(a), *see* Draft EIR, pp. 2.7 and 6.1-21,

[45] Draft EIR, p. 2-1.

[46] Draft EIR, Figure C-1

Plan locates a potential future school site next to the train tracks that cross the Railyards site.[47]

The CARB has published land use guidance that raises concerns about locating sensitive receptors, which include residential communities, schools and school yards, day care centers, parks and playgrounds, hospitals and medical facilities, near freeways of heavily traveled roadways due to emissions of airborne toxics.[48] To address these concerns, the Draft EIR contracted a screening health risk assessment that addresses exposure of sensitive receptors to diesel particulate matter emissions during the operational phase of the Project, *i.e.* upon emissions full buildout of the Specific Plan, hereinafter referred to as "operational health risk assessment and contained in Appendix O of the Draft EIR. This risk assessment addressed potential health risks resulting from diesel particulate matter emissions from the freeway, the rail lines, and from the SITF separately. Based on this risk assessment, the Draft EIR concludes that the impact from a potentially substantial increase in exposure of sensitive receptors to toxic air contaminants would be less than significant.[49] This conclusion is difficult to understand given the information and conclusions contained in the operational health risk assessment.

25-76 (con't.)

Following ARB guidance and SMAQMD recommendations, the operational health risk assessment used a screening approach developed by SMAQMD to assess the potential cancer risks from vehicle diesel particulate emissions from the section of freeway nearest the residences based on a projected 2030 traffic count. The health risk assessment concludes that as long as the nearest new residence is located no closer than 200 feet of the freeway, the cancer risk resulting from freeway diesel particulate matter emissions are less than the SMAQMD's evaluation criterion of 446 per million[50], and, therefore preparation of a health risk assessment is not recommended.[51] The operational health risk assessment does not quantify the incremental cancer risk associated with living next to the freeway nor does it state that these impacts are less than significant. The Draft EIR does not provide any

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[47] Draft EIR, Figure 3-17.

[48] California Air Resources Board, Air Quality and Land Use Handbook, A Community Health Perspective, April 2005.

[49] Draft EIR, p. 6.1-30.

[50] The evaluation criterion of 446 per million was selected as that level of risk corresponding to a 70% reduction from the highest risk calculated at 10 feet from the edge of the nearest travel lane to the nearest receptor for the highest peak traffic volume reported by Caltrans for Sacramento County (24,000 vehicle per hour) east (downwind) of a north-south roadway. The highest risk represents the worst case siting situation within the boundaries of the SMAQMD.

[51] Operational Health Risk Assessment, pp. 2-1 – 2-2.

additional information regarding incremental cancer risks due to diesel particulate matter emissions associated with locating residential receptors near the freeway and simply moves on to the next point.

What the Draft EIR fails to mention is that the SMAQMD's evaluation criterion of 446 in one million does *not* provide an acceptable cancer risk level. The SMAQMD notes that "the evaluation criterion does *not* represent a "safe" risk level or a regulatory threshold; it is simply the point at which a site specific health risk assessment is recommended."[52] In fact, review of the screening tables contained in the SMAQMD guidance shows that receptors within 200 feet east of Interstate 5 would have a potential incremental cancer risk of 378 per million. At a distance of 100 or 50 feet east of the freeway, the incremental cancer risk would increase to 591 per million and 840 per million, respectively. At a distance of 500 feet east of the freeway, the incremental cancer risk is still 183 per million. These incremental cancer risk values do not include the existing background cancer risk for Sacramento County of 360 per million.[53] As mentioned before, the typical threshold of significance used for health risk assessments to support environmental review documents is 10 per million. This threshold is the same threshold used for most air quality permitting and is the threshold for warnings under California Proposition 65.

25-76 (con't.)

Further, diesel particulate matter emissions would also result from the countless delivery and waste haul trucks that would move through the Railyards site to service shopping centers, office buildings, the planned hotel, as well as the residential developments. These emissions by themselves likely result in significant cancer risks, particularly where high-traffic commercial uses are located adjacent to or underneath residential units.

In addition, diesel particulate matter emissions are not the only toxic air contaminants that would be emitted during the operational phase of the Project. Other sources include, for example, dry cleaners or gasoline dispensing stations, both land uses that appear to be permitted by the Specific Plan. Finally, the Draft EIR appears to ignore that cancer risks from different sources are additive. Therefore, one source cannot be analyzed in a vacuum as if other sources would not exist.

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[52] Sacramento Metropolitan Air Quality Management District, Draft Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways, version 1.0, January 2007; http://www.airquality.org/ceqa/SLUMajorRoadway/SLURecommendedProtocolJan2007.pdf.

[53] *Ibid,* pp. 9–10.

While actual emissions are projected to decline over the years due to stricter emissions regulations and improved technologies phase, the SMAQMD notes that such declines may be offset by increases in vehicle miles traveled.[54]

Studies have shown that living near major roadways is associated not only with increased cancer risk, but also with other short-term and chronic adverse health impacts such as reduced lung function and increased asthma hospitalizations. While at this time, very little information exists on how to quantify these impacts, known environmental impacts must be disclosed under CEQA. Beyond stating that TAC emissions may result in short-term adverse health impacts, the Draft EIR's air quality impact analysis is silent on the short term adverse health impacts of locating residences near freeways, rail lines, or major truck routes.[55]

25-76 (con't.)

Draft EIR should be revised to contain a site-specific health risk assessment that assesses all sources of diesel particulate matter and other toxic air contaminant emissions to quantify the potential incremental cancer risks for sensitive receptors on site. This would allow the City to make an informed decision when permitting the siting of residential areas as close to the freeway as proposed by the Project. Further, the Draft EIR should evaluate alternate locations for the proposed potential school site further away from the train tracks.

VII. Additional Mitigation for Air Quality Impacts Is Feasible and Should Be Required for the Project

Numerous feasible mitigation measures exist that would considerably reduce the significant emissions of criteria pollutants and toxic air contaminants during the construction phase of the Project.

VII.A Additional Feasible Mitigation Measures to Reduce Fugitive Dust PM10 Emissions from Construction Activities

25-77

Several agencies have conducted comprehensive studies of fugitive dust control measures to bring their region into compliance with national ambient air quality standards on PM10. For example, the South Coast Air Quality Management District ("SCAQMD") has sponsored research, passed regulations (*e.g.*, Rule 403[56]),

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[54] *Ibid*, p. 7.

[55] Draft EIR, p. 6.1-15.

[56] South Coast Air Quality Management District, Revised Final Staff Report for Proposed Amended Rule 403, Fugitive Dust and Proposed Rule 1186, PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations, February 14, 1997.

and published guidelines that identify best management practices for controlling fugitive dusts at construction sites. The *Rule 403 Implementation Handbook*[57] contains a comprehensive list of such measures. Clark County, Nevada, has also sponsored research, passed regulations (Rule 94), and published best management practices for controlling fugitive dust from construction activities.[58] Clark County's *Construction Activities Dust Control Handbook* contains a comprehensive list of best management practices.[59] Similarly, the Arizona Department of Environmental Quality has developed guidance to control fugitive PM10 emissions.[60]

Many of the measures included in these agency guidelines are feasible and therefore should be considered for adoption here under CEQA Guidelines sections 15126.4 and 15091. Examples of such feasible mitigation measures are:

- Install and maintain trackout control devices, *e.g.*, gravel pads, wheel shakers or wheel washers, in effective condition at all access points where paved and unpaved access or travel routes intersect.
- Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
- Limit the area subject to excavation, grading and other construction activity at any one time.
- Prevent access by fencing, ditches, vegetation, berms, or other barriers; install perimeter wind barriers 3 to 5 feet high with low porosity.
- Install barriers with 50 percent or less porosity located adjacent to roadways to reduce windblown material leaving a site.
- Suspend all grading and excavating operations when wind speeds (as instantaneous gusts) exceed 25 mph.

25-77 (con't.)

[57] South Coast Air Quality Management District, Rule 403 Implementation Handbook, January 1999.

[58] P.M. Fransioli, PM10 Emissions Control Research Sponsored by Clark County, Nevada, Proceedings of the Air &Waste Management Association's 94th Annual Conference & Exhibition, Orlando, FL, June 24-28, 2001.

[59] Clark County Department of Air Quality Management, Construction Activities Dust Control Handbook, March 18, 2003.

[60] Arizona Department of Environmental Quality, Air Quality Exceptional and Natural Events Policy PM10 Best Available Control Measures, June 5, 2001.

- Apply non-toxic soil stabilizer to manufacturers' specifications to all inactive construction areas (previously graded, inactive for ten days or more).
- Plant perimeter vegetation early; and for long-term stabilization, stabilize disturbed soil with dust palliative or vegetation or pave or apply surface rock.
- In staging areas, limit size of area and limit ingress and egress points.
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, stabilize piles utilizing sufficient water or chemical stabilizer/suppressant.
- Maintain optimum moisture content for stockpiles, remove material from downwind side and avoid steep sides or faces.
- Use bed liners in bottom-dumping haul vehicles.
- Empty loader bucket slowly and minimize drop height from loader bucket.
- Pave all construction access roads at least 100 feet on to the site from the main road.
- Pave construction roads that have a traffic volume of more than 50 daily trips by construction equipment or 150 total daily trips for all vehicles.
- Pave all roadways, driveways, sidewalks, etc., as soon as possible.
- Lay out building pads as soon as possible after grading unless seeding or soil binders are used.
- During cut and fill activities, prewater with sprinklers or wobblers to allow time for penetration; prewater with water trucks or water pulls to allow time for penetration; dig a test hole to depth of cut to determine if soils are moist at depth and continue to prewater if not moist to depth of cut; use water truck/pull to water soils to depth of cut prior to subsequent cuts; and apply water or dust palliative to form crust on soil following fill and compaction.
- For backfilling during earthmoving operations, water backfill material or apply dust palliative to maintain material moisture or to form crust when not actively handling; cover or enclose backfill material when not actively handling; mix backfill soil with water prior to moving; dedicate water truck or large hose to backfilling equipment and apply water as needed; water to form crust on soil immediately following backfilling; and empty loader bucket slowly; minimize drop height from loader bucket.

25-77 (con't.)

- Require a dust control plan for earthmoving operations and designate a person to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.
- Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hrs.

25-77 (con't.)

The above measures are far more protective than the seven measures recommended for this Project. All of these measures are feasible and various combinations of them are routinely required elsewhere to reduce fugitive PM10 emissions. *See*, for example, the fugitive dust control program for the Big Dig[61], for the El Toro Reuse Draft EIR[62], and for the Padres Ballpark Final EIR[63].

VII.B Additional Feasible Mitigation to Reduce Combustion Exhaust Emissions from Construction Equipment

Options for controlling emissions from construction equipment include requiring the use of best practices in construction management and the use of new or newer equipment. Emissions from existing older construction equipment can be dramatically reduced following the five "Rs" of emissions reduction, *i.e* refuel, replace, rebuild, repower, and retrofit. (*See* Comments VII.B.1 through VII.B.3.) Both the CARB and the U.S. EPA maintain lists of recommended diesel retrofit alternatives and alternative fuels. Alternative fuels in combination with retrofit technologies or in new equipment can achieve emission reductions of up to 89% PM10, 90% CO, 93% ROG, and 40% NOx depending on the engine type of on-road or off-road equipment.[64,65] A combination of these options provides the greatest benefit and is frequently required as CEQA mitigation.

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[61] A. Kasprak and P.A. Stakutis, A Comprehensive Air Quality Control Program for a Large Roadway Tunnel Project, Proceedings of the Air & Waste Management Association's 93rd Annual Conference 7 Exhibition, June 18-22, 2000.

[62] County of Orange, Draft Environmental Impact Report No. 573 for the Civilian Reuse of MCAS El Toro and the Airport System Master Plan for John Wayne Airport and Proposed Orange County International Airport, Draft Supplemental Analysis, Volume 1, April 2001, pp. 2-121 to 2-123.

[63] City of San Diego, Final Subsequent Environmental Impact Report to the Final Master Environmental Impact Report for the Centre City Redevelopment Project and Addressing the Centre City Community Plan and Related Documents for the Proposed Ballpark and Ancillary Development Projects, and Associated Plan Amendments, V. IV. Responses to Comments, September 13, 1999, pp. IV-254 to IV-256.

[64] U.S. Environmental Protection Agency, Voluntary Diesel Retrofit Program, Verified Products; http://www.epa.gov/otaq/retrofit/verif-list.htm, accessed July 5, 2007.

[65] California Air Resources Board, Currently Verified Technologies, http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm; accessed July 5, 2007.

VII.B.1 Refuel

Switching to cleaner fuels such as alternative fuels or alternative diesel fuels can achieve considerable reductions in hazardous and criteria air pollutants. These fuels can also facilitate the use of advanced retrofit technologies, resulting in even less pollution. (*See* Comment VII.B.3.) A number of different fuels are available that would reduce emissions from construction equipment including alternative diesel formulations such as emulsified diesel, ultra-low sulfur diesel, and fuel borne-catalysts, and alternative fuels[66] such as compressed natural gas, liquefied natural gas, propane, ethanol, and methanol.

VII.B.1.a Emulsified Diesel

Emulsified diesel fuels are diesel fuel blended with up to 20% water and a proprietary additive. Emulsified diesel fuels have been recognized by the CARB as a viable control strategy to improve air quality in California for use in heavy-duty diesel engines including off-road engines.[67] Currently available emulsified fuels include Aquazole, Clean Fuels Technology's water emulsified diesel fuel, and O_2Diesel. CARB determined that Aquazole achieved a 16% reduction in NOx, a 60% reduction in particulate matter, and at least 25% reduction in ROG emissions compared to CARB diesel.[68] Clean Fuels Technology's water emulsified diesel fuel was found to reduce NOx by 15%, particulate matter by 58% and ROG by at least 25% compared to CARB diesel.[69] O_2Diesel was found to reduce NOx by 1.6%, particulate matter by 20%, and ROG by at least 25% compared to CARB diesel.[70] (The CARB-verified PuriNOx fuel is no longer available.[71])

25-79

Emulsified fuels can be used in any direct-injection, heavy-duty compression ignition engine and is compatible with existing engines and existing storage, distribution, and vehicle fueling facilities. Operational experience indicates little or

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[66] Information on the availability of alternative fuels is available from the Department of Energy's Alternative Fuels Data Center, which can be accessed online at: http://afdcmap2.nrel.gov/locator/findpane.asp, accessed July 5, 2007.

[67] http://www.arb.ca.gov/fuels/diesel/altdiesel/altdiesel.htm

[68] Dean Simeroth, California Air Resources Board, Letter to Phillippe Mulard, TotalFinalElf, August 2002; http://www.arb.ca.gov/fuels/diesel/altdiesel/080902aquzl.pdf, accessed July 5, 2007.

[69] Dean Simeroth, California Air Resources Board, Letter to Dan Klaich, Clean Fuels Technology, Inc., September 2003; http://www.arb.ca.gov/fuels/diesel/altdiesel/090903clnftech.pdf, accessed July 5, 2007.

[70] Dean Simeroth, California Air Resources Board, Letter to James Peeples, O_2Diesel, Inc., September 23, 2003, http://www.arb.ca.gov/fuels/diesel/altdiesel/092303o2dsl.pdf, accessed July 5, 2007.

[71] Personal communication, Petra Pless with PuriNOx manufacturer, November 19, 2006.

no difference in performance and startup time, no discernable operational differences, no increased engine noise, and significantly reduced visible smoke.[72]

Emulsified fuels have been successfully used in heavy-duty off-road and on-road equipment, including by the Tri-Delta Transit Authority fleet in Contra Costa County, by the County of Sacramento at the Keifer Landfill and North Transfer station, in off-road construction equipment at very large residential construction projects in Sacramento, in truck fleets operated by Pacific Cement in San Francisco and Ramos Oil in Dixon, in yard hostlers at the Port of Long Beach, in off-road equipment operated by Hanson Aggregate in San Francisco, and in yard haulers at the Port of Houston.[73,74] Six yard tractors have been operating on emulsified fuels at the Port of Houston since April 2000. Recently, the SCAQMD required the use of emulsified fuels for construction of the Chevron El Segundo heavy-crude project.[75]

VII.B.1.b Fuel-borne Catalysts

Fuel-borne catalysts ("FBC") are liquid fuel additives that condition diesel fuel, improving combustion and reducing emissions. An FBC can either be added to bulk fuel or directly to the construction vehicle's fuel tank. An FBC typically contains small amounts of precious metals such as platinum, cerium, or iron compounds. Use of an FBC product can also improve fuel economy by up to 10% and increase horsepower by up to 5%. Currently, U.S. EPA has verified one FBC, called Platinum Plus.[76]

25-79 (con't.)

VII.B.1.c Compressed and Liquefied Natural Gas

Compressed natural gas ("CNG") is a colorless, tasteless, and non-toxic fuel that is mostly derived from methane. To use CNG, one must purchase a vehicle designed specifically for CNG use. According to the U.S. Department of Energy, commercially available medium and heavy-duty natural gas engines have demonstrated over 90% reduction of CO and PM and more than 50% reduction in

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[72] Personal communication, Petra Pless/Phyllis Fox with Hep Hepner, Ramos Oil Co., Dixon, CA, (916-371-3289, ext. 242) and Bill Hagstrand, Lubrizol (440-347-6592), March and June 2004.

[73] Peter Howes, An Evaluation of the Effects of PuriNOx on Exhaust Emissions from Yard Haulers at the Port of Houston, April 2000.

[74] Personal communication, Petra Pless/Phyllis Fox with Hep Hepner, Ramos Oil Co., Dixon, CA, (916-371-3289, ext. 242) and Bill Hagstrand, Lubrizol (440-347-6592), March and June 2004.

[75] South Coast Air Quality Management District, Chevron Products Company, El Segundo Refinery Heavy Crude Project, Draft Environmental Impact Report, April 2006, p. 4-32.

[76] U.S. Environmental Protection Agency, Voluntary Diesel Retrofit Program, Verified Products; http://www.epa.gov/otaq/retrofit/verif-list.htm, accessed July 5, 2007.

NOx relative to commercial diesel engines.[77] Available LNG-powered equipment for the construction sector includes haul trucks.

Liquefied natural gas ("LNG") is natural gas that has been cooled to temperatures of 260 degrees below zero, but it is typically kept at high pressure so that it does not have to be so cold. Similar to compressed natural gas, LNG can be used in the heavy-duty on-road sector, *e.g.*, for haul trucks, but is not commercially available for the off-road sector at this time.[78]

VII.B.1.d Propane

Propane, known also as liquefied petroleum gas ("LPG"), is a colorless and nontoxic fuel produced as a byproduct of natural gas processing or crude oil refining. Application of moderate pressure can convert the gas into a liquid, increasing the ease with which it is stored and transported. This fuel is widely used in the off-road sector, and has been successfully used by off-road vehicles such as forklifts or loaders. According to the U.S. Department of Energy ("DoE"), propane vehicles can produce fewer ozone-forming emissions than vehicles powered by reformulated gasoline. In addition, tests on light-duty, bifuel vehicles have demonstrated a 98% reduction in the emissions of toxics, including benzene, 1,3-butadiene, formaldehyde, and acetaldehyde, when the vehicles were running on propane rather than gasoline.[79]

25-79 (con't.)

VII.B.2 Replace, Repower, or Rebuild

If equipment is old and near the end of its life, replacing it with a new lower-emission model ahead of schedule can result in substantial emission reductions depending on the condition of the old equipment. Because emissions gradually increase over the life of an engine, performing routine maintenance and periodic engine rebuilds can keep emission rates at or near original levels.

Another strategy to reduce emissions from older, higher-polluting equipment is to repower the equipment by replacing the in-use engine with an emissions-certified engine instead of rebuilding the existing engine to its original specifications. The body or chassis of some equipment can last through many decades of use, beyond the life of the original engine. Installing a new low-emission engine in an older chassis can allow the machine to run for many more years. Significant NOx and PM benefits may be achievable due to the high emissions levels

[77] Environmental Defense Fund, Cleaner Diesel Handbook, Bring Cleaner Fuel and Diesel Retrofits into Your Neighborhood, April 2005, pp. 25-26.

[78] *Ibid.*

[79] *Ibid.*

of the uncontrolled engine being replaced. For example, replacing a 475 horsepower engine in a 1975 through 1986 Caterpillar 631-D Scraper with a Caterpillar engine meeting EPA Tier 1 standards[80] would produce a 40% reduction in NOx and a 62% reduction in PM. Replacing the same engine with one meeting Tier 2 standards would produce a 62% reduction in NOx and an 81% reduction in PM. However, it is important to note that there are significant technical issues that may make it impossible for some older higher polluting engines (Tier 0 and Tier 1) to be repowered with newer, cleaner engines (Tier 2 and Tier 3).[81] This equipment should be replaced.

The Carl Moyer Memorial Air Quality Standards Attainment Program provides funds on an incentive basis for the incremental cost of cleaner than required engines and equipment. Funding is available for off-road equipment 50 hp or greater.[82]

VII.B.3 Retrofit

25-79 (con't.)

One of the most effective ways to reduce diesel pollution from existing equipment that still has some useful life left is to combine the use of cleaner fuels, discussed previously, with retrofit technology. As of September 1, 2006, all diesel fuel sold in California for both off-road and on-road use is ultra-low sulfur diesel ("ULSD") with a sulfur content of 15 parts per million ("ppm"). The use of ULSD in construction equipment allows for aggressive retrofit devices that previously were not feasible with higher sulfur content diesel fuels. Retrofit technologies can be geared towards particulate matter or NOx reduction, though many also reduce CO and hydrocarbon emissions as well.

Retrofit technologies are available for a variety of applications, which could considerably reduce construction equipment exhaust emissions. For example, diesel oxidation catalysts, selective catalytic reduction, lean NOx catalysts, and exhaust gas recirculation have been successfully retrofitted on off-road vehicles and these

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[80] U.S. EPA Tier 0 standards refer to unregulated diesel engines. Tier 1 standards refer to the off-road diesel engine emissions control regulations adopted by EPA in 1994. The regulations came into effect for new off-road diesel engines greater than 37 kilowatts (50 horsepower) between 1996 and 2000. Tier 2 standards refer to stricter regulations that were phased in between 1999 and 2000. Tier 3 standards applied to engines between 37 kilowatts and 560 kilowatts (50 and 750 hp), and will be phased in between 2006 and 2008. Source: U.S. Environmental Protection Agency, Nonroad Diesel Equipment, Basic Information; http://www.epa.gov/nonroad-diesel/basicinfo.htm, accessed December 20, 2006.

[81] Environmental Defense Fund, Cleaner Diesel Handbook, Bring Cleaner Fuel and Diesel Retrofits into Your Neighborhood, April 2005, pp. 7-8.

[82] California Air Resources Board, Carl Moyer Memorial Air Quality Standards Attainment Program; http://www.arb.ca.gov/msprog/moyer/moyer.htm, accessed July 5, 2007.

technologies offer opportunities to greatly reduce PM10, CO, ROG, and NOx emissions. In addition, many projects have demonstrated the feasibility of installing verified on-road technologies on construction equipment.

Retrofits are remarkably cost-effective when compared to other means of reducing air pollution. For example, the average cost for most applications of a diesel oxidation catalyst is approximately $2,500 (excluding installation) and for a diesel particulate filter between $7,000–12,000 (excluding installation). The CARB estimates that the average cost of retrofitting an engine of 275 horsepower with a catalyzed diesel particulate filter ranges between $6,900–$9,000. By comparison, the average base price for a 200-to 300-horsepower wheel loader is $275,000. Retrofitting an engine with a catalyzed diesel particulate filter in this price range or with a $2,500-diesel oxidation catalyst costs only a small fraction (2.5 to 3.2% and less than 1%, respectively) of the cost of replacing the entire vehicle with one that pollutes less.[83]

These technologies have been required as mitigation measures for other projects and should be required for this Project to reduce its significant emissions from construction.

25-79 (con't.)

VII.B.3.a Diesel Particulate Filters

A diesel particulate filter ("DPF") is an emissions control technology that traps diesel particulate matter from engine exhaust until the trap becomes loaded to the point that a regeneration cycle is implemented to burn off the trapped particulate matter. Diesel particulate filters can reduce PM2.5, PM10, HC, and CO emissions by up to 90% and significantly reduce emissions of other toxics, including aldehydes. However, DPFs do not remove NOx. Over 20,000 DPFs have been installed off-road engines worldwide, for example, on generators (600-kilowatt ("kW") generator with active DPF at the World Trade Center 7), on wheel loaders (CAT966 with passive DPF and Johnson Matthey CAT 966GII with passive DPF at the World Trade Center 7, NYC) and dump trucks (Cummins, CAT, and ITEC engines with passive DPF in Los Angeles and Riverside County).[84]

VII.B.3.b Diesel Oxidation Catalysts

Diesel oxidation catalysts ("DOCs") installed on engines burning 500 ppm or less sulfur fuel have achieved total particulate matter reductions of 20% to 50%, ROG reductions of 60% to 90% (including those hydrocarbon species considered

[83] *Ibid*, p. 9.

[84] *Ibid*, pp. 27-29.

toxic), and significant reductions of CO[85], smoke, and odor.[86] DOCs can be used in conjunction with EGR to simultaneously reduce diesel particulate and NOx emissions.[87] DOCs should be considered for equipment where installation of a DPF is not feasible.

Retrofitting diesel engines with DOCs has been taking place for well over twenty years in the off-road vehicle sector, including the construction fleet. For example, the I-95 New Haven Harbor Crossing Corridor Improvement Program in New Haven, CT, ("Connecticut Q-Bridge") project has successfully installed DOCs on approximately 70 pieces of construction equipment as part of Connecticut's Clean Air Construction Initiative.[88] The City of Houston Fleet Retrofit project retrofitted about 30 to 40 off-road engines such as backhoes and water pumps with DOCs.[89] The Central Artery Project in Boston, also known as the "Big Dig," resulted in the installation of DOCs on approximately 200 pieces of construction equipment—this includes small in-tunnel cranes, 47 lifts, excavators, bulldozers, generators and compressors without experiencing adverse operational problems or additional maintenance costs. [90]

25-79 (con't.)

VII.B.3.c Selective Catalytic Reduction

Selective catalytic reduction ("SCR"), using urea as a reducing agent, can reduce NOx emissions from 75% to 90% while simultaneously reducing ROG emissions by up to 80% and PM emissions by 20% to 30%. SCR systems can be used in conjunction with diesel particulate filters and diesel oxidation catalysts and have been successfully demonstrated on off-road vehicles.[91,92] For example, the City of Houston Diesel Field Demonstration Project has demonstrated an 84% reduction of

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[85] Diesel Technology Forum, Retrofit; http://www.dieselforum.org/retrofit-tool-kit-homepage/what-is-retrofit/retrofit/, accessed July 5, 2007.

[86] Manufacturers of Emission Controls Association, Case Studies of Construction Equipment, Diesel Retrofit Projects, March 2006, p. 2; http://www.meca.org.

[87] Manufacturers of Emission Controls Association, Retrofitting Emission Controls on Diesel-Powered Vehicles, April 2006, p. 28.

[88] Manufacturers of Emission Controls Association, Case Studies of Construction Equipment, Diesel Retrofit Projects, March 2006, p. 3.

[89] *Ibid.*

[90] Environmental Defense Fund, Cleaner Diesel Handbook, Bring Cleaner Fuel and Diesel Retrofits into Your Neighborhood, April 2005, pp. 15-16.

[91] Manufacturers of Emission Controls Association, Retrofitting Emission Controls on Diesel-Powered Vehicles, April 2006, pp. 2-3.

[92] Manufacturers of Emission Controls Association, Case Studies of Construction Equipment, Diesel Retrofit Projects, March 2006, p. 17.

NOx emissions by using a DPF/SCR combination on a 1992 MY Cummins Gradall G3WD (5.9L 190 hp). As a result of this field demonstration program, the City of Houston retrofitted 33 rubber tire excavators and a dump truck with SCR systems.[93]

VII.B.3.d Lean NOx Catalysts

Lean NOx catalyst ("LNC") technology can achieve a 10% to 40% reduction in NOx emissions. LNC technology does not require any core engine modifications and can be used to retrofit older engines. This retrofit technology can be combined with diesel particulate filters or diesel oxidation catalysts to provide both NOx and PM10 reductions. An LNC added to an exhaust system using a DPF can reduce NOx emissions from 10% to 25%.[94]

Lean NOx catalyst technology has been demonstrated and commercialized for a variety of off-road retrofit applications, including heavy-duty earthmoving equipment.[95]

25-79 (con't.)

VII.B.3.e Exhaust Gas Recirculation

Exhaust gas recirculation ("EGR") reduces NO_x by reducing the temperature at which fuel burns in the combustion chamber. Engines employing EGR recycle a portion of engine exhaust back to the engine air intake. The oxygen-depleted exhaust gas is mixed into the fresh air that enters the combustion chamber, which dilutes the oxygen content of the air in the combustion chamber. This reduction in oxygen reduces the engine burn temperature, and hence reduces NOx emissions.[96] In some cases, EGR can be used in conjunction with DPFs.[97]

Engine retrofits with low pressure EGR in conjunction with a DPF can achieve NOx reductions of over 40% and PM reductions of more than 90% and have been successfully demonstrated on off-road equipment.[98]

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[93] *Ibid*, p. 12.

[94] *Ibid*, p. 14.

[95] *Ibid*, p. 19.

[96] Diesel Technology Forum, Retrofit; http://www.dieselforum.org/retrofit-tool-kit-homepage/what-is-retrofit/retrofit/, last accessed May 30, 2006.

[97] Manufacturers of Emission Controls Association, Retrofitting Emission Controls on Diesel-Powered Vehicles, April 2006, p. 7.

[98] *Ibid*, p. 14.

VII.B.4 Best Management Practices

In addition the following measures can also help reduce exposure to diesel pollution:

- Require on-site electrical service for hand tools;
- Require preparation of a traffic control plan;
- Demonstrate proper inspection and maintenance of construction equipment;
- Limit idling to 2 minutes;
- Configure construction parking to minimize traffic interference;
- Consolidate truck deliveries when possible;
- Provide dedicated turn lanes for movement of construction trucks and equipment on and off site;
- Suspend use of all construction equipment operations during second stage smog alerts;
- Establish a staging zone for trucks that are waiting to load or unload material at the work zone in a location where diesel emissions from the trucks will have minimum impact on abutters and the general public; and
- Locate construction equipment away from sensitive receptors such as fresh air intakes to buildings, air conditioners and operable windows.

25-79 (con't.)

VII.C Additional Feasible Mitigation to Reduce Combustion Emissions from Construction Worker Vehicles

- Provide on-site lunch, *e.g.*, a lunch wagon;
- Implement a carpool program for construction workers.

LETTER 25

Petra Pless, D.Env.

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Dr. Pless has over 10 years of experience in environmental engineering and science conducting and managing interdisciplinary environmental research projects and preparing and reviewing environmental permits and other documents for U.S. and European stakeholder groups. This broad-based experience includes air quality and air pollution control; water quality, water supply, and water pollution control; biology; public health and safety; and noise studies. National Environmental Policy Act ("NEPA"), California Environmental Quality Act ("CEQA"), and Clean Air Act ("CAA") review; industrial ecology and risk assessment; and use of a wide range of environmental software.

EDUCATION

Doctorate in Environmental Science and Engineering (D.Env.), University of California, Los Angeles, 2001

M.S. Biology (with focus on botany/ecology/limnology), Technical University of Munich, Germany, 1991

PROFESSIONAL HISTORY

Environmental consultant 2006–present

Leson & Associates (previously Leson Environmental Consulting), Kensington, CA, Environmental Scientist/Project Manager, 1997–2005

University of California Los Angeles, Graduate Research Assistant/Teaching Assistant, 1994–1996

ECON Research and Development, Environmental Scientist, Ingelheim, Germany, 1992–1993

Biocontrol, Environmental Projects Manager, Ingelheim, Germany, 1991–1992

REPRESENTATIVE EXPERIENCE

Air Quality and Pollution Control

Projects include CEQA/NEPA review; attainment and non-attainment new source review ("NSR"), prevention of significant deterioration ("PSD") and Title V permitting; control technology analyses (BACT, LAER, RACT, BARCT, MACT); technology evaluations and cost-effectiveness analyses; criteria and toxic pollutant emission inventories; emission offsets; ambient and source monitoring; analysis of emissions estimates and ambient air pollutant concentration modeling. Some typical projects include:

- Critically reviewed and prepared technical comments on the air quality, biology, noise, water quality, and public health and safety sections of CEQA/NEPA documents for numerous commercial, residential, and industrial projects (*e.g.*, power plants, airports, residential developments, retail developments, hospitals, refineries, quarries, and mines).
- Critically reviewed and prepared technical comments on the air quality and public health sections of the Los Angeles Airport Master Plan (Draft, Supplement, and Final Environmental Impact Statement/Environmental Impact Report) for the City of El Segundo. Provided technical comments on the Draft and Final General Conformity Determination for the preferred alternative submitted to the Federal Aviation Administration.
- For several California refineries, evaluated compliance of fired sources with Bay Area Air Quality Management District ("BAAQMD") Rule 9-10. This required evaluation and review of hundreds of source tests to determine if refinery-wide emission caps and compliance monitoring provisions were being met.
- Critically reviewed and prepared technical comments on Draft Title V permits for several refineries and other industrial facilities in California.
- Evaluated the public health impacts of locating big-box retail developments in densely populated areas in California and Hawaii. The impacts of diesel exhaust emissions and noise on surrounding residential communities were measured and evaluated.
- In conjunction with the permitting of several residential and commercial developments, conducted studies to determine baseline concentrations of diesel exhaust particulate matter using an aethalometer.
- For an Indiana steel mill, evaluated technology to control NOx and CO emissions from fired sources, including electric arc furnaces and reheat furnaces, to establish BACT. This required a comprehensive review of U.S. and European operating experience. The lowest emission levels were being achieved by steel mills using selective catalytic reduction ("SCR") and selective non-catalytic reduction ("SNCR") in Sweden and The Netherlands.
- For a California petroleum coke calciner, evaluated technology to control NOx, CO, VOCs, and PM10 emissions from the kiln and pyroscrubbers to establish BACT and LAER. This required a review of state and federal clearinghouses, working with regulatory agencies and pollution control vendors, and obtaining and reviewing permits and emissions data from other similar facilities. The best-controlled facilities were located in the South Coast Air Quality Management District ("SCAQMD").
- For a Kentucky coal-fired power plant, identified the lowest NOx levels that had been permitted and demonstrated in practice to establish BACT. Reviewed operating experience of European, Japanese, and U.S. facilities and evaluated continuous emission monitoring data. The lowest NOx levels had been permitted and achieved in Denmark and in the U.S. in Texas and New York.
- In support of efforts to lower the CO BACT level for power plant emissions, evaluated the contribution of CO emissions to tropospheric ozone formation and co-authored report on same.
- Critically reviewed and prepared technical comments on applications for certification ("AFCs") for several natural-gas fired and geothermal power plants in California permitted by

the California Energy Commission ("CEC"). The comments addressed construction and operational emissions inventories and dispersion modeling, BACT for turbines, etc.

- Critically reviewed and prepared technical comments on draft PSD permits for several natural gas-fired power plants in California, Indiana, and Oregon. The comments addressed emission inventories, BACT, case-by-case MACT, compliance monitoring, cost-effectiveness analyses, and enforceability of permit limits.
- For a California refinery, evaluated technology to control NOx and CO emissions from CO Boilers to establish RACT/BARCT to comply with BAAQMD Rule 9-10. This required a review of BACT/RACT/LAER clearinghouses, working with regulatory agencies across the U.S., and reviewing federal and state regulations and State Implementation Plans ("SIPs"). The lowest levels were required in a SCAQMD rule and in the Texas SIP.
- In support of several federal lawsuits filed under the Clean Air Act, prepared cost-effectiveness analyses for SCR and oxidation catalysts for simple cycle gas turbines and evaluated opacity data.
- Critically reviewed draft permits for several ethanol plants in California, Indiana, and Ohio and prepared technical comments.
- Provided comprehensive environmental and regulatory services for an industrial laundry chain. Facilitated permit process with the SCAQMD. Developed test protocol for VOC emissions, conducted field tests, and used mass balance methods to estimate emissions. Reduced disposal costs for solvent-containing waste streams by identifying alternative disposal options. Performed health risk screening for air toxics emissions. Provided permitting support with SCAQMD. Renegotiated sewer surcharges with wastewater treatment plant. Identified new customers for shop-towel recycling services.
- Designed computer model to predict performance of biological air pollution control (biofilters) as part of a collaborative technology assessment project, co-funded by several major chemical manufacturers. Experience using a wide range of environmental software, including air dispersion models, air emission modeling software, database programs, and geographic information systems ("GIS").

Water Quality and Pollution Control

Experience in water quality and pollution control, including surface water and ground water quality and supply studies, evaluating water and wastewater treatment technologies, and identifying, evaluating and implementing pollution controls. Some typical projects include:

- For a homeowner's association, reviewed a California Coastal Commission staff report on the replacement of 12,000 linear feet of wooden bulkhead with PVC sheet pile armor. Researched and evaluated impact of proposed project on lagoon water quality, including sediment resuspension, potential leaching of additives and sealants, and long-term stability. Summarized results in technical report.
- For a 500-MW combined-cycle power plant, prepared a study to evaluate the impact of proposed groundwater pumping on local water quality and supply, including a nearby stream, springs, and a spring-fed waterfall. The study was docketed with the CEC and summarized in a journal article.

- Evaluated impacts of on-shore oil drilling activities on large-scale coastal erosion in Nigeria.
- For a 500-MW combined-cycle power plant, identified and evaluated methods to reduce water use and water quality impacts. These included the use of zero-liquid-discharge systems and alternative cooling technologies, including dry and parallel wet-dry cooling. Prepared cost analyses and evaluated impact of options on water resources. This work led to a settlement in which parallel wet dry cooling and a crystallizer were selected, replacing 100 percent groundwater pumping and wastewater disposal to evaporation ponds.

Applied Ecology, Industrial Ecology and Risk Assessment

Experience in applied ecology, industrial ecology and risk assessment, including human and ecological risk assessments, life cycle assessment, evaluation and licensing of new chemicals, and fate and transport studies of contaminants. Experienced in botanical, phytoplankton, and intertidal species identification and water chemistry analyses. Some typical projects include:

- For the California Coastal Conservancy, San Francisco Estuary Institute, Invasive Spartina Project, evaluated the potential use of a new aquatic pesticide for eradication of non-native, invasive cordgrass (*Spartina spp.*) species in the San Francisco Estuary with respect to water quality, biological resources, and human health and safety. Assisted staff in preparing an amendment to the Final EIR.
- Evaluated likelihood that measured organochlorine pesticide concentrations at a U.S. naval air station are residuals from past applications of these pesticides consistent with manufacturers' recommendations. Retained as expert witness in lawsuit.
- Prepared human health risk assessments of air pollutant emissions from several industrial and commercial establishments, including power plants, refineries, and commercial laundries.
- Managed and conducted studies to license new pesticides. This work included the evaluation of the adequacy and identification of deficiencies in existing physical/chemical and health effects data sets, initiating and supervising studies to fill data gaps, conducting environmental fate and transport studies, and QA/QC compliance at subcontractor laboratories. Prepared licensing applications and coordinated the registration process with German licensing agencies. This work led to regulatory approval of several pesticide applications in less than six months.
- Designed and implemented database on physical/chemical properties, environmental fate, and health impacts of pesticides for a major European pesticide manufacturer.
- Designed and managed toxicological study on potential interference of delta-9-tetrahydro-cannabinol in food products with U.S. employee drug testing; co-authored peer-reviewed publication.
- Critically reviewed and prepared technical comments on AFCs for several natural-gas fired and geothermal power plants and transmission lines in California permitted by the CEC. The comments addressed avian collisions and electrocution, construction and operational noise impacts on wildlife, risks from brine ponds, and impacts on endangered species.
- For a 180-MW geothermal power plant, evaluated the impacts of plant construction and operation on the fragile desert ecosystem in the Salton Sea area. This work included baseline

noise monitoring and assessing the impact of noise, brine handling and disposal, and air emissions on local biota, public health, and welfare.

- Designed research protocols for a coastal ecological inventory; developed sampling methodologies, coordinated field sampling, determined species abundance and distribution in intertidal zone, and analyzed data.
- Designed and conducted limnological study on effects of physical/chemical parameters on phytoplankton succession; performed water chemistry analyses and identified phytoplankton species; co-authored two journal articles on results.
- Conducted technical, ecological, and economic assessments of product lines from agricultural fiber crops for European equipment manufacturer; co-authored proprietary client reports.
- Developed life cycle assessment methodology for industrial products, including agricultural fiber crops and mineral fibers; analyzed technical feasibility and markets for thermal insulation materials from plant fibers and conducted comparative life cycle assessments.
- Conducted and organized underwater surveying and mapping of plant species in several lakes and rivers in Sweden and Germany as ecological indicators for the health of limnological ecosystems.

PRO BONO ACTIVITIES

Member of "SecondAid," a non-profit organization providing tsunami relief for the recovery of small family businesses in Sri Lanka. (www.secondaid.org)

PROFESSIONAL AFFILIATIONS

Association of Environmental Professionals

SELECTED PUBLICATIONS

Fox J.P. and Pless P., Cost-effectiveness of catalytic oxidation for the control of VOCs and CO from power generation facilities, to be submitted to Journal of the Air & Waste Management Association.

Fox J.P. and Pless P., Fuel and energy penalties associated with catalytic pollution control systems used in power generation, to be submitted to Power Engineering.

Fox J.P., Rose T.P., Sawyer T.L., and Pless P., Isotope hydrology of a spring-fed waterfall in fractured volcanic rock, to be submitted to Journal of Hydrology.

Leson G. and Pless P., Hemp seeds and hemp oil, in: Grotenhermen F. and Russo E. (eds.), Cannabis und Cannabinoids, Pharmacology, Toxicology, and Therapeutic Potential, The Haworth Integrative Healing Press, New York, 2002.

Leson G., Pless P., Grotenhermen F., Kalant H., and ElSohly M., Evaluating the impact of hemp food consumption on workplace drug tests, Journal of Analytical Toxicology, Vol. 25, No. 11/12, pp. 1-8, 2001.

Leson G. and Pless P., Assessing the impact of THC uptake from hemp oil cosmetics on workplace drug testing, Report to the Agricultural Research and Development Initiative ("ARDI"), Morris, MB, 2001.

Pless P., Technical and environmental assessment of thermal insulation materials from fiber crops, doctoral dissertation in Environmental Science and Engineering, University of California, Los Angeles, 2001.

Center for Waste Reduction Technologies in the American Institute of Chemical Engineers, Collaborative Biofilter Project, Technical Report, co-author with Leson G. of sections 'Compound Database,' 'Design Manual,' and 'Literature Database,' 1998.

Hantke B., Domany I., Fleischer P., Koch M., Pless P., Wiendl M., and Melzer M., Depth profiles of the kinetics of phosphatase activity in hardwater lakes of different trophic level, Arch. Hydrobiologia, vol. 135, pp. 451–471, 1996.

Hantke B., Fleischer P., Domany I., Koch M., Pless P., Wiendl M., and Melzer M., P-release from DOP by phosphatase activity in comparison to P-excretion by zooplankton: studies in hardwater lakes of different trophic level, Hydrobiologia, vol. 317, pp. 151–162, 1996.

Pless P., Untersuchungen zur Phytoplanktonentwicklung im Herrensee (investigations on phytoplankton succession in an oligotrophic hardwater lake), Masters Thesis in biology with focus on botany/ecology/limnology, Technical University of Munich, Germany, 1991.

LETTER 25

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1 October 2007

TO: Bill Kopper JD

RE: Review of Railyards Specific Plan DEIR Hydrology and WSA

As requested, I have reviewed the DEIR Executive Summary & Project Description, Soils, Hazardous Substances, Hydrology and Water Quality, Public Utilities and the associated Water Supply Assessment (WSA, Appdx. M) and Summary of Environmental Effects (Table 2.1) sections of the Railyards Specifc Plan Draft EIR in Sacramento with particular focus on the proposed project impacts on site hydrology, contaminant transport, storm water drainage and associated impacts and water supply.

The proposed commercial project on about 244 acres of former railyard in the downtown area of the City of Sacramento represents a significant development that will provide housing, office space, recreation opportunities, open space and cultural outlets. While the project is generally well conceived to make use of a significantly disturbed site for urban development, the project as proposed has several significant problems areas that require further consideration as listed below. Of significance throughout is that the proposed development requires completion of several inter-related projects, such as expansion of the water systems infrastructure and the Superfund clean up.

1. The project relies on expansion of the City Combined Sewer & Storm water System (CSS) infrastructure to convey additional wastewater and stormwater generated by the project.
2. The project relies on completion of current Superfund clean-up activities and the expectation of thorough site cleanup.
3. The project increases stormwater runoff without thoroughly considering onsite management alternatives.
4. Site runoff and erosion control measures are neither adequately defined nor specified.
5. The DEIR does not adequately address potential off-site movement of contaminants to groundwater and via shallow subsurface flows to the Sacramento River.
6. Mitigation measures for dewatering activities are not sufficiently detailed.
7. The DEIR does not adequately characterize that shallow groundwater (between 30-100 ft bgs) used for water supply represents take of Sacramento River water, nor does the DEIR address the effects of this groundwater pumping on River flows, or adjacent riparian areas.

8. The DEIR does not address climate change in relation to its effects on flooding potential or future water supply.
9. There are several instances within the reviewed sections of the DEIR that require greater clarification.

1. The project relies on expansion of the City CSS infrastructure to convey additional wastewater and storm water generated by the project.

Section 6.6 and 6.11 of the DEIR state that flooding can occur during large storms when combined wastewater and storm water flows exceed the pipeline system and treatment system carrying capacities. When this occurs, flooding of local streets in the downtown area has been known to occur. The DEIR acknowledges that the project would contribute an additional 9.43 MGD to the CSS during dry weather, and more than that during wet weather and states that the combined contributions to the SRWTP would exceed its capacity, resulting in a potential significant impact. The proposed mitigation measure includes construction of the storm water detention cistern as part of the project, and limiting development of the project until such time as the cistern is completed. However, the DEIR also states that storm water from 220 acres of the project would be directed to the cistern, and does not address storm water from the additional 24 acres of project area (e.g. a 1-inch per hour storm on 24 acres generates 87,500 gph). Furthermore, the DEIR indicates that storm water runoff calculations have not yet been performed for the project site. Therefore, the conclusion that installation and use of the cistern to mitigate storm water flows to the City CSS will render storm water contributions from the project as a less than significant impact on the SRWTP is a premature conclusion. Drainage and runoff calculations need to be completed before such a conclusion can be drawn. 25-80

Additionally, the DEIR indicates that the current City CSS is over-extended and that the additional flows from the project would exacerbate flooding that already occurs during storm events. In order to convey the additional runoff, the City is in the process of expanding the CSS. However, this project is currently in the design phase and has not completed the CEQA process. Therefore it is not certain that the CSS expansion will occur, and if so, ***how and when it will occur!*** The proposed mitigation measure of limiting project development until either or both the cistern and City CSS improvements have been implemented does not address the possibility that the CSS project will not be built.

2. The project relies on completion of current Superfund clean up activities and on the expectation of thorough site cleanup.

As conspicuously noted in the media, federal funding for Superfund has been restricted recently, resulting in lesser amounts of money available for completing existing projects or implementing new projects. The DEIR states that many of the site cleanup goals have been met. The DEIR does not provide discussion or documentation of the groundwater or soil quality criteria used to assess completion of remediation nor is there a schedule for future monitoring. 25-81

The DEIR also lists several cleanup projects that are in progress with future target completion dates as late as 2010. However, there is no schedule for groundwater or soil

extraction to confirm that the 2008 or 2010 cleanup completion dates can be met, nor is there mention of the criteria used to determine cleanup completion.

Further, the DEIR acknowledges that there may be additional areas of soil and groundwater contamination that are not identified and that may be exposed during construction. The DEIR does not indicate that Superfund allocations, or other monies, have been secured to address additional cleanup measures that may be required. Prior to Railyards SP project implementation, plans and funding for additional cleanup activities must be developed and secured.

25-81 (con't.)

3. The project increases stormwater runoff without thoroughly considering onsite management alternatives.

Through the construction of additional impervious surfaces such as roof tops, roads and parking lots, urban storm water runoff is expected to increase and will be directed to the Sacramento River via an as yet to be designed outfall structure (in part because drainage and runoff calculations have not been attempted/completed). Construction of the outfall structure will result in the destruction of approximately 0.33 acres of riparian habitat along the Sacramento River. Moreover, urban run off water will contribute sediment, metal and hydrocarbon loads and water temperature increases to the Sacramento River. The water quality impact is expected to be mitigated through particulate settling in the proposed cistern that will capture at least the first flush runoff from the project area.

25-82

No mention is made in the project plan to investigate other storm water management alternatives such as the use of bioswales or infiltration zones to reduce site runoff as suggested for Low Impact Development projects. Such measures should be considered to reduce overall site runoff, reduce groundwater impacts and improve water quality through infiltration rather than settling. Implementation of such approaches will reduce cistern volume, and size of outfall pipes, thereby reducing impact on riparian habitat. Use of such approaches would reduce the first flush volume, allowing longer retention times in the cistern resulting in further water quality improvements.

4. Site runoff and erosion control measures are neither adequately defined nor specified.

The DEIR recognizes that construction activities will result in increased erosion potential from the site. These effects are downplayed due to the relatively flat topography of the site and the requirement to implement Storm Water Prevention Plans, to obtain NDPES permitting and to adhere to the City of Sacramento's SQIP (Stormwater Quality Improvement Plan). In on page 6.6-20 reference is made to standard BMPs for erosion control. The proposed mitigation measures for erosion control, vegetated swales etc. for pollutant capture are typical, but aggravated by the flat topography and low elevations. Installation of these measures will require vigilant oversight on the part of the City/County to ensure adequate performance. Further, the DEIR refers to vegetative cover but does not provide the specifics of vegetation density and survival rates required to achieve the desired level of erosion control.

25-83

5. The DEIR does not adequately address potential off-site movement of contaminants to groundwater and via shallow subsurface flows to the Sacramento River.

In relation to cleanup activities, the DEIR refers to areas within the project site that may remain contaminated without remediation. These areas are not expected to result in human exposure to contamination. Not addressed in the DEIR is the impact of increased landscape irrigation mobilization of contaminants in the soil to shallow groundwater that interacts with the Sacramento River. The potential for contaminant transport to the Sacramento River through groundwater movement should be investigated and addressed prior to project implementation.

25-84

6. Mitigation measures for dewatering activities are not sufficiently detailed.

The DEIR does not specify the types of measures that will be implemented to mitigate the effects of dewater activities on groundwater or surface water quality. A hydraulic connectivity between project area groundwater and the Sacramento River has been established and the DEIR does not address the effects of dewatering on shallow groundwater supply or flows, especially in relation to effects on Sacramento River Water flows adjacent to the project. Dewatering will result in at least three potential problems related to; (a) lowering of shallow groundwater levels, (b) opening of pollutant pathways to groundwater and potentially the River, and (c) lack of discharge, or receiving facilities for the dewatering water.

Further, the DEIR mitigation measure 6.6-3 indicates that the project can be delayed until the cistern is constructed and or the CSS system improvements have been made. However, excavation for the cistern will require dewatering, and section 6.6 indicates that dewatering material would be held in the cistern or directed to the CSS which are not yet in place. By this plan, it would not be possible to construct the cistern.

25-85

7. The DEIR does not address the effects of groundwater pumping on Sacramento River flows.

Groundwater is specified for water supply during high demand and low flow conditions in the Sacramento River. Since all three available aquifers are hydraulically connected to the Sacramento River, pumping from these wells would further decrease Sacramento River flows. Conversely, as a result of low flows in the Sacramento River, groundwater supplies would be limited. There is, in effect, no real difference between Sacramento River water and project site groundwater, and groundwater cannot be considered an alternate water supply for this project, or should be considered in terms of City of Sacramento's water rights to the River. Might there not be consideration of greywater and water conservation measures that reduce project water demands?

25-86

8. The DEIR does not address climate change in relation to flooding potential or water supply.

The DEIR dismisses the possibility of flooding danger due to the based on the project location outside the 500-year flood level and due to recent improvements to the levees. However, climate change effects will likely alter flow patterns on the Sacramento River, leading to aggravated flooding as sea water intrudes inland due to rising sea levels

25-87

(see refs below). Further, spring flood conditions are likely to result from earlier, more rapid snowmelt. This eventuality should be addressed before the project is implemented.

Climate change is also likely to affect water supply as the majority of the water supply for the project is generated from Sacramento River diversions. As sea level rises and intrudes further inland, water quality will decline. Further, available fresh water is likely to decline as a result of earlier season snowmelt and greater evapotranspiration (ET) from longer, hotter summer seasons.

Rates of sea-water intrusion into groundwater fields through the rising sea-water levels are already underway and should be considered before aggravating groundwater level declines (increasing sea-water intrusion gradients) through increased pumping which is the contingency for low water supply from the Sacramento River. The additional pumping that may be required due to lower summer-season River flows will ultimately diminish what sustainable groundwater supply that is available. I would think that Sacramento, being the state capital, would be keenly concerned about these effects and include them in their analyses.

25-87 (con't.)

9. There are several instances within the reviewed sections of the DEIR that require greater clarification.

In section 6.5, Hazards and Hazardous Substances, the reader is referred to section 6.6, Hydrology, for further information on groundwater quality. Section 6.6 does not contain significant detail on groundwater quality in relation to the contaminants listed in Section 6.5. Instead, in section 6.6 the reader is referred to section 6.5 for greater detail on groundwater and soil contamination. One or the other section needs to contain detailed information on current groundwater and soil quality.

A schematic flow diagram describing storm water flow facilities should be included to reduce confusion about where water flows when capacities are exceeded.

25-88

Similarly, a schematic flow diagram should be included to outline wastewater flows and destinations.

There are several project activities that are contingent on the completion of activities external to the project, such as the completion of Superfund measures, completion of the CSS, the completion of wastewater treatment facilities, and obtaining permits. Provide a timeline that outlines all required tasks related to project implementation and contingencies for alternatives as needed.

Climate Change References

DWR. 2005. CA Water Plan Update 2005: A Framework for Action. Strategic Plan.
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Western United States. *Journal of Climate* 19:4545-4559.

LETTER 25

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EDUCATION

Ph.D. – Agricultural Engineering, Colorado State University (1984)
Study Emphasis: Groundwater Hydrology
M.S. – Environmental Engineering, Oregon State University (1981)
Study Emphasis: Hydrology and Water Quality
B.S. – Agricultural Engineering, Oregon State University (1980)
Study Emphasis: Soil and Water Science
EIT - Engineer-in-Training Registration, Oregon (1980)

HONORS

Outstanding Teamwork Award & Prize – Water Conservation in Agriculture, UC Division of Agriculture & Natural Resources (2003)
Outstanding Teacher Award, Environmental Resource Sciences Major, UC Davis (1992)
Mined Land Reclamation Group Graduate Fellowship, CSU
Environmental Resources Center (1983)
ASAE Student Honor Award, Oregon State University (1980)
Honors Program, Oregon State University (1980)
High Scholarship Graduate, Oregon State University (1980)
Presidential Scholarship, Hamline University, MN (1976)

UNIVERSITY EXPERIENCE

Chair, Hydrologic Sciences Graduate Group, UC-Davis; 7/90-7/93 and 7/2002-present.
Professor, Departments of LAWR and Biological and Agricultural Engineering, UC-Davis; 7/95-present.
Associate Editor, California Agriculture, Land & Water Resources; 10/99-present.
Associate Editor, ASCE Journal of Irrigation & Drainage Engineering; 7/94-12/96.
Master Advisor, Hydrology; 7/94-7/98
Master Advisor, Environmental & Resource Sciences; 7/2003-present
Graduate Advisor; Hydrologic Sciences; 7/92-present.

Associate Professor, Departments of LAWR and Agricultural Engineering, UC-Davis; 7/89–6/95.
As an associate professor, I have continued work as outlined below as well as serve on additional college and campus committees. These include chairing an undergraduate major review committee and chairing the Academic Senate and College Rules & Jurisdiction committees during a period of numerous rule changes resulting from integration of Cooperative Extension into the College. Also, as chair of the Earth Sciences & Resources Graduate Group, I was responsible for transformation of this Group into the new Hydrologic Sciences Graduate Group and the creation of Hydrology undergraduate teaching programs (new major and minor). My efforts in curriculum development also resulted in my chairing a graduate education oversight committee for the College.

Assistant Professor, Departments of Land, Air & Water Resources (LAWR) and Agricultural Engineering, UC-Davis; 10/84–6/89.
As an assistant professor, my research program considered near surface processes such as infiltration, surface evaporation and irrigation management, as well as various aspects of shallow groundwater including; vapor movement in unsaturated soils, lateral subsurface flows, seepage from wastewater impoundments, groundwater modeling, soil salinity and drainage of cracking clay soils, and regional modeling of shallow groundwater as affected by irrigation and drainage (see publications). In addition to regular teaching, research and committee responsibilities, I served as Chair of the Committee of

Consultants on San Joaquin River Water Quality, Chair of a faculty position (geohydrology) search committee, and Chair of the interdisciplinary Graduate Program of Earth Sciences and Resources.

Research Associate, Department of Agricultural and Chemical Engineering, Colorado State University; 1/84–9/84.

As a research associate, I was responsible for completion of contracts with oil shale processing companies and consulting firms relative to the leaching of spent oil shales. This work involved laboratory leaching column and hydraulic property studies, as well as, a conceptual mass balance estimate of seepage/drainage from spent oil shale piles in the field.

Research Assistant, Department of Agricultural and Chemical Engineering, Colorado State University; 7/81–12/83.

During this period, I completed classroom and laboratory studies toward the Ph.D. In the laboratory, gamma ray attenuation methods were devised for simultaneously monitoring water and salt movement in relatively dry soils.

Research Assistant, Department of Agricultural Engineering, Oregon State University; 6/80–6/81.

In this year, I completed coursework in hydrology, water chemistry, and adult education, as well as, M.S. thesis work related to fecal coliform contamination of Tillamook Bay from land application of dairy wastes.

Engineer-in-Training, Oregon Soil and Water Conservation Commission, The Dalles, OR; 6/79–9/79.

As an intern, I worked with USDA-SCS personnel on the design, layout and surveying inspection of earthen terraces constructed to limit hillside erosion from dryland wheat fields.

TEACHING RESPONSIBILITIES

Principles of Hydrology (HYD/ERS 100 & 100L, 6 units) – Large enrollment course including multiple laboratory and discussion sections for environmental science students covering all aspects of general hydrology as well as basic hydrogeochemistry and hydraulics.

Seepage and Drainage, Irrigation and Drainage (HYD 140, HYD 115/EBS 145, 4 units) – An engineering principles and design course considering subsurface drainage issues associated with excess rootzone drainage, seepage from canals or impoundments and artesian groundwater conditions.

Multi-phase Transport in Soils, Infiltration and Drainage (HYD 244/EBS 240, 3 units) – A graduate course considering two and three-phase flow through porous media and its application to infiltration and vadose zone processes. Students design and complete research projects of interest as part of the course.

Wood Properties & Fabrication (ABT 15, 2 units) – A basic materials course with multiple laboratory sections considering wood as a biological material, its physical properties (e.g. strength, density, thermal conductivity), mechanics of materials and construction of wood hand planes.

OSHA HAZWOPER Training (HYD 410, HYD 440, 1&3 units) – OSHA 10-hr and 40-hr certification courses required before entering hazardous material sites.

Hydrologic Science Seminar (HYD 200, 1 unit) – Graduate seminar course considering basic literature review, proposal writing and lecture principles combined with attendance and review of seminars related to hydrology.

RESEARCH AREAS

Field Research – General hydrology and irrigation and drainage engineering. Extensive field research conducted related to irrigation, soil salinity and cracking, and drainage as well as general water quality issues associated with agricultural runoff. Current field research is considering erosion and riparian systems, restoration of tidal marshes via drainage channel design and construction, role of wetlands in watershed systems and use of constructed wetlands for treatment of agricultural process (e.g. winery, fruit) wastewaters.

Laboratory Research – Soil physics. Ongoing research related to measurement of soil hydraulic parameters, multi-phase transport through soils, adsorption/desorption of VOC's on clay minerals, strength of clays and general aspects of flow in porous media.

Modeling Research – Surface runoff and shallow groundwater systems. Have completed extensive modeling of the impacts of regional irrigation/drainage on soil salinity and shallow groundwater, river water quality, pesticide runoff from orchards and seepage from impoundments.

CONSULTING PROJECTS (selected few)

My consulting projects and work is generally directed at evaluation of environmental impacts of development, irrigation projects and related activities on the watershed. This includes evaluation of soil-salinity, water use, evapotranspiration, flooding and related processes and their effects. Some specific projects include:

Levee seepage – Modeled timing and extent of levee seepage near Sacramento for CA State Attorney General.

Santa Rosa Regional Wastewater Treatment System – Expert reviewer of draft EIR document development.

Subsurface Drainage System Design – Developed new design that incorporated an old system for the CA Department of Corrections doubling expansion of an existing prison in the San Joaquin Valley.

Lincoln City, CA Aggregate Mining - Expert reviewer of Draft EIR document on behalf of concerned citizen group (WPCARE) of Placer county.

Fresno, CA Aggregate Mining - Expert reviewer of Kings River Sand & Gravel Project Draft EIR document on behalf of concerned citizen group.

Orchard Surface Drainage – Surveyed and developed remedial surface drainage design for orchard near Gridley, CA.

Livingston Waste Water Treatment Plant – Evaluated declining percolation pond seepage rates and problems associated with river discharge of partially-treated effluent and recommended plant modifications to maintain compliance with waste discharge requirements.

La Conchita Ranch Orchard Seepage Evaluation – Conducted extensive field monitoring program and sampling to estimate avacado/citrus orchard water use and rootzone drainage relative to rainfall induced seepage through the vadose zone.

Evaluation of Dry/Linda Creek Flood Control Project - Expert reviewer of draft EIR document on behalf of concerned citizen group and Sierra Club to determine potential for downstream flooding resulting from the project. Developed model and possible alternative flood-control designs to reduce loss of "heritage" oak trees along riverbanks and protection of chinook salmon run for presentation to Roseville City officials and FEMA.

Evaluation of District Canal Seepage Problems – Assisted in conducting a field survey and analysis of shallow groundwater levels as they were affected by operation of a water district canal for orchard near Gridley, CA.

Independent Review Panel Expert on Agricultural Water Conservation for CALFED. Advised CALFED officials about proposed evaluation of agricultural water use efficiency around the state related to the Delta water issues.

Evaluation of Draft EIR Specific Plans for urban development in the Sacramento area. These typically involve assessment of water use, water quality, land use and flooding impacts associated with the proposed developments.

Evaluation of Imperial Valley Water Use (USBR & MWD). Completed a detailed assessment of the applicability of the "reduced-runoff" irrigation method to forage crop production in the Imperial Valley and how it would lead to significant water savings. This research and work resulted in USBR and DANR awards.

Mercury Fate & Transport in the Yuba Goldfields. This ongoing work involves assessment of mercury transport, transformation and fate as well as possible abatement and cleanup costs associated with mining and dredging operations in this unique area.

Assessment of Contaminant Transport & Remediation - DBCP, MTBE, Hg, Coliforms. Prepared reviews of the state of the science on these contaminants in groundwater systems for DBCP and MTBE, and surface waters for Hg and in the seawater environment for fecal coliforms.

Evaluation of Water Use and Stream-Water Table interactions on Middle Rio Grande River, NM. Completed a detailed current and historical assessment (1896-2000) of Pueblo Indian water use, crop production, evapotranspiration, effects of shallow water table depth on losses in crop production and dependence of this relationship on changing stream – WT aquifer conditions.

CONFERENCE PUBLICATIONS

Moore, J. A., **M. E. Grismer**, S. R. Crane, and J. R. Miner. 1982. Evaluating dairy waste management systems' influence on fecal coliform concentration in runoff. ASAE Paper No. 82-4024.

McCullough-Sanden, B. L., T. K. Gates, and **M. E. Grismer.** 1986. Analysis of seepage in an on-farm evaporation pond. ASAE Paper No. 86-2064.

Grismer, M. E. 1987. Water vapor adsorption kinetics during constant-rate infiltration. ICIDA Conference, Hawaii. January.

van der Tak, L. D. and **M. E. Grismer.** 1987. Irrigation, drainage and soil salinity in cracking soils. ASAE Paper No. 87-2052.

Grismer, M. E. 1987. Automated monitoring of remote soil sensors. ASAE Paper No. 87-2095.

Gates, T. K. and **M. E. Grismer.** 1987. Stochastic optimal management of saline perched aquifers in irrigated regions. Proceedings of International Conference on Groundwater Contamination: Use of models in Decision-Making.Amsterdam, The Netherlands. October.

Tod, I. C. and **M. E. Grismer.** 1988. Drainage efficiency and cracking clay soils. ASAE Paper No. 88- 2588. December.

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Grismer, M. E. 1990. Deep percolation, drainage and water quality. In: Proceedings of the ASCE National Conf. on Irrigation and Drainage Engineering. July. pp. 355-362.

Lyons, T. C. and **M.E. Grismer.** 1992. Management of agricultural drainage pollution considering regional cooperation. In: Proceedings of the ASCE National Conf. on Irrigation and Drainage Engineering. July.

Grismer, M.E., F. Karajeh and H. Bouwer. 1993. Evaporation pond hydrology. In: Proceedings of the ASCE National Conf. on Irrigation and Drainage Engineering, Durango, CO. July.

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Bali, K. M., **M. E. Grismer**, K. S. Mayberry and J. M. Gonzalez. 1994. Temporal and spatial variability of infiltration in heavy clay soils. ASAE/ASCE International Summer Meeting, Kansas City, MO. Paper No. 94-2044.

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Grismer, M.E. 1996. Emerging concepts for management of salinity and drainage in irrigated regions. In: Proc. of N. American Water and Environ. Congress. Anaheim, CA. June.

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Bali, K.M., I.C.Tod and **M.E. Grismer**. 2003. Linking irrigation practices to the quality of drainage waters. In: Proceedings of USICID Conf. Sacramento, CA. Feb.

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Bali, K.M., I.C.Tod and **M.E. Grismer**. 2004. Reducing drainage requirements in alfalfa production. ASAE Paper 701P0304. In: Proceedings of 8th Int'l ASAE Drainage Symposium, March. 8 pp.

K. M. Bali, J. N. Guerrero, I. C. Tod and **M. E. Grismer**. 2005. Linking Irrigation Practices to the Quality of Drainage Waters. USCID 3rd International Conference on Irrigation and Drainage. San Diego, CA. March, 2005. pp. 391-398.

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REVIEWS

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Grismer, M.E. 2002. Fecal Coliforms in Seawater: A Review.

Grismer, M.E. 2002. Rainfall Simulation (RS) Methods: Reviews of RS applied to rainfall effects on aggregate stability, RS design, environmental transport, erosion, fire effects, insecticide/spore dispersal, runoff modeling, slope/cover and tillage/traffic processes.

Grismer, M.E. 2003. Mercury Contamination, Transport and Bio-availability Associated with Dredging Operation in the Yuba Goldfields: A Review.

REFEREED PUBLICATIONS

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Moore, J. A., **M. E. Grismer**, S. R. Crane and J. R. Miner. 1983. Modeling dairy waste management systems influence on coliform concentration in runoff. Trans. of ASAE 26(4): 1194-1200.

Tanji, K. K., **M. E. Grismer**, and B. R. Hanson. 1985. Subsurface drainage evaporation ponds. Cal. Agriculture 39(9-10):10-12.

Grismer, M. E., D. B. McWhorter, and A. Klute. 1986. Determination of diffusivity and hydraulic conductivity in soils at low water contents from nondestructive transient flow observations. Soil Science 141:10-19.

Grismer, M. E., D. B. McWhorter, and A. Klute. 1986. Monitoring water and salt movement in soils at low solution contents. Soil Science 141:163-171.

Grismer, M. E. 1986. Nondestructive observations of solution displacement in soils. Soil Science 141:185-189.

Grismer, M. E. 1986. Pore-size distributions and infiltration. Soil Science 141(4):249-260.

Grismer, M. E. 1987. Kinetics of water vapor adsorption on soils. Soil Science 143(5):367-371.

Gates, T. K. and **M. E. Grismer.** 1987. Optimal management of saline water tables in irrigated regions. Cal. Agriculture 41(3-4):20-21.

Grismer, M. E and R. C. Woodring. 1987. Assessment of lateral groundwater flows in the San Joaquin Valley. Cal. Agriculture 41(3-4):22-23.

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Grismer, M. E. and B. L. McCullough-Sanden. 1988. Evaporation pond seepage. Cal. Agriculture 42(1):4-5.

Grismer, M. E. and T. K. Gates. 1988. Estimating saline water table contributions to cotton water use. Cal. Agriculture 42(2): 23-24.

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Grismer, M. E. 1988. Water vapor adsorption kinetics and isothermal infiltration. Soil Science 146(5):297-302.

Alemi, M. H., D. A. Goldhamer, **M. E. Grismer**, and D. R. Nielsen. 1988. Elution of selenium from contaminated evaporation pond sediments. J. Environ.Qual. 17:613-618.

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LETTER 25

Risk Science Associates

Risk Assessment
Toxicology
Occupational Health
Hazardous Materials Management
Vulnerability Assessments
Infrastructure Security

October 3, 2007

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

RE: Sacramento Railyard Specific Plan DEIR

Dear Mr. Kopper,

You have asked me to review and comment on the August 2007 DEIR and the 1994 MOU. Although I found the DEIR to be very well written and well thought-out, it contains a few very important deficiencies that if not corrected, will increase the potential for a significant risk to be posed to workers and the offsite public.

Item #1: p. 6.1-21 Mitigation Measure 6.1-1 f)

This mitigation measure would require watering to control emissions of dusts containing hazardous wastes. The watering intervals required (2X per day) are inadequate to control fugitive dust emissions and thus will pose a risk to workers and the off-site public. Watering and other dust control measures should be implemented as frequently as necessary to ensure that NO fugitive dust is generated. The interval should be determined by a combination of professional judgment, soil moisture levels, frequency of vehicular movement, wind speed, humidity, visual observation, and airborne particulate monitoring.

25-89

Item #2: p. 6.5-25 Mitigation Measure 6.5-1 c

This mitigation measure would require that on-site continuous air quality monitoring during construction on contaminated soils be conducted. However, the scope and methods of this monitoring is not described. This monitoring is crucial to protecting workers and the off-site public and should be described in greater detail. I suggest that the FEIR revise this mitigation measure to include specific contaminants to be monitored, the frequency of monitoring, thresholds of contaminates found that would trigger actions, and the precise actions to be taken should these thresholds be violated.

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Item #3: p. 6.5-30 Mitigation Measure 6.5-3 c

This mitigation measure is similar to MM 6.1-1 f and would also require dust control methods. However, the methods are not specified nor are thresholds for action identified. Control methods should be determined by a combination of professional judgment, soil moisture levels, frequency of vehicular movement, wind speed, humidity, visual observation, and airborne particulate monitoring. It is suggested that the FEIR commit to a program of dust control that require that no net increase in fugitive emissions be found leaving the site when up-wind and down-wind airborne PM10/2.5 measurements are conducted.

25-89 (con't.)

Item #4: p. 6.5-30 Mitigation Measure 6.5-3 d

This mitigation measure is similar to MM 6.5-1 c and would also require air monitoring during construction on contaminated soils. However, as stated above, the scope and methods of this monitoring is not described. This monitoring is crucial to protecting workers and the off-site public and should be described in greater detail. I suggest that the FEIR revise this mitigation measure to include specific contaminants to be monitored, the frequency of monitoring, thresholds of contaminates found that would trigger actions, and the precise actions to be taken should these thresholds be violated.

25-90

Item #1: The 1994 MOU, Exhibit D

This MOU is 13 years old and is outdated and should be revised. Exhibit D contains non-risk based criteria for the definitions of "Apparent Contamination, "No Test Soil" and "Threshold of Concern" that are inconsistent with the human health-protective risk-based approach outlines in the DEIR. The FEIR should state clearly that when a conflict exists between the definitions found in the MOU and the risk-based approach of the EIR, the EIR approach shall prevail. The non-risk based approach uses U.S. EPA Region 9 PRGs which are single-contaminant levels, not inclusive of multiple chemical multiple exposure pathway risks and are thus not protective of human health and the environment. Current DTSC and RWQCB polices do not allow the use of Region 9 PRGs when a site contains multiple contaminants.

If I can provide further comment or clarification for you, please contact me.

Sincerely,

Alvin J. Greenberg, Ph.D., REA, QEP

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Name & Title: **Alvin J. Greenberg, Ph.D., FAIC, REA, QEP**
Principal Toxicologist

Dr. Greenberg has had over two decades of complete technical and administrative responsibility as a team leader for hazardous materials handling and risk management/prevention, infrastructure vulnerability assessments, occupational safety and health, hazardous waste site characterization, preparation of human and ecological risk assessments, air quality assessments, interaction with regulatory agencies in obtaining permits, and conducting lead surveys and studies. He has particular expertise in the assessment of dioxins, lead, diesel exhaust, petroleum hydrocarbons, mercury, the intrusion of subsurface contaminants into indoor air, and the preparation and review of public health/public safety sections of EIRs/EISs. Dr. Greenberg's expertise in risk assessment has led to his appointment as a member of several state and federal advisory committees, including the California EPA Advisory Committee on Stochastic Risk Assessment Methods, the US EPA Workgroup on Cumulative Risk Assessment, the Cal/EPA Peer Review Committee of the Health Risks of Using Ethanol in Reformulated Gasoline, the California Air Resources Board Advisory Committee on Diesel Emissions, the Cal/EPA Department of Toxic Substances Control Program Review Committee, and the DTSC Integrated Site Mitigation Committee. Dr. Greenberg is the former Chair of the Bay Area Air Quality Management District Hearing Board, a former member of the State of California Occupational Health and Safety Standards Board (appointed by the Governor), and former Assistant Deputy Chief for Health, California OSHA. And, since the events of 9/11, Dr. Greenberg has been the lead person for developing vulnerability assessments, power plant security programs, and conducting safety and security audits of power plants for the California Energy Commission and has assisted the CEC in the assessment of safety and security issues for proposed LNG terminals. In addition to providing security expertise to the State of California, Dr. Greenberg was the Team Leader and main consultant to the State of Hawaii on the updating of their Energy Emergency Preparedness Plan.

Years Experience: 26

Education:

B.S. 1969 Chemistry, University of Illinois Urbana

Ph.D. 1976 Pharmaceutical/Medicinal Chemistry, University of California, San Francisco

Postdoctoral Fellowship 1976-1979 Pharmacology/Toxicology, University of California, San Francisco

Postgraduate Training 1980 Inhalation Toxicology, Lovelace Inhalation Toxicology Research Institute, Albuquerque, NM

Professional Registrations:

Board Certified as a Qualified Environmental Professional (QEP)
California Registered Environmental Assessor - I (REA)
Fellow of the American Institute of Chemists (FAIC)

Professional Affiliations:

Society for Risk Analysis
Air and Waste Management Association
American Chemical Society
American Association for the Advancement of Science
National Fire Protection Association

Technical Boards and Committee Memberships - Present:

Squaw Valley Technical Review Committee
(appointed 1986)

Technical Boards and Committee Memberships - Past:

July 1996 – March 2002
Member, Bay Area Air Quality Management District Hearing Board
(Chairman 1999-2002)
September 2000 – February 2001
Member, State Water Resources Control Board Noncompliant Underground Tanks Advisory Group
January 1999 – June 2001
Member, California Air Resources Board Advisory Committee on Diesel Emissions
January 1994 - September 1999
Vice-Chairman, State Water Resources Control Board Bay Protection and Toxic Cleanup Program Advisory Committee
September 1998
Member, US EPA Workgroup on Cumulative Risk Assessment
April 1997 - September 1997
Member, Cal/EPA Private Site Manager Advisory Committee
January 1986 - July 1996
Member, Bay Area Air Quality Management District Advisory Council
(Chairman 1995-96)
January 1988 - June 1995
Member: California Department of Toxic Substance Control Site Mitigation Program Advisory Group
January 1989 - February 1995
Member: Department of Toxics Substances Control Review Committee, Cal-EPA

October 1991 - February 1992
Chair: Pollution Prevention and Waste Management Planning Task Force of the Department of Toxics Substances Control Review Committee, Cal-EPA

September 1990 - February 1991
Member: California Integrated Waste Management Board Sludge Advisory Committee

September 1987 - September 1988
ABAG Advisory Committee on Regional Hazardous Waste Management Plan

March 1987 - September 1987
California Department of Health Services Advisory Committee on County and Regional Hazardous Waste Management Plans

January 1984 - October 1987
Member, San Francisco Hazardous Materials Advisory Committee

March 1984 - March 1987
Member, Lawrence Hall of Science Toxic Substances and Hazardous Materials Education Project Advisory Board

Jan. 1, 1986 - June 1, 1986
Member, Solid Waste Advisory Committee, Governor's Task Force on Hazardous Waste

Jan. 1, 1983 - June 30, 1985
Member, Contra Costa County Hazardous Waste Task Force

Sept. 1, 1982 - Feb. 1, 1983
Member, Scientific Panel to Address Public Health Concerns of Delta Water Supplies, California Department of Water Resources

Present Position

January 1983- present
Owner and principal with Risk Sciences Associates, a Marin County, California, environmental consulting company specializing in multi-media human health and ecological risk assessment, air pathway analyses, hazardous materials management-infrastructure security, environmental site assessments, review and evaluation of EIRs/EISs, preparation of public health and safety sections of EIRs/EISs, and litigation support for toxic substance exposure cases.

Previous Positions

Jan. 2, 1983 - June 12, 1984
Member, State of California Occupational Safety and Health Standards Board (Cal/OSHA), appointed by the Governor

Aug. 1, 1979 - Jan. 2, 1983
Assistant Deputy Chief for Health, California Occupational Safety and Health Administration

Feb. 1, 1979 - Aug. 1, 1979

Administrative Assistant to Chairperson of Finance Committee, Board of Supervisors, San Francisco

Jan. 1, 1976 - Feb. 1, 1979
Research Pharmacologist and Postdoctoral Fellow, Department of Pharmacology and Toxicology, School of Medicine, University of California, San Francisco

Jan. 1, 1975 - Dec. 31, 1975
Acting Assistant Professor, Department of Pharmaceutical Chemistry, University of California, San Francisco

Experience

General

Dr. Greenberg has been a consultant in Hazardous Materials Management and Security, Human and Ecological Risk Assessment, Occupational Health, Toxicology, Hazardous Waste Site Characterization, and Toxic Substances Control Policy for over 26 years. He has broad experience in the identification, evaluation and control of health and environmental hazards due to exposure to toxic substances. His experience includes Community Relations Support and Risk Communication through experience at high-profile sites and presentations at professional society meetings.

He is presently assisting the California Energy Commission in assessing the risks to workers and the public of proposed power plants and LNG terminals in the state. His experience in hazard identification, exposure assessment, risk assessment, occupational safety and health, emergency response, and Critical Infrastructure Protection has made him a valuable part of the CEC team addressing this issue. He has reviewed and commented on the DEIS/DEIR for the proposed SES LNG Port of Long Beach terminal, focusing on security issues for the CEC and on safety matters for the City of Long Beach. He has presented technical information and analysis to the State of California Interagency LNG Working Group on thermal radiation public exposure criteria and safety/security at an east coast urban LNG terminal. (Both presentations are confidential owing to the nature of the material.) He has conducted numerous evaluations of the safety and hazards of natural gas pipelines for the CEC and has presented his findings and recommendations at public meetings and evidentiary hearings.

He has considerable experience in the review and evaluation of exposure via the air pathway - particularly to emissions from power plants and diesel exhaust - and a thorough knowledge of the regulatory requirements through his experience at Cal/OSHA, the BAAQMD Hearing Board, as a consultant to the California Energy Commission, and in preparing such assessments for local government and industry. He has assessed exposures to diesel exhaust during construction and operations of stationary and mobile sources and has testified at evidentiary hearings numerous times on this subject.

He served for over five years as the Vice-chair of the California State Water Resources Control Board Advisory Committee convened to address toxic substances in sediments in bays, rivers, and estuaries. He has also conducted numerous ecological risk assessments and characterizations, including those for marine and terrestrial habitats.

Dr. Greenberg has extensive experience in data collection and preparation of human and ecological risk assessments on numerous military bases and industrial sites with Cal/EPA DTSC and RWQCB oversight. He has also been retained to provide technical services to the Cal/EPA Department of Toxic Substances Control (preparation of human health risk assessments) and the Office of Environmental Health Hazard Assessment (review and evaluation of air toxics health risk assessments and preparation of profiles describing the acute and chronic toxicity of toxic air contaminants). He has also conducted several surveys of sites containing significant lead contamination from various sources including lead-based paint, evaluated potential occupational exposure to lead dust and fumes in industrial settings, prepared numerous human health risk assessments of lead exposure, and prepared safety and health plans for remedial investigation of lead contaminated soils. Dr. Greenberg is also a recognized expert on the requirements of California's Proposition 65 and has served as an expert on Prop. 65 litigation.

Liquefied Natural Gas (LNG)

Dr. Greenberg assisted the CEC in the preparation of the "background" report on the risks and hazards of siting LNG terminals in California ("LNG in California: History, Risks, and Siting" July 2003) and consulted for the City of Vallejo on a proposed LNG terminal and storage facility at the former Mare Island Naval Shipyard. He has also conducted an evaluation and prepared comments on the risks, hazards, and safety analysis of the DEIS/DEIR for the City of Long Beach on a proposed LNG terminal at the Port of Long Beach (POLB) and conducted an analysis on vulnerability and critical infrastructure security for the CEC on this same proposed LNG terminal. He currently advises the CEC on the POLB LNG proposal on risks, hazards, human thresholds of thermal exposure, vulnerability, security, and represented the CEC at a U.S. Coast Guard briefing on the Waterway Suitability Assessment that included the sharing of SSI (Sensitive Security Information). He has presented technical information and analysis to the State of California LNG Interagency Working Group on thermal radiation public exposure criteria and safety/security at an east coast urban LNG terminal. (Both presentations are confidential owing to the nature of the material.) He has conducted numerous evaluations of the safety and hazards of natural gas pipelines for the CEC and has presented his findings and recommendations at public meetings and evidentiary hearings.

Infrastructure Security

Since 2002, Dr. Greenberg has been trained by and is working with the Israeli company SB Security, LTD, the most experienced and tested security planning and service company in the world. Since the events of 9/11, Dr. Greenberg has been the lead person for developing vulnerability assessments and power plant security programs for the California Energy Commission (CEC). In taking the lead for this state agency, Dr. Greenberg has interfaced with the California Terrorism Information Center (CATIC) and provided analysis, recommendations, and testimony at CEC evidentiary hearings regarding the security of power plants within the state. These analyses include the assessment of Critical Infrastructure Protection, threat assessments, criticality assessments, and the preparation of vulnerability assessments and off-site consequence analyses addressing the use, storage, and transportation of hazardous materials, recommendations for security to reduce the threat from foreign and domestic terrorist activities, perimeter security, site access by personnel and vendors, personnel background checks, management responsibilities for facility security, and employee training in security methods. Dr. Greenberg is the lead person in developing a model power plant security plan, vulnerability

assessment matrix, and a security training manual for the CEC. The model security plan is used by power plants in California as guidance in developing and implementing security measures to reduce the vulnerability of California's energy infrastructure to terrorist attack. He has testified at several evidentiary hearings for the CEC on power plant security issues. He also leads an audit team conducting safety and security audits at power plants throughout California that are under the jurisdiction of the CEC. In addition to providing security expertise to the State of California, in August 2004, a team of experts led by Dr. Greenberg was awarded an 18-month contract by the State of Hawaii to update and improve the state's Energy Emergency Preparedness Plan and make recommendations for increased security of critical energy infrastructure on this isolated group of islands.

Hazardous Materials Assessments, Waste Management Assessments, Worker Safety and Fire Protection Assessments, and Public Health Impacts Assessments

Dr. Greenberg also has significant experience as a consultant and expert witness for the California Energy Commission providing analysis, recommendations, and testimony in the areas of hazardous materials management, process safety management, waste management, worker safety and fire protection, and public health impacts for proposed power plant/cogeneration facilities. These analyses include the evaluation and/or preparation of the following:

- Off-site consequence analyses of the handling, use, storage, and transportation of hazardous materials,
- Risk Management Plans (required by the Cal-ARP) and Business Plans (required by H&S Code section 25503.5),
- Safety Management Plans (required by 8 CCR section 5189),
- Natural gas pipeline safety,
- Solid and hazardous waste management plans,
- Phase I and II Environmental Site Assessments,
- Construction and Operations Worker Safety and Health Programs,
- Fire Prevention Programs,
- Human health risk assessment from stack emissions and from diesel engines, and
- Mitigation measures to address PM exposure, including diesel particulates

Examples

- San Francisco Energy Reliability Project, San Francisco, Ca. 2004-present. Hazardous materials management, worker safety/fire protection, waste management, public health
- Inland Empire Energy Center, Romoland, Ca. 2002-3. hazardous materials, worker safety/fire protection, waste management, public health
- Malburg Generating Station Project, City of Vernon, Ca. 2002-3. hazardous materials, worker safety/fire protection, waste management, public health
- Blythe II, Blythe, Ca. 2002-3. hazardous materials, worker safety/fire protection,
- Palomar Energy Center, Escondido, Ca. 2002-3. hazardous materials, worker safety/fire protection, waste management, public health
- Cosumnes Power Project, Rancho Seco, Ca. 2002-3. hazardous materials, worker safety/fire protection, waste management, public health
- Tesla Power Project, Tesla, Ca. 2002-3. hazardous materials, worker safety/fire protection, waste management, public health

- San Joaquin Valley Energy Center, San Joaquin, Ca. 2002-3. hazardous materials, worker safety/fire protection, waste management
- Morro Bay Power Plant, Morro Bay, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management
- Potrero Power Plant Unit 7, San Francisco, Ca., 2001-2: hazardous materials, worker safety/fire protection
- El Segundo Power Redevelopment Project, El Segundo, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management
- Rio Linda Power Project, Rio Linda, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- Pastoria II Energy Facility Expansion, Grapevine, Ca., 2001: hazardous materials, worker safety/fire protection
- East Altamont Energy Center, Byron, Ca., 2001-2: hazardous materials, worker safety/fire protection
- Magnolia Power Project, Burbank, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- Russell City Energy Center, Hayward, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management
- Woodbridge Power Plant, Modesto, Ca., 2001: hazardous materials, worker safety/fire protection, waste management
- Colusa Power Plant Project, Colusa County, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- Valero Refinery Cogeneration Project, Benicia, Ca., 2001: hazardous materials, worker safety/fire protection
- Ocotillo Energy Project, Palm Springs, Ca., 2001: hazardous materials, worker safety/fire protection
- Gilroy Energy Center Phase II Project, Gilroy, Ca., 2001-2: hazardous materials, worker safety/fire protection
- Los Esteros Critical Energy Facility, San Jose, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- Roseville Energy Facility, Roseville, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- Spartan Power, San Jose, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- Inland Empire Energy Center, Romoland, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- South Star Cogeneration Project, Taft, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- Tesla Power Plant, Eastern Alameda County, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- Tracy Peaker Project, Tracy, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- Henrietta Peaker Project, Kings County, Ca., 2001: hazardous materials, worker safety/fire protection, waste management, public health
- Central Valley Energy Center, San Joaquin, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health

- Cosumnes Power Plant, Rancho Seco, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- Los Banos Voltage Support Facility, Western Merced County, Ca., 2001-2: waste management, public health
- Palomar Energy Project, Escondido, Ca., 2001-2: hazardous materials, worker safety/fire protection, waste management, public health
- Metcalf Energy Center, San Jose, Ca., 2000-1: hazardous materials
- Blythe Power Plant, Blythe, Ca., 2000-1: hazardous materials
- San Francisco Energy Co. Cogeneration Project, San Francisco, Ca., 1994-5: hazardous materials
- Campbell Soup Cogeneration Project, Sacramento, Ca., 1994: hazardous materials
- Proctor and Gamble Cogeneration Project, Sacramento, Ca., 1993-4: hazardous materials
- San Diego Gas and Electric South Bay Project, Chula Vista, Ca., 1993: hazardous materials
- SEPCO Project, Rio Linda, Ca., 1993: hazardous materials
- Shell Martinez Manufacturing Complex Cogeneration Project, Martinez, Ca., 1993: hazardous materials and review and evaluation of EIR
- SFERP Project, San Francisco, Ca. 2004 – 2006. hazardous materials, worker safety/fire protection, waste management, public health

Air Pathway Analysis

Dr. Greenberg has prepared numerous Air Pathway Analyses and human health risk assessments, evaluating exposure at numerous locations in California, Hawai'i, Oregon, Minnesota, Michigan, and New York. He is experienced in working with Region IX EPA, the State of California DTSC, and the Hawai'i Department of Health Clean Air Branch in the application of both site-specific and non site-specific health risk assessment criteria.

Examples

Human Health Risk Assessment for the Open Burn/Open Detonation Operation at McCormick Selph, Inc., Hollister, Ca. (June 2003)

Air Quality and Human Health Risk Assessment for the Royal Oaks Industrial Complex, Monrovia, Ca. (January 2003)

Human Health Risk Assessment and Indoor Vapor Intrusion Assessment for the former Pt. St. George Fisheries Site, Santa Rosa, Ca. (October 2002)

Human Health Risk Assessment for the former Sargent Industries Site, Huntington Park, Ca. (July 2001)

Ballard Canyon Air Pathway Analysis and Human Health Risk Assessment, Santa Barbara County, Ca. (September 2000)

Health Risk Assessment Due to Diesel Train Engine Emissions, Oakland, Ca. (June 1999)

The Avila Beach Health Study Phase 1: Reconnaissance Sampling Findings, Conclusions, and Recommendations. (July 1997) Volume 1: Baseline Human Health Risk Assessment. (May 1998)

The Avila Beach Health Study Phase 1, Volume 2: Environmental Monitoring. (May 1998)

Health Risk Assessment and Air Pathway Analysis for the Ballard Canyon Landfill, Santa Barbara County, Ca. (March 1999)

Human Health Risk Assessment, Teledyne Ryan Aeronautical, McCormick Selph Ordnance. Hollister, California. (December 1996)

Initial Phase Human Health Risk Assessment, Teledyne Inc., San Diego, Ca. (October 1996)

Human Health Risk Assessment for Current and Proposed Expanded Class II and Class III Operations at the Altamont Sanitary Landfill, Alameda County, Ca.
(March, 1993)

Focused Ecological Risk Characterization, Hawaiian Electric Company, Keahole Generating Station Expansion, Hawai'i (June 1993)

Human Health Risk Assessment for the Proposed Palima Point Space Launch Complex, prepared for the Hawai'i Office of Space Industry (April 1993)

Ecological Risk Assessment for the Proposed Palima Point Space Launch Complex, prepared for the Hawai'i Office of Space Industry (March 1993)

Human Health Risk Assessment Due to Emissions from a Medical Waste Incinerator, prepared for Kauai Veterans Memorial Hospital, Kauai, Hawai'i (1994)

Cancer Risk Assessment for the H-Power Generating Station, Campbell Industrial Park, Oahu, Hawai'i (1988)

Occupational Safety and Health/Health and Safety Plans/Indoor Air Quality

Dr. Greenberg has significant experience in occupational safety and health, having directed the development, adoption, and implementation of over 50 different Cal/OSHA regulations, including airborne contaminants (>450 substances), lead, asbestos, confined spaces, and worker-right-to-know (MSDSs). He has conducted numerous occupational health surveys and has extensive experience in the sampling and analysis of indoor air quality at residences, workplaces, and school classrooms. He is currently the team leader conducting safety and security audits at power plants throughout California for the California Energy Commission. Safety issues audited include compliance with regulations addressing several safety matters, including but not limited to, confined spaces, lockout/tagout, hazardous materials, and fire prevention/suppression equipment.

Examples

Review and Evaluation of Public and Worker Safety Issues at the proposed SES LNG Facility, Port of Long Beach. prepared for the City of Long Beach. (November 2005)

Confidential safety and security audit reports for 18 power plants in California. prepared for the California Energy Commission. (January 2005 through March 2006)

Report on the Accidental release and Worker Exposure to Anhydrous Ammonia at the BEP I Power Plant, Blythe, Ca. prepared for the California Energy Commission. (October 2004)

Investigation of a Worker Death in a Confined Space, La Paloma Power plant. prepared for the California Energy Commission. (July 2004)

Preliminary Report on Indoor Air Quality in Elementary School Portable Classrooms, Marin County, Ca. (December 1999)

Health Risk Assessment Due to Diesel Train Engine Emissions, Oakland, Ca. (June 1999)

Air Pathway Analysis for the Ballard Canyon Landfill. Submitted to the County of Santa Barbara, (March 1999)

Review and Evaluation of the Health Risk Assessment for Outdoor and Indoor Exposures at the Former Golden Eagle Refinery Site, Carson, Ca. (May 1998)

The Avila Beach Health Study Phase 1: Reconnaissance Sampling Findings, Conclusions, and Recommendations. (July 1997) Volume 1: Baseline Human Health Risk Assessment. (May 1998)

The Avila Beach Health Study Phase 1, Volume 2: Environmental Monitoring. (May 1998)

Phase 2 Human Health Risk Assessment, Teledyne Inc., San Diego, Ca. (February 1997)

Determination of Occupational Lead Exposure at a Tire Shop in Placerville, Ca. (April 1993)

Development of an Environmental Code of Regulations for Hazardous Waste Treatment Facilities on La Posta Indian Tribal lands, San Diego County, Ca. (August 1992)

Sampling and Analysis Plan, Health and Safety Plan, Site Characterization of Lead Oxide Contaminated Areas, Mare Island Naval Shipyard, Vallejo, California. Prepared in conjunction with Kaman Sciences Corp. (September 2, 1988)

Sites with RWQCB and/or DTSC Oversight

Dr. Greenberg has specific experience in assessing human health and ecological risks at contaminated sites at the land/water interface, including petroleum contaminants, metals, mercury, and VOCs at several locations in California including Oxnard, Richmond, Avila Beach, Mare Island Naval Shipyard, San Diego, Hollister, San Francisco, Hayward, Richmond, the Port of San Francisco, and numerous other locations. He has used Cal/EPA methods, US EPA methods, and ASTM Risk Based Corrective Action (RBCA) and Cal/Tox methodologies. He is

extremely knowledgeable about SWRCB and SF Bay RWQCB regulations on underground storage tank sites and with ecological issues presented by contaminated sediments including sediment analysis, toxicity testing, tissue analysis, and sediment quality objectives. Dr. Greenberg served on the State Water Resources Control Board Bay Protection and Toxic Cleanup Program Advisory Committee from 1994 until the end of the program in 1999.

Dr. Greenberg experience on many of these contaminated sites has been as a consultant to local governments, state agencies, and citizen groups. He assisted the City and County of San Francisco in developing local ordinance requiring soil testing (Article 20, Maher ordinance) and hazardous materials use reporting (Article 21, Walker ordinance). He served as the City of San Rafael's consultant to provide independent review and evaluation of the site characterization and remedial action plan prepared for a former coal gasification site. He was a consultant to a citizen group in northern California regarding exposure and risks due to accidental releases from a petroleum refinery and assisted in the assessment of risks due to crude petroleum contamination of a southern California beach. He has prepared a number of risk assessments addressing crude petroleum, diesel and gasoline contamination, including coordinating site investigations, environmental monitoring, and health risk assessment for the County of San Luis Obispo regarding Avila Beach subsurface petroleum contamination. That high-profile project lasted for over one year and Dr. Greenberg managed a team of experts with a budget of $750,000. Another high-profile project included the preparation of an extensive comprehensive human and ecological risk assessment for the Hawaii Office of Space Industry on rocket launch impacts and transportation/storage of rocket fuels at the southern end of the Big Island of Hawaii. Dr. Greenberg's risk assessments were part of the EIS for the project. Dr. Greenberg also worked on another high-profile project conducting Air Pathway Analysis of off-site and on-site impacts from landfill gas constituents, including indoor and outdoor air measurements, air dispersion modeling, flux chamber investigations, and health risk assessment for the County of Santa Barbara.
Dr. Greenberg has conducted RI/FS work, prepared health risk assessments, evaluated hazardous waste sites and hazardous materials use at numerous locations in California, Hawaii, Oregon, Minnesota, Michigan, and New York. He has considerable experience in the development of clean-up standards and the development of quantitative risk assessments for site RI/FS work at CERCLA sites, as well as site closures, involving toxic substances and petroleum hydrocarbon wastes. He is experienced in working with both Region IX EPA and the State of California DTSC in negotiating clean-up standards based on the application of both site-specific and non site-specific health and ecological based clean-up criteria. He has significant experience in the development of site chemicals of concern list, quantitative data quality levels, site remedial design, the site closure process, the design and execution of data quality programs and verification of data quality prior to its use in the decision making process on large NPL sites.

Examples

The Avila Beach Health Study Phase 1: Reconnaissance Sampling Findings, Conclusions, and Recommendations. (July 1997) Volume 1: Baseline Human Health Risk Assessment. (May 1998)
The Avila Beach Health Study Phase 1, Volume 2: Environmental Monitoring. (May 1998)

Health Risk Assessment and Air Pathway Analysis for the Ballard Canyon Landfill, Santa Barbara County, Ca. (March 1999)

Screening Human Health Risk Assessment, Calculation of Soil Clean-up Levels, and Aquatic Ecological Screening Evaluation, Galilee Harbor, Sausalito, Ca. (May 1998)

Health Risk Assessment Due to Diesel Train Engine Emissions, Oakland, Ca. (June 1999)

Health Risk Assessment for Residual Mercury at the Deer Creek Facility, 3475 Deer Creek Road, Palo Alto, California. (July 1997)

Phase 2 Human Health Risk Assessment, Teledyne Inc., San Diego, Ca. (February 1997)

Human Health Risk Assessment, Teledyne Ryan Aeronautical, McCormick Selph Ordnance. Hollister, California. (December 1996)

Initial Phase Human Health Risk Assessment, Teledyne Inc., San Diego, Ca. (October 1996)

Human Health Risk Assessment, Ecological Screening Evaluation, and Development of Proposed Remediation Goals for the Flair Custom Cleaners Site, Chico, California (January 1996)

Human Health Risk Assessment for the X-3 Extrudate Project at Criterion Catalyst, Pittsburg, Ca. (November 1994)

Screening Health Risk Assessment and Development of Proposed Soil Remediation Levels at Hercules Plant #3, Culver City, Ca. (July 1993)

Ecological Screening Evaluation for the Altamont Landfill, Alameda County, Ca. (June, 1993)

Focused Ecological Risk Characterization, Hawaiian Electric Company, Keahole Generating Station Expansion, Hawaii (June 1993)

Human Health Risk Assessment for the Proposed Palima Point Space Launch Complex, prepared for the Hawaii Office of Space Industry (April 1993)

Ecological Risk Assessment for the Proposed Palima Point Space Launch Complex, prepared for the Hawaii Office of Space Industry (March 1993)

Human Health Risk Assessment for Current and Proposed Expanded Class II and Class III Operations at the Altamont Sanitary Landfill, Alameda County, Ca.
(March, 1993)

Screening Health Risk Assessment for the Proposed Expansion of the West Marin Sanitary Landfill, Point Reyes Station, Ca.
(March, 1993)

Health Risk Assessment for the Proposed Expansion of the Forward, Inc. Landfill, Stockton, Ca. (September 14, 1992)

Health Risk Assessment for the Rincon Point Park Project, San Francisco, Ca. Prepared for Baseline Environmental Consulting and the San Francisco Redevelopment Agency. (August 10, 1992)

Health Risk Assessment for the South Beach Park Project, San Francisco, Ca. Prepared for Baseline Environmental Consulting and the San Francisco Redevelopment Agency. (August 10, 1992)

Screening Health Risk Assessment and Development of Proposed Soil and Groundwater Remediation Levels, Kaiser Sand and Gravel, Mountain View, Ca. Prepared for Baseline Environmental Consulting (January 30, 1992)

Development of Proposed Soil Remediation Levels for the Marine Corps Air-Ground Combat Center, 29 Palms, California (May 30, 1991)

Preliminary Health Risk Assessment for the City of Pittsburg Redevelopment Agency, Pittsburg, California (May 29, 1991)

Military Bases

Dr. Greenberg has experience in conducting assessments at DOD facilities, including RI/FS work, preparation of health risk assessments, evaluation of hazardous waste sites and hazardous materials use at the following Navy sites in California: San Diego Naval Base; Marine Corps Air-Ground Combat Center, 29 Palms; Mare Island Naval Shipyard, Vallejo; Treasure Island Naval Station, San Francisco, Hunters Point Naval Shipyard, San Francisco, and the Marine Corps Logistics Base, Barstow. He worked with the U.S. Navy and the U.S. EPA in the implementation of Data Quality Objectives (DQO's) at MCLB, Barstow.

Examples

Review and Evaluation of the Remedial Investigation Report and Human Health Risk Assessment for the U. S. Naval Station at Treasure Island, Ca. (June 1999)

Screening Health Risk Assessment for the Proposed San Francisco Police Department's Helicopter Landing Pad at Hunters Point Shipyard, San Francisco, Ca. (September 1997)

Development of Proposed Soil Remediation Levels for the Marine Corps Air-Ground Combat Center, 29 Palms, California (May 30, 1991)

Health Risk Assessment for the Chrome Plating Facility, Mare Island Naval Shipyard, Vallejo, California (October 24, 1988)

Background Levels and Health Risk Assessment of Trace Metals present at the Naval Petroleum Reserve No.1, 27R Waste Disposal Trench Area, Lost Hills, California (August 12, 1988)

RCRA Facility Investigation (RFI) Work Plan of Lead Oxide Contaminated Areas, Mare Island Naval Shipyard, Vallejo, California. Prepared in conjunction with Kaman Sciences Corp. (August 14, 1989)

Hazardous Waste and Solid Waste Audit and Management Plan, Mare Island Naval Shipyard, Vallejo, California. Prepared in conjunction with Kaman Sciences Corp. (July 3, 1989)

Water Quality Solid Waste Assessment Test (SWAT) Proposal RCRA Landfill, Mare Island Naval Shipyard, Vallejo, California. Prepared in conjunction with Kaman Sciences Corp. (October 31, 1988)

Waste Disposal Facilities, Waste Haulers, Waste Recycling Facilities Report, Mare Island Naval Shipyard, Vallejo, California. Prepared in conjunction with Kaman Sciences Corp. (September 22, 1988)

Sampling and Analysis Plan, Health and Safety Plan, Site Characterization of Lead Oxide Contaminated Areas, Mare Island Naval Shipyard, Vallejo, California. Prepared in conjunction with Kaman Sciences Corp. (September 2, 1988)

Air Quality Solid Waste Assessment Test (SWAT) Proposal, Mare Island Naval Shipyard, Vallejo, California. Prepared in conjunction with Kaman Sciences Corp. (August 25, 1988)

Mercury Contamination

Dr. Greenberg has prepared and/or reviewed several human health and ecological risk assessments regarding mercury contamination in soils, sediments, and indoor surfaces. Dr. Greenberg served on the State Water Resources Control Board Bay Protection and Toxic Cleanup Program Advisory Committee from 1994 until the end of the program in 1999.

Examples

Review and evaluation of a human health risk assessment of ingestion of sport fish caught from San Diego Bay and which contain tissue levels of mercury and PCBs (November 2004 – present)

Screening Human Health Risk Assessment, Calculation of Soil Clean-up Levels, and Aquatic Ecological Screening Evaluation, Galilee Harbor, Sausalito, Ca. (May 1998)

Health Risk Assessment for Residual Mercury at the Deer Creek Facility, 3475 Deer Creek Road, Palo Alto, California. (July 1997)

Human Health Risk Assessment Due to Emissions from a Medical Waste Incinerator, prepared for Kauai Veterans Memorial Hospital, Kauai, Hawai'i (1994)

Effect of exposure to traffic on lung development from 10 to 18 years of age: a cohort study

W James Gauderman, Hita Vora, Rob McConnell, Kiros Berhane, Frank Gilliland, Duncan Thomas, Fred Lurmann, Edward Avol, Nino Kunzli, Michael Jerrett, John Peters

Summary

Background Whether local exposure to major roadways adversely affects lung-function growth during the period of rapid lung development that takes place between 10 and 18 years of age is unknown. This study investigated the association between residential exposure to traffic and 8-year lung-function growth.

Methods In this prospective study, 3677 children (mean age 10 years [SD 0·44]) participated from 12 southern California communities that represent a wide range in regional air quality. Children were followed up for 8 years, with yearly lung-function measurements recorded. For each child, we identified several indicators of residential exposure to traffic from large roads. Regression analysis was used to establish whether 8-year growth in lung function was associated with local traffic exposure, and whether local traffic effects were independent of regional air quality.

Findings Children who lived within 500 m of a freeway (motorway) had substantial deficits in 8-year growth of forced expiratory volume in 1 s (FEV_1, −81 mL, p=0·01 [95% CI −143 to −18]) and maximum midexpiratory flow rate (MMEF, −127 mL/s, p=0·03 [−243 to −11]), compared with children who lived at least 1500 m from a freeway. Joint models showed that both local exposure to freeways and regional air pollution had detrimental, and independent, effects on lung-function growth. Pronounced deficits in attained lung function at age 18 years were recorded for those living within 500 m of a freeway, with mean percent-predicted 97·0% for FEV_1 (p=0·013, relative to >1500 m [95% CI 94·6–99·4]) and 93·4% for MMEF (p=0·006 [95% CI 89·1–97·7]).

Interpretation Local exposure to traffic on a freeway has adverse effects on children's lung development, which are independent of regional air quality, and which could result in important deficits in attained lung function in later life.

Lancet 2007; 369: 571–77
Published Online January 26, 2007
DOI:10.1016/S0140-6736(07)60037-3
See Comment page 535

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Introduction

Both cross-sectional[1–9] and longitudinal[10–15] studies have shown that lung function in children is adversely affected by exposure to urban, regional air pollution. Evidence has emerged that local exposure to traffic is related to adverse respiratory effects in children, including increased rates of asthma and other respiratory diseases.[16–28] Cross-sectional studies in Europe have shown that deficits in lung function are related to residential exposure to traffic.[27,29–32] However, does traffic exposure have an adverse effect on lung-function development in children? The answer to this question is important in view of the extent of traffic exposure in urban environments and the established relation between diminished lung function in adulthood and morbidity and mortality.[33–39]

We investigated the association between residential exposure to traffic and 8-year lung-function development on the basis of cohort data from the Children's Health Study. We also studied the joint effects of local traffic exposure and regional air quality on children's lung development.

Methods

Participants

The Children's Health Study recruited two cohorts of fourth-grade children (mean age 10 years [SD 0·44], one in 1993 (cohort 1, n=1718) and the other in 1996 (cohort 2, n=1959). All children were recruited from schools in 12 southern California communities as part of an investigation into the long-term effects of air pollution on children's respiratory health.[7,14,40] A consistent protocol was used in all communities to identify schools, and all students targeted for study were invited to participate.[40] Overall, 82% (3677) of available students agreed to participate. Pulmonary-function data were obtained yearly by trained field technicians, who travelled to study schools to undertake maximum effort spirometry on the children, using the same equipment and testing protocol throughout the study period. Details of the testing protocol have been previously reported.[7,15] Children in both cohorts were followed up for 8 years.

A baseline questionnaire, completed at study entry by each child's parent or legal guardian, was used to obtain information on race, Hispanic ethnic origin, parental income and education, history of doctor-diagnosed asthma, in-utero exposure to maternal smoking, and household exposure to gas stoves, pets, and environmental tobacco smoke.[40] A yearly questionnaire, with similar structure to that of the baseline questionnaire, was used to update information on asthma status, personal smoking, and exposure to environmental tobacco smoke. For statistical modelling, a three-category socioeconomic status variable was created on the basis of total household income and education of the parent or guardian who completed the questionnaire. High socioeconomic status (23% of children, n=823) was defined as a parental

income greater than US$100 000 per year, or an income over US$15 000 per year and at least 4 years of college education. The middle category (36%, n=1283) included children with a parental income between US$15 000 and US$100 000 and some (less than 4 years) college or technical school education, and low socioeconomic status (41%, n=1483) included all remaining children.

The study protocol was approved by the institutional review board for human studies at the University of Southern California, and written consent was provided by a parent or legal guardian for every study participant.

Exposure data

We characterised exposure of every study participant to traffic-related pollutants by two types of measures—proximity of the child's residence to the nearest freeway or to the nearest major non-freeway road, and model-based estimates of traffic-related air pollution at the residence, derived from dispersion models that incorporated distance to roadways, vehicle counts, vehicle emission rates, and meteorological conditions.[41] Regional air pollution was continuously monitored at one central site location within each study community over the course of the investigation. Further details of exposure assessment are available in the webappendix.

See Online for webappendix

Statistical methods

The outcome data consisted of 22 686 pulmonary-function tests recorded from 3677 participants during 8 years in both cohorts. We focused on three pulmonary-function measures: forced vital capacity (FVC), forced expiratory volume in 1 s (FEV_1), and maximum midexpiratory flow rate (MMEF, also known as FEF_{25-75}). The exposures of primary interest were the traffic measures described above.

We used a hierarchical mixed-effects model to relate 8-year growth in each lung-function measure to traffic exposure, with basic structure that has been previously described.[42] To account for the growth pattern in lung function during this period, we used a linear spline model,[43] constructed so that 8-year growth in lung function was estimated jointly with other model parameters. We estimated and tested the effect of traffic exposure on 8-year growth, and in some analyses on mean lung function at 10 and 18 years of age. The model allowed for separate growth curves for each sex, race, ethnic origin, cohort, and baseline-asthma subgroup. The model also included adjustments for height, height squared, body-mass index (BMI), BMI squared, present asthma status, exercise or respiratory illness on the day of the test, any tobacco smoking by the child in the previous year, and indicator variables for field technician. Random effects for the intercept and 8-year growth parameters were included at the level of participant and community.

To keep the potential effect of outliers to a minimum and to examine possible non-linear exposure-response relations, we used categorical forms of each traffic indicator in our models. For distance to the freeway, we formed four categories—less than 500 m, 500–1000 m, 1000–1500 m, and more than 1500 m. Distances to non-freeway major roads were similarly categorised based on distances of 75 m, 150 m, and 300 m. Model-based estimates of pollution from freeways and non-freeways were categorised into quartiles on the basis of their respective distributions (see webappendix). The categories for all traffic indicators were fixed before any health analyses were done. Traffic effects are reported as the difference in 8-year growth for each category relative to the least exposed category, so that negative estimates signify reduced lung-function growth with increased exposure.

We also considered joint estimation of traffic effects within the community and pollution between communities, which was based on the long-term average pollutant concentrations measured at the central sites (see webappendix). Pollutant effects are reported as the difference in 8-year growth in lung function from the least to the most polluted community, with negative differences indicating growth deficits with increased exposure. Possible modification of a traffic effect by community-average ambient pollutant concentration was tested by inclusion of the appropriate interaction term in the model.

To examine attained lung function, we computed percent-predicted lung function for participants who were measured in 12th grade, our last year of follow-up (n=1497, mean age 17·9 years [SD 0·41]). To estimate predicted FEV_1 values, we first fitted a regression model for observed FEV_1 (log transformed) with predictors log height, BMI, BMI squared, sex, asthma status, race or ethnic origin, field technician, and sex-by-log height, sex-by-BMI, sex-by-BMI squared, sex-by-asthma, and sex-by-race or ethnic origin interactions. We calculated predicted FEV_1 on the basis of this model and percent-predicted as observed divided by predicted FEV_1. We used a regression model to calculate the mean percent-predicted value for each category of distance to the freeway, with adjustment for community. To aid in interpretation, we scaled percent-predicted values so that children who lived furthest (>1500 m) from a freeway had a mean of 100%, and we give means for the remaining distance groups relative to this benchmark. Analogous calculations were used to obtain the percent-predicted mean for FVC and MMEF.

Regression procedures in SAS (version 9.0) were used to fit all models. Associations denoted as significant were those with a p value less than 0·05, assuming a two-sided alternative hypothesis.

Role of the funding source

The funding sources of this study had no role in the study design, collection, analysis, or interpretation of data, in the writing of the report, or in the decision to submit the paper for publication. The corresponding

author had full access to all the data in the study and had final responsibility for the decision to submit for publication.

Results

An average of 6·2 pulmonary function tests were done per child. There were equal proportions of male and female participants (webtable 1). Most children were of non-Hispanic white or Hispanic ethnic origin. 440 (12%) children lived within 500 m of a freeway, with most of these children residing in six of the 12 communities (webtable 2 and webfigure). Model-based estimates of pollution from a freeway were skewed toward either high or low values within most study communities.

8-year growth in FVC, FEV_1, and MMEF averaged 1512 mL, 1316 mL, and 1402 mL/s, respectively, in girls, and 2808 mL, 2406 mL, and 2476 mL/s, respectively, in boys. Closer residential distance to a freeway was associated with reduced growth in lung function (table 1). In children who lived within 500 m of a freeway, 8-year growth was significantly reduced compared with those who lived at least 1500 m from a freeway. Large deficits in FEV_1 and MMEF growth were also estimated for the two highest-exposure quartiles of model-based pollution from a freeway, although neither deficit was statistically significant. Indicators of traffic from non-freeway roads, including both distance and model-based pollution estimates, were not associated with reduced growth.

The association between FEV_1 growth and distance to a freeway was significant in various sensitivity analyses (table 2). Compared with the results shown in table 1 (base model), distance-effect estimates were larger with additional adjustment for socioeconomic status. Further investigation showed that low socioeconomic status was associated with increased traffic exposure, with mean residential distance to freeways of 1·8 km (SD 1·32), 2·0 km (1·65), and 2·5 km (1·91) for low, middle, and high groups respectively. However, socioeconomic status was not significantly associated with FEV_1 growth, and therefore adjustment for this variable induced only a modest change. Adjustment for indoor sources of air pollution including gas stoves, pets, and exposure to environmental tobacco smoke also resulted in little change in the estimated freeway-distance effects.

Significant distance effects were seen in the subset of children who reported never having had asthma, and in the subset of children who reported no active tobacco smoking. The relation between FEV_1 growth and distance was noticeably larger in boys than in girls, although a test of effect modification by sex was non-significant (p=0·10). Only six of the 12 communities had substantial numbers of children living within 500 m of a freeway. The estimated effects of freeway distance on lung development were more pronounced in these six higher-traffic communities than in the other communities. There was no significant evidence of heterogeneity in the local distance effects in these six communities (data not shown). Furthermore, around 34% (1267) of children moved from their baseline residence during follow-up but remained in one of the 12 study communities and thus continued to participate. If we omitted post-move lung-function measurements from the analysis, the estimated effects of freeway-distance on FEV_1 growth were more pronounced.

	FVC (mL) difference (95% CI)	FEV_1 (mL) difference (95% CI)	MMEF (mL/sec) difference (95% CI)
Freeway distance*			
<500 m	−63 (−131 to 5)	−81 (−143 to −18)	−127 (−243 to −11)
500–1000 m	−31 (−93 to 32)	−41 (−99 to 17)	−35 (−142 to 73)
1000–1500 m	−19 (−84 to 46)	−33 (−93 to 26)	−94 (−204 to 16)
Model-based pollution from freeway†			
4th quartile (high)	−66 (−186 to 54)	−69 (−179 to 42)	−147 (−352 to 58)
3rd quartile	−61 (−151 to 29)	−78 (−161 to 5)	−144 (−298 to 9)
2nd quartile	−27 (−90 to 36)	−22 (−80 to 36)	−37 (−144 to 71)
Non-freeway distance‡			
<75 m	5 (−63 to 72)	−35 (−97 to 27)	−66 (−181 to 49)
75–150 m	4 (−59 to 68)	22 (−37 to 80)	35 (−74 to 144)
150–300 m	−10 (−63 to 42)	−8 (−56 to 40)	−16 (−105 to 73)
Model-based pollution from non-freeway†			
4th quartile (high)	13 (−70 to 96)	3 (−74 to 80)	2 (−140 to 144)
3rd quartile	42 (−27 to 111)	16 (−47 to 80)	−23 (−141 to 95)
2nd quartile	6 (−54 to 66)	2 (−53 to 57)	11 (−91 to 113)

*Difference in 8-year lung-function growth relative to children living at least 1500 m from a freeway. †Difference in 8-year lung-function growth relative to children in the first (lowest) quartile of exposure. ‡Difference in 8-year lung-function growth relative to children living at least 300 m from a non-freeway road.

Table 1: **Association between 8-year lung-function growth and several indicators of residential traffic exposure**

	Freeway distance (m)					
	<500	p	500–1000	p	1000–1500	p
Base model*	−81	0·012	−41	0·165	−33	0·275
Additional covariates						
Base+socioeconomic status	−92	0·005	−50	0·092	−37	0·228
Base+gas stove in the home	−86	0·008	−42	0·160	−33	0·281
Base+pets in the home	−80	0·013	−41	0·165	−33	0·275
Base+in-utero exposure to maternal smoking	−83	0·011	−33	0·269	−36	0·245
Base+second-hand smoke exposure	−86	0·008	−41	0·163	−37	0·230
Subgroups						
Non-asthmatics only	−83	0·025	−70	0·042	−61	0·091
Non-smokers only	−99	0·006	−49	0·154	−48	0·182
Boys only	−158	0·003	−54	0·264	−77	0·123
Girls only	−12	0·750	−39	0·254	3	0·932
Six communities with closest freeway proximity†	−105	0·003	−56	0·101	−40	0·260
Deleting observations after a residence change‡	−86	0·030	−73	0·042	−53	0·148

*Base model results are the same as those in table 1. All models include adjustment for the covariates listed in the Methods section. Values are the difference in 8-year FEV_1 growth relative to those living >1500 m from a freeway. †Including only children from the six communities with the largest number of children living near a freeway (Riverside, Atascadero, Alpine, San Dimas, Long Beach, and Santa Maria). ‡Censoring any pulmonary function tests recorded after a participant left his or her baseline address.

Table 2: **Sensitivity analysis of freeway-distance effects on 8-year FEV_1 growth**

See Online for webtables 1 and 2 and webfigure

	Regional pollutant effect*	p	Local freeway distance (m)						
			<500	p	500–1000	p	1000–1500	p	p for interaction†
1000–1800 h ozone	−13	0·821	−81	0·012	−41	0·165	−33	0·275	0·51
Nitrogen dioxide	−109	0·003	−80	0·012	−41	0·166	−33	0·279	0·81
Acid	−111	0·002	−80	0·013	−41	0·164	−33	0·285	0·54
PM_{10}	−111	0·013	−81	0·012	−42	0·158	−32	0·287	0·24
$PM_{2·5}$	−100	0·009	−80	0·012	−41	0·160	−33	0·285	0·40
Elemental carbon	−101	0·001	−80	0·012	−42	0·156	−33	0·282	0·63

*Pollutant effects are the difference in 8-year FEV_1 growth from lowest to highest observed community-average concentration of the pollutant, specifically: per increase of 37·5 ppb ozone (1000–1800 h), 34·6 ppb of nitrogen dioxide, 9·6 ppb of acid vapour, 51·4 μg/m³ of PM_{10}, 22·8 μg/m³ of $PM_{2·5}$, and 1·2 μg/m³ elemental carbon. Distance effects are the difference in 8-year growth relative to those living >1500 m from a freeway. † A test of whether freeway-distance effect is modified by regional concentration of the pollutant. PM_{10}=particulate matter <10 μm aerodynamic diameter, $PM_{2·5}$=particulate matter <2·5 μm aerodynamic diameter.

Table 3: **Joint effect of regional pollution and local distance to a freeway on 8-year FEV_1 growth**

Reduced lung-function growth was independently associated with both freeway distance and with regional air pollution (table 3). Statistically significant joint models of regional pollution with distance to freeway were seen for nitrogen dioxide, acid vapour, elemental carbon, and particulate matter with aerodynamic diameter less than 10 μm and less than 2·5 μm. Ozone was not associated with reduced lung-function growth. There was no significant evidence of effect modification (interaction) of local traffic effects with any of the regional pollutants.

A subset of 1445 children were observed over the full 8 years of the study, from age 10 to 18 years. In this group, we noted significant deficits in 8-year FEV_1 growth and MMEF growth for those who lived within 500 m of a freeway (table 4). At 10 years of age, there was some evidence of reduced lung function for those who lived closer to a freeway than those who did not, although none of the differences between distance categories was statistically significant. However, by 18 years of age, participants who lived closest to a freeway had substantially lower attained FEV_1 and MMEF than those who lived at least 1500 m from a freeway.

These deficits in average FEV_1 and MMEF translated into pronounced deficits in percent-predicted lung function at 18 years of age (figure). There was a trend of lower percent-predicted lung function for children who lived closer to a freeway than for those who lived further away. The effect was most pronounced for those who lived less than 500 m from a freeway, with average percent predicted values of 97·0% (95% CI 94·6–99·4) for FEV_1 (p=0·013 relative to >1500 m) and 93·4% (89·1–97·7) for MMEF (p=0·006).

		Lung function		8-year growth
		Age 10 years	Age 18 years	Difference* (95% CI)
		Difference* (95% CI)	Difference* (95% CI)	
FVC	Freeway distance			
	<500 m	−17 (−70 to 37)	−85 (−192 to 22)	−69 (−160 to 22)
	500–1000 m	−12 (−61 to 37)	−54 (−151 to 43)	−42 (−125 to 41)
	1000–1500 m	−30 (−80 to 21)	−81 (−181 to 19)	−52 (−137 to 33)
FEV_1	Freeway distance			
	<500 m	−23 (−73 to 28)	−121 (−219 to −23)	−98 (−182 to −15)
	500–1000 m	−32 (−78 to 14)	−93 (−183 to −4)	−61 (−137 to 15)
	1000–1500 m	−34 (−81 to 14)	−78 (−170 to 14)	−44 (−122 to 34)
MMEF	Freeway distance			
	<500 m	−57 (−169 to 56)	−230 (−432 to −28)	−173 (−327 to −19)
	500–1000 m	−92 (−195 to 10)	−105 (−289 to 79)	−12 (−152 to 128)
	1000–1500 m	−45 (−150 to 60)	−151 (−340 to 38)	−106 (−250 to 38)

*Difference in 8-year lung function or growth relative to children living >1500 m from a freeway.

Table 4: **Cumulative effect of residential distance in the 1445 children with full 8-year follow-up**

Discussion

This study shows that residential proximity to freeway traffic is associated with substantial deficits in lung-function development in children. 8-year increases in both FEV_1 and MMEF were smaller for children who lived within 500 m of a freeway, than for those who lived at least 1500 m from a freeway. Freeway effects were seen in subsets of non-asthmatic and non-smoking participants, which is an indication that traffic exposure has adverse effects on otherwise healthy children. Deficits in 8-year growth resulted in lower attained FEV_1 and MMEF at 18 years of age for participants who lived within 500 m of a freeway than for those who lived further away. Since lung development is nearly complete by age 18 years, an individual with a deficit at this time will probably continue to have less than healthy lung function for the remainder of his or her life.

We previously reported an association between community-average pollutant concentrations and 8-year lung-function growth.[15] That result relied on comparisons in communities that had different concentrations of regional air pollution, and implicated many pollutants such as nitrogen dioxide, acid vapour, particulate matter with aerodynamic diameter less than 10 μm and 2·5 μm, and elemental carbon. Our present study builds on that result, and shows that in addition to regional pollution, local exposure to large roadways is associated with diminished lung-function development

in children. We did not find any evidence that traffic effects varied depending on background air quality, which suggests that even in an area with low regional pollution, children living near a major roadway are at increased risk of health effects. Our results also suggest that children who live close to a freeway in a high pollution area experience a combination of adverse developmental effects because of both local and regional pollution.

We noted a larger freeway effect in boys than in girls, although the difference between sexes was not significant. By contrast, a cross-sectional European study[29] reported larger traffic effects on lung function in girls than in boys.[29] Several factors could explain this discrepancy in sex-specific effects between studies, from differences in specific air pollution mixtures and underlying population susceptibilities, to the general difficulty of comparisons between longitudinal and cross-sectional study effect estimates. In general, however, both studies show that lung function in children is adversely affected by exposure to traffic.

The concentrations of several pollutants are raised near major freeways. Daytime concentrations of black carbon, ultrafine particulate, and other exhaust pollutants have been reported to be high, but decline exponentially, within 500 m of a freeway,[44,45] although night-time concentrations of ultrafine particulate remain above background concentrations for distances greater than 500 m from a freeway.[46] Some studies have reported increased traffic pollution, particularly nitrogen dioxide, at distances over 1000 m from a freeway.[16,47–49] Elemental carbon, an indicator of pollution from diesel exhaust, varies with nearby high-traffic roads[47,50,51] but can also be transported across large distances.[52] Diesel exhaust is one of the primary contributors to particulate-matter concentrations in those communities most affected by traffic.[53] A pollutant such as elemental carbon could explain our reported health effects both locally and regionally.

Both regional ambient and ultrafine particulate matter present in high concentration in close proximity to roadways can elicit oxidative and nitrosative stress in the airways, which results in inflammation.[54,55] Kulkarni and co-workers[32] reported that traffic-related particulate matter was correlated with the amount of carbon in the airway macrophages of children, which in turn was associated with reductions in FEV_1, MMEF, and FVC. Chronic airway inflammation could produce our reported deficits in MMEF and FEV_1. Additional research is needed to identify the specific traffic pollutants that bring about health effects, and to elucidate the contribution of each pollutant to regional and local associations.

A strength of this study was the long-term, prospective follow-up of two large cohorts of children, with exposure and outcome data obtained consistently. However, as in any epidemiological study, our results could be confounded by one or more other factors related to both traffic and lung-function growth. Our results were robust to adjustment for several factors, including socioeconomic status and indoor sources of air pollution, but the possibility of confounding by other factors still exists. Throughout the 8-year follow-up, we noted around an 11% loss of study participants per year. Participant attrition is a potential source of bias in cohort studies. We analysed the subset of children who were followed up for the full 8-year duration of the study and also noted significant traffic-effect estimates, which make participant loss an unlikely explanation for our results. We did not note a significant association between growth and model-based pollution from a freeway, despite large estimated deficits in the highest-exposure quartiles (table 1). However, we were restricted in detection of an association with model-based pollution from freeways because there was little variation in this measure within most of our study communities (webtable 2).

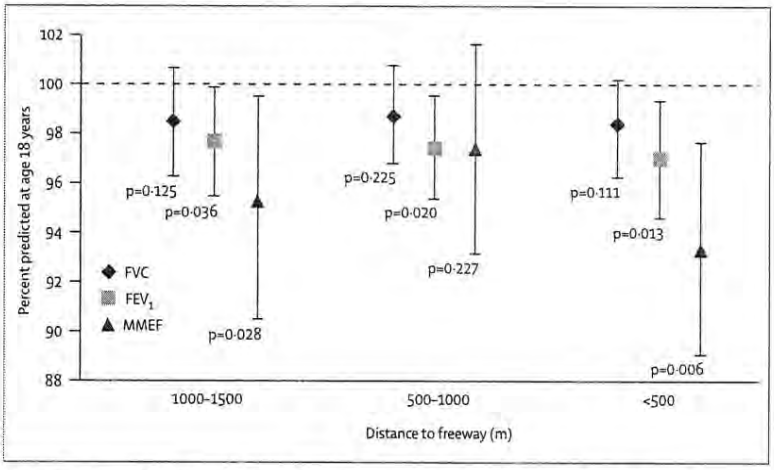

Figure: **Percent-predicted lung function at age 18 years versus residential distance from a freeway**
The horizontal line at 100% corresponds to the referent group, children living >1500 m from a freeway.

We have shown that residential distance from a freeway is associated with significant deficits in 8-year respiratory growth, which result in important deficits in lung function at age 18 years. This study adds to evidence that the present regulatory emphasis on regional air quality might need to be modified to include consideration of local variation in air pollution. In many urban areas, population growth is forcing the construction of housing tracts and schools near to busy roadways, with the result that many children live and attend school in close proximity to major sources of air pollution. In view of the magnitude of the reported effects and the importance of lung function as a determinant of adult morbidity and mortality, reduction of exposure to traffic-related air pollutants could lead to substantial public-health benefits.

Contributors

W J Gauderman, R McConnell, F Gilliland, E Avol, J Peters, M Jerrett, and N Kunzil participated in the writing of the manuscript. W J Gauderman, H Vora, K Berhane, D Thomas, and F Lurmann participated in the analysis of the data. All named authors took part in the interpretation of results, and approved the final version of the manuscript.

Conflict of interest statement

We declare that we have no conflict of interest.

Acknowledgments

This study was supported in part by the California Air Resources Board (contract A033-186), the National Institute of Environmental Health Sciences (P01ES11627 and P30ES07048), the US Environmental Protection Agency (R82735201), and the Hastings Foundation. We thank Cheryl Faucett for helpful discussions, members of our external advisory committee (Jonathan Samet, Nan Laird, Steve Rich, Petros Koutrakis, Gerhardt Coetzee) for important input, the school principals, teachers, students, and parents in each of the 12 study communities for their cooperation and the health testing field team.

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Effects of Aviation Noise on Awakenings from Sleep

Federal Interagency Committee on Aviation Noise (FICAN)

June 1997

The effect of aviation noise on sleep is a long-recognized concern of those interested in addressing the impacts of noise on people. In 1992, the Federal Interagency Committee on Noise (FICON) recommended an interim dose-response curve to predict the percent of the exposed population expected to be awakened as a function of the exposure to single event noise levels expressed in terms of SEL.

Since the adoption of FICON's interim curve in 1992, substantial field research in the area of sleep disturbance has been completed. The data from these studies show a consistent pattern, with considerably less percent of the exposed population expected to be behaviorally awakened than had been shown with laboratory studies.

FICAN recommends the adoption of a new dose-response curve for predicting awakening, based on the field data described in this paper and supporting references. The Committee takes the conservative position that, because the adopted curve represents the upper limit of the data presented, it should be interpreted as predicting the "maximum percent of the exposed population expected to be behaviorally awakened", or the "maximum % awakened".

1. SUMMARY

The effect of aviation noise on sleep is a long-recognized concern of those interested in addressing the impacts of noise on people. Historical studies of sleep disturbance were conducted mainly in laboratories, using various indicators of response (electroencephalographic recordings, verbal response, button push, etc). Field studies also were conducted, in which subjects were exposed to noise in their own homes, using real or simulated noise. However, in a 1989 assessment of existing research, Pearsons indicated the need for substantially more work in this area, citing the large discrepancy between laboratory and field studies as a major concern.

In 1992, the Federal Interagency Committee on Noise (FICON) recommended an interim dose-response curve to predict the percent of the exposed population expected to be awakened (% awakening) as a function of the exposure to single event noise levels expressed in terms of sound exposure level (SEL). This interim curve was based on the data presented in the 1989 study. The FICON report also recommended continued research into community reactions to aircraft noise, including sleep disturbance.

Since the adoption of FICON's interim curve in 1992, substantial field research in the area of sleep disturbance has been completed, using a variety of test methods, and in a number of locations. The data from these studies show a consistent pattern, with considerably less percent of the exposed population expected to be behaviorally awakened than had been shown with laboratory studies.

In light of this new information, FICAN recommends the adoption of a new dose-response curve for predicting awakening, based on the field data described in this paper and supporting references. The Committee takes the conservative position that, because the adopted curve represents the upper limit of the data presented, it should be interpreted as predicting the "maximum percent of the exposed population expected to be behaviorally awakened", or the "maximum % awakened". FICAN cautions that the dose-response relationship presented here relies on behavioral awakening as the indicator of sleep disturbance; relationships between aircraft noise and other potential sleep disturbance or related health effects responses have not been established by any of these newer studies. FICAN further notes that this curve should be applied only to long-term residential settings and should not be generalized to include children.

The new finding on the relationship between aircraft noise and sleep disturbance does not call into question the nighttime penalty applied to Day Night Sound Level (DNL). The 10 dB penalty added to noise levels for the period 10 p.m. to 7 a.m. is intended to account for the increased intrusiveness of noise at night. The ambient is generally lower and more people are at home during this period than at other times of the day. Thus, the opportunities for activity interference are much higher during nighttime which could lead to greater annoyance.

Continuing efforts to identify other dose-response relationships are being undertaken by standards-setting

organizations, such as the American National Standards Institute. FICAN will evaluate proposed relationships developed by such groups as they are published; until that time, FICAN recommends the use of the curve presented here for assessing potential sleep disturbance caused by aircraft noise.

2. Background

2.1 The Nature of Sleep Disturbance

The effect of aviation noise on sleep is a long-recognized concern of those interested in addressing the impacts of noise on people. Historical studies of sleep disturbance were conducted mainly in laboratories, using various indicators of response (electroencephalographic recordings, verbal response, button push, etc). Field studies also were conducted, in which subjects were exposed to noise in their own homes, using real or simulated transportation noise [Lukas, 1975; Griefahn and Muzet, 1978; and Pearsons et al., 1989].

Based on a 1989 literature review by Pearsons for the U.S. Air Force, no specific adverse health effects have been clearly associated with sleep disturbance, characterized either by awakening or by sleep-state changes [Pearsons, 1989]. Nevertheless, sleep disturbance is deemed undesirable, and may be considered an impact caused by noise exposure.

2.2 Methodological Considerations

Sleep disturbance studies have employed a variety of factors in study design, sleep disturbance measurement, and noise exposure assessment. Differences in these techniques can have influences on the results of the studies, and a basic understanding of the differences is important for interpreting the results.

Study Design: Laboratory vs. Field Research

The most important issue with regard to the design of sleep disturbance studies has been the location of test subjects: as demonstrated in the meta-analysis by Pearsons, there has been a consistent, significant difference in the level of disturbance observed between laboratory studies, in which subjects are exposed to noise in a laboratory setting, and field studies, in which subjects are exposed to noise (actual or simulated) in their own home. Generally, laboratory studies have shown considerably more disturbance than field studies [Pearsons, 1995]. Finegold speculates that the significantly greater awakening observed in the laboratory is due to the lack of habituation [Finegold, 1993].

Measures of Sleep Disturbance

Distinctions can be made between a variety of sleep disturbance responses, which can be identified through different data collection methods in sleep studies.

Behavioral awakenings typically are defined as awakening by the subject enough to initiate a physical acknowledgment, such as button-pushing or verbal response. Sleep disturbance also can be defined as arousals or gross bodily movement (motility), identified by periods of actimetric responsei, or by electroencephalographic (EEG) response, which may or may not result in actual awakening. Researchers are careful to point out that the relationship between behaviorally-confirmed awakening and motility is not clear, though both show clearly defined dose-response relationships.

In addition to the variety of measures for identifying disturbances from individual events, most sleep disturbance studies collect data from subjects concerning cumulative sleep effects. For example, measurements can be made of the total sleep time and/or time to fall asleep, and subjects can be questioned on sleep quality (feeling upon arousal, etc.). Two major problems with collecting cumulative data are the potential influences of disturbance caused by non-noise sources, and the difficulty of avoiding bias in test subjects on self-report.

Noise Metrics

Similarly, the noise metrics used to quantify noise exposure in sleep research fall into two categories: (1) measures of individual events, and (2) cumulative measures. Single event measures that have been used in sleep disturbance studies include the Maximum A-weighted Level (Lmax), Perceived Noise Level (PNL), Sound Exposure Level (SEL), Effective Perceived Noise Level (EPNL), and C-Level (CL). Cumulative measures are used to characterize the noise events over an entire night or day, and have included the Equivalent Noise Level (Leq), Composite Noise Level (CNL), Day-Night Average Sound Level (DNL), Community Noise Equivalent Level (CNEL), and Cumulative Distribution Levels or Percentile Levels, (Lx).

A-weighted measures of single events have been most often used in sleep disturbance studies, with either Lmax or SEL being used in most of the recent studies, based on general consensus that single event metrics are more useful for predicting sleep disturbance than cumulative measuresii.

2.3 FICON Sleep Disturbance Recommendations

In 1992, the Federal Interagency Committee on Noise (FICON) recommended an interim dose-response curve to predict the percent of the exposed population expected to be awakened (% awakening) as a function of the exposure to single event noise levels expressed in terms of the sound exposure level, SEL [FICON, 1992]. This interim curve was based on statistical adjustment of Pearsons' 1989 analysis, and included data from both laboratory and field studies [Finegold, 1993]. The recommended dose-response relationship is shown in Figure 1, and can be expressed by the following equation:

$$\text{Awakenings} = 0.000007079 \times \text{SEL}^{3.496}$$

The FICON report also recommended continued research into community reactions to aircraft noise, including sleep disturbance.

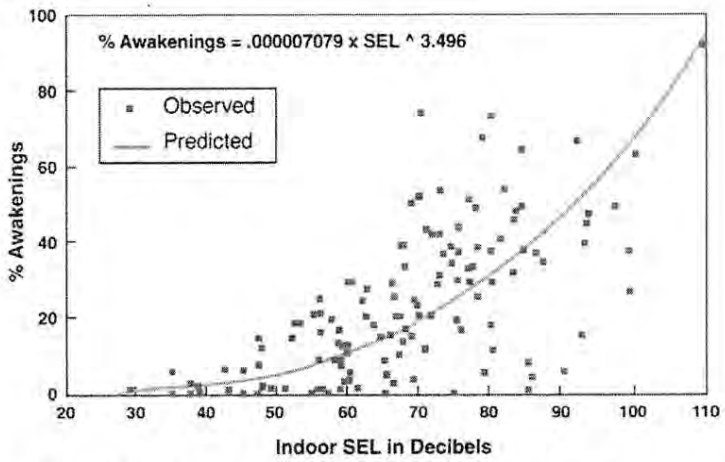

Figure 1. Interim Sleep Disturbance Dose-Response Relationship Recommended by FICON (FICON, 1992)

3. Recent Sleep Disturbance Research

Three recent studies have added considerably to the stock of data on sleep disturbance caused by aviation noise. The first of these was conducted in the United Kingdom in 1992; the second in the U.S. near Castle Air Force Base and near Los Angeles International Airport in California in 1992; and the most recent study was conducted in communities near Stapleton International Airport (DEN) and near Denver International Airport (DIA) in Colorado, both before and after the opening of DIA in 1995. These studies are summarized below.

3.1 U.K. Study

The United Kingdom's (U.K.'s) Civil Aviation Authority initiated a study of aircraft noise and sleep disturbance in 1990 to assist the U.K. Department of Transport in developing proposals for future restrictions on nighttime aircraft operations at the London airports [Ollerhead et al., 1992]. In this field study, nearly 50,000 subject-hours of sleep disturbance were collected at four airports, using both activity meters (actimeters) and EEG to measure sleep disturbance in test subjects. In total, 5,742 subject-nights of actimetry data and 178 subject-nights of sleep-EEG data were collected.

The major conclusions of the study are as follows:

- All subjective reactions to noise vary greatly from person to person and from time to time and sleep disturbance is no exception; deviations from the average can be very large. Even so, this study indicates that, once asleep, very few people living near airports are at risk of any substantial sleep disturbance due to aircraft noise, even at the high event levels.
- At outdoor event levels below 90 dBA SEL (80 dBA Lmax), average sleep disturbance rates are unlikely to be affected by aircraft noise. At higher levels, and most of the events upon which these

conclusions are based were in the range 90 to 100 dBA SEL (80 to 95 dBA Lmax), the chance of the average person being wakened is about 1 in 75. Compared with the overall average of about 18 nightly awakenings, this probability indicates that even large numbers of noisy nighttime aircraft movements will cause very little increase in the average person's nightly awakenings. Therefore, based on expert opinion on the consequences of sleep disturbance, the results of this study provide no evidence to suggest that aircraft noise is likely to cause harmful after effects [Ollerhead et al., 1992].

Finally, the study emphasized that these are estimates of average awakenings, and it acknowledges that some individuals in any exposed population are likely to be more sensitive to nighttime noise, while others will be less sensitive.

3.2 Los Angeles Study

The 1992 study conducted for the USAF [Fidell et al., 1994] observed the effects of nighttime noise exposure on the in-home sleep of residents near Castle Air Force Base and near Los Angeles International Airport and in several suburban control households with negligible aircraft noise exposure. Test participants pressed a button upon awakening for any reason, after retiring for the evening. A total of 1,887 subject-nights of data were collected from 38 men and 47 women living in 45 different homes. Length of residence for the test subjects ranged from two to more than 40 years. Major findings of the study are as follows:

- A statistically reliable relationship was observed between sound exposure levels of noise intrusions in sleeping quarters and behaviorally confirmed awakenings within five minutes of occurrence of noise intrusions.
- Although outdoor noise exposure level at the test sites varied over the range of levels of principal interest for environmental analysis purposesiii, the prevalence for awakening among test participants did not increase greatly with sound exposure levels of noise intrusions in sleeping quarters.
- Of a total of 4,452 awakening responses, only 326 could be associated with noise events.
- The average spontaneous rate of behaviorally confirmed awakenings among test participants at all sites was approximately two per night. This figure did not differ significantly across sites with varying levels of nighttime noise exposure [Fidell et al., 1994].
- The authors cautioned that the test subjects may not be representative of all residential situations, and that generalizations of the data obtained in the study should be limited to long term residents of areas with stable nighttime noise exposure.

3.3 Denver Study

A large scale field study of noise-induced sleep disturbance was conducted in the vicinities of Stapleton International Airport (DEN) and Denver International Airport (DIA) in anticipation of the closure of DEN and the opening of DIA. Both indoor and outdoor measurements of aircraft and other nighttime noises were made during four data collection periods. Measurements were made in 57 homes, over a total of 2,717 subject-nights of observations. Sleep disturbance was measured by several methods, including button pushes upon awakening and body movements, recorded by actimeters.

Although average noise event levels measured outdoors decreased significantly at sites near DEN after its closure and increased slightly at sites near DIA after its opening, indoor noise levels varied much less in homes near both airports. No large differences were observed in noise-induced sleep disturbance at either airport, as measured before and after the DIA opening. Indoor Sound Exposure Levels of noise events were, however, closely related to and good predictors of actimetrically defined motility and arousal.

The major findings of the Denver study are the following:

- The current findings closely resemble those of prior field studies of noise-induced sleep disturbance.
- Outdoor nighttime Leq decreased about 12 dB on average at DEN upon closure of the airport, but increased only about 3 dB at DIA after opening of the airport. Indoor nighttime Leq varied little at either location with the transfer of flight operations from DEN to DIA.

- The average number of behavioral awakenings per night was 1.8 at DEN and 1.5 at DIA. The number of spontaneous awakening responses (unassociated with noise events) was 1.5 per night at DEN and 1.3 at DIA.
- Statistically reliable relationships were observed between sound exposure levels of individual noise intrusions as measured inside sleeping quarters and several measures of sleep disturbance. [Fidell et al., 1995]

4. Recommended Revised Sleep Disturbance Relationship

FICAN has evaluated the data and conclusions of the three field studies described in this paper. The combined data are presented in Figure 2, along with data from six previous field studies [Pearsons, 1989]. The "FICAN 1997" curve shown in Figure 2 predicts a conservative dose-response relationship for the combined field data. The FICON curve is also depicted, for comparison purposes; based on the current field data, the dose-response relationship given by this older curve significantly overestimates the extent of aircraft noise-related awakenings for a given SEL exposure.

The FICAN 1997 curve represents the upper limit of the observed field data, and should be interpreted as predicting the "maximum percent of the exposed population expected to be behaviorally awakened", or the "maximum % awakened" for a given residential population. The central tendency of the recent data was not chosen as the recommended curve because it could underestimate awakenings for some situations or communities. FICAN cautions that the dose-response relationship presented here relies on behavioral awakening as the indicator of sleep disturbance; relationships between aircraft noise and other potential sleep disturbance or related health effects responses have not been established by any of these newer studies.

FICAN further cautions that these data should be applied only to long term residents, although the inclusion of data from the opening of Denver International Airport suggests that people adapt to "new" noise rapidly. This curve should not be applied to estimate sleep disturbance in campgrounds, trailer parks, or other temporary residences. Nor should it be assumed that the curve can be generalized to include children, as only adults were included in the field studies.

The FICAN 1997 curve also is represented by the following equation:

$$\text{Awakenings} = 0.0087 \times (\text{SEL}-30)^{1.79}$$

Continuing efforts to identify other dose-response relationships are being undertaken by standards-setting organizations, such as the American National Standards Institute. FICAN will evaluate proposed relationships developed by such groups as they are published; until that time, FICAN recommends the use of the curve presented here for assessing potential sleep disturbance caused by aircraft noise.

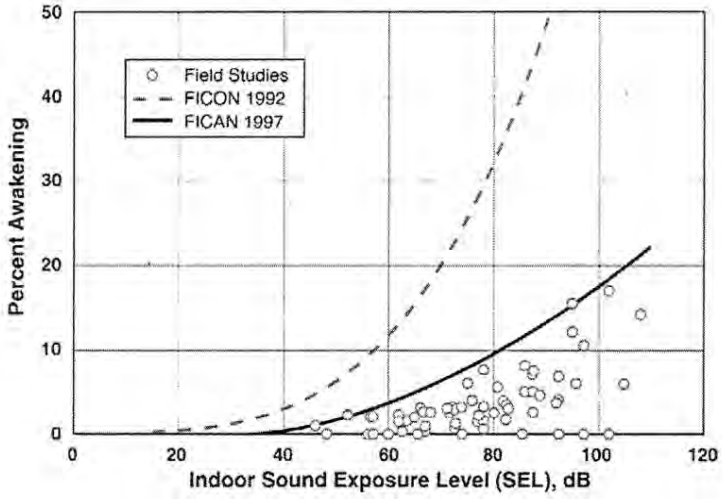

Figure 2. Recommended Sleep Disturbance Dose-Response Relationship

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Footnotes

[i] Actimeters are activity monitors, which record significant limb movements over a long period of time. In sleep disturbance studies, they generally are strapped to the wrist. Actimeters are generally considered to be a more practical and cost-effective method of collecting physical sleep disturbance data.

[ii] The use of single event measures in sleep disturbance studies does not suggest that the nighttime penalties used to assess noise in Day-Night Average Sound Level or other cumulative measures are incorrect or need re-evaluation; FICAN continues to support the use of DNL for addressing cumulative impact and its underlying assumptions regarding nighttime noise events.

[iii] Day-Night Average Sound Levels (DNL) at sites near Castle AFB ranged from 50 to 90 dB, while DNL at sites near LAX ranged from 60 to 70 dB. DNL at control sites ranged from about 50 to 70 dB (some control sites were exposed to high levels of road traffic noise).

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The City of Sacramento noise ordinance exempts construction activities from the specified noise ordinance standards during the hours of 7:00 a.m. to 6:00 p.m. Monday through Saturday and from 9:00 a.m. to 6:00 p.m. on Sunday. Generally, if a construction project adheres to the construction times identified in the noise ordinance, construction noise is exempted. Although the City of Sacramento Municipal Code exempts construction activities from the noise standards specified elsewhere in the Municipal Code, pile driving and other construction activities, such as the use of jackhammers and tractors, would expose sensitive receptors in the vicinity to high levels of noise during the day. Therefore, construction noise would be a short-term significant impact on sensitive receptors.

Mitigation

The following mitigation measures are required for the proposed project to minimize construction noise impacts. Implementation of these mitigation measures before and during construction would reduce the magnitude and severity of construction noise impacts; however, short-term significant noise impacts would remain as part of the construction phase:

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.*

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 planned activities.*

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.*

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.*

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.*

Significance after Mitigation

Short-term significant and unavoidable

Impact 5.4-2 Construction-induced vibration impacts could cause architectural damage to nearby historic structures and annoyance to nearby sensitive receivers

Construction activities for the proposed project would generate construction-induced vibration that could damage nearby historic buildings if they are exposed to excessive

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 construction. All damage will be repaired back to its pre-existing condition.*

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.*

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.*

Significance after Mitigation

Less than significant

Impact 5.4-3 The operation of the proposed project could expose existing receptors to significant increases in ambient noise

The proposed project would increase ambient noise levels by increasing traffic on local roads. The City of Sacramento considers a 4 dB increase in traffic noise levels at noise sensitive uses to be the threshold of significance, except where ambient noise levels already exceed the City's standards an increase in the ambient level by 3 dBA Ldn or more would be significant. The proposed project's impact on ambient noise levels is ***less than significant***.

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels are predicted at a representative distance for both baseline and future, project and no-project conditions. To describe existing and projected noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn}, it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Traffic volumes for baseline and cumulative conditions and scenarios are contained in the Transportation and Circulation Section (sub-chapter 5.6) of this document. **Table 5.4-7** shows the predicted increases in traffic noise levels on the local roadway network for baseline and cumulative conditions which would result from the project. These Tables are provided in terms of L_{dn} at a standard distance of 50 feet from the centerlines of the project-area roadways. Appendix F provides the complete inputs and results of the FHWA traffic noise prediction model.

LETTER 25

Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways

January 2007

Version 1.0

SACRAMENTO METROPOLITAN

AIR QUALITY

MANAGEMENT DISTRICT

Foreword

This *Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways* (Protocol) provides a methodology for the assessment and disclosure of potential cancer risk from diesel particulate matter attributable to siting sensitive land uses adjacent to major roadways.

There are several purposes of this Protocol. One is to assist local land use jurisdictions in assessing the potential cancer risk of siting sensitive land uses adjacent to major roadways. The second purpose is to provide a disclosure mechanism for those risks. The third is to show the relationship between potential cancer risk from diesel particulate matter exposure and distance from the major roadway.

This document does *not* provide an acceptable cancer risk level or a regulatory threshold; therefore it does not establish which projects are acceptable and which are not. Local land use jurisdictions retain all authority and decide after considering all relevant factors whether the project is appropriate.

Emissions and traffic data used in the screening tables are specific to the region encompassing the Sacramento Metropolitan Air Quality Management District; therefore, the screening tables should only be applied to projects contemplated within its boundaries.

The District recommends that the Protocol be applied to project applications deemed complete on or after the date of SMAQMD Board endorsement date of January 25, 2007. The District does not recommend that projects whose environmental documents have already been certified as of that date be re-opened.

We invite users of this Protocol to contact SMAQMD planning staff or visit the District offices for consultation on the use of this Protocol.

Sacramento Metropolitan Air Quality Management District
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Sacramento, CA 95814
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This document is periodically updated to reflect the latest technical data. For the most current version, please visit www.airquality.org or call (916) 874-4876.

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Introduction

In April 2005, the California Air Resources Board (ARB) issued a guidance document on air quality and land use[1]. This document specifically offered guidance on siting sensitive land uses in proximity to sources of air toxics. Sensitive land uses include residential communities, schools and school yards, day care centers, parks and playgrounds, hospitals and medical facilities.[2] One particular source of air toxics treated in the guidance is freeways and high traffic roadways. These roadways are sources of diesel particulate matter (PM), which ARB has listed as a toxic air contaminant. The specific guidance recommends that sensitive land uses be sited no closer than 500 feet from a freeway or other high traffic roadway. This recommendation was based on traffic related studies that showed a 70 percent drop in PM concentrations at a distance of 500 feet from the roadway. Presumably, the lifetime cancer risk from exposure to the PM is lowered proportionately.

The ARB land use siting recommendation has major implications relative to land development projects. In particular, new residence development projects would be especially constrained if the nearest new residence in the project were required to be at least 500 feet from a nearby freeway. The ARB guidance is advisory in nature, and suggests that a site specific health risk assessment (HRA) be performed to characterize the health risks of a given development project. However, local officials faced with land use siting decisions question the need to require a separate site specific health risk assessment for every sensitive land use project (e.g., new housing) proposed that deviates from the ARB guidance. Such questions are indeed valid given that the ARB guidance does not require a specific health risk assessment protocol. Moreover, even in instances in which a site specific HRA is appropriate, there is currently little guidance regarding how such an HRA be performed.

The purpose of this document is to provide land use decision makers with a methodology to make informed land use decisions on siting new residential projects and other sensitive land uses in proximity to a freeway or other high traffic volume roadway. This methodology is intended to give local officials the information needed to assess health risk issues within the spectrum of other land use issues that must be considered in the land use planning process. These other issues include housing and transportation needs, the benefits of urban infill, and community economic development priorities. The Protocol was not designed to be applied retroactively and should not be applied to project applications submitted and deemed complete on or before SMAQMD Board endorsement (anticipated to be January 25, 2007).

The methodology defines a stepwise process that indicates the need for and methodology to conduct a site specific HRA. In this stepwise process, project site

[1] California Air Resources Board (ARB). Air Quality and Land Use Handbook: A Community Health Perspective. April 2005.
[2] Ibid. Page 2.

specific characteristics are used to evaluate the potential cancer risk posed within the project and to determine whether a site specific HRA is warranted. In cases for which a site specific HRA is indicated, this methodology gives guidance regarding how the HRA should be performed.

The section entitled *Project Screening* describes the stepwise project evaluation process that includes screening steps that can be used to decide whether a site specific HRA is recommended for a particular land use project. The section entitled *Methodology for Completing a Site Specific Health Risk Assessment* describes the methodology recommended for completing a site specific HRA in instances in which the screening steps conclude that one should be done. The *Calculating Potential Cancer Risk* section describes how to calculate potential cancer risk from the values that the air dispersion model produces, and provides a sample risk calculation. The *Site Specific HRA Reporting* section outlines the information from the air dispersion model run and resulting HRA that should be included in the staff report of environmental document. The *Resources* section provides a list of resources for use in the project screening, air dispersion modeling, and HRA calculation process. The technical discussion that provides the background and justification for many aspects of the Protocol, screening table development, and health risk evaluation procedures is given in the Appendix (available upon request).

The methodology developed in this effort assumes that the roadway is a limited-access freeway, with no traffic signals and associated traffic queues. Ways to incorporate multiple roadways, freeway intersections, controlled traffic roadways (i.e. with traffic signals and intersections), and other, non-roadway, toxic air contaminant sources into the HRA process may be the subject of future efforts.

While the Protocol provides a methodology for assessing cancer risk only, potential short term health risks of living near freeways and major roadways should be discussed qualitatively in the project's staff report or environmental document. Studies have shown that living near major roadways is associated not only with increased cancer risk, but with short term adverse health impacts such as reduced lung function and increased asthma hospitalizations.[3] At this time, very little information exists on how to quantify the adverse short term health impacts of living near freeways; however under CEQA, known environmental impacts must be disclosed.

Also worth noting is that, as stricter emissions regulations and improved technologies phase in over the years, actual emissions are projected to decline which may result in reduced exposure to toxic air contaminants. However, such declines may be offset by increases in vehicle miles traveled.

[3] ARB, Air Quality and Land Use Handbook.

Project Screening

The stepwise approach recommended for assessing the potential cancer risk of a proposed land use project is illustrated in Figure 2. The approach is summarized as follows:

1. Determine if the nearest person affected by the project (receptor) is at least 500 feet from the nearest high traffic volume roadway (defined as a freeway, urban roadway with greater than 100,000 vehicles/day, or rural roadway with 50,000 vehicles/day).[4] If the building envelopes are known and included in the application to the land use authority, the receptor should be placed at the building. Otherwise, the receptor should be placed at the edge of the property boundary. If the project is outside of the 500 foot distance, then the proposed project meets the ARB guidance distance and no further roadway-related air quality evaluations are recommended under this Protocol. If no, proceed to step 2.

2. Using the screening process described in this section, determine if the nearest receptor has a cancer risk level lower than the evaluation criterion (discussed on page 10) for recommending a site specific HRA. If lower risk, then no further roadway-related air quality evaluations are recommended under this Protocol and the projected cancer risk value and screening table used should be recorded in the environmental documentation. If higher risk, continue to step 3.

3. Complete a site specific HRA using procedures in accordance with those described in the *Methodology for Completing a Site Specific Health Risk Assessment* section, and submit records in the environmental documentation.

If the project proceeds to step 2, this Protocol recommends the use of a pair of screening tables to determine if the project distance exposes receptors to greater risk than the Protocol's cancer risk evaluation criterion (discussed on page 10). The information needed to screen a project is shown in Figure 1.

Figure 1: Information Needed to Screen a Project

1. Compass orientation (direction) of the roadway
2. Compass orientation (direction) of the project
3. Peak hourly traffic volume on the roadway at the project location

Peak hourly traffic volumes information provided by Caltrans[5]. Select the location (milepost) nearest the project. Select the back peak hour for projects south or west of the nearest milepost location; the ahead peak hour volume for projects north or east of the nearest milepost location. For projects near roadways not tabulated by Caltrans, consult SMAQMD.

[4] ARB, Air Quality and Land Use Handbook.
[5] http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/, viewed July 2006

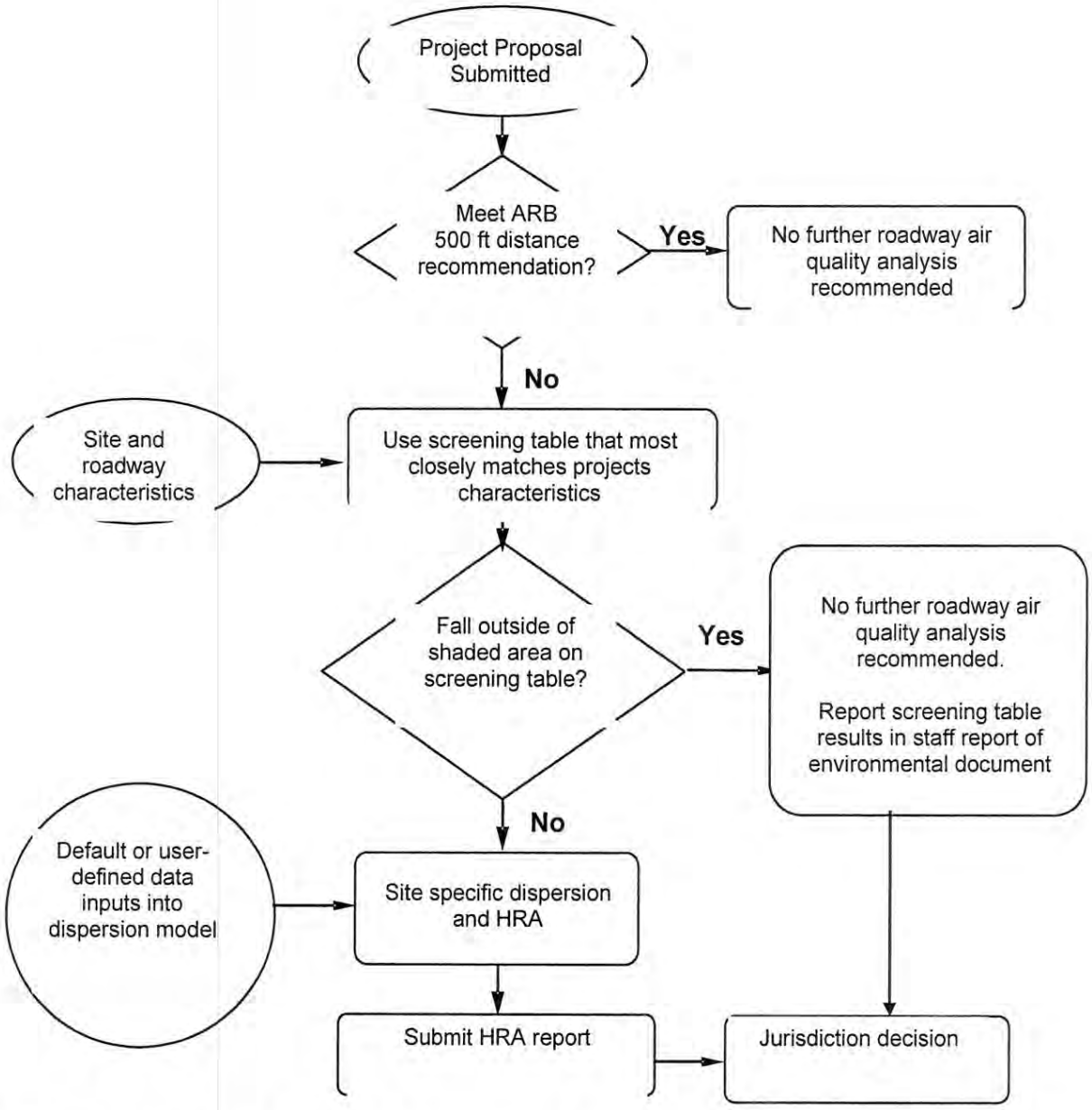

Figure 2: Stepwise Approach to Evaluating Sensitive Land Use Projects Adjacent to Major Roadways

During screening process, the agency or its consultant uses project information to locate the appropriate cell in the screening table that will determine whether or not to move on to step 3. One determines the appropriate cell by referencing the roadway and project direction, and traffic volume in the tables. There are two tables to choose from: one is for East-West roadways and one is for North-South roadways. Within each table, there are matrices for projects that are upwind and downwind of the roadway. The upwind or downwind designation corresponds to the annual average general wind direction taken from the SMAQMD standard meteorological data set.

One should locate the cell that most closely represents the project screening risk by first choosing the correct table. If the roadway is predominantly East-West, choose Table 1. If the roadway is predominantly North-South, choose Table 2. If the predominant compass orientation of the roadway is subject to dispute, then an east-west orientation should be assumed, and Table 2 selected. Next, if the project is downwind of the roadway, look to the upper matrix in the table. If the project is upwind, look to the lower matrix. Now, the appropriate row in the matrix is determined according to peak traffic volume at the roadway near the project.

The traffic volume at the roadway, using the Caltrans data, should be rounded up to the nearest entry in the matrix selected. The agency or its consultant notes the increased cancer risk shown in the cell that corresponds to the proposed distance from the roadway of the nearest affected receptor. For example, for a new housing development, the appropriate distance is that of the nearest new residence. If the building envelopes are known and included in the application to the land use authority, the receptor should be placed at the building. Otherwise, the receptor should be placed at the edge of the property boundary. If the cell is not shaded (the increased risk is less than the evaluation criterion of 446/million, as discussed in the following paragraph), a site specific HRA is not recommended. Nevertheless, the results of the analysis should be recorded in the environmental documentation or a staff report with the table included for reference. If the cell is shaded (the increased risk is greater than the evaluation criterion), SMAQMD recommends that a site specific HRA be performed. The evaluation criterion of 446/million was selected as that level of risk corresponding to a 70 percent reduction form the highest predicted risk in either of the two screening tables.

Table 1: Diesel PM Cancer Risk (Potential Incremental Cancer Cases per Million People) North and South of an East-West Roadway

PROJECTS NORTH AND SOUTH OF AN EAST-WEST ROADWAY Version 1.0								
Peak Hour Traffic (vehicle/hr)	Receptor Distance from Edge of Nearest Travel Lane (feet)							
	10	**25**	**50**	**100**	**200**	**300**	**400**	**500**
Incremental Cancer Risk Per Million: North (downwind)								
4000	210	186	153	114	75	57	45	39
8000	420	372	309	228	150	114	90	75
12000	630	558	462	339	222	168	135	114
16000	837	741	615	453	297	225	180	153
20000	1047	927	768	567	372	279	228	192
24000	1257	1113	924	681	447	336	273	228
Incremental Cancer Risk Per Million: South (upwind)								
4000	117	96	75	54	36	27	21	18
8000	234	192	153	108	69	51	42	36
12000	351	291	228	165	105	78	63	54
16000	468	387	306	219	138	105	84	69
20000	582	486	381	273	177	132	105	87
24000	699	582	459	327	210	159	126	105

Table 2: Diesel PM Cancer Risk (Potential Incremental Cancer Cases per Million People) East and West of a North-South Roadway

PROJECTS EAST AND WEST OF A NORTH-SOUTH ROADWAY Version 1.0								
Peak Hour Traffic (vehicle/hr)	Receptor Distance from Edge of Nearest Travel Lane (feet)							
	10	**25**	**50**	**100**	**200**	**300**	**400**	**500**
Incremental Cancer Risk Per Million: East (downwind)								
4000	249	213	168	117	75	57	45	36
8000	495	423	336	237	150	111	90	72
12000	744	636	504	354	225	168	132	111
16000	990	849	672	474	303	222	177	147
20000	1239	1062	840	591	378	279	222	183
24000	1488	1272	1008	711	453	336	267	219
Incremental Cancer Risk Per Million: West (upwind)								
4000	159	123	93	63	39	27	21	18
8000	315	249	183	126	78	57	45	36
12000	474	375	276	189	117	87	69	54
16000	633	501	369	252	156	114	90	75
20000	792	627	459	315	198	144	114	93
24000	948	750	552	378	237	174	135	111

Figure 3: Screening Responsibilities and Reporting

1. **The project proponent should provide the following information for the screening effort to the agency requesting the analysis:**

- General project information (town and nearest road intersection of project, map showing relative location of affecting roadway, type of project, project timeline, contact information for project proponent, name of consultant if relevant)
- Roadway compass orientation, project compass orientation
- Distance from the edge of the nearest travel lane to the nearest receptor
- Peak hour traffic volume and reference/source, ideally from Caltrans

2. **The local agency or its consultant should screen the project and report the project inputs provided by the proponent as well as the following results:**

- Cancer risk value (cases/million) at the nearest receptor
- The screening matrix used in the process showing risk varying by distance to roadway

The Evaluation Criterion

The evaluation criterion of 446/million was selected as that level of risk corresponding to a 70 percent reduction from the highest risk calculated at 10 feet from the edge of the nearest travel lane to the nearest receptor for the highest peak traffic volume reported by Caltrans for Sacramento County (24,000 vehicle per hour) east (downwind) of a north-south roadway. The highest risk represents the worst case siting situation within the boundaries of the SMAQMD.

The screening table cancer risk values do not include the existing background cancer risk for Sacramento County of 360/million.[6]

Note that the evaluation criterion does *not* represent a "safe" risk level or a regulatory threshold; it is simply the point at which a site specific health risk assessment is recommended.

[6] ARB, http://www.arb.ca.gov/diesel/documents/rrstudy/rrstudy101404/pdf, viewed October 2006.

Methodology for Completing a Site Specific Health Risk Assessment

If the project falls within the shaded area of the appropriate screening table, SMAQMD recommends that local land use jurisdiction or its consultant complete a site specific HRA. This HRA is intended to provide additional project specific information to the local land use jurisdiction for decision making purposes.

Performing a site specific HRA requires calculating estimated ambient pollutant concentrations resulting from the mass emission rate of a pollutant from a source. The pollutant source is the exhaust emissions from the vehicle traffic traveling the freeway or major roadway that will likely affect sensitive receptors at a proposed land use project. The pollutant of interest is diesel PM, although PM10 is used as a proxy for the relative measure of diesel PM at varying distances. The choice to base the HRA on PM10 is further discussed in the Appendix (see *Resources*).

The line source model CAL3QHCR should be used as the dispersion model for estimating ambient concentration as a function of distance from the source. CAL3QHCR is a refined version of the original CALINE (California Line Source Dispersion Model) that was developed as a modeling tool to predict roadside CO concentrations. CAL3QHCR can be used to estimate PM10 concentrations at defined receptor locations by processing hourly meteorological data over a year, hourly emissions, and traffic volume. The model can be obtained at no cost from EPA[7].

To run CAL3QHCR, one needs meteorological, traffic, and vehicle emissions data at specified intervals over some time period, such as hourly average data for a year. For meteorological data, SMAQMD recommends the 1987 set as the risk values generated from that set came closest to the average of all five years and the model only accepts one year of meteorological data. SMAQMD can supply data files that contain hourly meteorological data over a year for each of five years (1985, 86, 87, 88, and 89)[8]. These data are considered the "standard SMAQMD met data" for specified use in point source dispersion model analyses performed for the SMAQMD region (e.g., air toxics hot spots analyses to comply with AB 2588).

The CAL3QHCR model requires emissions data. Year 2007 average hourly emissions (grams/vehicle mile) for input into the model are shown in Table 3. These emissions have been produced from EMFAC2007 and were calculated based on the SMAQMD area for year 2007. If needed, future year emissions should be calculated using the most current version of EMFAC2007.

[7] http://www.epa.gov/scram001/dispersion_prefrec.htm, viewed June 2006
[8] ASCII data files SACOAK85.ASC, SACOAK86.ASC, SACOAK87.ASC, SACOAK 88.ASC, and SACOAK89.ASC obtained from B. Krebs of SMAQMD.

CAL3QHCR also takes as input the hourly traffic volume (vehicles/hour) as determined by the relative VMT. The relative VMT is the ratio of the VMT for the hour to the peak VMT over the 24 hour day and was developed from the corresponding vehicle miles traveled (VMT) for each hour of the day for a number of vehicle types (e.g., light duty passenger cars equipped with and without a 3-way catalyst, heavy-duty diesel trucks, urban buses, and so forth) per EMFAC. This relative VMT is also shown in Table 3 and represents 2007 values. The hourly traffic volume supplied will be the product of the relative VMT in Table 3 with the roadway peak traffic volume, obtained from the Caltrans as discussed in the section entitled *Project Screening*. If needed, future traffic volumes should be calculated using the most current version of EMFAC2007.

CAL3QHCR also requires geographical data that defines the calculational domain. The x-y coordinates of the beginning and end of the roadway section being modeled need to be specified. The length of the roadway modeled should be at least 10,000 feet (5,000 for each link) to ensure pollutant capture. The link width (mixing zone) of the roadway need to be specified (in feet, arbitrary origin, y axis aligned with north). For example, a six-lane freeway might consist of six 12-feet wide lanes, and a 62-feet wide median, or 134 feet. Add to this an additional 10 feet on each side of the roadway to account for the wake of moving vehicles, and the total link width becomes 154 feet. The user should supply to the model the roadway width (including an assumed 10 feet on both sides of the roadway) applicable to the project site. One also needs to specify the elevation of the roadway compared to the surrounding area. For roadways at grade, this height is 0; for elevated and depressed roadways, this is the positive or negative relative height, respectively.

A set of receptors at varying distances from the roadway needs to be specified in terms of their x, y and z coordinates as well. SMAQMD recommends the standard receptor height of 6 feet (z coordinate), even when considering multistory projects. If the building envelopes are known and included in the application to the land use authority, the receptor should be placed at the building. Otherwise, the receptor should be placed at the edge of the property boundary. All parameters are specific to the project site subject to the HRA, and need to be defined and noted by the modeler accordingly.

Other parameters needing specification for a CAL3QHCR model run, along with default values, are listed in Table 4. These defaults were used in the calculations that produced the screening tables.

CAL3QHCR has many other features that allow modeling traffic intersections, traffic signaling, and traffic queuing. Employing these features is quite site specific. If these features must be employed, the CAL3HQCR User's Guide[9] should be consulted.

[9] User's Guide to CAL3QHC Version 2.0, EPA-454/R-92-006 (Revised, with CAL3QHCR addendum), September 1995.

The output from the CAL3QHCR dispersion modeling run will be PM10 concentrations expressed in micrograms per cubic meter ($\mu g/m^3$) at the defined receptor locations. The local agency or its consultant should complete the risk assessment for eight receptor distances from the roadway (10, 24, 50, 100, 200, 300, 400, and 500 feet) and the receptor location that is the site of the nearest potentially affected population. This is to show the relationship between cancer risk and receptor distance from the freeway or major roadway.

Table 3: EMFAC2007 Relative Traffic Volume and Vehicle PM10 Emission Rates for SMAQMD in 2007 for Default Inputs into CAL3QHCR

Time of day	Relative VMT	PM10 emission rate (g/vehicle-mile)
Hr 00	0.15	0.072
Hr 01	0.061	0.059
Hr 02	0.071	0.101
Hr 03	0.039	0.367
Hr 04	0.067	0.106
Hr 05	0.12	0.089
Hr 06	0.465	0.062
Hr 07	0.938	0.034
Hr 08	0.887	0.036
Hr 09	0.56	0.051
Hr 10	0.587	0.049
Hr 11	0.734	0.044
Hr 12	0.757	0.038
Hr 13	0.747	0.038
Hr 14	0.858	0.029
Hr 15	0.873	0.029
Hr 16	0.918	0.031
Hr 17	1	0.025
Hr 18	0.692	0.021
Hr 19	0.517	0.021
Hr 20	0.398	0.036
Hr 21	0.405	0.035
Hr 22	0.303	0.024
Hr 23	0.228	0.031

Table 4: Other CAL3QHCR Parameters

Parameter	Default	
Calculation averaging time (min)	60	
Surface roughness (cm, from 3 to 400). For mixed uses and others not listed here, the modeler should make a reasonable assumption.	single family	108
	offices	170
	apartments	370
Settling velocity (cm/s)	0	
Deposition velocity (cm/s)	0	
Site setting (U=urban, R=rural)	U	
Form of traffic volume, emission rate data (1=one hour's data, 2=one week of hourly data)	2	
Pollutant (P for PM10 to give output in $\mu g/m^3$)	P	
Hourly ambient background concentration ($\mu g/m^3$)	0	
Roadway height indicator (AG=at grade, FL=elevated and filled, BR=bridge, DP=depressed)	AG	
Roadway height (ft, 0 if AG, relative height if FL, BR, or DP)	0	

Calculating Potential Cancer Risk

The local agency or its consultant should complete the risk assessment for eight receptor distances from the roadway (10, 24, 50, 100, 200, 300, 400, and 500 feet) and one receptor location that is the site of the nearest potentially affected population.

The inputs into the HRA should represent traffic and emissions data for the first year of exposure.

The PM10 concentrations modeled from CAL3QHCR are used in conjunction with the diesel PM Unit Risk Factor established by the State of California Office of Environmental Health Hazard Assessment (OEHHA) to determine the incremental increased cancer risk. The value for diesel PM as established by OEHHA is 3×10^{-4} per $\mu g/m^3$.[10] The factor is a value established via lab studies and represents the increased chance of developing cancer based on concentration exposure. The value incorporates many worst case assumptions including a constant exposure to diesel PM (24 hours a day) and a 70 year life span.

[10] Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values, can be obtained from www.arb.ca.gov/toxics/healthval/healthval.htm, April 2005

Guidance exists for calculating risks based on 9 year (EPA) and 30 year (Census Bureau) exposure timeframes. SMAQMD recommends, at this time, using the standard Office of Environmental Health and Hazard Assessment (OEHHA) 70 year timeframe as the basis for the site specific health risk assessment.[11]

The Unit Risk Factor is multiplied by the concentration results from CAL3QHCR to determine the increased cancer risk. The calculated value represents the increased chance of developing cancer over a person's lifetime. Increased cancer risk is typically discussed and presented in increased number of cases per one million people. To convert the calculated risk into typically discussed terminology, the calculated risk is then multiplied by one million (1×10^6) and the denominator is changed from per person to per one million people.

A sample calculation is performed below for reference.

Concentration at 100 feet $0.0025\ \mu g/m^3$
Unit risk factor for diesel PM $3 \times 10^{-4}\ (\mu g/m^3)^{-1}$
Calculated increased risk = $(0.0025\ \mu g/m^3) * (3 \times 10^{-4}\ (\mu g/m^3)^{-1}) * (1 \times 10^6)$
= 0.75 cases per million people

The land use agency or its consultant should report the potential cancer risk numbers for the recommended specified distances.

[11] According to the Air Toxics Hot Spots Program Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments (Guidelines) published by the Office of Environmental Health and Hazard Assessment (0EHHA), the 9-year exposure scenario coincides with the U.S. EPA's estimates of average residence time. The 9-year exposure timeframe is for the first 9 years of life and is therefore protective of children. Children have higher intake rates on a per kilogram body weight basis and thus receive a higher dose of the pollutants. The 30-year exposure timeframe coincides with the U.S. EPA's high-end estimate of residence time. The 70-year exposure timeframe is considered to be the typical lifetime. According to the Guidelines, "OEHHA recommends the 70-year exposure duration be used for determining residential cancer risks. This will ensure that the person residing in the vicinity of the facility for a lifetime will be included in the evaluation of risk posed by that facility. Exposure durations of 9-years and 30-years may also be evaluated as supplemental information to show the range of cancer risk based on residency periods." For more information, please refer to the Air Toxics Hot Spots Program Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments. August, 2003.

Site Specific HRA Reporting

In the report of the HRA results, detail on the dispersion modeling inputs as well as the risk results by distance should be provided.

Figure 4: Site Specific HRA Reporting

At a minimum, SMAQMD recommends the HRA report include the same information reported in the screening evaluation as well as the following:

- Emissions input data and calculation year for PM10, if different from Table 3. The HRA should represent emissions and VMT data for the first year of exposure from the most recent version of EMFAC.
- List of CAL3QHCR parameters used in the modeling, in the format of Table 4; explanation or references for parameters
- Name and source of meteorological data set used in CAL3QHCR
- Table indicating varying cancer risk per million from 10 to 500 feet from modeled roadway for PM10 (10, 24, 50, 100, 200, 300, 400, and 500 feet)
- Incremental cancer risk value (potential cases/million people) for the receptor nearest the edge of the nearest travel lane based on PM10.

Potential Mitigation Measures

At this time, very little information exists on quantifiable mitigation measures. Exposure to diesel PM is best reduced by increasing project distance from the major roadway.

Nevertheless, potential measures could include electrostatic air filtering systems and vegetative barriers such as plantings of finely-needled trees to disperse and catch pollutants.

The SMAQMD is, and will continue, actively supporting and encouraging research to identify effective and quantifiable mitigation measures that reduce exposure to air toxics from mobile sources.

Resources

The following are sources of information for use by the local agency or its consultant that may prove useful in the risk screening and site specific HRA process:

- The Caltrans website reports peak traffic volumes at various intersection or milepost locations for all numbered roadways in the state: http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/

- Table 3 gives the appropriate VMT and emission factor data for use in CAL3QHCR. That information was extracted from ARB's emission factor model; the most recent version is EMFAC2007, released November 2006, http://www.arb.ca.gov/msei/onroad/latest_version.htm.

- The line source dispersion model CAL3QHCR can be obtained from the EPA website: http://www.epa.gov/scram001/dispersion_prefrec.htm. User guides for employing the model can be found on the same website

- Cancer unit risk factors are provided by ARB on the following website: www.arb.ca.gov/toxics/healthval/healthval.htm

- The Appendix to this document contains information extracted from a report prepared by our consultant that provides more discussion of the Protocol development, including the site specific evaluation process. The Appendix can be found at www.airquality.org. You may also request a copy by contacting Rachel DuBose at 916.874.4876 or rdubose@airquality.org.

Glossary of Terms

Ahead Peak Hour	Ahead peak hour usually represents traffic north or east of a traffic count location.
Ambient Background Concentration	The annual average of PM10 already present in the air.
Back Peak Hour	Back Peak Hour represents traffic south or west of a traffic count location.
Background concentration	See "Ambient"
Calculation Averaging Time	Expressed in minutes. The most common value is 60 minutes which represents calculations of averages over one hour periods.
Calculational Domain	The geographical area over which a simulation (air dispersion model run) is performed
Cancer Risk Value	Potential cancer cases per million
Compass Orientation	The location of a project expressed as being located north, south, east or west of a freeway or major roadway
Concentration	The concentration of particulate matter per a measure of air, usually expressed as micrograms per cubic meter of air ($\mu g/m^3$).
Deposition Velocity	The rate at which material leaving the air is deposited on the ground (cm/s).
Dispersion	The process or result of the spreading of pollutants from one place to another
Downwind	The direction toward which the wind is blowing; in the path of pollutant dispersal
EMFAC (on-road)	ARB's on-road motor vehicle emissions model which estimates the amounts and types of pollutants emitted from on road vehicles in California
Evaluation Criterion	The point at which SMAQMD recommends performing a site specific health risk assessment

Freeway	A divided arterial highway designed for the unimpeded flow of large traffic volumes
Health Risk Assessment (HRA)	Scientific evaluation of the probability of harm resulting from exposure to toxic or hazardous materials.
High Traffic/Volume Roadway	A freeway, urban road with 100,000 vehicles per day, or rural road with 50,000 vehicles per day
Incremental (cancer cases)	Cancer cases in addition to the ambient background
Line Source	A source of air pollution that emanates from linear (one-dimensional) geometry, such as vehicle emissions from a roadway
Major Roadway	See "High Traffic/Volume Roadway"
Mass Emission Rate	The rate of pollutant output expressed in mass, as in grams per second (g/s)
Mixing Zone	The mixing zone is considered to be the area of uniform emissions and turbulence
Peak Hour Traffic	The measure of the peak traffic volume for the year
PM 10 (diesel)	An air pollutant consisting of small particles with an aerodynamic diameter less than or equal to a nominal 10 microns (about 1/7 the diameter of a single human hair). Their small size allows them to make their way to the air sacs deep within the lungs where they may be deposited and result in adverse health effects such as the aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against foreign materials, damage to lung tissue, carcinogenesis and premature death (see Toxic Air Contaminant)
Receptor	A hypothetical individual exposed to diesel particulate matter
Receptor Height	Breathing height (receptors should be placed at the standard breathing height of 6 feet)
Risk Value	The result of a health risk assessment that produces an estimate of cancer cases/million people due to exposure to diesel particulate matter

Rural Road	A roadway located in a rural area with 50,000 vehicles per day or greater.
Rural Area	Per the Health and Safety Code, Section 50101: "'Rural area' means any open country or any place, town, village, or city which by itself and taken together with any other places, towns, villages, or cities that it is part of or associated with: (a) has a population not exceeding 10,000; or (b) has a population not exceeding 20,000 and is contained within a nonmetropolitan area. "Rural area" additionally includes any open country, place, town, village, or city located within a Standard Metropolitan Statistical Area if the population thereof does not exceed 20,000 and the area is not part of, or associated with, an urban area and is rural in character."
Sensitive Land Use	See "Sensitive Receptor"
Sensitive Receptor	Those segments of the population most susceptible to poor air quality such as children, elderly, and those with compromised immune systems. Land uses where sensitive receptors are most likely to spend time include residential communities, schools and school yards, day care centers, parks and playgrounds, hospitals and medical facilities.
Settling Velocity	The velocity of material falling towards the ground (cm/s)
Surface Roughness	A measure of the roughness of a surface and the amount of air mixing due to mechanical turbulence as air moves over surface features (cm)
Toxic Air Contaminant	As defined by California Health and Safety Code, Section 39655 (a): "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health"
Upwind	In the direction from which the wind is blowing; in the path of pollutant dispersal
Unit Risk Factor	A toxicity factor that is used to estimate the increase risk of developing cancer associated exposure to a concentration of a chemical
$\mu g/m^3$	Micrograms per cubic meter of air. A measure of concentration of a pollutant
VMT	Vehicle miles traveled are total miles traveled by all vehicles in a particular geographic area, often measured over a 24-hr period

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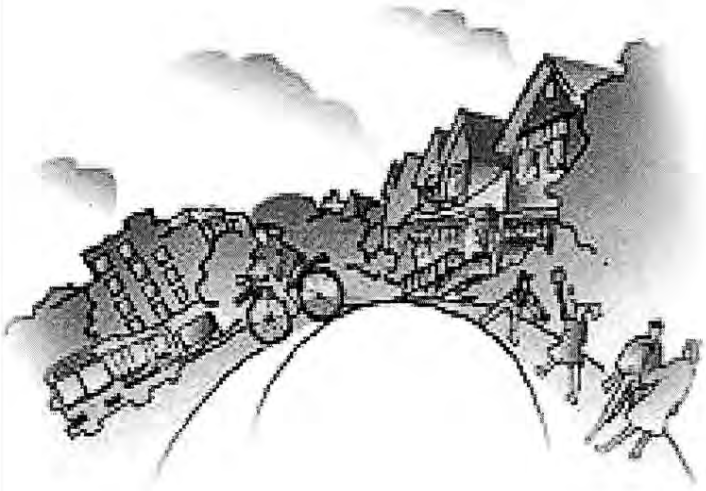
LETTER 25

AIR QUALITY AND LAND USE HANDBOOK: A COMMUNITY HEALTH PERSPECTIVE



April 2005

California Environmental Protection Agency
California Air Resources Board

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Air Agency Contacts

Federal-

U.S. EPA, Region 9
Phone: (866)-EPA-WEST
Website: www.epa.gov/region09
Email: r9.info@epa.gov

-State-

California Air Resources Board
Phone: (916) 322-2990 (public info)
(800) 363-7664 (public info)
(800) 952-5588 (complaints)
(866)-397-5462 (env. justice)
Website: www.arb.ca.gov
Email: helpline@arb.ca.gov

-Local-

Amador County APCD
Phone: (209) 257-0112
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Antelope Valley AQMD
Phone: (661) 723-8070
Complaint Line: (888) 732-8070
Website: www.avaqmd.ca.gov
E-Mail: bbanks@avaqmd.ca.gov

Bay Area AQMD
Phone: (415) 749-5000
Complaint Line: (800) 334-6367
Website: www.baaqmd.gov
E-Mail: webmaster@baaqmd.gov

Butte County AQMD
Phone: (530) 891-2882
Website: www.bcaqmd.org
E-Mail: air@bcaqmd.org

Calaveras County APCD
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Colusa County APCD
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Website: www.colusanet.com/apcd
E-Mail: ccair@colusanet.com

El Dorado County AQMD
Phone: (530) 621-6662
Website:
www.co.el-dorado.ca.us/emd/apcd
E-Mail: mcctaggart@co.el-dorado.ca.us

Feather River AQMD
Phone: (530) 634-7659
Website: www.fraqmd.org
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Glenn County APCD
Phone: (530) 934-6500
http://www.countyofglenn.net/air_pollution_control
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Great Basin Unified APCD
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Website: www.gbuapcd.org
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Imperial County APCD
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Modoc County APCD
Phone: (530) 233-6419
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Mojave Desert AQMD
Phone: (760) 245-1661
(800) 635-4617
Website: www.mdaqmd.ca.gov

Monterey Bay Unified APCD
Phone: (831) 647-9411
(800) 253-6028 (Complaints)
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E-Mail: dquetin@mbuapcd.org

North Coast Unified AQMD
Phone: (707) 443-3093
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E-Mail: lawrence@ncuaqmd.org

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E-Mail: pcapcd@placer.ca.gov

Sacramento Metro AQMD
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Website: www.airquality.org
E-Mail: kshearer@airquality.org

San Diego County APCD
Phone: (858) 650-4700
Website: www.sdapcd.org

San Joaquin Valley APCD
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(800) 281-7003
(San Joaquin, Stanislaus, Merced)
(800) 870-1037
(Madera, Fresno, Kings)
(800) 926-5550
(Tulare and Valley portion of Kern)
Website: www.valleyair.org
E-Mail: sjvapcd@valleyair.org

San Luis Obispo County APCD
Phone: (805) 781-5912
Website: www.slocleanair.org
E-Mail: info@slocleanair.org

Santa Barbara County APCD
Phone (805) 961-8800
Website: www.sbcapcd.org
Email us: apcd@sbcapcd.org

Shasta County AQMD
Phone: (530) 225-5789
Website:
www.co.shasta.ca.us/Departments/Resourcemgmt/drm/aqmain.htm
E-Mail: scdrm@snowcrest.net

Siskiyou County APCD
Phone: (530) 841-4029
E-Mail: ebeck@siskiyou.ca.us

South Coast AQMD
Phone: (909) 396-2000
Complaint Line: 1-800-CUT-SMOG
Website: www.aqmd.gov
Email: bwallerstein@aqmd.gov

Tehama County APCD
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Email: general@tehcoapcd.net

Tuolumne County APCD
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bsandman@co.tuolumne.ca.us

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Yolo-Solano AQMD
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Email: administration@ysaqmd.org

To My Local Government Colleagues....

I am pleased to introduce this informational guide to air quality and land use issues focused on community health. As a former county supervisor, I know from experience the complexity of local land use decisions. There are multiple factors to consider and balance. This document provides important public health information that we hope will be considered along with housing needs, economic development priorities, and other quality of life issues.

An important focus of this document is prevention. We hope the air quality information provided will help inform decision-makers about the benefits of avoiding certain siting situations. The overarching goal is to avoid placing people in harm's way. Recent studies have shown that public exposure to air pollution can be substantially elevated near freeways and certain other facilities. What is encouraging is that the health risk is greatly reduced with distance. For that reason, we have provided some general recommendations aimed at keeping appropriate distances between sources of air pollution and land uses such as residences.

Land use decisions are a local government responsibility. The Air Resources Board's role is advisory and these recommendations do not establish regulatory standards of any kind. However, we hope that the information in this document will be seriously considered by local elected officials and land use agencies. We also hope that this document will promote enhanced communication between land use agencies and local air pollution control agencies. We developed this document in close coordination with the California Air Pollution Control Officers Association with that goal in mind.

I hope you find this document both informative and useful.

Barbara Riordan

Mrs. Barbara Riordan
Interim Chairman
California Air Resources Board

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APPENDICES

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Acknowledgments

The ARB staff would like to acknowledge the exceptional contributions made to this document by members of the ARB Environmental Justice Stakeholders Group. Since 2001, ARB staff has consistently relied on this group to provide critical and constructive input on implementing the specifics of ARB's environmental justice policies and actions. The Stakeholders Group is convened by the ARB, and comprised of representatives from local land use and air agencies, community interest groups, environmental justice organizations, academia, and business. Their assistance and suggestions throughout the development of this Handbook have been invaluable.

Executive Summary

The Air Resources Board's (ARB) primary goal in developing this document is to provide information that will help keep California's children and other vulnerable populations out of harm's way with respect to nearby sources of air pollution. Recent air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California. Also, ARB community health risk assessments and regulatory programs have produced important air quality information about certain types of facilities that should be considered when siting new residences, schools, day care centers, playgrounds, and medical facilities (i.e., sensitive land uses). Sensitive land uses deserve special attention because children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the non-cancer effects of air pollution. There is also substantial evidence that children are more sensitive to cancer-causing chemicals.

Focusing attention on these siting situations is an important preventative action. ARB and local air districts have comprehensive efforts underway to address new and existing air pollution sources under their respective jurisdictions. The issue of siting is a local government function. As more data on the connection between proximity and health risk from air pollution become available, it is essential that air agencies share what we know with land use agencies. We hope this document will serve that purpose.

The first section provides ARB recommendations regarding the siting of new sensitive land uses near freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities. This list consists of the air pollution sources that we have evaluated from the standpoint of the proximity issue. It is based on available information and reflects ARB's primary areas of jurisdiction – mobile sources and toxic air contaminants. A key air pollutant common to many of these sources is particulate matter from diesel engines. Diesel particulate matter (diesel PM) is a carcinogen identified by ARB as a toxic air contaminant and contributes to particulate pollution statewide.

Reducing diesel particulate emissions is one of ARB's highest public health priorities and the focus of a comprehensive statewide control program that is reducing diesel PM emissions each year. ARB's long-term goal is to reduce diesel PM emissions 85% by 2020. However, cleaning up diesel engines will take time as new engine standards phase in and programs to accelerate fleet turnover or retrofit existing engines are implemented. Also, these efforts are reducing diesel particulate emissions on a statewide basis, but do not yet capture every site where diesel vehicles and engines may congregate. Because living or going to school too close to such air pollution sources may increase both cancer and non-cancer health risks, we are recommending that proximity be considered in the siting of new sensitive land uses.

There are also other key toxic air contaminants associated with specific types of facilities. Most of these are subject to stringent state and local air district regulations. However, what we know today indicates that keeping new homes and other sensitive land uses from siting too close to such facilities would provide additional health protection. Chrome platers are a prime example of facilities that should not be located near vulnerable communities because of the cancer health risks from exposure to the toxic material used during their operations.

In addition to source specific recommendations, we also encourage land use agencies to use their planning processes to ensure the appropriate separation of industrial facilities and sensitive land uses. While we provide some suggestions, how to best achieve that goal is a local issue. In the development of these guidelines, we received valuable input from local government about the spectrum of issues that must be considered in the land use planning process. This includes addressing housing and transportation needs, the benefits of urban infill, community economic development priorities, and other quality of life issues. All of these factors are important considerations. The recommendations in the Handbook need to be balanced with other State and local policies.

Our purpose with this document is to highlight the potential health impacts associated with proximity to air pollution sources so planners explicitly consider this issue in planning processes. We believe that with careful evaluation, infill development, mixed use, higher density, transit-oriented development, and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level. One suggestion for achieving this goal is more communication between air agencies and land use planners. Local air districts are an important resource that should be consulted regarding sources of air pollution in their jurisdictions. ARB staff will also continue to provide updated technical information as it becomes available.

Our recommendations are as specific as possible given the nature of the available data. In some cases, like refineries, we suggest that the siting of new sensitive land uses should be avoided immediately downwind. However, we leave definition of the size of this area to local agencies based on facility specific considerations. Also, project design that would reduce air pollution exposure may be part of the picture and we encourage consultation with air agencies on this subject.

In developing the recommendations, our first consideration was the adequacy of the data available for an air pollution source category. Using that data, we assessed whether we could reasonably characterize the relative exposure and health risk from a proximity standpoint. That screening provided the list of air pollution sources that we were able to address with specific recommendations. We also considered the practical implications of making hard and fast recommendations where the potential impact area is large, emissions will be reduced with time, and air agencies are in the process of looking at options for additional emission control. In the end, we tailored our recommendations to minimize the highest exposures for each source category independently. Due to the large variability in relative risk in the source categories, we chose not to apply

a uniform, quantified risk threshold as is typically done in air quality permitting programs. Instead, because these guidelines are not regulatory or binding on local agencies, we took a more qualitative approach in developing the distance-based recommendations.

Where possible, we recommend a minimum separation between a new sensitive land use and known air pollution risks. In other cases, we acknowledge that the existing health risk is too high in a relatively large area, that air agencies are working to reduce that risk, and that in the meantime, we recommend keeping new sensitive land uses out of the highest exposure areas. However, it is critical to note that our implied identification of the high exposure areas for these sources does not mean that the risk in the remaining impact area is insignificant. Rather, we hope this document will bring further attention to the potential health risk throughout the impact area and help garner support for our ongoing efforts to reduce health risk associated with air pollution sources. Areas downwind of major ports, rail yards, and other inter-modal transportation facilities are prime examples.

We developed these recommendations as a means to share important public health information. The underlying data are publicly available and referenced in this document. We also describe our rationale and the factors considered in developing each recommendation, including data limitations and uncertainties. These recommendations are advisory and should not be interpreted as defined "buffer zones." We recognize the opportunity for more detailed site-specific analyses always exists, and that there is no "one size fits all" solution to land use planning.

As California continues to grow, we collectively have the opportunity to use all the information at hand to avoid siting scenarios that may pose a health risk. As part of ARB's focus on communities and children's health, we encourage land use agencies to apply these recommendations and work more closely with air agencies. We also hope that this document will help educate a wider audience about the value of preventative action to reduce environmental exposures to air pollution.

1. ARB Recommendations on Siting New Sensitive Land Uses

Protecting California's communities and our children from the health effects of air pollution is one of the most fundamental goals of state and local air pollution control programs. Our focus on children reflects their special vulnerability to the health impacts of air pollution. Other vulnerable populations include the elderly, pregnant women, and those with serious health problems affected by air pollution. With this document, we hope to more effectively engage local land use agencies as partners in our efforts to reduce health risk from air pollution in all California communities.

Later sections emphasize the need to strengthen the connection between air quality and land use in both planning and permitting processes. Because the siting process for many, but not all air pollution sources involves permitting by local air districts, there is an opportunity for interagency coordination where the proposed location might pose a problem. To enhance the evaluation process from a land use perspective, section 4 includes recommended project related questions to help screen for potential proximity related issues.

Unlike industrial and other stationary sources of air pollution, the siting of new homes or day care centers does not require an air quality permit. Because these situations fall outside the air quality permitting process, it is especially important that land use agencies be aware of potential air pollution impacts.

The following recommendations address the issue of siting "sensitive land uses" near specific sources of air pollution; namely:

- High traffic freeways and roads
- Distribution centers
- Rail yards
- Ports
- Refineries
- Chrome plating facilities
- Dry cleaners
- Large gas dispensing facilities

The recommendations for each category include a summary of key information and guidance on what to avoid from a public health perspective.

> *Sensitive individuals refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses where sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses).*

We are characterizing sensitive land uses as simply as we can by using the example of residences, schools, day care centers, playgrounds, and medical facilities. However, a variety of facilities are encompassed. For example, residences can include houses, apartments, and senior living complexes. Medical facilities can include hospitals, convalescent homes, and health clinics. Playgrounds could be play areas associated with parks or community centers.

In developing these recommendations, ARB first considered the adequacy of the data available for each air pollution source category. We assessed whether we could generally characterize the relative exposure and health risk from a proximity standpoint. The documented non-cancer health risks include triggering of asthma attacks, heart attacks, and increases in daily mortality and hospitalization for heart and respiratory diseases. These health impacts are well documented in epidemiological studies, but less easy to quantify from a particular air pollution source. Therefore, the cancer health impacts are used in this document to provide a picture of relative risk. This screening process provided the list of source categories we were able to address with specific recommendations. In evaluating the available information, we also considered the practical implications of making hard and fast recommendations where the potential impact area is large, emissions will be reduced with time, and air agencies are in the process of looking at options for additional emission control. Due to the large variability in relative risk between the source categories, we chose not to apply a uniform, quantified risk threshold as is typically done in regulatory programs. Therefore, in the end, we tailored our recommendations to minimize the highest exposures for each source category independently. Additionally, because this guidance is not regulatory or binding on local agencies, we took a more qualitative approach to developing distance based recommendations.

Where possible, we recommend a minimum separation between new sensitive land uses and existing sources. However, this is not always possible, particularly where there is an elevated health risk over large geographical areas. Areas downwind of ports and rail yards are prime examples. In such cases, we recommend doing everything possible to avoid locating sensitive receptors within the highest risk zones. Concurrently, air agencies and others will be working to reduce the overall risk through controls and measures within their scope of authority.

The recommendations were developed from the standpoint of siting new sensitive land uses. Project-specific data for new and existing air pollution sources are available as part of the air quality permitting process. Where such information is available, it should be used. Our recommendations are designed to fill a gap where information about existing facilities may not be readily available. These recommendations are only guidelines and are not designed to substitute for more specific information if it exists.

A summary of our recommendations is shown in Table 1-1. The basis and references[1] supporting each of these recommendations, including health studies, air quality modeling and monitoring studies is discussed below beginning with freeways and summarized in Table 1-2. As new information becomes available, it will be included on ARB's community health web page.

[1]Detailed information on these references are available on ARB's website at: http://www.ARB.ca.gov/ch/landuse.htm.

Table 1-1

Recommendations on Siting New Sensitive Land Uses Such As Residences, Schools, Daycare Centers, Playgrounds, or Medical Facilities*

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	• Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	• Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). • Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	• Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. • Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	• Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	• Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	• Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloro-ethylene	• Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. • Do not site new sensitive land uses in the same building with perc dry cleaning operations.
Gasoline Dispensing Facilities	• Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

*Notes:

- These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

- Recommendations are based primarily on data showing that the air pollution exposures addressed here (i.e., localized) can be reduced as much as 80% with the recommended separation.
- The relative risk for these categories varies greatly (see Table 1-2). To determine the actual risk near a particular facility, a site-specific analysis would be required. Risk from diesel PM will decrease over time as cleaner technology phases in.
- These recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to substitute for more specific information if it exists. The recommended distances take into account other factors in addition to available health risk data (see individual category descriptions).
- Site-specific project design improvements may help reduce air pollution exposures and should also be considered when siting new sensitive land uses.
- This table does not imply that mixed residential and commercial development in general is incompatible. Rather it focuses on known problems like dry cleaners using perchloroethylene that can be addressed with reasonable preventative actions.
- A summary of the basis for the distance recommendations can be found in Table 1-2.

Table 1-2

Summary of Basis for Advisory Recommendations

Source Category	Range of Relative Cancer Risk[1,2]	Summary of Basis for Advisory Recommendations
Freeways and High-Traffic Roads	300 – 1,700	• In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70% drop off in particulate pollution levels at 500 feet.
Distribution Centers[3]	Up to 500	• Because ARB regulations will restrict truck idling at distribution centers, transport refrigeration unit (TRU) operations are the largest onsite diesel PM emission source followed by truck travel in and out of distribution centers. • Based on ARB and South Coast District emissions and modeling analyses, we estimate an 80 percent drop-off in pollutant concentrations at approximately 1,000 feet from a distribution center.
Rail Yards	Up to 500	• The air quality modeling conducted for the Roseville Rail Yard Study predicted the highest impact is within 1,000 feet of the Yard, and is associated with service and maintenance activities. The next highest impact is between a half to one mile of the Yard, depending on wind direction and intensity.
Ports	Studies underway	• ARB will evaluate the impacts of ports and develop a new comprehensive plan that will describe the steps needed to reduce public health impacts from port and rail activities in California. In the interim, a general advisory is appropriate based on the magnitude of diesel PM emissions associated with ports.
Refineries	Under 10	• Risk assessments conducted at California refineries show risks from air toxics to be under 10 chances of cancer per million.[4] • Distance recommendations were based on the amount and potentially hazardous nature of many of the pollutants released as part of the refinery process, particularly during non-routine emissions releases.
Chrome Platers	10-100	• ARB modeling and monitoring studies show localized risk of hexavalent chromium diminishing significantly at 300 feet. There are data limitations in both the modeling and monitoring studies. These include variability of plating activities and uncertainty of emissions such as fugitive dust. Hexavalent chromium is one of the most potent toxic air contaminants. Considering these factors, a distance of 1,000 feet was used as a precautionary measure.
Dry Cleaners Using Perchloro-ethylene (perc)	15-150	• Local air district studies indicate that individual cancer risk can be reduced by as much as 75 percent by establishing a 300 foot separation between a sensitive land use and a one-machine perc dry cleaning operation. For larger operations (2 machines or more), a separation of 500 feet can reduce risk by over 85 percent.

Source Category	Range of Relative Cancer Risk[1,2]	Summary of Basis for Advisory Recommendations
Gasoline Dispensing Facilities (GDF)[5]	Typical GDF: Less than 10 Large GDF: Between Less than 10 and 120	• Based on the CAPCOA Gasoline Service Station Industry-wide Risk Assessment Guidelines, most typical GDFs (less than 3.6 million gallons per year) have a risk of less than 10 at 50 feet under urban air dispersion conditions. Over the last few years, there has been a growing number of extremely large GDFs with sales over 3.6 and as high as 19 million gallons per year. Under rural air dispersion conditions, these large GDFs can pose a larger risk at a greater distance.

[1]For cancer health effects, risk is expressed as an estimate of the increased chances of getting cancer due to facility emissions over a 70-year lifetime. This increase in risk is expressed as chances in a million (e.g., 10 chances in a million).

[2]The estimated cancer risks are a function of the proximity to the specific category and were calculated independent of the regional health risk from air pollution. For example, the estimated regional cancer risk from air toxics in the Los Angeles region (South Coast Air Basin) is approximately 1,000 in a million.

[3]Analysis based on refrigerator trucks.

[4]Although risk assessments performed by refineries indicate they represent a low cancer risk, there is limited data on non-cancer effects of pollutants that are emitted from these facilities. Refineries are also a source of non-routine emissions and odors.

[5]A typical GDF in California dispenses under 3.6 million gallons of gasoline per year. The cancer risk for this size facility is likely to be less than 10 in a million at the fence line under urban air dispersion conditions.

A large GDF has fuel throughputs that can range from 3.6 to 19 million gallons of gasoline per year. The upper end of the risk range (i.e., 120 in a million) represents a hypothetical worst case scenario for an extremely large GDF under rural air dispersion conditions.

Freeways and High Traffic Roads

Air pollution studies indicate that living close to high traffic and the associated emissions may lead to adverse health effects beyond those associated with regional air pollution in urban areas. Many of these epidemiological studies have focused on children. A number of studies identify an association between adverse non-cancer health effects and living or attending school near heavily traveled roadways (see findings below). These studies have reported associations between residential proximity to high traffic roadways and a variety of respiratory symptoms, asthma exacerbations, and decreases in lung function in children.

One such study that found an association between traffic and respiratory symptoms in children was conducted in the San Francisco Bay Area. Measurements of traffic-related pollutants showed concentrations within 300 meters (approximately 1,000 feet) downwind of freeways were higher than regional values. Most other studies have assessed exposure based on proximity factors such as distance to freeways or traffic density.

These studies linking traffic emissions with health impacts build on a wealth of data on the adverse health effects of ambient air pollution. The data on the effects of proximity to traffic-related emissions provides additional information that can be used in land use siting and regulatory actions by air agencies. The key observation in these studies is that close proximity increases both exposure and the potential for adverse health effects. Other effects associated with traffic emissions include premature death in elderly individuals with heart disease.

Key Health Findings

- Reduced lung function in children was associated with traffic density, especially trucks, within 1,000 feet and the association was strongest within 300 feet. (Brunekreef, 1997)
- Increased asthma hospitalizations were associated with living within 650 feet of heavy traffic and heavy truck volume. (Lin, 2000)
- Asthma symptoms increased with proximity to roadways and the risk was greatest within 300 feet. (Venn, 2001)
- Asthma and bronchitis symptoms in children were associated with proximity to high traffic in a San Francisco Bay Area community with good overall regional air quality. (Kim, 2004)
- A San Diego study found increased medical visits in children living within 550 feet of heavy traffic. (English, 1999)

In these and other proximity studies, the distance from the roadway and truck traffic densities were key factors affecting the strength of the association with adverse health effects. In the above health studies, the association of traffic-related emissions with adverse health effects was seen within 1,000 feet and was

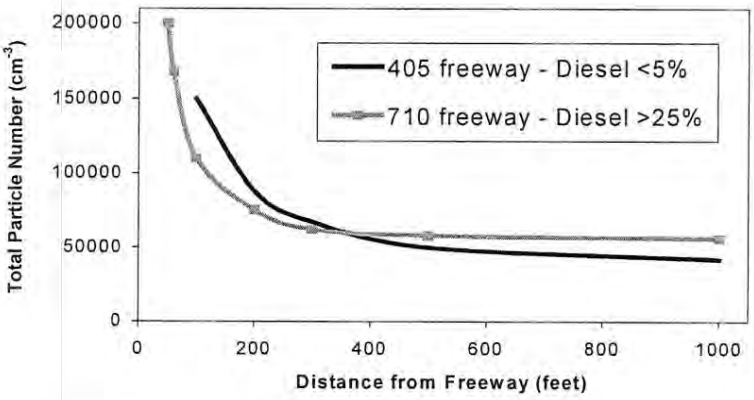
strongest within 300 feet. This demonstrates that the adverse effects diminished with distance.

In addition to the respiratory health effects in children, proximity to freeways increases potential cancer risk and contributes to total particulate matter exposure. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risk from motor vehicle traffic – diesel particulate matter (diesel PM) from trucks, and benzene and 1,3-butadiene from passenger vehicles. On a typical urban freeway (truck traffic of 10,000-20,000/day), diesel PM represents about 70 percent of the potential cancer risk from the vehicle traffic. Diesel particulate emissions are also of special concern because health studies show an association between particulate matter and premature mortality in those with existing cardiovascular disease.

Distance Related Findings

A southern California study (Zhu, 2002) showed measured concentrations of vehicle-related pollutants, including ultra-fine particles, decreased dramatically within approximately 300 feet of the 710 and 405 freeways. Another study looked at the validity of using distance from a roadway as a measure of exposure

Figure 1-1
Decrease In Concentration of Freeway Diesel PM Emissions With Distance



to traffic related air pollution (Knape, 1999). This study showed that concentrations of traffic related pollutants declined with distance from the road, primarily in the first 500 feet.

These findings are consistent with air quality modeling and risk analyses done by ARB staff that show an estimated range of potential cancer risk that decreases with distance from freeways. The estimated risk varies with the local meteorology, including wind pattern. As an example, at 300 feet downwind from a freeway (Interstate 80) with truck traffic of 10,000 trucks per day, the potential cancer risk was as high as 100 in one million (ARB Roseville Rail Yard Study). The cancer health risk at 300 feet on the upwind side of the freeway was much

less. The risk at that distance for other freeways will vary based on local conditions – it may be higher or lower. However, in all these analyses the relative exposure and health risk dropped substantially within the first 300 feet. This phenomenon is illustrated in Figure 1-1.

State law restricts the siting of new schools within 500 feet of a freeway, urban roadways with 100,000 vehicles/day, or rural roadways with 50,000 vehicles with some exceptions.[2] However, no such requirements apply to the siting of residences, day care centers, playgrounds, or medical facilities. The available data show that exposure is greatly reduced at approximately 300 feet. In the traffic-related studies the additional health risk attributable to the proximity effect was strongest within 1,000 feet.

The combination of the children's health studies and the distance related findings suggests that it is important to avoid exposing children to elevated air pollution levels immediately downwind of freeways and high traffic roadways. These studies suggest a substantial benefit to a 500-foot separation.

The impact of traffic emissions is on a gradient that at some point becomes indistinguishable from the regional air pollution problem. As air agencies work to reduce the underlying regional health risk from diesel PM and other pollutants, the impact of proximity will also be reduced. In the meantime, as a preventative measure, we hope to avoid exposing more children and other vulnerable individuals to the highest concentrations of traffic-related emissions.

Recommendation

- Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.

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- Lin, S. et al. *"Childhood asthma hospitalization and residential exposure to state route traffic."* Environ Res. 2002;88:73-81
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[2] Section 17213 of the California Education Code and section 21151.8 of the California Public Resources Code. See also Appendix E for a description of special processes that apply to school siting.

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Distribution Centers

Distribution centers or warehouses are facilities that serve as a distribution point for the transfer of goods. Such facilities include cold storage warehouses, goods transfer facilities, and inter-modal facilities such as ports. These operations involve trucks, trailers, shipping containers, and other equipment with diesel engines. A distribution center can be comprised of multiple centers or warehouses within an area. The size can range from several to hundreds of acres, involving a number of different transfer operations and long waiting periods. A distribution center can accommodate hundreds of diesel trucks a day that deliver, load, and/or unload goods up to seven days a week. To the extent that these trucks are transporting perishable goods, they are equipped with diesel-powered transport refrigeration units (TRUs) or TRU generator sets.

The activities associated with delivering, storing, and loading freight produces diesel PM emissions. Although TRUs have relatively small diesel-powered engines, in the normal course of business, their emissions can pose a significant health risk to those nearby. In addition to onsite emissions, truck travel in and out of distribution centers contributes to the local pollution impact.

ARB is working to reduce diesel PM emissions through regulations, financial incentives, and enforcement programs. In 2004, ARB adopted two airborne toxic control measures that will reduce diesel PM emissions associated with distribution centers. The first will limit nonessential (or unnecessary) idling of diesel-fueled commercial vehicles, including those entering from other states or countries. This statewide measure, effective in 2005, prohibits idling of a vehicle more than five minutes at any one location.[3] The elimination of unnecessary idling will reduce the localized impacts caused by diesel PM and other air toxics

[3] For further information on the Anti-Idling ATCM, please click on: http://www.arb.ca.gov/toxics/idling/outreach/factsheet.pdf

in diesel vehicle exhaust. This should be a very effective new strategy for reducing diesel PM emissions at distribution centers as well as other locations.

The second measure requires that TRUs operating in California become cleaner over time. The measure establishes in-use performance standards for existing TRU engines that operate in California, including out-of-state TRUs. The requirements are phased-in beginning in 2008, and extend to 2019.[4]

ARB also operates a smoke inspection program for heavy-duty diesel trucks that focuses on reducing truck emissions in California communities. Areas with large numbers of distribution centers are a high priority.

Key Health Findings

Diesel PM has been identified by ARB as a toxic air contaminant and represents 70 percent of the known potential cancer risk from air toxics in California. Diesel PM is an important contributor to particulate matter air pollution. Particulate matter exposure is associated with premature mortality and health effects such as asthma exacerbation and hospitalization due to aggravating heart and lung disease.

Distance Related Findings

Although distribution centers are located throughout the state, they are usually clustered near transportation corridors, and are often located in or near population centers. Diesel PM emissions from associated delivery truck traffic and TRUs at these facilities may result in elevated diesel PM concentrations in neighborhoods surrounding those sites. Because ARB regulations will restrict truck idling at distribution centers, the largest continuing onsite diesel PM emission source is the operation of TRUs. Truck travel in and out of distribution centers also contributes to localized exposures, but specific travel patterns and truck volumes would be needed to identify the exact locations of the highest concentrations.

As part of the development of ARB's regulation for TRUs, ARB staff performed air quality modeling to estimate exposure and the associated potential cancer risk of onsite TRUs for a typical distribution center. For an individual person, cancer risk estimates for air pollution are commonly expressed as a probability of developing cancer from a lifetime (i.e., 70 years) of exposure. These risks were calculated independent of regional risk. For example, the estimated regional cancer risk from air toxics in the Los Angeles region (South Coast Air Basin) is approximately 1,000 additional cancer cases per one million population.

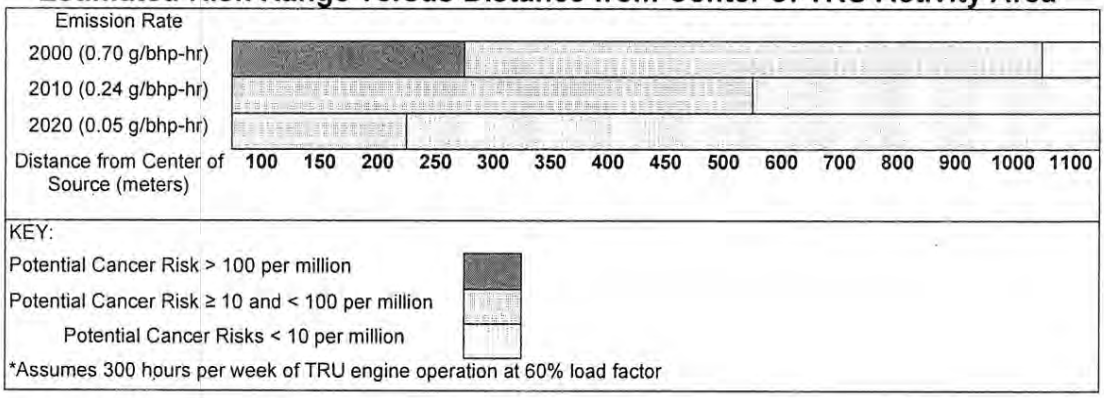
[4] For further information on the Transport Refrigeration Unit ATCM, please click on: http://www.arb.ca.gov/diesel/documents/trufaq.pdf

The diesel PM emissions from a facility are dependent on the size (horsepower), age, and number of engines, emission rates, the number of hours the truck engines and/or TRUs operate, distance, and meteorological conditions at the site. This assessment assumes a total on-site operating time for all TRUs of 300 hours per week. This would be the equivalent of 40 TRU-equipped trucks a day, each loading or unloading on-site for one hour, 12 hours a day and seven days a week.

As shown in Figure 1-2 below, at this estimated level of activity and assuming a current fleet diesel PM emission rate, the potential cancer risk would be over 100 in a million at 800 feet from the center of the TRU activity. The estimated potential cancer risk would be in the 10 to 100 per million range between 800 to 3,300 feet and fall off to less than 10 per million at approximately 3,600 feet. However with the implementation of ARB's regulation on TRUs, the risk will be significantly reduced.[5] We have not conducted a risk assessment for distribution centers based on truck traffic alone, but on an emissions basis, we would expect similar risks for a facility with truck volumes in the range of 100 per day.

Figure 1-2

Estimated Risk Range versus Distance from Center of TRU Activity Area*

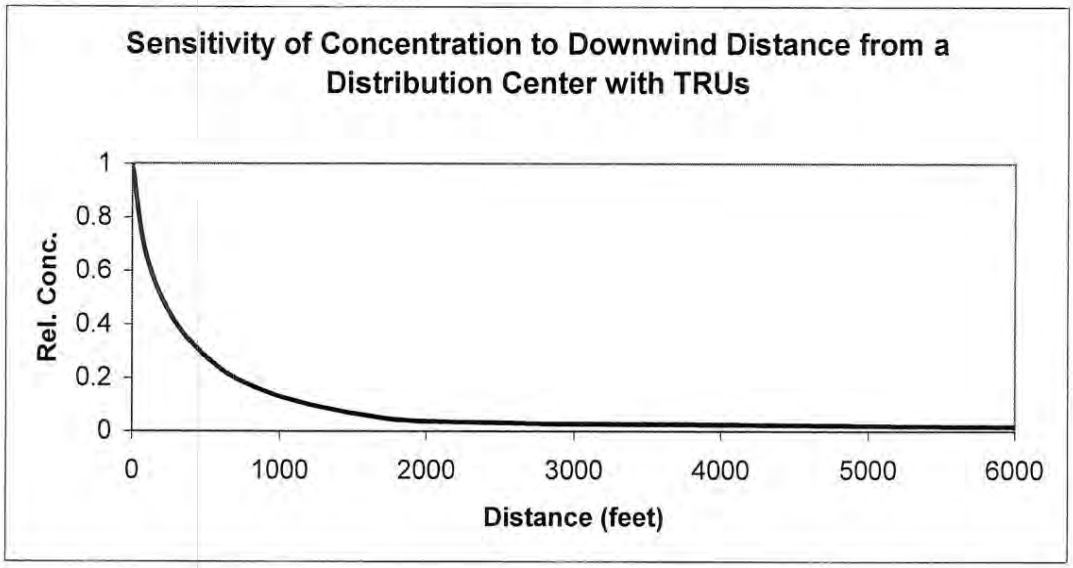


The estimated potential cancer risk level in Figure 1-2 is based on a number of assumptions that may not reflect actual conditions for a specific site. For example, increasing or decreasing the hours of diesel engine operations would change the potential risk levels. Meteorological and other facility specific parameters can also impact the results. Therefore, the results presented here are not directly applicable to any particular facility or operation. Rather, this information is intended to provide an indication as to the potential relative levels of risk that may be observed from operations at distribution centers. As shown in Figure 1-2, the estimated risk levels will decrease over time as lower-emitting diesel engines are used.

[5] These risk values assume an exposure duration of 70 years for a nearby resident and uses the methodology specified in the 2003 OEHHA health risk assessment guidelines.

Another air modeling analysis, performed by the South Coast Air Quality Management District (South Coast AQMD), evaluated the impact of diesel PM emissions from distribution center operations in the community of Mira Loma in southern California. Based on dispersion of diesel PM emissions from a large distribution center, Figure 1-3 shows the relative pollution concentrations at varying distances downwind. As Figure 1-3 shows, there is about an 80 percent drop off in concentration at approximately 1,000 feet.

Figure 1-3
Decrease In Relative Concentration of Risk With Distance



Both the ARB and the South Coast AQMD analyses indicate that providing a separation of 1,000 feet would substantially reduce diesel PM concentrations and public exposure downwind of a distribution center. While these analyses do not provide specific risk estimates for distribution centers, they provide an indication of the range of risk and the benefits of providing a separation. ARB recommends a separation of 1,000 feet based on the combination of risk analysis done for TRUs and the decrease in exposure predicted with the South Coast AQMD modeling. However, ARB staff plans to provide further information on distribution centers as we collect more data and implement the TRU control measure.

Taking into account the configuration of distribution centers can also reduce population exposure and risk. For example, locating new sensitive land uses away from the main entry and exit points helps to reduce cancer risk and other health impacts.

Recommendations

- Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating TRUs per day, or where TRU unit operations exceed 300 hours per week).

- Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.

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- *Revised Staff Report: Initial Statement of Reasons for Proposed Rulemaking. Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate.* ARB (October 28, 2003). http://www.arb.ca.gov/regact/trude03/revisor.doc

- *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis.* SCAQMD (August 2003) http://www.aqmd.gov/ceqa/handbook/diesel_analysis.doc

- *"Mira Loma Study: Analysis of the Impact of Diesel Particulate Emissions from Warehouse/Distribution Center Operations",* PowerPoint presentation. SCAQMD (July 31, 2002)

Rail Yards

Rail yards are a major source of diesel particulate air pollution. They are usually located near inter-modal facilities, which attract heavy truck traffic, and are often sited in mixed industrial and residential areas. ARB, working with the Placer County air district and Union Pacific Railroad, recently completed a study[6] of the Roseville Rail Yard (Yard) in northern California that focused on the health risk from diesel particulate. A comprehensive emissions analysis and air quality modeling were conducted to characterize the estimated potential cancer risk associated with the facility.

[6] To review the study, please click on: http://www.arb.ca.gov/diesel/documents/rrstudy.htm

The Yard encompasses about 950 acres on a one-quarter mile wide by four-mile long strip of land that parallels Interstate 80. It is surrounded by commercial, industrial, and residential properties. The Yard is one of the largest service and maintenance rail yards in the West with over 30,000 locomotives visiting annually.

Using data provided by Union Pacific Railroad, the ARB determined the number and type of locomotives visiting the Yard annually and what those locomotives were doing - moving, idling, or undergoing maintenance testing. Union Pacific provided the annual, monthly, daily, and hourly locomotive activity in the yard including locomotive movements; routes for arrival, departure, and through trains; and locomotive service and testing. This information was used to estimate the emissions of particulate matter from the locomotives, which was then used to model the potential impacts on the surrounding community.

The key findings of the study are:

- Diesel PM emissions in 2000 from locomotive operations at the Roseville Yard were estimated at about 25 tons per year.

- Of the total diesel PM in the Yard, moving locomotives accounted for about 50 percent, idling locomotives about 45 percent, and locomotive testing about five percent.

- Air quality modeling predicts potential cancer risks greater than 500 in a million (based on 70 years of exposure) in a 10-40 acre area immediately adjacent to the Yard's maintenance operations.

- The risk assessment also showed elevated cancer risk impacting a larger area covering about a 10 by 10 mile area around the Yard.

The elevated concentrations of diesel PM found in the study contribute to an increased risk of cancer and premature death due to cardiovascular disease, and non-cancer health effects such as asthma and other respiratory illnesses. The magnitude of the risk, the general location, and the size of the impacted area depended on the meteorological data used to characterize conditions at the Yard, the dispersion characteristics, and exposure assumptions. In addition to these variables, the nature of locomotive activity will influence a risk characterization at a particular rail yard. For these reasons, the quantified risk estimates in the Roseville Rail Yard Study cannot be directly applied to other rail yards. However, the study does indicate the health risk due to diesel PM from rail yards needs to be addressed. ARB, in conjunction with the U.S. Environmental Protection Agency (U.S. EPA), and local air districts, is working with the rail industry to identify and implement short term, mid-term and long-term mitigation strategies. ARB also intends to conduct a second rail study in southern California to increase its understanding of rail yard operations and the associated public health impacts.

Key Health Findings

Diesel PM has been identified by ARB as a toxic air contaminant and represents 70 percent of the known potential cancer risk from air toxics in California. Diesel PM is an important contributor to particulate matter air pollution. Particulate matter exposure is associated with premature mortality and health effects such as asthma exacerbation and hospitalization due to aggravating heart and lung disease.

Distance Related Findings

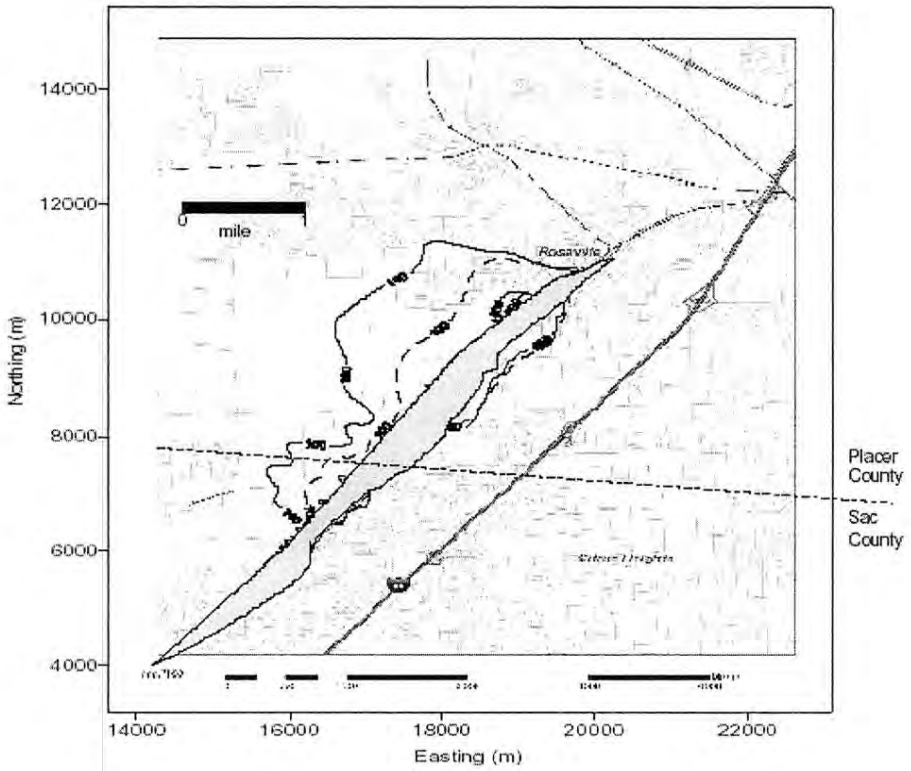
Two sets of meteorological data were used in the Roseville study because of technical limitations in the data. The size of the impact area was highly dependent on the meteorological data set used. The predicted highest impact area ranged from 10 - 40 acres with the two different meteorological data sets. This area, with risks estimated above 500 in a million, is adjacent to an area that includes a maintenance shop (see Figure 1-4). The high concentration of diesel PM emissions is due to the number of locomotives and nature of activities in this area, particularly idling locomotives.

The area of highest impact is within 1,000 feet of the Yard. The next highest impact zone as defined in the report had a predicted risk between 500 and 100 in one million and extends out between a half to one mile in some spots, depending on which meteorological conditions were assumed. The impact areas are irregular in shape making it difficult to generalize about the impact of distance at a particular location. However, the Roseville Rail Yard Study clearly indicates that the localized health risk is high, the impact area is large, and mitigation of the locomotive diesel PM emissions is needed.

For facilities like rail yards and ports, the potential impact area is so large that the real solution is to substantially reduce facility emissions. However, land use planners can avoid encroaching upon existing rail facilities and those scheduled for expansion. We also recommend that while air agencies tackle this problem, land use planners try not to add new sensitive individuals into the highest exposure areas. Finally, we recommend that land use agencies consider the potential health impacts of rail yards in their planning and permitting processes. Additional limitations and mitigation may be feasible to further reduce exposure on a site-specific basis.

Figure 1-4

Estimated Cancer Risk from the Yard
(100 and 500 in a million risk isopleths)



Notes: 100/Million Contours: Solid Line – Roseville Met Data; Dashed Line-McClellan Met Data. Urban Dispersion Coefficients, 80th Percentile Breathing Rate, All Locomotives' Activities (23 TPY), 70-Year Exposure

Recommendation

- Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard[7].
- Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.

References

- *Roseville Rail Yard Study.* ARB (2004)

[7] The rail yard risk analysis was conducted for the Union Pacific rail yard in Roseville, California. This rail yard is one of the largest in the state. There are other rail yards in California with comparable levels of activity that should be considered "major" for purposes of this Handbook.

Ports

Air pollution from maritime port activities is a growing concern for regional air quality as well as air quality in nearby communities. The primary air pollutant associated with port operations is directly emitted diesel particulate. Port-related activities also result in emissions that form ozone and secondary particulate in the atmosphere. The emission sources associated with ports include diesel engine-powered ocean-going ships, harbor craft, cargo handling equipment, trucks, and locomotives. The size and concentration of these diesel engines makes ports one of the biggest sources of diesel PM in the state. For that reason, ARB has made it a top priority to reduce diesel PM emissions at the ports, in surrounding communities, and throughout California.

International, national, state, and local government collaboration is critical to reducing port emissions based on both legal and practical considerations. For example, the International Maritime Organization (IMO) and the U.S. EPA establish emission standards for ocean-going vessels and U.S.-flagged harbor craft, respectively. ARB is pursuing further federal actions to tighten these standards. In addition, ARB and local air districts are reducing emissions from ports through a variety of approaches. These include: incentive programs to fund cleaner engines, enhanced enforcement of smoke emissions from ships and trucks, use of dockside electricity instead of diesel engines, cleaner fuels for ships, harbor craft, locomotives, and reduced engine idling. The two ATCMs that limit truck idling and reduce emissions from TRUs (discussed under "Distribution Centers") also apply to ports.

ARB is also developing several other regulations that will reduce port-related emissions. One rule would require ocean-going ships to use a cleaner marine diesel fuel to power auxiliary engines while in California coastal waters and at dock. Ships that frequently visit California ports would also be required to further reduce their emissions. ARB has adopted a rule that would require harbor craft to use the same cleaner diesel fuel used by on-road trucks in California. In 2005, ARB will consider a rule that would require additional controls for in-use harbor craft, such as the use of add-on emission controls and accelerated turnover of older engines.

Key Health Findings

Port activities are a major source of diesel PM. Diesel PM has been identified by ARB as a toxic air contaminant and represents 70 percent of the known potential cancer risk from air toxics in California. Diesel PM is an important contributor to particulate matter air pollution. Particulate matter exposure is associated with premature mortality and health effects such as asthma exacerbation and hospitalization due to aggravating heart and lung disease.

Distance Related Findings

The Ports of Los Angeles and Long Beach provide an example of the emissions impact of port operations. A comprehensive emissions inventory was completed in June 2004. These ports combined are one of the world's largest and busiest seaports. Located in San Pedro Bay, about 20 miles south of downtown Los Angeles, the port complex occupies approximately 16 square miles of land and water. Port activities include five source categories that produce diesel emissions. These are ocean-going vessels, harbor craft, cargo handling equipment, railroad locomotives, and heavy-duty trucks.

The baseline emission inventory provides emission estimates for all major air pollutants. This analysis focuses on diesel PM from in-port activity because these emissions have the most potential health impact on the areas adjacent to the port. Ocean vessels are the largest overall source of diesel PM related to the ports, but these emissions occur primarily outside of the port in coastal waters, making the impact more regional in nature.

The overall in-port emission inventory for diesel particulate for the ports of Los Angeles and Long Beach is estimated to be 550 tons per year. The emissions fall in the following major categories: ocean-going vessels (17%), harbor craft (25%), cargo handling (47%), railroad locomotive (3%), and heavy duty vehicles (8%). In addition to in-port emissions, ship, rail, and trucking activities also contribute to regional emissions and increase emissions in nearby neighborhoods. Off-port emissions associated with related ship, rail, and trucking activities contribute an additional 680 tons per year of diesel particulate at the Port of Los Angeles alone.

To put this in perspective, the diesel PM emissions estimated for the Roseville Yard in ARB's 2004 study are 25 tons per year. The potential cancer risk associated with these emissions is 100 in one million at a distance of one mile, or one half mile, depending on the data set used. This rail yard covers one and a half square miles. The Los Angeles and Long Beach ports have combined diesel PM emissions of 550 tons per year emitted from a facility that covers a much larger area - 16 miles. The ports have about twice the emission density of the rail yard - 34 tons per year per square mile compared to 16 tons per year per square mile. However, while this general comparison is illustrative of the overall size of the complex, a detailed air quality modeling analysis would be needed to assess the potential health impact on specific downwind areas near the ports.

ARB is in the process of evaluating the various port-related emission sources from the standpoint of existing emissions, growth forecasts, new control options, regional air quality impacts, and localized health risk. A number of public processes - both state and local - are underway to address various aspects of these issues. Until more of these analyses are complete, there is little basis for recommending a specific separation between new sensitive land uses and ports.

For example, the type of data we have showing the relationship between air pollutant concentrations and distance from freeways is not yet available.

Also, the complexity of the port facilities makes a site-specific analysis critical. Ports are a concentration of multiple emission sources with differing dispersion and other characteristics. In the case of the Roseville rail yard, we found a high, very localized impact associated with a particular activity, service and maintenance. By contrast, the location, size, and nature of impact areas can be expected to vary substantially for different port activities. For instance, ground level emissions from dockside activities would behave differently from ship stack level emissions.

Nonetheless, on an emissions basis alone, we expect locations downwind of ports to be substantially impacted. For that reason, we recommend that land use agencies track the current assessment efforts, and consider limitations on the siting of new sensitive land uses in areas immediately downwind of ports.

Recommendations

Avoid siting new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.

References

- *Roseville Rail Yard Study*. ARB (2004)
- Final Draft, "*Port-Wide Baseline Air Emissions Inventory.*" Port of Los Angeles (June 2004)
- Final Draft, "*2002 Baseline Air Emissions Inventory.*" Port of Long Beach (February 2004)

Petroleum Refineries

A petroleum refinery is a complex facility where crude oil is converted into petroleum products (primarily gasoline, diesel fuel, and jet fuel), which are then transported through a system of pipelines and storage tanks for final distribution by delivery truck to fueling facilities throughout the state. In California, most crude oil is delivered either by ship from Alaska or foreign sources, or is delivered via pipeline from oil production fields within the state. The crude oil then undergoes many complex chemical and physical reactions, which include distillation, catalytic cracking, reforming, and finishing. These refining processes have the potential to emit air contaminants, and are subject to extensive emission controls by district regulations.

As a result of these regulations covering the production, marketing, and use of gasoline and other oil by-products, California has seen significant regional air quality benefits both in terms of cleaner fuels and cleaner operating facilities. In

the 1990s, California refineries underwent significant modifications and modernization to produce cleaner fuels in response to changes in state law. Nevertheless, while residual emissions are small when compared to the total emissions controlled from these major sources, refineries are so large that even small amounts of fugitive, uncontrollable emissions and associated odors from the operations, can be significant. This is particularly the case for communities that may be directly downwind of the refinery. Odors can cause health symptoms such as nausea and headache. Also, because of the size, complexity, and vast numbers of refinery processes onsite, the occasional refinery upset or malfunction can potentially result in acute or short-term health effects to exposed individuals.

Key Health Findings

Petroleum refineries are large single sources of emissions. For volatile organic compounds (VOCs), eight of the ten largest stationary sources in California are petroleum refineries. For oxides of nitrogen (NOx), four of the ten largest stationary sources in California are petroleum refineries. Both of these compounds react in the presence of sunlight to form ozone. Ozone impacts lung function by irritating and damaging the respiratory system. Petroleum refineries are also large stationary sources of both particulate matter under 10 microns in size (PM_{10}) and particulate matter under 2.5 microns in size ($PM_{2.5}$). Exposure to particulate matter aggravates a number of respiratory illnesses, including asthma, and is associated with premature mortality in people with existing cardiac and respiratory disease. Both long-term and short-term exposure can have adverse health impacts. Finer particles pose an increased health risk because they can deposit deep in the lung and contain substances that are particularly harmful to human health. NOx are also significant contributors to the secondary formation of $PM_{2.5}$.

Petroleum refineries also emit a variety of toxic air pollutants. These air toxics vary by facility and process operation but may include: acetaldehyde, arsenic, antimony, benzene, beryllium, 1,3-butadiene, cadmium compounds, carbonyl sulfide, carbon disulfide, chlorine, dibenzofurans, diesel particulate matter, formaldehyde, hexane, hydrogen chloride, lead compounds, mercury compounds, nickel compounds, phenol, 2,3,7,8 tetrachlorodibenzo-p-dioxin, toluene, and xylenes (mixed) among others. The potential health effects associated with these air toxics can include cancer, respiratory irritation, and damage to the central nervous system, depending on exposure levels.

Distance Related Findings

Health risk assessments for petroleum refineries have shown risks from toxic air pollutants that have quantifiable health risk values to be around 10 potential cancer cases per million. Routine air monitoring and several air monitoring studies conducted in the San Francisco Bay Area (Crockett) and the South Coast Air Basin (Wilmington) have not identified significant health risks specifically

associated with refineries. However, these studies did not measure diesel PM as no accepted method currently exists, and there are many toxic air pollutants that do not have quantifiable health risk values.

In 2002, ARB published a report on the results of the state and local air district air monitoring done near oil refineries. The purpose of this evaluation was to try to determine how refinery-related emissions might impact nearby communities. This inventory of air monitoring activities included 10 ambient air monitoring stations located near refineries in Crockett and four stations near refineries in Wilmington. These monitoring results did not identify significant increased health risks associated with the petroleum refineries. In 2002-2003, ARB conducted additional monitoring studies in communities downwind of refineries in Crockett and Wilmington. These monitoring results also did not indicate significant increased health risks from the petroleum refineries.

Consequently, there are no air quality modeling or air monitoring data that provides a quantifiable basis for recommending a specific separation between refineries and new sensitive land uses. However, in view of the amount and potentially hazardous nature of many of the pollutants released as part of the refinery process, we believe the siting of new sensitive land uses immediately downwind should be avoided. Land use agencies should consult with the local air district when considering how to define an appropriate separation for refineries within their jurisdiction.

Recommendations

- Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.

References

- *Review of Current Ambient Air Monitoring Activities Related to California Bay Area and South Coast Refineries. ARB (March 2002)* http://www.arb.ca.gov/aaqm/qmosqual/special/mldrefinery.pdf
- *Community Air Quality Monitoring: Special Studies – Crockett. ARB (September 2004)* http://www.arb.ca.gov/ch/communities/studies/crockett/crockett.htm
- *Wilmington Study - Air Monitoring Results. ARB (2003)* http://www.arb.ca.gov/ch/communities/studies/wilmington/wilmington.htm

Chrome Plating Operations

Chrome plating operations rely on the use of the toxic metal hexavalent chromium, and have been subject to ARB and local air district control programs for many years. Regulation of chrome plating operations has reduced statewide emissions substantially. However, due to the nature of chrome plating

operations and the highly toxic nature of hexavalent chromium, the remaining health risk to nearby residents is a continuing concern.

Chrome plating operations convert hexavalent chromium in solution to a chromium metal layer by electroplating, and are categorized based upon the thickness of the chromium metal layer applied. In "decorative plating", a layer of nickel is first plated over a metal substrate. Following this step, a thin layer of chromium is deposited over the nickel layer to provide a decorative and protective finish, for example, on faucets and automotive wheels. "Hard chrome plating" is a process in which a thicker layer of chromium metal is deposited directly on metal substrates such as engine parts, industrial machinery, and tools to provide greater protection against corrosion and wear.

Hexavalent chromium is emitted into the air when an electric current is applied to the plating bath. Emissions are dependent upon the amount of electroplating done per year and the control requirements. A unit of production referred to as an ampere-hour represents the amount of electroplating produced. Small facilities have an annual production rate of 100,000 – 500,000 ampere-hours, while medium-size facilities may have a production rate of 500,000 to about 3 million ampere-hours. The remaining larger facilities have a range of production rates that can be as high as 80 million ampere-hours.

The control requirements, which reduce emissions from the plating tanks, vary according to the size and type of the operation. Facilities either install add-on pollution control equipment, such as filters and scrubbers, or in-tank controls, such as fume suppressants and polyballs. With this combination of controls, the overall hexavalent chromium emissions have been reduced by over 90 percent. Larger facilities typically have better controls that can achieve efficiencies greater than 99 percent. However, even with stringent controls, the lack of maintenance and good housekeeping practices can lead to problems. And, since the material itself is inherently dangerous, any lapse in compliance poses a significant risk to nearby residents.

A 2002 ARB study in the San Diego community of Barrio Logan measured unexpectedly high concentrations of hexavalent chromium near chrome platers. The facilities were located in a mixed-use area with residences nearby. The study found that fugitive dust laden with hexavalent chromium was an important source of emissions that likely contributed to the elevated cancer risk. Largely as a result of this study, ARB is in the process of updating the current requirements to further reduce the emissions from these facilities.

In December 2004, the ARB adopted an ATCM to reduce emissions of hexavalent chromium and nickel from thermal spraying operations through the installation of best available control technology. The ATCM requires all existing facilities to comply with its requirements by January 1, 2006. New and modified thermal spraying operations must comply upon initial startup. An existing thermal spraying facility may be exempt from the minimum control efficiency

requirements of the ATCM if it is located at least 1,640 feet from the nearest sensitive receptor and emits no more than 0.5 pound per year of hexavalent chromium.[8]

Key Health Findings

Hexavalent chromium is one of the most toxic air pollutants regulated by the State of California. Hexavalent chromium is a carcinogen and has been identified in worker health studies as causing lung cancer. Exposure to even very low levels of hexavalent chromium should be avoided.

The California Office of Environmental Health Hazard Assessment has found that: 1) many epidemiological studies show a strong association between hexavalent chromium exposure in the work place and respiratory cancer; and 2) all short-term assays reported show that hexavalent chromium compounds can cause damage to human DNA.

Hexavalent chromium when inhaled over a period of many years can cause a variety of non-cancer health effects. These health effects include damage to the nose, blood disorders, lung disease, and kidney damage. The non-cancer health impacts occur with exposures considerably higher than exposures causing significant cancer risks. It is less likely that the public would be exposed to hexavalent chromium at levels high enough to cause these non-cancer health effects. Non-cancer health effects, unlike cancer health effects, have a threshold or exposure level below which non-cancer health effects would not be expected.

Distance Related Findings

ARB's 2002 Barrio Logan Study measured concentrations of hexavalent chromium in the air near two chrome plating facilities. The study was conducted from December 2001 to May 2002. There were two chrome platers on the street - one decorative and one hard plater. The purpose of the study was to better understand the near source impact of hexavalent chromium emissions. Air monitors were placed at residences next to the platers and at varying distances down the street. The monitors were moved periodically to look at the spatial distribution of the impact. Source testing and facility inspections identified one of the facilities as the likely source.

The first two weeks of monitoring results showed unexpectedly high levels of hexavalent chromium at a number of the monitoring sites. The high concentrations were intermittent. The concentrations ranged from 1 to 22 ng/m3 compared to the statewide average of 0.1 ng/m3. If these levels were to continue for 70 years, the potential cancer risk would be 150 in one million. The highest value was found at an air monitor behind a house adjacent to one of the

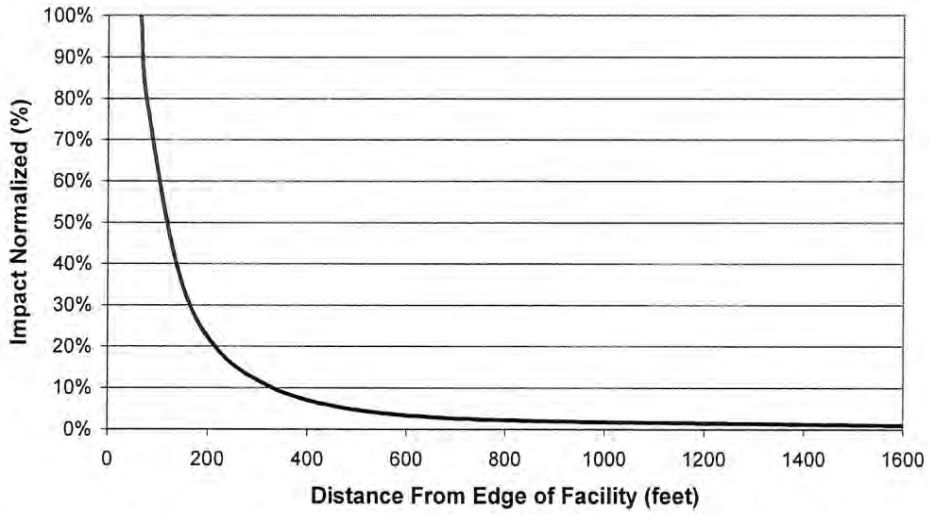
[8] For further information on the ATCM, please refer to: http://www.arb.ca.gov/regact/thermspr/thermalspr.htm

plating facilities–approximately 30 feet from the back entrance. Lower, but significant concentrations were found at an ambient air monitor 250 feet away.

The monitoring covered a period when the facility was not operating its plating tank. During this period, one of the highest concentrations was measured at an adjacent house. It appears that chromium-laden dust was responsible for high concentrations at this location since there was no plating activity at the time. Dust samples from the facility were tested and found to contain high levels of hexavalent chromium. On the day the highest concentration was measured at the house next door, a monitor 350 feet away from the plater's entrance showed very little impact. Similar proximity effects are shown in ARB modeling studies.

Figure 1-5 shows how the relative health risk varies as a function of distance from a chrome plater. This analysis is based on a medium-sized chrome plater with an annual production rate of 3 million ampere-hours. As shown in Figure 1- 5, the potential health risk drops off rapidly, with over 90 percent reduction in risk within 300 feet. This modeling was done in 2003 as part of a review of ARB's current air toxic control measure for chrome platers and is based on data from a recent ARB survey of chrome platers in California. The emission

Figure 1-5
Risk vs. Distance From Chrome Plater
(Based on plating tank emissions)



rates are only for plating operations. Because there are insufficient data available to directly quantify the impacts, the analysis does not include fugitive emissions, which the Barrio Logan analysis indicated could be significant.

Both the ARB Barrio Logan monitoring results and ARB's 2003 modeling analysis suggests that the localized emissions impact of a chrome plater diminishes significantly at 300 feet. However, in developing our recommendation, we also considered the following factors:

- some chrome platers will have higher volumes of plating activity,
- potential dust impacts were not modeled,
- we have only one monitoring study looking at the impact of distance, and,
- hexavalent chromium is one of the most potent toxic air contaminants ARB has identified.

Given these limitations in the analysis, we recommend a separation of 1,000 feet as a precautionary measure. For large chrome platers, site specific information should be obtained from the local air district.

Recommendation

- Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.

References

- *Ambient Air Monitoring for Hexavalent Chromium and Metals in Barrio Logan: May 2001 through May 2002.* ARB, Monitoring and Laboratory Division (October 14, 2003)
- *Draft Barrio Logan Report.* ARB, Planning and Technical Support Division (November 2004)
- *Proposed Amendments to the Hexavalent Chromium Control Measure for Decorative and Hard Chrome Plating and Chromic Acid Anodizing Facilities.* ARB (April 1998)
- Murchison, Linda; Suer, Carolyn; Cook, Jeff. *"Neighborhood Scale Monitoring in Barrio Logan,"* (AWMA Annual Conference Proceedings, June 2003)

Dry Cleaners Using Perchloroethylene (Perc Dry Cleaners)

Perchloroethylene (perc) is the solvent most commonly used by the dry cleaning industry to clean clothes or other materials. The ARB and other public health agencies have identified perc as a potential cancer-causing compound. Perc persists in the atmosphere long enough to contribute to both regional air pollution and localized exposures. Perc dry cleaners are the major source of perc emissions in California.

Since 1990, the statewide concentrations and health risk from exposure to perc has dropped over 70 percent. This is due to a number of regulatory requirements on perc dry cleaners and other sources, including degreasing operations, brake cleaners, and adhesives. ARB adopted an Airborne Toxic Control Measure (ATCM) for Perc Emissions from Dry Cleaning Operations in 1993. ARB has also prohibited the use of perc in aerosol adhesives and automotive brake cleaners.

Perc dry cleaners statewide are required to comply with ARB and local air district regulations to reduce emissions. However, even with these controls, some emissions continue to occur. Air quality studies indicate that there is still the potential for significant risks even near well-controlled dry cleaners. The South Coast AQMD has adopted a rule requiring that all new dry cleaners use alternatives to perc and that existing dry cleaners phase out the use of perc by December 2020. Over time, transition to non-toxic alternatives should occur. However, while perc continues to be used, a preventative approach should be taken to siting of new sensitive land uses.

Key Health Findings

Inhalation of perc may result in both cancer and non-cancer health effects. An assessment by California's Office of Environmental Health Hazard Assessment (OEHHA) concluded that perc is a potential human carcinogen and can cause non-cancer health effects. In addition to the potential cancer risk, the effects of long-term exposure include dizziness, impaired judgment and perception, and damage to the liver and kidneys. Workers have shown signs of liver toxicity following chronic exposure to perc, as well as kidney dysfunction and neurological effects. Non-cancer health effects occur with higher exposure levels than those associated with significant cancer risks. The public is more likely to be exposed to perchloroethylene at levels causing significant cancer risks than to levels causing non-cancer health effects. Non-cancer health effects, unlike cancer health effects, have a threshold or exposure level below which non-cancer health effects would not be expected. The ARB formally identified perc as a toxic air contaminant in October 1991.

One study has determined that inhalation of perc is the predominant route of exposure to infants living in apartments co-located in the same building with a business operating perc dry cleaning equipment. Results of air sampling within co-residential buildings indicate that dry cleaners can cause a wide range of exposures depending on the type and maintenance of the equipment. For example, a well-maintained state-of-the-art system may have risks in the range of 10 in one million, whereas a badly maintained machine with major leaks can have potential cancer risks of thousands in one million.

The California Air Pollution Control Officers Association (CAPCOA) is developing Industry-wide Risk Assessment Guidelines for Perchloroethylene Dry Cleaners which, when published, will provide detailed information on public health risk from exposure to emissions from this source.

Distance Related Findings

Risk created by perc dry cleaning is dependent on the amount of perc emissions, the type of dry cleaning equipment, proximity to the source, and how the emissions are released and dispersed (e.g., type of ventilation system, stack parameters, and local meteorology). Dry cleaners are often located near

residential areas, and near shopping centers, schools, day-care centers, and restaurants.

The vast majority of dry cleaners in California have one dry cleaning machine per facility. The South Coast AQMD estimates that an average well-controlled dry cleaner uses about 30 to 160 gallons of cleaning solvent per year, with an average of about 100 gallons. Based on these estimates, the South Coast AQMD estimates a potential cancer risk between 25 to 140 in one million at residential locations 75 feet or less from the dry cleaner, with an average of about 80 in one million. The estimate could be as high as 270 in one million for older machines.

CAPCOA's draft industry-wide risk assessment of perc dry cleaning operations indicates that the potential cancer risk for many dry cleaners may be in excess of potential cancer risk levels adopted by the local air districts. The draft document also indicates that, in general, the public's exposure can be reduced by at least 75 percent, by providing a separation distance of about 300 feet from the operation. This assessment is based on a single machine with perc use of about 100 gallons per year. At these distances, the potential cancer risk would be less than 10 potential cases per million for most scenarios.

The risk would be proportionately higher for large, industrial size, dry cleaners. These facilities typically have two or more machines and use 200 gallons or more per year of perc. Therefore, separation distances need to be greater for large dry cleaners. At a distance of 500 feet, the remaining risk for a large plant can be reduced by over 85 percent.

In California, a small number of dry cleaners that are co-located (sharing a common wall, floor, or ceiling) with a residence have the potential to expose the inhabitants of the residence to high levels of perc. However, while special requirements have been imposed on these existing facilities, the potential for exposure still exists. Avoiding these siting situations in the future is an important preventative measure.

Local air districts are a source of information regarding specific dry cleaning operations—particularly for large industrial operations with multiple machines. The 300 foot separation recommended below reflects the most common situation – a dry cleaner with only one machine. While we recommend 500 feet when there are two or more machines, site specific information should be obtained from the local air district for some very large industrial operations. Factors that can impact the risk include the number and type of machines, controls used, source configuration, building dimensions, terrain, and meteorological data.

Recommendation

- Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines provide 500 feet. For operations with 3 or more machines, consult with the local air district.

- Do not site new sensitive land uses in the same building with perc dry cleaning operations.

References

- *Proposed Amended Rule 1421 – Control of Perchloroethylene Emissions from Dry Cleaning Systems,* Final Staff Report. South Coast AQMD. (October 2002)
- *Air Toxic Control Measure for Emissions of Perchloroethylene from Dry Cleaning Operations.* ARB (1994) (http://www.arb.ca.gov/toxics/atcm/percatcm.htm)
- *"An Assessment of Tetrachloroethylene in Human Breast Milk"*, Judith Schreiber, New York State Department of Health – Bureau of Toxic Substance Assessment, Journal of Exposure Analysis and Environmental Epidemiology, Vol.2, Suppl.2, pp. 15-26, 1992.
- Draft *Air Toxics "Hot Spots" Program Perchloroethylene Dry Cleaner Industry-wide Risk Assessment Guidelines.* (CAPCOA (November 2002)
- *Final Environmental Assessment for Proposed Amended Rule 1421 – Control of Perchloroethylene Emissions from Dry Cleaning Systems.* South Coast AQMD. (October 18, 2002)

Gasoline Dispensing Facilities

Refueling at gasoline dispensing facilities releases benzene into the air. Benzene is a potent carcinogen and is one of the highest risk air pollutants regulated by ARB. Motor vehicles and motor vehicle-related activity account for over 90 percent of benzene emissions in California. While gasoline-dispensing facilities account for a small part of total benzene emissions, near source exposures for large facilities can be significant.

Since 1990, benzene in the air has been reduced by over 75 percent statewide, primarily due to the implementation of emissions controls on motor vehicle vapor recovery equipment at gas stations, and a reduction in benzene levels in gasoline. However, benzene levels are still significant. In urban areas, average benzene exposure is equivalent to about 50 in one million.

Gasoline dispensing facilities tend to be located in areas close to residential and shopping areas. Benzene emissions from the largest gas stations may result in near source health risk beyond the regional background and district health risk thresholds. The emergence of very high gasoline throughput at large retail or

wholesale outlets makes this a concern as these types of outlets are projected to account for an increasing market share in the next few years.

Key Health Findings

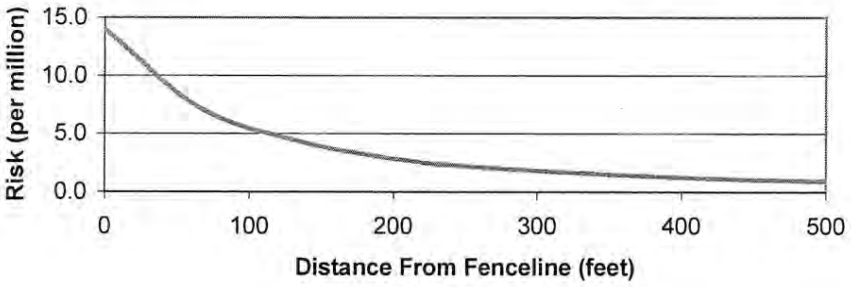
Benzene is a human carcinogen identified by ARB as a toxic air contaminant. Benzene also can cause non-cancer health effects above a certain level of exposure. Brief inhalation exposure to high concentrations can cause central nervous system depression. Acute effects include central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness. It is unlikely that the public would be exposed to levels of benzene from gasoline dispensing facilities high enough to cause these non-cancer health effects.

Distance Related Findings

A well-maintained vapor recovery system can decrease emissions of benzene by more than 90% compared with an uncontrolled facility. Almost all facilities have emission control systems. Air quality modeling of the health risks from gasoline dispensing facilities indicate that the impact from the facilities decreases rapidly as the distance from the facility increases.

Statistics reported in the ARB's staff reports on Enhanced Vapor Recovery released in 2000 and 2002, indicated that almost 96 percent of the gasoline dispensing facilities had a throughput less than 2.4 million gallons per year. The remaining four percent, or approximately 450 facilities, had throughputs exceeding 2.4 million gallons per year. For these stations, the average gasoline throughput was 3.6 million gallons per year.

Figure 1-6
Gasoline Dispensing Facility Health Risk
for 3,600,000 gal/yr throughput



As shown in Figure 1-6, the risk levels for a gasoline dispensing facility with a throughput of 3.6 million gallons per year is about 10 in one million at a distance of 50 feet from the fenceline. However, as the throughput increases, the potential risk increases.

As mentioned above, air pollution levels in the immediate vicinity of large gasoline dispensing facilities may be higher than the surrounding area (although tailpipe emissions from motor vehicles dominates the health impacts). Very large gasoline dispensing facilities located at large wholesale and discount centers may dispense nine million gallons of gasoline per year or more. At nine million gallons, the potential risk could be around 25 in one million at 50 feet, dropping to about five in one million at 300 feet. Some facilities have throughputs as high as 19 million gallons.

Recommendation

- Avoid siting new sensitive land uses within 300 feet of a large gasoline dispensing facility (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

References

- *Gasoline Service Station Industry-wide Risk Assessment Guidelines.* California Air Pollution Control Officers Association (December 1997 and revised November 1, 2001)
- *Staff Report on Enhanced Vapor Recovery.* ARB (February 4, 2000)
- *The California Almanac of Emissions and Air Quality.* ARB (2004)
- *Staff Report on Enhanced Vapor Recovery Technology Review.* ARB (October 2002)

Other Facility Types that Emit Air Pollutants of Concern

In addition to source specific recommendations, Table 1-3 includes a list of other industrial sources that could pose a significant health risk to nearby sensitive individuals depending on a number of factors. These factors include the amount of pollutant emitted and its toxicity, the distance to nearby individuals, and the type of emission controls in place. Since these types of facilities are subject to air permits from local air districts, facility specific information should be obtained where there are questions about siting a sensitive land use close to an industrial facility.

Potential Sources of Odor and Dust Complaints

Odors and dust from commercial activities are the most common sources of air pollution complaints and concerns from the public. Land use planning and permitting processes should consider the potential impacts of odor and dust on surrounding land uses, and provide for adequate separation between odor and dust sources. As with other types of air pollution, a number of factors need to be considered when determining an adequate distance or mitigation to avoid odor or

Table 1-3 – Examples of Other Facility Types That Emit[1] Air Pollutants of Concern

Categories	Facility Type	Air Pollutants of Concern
Commercial		
	Autobody Shops	Metals, Solvents
	Furniture Repair	Solvents[2], Methylene Chloride
	Film Processing Services	Solvents, Perchloroethylene
	Distribution Centers	Diesel Particulate Matter
	Printing Shops	Solvents
	Diesel Engines	Diesel Particulate Matter
Industrial		
	Construction	Particulate Matter, Asbestos
	Manufacturers	Solvents, Metals
	Metal Platers, Welders, Metal Spray (flame spray) Operations	Hexavalent Chromium, Nickel, Metals
	Chemical Producers	Solvents, Metals
	Furniture Manufacturers	Solvents
	Shipbuilding and Repair	Hexavalent chromium and other metals, Solvents
	Rock Quarries and Cement Manufacturers	Particulate Matter, Asbestos
	Hazardous Waste Incinerators	Dioxin, Solvents, Metals
	Power Plants	Benzene, Formaldehyde, Particulate Matter
	Research and Development Facilities	Solvents, Metals, etc.
Public		
	Landfills	Benzene, Vinyl Chloride, Diesel Particulate Matter
	Waste Water Treatment Plants	Hydrogen Sulfide
	Medical Waste Incinerators	Dioxin, Benzene, PAH, PCBs, 1,3-Butadiene
	Recycling, Garbage Transfer Stations	Diesel Particulate Matter
	Municipal Incinerators	Dioxin, Benzene, PAH, PCBs, 1,3-Butadiene
Transportation		
	Truck Stops	Diesel Particulate Matter
Agricultural Operations		
	Farming Operations	Diesel Particulate Matter, VOCs, NOx, PM10, CO, SOx, Pesticides
	Livestock and Dairy Operations	Ammonia, VOCs, PM10

[1]Not all facilities will emit pollutants of concern due to process changes or chemical substitution. Consult the local air district regarding specific facilities.
[2]Some solvents may emit toxic air pollutants, but not all solvents are toxic air contaminants.

dust complaints in a specific situation. Local air districts should be consulted for advice when these siting situations arise.

Table 1-4 lists some of the most common sources of odor complaints received by local air districts. Complaints about odors are the responsibility of local air districts and are covered under state law. The types of facilities that can cause odor complaints are varied and can range from small commercial facilities to large industrial facilities, and may include waste disposal and recycling operations. Odors can cause health symptoms such as nausea and headache. Facilities with odors may also be sources of toxic air pollutants (See Table 1-3). Some common sources of odors emitted by facilities are sulfur compounds, organic solvents, and the decomposition/digestion of biological materials. Because of the subjective nature of an individual's sensitivity to a particular type of odor, there is no specific rule for assigning appropriate separations from odor sources. Under the right meteorological conditions, some odors may still be offensive several miles from the source.

Table 1-4
Sources of Odor Complaints

- Sewage Treatment Plants
- Landfills
- Recycling Facilities
- Waste Transfer Stations
- Petroleum Refineries
- Biomass Operations
- Autobody Shops
- Coating Operations
- Fiberglass Manufacturing
- Foundries
- Rendering Plants
- Livestock Operations

Sources of dust are also common sources of air pollution-related complaints. Operations that can result in dust problems are rock crushing, gravel production, stone quarrying, and mining operations. A common source of complaints is the dust and noise associated with blasting that may be part of these operations. Besides the health impacts of dust as particulate matter, thick dust also impairs visibility, aesthetic values, and can soil homes and automobiles. Local air districts typically have rules for regulating dust sources in their jurisdictions, but dust sources can still be a concern. Therefore, separation of these facilities from residential and other new sensitive land uses should be considered.

In some areas of California, asbestos occurs naturally in stone deposits. Asbestos is a potent carcinogenic substance when inhaled. Asbestos-containing dust may be a public health concern in areas where asbestos-containing rock is mined, crushed, processed, or used. Situations where asbestos-containing gravel has been used in road paving materials are also a source of asbestos exposure to the general public. Planners are advised to consult with local air pollution agencies in areas where asbestos-containing gravel or stone products are produced or used.

2. Handbook Development

ARB and local air districts share responsibility for improving statewide air quality. As a result of California's air pollution control programs, air quality has improved and health risk has been reduced statewide. However, state and federal air quality standards are still exceeded in many areas of California and the statewide health risk posed by toxic air contaminants (air toxics) remains too high. Also, some communities experience higher pollution exposures than others - making localized impacts, as well regional or statewide impacts, an important consideration. It is for this reason that this Handbook has been produced - to promote better, more informed decision-making by local land use agencies that will improve air quality and public health in their communities.

Land use policies and practices, including planning, zoning, and siting activities, can play a critical role in air quality and public health at the local level. For instance, even with the best available control technology, some projects that are sited very close to homes, schools, and other public places can result in elevated air pollution exposures. The reverse is also true – siting a new school or home too close to an existing source of air pollution can pose a public health risk. The ARB recommendations in section 1 address this issue.

> *This Handbook is an informational document that we hope will strengthen the relationship between air quality and land use agencies. It highlights the need for land use agencies to address the potential for new projects to result in localized health risk or contribute to cumulative impacts where air pollution sources are concentrated.*

Avoiding these incompatible land uses is a key to reducing localized air pollution exposures that can result in adverse health impacts, especially to sensitive individuals.

Individual siting decisions that result in incompatible land uses are often the result of locating "sensitive" land uses next to polluting sources. These decisions can be of even greater concern when existing air pollution exposures in a community are considered. In general terms, this is often referred to as the issue of "cumulative impacts." ARB is working with local air districts to better define these situations and to make information about existing air pollution levels (e.g., from local businesses, motor vehicles, and other areawide sources) more readily available to land use agencies.

In December 2001, the ARB adopted "Policies and Actions for Environmental Justice" (Policies). These Policies were developed in coordination with a group of stakeholders, representing local government agencies, community interest

groups, environmental justice organizations, academia, and business (Environmental Justice Stakeholders Group).

The Policies included a commitment to work with land use planners, transportation agencies, and local air districts to develop ways to identify, consider, and reduce cumulative air pollution emissions, exposure, and health risks associated with land use planning and decision-making. Developed under the auspices of the ARB's Environmental Justice Stakeholders Group, this Handbook is a first step in meeting that commitment.

ARB has produced this Handbook to help achieve several objectives:

- Provide recommendations on situations to avoid when siting new residences, schools, day care centers, playgrounds, and medical-related facilities (sensitive sites or sensitive land uses);

- Identify approaches that land use agencies can use to prevent or reduce potential air pollution impacts associated with general plan policies, new land use development, siting, and permitting decisions;

- Improve and facilitate access to air quality data and evaluation tools for use in the land use decision-making process;

- Encourage stronger collaboration between land use agencies and local air districts to reduce community exposure to source-specific and cumulative air pollution impacts; and

- Emphasize community outreach approaches that promote active public involvement in the air quality/land use decision-making process.

This Handbook builds upon California's 2003 General Plan Guidelines. These Guidelines, developed by the Governor's Office of Planning and Research (OPR), explain the land use planning process and applicable legal requirements. This Handbook also builds upon a 1997 ARB report, "The Land Use-Air Quality Linkage" ("Linkage Report").[9] The Linkage Report was an outgrowth of the California Clean Air Act which, among other things, called upon local air districts to focus particular attention on reducing emissions from sources that indirectly cause air pollution by attracting vehicle trips. Such indirect sources include, but are not limited to, shopping centers, schools and universities, employment centers, warehousing, airport hubs, medical offices, and sports arenas. The Linkage Report summarizes data as of 1997 on the relationships between land use, transportation, and air quality, and highlights strategies that can help to reduce the use of single occupancy automobile use. Such strategies

[9] To access this report, please refer to ARB's website or click on: http://www.arb.ca.gov/ch/programs/link97.pdf

complement ARB regulatory programs that continue to reduce motor vehicle emissions.

In this Handbook, we identify types of air quality-related information that we recommend land use agencies consider in the land use decision-making processes such as the development of regional, general, and community plans; zoning ordinances; environmental reviews; project siting; and permit issuance. The Handbook provides recommendations on the siting of new sensitive land uses based on current analyses. It also contains information on approaches and methodologies for evaluating new projects from an air pollution perspective.

The Handbook looks at air quality issues associated with emissions from industrial, commercial, and mobile sources of air pollution. Mobile sources continue to be the largest overall contributors to the state's air pollution problems, representing the greatest air pollution health risk to most Californians. Based on current health risk information for air toxics, the most serious pollutants on a statewide basis are diesel PM, benzene, and 1,3-butadiene, all of which are primarily emitted by motor vehicles. From a state perspective, ARB continues to pursue new strategies to further reduce motor vehicle-related emissions in order to meet air quality standards and reduce air toxics risk.

While mobile sources are the largest overall contributors to the state's air pollution problems, industrial and commercial sources can also pose a health risk, particularly to people near the source. For this reason, the issue of incompatible land uses is an important focus of this document.

Handbook Audience

Even though the primary users of the Handbook will likely be agencies responsible for air quality and land use planning, we hope the ideas and technical issues presented in this Handbook will also be useful for:

- public and community organizations and community residents;
- federal, state and regional agencies that fund, review, regulate, oversee, or otherwise influence environmental policies and programs affected by land use policies; and
- private developers.

3. Key Community Focused Issues Land Use Agencies Should Consider

Two key air quality issues that land use agencies should consider in their planning, zoning, and permitting processes are:

1) **Incompatible Land Uses.** Localized air pollution impacts from incompatible land use can occur when polluting sources, such as a heavily trafficked roadway, warehousing facilities, or industrial or commercial facilities, are located near a land use where sensitive individuals are found such as a school, hospital, or homes.

2) **Cumulative Impacts.** Cumulative air pollution impacts can occur from a concentration of multiple sources that individually comply with air pollution control requirements or fall below risk thresholds, but in the aggregate may pose a public health risk to exposed individuals. These sources can be heavy or light-industrial operations, commercial facilities such as autobody shops, large gas dispensing facilities, dry cleaners, and chrome platers, and freeways or other nearby busy transportation corridors.

Incompatible Land Uses

Land use policies and practices can worsen air pollution exposure and adversely affect public health by mixing incompatible land uses. Examples include locating new sensitive land uses, such as housing or schools, next to small metal plating facilities that use a highly toxic form of chromium, or very near large industrial facilities or freeways. Based on recent monitoring and health-based studies, we now know that air quality impacts from incompatible land uses can contribute to increased risk of illness, missed work and school, a lower quality of life, and higher costs for public health and pollution control.[10]

Avoiding incompatible land uses can be a challenge in the context of mixed-use industrial and residential zoning. For a variety of reasons, government agencies and housing advocates have encouraged the proximity of affordable housing to employment centers, shopping areas, and transportation corridors, partially as a means to reduce vehicle trips and their associated emissions. Generally speaking, typical distances in mixed-use communities between businesses and industries and other land uses such as homes and schools, should be adequate to avoid health risks. However, generalizations do not always hold as we addressed in section 1 of this Handbook.

In terms of siting air pollution sources, the proposed location of a project is a major factor in determining whether it will result in localized air quality impacts. Often, the problem can be avoided by providing an adequate distance or setback

[10] For more information, the reader should refer to ARB's website on community health: http://www.arb.ca.gov/ch/ch.htm

between a source of emissions and nearby sensitive land uses. Sometimes, suggesting project design changes or mitigation measures in the project review phase can also reduce or avoid potential impacts. This underscores the importance of addressing potential incompatible land uses as early as possible in the project review process, ideally in the general plan itself.

Cumulative Air Pollution Impacts

The broad concept of cumulative air pollution impacts reflects the combination of regional air pollution levels and any localized impacts. Many factors contribute to air pollution levels experienced in any location. These include urban background air pollution, historic land use patterns, the prevalence of freeways and other transportation corridors, the concentration of industrial and commercial businesses, and local meteorology and terrain.

When considering the potential air quality impacts of polluting sources on individuals, project location and the concentration of emissions from air pollution sources need to be considered in the land use decision-making process. In section 4, the Handbook offers a series of questions that helps land use agencies determine if a project should undergo a more careful analysis. This holds true regardless of whether the project being sited is a polluting source or a sensitive land use project.

Large industrial areas are not the only land uses that may result in public health concerns in mixed-use communities. Cumulative air pollution impacts can also occur if land uses do not adequately provide setbacks or otherwise protect sensitive individuals from potential air pollution impacts associated with nearby light industrial sources. This can occur with activities such as truck idling and traffic congestion, or from indirect sources such as warehousing facilities that are located in a community or neighborhood.

In October 2004, Cal/EPA published its Environmental Justice Action Plan. In February 2005, the Cal/EPA Interagency Working Group approved a working definition of "cumulative impacts" for purposes of initially guiding the pilot projects that are being conducted pursuant to that plan. Cal/EPA is now in the process of developing a Cumulative Impacts Assessment Guidance document. Cal/EPA will revisit the working definition of "cumulative impacts" as the Agency develops that guidance. The following is the working definition:

> *"Cumulative impacts means exposures, public health or environmental effects from the combined emissions and discharges, in a geographic area, including environmental pollution from all sources, whether single or multi-media, routinely, accidentally, or otherwise released. Impacts will take into account sensitive populations and socio-economic factors, where applicable, and to the extent data are available."*

4. Mechanisms for Integrating Localized Air Quality Concerns Into Land Use Processes

Land use agencies should use each of their existing planning, zoning, and permitting authorities to address the potential health risk associated with new projects. Land use-specific mechanisms can go a long way toward addressing both localized and cumulative impacts from new air pollution sources that are not otherwise addressed by environmental regulations. Likewise, close collaboration and communication between land use agencies and local air districts in both the planning and project approval stages can further reduce these impacts. Local agency partnerships can also result in early identification of potential impacts from proposed activities that might otherwise escape environmental review. When this happens, pollution problems can be prevented or reduced before projects are approved, when it is less complex and expensive to mitigate.

The land use entitlement process requires a series of planning decisions. At the highest level, the General Plan sets the policies and direction for the jurisdiction, and includes a number of mandatory elements dealing with issues such as housing, circulation, and health hazards. Zoning is the primary tool for implementing land use policies. Specific or community plans created in conjunction with a specific project also perform many of the same functions as a zoning ordinance. Zoning can be modified by means of variances and conditional use permits. The latter are frequently used to insure compatibility between otherwise conflicting land uses. Finally, new development usually requires the approval of a parcel or tract map before grading and building permits can be issued. These parcel or tract maps must be consistent with the applicable General Plan, zoning and other standards.

Land use agencies can use their planning authority to separate industrial and residential land uses, or to require mitigation where separation is not feasible. By separating incompatible land uses, land use agencies can prevent or reduce both localized and cumulative air pollution impacts without denying what might otherwise be a desirable project.[11] For instance:

- a dry cleaner could open a storefront operation in a community with actual cleaning operations performed at a remote location away from residential areas;
- gas dispensing facilities with lower fuel throughput could be sited in mixed-use areas;
- enhanced building ventilation or filtering systems in schools or senior care centers can reduce ambient air from nearby busy arterials; or
- landscaping and regular watering can be used to reduce fugitive dust at a building construction site near a school yard.

[11] It should be noted that such actions should also be considered as part of the General Plan or Plan element process.

The following general and specific land use approaches can help to reduce potential adverse air pollution impacts that projects may have on public health.

General Plans

The primary purpose of planning, and the source of government authority to engage in planning, is to protect public health, safety, and welfare. In its most basic sense, a local government General Plan expresses the community's development goals and embodies public policy relative to the distribution of future land uses, forming the basis for most land use decisions. Therefore, the most effective mechanism for dealing with the central land use concept of compatibility and its relationship to cumulative air pollution impacts is the General Plan. Well before projects are proposed within a jurisdiction, the General Plan sets the stage for where projects can be sited, and their compatibility with comprehensive community goals, objectives, and policies.

In 2003, OPR revised its General Plan Guidelines, highlighting the importance of incorporating sustainable development and environmental justice policies in the planning process. The OPR General Plan Guidelines provides an effective and long-term approach to reduce cumulative air pollution impacts at the earliest planning stages. In light of these important additions to the Guidelines, land use agencies should consider updating their General Plans or Plan elements to address these revisions.

The General Plan and related Plan elements can be used to avoid incompatible land uses by incorporating air quality considerations into these documents. For instance, a General Plan safety element with an air quality component could be used to incorporate policies or objectives that are intended to protect the public from the potential for facility breakdowns that may result in a dangerous release of air toxics. Likewise, an air quality component to the transportation circulation element of the General Plan could include policies or standards to prevent or reduce local exposure to diesel exhaust from trucks and other vehicles. For instance, the transportation circulation element could encourage the construction of alternative routes away from residential areas for heavy-duty diesel trucks. By considering the relationship between air quality and transportation, the circulation element could also include air quality policies to prevent or reduce trips and travel, and thus vehicle emissions. Policies in the land use element of the General Plan could identify areas appropriate for future industrial, commercial, and residential uses. Such policies could also introduce design and distance parameters that reduce emissions, exposure, and risk from industrial and some commercial land uses (e.g., dry cleaners) that are in close proximity to residential areas or schools.

Land use agencies should also consider updating or creating an air quality element in the jurisdiction's General Plan. In the air quality element, local decision-makers could develop long-term, effective plans and policies to address

air quality issues, including cumulative impacts. The air quality element can also provide a general reference guide that informs local land use planners about regional and community level air quality, regulatory air pollution control requirements and guidelines, and references emissions and pollution source data bases and assessment and modeling tools. As is further described in Appendix C of the Handbook, new assessment tools that ARB is developing can be included into the air quality element by reference. For instance, ARB's statewide risk maps could be referenced in the air quality element as a resource that could be consulted by developers or land use agencies

Zoning

The purpose of "zoning" is to separate different land uses. Zoning ordinances establish development controls to ensure that private development takes place within a given area in a manner in which:

- All uses are compatible (e.g., an industrial plant is not permitted in a residential area);
- Common development standards are used (e.g., all homes in a given area are set back the same minimum distance from the street); and,
- Each development does not unreasonably impose a burden upon its neighbors (e.g., parking is required on site so as not to create neighborhood parking problems).

To do this, use districts called "zones" are established and standards are developed for these zones. The four basic zones are residential, commercial, industrial and institutional.

Land use agencies may wish to consider how zoning ordinances, particularly those for mixed-use areas, can be used to avoid exacerbating poor land use practices of the past or contributing to localized and cumulative air pollution impacts in the community.

Sometimes, especially in mixed-use zones, there is a potential for certain categories of existing businesses or industrial operations to result in cumulative air pollution impacts to new development projects. For example:

- An assisted living project is proposed for a mixed-use zone adjacent to an existing chrome plating facility, or several dry cleaners;
- Multiple industrial sources regulated by a local air district are located directly upwind of a new apartment complex;
- A new housing development is sited in a mixed-use zone that is downwind or adjacent to a distribution center that attracts diesel-fueled delivery trucks and TRUs; or
- A new housing development or sensitive land use is sited without adequate setbacks from an existing major transportation corridor or rail yard.

As part of the public process for making zoning changes, local land use agencies could work with community planning groups, local businesses, and community residents to determine how best to address existing incompatible land uses.

Land Use Permitting Processes

- **Questions to Consider When Reviewing New Projects**

Very often, just knowing what questions to ask can yield critical information about the potential air pollution impacts of proposed projects – both from the perspective of a specific project as well as in the nature of existing air pollution sources in the same impact area. Available land use information can reveal the proximity of air pollution sources to sensitive individuals, the potential for incompatible land uses, and the location and nature of nearby air pollution sources. Air quality data, available from the ARB and local air districts, can provide information about the types and amounts of air pollution emitted in an area, regional air quality concentrations, and health risk estimates for specific sources.

General Plans and zoning maps are an excellent starting point in reviewing project proposals for their potential air pollution impacts. These documents contain information about existing or proposed land uses for a specific location as well as the surrounding area. Often, just looking at a map of the proposed location for a facility and its surrounding area will help to identify a potential adjacent incompatible land use.

The following pages are a "pull-out" list of questions to consider along with cross-references to pertinent information in the Handbook. These questions are intended to assist land use agencies in evaluating potential air quality-related concerns associated with new project proposals.

The first group of questions contains project-related queries designed to help identify the potential for localized project impacts, particularly associated with incompatible land uses. The second group of questions focuses on the issue of potential cumulative impacts by including questions about existing emissions and air quality in the community, and community feedback. Depending on the answers to these questions, a land use agency may decide a more detailed review of the proposal is warranted.

The California Department of Education has already developed a detailed process for school siting which is outlined in Appendix E. However, school districts may also find this section helpful when evaluating the most appropriate site for new schools in their area. At a minimum, using these questions may encourage school districts to engage throughout their siting process with land use agencies and local air districts. The combined expertise of these entities can be useful in devising relevant design standards and mitigation measures that can

reduce exposure to cumulative emissions, exposure, and health risk to students and school workers.

As indicated throughout the Handbook, we strongly encourage land use agencies to consult early and often with local air districts. Local air districts have the expertise, many of the analytical tools, and a working knowledge of the sources they regulate. It is also critical to fully involve the public and businesses that could be affected by the siting decision. The questions provided in the chart below do not imply any particular action should be taken by land use agencies. Rather the questions are intended to improve the assessment process and facilitate informed decision-making.

- **Project-Related Questions**

This section includes project-related questions that, in conjunction with the questions in the next section, can be used to tailor the project evaluation. These questions are designed to help identify the potential for incompatible land uses from localized project impacts.

Questions to Consider When Reviewing New Projects

Project-Related Questions	Cross-Reference to Relevant Handbook Sections
1. Is the proposed project: ▲ A business or commercial license renewal ▲ A new or modified commercial project ▲ A new or modified industrial project ▲ A new or modified public facility project ▲ A new or modified transportation project ▲ A housing or other development in which sensitive individuals may live or play	See Appendix A for typical land use classifications and associated project categories that could emit air pollutants.
2. Does the proposed project: ▲ Conform to the zoning designation? ▲ Require a variance to the zoning designation? ▲ Include plans to expand operations over the life of the business such that additional emissions may increase the pollution burden in the community (e.g., from additional truck operations, new industrial operations or process lines, increased hours of operation, build-out to the property line, etc.)?	See Appendix F for a general explanation of land use processes. In addition, Section 3 contains a discussion of how land use planning, zoning, and permitting practices can result in incompatible land uses or cumulative air pollution impacts.
3. Has the local air district provided comments or information to assist in the analysis?	See Section 5 and Appendix C for a description of air quality-related tools that the ARB and local air districts use to provide information on potential air pollution impacts.
4. Have public meetings been scheduled with the affected community to solicit their involvement in the decision-making process for the proposed project?	See Section 7 for a discussion of public participation, information and outreach tools.
5. If the proposed project will be subject to local air district regulations: ▲ Has the project received a permit from the local air district? ▲ Would it comply with applicable local air district requirements? ▲ Is the local air district contemplating new regulations that would reduce emissions from the source over time? ▲ Will potential emissions from the project	See Appendix C for a description of local air district programs.

Project-Related Questions	Cross-Reference to Relevant Handbook Sections
trigger the local air district's new source review for criteria pollutants or air toxics emissions? ▲ Is the local air district expected to ask the proposed project to perform a risk assessment? ▲ Is there sufficient new information or public concern to call for a more thorough environmental analysis of the proposed project? ▲ Are there plans to expand operations over time? ▲ Are there land-use based air quality significance thresholds or design standards that could be applied to this project in addition to applicable air district requirements?	
6. If the proposed project will release air pollution emissions, either directly or indirectly, but is not regulated by the local air district: ▲ Is the local air district informed of the project? ▲ Does the local air district believe that there could be potential air pollution impacts associated with this project category because of the proximity of the project to sensitive individuals? ▲ If the project is one in which individuals live or play (e.g., a home, playground, convalescent home, etc.), does the local air district believe that the project's proximity to nearby sources could pose potential air pollution impacts? ▲ Are there indirect emissions that could be associated with the project (e.g., truck traffic or idling, transport refrigeration unit operations, stationary diesel engine operations, etc.) that will be in close proximity to sensitive individuals? ▲ Will the proposed project increase or serve as a magnet for diesel traffic? ▲ Are there land-use based air quality significance thresholds or design standards that could be applied to this project in addition to applicable air district requirements? ▲ Is there sufficient new information or public concern to call for a more thorough environmental analysis of the proposed project? ▲ Should the site approval process include identification and mitigation of potential	See Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites).

Project-Related Questions	Cross-Reference to Relevant Handbook Sections
direct or indirect emissions associated with the potential project?	
7. Does the local air district or land use agency have pertinent information on the source, such as: ▲ Available permit and enforcement data, including for the owner or operator of the proposed source that may have other sources in the State. ▲ Proximity of the proposed project to sensitive individuals. ▲ Number of potentially exposed individuals from the proposed project. ▲ Potential for the proposed project to expose sensitive individuals to odor or other air pollution nuisances. ▲ Meteorology or the prevailing wind patterns between the proposed project and the nearest receptor, or between the proposed sensitive receptor project and sources that could pose a localized or cumulative air pollution impact.	See Appendix C for a description of local air district programs. See Appendix B for a listing of useful information that land use agencies should have on hand or have accessible when reviewing proposed projects for potential air pollution impacts. Also, do not hesitate to contact your local air district regarding answers to any of these questions that might not be available at the land use agency. See Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites).
8. Based upon the project application, its location, and the nature of the source, could the proposed project: ▲ Be a polluting source that is located in proximity to, or otherwise upwind, of a location where sensitive individuals live or play? ▲ Attract sensitive individuals and be located in proximity to or otherwise downwind, of a source or multiple sources of pollution, including polluting facilities or transportation-related sources that contribute emissions either directly or indirectly? ▲ Result in health risk to the surrounding community?	See Section 3 for a discussion of what is an incompatible land use and the potential cumulative air pollution impacts. See Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites).
9. If a CEQA categorical exemption is proposed, were the following questions considered: ▲ Is the project site environmentally sensitive as defined by the project's location? (A project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant.) ▲ Would the project and successive future projects of the same type in the approximate location potentially result in cumulative impacts? ▲ Are there "unusual circumstances" creating the possibility of significant effects?	See CEQA Guidelines section 15300, and Public Resources Code, section 21084. See Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites). See also Section 5 and Appendix C for a description of air quality-related tools that the ARB and local air districts use to provide information on potential air pollution impacts.

- **Questions Related to Cumulative Impact Assessment**

The following questions can be used to provide the decision-maker with a better understanding of the potential for cumulative air pollution impacts to an affected community. Answers to these questions will help to determine if new projects or activities warrant a more detailed review. It may also help to see potential environmental concerns from the perspective of the affected community. Additionally, responses can provide local decision-makers with information with which to assess the best policy options for addressing neighborhood-scale air pollution concerns.

The questions below can be used to identify whether existing tools and procedures are adequate to address land use-related air pollution issues. This process can also be used to pinpoint project characteristics that may have the greatest impact on community-level emissions, exposure, and risk. Such elements can include: the compliance record of existing sources including those owned or operated by the project proponent; the concentration of emissions from polluting sources within the approximate area of sensitive sites; transportation circulation in proximity to the proposed project; compatibility with the General Plan and General Plan elements; etc.

The local air district can provide useful assistance in the collection and evaluation of air quality-related information for some of the questions and should be consulted early in the process.

Questions Related to Cumulative Impact Assessment

Technical Questions	Cross-Reference to Relevant Handbook Sections
1. Is the community home to industrial facilities?	See Appendix A for typical land use classifications and associated project categories that could emit air pollutants.
2. Do one or more major freeways or high-traffic volume surface streets cut through the community?	See transportation circulation element of your general plan. See also Appendix B for useful information that land use agencies should have on hand or have accessible when reviewing proposed projects for potential air pollution impacts. See Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites).
3. Is the area classified for mixed-use zoning?	See your general plan and zoning ordinances.
4. Is there an available list of air pollution sources in the community?	Contact your local air district.
5. Has a walk-through of the community been conducted to gather the following information:	See Appendix B for a listing of useful information that land use agencies

Technical Questions	Cross-Reference to Relevant Handbook Sections
▲ Corroborate available information on land use activities in the area (e.g., businesses, housing developments, sensitive individuals, etc.)? ▲ Determine the proximity of existing and anticipated future projects to residential areas or sensitive individuals? ▲ Determine the concentration of emission sources (including anticipated future projects) to residential areas or sensitive individuals?	should have on hand or have accessible when reviewing proposed projects for potential air pollution impacts. Also contact your local air district.
6. Has the local air district been contacted to obtain information on sources in the community?	See Section 7 for a discussion of public participation, information and outreach tools.
7. What categories of commercial establishments are currently located in the area and does the local air district have these sources on file as being regulated or permitted?	See Appendix A for typical land use classifications and associated project categories that could emit air pollutants. Also contact your local air district.
8. What categories of indirect sources such as distribution centers or warehouses are currently located in the area?	See Appendix A for typical land use classifications and associated project categories that emit air pollutants.
9. What air quality monitoring data are available?	Contact your local air district.
10. Have any risk assessments been performed on emission sources in the area?	Contact your local air district.
11. Does the land use agency have the capability of applying a GIS spatial mapping tool that can overlay zoning, sub-development information, and other neighborhood characteristics, with air pollution and transportation data?	See Appendix B for a listing of useful information that land use agencies should have on hand or have accessible when reviewing proposed projects for potential air pollution impacts. Also contact your local air district for tools that can be used to supplement available land use agency tools.
12. Based on available information, is it possible to determine if the affected community or neighborhood experiences elevated health risk due to a concentration of air pollution sources in close proximity, and if not, can the necessary information be obtained?	Contact your local air district. Also see Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites).
13. Does the community have a history of chronic complaints about air quality?	See Section 7 for a discussion of public participation, information and outreach tools. Also contact your local air district.
14. Is the affected community included in the public participation process for the agency's decision?	See Section 7 for a discussion of public participation, information and outreach tools.
15. Have community leaders or groups been contacted about any pre-existing or chronic community air quality concerns?	See Section 7 for a discussion of public participation, information and outreach tools. Also contact your local air district.

- **Mitigation Approaches**

In addition to considering the suitability of the project location, opportunities for mitigation of air pollution impacts should be considered. Sometimes, a land use agency may find that selection of a different project location to avoid a health risk is not feasible. When that happens, land use agencies should consider design improvements or other strategies that would reduce the risk. Such strategies could include performance or design standards, consultation with local air districts and other agencies on appropriate actions that these agencies should, or plan to, undertake, and consultation and outreach in the affected community. Potential mitigation measures should be feasible, cost-effective solutions within the available resources and authority of implementing agencies to enforce.[12]

- **Conditional Use Permits and Performance Standards**

Some types of land uses are only allowed upon approval of a conditional use permit (also called a CUP or special use permit). A conditional use permit does not re-zone the land but specifies conditions under which a particular land use will be permitted. Such land uses could be those with potentially significant environmental impacts. Local zoning ordinances specify the uses for which a conditional use permit is required, the zones they may be allowed in, and public hearing procedures. The conditional use permit imposes special requirements to ensure that the use will not be detrimental to its surroundings.

In the context of land use planning, performance standards are requirements imposed on projects or project categories through conditional use permits to ensure compliance with general plan policies and local ordinances. These standards could apply to such project categories as distribution centers, very large gas dispensing facilities, autobody shops, dry cleaners, and metal platers. Land use agencies may wish to consider adding land use-based performance standards to zoning ordinances in existing mixed-use communities for certain air pollution project categories. Such standards would provide certainty and equitable treatment to all projects of a similar nature, and reserve the more resource intensive conditional or special use permits to projects that require a more detailed analysis. In developing project design or performance standards, land use agencies should consult with the local air district. Early and regular consultation can avoid duplication or inconsistency with local air district control requirements when considering the site-specific design and operation of a project.

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[12] A land use agency has the authority to condition or deny a project based upon information collected and evaluated through the land use decision-making process. However, any denial would need to be based upon identifiable, generally applicable, articulated standards set forth in the local government's General Plan and zoning codes. One way of averting this is to conduct early and regular outreach to the community and the local air district so that community and environmental concerns can be addressed and accommodated into the project proposal.

Examples of land use-based air quality-specific performance standards include the following:

- Placing a process vent away from the direction of the local playground that is nearby or increasing the stack height so that emissions are dispersed to reduce the emissions impact on surrounding homes or schools.
- Setbacks between the project fence line and the population center.
- Limiting the hours of operation of a facility to avoid excess emissions exposure or foul odors to nearby individuals.
- An ordinance that requires fleet operators to use cleaner vehicles before project approval (if a new business), or when expanding the fleet (if an existing business); and
- Providing alternate routes for truck operations that discourage detours into residential neighborhoods.

Outreach to Other Agencies

When questions arise regarding the air quality impacts of projects, including potential cumulative impacts, land use agencies should consult the local air district. Land use agencies should also consider the following suggestions to avoid creating new incompatible land uses:

- Consult with the local air district to help determine if emissions from a particular project will adversely impact sensitive individuals in the area, if existing or future effective regulations or permit requirements will affect the proposed project or other sources in the vicinity of the proposed project, or if additional inspections should be required.
- Check with ARB for new information and modeling tools that can help evaluate projects seeking to site within your jurisdiction.
- Become familiar with ARB's Land Use-Air Quality Linkage Report to determine whether approaches and evaluation tools contained in the Report can be used to reduce transportation-related impacts on communities.
- Contact and collaborate with other state agencies that play a role in the land use decision-making process, e.g., the State Department of Education, the California Energy Commission, and Caltrans. These agencies have information on mitigation measures and mapping tools that could be useful in addressing local problems.

- **Information Clearinghouse**

  - Land use agencies can refer to the ARB statewide electronic information clearinghouse for information on what measures other jurisdictions are using to address comparable issues or sources.[13]

[13] This information can be accessed from ARB's website by going to: http://www.arb.ca.gov/ch/clearinghouse.htm

The next section addresses available air quality assessment tools that land use agencies can use to evaluate the potential for localized or cumulative impacts in their communities.

5. Available Tools to Evaluate Cumulative Air Pollution Emissions and Risk

Until recently, California has traditionally approached air pollution control from the perspective of assessing whether the pollution was regional, category-specific, or from new or existing sources. This methodology has been generally effective in reducing statewide and regional air pollution impacts and risk levels. However, such an incremental, category-by-category, source-by-source approach may not always address community health impacts from multiple sources - including mobile, industrial, and commercial facilities.

As a result of air toxics and children's health concerns over the past several years, ARB and local air districts have begun to develop new tools to evaluate and inform the public about cumulative air pollution impacts at the community level. One aspect of ARB's programs now underway is to consolidate and make accessible air toxics emissions and monitoring data by region, using modeling tools and other analytical techniques to take a preliminary look at emissions, exposure, and health risk in communities.

ARB has developed multiple tools to assist local air districts perform assessments of cumulative emissions, exposure, and risk on a neighborhood scale. These tools include:

- Regional risk maps that show trends in potential cancer risk from toxic air pollutants in southern and central California between 1990 and 2010. These maps are based on the U.S. EPA's ASPEN model. These maps provide an estimate of background levels of toxic air pollutant risk but are not detailed enough to assess individual neighborhoods or facilities.[14]

- The Community Health Air Pollution Information System (CHAPIS) is a user-friendly, Internet-based system for displaying information on emissions from sources of air pollution in an easy to use mapping format. CHAPIS contains information on air pollution emissions from selected large facilities and small businesses that emit criteria and toxic air pollutants. It also contains information on air pollution emissions from motor vehicles. When released in 2004, CHAPIS did not contain information on every source of air pollution or every air pollutant. However, ARB continues to work with local air districts to include all of the largest air pollution sources and those with the highest documented air pollution risk. Additional facilities will be added to CHAPIS as more data become available.[15]

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[14] For further information on these maps, please visit ARB's website at: http://www.arb.ca.gov/toxics/cti/hlthrisk/hlthrisk.htm

[15] For further information on CHAPIS, please click on: http://www.arb.ca.gov/ch/chapis1/chapis1.htm

- The Hot Spots Analysis and Reporting Program (HARP) is a software database package that evaluates emissions from one or more facilities to determine the overall health risk posed by the facility(-ies) on the surrounding community. Proper use of HARP ensures that the risk assessment meets the latest risk assessment guidelines published by the State Office of Environmental Health Hazard Assessment (OEHHA). HARP is designed with air quality professionals in mind and is available from the ARB.

- The Urban Emissions Model (URBEMIS) is a computer program that can be used to estimate emissions associated with land development projects in California such as residential neighborhoods, shopping centers, office buildings, and construction projects. URBEMIS uses emission factors available from the ARB to estimate vehicle emissions associated with new land uses.

Local air districts, and others can use these tools to assess a new project, or plan revision. For example, these tools can be used to:

- Identify if there are multiple sources of air pollution in the community;
- Identify the major sources of air pollution in the area under consideration;
- Identify the background potential cancer risk from toxic air pollution in the area under consideration;
- Estimate the risk from a new facility and how it adds to the overall risk from other nearby facilities; and
- Provide information to decision-makers and key stakeholders on whether there may be significant issues related to cumulative emissions, exposure, and health risk due to a permitting or land use decision.

If an air agency wishes to perform a cumulative air pollution impact analysis using any of these tools, it should consult with the ARB and/or the local air district to obtain information or assistance on the data inputs and procedures necessary to operate the program. In addition, land use agencies could consult with local air districts to determine the availability of land use and air pollution data for entry into an electronic Geographical Information System (GIS) format. GIS is an easier mapping tool than the more sophisticated models described in Appendix C. GIS mapping makes it possible to superimpose land use with air pollution information so that the spatial relationship between air pollution sources, sensitive receptors, and air quality can be visually represented. Appendix C provides a general description of the impact assessment process and micro-scale, or community level modeling tools that are available to evaluate potential cumulative air pollution impacts. Modeling protocols will be accessible on ARB's website as they become available. The ARB will also provide land use agencies and local air districts with statewide regional modeling results and information regarding micro-scale modeling.

6. ARB Programs to Reduce Air Pollution in Communities

ARB's regulatory programs reduce air pollutant emissions through statewide strategies that improve public health in all California communities. ARB's overall program addresses motor vehicles, consumer products, air toxics, air-quality planning, research, education, enforcement, and air monitoring. Community health and environmental justice concerns are a consideration in all these programs. ARB's programs are statewide but recognize that extra efforts may be needed in some communities due to historical mixed land-use patterns, limited participation in public processes in the past, and a greater concentration of air pollution sources in some communities.

ARB's strategies are intended to result in better air quality and reduced health risk to residents throughout California. The ARB's priority is to prevent or reduce the public's exposure to air pollution, including from toxic air contaminants that pose the greatest risk, particularly to infants and children who are more vulnerable to air pollution.

In October 2003, ARB updated its statewide control strategy to reduce emissions from source categories within its regulatory authority. A primary focus of the strategy is to achieve federal and state air quality standards for ozone and particulate matter throughout California, and to reduce health risk from diesel PM. Along with local air districts, ARB will continue to address air toxics emissions from regulated sources (see Table 6-1 for a summary of ARB activities). As indicated earlier, ARB will also provide analytical tools and information to land use agencies and local air districts to help assess and mitigate cumulative air pollution impacts.

The ARB will continue to consider the adoption of or revisions to needed air toxics control measures as part of the state's ongoing air toxics assessment program.[16]

As part of its effort to reduce particulate matter and air toxics emissions from diesel PM, the ARB has developed a Diesel Risk Reduction Program[17] that lays out several strategies in a three-pronged approach to reduce emissions and their associated risk:

- Stringent emission standards for all new diesel-fueled engines;
- Aggressive reductions from in-use engines; and
- Low sulfur fuel that will reduce PM and still provide the quality of diesel fuel needed to control diesel PM.

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[16] For continuing information and updates on state measures, the reader can refer to ARB's website at http://www.arb.ca.gov/toxics/toxics.htm.

[17] For a comprehensive description of the program, please refer to ARB's website at http://www.arbB.ca.gov/diesel/dieselrrp.htm.

Table 6-1
ARB ACTIONS TO ADDRESS
CUMULATIVE AIR POLLUTION IMPACTS IN COMMUNITIES

Information Collection

- Improve emission inventories, air monitoring data, and analysis tools that can help to identify areas with high cumulative air pollution impacts
- Conduct studies in coordination with OEHHA on the potential for cancer and non-cancer health effects from air pollutants emitted by specific source categories
- Establish web-based clearinghouse for local land use strategies

Emission Reduction Approaches (2004-2006)*

- Through a public process, consider development and/or amendment of regulations and related guidance to reduce emissions, exposure, and health risk at a statewide and local level for the following sources:
  - Diesel PM sources such as stationary diesel engines, transport refrigeration units, portable diesel engines, on-road public fleets, off-road public fleets, heavy-duty diesel truck idling, harbor craft vessels, waste haulers
  - Other air toxics sources, such as formaldehyde in composite wood products, hexavalent chromium for chrome plating and chromic acid anodizing, thermal spraying, and perchloroethylene dry cleaning
- Develop technical information for the following:*
  - Distribution centers
  - Modeling tools such as HARP and CHAPIS
- Adopt rules and pollution prevention initiatives within legal authority to reduce emissions from mobile sources and fuels, and consumer products
- Develop and maintain Air Quality Handbook as a tool for use by land use agencies and local air districts to address cumulative air pollution impacts

Other Approaches

- Establish guidelines for use of statewide incentive funding for high priority mobile source emission reduction projects

*Because ARB will continue to review the need to adopt or revise statewide measures, the information contained in this chart will be updated on an ongoing basis.

A number of ARB's diesel risk reduction strategies have been adopted. These include measures to reduce emissions from refuse haulers, urban buses, transport refrigeration units, stationary and portable diesel engines, and idling trucks and school buses. These sources are all important from a community perspective.[18]

[18] The reader can refer to ARB's website for information on its mobile source-related programs at: http://www.arb.ca.gov/msprog/msprog.htm, as well as regulations adopted and under consideration as part of the Diesel Risk Reduction Program at: http://www.arb.ca.gov/diesel/dieselrrp.htm

The ARB will continue to evaluate the health effects of air pollutants while implementing programs with local air districts to reduce air pollution in all California communities.

Local air districts also have ambitious programs to reduce criteria pollutants and air toxics from regulated sources in their region. Many of these programs also benefit air quality in local communities as well as in the broader region. For more information on what is being done in your area to reduce cumulative air pollution impacts through air pollution control programs, you should contact your local air district.[19]

[19] Local air district contacts can be found on the inside cover to this Handbook.

7. Ways to Enhance Meaningful Public Participation

Community involvement is an important part of the land use process. The public is entitled to the best possible information about the air they breathe and what is being done to prevent or reduce unhealthful air pollution in their communities. In particular, information on how land use decisions can affect air pollution and public health should be made accessible to all communities, including low-income and minority communities.

Effective community participation consistently relies on a two-way flow of information – from public agencies to community members about opportunities, constraints, and impacts, and from community members back to public officials about needs, priorities, and preferences. The outreach process needed to build understanding and local neighborhood involvement requires data, methodologies, and formats tailored to the needs of the specific community. More importantly, it requires the strong collaboration of local government agencies that review and approve projects and land uses to improve the physical and environmental surroundings of the local community.

Many land use agencies, especially those in major metropolitan areas, are familiar with, and have a long-established public review process. Nevertheless, public outreach can often be improved. Active public involvement requires engaging the public in ways that do not require their previous interest in or knowledge of the land use or air pollution control requirements, and a commitment to taking action where appropriate to address the concerns that are raised.

▪ Direct Community Outreach

In conjunction with local air districts, land use agencies should consider designing an outreach program for community groups, other stakeholders, and local government agency staffs that address the problem of cumulative air pollution impacts, and the public and government role in reducing them. Such a program could consider analytical tools that assist in the preparation and presentation of information in a way that supports sensible decision-making and public involvement. Table 7-1 contains some general outreach approaches that might be considered.

Table 7-1
Public Participation Approaches

- Staff and community leadership awareness training on environmental justice programs and community-based issues
- Surveys to identify the website information needs of interested community-based organizations and other stakeholders
- Information materials on local land use and air district authorities
- Community-based councils to facilitate and invite resident participation in the planning process
- Neighborhood CEQA scoping sessions that allows for community input prior to technical analysis
- Public information materials on siting issues are under review including materials written for the affected community, and in different media that widens accessibility
- Public meetings
- Identify other opportunities to include community-based organizations in the process

To improve outreach, local land use agencies should consider the following activities:

- Hold meetings in communities affected by agency programs, policies, and projects at times and in places that encourage public participation, such as evenings and weekends at centrally located community meeting rooms, libraries, and schools.
- Assess the need for and provide translation services at public meetings.
- Hold community meetings to update residents on the results of any special air monitoring programs conducted in their neighborhood.
- Hold community meetings to discuss and evaluate the various options to address cumulative impacts in their community.
- In coordination with local air districts, make staff available to attend meetings of community organizations and neighborhood groups to listen to and, where appropriate, act upon community concerns.
- Establish a specific contact person for environmental justice issues.
- Increase student and community awareness of local government land use activities and policies through outreach opportunities.
- Make air quality and land use information available to communities in an easily understood and useful format, including fact sheets, mailings, brochures, public service announcements, and web pages, in English and other languages.
- On the local government web-site, dedicate a page or section to what the land use program is doing regarding environmental justice and cumulative environmental impacts, and, as applicable, activities conducted with local air districts such as neighborhood air monitoring studies, pollution prevention, air pollution sources in neighborhoods, and risk reduction.

- Allow, encourage, and promote community access to land use activities, including public meetings, General Plan or Community Plan updates, zoning changes, special studies, CEQA reviews, variances, etc.
- Distribute information in multiple languages, as needed, on how to contact the land use agency or local air district to obtain information and assistance regarding environmental justice programs, including how to participate in public processes.
- Create and distribute a simple, easy-to-read, and understandable public participation handbook, which may be based on the "Public Participation Guidebook" developed by ARB.

- **Other Opportunities for Meaningful Public Outreach**

  - Community-Based Planning Committees

Neighborhood-based or community planning advisory councils could be established to invite and facilitate direct resident participation into the planning process. With the right training and technical assistance, such councils can provide valuable input and a forum for the review of proposed amendments to plans, zone changes, land use permits, and suggestions as to how best to prevent or reduce cumulative air pollution impacts in their community.

  - Regional Partnerships

Consider creating regional coalitions of key growth-related organizations from both the private and public sectors, with corporations, communities, other jurisdictions, and government agencies. Such partnerships could facilitate agreement on common goals and win-win solutions tailored specifically for the region. With this kind of dialogue, shared vision, and collaboration, barriers can be overcome and locally acceptable sustainable solutions implemented. Over the long term, such strategies will help to bring about clean air in communities as well as regionally.

APPENDIX A

LAND USE CLASSIFICATIONS AND ASSOCIATED FACILITY CATEGORIES THAT COULD EMIT AIR POLLUTANTS

(1) Land Use Classifications – by Activity[i]	(2) Facility or Project Examples	(3) Key Pollutants[ii,iii]	(4) Air Pollution Permits[iv]
COMMERCIAL/ LIGHT INDUSTRIAL: SHOPPING, BUSINESS, AND COMMERCIAL			
▲ Primarily retail shops and stores, office, commercial activities, and light industrial or small business	Dry cleaners; drive-through restaurants; gas dispensing facilities; auto body shops; metal plating shops; photographic processing shops; textiles; apparel and furniture upholstery; leather and leather products; appliance repair shops; mechanical assembly cleaning; printing shops	VOCs, air toxics, including diesel PM, NOx, CO, SOx	Limited; Rules for applicable equipment
▲ Goods storage or handling activities, characterized by loading and unloading goods at warehouses, large storage structures, movement of goods, shipping, and trucking.	Warehousing; freight-forwarding centers; drop-off and loading areas; distribution centers	VOCs, air toxics, including diesel PM, NOx, CO, SOx	No[v]
LIGHT INDUSTRIAL: RESEARCH AND DEVELOPMENT			
▲ Medical waste at research hospitals and labs	Incineration; surgical and medical instrument manufacturers, pharmaceutical manufacturing, biotech research facilities	Air toxics, NOx, CO, SOx	Yes
▲ Electronics, electrical apparatus, components, and accessories	Computer manufacturer; integrated circuit board manufacturer; semi-conductor production	Air toxics, VOCs	Yes
▲ College or university lab or research center	Medical waste incinerators; lab chemicals handling, storage and disposal	Air toxics, NOx, CO, SOx, PM10	Yes
▲ Research and development labs	Satellite manufacturer; fiber-optics manufacturer; defense contractors; space research and technology; new vehicle and fuel testing labs	Air toxics, VOCs	Yes
▲ Commercial testing labs	Consumer products; chemical handling, storage and disposal	Air toxics, VOCs	Yes

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(1) Land Use Classifications – by Activity[i]	(2) Facility or Project Examples	(3) Key Pollutants[ii,iii]	(4) Air Pollution Permits[iv]
INDUSTRIAL: NON-ENERGY-RELATED			
▲ Assembly plants, manufacturing facilities, industrial machinery	Adhesives; chemical; textiles; apparel and furniture upholstery; clay, glass, and stone products production; asphalt materials; cement manufacturers, wood products; paperboard containers and boxes; metal plating; metal and canned food product fabrication; auto manufacturing; food processing; printing and publishing; drug, vitamins, and pharmaceuticals; dyes; paints; pesticides; photographic chemicals; polish and wax; consumer products; metal and mineral smelters and foundries; fiberboard; floor tile and cover; wood and metal furniture and fixtures; leather and leather products; general industrial and metalworking machinery; musical instruments; office supplies; rubber products and plastics production; saw mills; solvent recycling; shingle and siding; surface coatings	VOCs, air toxics, including diesel PM, NOx, PM, CO, SOx	Yes
INDUSTRIAL: ENERGY AND UTILITIES			
▲ Water and sewer operations	Pumping stations; air vents; treatment	VOCs, air toxics, NOx, CO, SOx, PM10	Yes
▲ Power generation and distribution	Power plant boilers and heaters; portable diesel engines; gas turbine engines	NOx, diesel PM, NOx, CO, SOx, PM10, VOCs	Yes
▲ Refinery operations	Refinery boilers and heaters; coke cracking units; valves and flanges; flares	VOCs, air toxics, including diesel PM, NOx, CO, SOx, PM10	Yes
▲ Oil and gas extraction	Oil recovery systems; uncovered wells	NOx, diesel PM, VOCs, CO, SOx, PM10	Yes
▲ Gasoline storage, transmission, and marketing	Above and below ground storage tanks; floating roof tanks; tank farms; pipelines	VOCs, air toxics, including diesel PM, NOx, CO, SOx, PM10	Yes
▲ Solid and hazardous waste treatment, storage, and disposal activities.	Landfills; methane digester systems; process recycling facility for concrete and asphalt materials	VOCs, air toxics, NOx, CO, SOx, PM10	Yes
CONSTRUCTION (NON-TRANSPORTATION)			
	Building construction; demolition sites	PM (re-entrained road dust), asbestos, diesel PM, NOx, CO, SOx, PM10, VOCs	Limited; state and federal off-road equipment standards

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(1) Land Use Classifications – by Activity[i]	(2) Facility or Project Examples	(3) Key Pollutants[ii,iii]	(4) Air Pollution Permits[iv]
DEFENSE			
	Ordnance and explosives demolition; range and testing activities; chemical production; degreasing; surface coatings; vehicle refueling; vehicle and engine operations and maintenance	VOCs, air toxics, including diesel PM, NOx, CO, SOx, PM10	Limited; prescribed burning; equipment and solvent rules
TRANSPORTATION			
▲ Vehicular movement	Residential area circulation systems; parking and idling at parking structures; drive-through establishments; car washes; special events; schools; shopping malls, etc.	VOCs, NOx, PM (re-entrained road dust) air toxics e.g., benzene, diesel PM, formaldehyde, acetaldehyde, 1,3 butadiene, CO, SOx, PM10	No
▲ Road construction and surfacing	Street paving and repair; new highway construction and expansion	VOCs, air toxics, including diesel PM, NOx, CO, SOx, PM10	No
▲ Trains	Railroads; switch yards; maintenance yards	VOCs, NOx, CO, SOx, PM10, air toxics, including diesel PM	Limited; Applicable state and federal MV standards, and possible equipment rules
▲ Marine and port activities	Recreational sailing; commercial marine operations; hotelling operations; loading and un-loading; servicing; shipping operations; port or marina expansion; truck idling		
▲ Aircraft	Takeoff, landing, and taxiing; aircraft maintenance; ground support activities		
▲ Mass transit and school buses	Bus repair and maintenance		
NATURAL RESOURCES			
▲ Farming operations	Agricultural burning; diesel operated engines and heaters; small food processors; pesticide application; agricultural off-road equipment	Diesel PM, VOCs, NOx, PM10, CO, SOx, pesticides	Limited[vi]; Agricultural burning requirements, applicable state and federal mobile source standards; pesticide rules
▲ Livestock and dairy operations	Dairies and feed lots	Ammonia, VOCs, PM10	Yes[vii]
▲ Logging	Off-road equipment e.g., diesel fueled chippers, brush hackers, etc.	Diesel PM, NOx, CO, SOx, PM10, VOCs	Limited; Applicable state/federal mobile source standards
▲ Mining operations	Quarrying or stone cutting; mining; drilling or dredging	PM10, CO, SOx, VOCs, NOx, and asbestos in some geographical areas	Applicable equipment rules and dust controls

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(1) Land Use Classifications – by Activity[i]	(2) Facility or Project Examples	(3) Key Pollutants[ii,iii]	(4) Air Pollution Permits[iv]
RESIDENTIAL			
Housing	Housing developments; retirement developments; affordable housing	Fireplace emissions (PM10, NOx, VOCs, CO, air toxics); Water heater combustion (NOx, VOCs, CO)	No[vii]
ACADEMIC AND INSTITUTIONAL			
▲ Schools, including school-related recreational activities	Schools; school yards; vocational training labs/classrooms such as auto repair/painting and aviation mechanics	Air toxics	Yes/No[viii]
▲ Medical waste	Incineration	Air toxics, NOx, CO, PM10	Yes
▲ Clinics, hospitals, convalescent homes		Air toxics	Yes

[i] These classifications were adapted from the American Planning Association's "Land Based Classification Standards." The Standards provide a consistent model for classifying land uses based on their characteristics. The model classifies land uses by refining traditional categories into multiple dimensions, such as activities, functions, building types, site development character, and ownership constraints. Each dimension has its own set of categories and subcategories. These multiple dimensions allow users to have precise control over land-use classifications. For more information, the reader should refer to the Association's website at http://www.planning.org/LBCS/GeneralInfo/.

[ii] This column includes key criteria pollutants and air toxic contaminants that are most typically associated with the identified source categories.

Additional information on specific air toxics that are attributed to facility categories can be found in ARB's Emission Inventory Criteria and Guidelines Report for the Air Toxics Hot Spots Program (May 15, 1997). This information can be viewed at ARB's web site at http://www.arb.ca.gov/ab2588/final96/guide96.pdf.

Criteria air pollutants are those air pollutants for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set. Criteria pollutants include ozone (formed by the reaction of volatile organic compounds and nitrogen oxides in the presence of sunlight), particulate matter, nitrogen dioxide, sulfur dioxide, carbon monoxide, and lead.

Volatile organic compounds (VOCs) combine with nitrogen oxides to form ozone, as well as particulate matter. VOC emissions result primarily from incomplete fuel combustion and the evaporation of chemical solvents and fuels. On-road mobile sources are the largest contributors to statewide VOC emissions. Stationary sources of VOC emissions include processes that use solvents (such as dry-cleaning, degreasing, and coating operations) and petroleum-related processes (such as petroleum refining, gasoline marketing and dispensing, and oil and gas extraction). Areawide VOC sources include consumer products, pesticides, aerosols and paints, asphalt paving and roofing, and other evaporative emissions.

Nitrogen oxides (NOx) are a group of gaseous compounds of nitrogen and oxygen, many of which contribute to the formation of ozone and particulate matter. Most NOx emissions are produced by the combustion of fuels. Mobile sources make up about 80 percent of the total statewide NOx emissions. Mobile sources include on-road vehicles and trucks, aircraft, trains, ships, recreational boats, industrial and construction equipment, farm

equipment, off-road recreational vehicles, and other equipment. Stationary sources of NOx include both internal and external combustion processes in industries such as manufacturing, food processing, electric utilities, and petroleum refining. Areawide source, which include residential fuel combustion, waste burning, and fires, contribute only a small portion of the total statewide NOx emissions, but depending on the community, may contribute to a cumulative air pollution impact.

Particulate matter (PM) refers to particles small enough to be breathed into the lungs (under 10 microns in size). It is not a single substance, but a mixture of a number of highly diverse types of particles and liquid droplets. It can be formed directly, primarily as dust from vehicle travel on paved and unpaved roads, agricultural operations, construction and demolition.

Carbon monoxide (CO) is a colorless and odorless gas that is directly emitted as a by-product of combustion. The highest concentrations are generally associated with cold stagnant weather conditions that occur during winter. CO problems tend to be localized.

An Air Toxic Contaminant (air toxic) is defined as an air pollutant that may cause or contribute to an increase in mortality or in serous illness, or which may pose a present or potential hazard to human health. Similar to criteria pollutants, air toxics are emitted from stationary, areawide, and mobile sources. They contribute to elevated regional and localized risks near industrial and commercial facilities and busy roadways. The ten compounds that pose the greatest statewide risk are: acetaldehyde; benzene; 1,3-butadiene; carbon tetrachloride; diesel particulate matter (diesel PM); formaldehyde; hexavalent chromium; methylene chloride; para-dichlorobenzene; and perchloroethylene. The risk from diesel PM is by far the largest, representing about 70 percent of the known statewide cancer risk from outdoor air toxics. The exhaust from diesel-fueled engines is a complex mixture of gases, vapors, and particles, many of which are known human carcinogens. Diesel PM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled vehicles contribute about 26 percent of statewide diesel PM emissions, with an additional 72 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and other equipment. Stationary engines in shipyards, warehouses, heavy equipment repair yards, and oil and gas production operations contribute about two percent of statewide emissions. However, when this number is disaggregated to a sub-regional scale such as neighborhoods, the risk factor can be far greater.

[iii] The level of pollution emitted is a major determinant of the significance of the impact.

[iv] Indicates whether facility activities listed in column 4 are generally subject to local air district permits to operate. This does not include regulated products such as solvents and degreasers that may be used by sources that may not require an operating permit per se, e.g., a gas station or dry cleaner.

[v] Generally speaking, warehousing or distribution centers are not subject to local air district permits. However, depending on the district, motor vehicle fleet rules may apply to trucks or off-road vehicles operated and maintained by the facility operator. Additionally, emergency generators or internal combustion engines operated on the site may require an operating permit.

[vi] Authorized by recent legislation SB700.

[vii] Local air districts do not require permits for woodburning fireplaces inside private homes. However, some local air districts and land use agencies do have rules or ordinances that require new housing developments or home re-sales to install U.S. EPA –certified stoves. Some local air districts also ban residential woodburning during weather inversions that concentrate smoke in residential areas. Likewise, home water heaters are not subject to permits; however, new heaters could be subject to emission limits that are imposed by federal or local agency regulations.

[viii] Technical training schools that conduct activities normally permitted by a local air district could be subject to an air permit.

APPENDIX B

LAND USE-BASED REFERENCE TOOLS TO EVALUATE NEW PROJECTS FOR POTENTIAL AIR POLLUTION IMPACTS

Land use agencies generally have a variety of tools and approaches at hand, or accessible from local air districts that can be useful in performing an analysis of potential air pollution impacts associated with new projects. These tools and approaches include:

- Base map of the city or county planning area and terrain elevations.
- General Plan designations of land use (existing and proposed).
- Zoning maps.
- Land use maps that identify existing land uses, including the location of facilities that are permitted or otherwise regulated by the local air district. Land use agencies should consult with their local air district for information on regulated facilities.
- Demographic data, e.g., population location and density, distribution of population by income, distribution of population by ethnicity, and distribution of population by age. The use of population data is a normal part of the planning process. However, from an air quality perspective, socioeconomic data is useful to identify potential community health and environmental justice issues.
- Emissions, monitoring, and risk-based maps created by the ARB or local air districts that show air pollution-related health risk by community across the state.
- Location of public facilities that enhance community quality of life, including parks, community centers, and open space.
- Location of industrial and commercial facilities and other land uses that use hazardous materials, or emit air pollutants. These include chemical storage facilities, hazardous waste disposal sites, dry cleaners, large gas dispensing facilities, auto body shops, and metal plating and finishing shops.
- Location of sources or facility types that result in diesel on-road and off-road emissions, e.g., stationary diesel power generators, forklifts, cranes, construction equipment, on-road vehicle idling, and operation of transportation refrigeration units. Distribution centers, marine terminals and ports, rail yards, large industrial facilities, and facilities that handle bulk goods are all examples of complex facilities where these types of emission sources are frequently concentrated.[1] Very large facilities, such as ports, marine terminals, and airports, could be analyzed regardless of proximity to a receptor if they are within the modeling area.
- Location and zoning designations for existing and proposed schools, buildings, or outdoor areas where sensitive individuals may live or play.
- Location and density of existing and proposed residential development.
- Zoning requirements, property setbacks, traffic flow requirements, and idling restrictions for trucks, trains, yard hostlers[2], construction equipment, or school buses.
- Traffic counts (including diesel truck traffic counts), within a community to validate or augment existing regional motor vehicle trip and speed data.

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[1] The ARB is currently evaluating the types of facilities that may act as complex point sources and developing methods to identify them.

[2] Yard hostler means a tractor less than 300 horsepower that is used to transfer semi-truck or tractor-trailer containers in and around storage, transfer, or distribution yards or areas and is often equipped with a hydraulic lifting fifth wheel for connection to trailer containers.

APPENDIX C

ARB AND LOCAL AIR DISTRICT INFORMATION AND TOOLS CONCERNING CUMULATIVE AIR POLLUTION IMPACTS

It is the ARB's policy to support research and data collection activities toward the goal of reducing cumulative air pollution impacts. These efforts include updating and improving the air toxics emissions inventory, performing special air monitoring studies in specific communities, and conducting a more complete assessment of non-cancer health effects associated with air toxics and criteria pollutants.[1] This information is important because it helps us better understand links between air pollution and the health of sensitive individuals -- children, the elderly, and those with pre-existing serious health problems affected by air quality.

ARB is working with CAPCOA and OEHHA to improve air pollutant data and evaluation tools to determine when and where cumulative air pollution impacts may be a problem. The following provides additional information on this effort.

How are emissions assessed?

Detailed information about the sources of air pollution in an area is collected and maintained by local air districts and the ARB in what is called an emission inventory. Emission inventories contain information about the nature of the business, the location, type and amount of air pollution emitted, the air pollution-producing processes, the type of air pollution control equipment, operating hours, and seasonal variations in activity. Local districts collect emission inventory data for most stationary source categories.

Local air districts collect air pollution emission information directly from facilities and businesses that are required to obtain an air pollution operating permit. Local air districts use this information to compile an emission inventory for areas within their jurisdiction. The ARB compiles a statewide emission inventory based on the information collected by the ARB and local air districts. Local air districts provide most of the stationary source emission data, and ARB provides mobile source emissions as well as some areawide emission sources such as consumer products and paints. ARB is also developing map-based tools that will display information on air pollution sources.

Criteria pollutant data have been collected since the early 1970's, and toxic pollutant inventories began to be developed in the mid-1980's.

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[1] A criteria pollutant is any air pollutant for which EPA has established a National Ambient Air Quality Standard or for which California has established a State Ambient Air Quality Standard, including: carbon monoxide, lead, nitrogen oxides, ozone, particulates and sulfur oxides. Criteria pollutants are measured in each of California's air basins to determine whether the area meets or does not meet specific federal or state air quality standards. Air toxics or air toxic contaminants are listed pollutants recognized by California or EPA as posing a potential risk to health.

How is the toxic emission inventory developed?

Emissions data for toxic air pollutants is a high priority for communities because of concerns about potential health effects. Most of ARB's air toxics data is collected through the toxic "Hot Spots" program. Local air districts collect emissions data from industrial and commercial facilities. Facilities that exceed health-based thresholds are required to report their air toxics emissions as part of the toxic "Hot Spots" program and update their emissions data every four years. Facilities are required to report their air toxics emissions data if there is an increase that would trigger the reporting threshold of the hotspots program. Air toxics emissions from motor vehicles and consumer products are estimated by the ARB. These estimates are generally regional in nature, reflecting traffic and population.

The ARB also maintains chemical speciation profiles that can be used to estimate toxics emissions when no toxic emissions data is available.

What additional toxic emissions information is needed?

In order to assess cumulative air pollution impacts, updated information from individual facilities is needed. Even for sources where emissions data are available, additional information such as the location of emissions release points is often needed to better model cumulative impacts. In terms of motor vehicles, emissions data are currently based on traffic models that only contain major roads and freeways. Local traffic data are needed so that traffic emissions can be more accurately assigned to specific streets and roads. Local information is also needed for off-road emission sources, such as ships, trains, and construction equipment. In addition, hourly maximum emissions data are needed for assessing acute air pollution impacts.

What work is underway?

ARB is working with CAPCOA to improve toxic emissions data, developing a community health air pollution information system to improve access to emission information, conducting neighborhood assessment studies to better understand toxic emission sources, and conducting surveys of sources of toxic pollutants.

How is air pollution monitored?

While emissions data identify how much air pollution is going into the air, the state's air quality monitoring network measures air pollutant levels in outdoor air. The statewide air monitoring network is primarily designed to measure regional exposure to air pollutants, and consists of more than 250 air monitoring sites.

The air toxics monitoring network consists of approximately 20 permanent sites. These sites are supplemented by special monitoring studies conducted by ARB and local air districts. These sites measure approximately sixty toxic air pollutants. Diesel PM, which is the major driver of urban air toxic risk, is not monitored directly. Ten of the

60 toxic pollutants, not including diesel, account for most of the remaining potential cancer risk in California urban areas.

What additional monitoring has been done?

Recently, additional monitoring has been done to look at air quality at the community level. ARB's community monitoring was conducted in six communities located throughout the state. Most sites were in low-income, minority communities located near major sources of air pollution, such as refineries or freeways. The monitoring took place for a year or more in each community, and included measurements of both criteria and toxic pollutants.

What is being learned from community monitoring?

In some cases, the ARB or local air districts have performed air quality monitoring or modeling studies covering a particular region of the state. When available, these studies can give information about regional air pollution exposures.

The preliminary results of ARB's community monitoring are providing insights into air pollution at the community level. Urban background levels are a major contributor to the overall risk from air toxics in urban areas, and this urban background tends to mask the differences between communities. When localized elevated air pollutant levels were measured, they were usually associated with local ground-level sources of toxic pollutants. The most common source of this type was busy streets and freeways. The impact these ground-level sources had on local air quality decreased rapidly with distance from the source. Pollutant levels usually returned to urban background levels within a few hundred meters of the source.

These results indicate that tools to assess cumulative impacts must be able to account for both localized, near-source impacts, as well as regional background air pollution. The tools that ARB is developing for this purpose are air quality models.

How can air quality modeling be used?

While air monitoring can directly measure cumulative exposure to air pollution, it is limited because all locations cannot be monitored. To address this, air quality modeling provides the capability to estimate exposure when air monitoring is not feasible. Air quality modeling can be refined to assess local exposure, identify locations of potential hot spots, and identify the relative contribution of emission sources to exposure at specific locations. The ARB has used this type of information to develop regional cumulative risk maps that estimate the cumulative cancer air pollution risk for most of California. While these maps only show one air pollution-related health risk, it does provide a useful starting point.

What is needed for community modeling?

Air quality models have been developed to assess near-source impacts, but they have very exacting data requirements. These near-source models estimate the impact of local sources, but do not routinely include the contribution from regional air pollution background. To estimate cumulative air pollution exposure at a neighborhood scale, a modeling approach needs to combine features of both micro-scale and regional models.

In addition, improved methods are needed to assess near-source impacts under light and variable wind conditions, when high local concentrations are more likely to occur. A method for modeling long-term exposure to air pollutants near freeways and other high traffic areas is also needed.

What modeling work has ARB developed?

A key component of ARB's Community Health Program is the Neighborhood Assessment Program (NAP). As described later in this section, the NAP studies are being conducted to better understand pollution impacts at the community level. Through two such studies conducted in Barrio Logan (San Diego) and Wilmington (Los Angeles), ARB is refining community-level modeling methodologies. Regional air toxics modeling is also being performed to better understand regional air pollution background levels.

In a parallel effort, ARB is developing modeling protocols for estimating cumulative emissions, exposure, and risk from air pollution. The protocols will cover modeling approaches and uncertainties, procedures for running the models, the development of statewide risk maps, and methods for estimating health risks. The protocols are subject to an extensive peer review process prior to release.

How are air pollution impacts on community health assessed?

On a statewide basis, ARB's toxic air contaminant program identifies and reduces public exposure to air toxics. The focus of the program has been on reducing potential cancer risk, because monitoring results show potential urban cancer risk levels are too high. ARB has also looked for potential non-cancer risks based on health reference levels provided by OEHHA. On a regional basis, the pollutants measured in ARB's toxic monitoring network are generally below the OEHHA non-cancer reference exposure levels.

As part of its community health program, the ARB is looking at potential cancer and non-cancer risk. This could include chronic or acute health effects. If the assessment work shows elevated exposures on a localized basis, ARB will work with OEHHA to assess the health impacts.

What tools has ARB developed to assess cumulative air pollution impacts?

ARB has developed the following tools and reports to assist land use agencies and local air districts assess and reduce cumulative emissions, exposure, and risk on a neighborhood scale.

Statewide Risk Maps

ARB has produced regional risk maps that show the statewide trends for Southern and Central California in estimated potential cancer risk from air toxics between 1990 and 2010.[2] These maps will supplement U.S. EPA's ASPEN model and are available on the ARB's Internet site. These maps are best used to obtain an estimate of the regional background air pollution health risk and are not detailed enough to estimate the exact risk at a specific location.

ARB also has maps that focus in more detail on smaller areas that fall within the Southern and Central California regions for these same modeled years. The finest visual resolution available in the maps on this web site is two by two kilometers. These maps are not detailed enough to assess individual neighborhoods or facilities.

Community Health Air Pollution Information System (CHAPIS)

CHAPIS is an Internet-based procedure for displaying information on emissions from sources of air pollution in an easy to use mapping format. CHAPIS uses Geographical Information System (GIS) software to deliver interactive maps over the Internet. CHAPIS relies on emission estimates reported to the ARB's emission inventory database - California Emissions Inventory Development and Reporting System, or CEIDARS.

Through CHAPIS, air district staff can quickly and easily identify pollutant sources and emissions within a specified area. CHAPIS contains information on air pollution emissions from selected large facilities and small businesses that emit criteria and toxic air pollutants. It also contains information on air pollution emissions from motor vehicle and areawide emissions. CHAPIS does not contain information on every source of air pollution or every air pollutant. It is a major long-term objective of CHAPIS to include all of the largest air pollution sources and those with the highest documented air pollution risk. CHAPIS will be updated on a periodic basis and additional facilities will be added to CHAPIS as more data becomes available.

CHAPIS is being developed in stages to assure data quality. The initial release of CHAPIS will include facilities emitting 10 or more tons per year of nitrogen oxides, sulfur dioxide, carbon monoxide, PM10, or reactive organic gases; air toxics from refineries and power plants of 50 megawatts or more; and facilities that conducted health risk

[2]ARB maintains state trends and local potential cancer risk maps that show statewide trends in potential inhalable cancer risk from air toxics between 1990 and 2010. This information can be viewed at ARB's web site at http://www.arb.ca.gov/toxics/cti/hlthrisk/hlthrisk.htm)

assessments under the California Air Toxics "Hot Spots" Information and Assessment Program.[3]

CHAPIS can be used to identify the emission contributions from mobile, area, and point sources on that community.

"Hot Spots" Analysis and Reporting Program (HARP)

HARP[4] is a software package available from the ARB and is designed with air quality professionals in mind. It models emissions and release data from one or more facilities to estimate the potential health risk posed by the selected facilities on the neighboring community. HARP uses the latest risk assessment guidelines published by OEHHA.

With HARP, a user can perform the following tasks:

- Create and manage facility databases;
- Perform air dispersion modeling;
- Conduct health risk analyses;
- Output data reports; and
- Output results to GIS mapping software.

HARP can model downwind concentrations of air toxics based on the calculated emissions dispersion at a single facility. HARP also has the capability of assessing the risk from multiple facilities, and for multiple locations of concern near those facilities. While HARP has the capability to assess multiple source impacts, there had been limited application of the multiple facility assessment function in the field at the time of HARP's debut in 2003. HARP can also evaluate multi-pathway, non-inhalation health risk resulting from air pollution exposure, including skin and soil exposure, and ingestion of meat and vegetables contaminated with air toxics, and other toxics that have accumulated in a mother's breast milk.

Neighborhood Assessment Program (NAP)

The NAP[5] has been a key component of ARB's Community Health Program. It includes the development of tools that can be used to perform assessments of cumulative air pollution impacts on a neighborhood scale. The NAP studies have been done to better understand how air pollution affects individuals at the neighborhood level. Thus far, ARB has conducted neighborhood scale assessments in Barrio Logan and Wilmington.

As part of these studies, ARB is collecting data and developing a modeling protocol that can be used to conduct cumulative air pollution impact assessments. Initially these

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[3] California Health & Safety Code section 44300, et seq.
[4] More detailed information can be found on ARB's website at: http://www.arb.ca.gov/toxics/harp/harp.htm
[5] For more information on the Program, please refer to: http://www.arb.ca.gov/ch/programs/nap/nap.htm

assessments will focus on cumulative inhalation cancer health risk and chronic non-cancer impacts. The major challenge is developing modeling methods that can combine both regional and localized air pollution impacts, and identifying the critical data necessary to support these models. The objective is to develop methods and tools from these studies that can ultimately be applied to other areas of the state. In addition, the ARB plans to use these methods to replace the ASPEN regional risk maps currently posted on the ARB Internet site.

Urban Emissions Model (URBEMIS)

URBEMIS[6] is a computer program that can be used to estimate emissions associated with land development projects in California such as residential neighborhoods, shopping centers, office buildings, and construction projects. URBEMIS uses emission factors available from the ARB to estimate vehicle emissions associated with new land uses. URBEMIS estimates sulfur dioxide emissions from motor vehicles in addition to reactive organic gases, nitrogen oxides, carbon monoxide, and PM10.

Land-Use Air Quality Linkage Report[7]

This report summarizes data currently available on the relationships between land use, transportation and air quality. It also highlights strategies that can help to reduce the use of the private automobile. It also briefly summarizes two ARB-funded research projects. The first project analyzes the travel patterns of residents living in five higher density, mixed use neighborhoods in California, and compares them to travel in more auto-oriented areas. The second study correlates the relationship between travel behavior and community characteristics, such as density, mixed land uses, transit service, and accessibility for pedestrians.

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[6] For more information on this model, please refer to ARB's website at http://www.arb.ca.gov/html/soft.htm.

[7] To access this report, please refer to ARB's website or click on: http://www.arb.ca.gov/ch/programs/link97.pdf

LAND USE AND AIR QUALITY AGENCY ROLES IN THE LAND USE PROCESS

A wide variety of federal, state, and local government agencies are responsible for regulatory, planning, and siting decisions that can have an impact on air pollution. They include local land use agencies, regional councils of government, school districts, local air districts, ARB, the California Department of Transportation (Caltrans), and the Governor's Office of Planning and Research (OPR) to name a few. This Section will focus on the roles and responsibilities of local and state agencies. The role of school districts will be discussed in Appendix E.

Local Land Use Agencies

Under the State Constitution, land use agencies have the primary authority to plan and control land use.[1] Each of California's incorporated cities and counties are required to adopt a comprehensive, long-term General Plan.[2]

The General Plan's long-term goals are implemented through zoning ordinances. These are local laws adopted by counties and cities that describe for specific areas the kinds of development that will be allowed within their boundaries.

Land use agencies are also the lead for doing environmental assessments under CEQA for new projects that may pose a significant environmental impact, or for new or revised General Plans.

Local Agency Formation Commissions (LAFCOs)

Operating in each of California's 58 counties, LAFCOs are composed of local elected officials and public members who are responsible for coordinating changes in local governmental boundaries, conducting special studies that review ways to reorganize, simplify, and streamline governmental structures, and preparing a sphere of influence for each city and special district within each county. Each Commission's efforts are directed toward seeing that local government services are provided efficiently and economically while agricultural and open-space lands are protected. LAFCO decisions strive to balance the competing needs in California for efficient services, affordable housing, economic opportunity, and conservation of natural resources.

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[1] The legal basis for planning and land use regulation is the "police power" of the city or county to protect the public's health, safety and welfare. The California Constitution gives cities and counties the power to make and enforce all local police, sanitary and other ordinances and regulations not in conflict with general laws. State law reference: California Constitution, Article XI §7.

[2] OPR General Plan Guidelines, 2003: http://www.opr.ca.gov/planning/PDFs/General_Plan_Guidelines_2003.pdf

Councils of Government (COG)

COGs are organizations composed of local counties and cities that serve as a focus for the development of sound regional planning, including plans for transportation, growth management, hazardous waste management, and air quality. They can also function as the metropolitan planning organization for coordinating the region's transportation programs. COGs also prepare regional housing need allocations for updates of General Plan housing elements.

Local Air Districts

Under state law, air pollution control districts or air quality management districts (local air districts) are the local government agencies responsible for improving air quality and are generally the first point of contact for resolving local air pollution issues or complaints. There are 35 local air districts in California[3] that have authority and primary responsibility for regional clean air planning. Local air districts regulate stationary sources of air pollutants within their jurisdiction including but not limited to industrial and commercial facilities, power plants, construction activities, outdoor burning, and other non-mobile sources of air pollution. Some local air districts also regulate public and private motor vehicle fleet operators such as public bus systems, private shuttle and taxi services, and commercial truck depots.

- **Regional Clean Air Plans**

Local air districts are responsible for the development and adoption of clean air plans that protect the public from the harmful effects of air pollution. These plans incorporate strategies that are necessary to attain ambient air quality standards. Also included in these regional air plans are ARB and local district measures to reduce statewide emissions from mobile sources, consumer products, and industrial sources.

- **Facility-Specific Considerations**

Permitting. In addition to the planning function, local air districts adopt and enforce regulations, issue permits, and evaluate the potential environmental impacts of projects.

Pollution is regulated through permits and technology-based rules that limit emissions from operating units within a facility or set standards that vehicle fleet operators must meet. Permits to construct and permits to operate contain very specific requirements and conditions that tell each regulated source what it must do to limit its air pollution in compliance with local air district rules, regulations, and state law. Prior to receiving a permit, new facilities must go through a New Source Review (NSR) process that establishes air pollution control requirements for the facility. Permit conditions are typically contained in the permit to operate and specify requirements that businesses must follow; these may include limits on the amount of pollution that can be emitted, the

[3] Contact information for local air districts in California is listed in the front of this Handbook.

type of pollution control equipment that must be installed and maintained, and various record-keeping requirements.

Local air districts also notify the public about new permit applications for major new facilities, or major modifications to existing facilities that seek to locate within 1,000 feet of a school.

Local air districts can also regulate other types of sources to reduce emissions. These include regulations to reduce emissions from the following sources:

- hazardous materials in products used by industry such as paints, solvents, and de-greasers;
- agricultural and residential burning;
- leaking gasoline nozzles at service stations;
- public fleet vehicles such as sanitation trucks and school buses; and
- fugitive or uncontrolled dust at construction sites.

However, while emissions from industrial and commercial sources are typically subject to the permit authority of the local air district, sensitive sites such as a day care center, convalescent home, or playground are not ordinarily subject to an air permit. Local air district permits address the air pollutant emissions of a project but not its location.

Under the state's air toxics program, local air districts regulate air toxic emissions by adopting ARB air toxic control measures, or more stringent district-specific requirements, and by requiring individual facilities to perform a health risk assessment if emissions at the source exceed district-specific health risk thresholds[4], [5] (See the section on ARB programs for a more detailed summary of this program).

One approach by which local air districts regulate air toxics emissions is through the "Hot Spots" program.[6] The risk assessments submitted by the facilities under this

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[4] Cal/EPA's Office of Environmental Health Hazard Assessment has published "A Guide to Health Risk Assessment" for lay people involved in environmental health issues, including policymakers, businesspeople, members of community groups, and others with an interest in the potential health effects of toxic chemicals. To access this information, please refer to http://www.oehha.ca.gov/pdf/HRSguide2001.pdf

[5] Section 44306 of the California Health & Safety Code defines a health risk assessment as a detailed comprehensive analysis that a polluting facility uses to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations, and to assess and quantify both the individual and population-wide health risks associated with those levels of exposure.

[6] AB-2588 (the Air Toxics "Hot Spots" Information and Assessment Act) requires local air districts to prioritize facilities by high, intermediate, and low priority categories to determine which must perform a health risk assessment. Each district is responsible for establishing the prioritization score threshold at which facilities are required to prepare a health risk assessment. In establishing priorities for each facility, local air districts must consider the potency, toxicity, quantity, and volume of hazardous materials released from the facility, the proximity of the facility to potential receptors, and any other factors that the district determines may indicate that the facility may pose a significant risk. All facilities within the highest category must prepare a health risk assessment. In addition, each district may require facilities in the intermediate and low priority categories to also submit a health risk assessment.

Table D-1
Local Sources of Air Pollution, Responsible Agencies, and Associated Regulatory Programs

Source	Examples	Primary Agency	Applicable Regulations
Large Stationary	Refineries, power plants, chemical facilities, certain manufacturing plants	Local air districts	Operating permit rules Air Toxics "Hot Spots" Law (AB 2588) Local district rules Air Toxic Control Measures (ATCMs)* New Source Review rules Title V permit rules
Small Stationary	Dry cleaners, auto body shops, welders, chrome plating facilities, service stations, certain manufacturing plants	Local air districts	Operating permit conditions, Air Toxics "Hot Spots" Law (AB 2588) Local district rules ATCMs* New Source Review rules
Mobile (non-fleet)	Cars, trucks, buses	ARB	Emission standards Cleaner-burning fuels (e.g., unleaded gasoline, low-sulfur diesel) Inspection and repair programs (e.g., Smog Check)
Mobile Equipment	Construction equipment	ARB, U.S. EPA	ARB rules U.S. EPA rules
Mobile (fleet)	Truck depots, school buses, taxi services	Local air districts, ARB	Local air district rules ARB urban bus fleet rule
Areawide	Paints and consumer products such as hair spray and spray paint	Local air district, ARB	ARB rules Local air district rules

*ARB adopts ATCMs, but local air districts have the responsibility to implement and enforce these measures or more stringent ones.

program are reviewed by OEHHA and approved by the local air district. Risk assessments are available by contacting the local air district.

Enforcement. Local air districts also take enforcement action to ensure compliance with air quality requirements. They enforce air toxic control measures, agricultural and residential burning programs, gasoline vapor control regulations, laws that prohibit air pollution nuisances, visible emission limits, and many other requirements designed to

clean the air. Local districts use a variety of enforcement tools to ensure compliance. These include notices of violation, monetary penalties, and abatement orders. Under some circumstances, a permit may be revoked.

- **Environmental Review**

As required by the California Environmental Quality Act (CEQA), local air districts also review and comment on proposed land use plans and development projects that can have a significant effect on the environment or public health.[7]

California Air Resources Board

The ARB is the air pollution control agency at the state level that is responsible for the preparation of air plans required by state and federal law. In this regard, it coordinates the activities of all local air districts to ensure all statutory requirements are met and to reduce air pollution emissions for sources under its jurisdiction.

Motor vehicles are the single largest emissions source category under ARB's jurisdiction as well as the largest overall emissions source statewide. ARB also regulates emissions from other mobile equipment and engines as well as emissions from consumer products such as hair sprays, perfumes, cleaners, and aerosol paints.

Air Toxics Program

Under state law, the ARB has a critical role to play in the identification, prioritization, and control of air toxic emissions. The ARB statewide comprehensive air toxics program was established in the early 1980's. The Toxic Air Contaminant Identification and Control Act of 1983 (AB 1807, Tanner 1983) created California's program to reduce exposure to air toxics.[8] The Air Toxics "Hot Spots" Information and Assessment Act (Hot Spots program) supplements the AB 1807 program, by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

Under AB 1807, the ARB is required to use certain criteria to prioritize the identification and control of air toxics. In selecting substances for review, the ARB must consider criteria relating to emissions, exposure, and health risk, as well as persistence in the atmosphere, and ambient concentrations in the community. AB 1807 also requires the ARB to use available information gathered from the Hot Spots program when prioritizing compounds.

The ARB identifies pollutants as toxic air contaminants and adopts statewide air toxic control measures (ATCMs). Once ARB adopts an ATCM, local air districts must

[7] Section 4 of this Handbook contains more information on the CEQA process.
[8] For a general background on California's air toxics program, the reader should refer to ARB's website at http://www.arb.ca.gov/toxics/tac/appendxb.htm.

implement the measure, or adopt and implement district-specific measures that are at least as stringent as the state standard. Taken in the aggregate, these ARB programs will continue to further reduce emissions, exposure, and health risk statewide.

With regard to the land use decision-making process, ARB, in conjunction with local air districts, plays an advisory role by providing technical information on land use-related air issues.

Other Agencies

Governor's Office of Planning and Research (OPR)

In addition to serving as the Governor's advisor on land use planning, research, and liaison with local government, OPR develops and implements the state's policy on land use planning and coordinates the state's environmental justice programs. OPR updated its General Plan Guidelines in 2003 to highlight the importance of sustainable development and environmental justice policies in the planning process. OPR also advises project proponents and government agencies on CEQA provisions and operates the State Clearinghouse for environmental and federal grant documents.

California Department of Housing and Community Development

The Department of Housing and Community Development (HCD) administers a variety of state laws, programs and policies to preserve and expand housing opportunities, including the development of affordable housing. All local jurisdictions must update their housing elements according to a staggered statutory schedule, and are subject to certification by HCD. In their housing elements, cities and counties are required to include a land inventory which identifies and zones sites for future residential development to accommodate a mix of housing types, and to remove barriers to the development of housing.

An objective of state housing element law is to increase the overall supply and affordability of housing. Other fundamental goals include conserving existing affordable housing, improving the condition of the existing housing stock, removing regulatory barriers to housing production, expanding equal housing opportunities, and addressing the special housing needs of the state's most vulnerable residents (frail elderly, disabled, large families with children, farmworkers, and the homeless).

Transportation Agencies

Transportation agencies can also influence mobile source-related emissions in the land use decision-making process. Local transportation agencies work with land use agencies to develop a transportation (circulation) element for the General Plan. These local government agencies then work with other transportation-related agencies, such as the Congestion Management Agency (CMA), Metropolitan Planning Organization

(MPO), Regional Transportation Planning Agency (RTPA), and Caltrans to develop long and short range transportation plans and projects.

Caltrans is the agency responsible for setting state transportation goals and for state transportation planning, design, construction, operations and maintenance activities. Caltrans is also responsible for delivering California's multibillion-dollar state Transportation Improvement Program, a list of transportation projects that are approved for funding by the California Transportation Commission in a 4-year cycle.

When safety hazards or traffic circulation problems are identified in the existing road system, or when land use changes are proposed such as a new residential subdivision, shopping mall or manufacturing center, Caltrans and/or the local transportation agency ensure the projects meet applicable state, regional, and local goals and objectives.

Caltrans also evaluates transportation-related projects for regional air quality impacts, from the perspective of travel-related emissions as well as road congestion and increases in road capacity (new lanes).

California Energy Commission (CEC)

The CEC is the state's CEQA lead agency for permitting large thermal power plants (50 megawatts or greater). The CEC works closely with local air districts and other federal, state and local agencies to ensure compliance with applicable laws, ordinances, regulations and standards in the permitting, construction, operation and closure of such plants. The CEC uses an open and public review process that provides communities with outreach and multiple opportunities to participate and be heard. In addition to its comprehensive environmental impact and engineering design assessment process, the CEC also conducts an environmental justice evaluation. This evaluation involves an initial demographic screening to determine if a qualifying minority or low-income population exists in the vicinity of the proposed project. If such a population is present, staff considers possible environmental justice impacts including from associated project emissions in its technical assessments.[9]

Department of Pesticides Regulation (DPR)

Pesticides are industrial chemicals produced specifically for their toxicity to a target pest. They must be released into the environment to do their job. Therefore, regulation of pesticides focuses on using toxicity and other information to ensure that when pesticides are used according to their label directions, potential for harm to people and the environment is minimized. DPR imposes strict controls on use, beginning before pesticide products can be sold in California, with an extensive scientific program to ensure they can be used safely. DPR and county enforcement staff tracks the use of pesticides to ensure that pesticides are used properly. DPR collects periodic

[9] See California Energy Commission, "Environmental Performance Report," July 2001 at http://www.energy.ca.gov/reports/2001-11-20_700-01-001.PDF

measurements of any remaining amounts of pesticides in water, air, and on fresh produce. If unsafe levels are found, DPR requires changes in how pesticides are used, to reduce the possibility of harm. If this cannot be done - that is, if a pesticide cannot be used safely - use of the pesticide will be banned in California.[10]

Federal Agencies

Federal agencies have permit authority over activities on federal lands and certain resources, which have been the subject of congressional legislation, such as air, water quality, wildlife, and navigable waters. The U.S. Environmental Protection Agency generally oversees implementation of the federal Clean Air Act, and has broad authority for regulating certain activities such as mobile sources, air toxics sources, the disposal of toxic wastes, and the use of pesticides. The responsibility for implementing some federal regulatory programs such as those for air and water quality and toxics is delegated by management to specific state and local agencies. Although federal agencies are not subject to CEQA they must follow their own environmental process established under the National Environmental Policy Act (NEPA).

[10] For more information, the reader is encouraged to visit the Department of Pesticide Regulation web site at www.cdpr.ca.gov/docs/empm/pubs/tacmenu.htm.

APPENDIX E

SPECIAL PROCESSES THAT APPLY TO SCHOOL SITING

The California Education Code and the California Public Resources Code place primary authority for siting public schools with the local school district, which is the 'lead agency' for purposes of CEQA. The California Education Code requires public school districts to notify the local planning agency about siting a new public school or expanding an existing school. The planning agency then reports back to the school district regarding a project's conformity with the adopted General Plan. However, school districts can overrule local zoning and land use designations for schools if they follow specified procedures. In addition, all school districts must evaluate new school sites using site selection standards established in Section 14010 of Title 5 of the California Code of Regulations. Districts seeking state funding for school site acquisition must also obtain site approval from the California Department of Education.

Before making a final decision on a school site acquisition, a school district must comply with CEQA and evaluate the proposed site acquisition/new school project for air emissions and health risks by preparing and certifying an environmental impact report or negative declaration. Both the California Education Code section 17213 and the California Public Resources Code section 21151.8 require school districts to consult with administering agencies and local air districts when preparing the environmental assessment. Such consultation is required to identify both permitted and non-permitted "facilities" that might significantly affect health at the new site. These facilities include, but are not limited to, freeways and other busy traffic corridors, large agricultural operations, and rail yards that are within one-quarter mile of the proposed school site, and that might emit hazardous air emissions, or handle hazardous or acutely hazardous materials, substances, or waste.

As part of the CEQA process and before approving a school site, the school district must make a finding that either it found none of the facilities or significant air pollution sources, or alternatively, if the school district finds that there are such facilities or sources, it must determine either that they pose no significant health risks, or that corrective actions by another governmental entity would be taken so that there would be no actual or potential endangerment to students or school workers.

In addition, if the proposed school site boundary is within 500 feet of the edge of the closest traffic lane of a freeway or traffic corridor that has specified minimum average daily traffic counts, the school district is required to determine through specified risk assessment and air dispersion modeling that neither short-term nor long term exposure poses significant heath risks to pupils.

State law changes effective January 1, 2004 (SB352, Escutia 2003, amending Education Code section 17213 and Public Resources Code section 21151.8) also provides for cases in which the school district cannot make either of those two findings and cannot find a suitable alternative site. When this occurs, the school district must adopt a statement of over-riding considerations, as part of an environmental impact

report, that the project should be approved based on the ultimate balancing of the merits.

Some school districts use a standardized assessment process to determine the environmental impacts of a proposed school site. In the assessment process, school districts can use maps and other available information to evaluate risk, including a local air district's database of permitted source emissions. School districts can also perform field surveys and record searches to identify and calculate emissions from non-permitted sources within one-quarter mile radius of a proposed site. Traffic count data and vehicular emissions data can also be obtained from Caltrans for major roadways and freeways in proximity to the proposed site to model potential emissions impacts to students and school employees. This information is available from the local COG, Caltrans, or local cities and counties for non-state maintained roads.

GENERAL PROCESSES USED BY LAND USE AGENCIES TO ADDRESS AIR POLLUTION IMPACTS

There are several separate but related processes for addressing the air pollution impacts of land use projects. One takes place as part of the planning and zoning function. This consists of preparing and implementing goals and policies contained in county or city General Plans, community or area plans, and specific plans governing land uses such as residential, educational, commercial, industrial, and recreational activities. It also includes recommending locations for thoroughfares, parks and other public improvements.

Land use agencies also have a permitting function that includes performing environmental reviews and mitigation when projects may pose a significant environmental impact. They conduct inspections for zoning permits issued, enforce the zoning regulations and issue violations as necessary, issue zoning certificates of compliance, and check compliance when approving certificates of occupancy.

Planning

- **General Plan**[1]

The General Plan is a local government "blueprint" of existing and future anticipated land uses for long-term future development. It is composed of the goals, policies, and general elements upon which land use decisions are based. Because the General Plan is the foundation for all local planning and development, it is an important tool for implementing policies and programs beneficial to air quality. Local governments may choose to adopt a separate air quality element into their General Plan or to integrate air quality-beneficial objectives, policies, and strategies in other elements of the Plan, such as the land use, circulation, conservation, and community design elements.

More information on General Plan elements is contained in Appendix D.

- **Community Plans**

Community or area plans are terms for plans that focus on a particular region or community within the overall general plan area. It refines the policies of the general plan as they apply to a smaller geographic area and is implemented by ordinances and other discretionary actions, such as zoning.

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[1] In October 2003, OPR revised its General Plan Guidelines. An entire chapter is now devoted to a discussion of how sustainable development and environmental justice goals can be incorporated into the land use planning process. For further information, the reader is encouraged to obtain a copy of OPR's General Plan Guidelines, or refer to their website at: http://www.opr.ca.gov/planning/PDFs/General_Plan_Guidelines_2003.pdf

- **Specific Plan**

A specific plan is a hybrid that can combine policies with development regulations or zoning requirements. It is often used to address the development requirements for a single project such as urban infill or a planned community. As a result, its emphasis is on concrete standards and development criteria.

- **Zoning**

Zoning is the public regulation of the use of land. It involves the adoption of ordinances that divide a community into various districts or zones. For instance, zoning ordinances designate what projects and activities can be sited in particular locations. Each zone designates allowable uses of land within that zone, such as residential, commercial, or industrial. Zoning ordinances can address building development standards, e.g., minimum lot size, maximum building height, minimum building setback, parking, signage, density, and other allowable uses.

Land Use Permitting

In addition to the planning and zoning function, land use agencies issue building and business permits, and evaluate the potential environmental impacts of projects. To be approved, projects must be located in a designated zone and comply with applicable ordinances and zoning requirements.

Even if a project is sited properly in a designated zone, a land use agency may require a new source to mitigate potential localized environmental impacts to the surrounding community below what would be required by the local air district. In this case, the land use agency could condition the permit by limiting or prescribing allowable uses including operating hour restrictions, building standards and codes, property setbacks between the business property and the street or other structures, vehicle idling restrictions, or traffic diversion.

Land use agencies also evaluate the environmental impacts of proposed land use projects or activities. If a project or activity falls under CEQA, the land use agency requires an environmental review before issuing a permit to determine if there is the potential for a significant impact, and if so, to mitigate the impact or possibly deny the project.

- **Land Use Permitting Process**

In California, the authority to regulate land use is delegated to city and county governments. The local land use planning agency is the local government administrative body that typically provides information and coordinates the review of development project applications. Conditional Use Permits (CUP) typically fall within a land use agency's discretionary authority and therefore are subject to CEQA. CUPs are

intended to provide an opportunity to review the location, design, and manner of development of land uses prior to project approval. A traditional purpose of the CUP is to enable a municipality to control certain uses that could have detrimental environmental effects on the community.

The process for permitting new discretionary projects is quite elaborate, but can be broken down into five fundamental components:

- Project application
- Environmental assessment
- Consultation
- Public comment
- Public hearing and decision

Project Application

The permit process begins when the land use agency receives a project application, with a detailed project description, and support documentation. During this phase, the agency reviews the submitted application for completeness. When the agency deems the application to be complete, the permit process moves into the environmental review phase.

Environmental Assessment

If the project is discretionary and the application is accepted as complete, the project proposal or activity must undergo an environmental clearance process under CEQA and the CEQA Guidelines adopted by the California Resources Agency.[2] The purpose of the CEQA process is to inform decision-makers and the public of the potential significant environmental impacts of a project or activity, to identify measures to minimize or eliminate those impacts to the point they are no longer significant, and to discuss alternatives that will accomplish the project goals and objectives in a less environmentally harmful manner.

What is a "Lead Agency"?

A lead agency is the public agency that has the principal responsibility for carrying out or approving a project that is subject to CEQA. In general, the land use agency is the preferred public agency serving as lead agency because it has jurisdiction over general land uses. The lead agency is responsible for determining the appropriate environmental document, as well as its preparation.

What is a "Responsible Agency"?

A responsible agency is a public agency with discretionary approval authority over a portion of a CEQA project (e.g., projects requiring a permit). As a responsible agency, the agency is available to the lead agency and project proponent for early consultation on a project to apprise them of applicable rules and regulations, potential adverse impacts, alternatives, and mitigation measures, and provide guidance as needed on applicable methodologies or other related issues.

What is a "Commenting Agency"?

A commenting agency is any public agency that comments on a CEQA document, but is neither a lead agency nor a responsible agency. For example, a local air district, as the agency with the responsibility for comprehensive air pollution control, could review and comment on an air quality analysis in a CEQA document for a proposed distribution center, even though the project was not subject to a permit or other pollution control requirements.

[2] Projects and activities that may have a significant adverse impact on the environment are evaluated under CEQA Guidelines set forth in title 14 of the California Code of Regulations, sections 15000 et seq.

To assist the lead agency in determining whether the project or activity may have a significant effect that would require the preparation of an EIR, the land use agency may consider criteria, or thresholds of significance, to assess the potential impacts of the project, including its air quality impacts. The land use agency must consider any credible evidence in addition to the thresholds, however, in determining whether the project or activity may have a significant effect that would trigger the preparation of an EIR.

The screening criteria to determine significance is based on a variety of factors, including local, state, and federal regulations, administrative practices of other public agencies, and commonly accepted professional standards. However, the final determination of significance for individual projects is the responsibility of the lead agency. In the case of land use projects, the lead agency would be the City Council or County Board of Supervisors.

A new land use plan or project can also trigger an environmental assessment under CEQA if, among other things, it will expose sensitive sites such as schools, day care centers, hospitals, retirement homes, convalescence facilities, and residences to substantial pollutant concentrations.[3]

CEQA only applies to "discretionary projects." Discretionary means the public agency must exercise judgment and deliberation when deciding to approve or disapprove a particular project or activity, and may append specific conditions to its approval. Examples of discretionary projects include the issuance of a CUP, re-zoning a property, or widening of a public road. Projects that are not subject to the exercise of agency discretion, and can therefore be approved administratively through the application of set standards are referred to as ministerial projects. CEQA does not apply to ministerial projects.[4] Examples of typical ministerial projects include the issuance of most building permits or a business license.

Once a potential environmental impact associated with a project is identified through an environmental assessment, mitigation must be considered. A land use agency should incorporate mitigation measures that are suggested by the local air district as part of the project review process.

Consultation

Application materials are provided to various departments and agencies that may have an interest in the project (e.g., air pollution, building, police, fire, water agency, Fish and Game, etc.) for consultation and input.

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[3] Readers interested in learning more about CEQA should contact OPR or visit their website at http://www.opr.ca.gov/.

[4] See California Public Resources Code section 21080(b)(1).

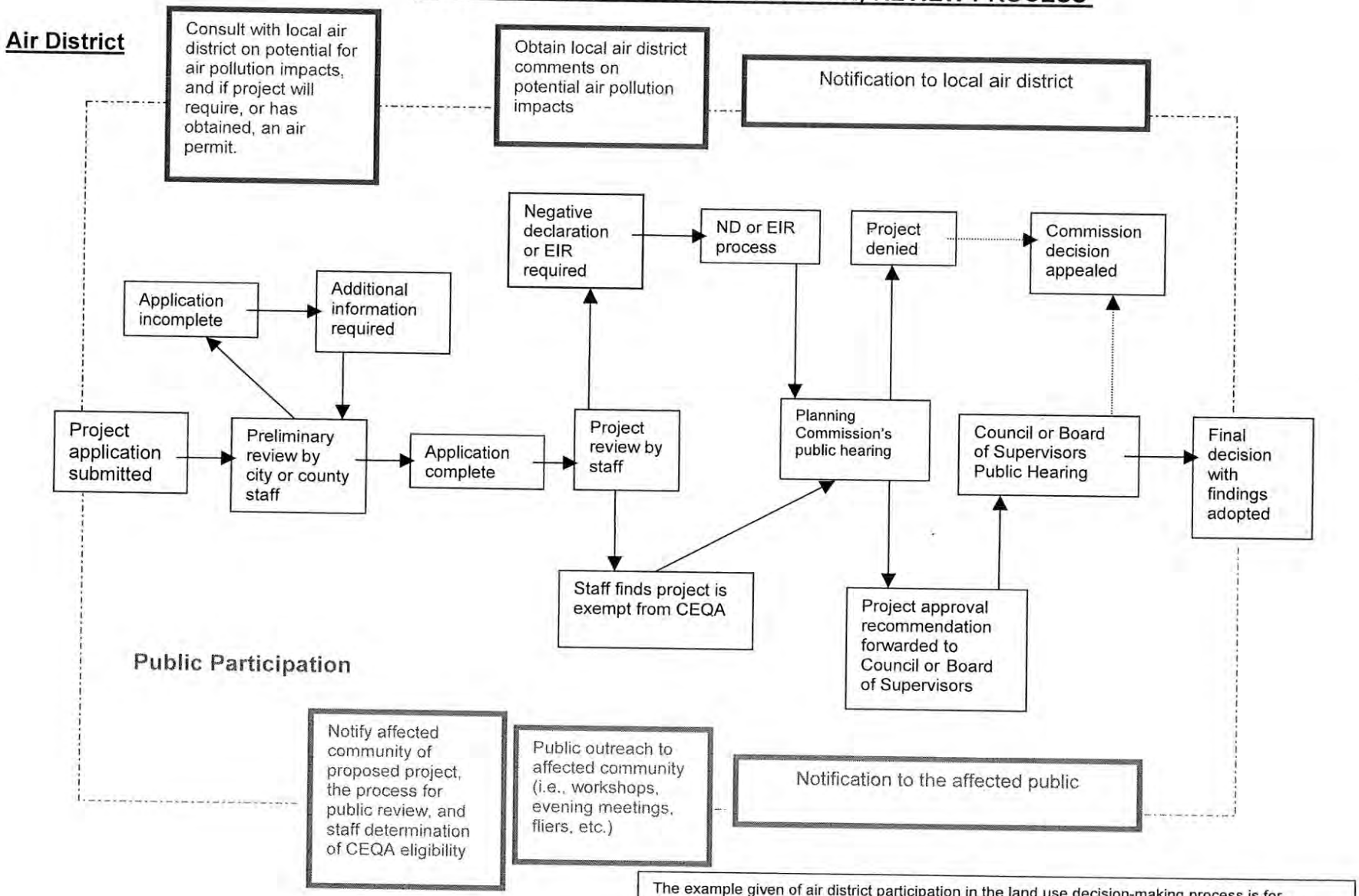
Public Comment

Following the environmental review process, the Planning Commission reviews application along with the staff's report on the project assessment and a public comment period is set and input is solicited.

Public Hearing and Decision

Permit rules vary depending on the particular permit authority in question, but the process generally involves comparing the proposed project with the land use agency standards or policies. The procedure usually leads to a public hearing, which is followed by a written decision by the agency or its designated officer. Typically, a project is approved, denied, or approved subject to specified conditions.

USE PERMIT (DISCRETIONARY ACTION) REVIEW PROCESS*



The example given of air district participation in the land use decision-making process is for illustrative purposes only. In reality, the land use siting process involves the ongoing participation of multiple affected agencies and stakeholders throughout the process.

GLOSSARY OF KEY AIR POLLUTION TERMS

Air Pollution Control Board or Air Quality Management Board: Serves as the governing board for local air districts. It consists of appointed or elected members from the public or private sector. It conducts public hearings to adopt local air pollution regulations.

Air Pollution Control Districts or Air Quality Management Districts (local air district): A county or regional agency with authority to regulate stationary and area sources of air pollution within a given county or region. Governed by a district air pollution control board.

Air Pollution Control Officer (APCO): Head of a local air pollution control or air quality management district.

Air Toxic Control Measures (ATCM): A control measure adopted by the ARB (Health and Safety Code section 39666 et seq.), which reduces emissions of toxic air contaminants.

Ambient Air Quality Standards: An air quality standard defines the maximum amount of a pollutant that can be present in the outdoor air during a specific time period without harming the public's health. Only U.S. EPA and the ARB may establish air quality standards. No other state has this authority. Air quality standards are a measure of clean air. More specifically, an air quality standard establishes the concentration at which a pollutant is known to cause adverse health effects to sensitive groups within the population, such as children and the elderly. Federal standards are referred to as National Ambient Air Quality Standards (NAAQS); state standards are referred to as California ambient air quality standards (CAAQS).

Area-wide Sources: Sources of air pollution that individually emit small amounts of pollution, but together add up to significant quantities of pollution. Examples include consumer products, fireplaces, road dust, and farming operations.

Attainment vs. Nonattainment Area: An attainment area is a geographic area that meets the National Ambient Air Quality Standards for the criteria pollutants and a non-attainment area is a geographic area that doesn't meet the NAAQS for criteria pollutants.

Attainment Plan: Attainment plans lay out measures and strategies to attain one or more air quality standards by a specified date.

California Clean Air Act (CCAA): A California law passed in 1988, which provides the basis for air quality planning and regulation independent of federal regulations. A major element of the Act is the requirement that local air districts in violation of the CAAQS

must prepare attainment plans which identify air quality problems, causes, trends, and actions to be taken to attain and maintain California's air quality standards by the earliest practicable date.

California Environmental Quality Act (CEQA): A California law that sets forth a process for public agencies to make informed decisions on discretionary project approvals. The process helps decision-makers determine whether any potential, significant, adverse environmental impacts are associated with a proposed project and to identify alternatives and mitigation measures that will eliminate or reduce such adverse impacts.[1]

California Health and Safety Code: A compilation of California laws, including state air pollution laws, enacted by the Legislature to protect the health and safety of people in California. Government agencies adopt regulations to implement specific provisions of the California Health and Safety Code.

Clean Air Act (CAA): The federal Clean Air Act was adopted by the United States Congress and sets forth standards, procedures, and requirements to be implemented by the U.S. Environmental Protection Agency (U.S. EPA) to protect air quality in the United States.

Councils of Government (COGs): There are 25 COGs in California made up of city and county elected officials. COGs are regional agencies concerned primarily with transportation planning and housing; they do not directly regulate land use.

Criteria Air Pollutant: An air pollutant for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set. Examples include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and PM10 and PM2.5. The term "criteria air pollutants" derives from the requirement that the U.S. EPA and ARB must describe the characteristics and potential health and welfare effects of these pollutants. The U.S. EPA and ARB periodically review new scientific data and may propose revisions to the standards as a result.

District Hearing Board: Hears local air district permit appeals and issues variances and abatement orders. The local air district board appoints the members of the hearing board.

Emission Inventory: An estimate of the amount of pollutants emitted into the atmosphere from mobile, stationary, area-wide, and natural source categories over a specific period of time such as a day or a year.

Environmental Impact Report (EIR): The public document used by a governmental agency to analyze the significant environmental effects of a proposed project, to identify

[1] To track the submittal of CEQA documents to the State Clearinghouse within the Office of Planning and Research, the reader can refer to CEQAnet at http://www.ceqanet.ca.gov.

alternatives, and to disclose possible ways to reduce or avoid the possible negative environmental impacts.

Environmental Justice: California law defines environmental justice as the fair treatment of people of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (California Government Code sec.65040.12(c)).

General Plans: A statement of policies developed by local governments, including text and diagrams setting forth objectives, principles, standards, and plan proposals for the future physical development of the city or county.

Hazardous Air Pollutants (HAPs): An air pollutant listed under section 112 (b) of the federal Clean Air Act as particularly hazardous to health. U.S. EPA identifies emission sources of hazardous air pollutants, and emission standards are set accordingly. In California, HAPs are referred to as toxic air contaminants.

Land Use Agency: Local government agency that performs functions associated with the review, approval, and enforcement of general plans and plan elements, zoning, and land use permitting. For purposes of this Handbook, a land use agency is typically a local planning department.

Mobile Source: Sources of air pollution such as automobiles, motorcycles, trucks, off-road vehicles, boats, and airplanes.

National Ambient Air Quality Standard (NAAQS): A limit on the level of an outdoor air pollutant established by the US EPA pursuant to the Clean Air Act. There are two types of NAAQS. Primary standards set limits to protect public health and secondary standards set limits to protect public welfare.

Negative Declaration (ND): When the lead agency (the agency responsible for preparing the EIR or ND) under CEQA, finds that there is no substantial evidence that a project may have a significant environmental effect, the agency will prepare a "negative declaration" instead of an EIR.

New Source Review (NSR): A federal Clean Air Act requirement that state implementation plans must include a permit review process, which applies to the construction and operation of new or modified stationary sources in nonattainment areas. Two major elements of NSR to reduce emissions are best available control technology requirements and emission offsets.

Office of Planning and Research (OPR): OPR is part of the Governor's office. OPR has a variety of functions related to local land-use planning and environmental programs. It provides General Plan Guidelines for city and county planners, and coordinates the state clearinghouse for Environmental Impact Reports.

Ordinance: A law adopted by a City Council or County Board of Supervisors. Ordinances usually amend, repeal or supplement the municipal code; provide zoning specifications; or appropriate money for specific purposes.

Overriding Considerations: A ruling made by the lead agency in the CEQA process when the lead agency finds the importance of the project to the community outweighs potential adverse environmental impacts.

Public Comment: An opportunity for the general public to comment on regulations and other proposals made by government agencies. You can submit written or oral comments at the public meeting or send your written comments to the agency.

Public Hearing: A public hearing is an opportunity to testify on a proposed action by a governing board at a public meeting. The public and the media are welcome to attend the hearing and listen to, or participate in, the proceedings.

Public Notice: A public notice identifies the person, business, or local government seeking approval of a specific course of action (such as a regulation). It describes the activity for which approval is being sought, and describes the location where the proposed activity or public meeting will take place.

Public Nuisance: A public nuisance, for the purposes of air pollution regulations, is defined as a discharge from any source whatsoever of such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. (Health and Safety Code section 41700).

Property Setback: In zoning parlance, a setback is the minimum amount of space required between a lot line and a building line.

Risk: For cancer health effects, risk is expressed as an estimate of the increased chances of getting cancer due to facility emissions over a 70-year lifetime. This increase in risk is expressed as chances in a million (e.g.,10 chances in a million).

Sensitive Individuals: Refers to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality).

Sensitive Sites or Sensitive Land Uses: Land uses where sensitive individuals are most likely to spend time, including schools and schoolyards, parks and playgrounds, day care centers, nursing homes, hospitals, and residential communities.

Setback: An area of land separating one parcel of land from another that acts to soften or mitigate the effects of one land use on the other.

State Implementation Plan (SIP): A plan prepared by state and local agencies and submitted to U.S. EPA describing how each area will attain and maintain national ambient air quality standards. SIPs include the technical information about emission inventories, air quality monitoring, control measures and strategies, and enforcement mechanisms. A SIP is composed of local air quality management plans and state air quality regulations.

Stationary Sources: Non-mobile sources such as power plants, refineries, and manufacturing facilities.

Toxic Air Contaminant (TAC): An air pollutant, identified in regulation by the ARB, which may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health. TACs are considered under a different regulatory process (California Health and Safety Code section 39650 et seq.) than pollutants subject to State Ambient Air Quality Standards. Health effects associated with TACs may occur at extremely low levels. It is often difficult to identify safe levels of exposure, which produce no adverse health effects.

Urban Background: The term is used in this Handbook to represent the ubiquitous, elevated, regional air pollution levels observed in large urban areas in California.

Zoning ordinances: City councils and county boards of supervisors adopts zoning ordinances that set forth land use classifications, divides the county or city into land use zones as delineated on the official zoning, maps, and set enforceable standards for future develop

LETTER 25

LETTER 25

500 Capitol Mall

25 Story Office Tower

SCH No. 2005112038

Project No. P05-1081

City of Sacramento California

Review of EIR Documents

January 8, 2007

By

Marshall Hunt, P.E.
Mechanical Engineer
123 C Street, Davis, CA 95616

Overview

The following is a review of the 500 Capitol Mall proposed office tower project.

> The 500 Capitol Mall project (proposed project) includes the development of a 25-story, 396-foot-tall high-rise building with office, retail, and restaurant uses and a parking garage. The project site encompasses 1.13 acres on the western portion of the block between 5th and 6th Streets and Capitol Mall and N Street in the Central Business District (CBD) of downtown Sacramento… The gross area of the building would be 467,942 square feet (sf), including office and retail, with 264,353 sf for the parking garage for a total building area of 732,295 gross sf. The net area within the building is as follows: 406,384 sf of rentable office area and 27,124 sf of rentable retail restaurant area, for a net building square footage of 433,508 sf. The project would include retail uses on the ground floor, and a restaurant on two penthouse floors. A total of 794 parking stalls would be provided on one sub-grade floor, and ten parking levels would occupy portions of floors one through eight in the office portion of the project. [1]

The requirements for documentation and discussion of energy use impacts of a proposed project are detailed in the California Environmental Quality Act (CEQA) *Guidelines*[2]. Appendix F Energy Conservation, *Guidelines* states that "Potentially significant energy implications of a project should be considered in an EIR" and contains a list of topics to include in the project EIR submittal package. The proposed project has a significant impact on the energy use of Sacramento and California consuming the energy needed to power up to 2000 homes. Mitigation measures that will cost effectively reduce the project's energy and environmental impacts are practical and becoming standard practice for projects which achieve the Leadership in Energy and Environmental Design (LEED) Silver level of certification and are eligible for incentives from Sacramento Municipal Utility District (SMUD) and Pacific Gas & Electric Company (PG&E). Governmental agencies are requiring LEED Silver certification and the City of Sacramento should require LEED Silver on this project, and/or find the EIR incomplete and inadequate.

Energy Impact Information

The 500 Capitol Mall project EIR documents fail to provide any meaningful information with respect to the energy use and energy demand impacts of the proposed expansion 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.

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[1] page 2-1, Draft Environmental Impact Report, SCH No. 2005112038, 500 Capitol Mall, project number P05-1081, City of Sacramento, October 2006.

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

There is no information to be found in the EIR Project Description or any other part of the EIR Draft and Final that complies with the requirements of Appendix F, Section II.A. The only statement concerning energy efficiency appears on page 2-6 of the Draft EIR.

> **Energy Features**
> The proposed project would include up-to-date 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. Glazing for the project would include insulated, low-E glass with solar reflectance of 15 percent (Viracon, Inc.: Solarscreen Radiant Low-E (VRE) Insulating Glass, VRE 5-59).1 Conservation efforts are also expected to involve improved HVAC systems with microprocessor controlled energy management systems.

In Section 7, p. 7-2, the following appears in response to the finding, "That resources would be permanently and continually consumed."

> ... however, the amount and rate of consumption of these resources would not result in the unnecessary, inefficient, or wasteful use of resources. With respect to operational activities, compliance with all applicable building codes, as well as mitigation measures, planning policies, and standard conservation features, would ensure that natural resources are conserved to the maximum extent possible.

There are no electricity and natural gas energy mitigation measures discussed in the EIR. Compliance with building codes, both life safety and energy, are the minimum that must be achieved much like the "D" grade students must receive to not take the class again. The applicable building energy efficiency code is California's Title-24, Part 6 commonly referred to as Title 24. That the project will meet Title 24 is not sufficient to meet the CEQA requirements because the CEQA Guidelines document does not limit itself 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.

As an example, the glazing referenced in the Energy Features may not be the best choice. It has a center of glass Solar Heat Gain Coefficient (SHGC) of 0.28 which is good for keeping unwanted solar heat out but it has a visible light transmittance of 33%. Glazing with visible light transmittance of less than 60% appears dark and at the 33% level eliminates useful daylighting that can reduce the cost of interior lighting while making the space more visually functional. The use of this glazing could impede daylighting designs which may be needed to meet the energy use goals of the project. Daylighting design is expanding to creatively use components of the building shell with interior mounted devices to provide daylight into the building interior. This type of discussion is needed so that decision makers have the information they need on such critical issues as the exterior of the building.

Energy Consumption is a Significant Environmental Impact

Public Resources Code Section 21100(b)(2)(B) requires than an EIR include a detailed statement setting forth any significant energy-related effects on the environment that would be irreversible if a proposed project is implemented. However, there is no mention of the amount of total energy use or peak energy demand that will be required to sustain the proposed project. Capacity may be sufficient but supply in California at peak times is limited. The peak demand in the summer of 2006 indicates just how important the issue is for the health and safety of the society. Also, significant

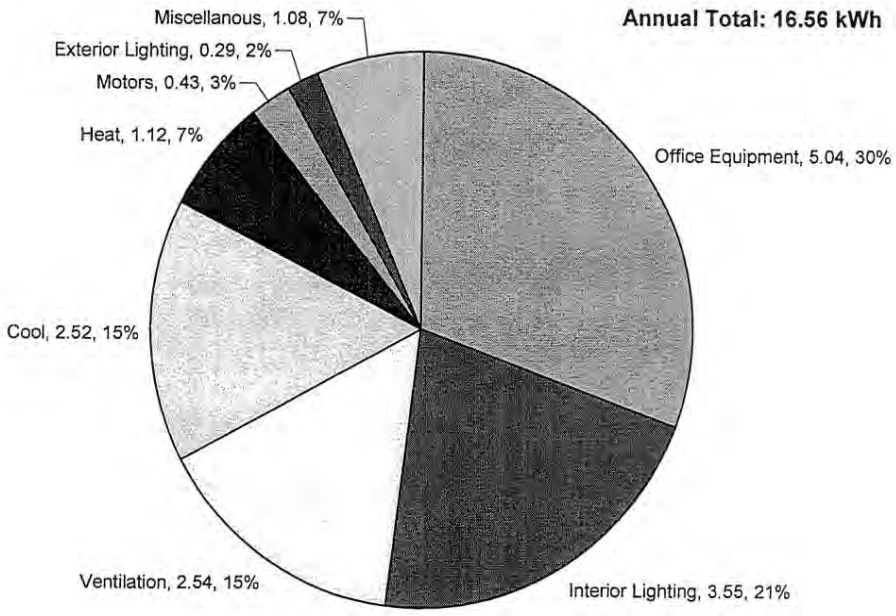
growth continues to occur in the surrounding community, but the EIR does not address the cumulative impact of the expansion on the adequacy of the electricity and natural gas delivery systems. Without discussion of the amount of increase in electricity use or demand, there is no means for the reader to understand the degree of impact the project might have upon the energy generation and delivery infrastructure. The peak demands experienced in 2001, 2002 and 2006 had a significant impact on the local and statewide economies. What is the project's contribution to the local and state-wide electricity demand increase individually and cumulatively as the project induces further growth in the region? These questions remain unanswered by any of the EIR documents.

Is it possible that energy use impacts were omitted because their potential impacts were determined to be insignificant? In the CEQA *Guidelines*, "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).

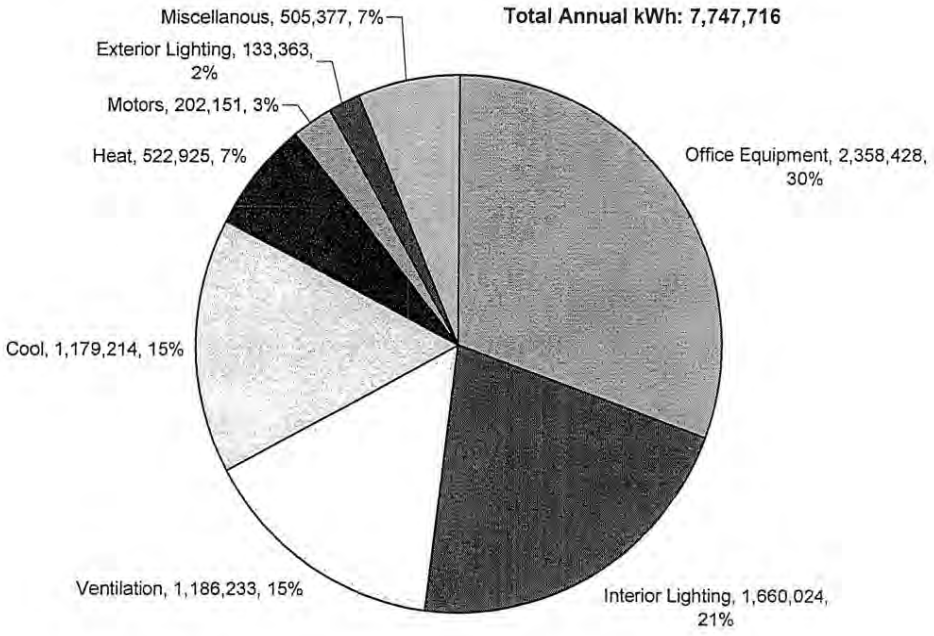
This seems to imply that where an agency does not provide specific regulatory guidance, then the threshold of significance is left to professional judgment. It is our opinion that the energy impacts of the project are significant. In making this assessment we rely upon an estimate of energy consumption based on similar buildings in the SMUD specific section of the California Commercial End-Use Survey (CEUS 2006), March 2006, CEC-400-2006-005. On page 294 in Table 12-10: Large Office Electric EUIs, Fuel Shares, and EIs, the electricity used in large office buildings located in the SMUD service territory are displayed. The pie-chart below is adapted from that data clearly shows the energy distribution of large office buildings. The estimated annual energy use is reduced from 19.94 kWh/square foot, year, the average for existing buildings, to 16.56 to account for efficiency improvements required by the 2005 edition Title 24.

SMUD Large Office kWh/yr Distribution
Reduced for New Title 24 Required Efficiency



Title 24 covers Heat, Cool, Ventilation, Interior Lighting, and Exterior Lighting which accounts for 60% of the total. Leading architectural firms are designing and seeing the construction of buildings that achieving 20 to 30% savings in Title 24 covered areas. Major savings are also possible in the remaining areas. ENERGY STAR® lists office equipment that saves 10% or more compared to minimum efficient or standard equipment. A clear specification of the potential "plug" loads from equipment is needed to size the mechanical cooling equipment providing the opportunity for first cost savings in cooling capacity correctly sized to meet the reduced loads.

Distribution of Estimated kWh/yr for 500 Capitol Mall



Converting the consumption per square foot of office space to annual total kWh consumption gives a better picture of magnitude of the project. The project is likely to consume approximately 7,747,716 kWh of electricity with the possibility of some natural gas usage. The annual energy cost of operating the 500 Capitol Mall building will approach $1 million. Since a typical California home uses about 5,914 kWh of electricity the proposed project electricity energy use is equivalent to 1578 homes. The peak demand is estimated to be 2800 kW which is equal to the peak demand of over 2800 homes. These facts demonstrate that the energy impacts of the proposed project are very significant.

The United States General Services Administration (US GSA) has recognized the significant impact of building energy consumption on the environment and on the budget. To mitigate both it has adopted LEED Silver Certification.

> **Leadership in Energy and Environmental Design (LEED)**: GSA has adopted the LEED rating system of the U.S. Green Building Council as a measure for sustainable design. The *P-100* and the Capital Investment and Leasing Program (CILP) require that all new and fully renovated building projects meet criteria for basic LEED Certification (higher levels of achievement are Silver, Gold, and Platinum). As of fiscal year 2003, all new and fully renovated buildings must meet a Silver LEED rating.[3]

[3] http://www.gsa.gov/Portal/gsa/ep/channelView.do?pageTypeId=8195&channelPage=%2Fep%2Fchannel%2FgsaOverview.jsp&channelId=-15082

US GSA's policy has been adopted and is being implemented by private and governmental agencies. The California Department of General Services (DGS) is implementing the Governor's Green Buildings Initiative. In a press release dated November 16, 2006 the following appeared.

> The Governor's executive order (S-20-04) called for a 20 percent energy-use reduction in State-owned buildings by 2015 by designing, constructing, operating, and renovating facilities to meet the high standards of the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) certifications. His executive order directed that existing state buildings and all future state construction and renovation projects should meet a minimum of LEED Silver certification to ensure they continue to save energy, conserve water, and divert waste from landfills.

As one of the major managers and consumers of office space in downtown Sacramento, DGS sets the market standard for office space. A prudent building owner will want to have space that meets the DGS and US GSA standards. An EIR with a complete discussion of energy impacts and mitigation measures would give the information and guidance needed for the owner and the approving local agency to meet this type of criteria which could be critical to the success of the project. Thus, both the US GSA and DGS consider the impact of office buildings significant and are implementing strategies to mitigate the impact.

Mitigation Measures Missing

The Draft EIR contains section "3.0 Summary of Impacts and Mitigation Measures" which contains Table 3-1 starting on page 3-4. It is indicative of the inadequacy of the Draft EIR that there is no section for Energy. In the Air Quality section reducing emission by saving on site energy consumption, both electricity and natural gas, is not mentioned as a mitigation measure. The EIR does not seriously consider potential energy savings as a mitigation measure for criteria pollutants. Since the project is located in a "nonattainment" designated area for ozone these omissions should of great concern to the public. If the air basin of this region consistently fails to meet its air quality standards, it could be faced with the loss federal dollars for highway construction and maintenance. In the Public Utilities and Services section (p. 3-10) no mention is made of mitigating the increased demand for electricity. Even in the most complete section concerning Transportation and Circulation the importance of using the configuration, size and usage rules of project provided parking to mitigate the wasteful use of energy is not mentioned.

In the summer of 2006 the California Legislature passed and the Governor signed into law AB32 the California Global Warming Solutions Act of 2006. The goal of the bill is to reduce California Green House Gas emissions to 1990 levels by 2020. This can only be done with a massive, coordinated effort that will begin with a full reporting of GHG sources and quantities followed by regulations for cutting emissions. 500 Capitol Mall offices should be ready for occupancy about the same time that AB32 implementing regulations take effect. While no one can predict the exact form and structure the regulations will take, it is prudent to begin now to plan ahead. Energy efficiency improvements in new building are one of the lowest cost ways to reduce GHG.

Califonria Environmental Quality Act *Guidelines* Inadequately Addressed

In Appendix F, Section II.A, the CEQA *Guidelines* list what an EIR should include. The first item is of particular importance for the 500 Capitol Mall project since it will require the removal of a

significant 5 story building, the deep excavation of the site, and the building of the 25 story office tower.

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.*

The EIR discusses the removal of the existing building terms of its architectural significance with the conclusion being that it can be removed. There is no discussion of the energy and environmental impacts and mitigation measures related to demolition and removal of existing building. Recycling and reuse of parts of the existing building can help to mitigate the significant impacts. There is no mention of the energy intensiveness of the new construction and thus no discussion of alternatives. Thus the EIR as written does not meet the requirement of Appendix F, Section II.A.1. The US Green Building Council, LEED-NC[4] provides a comprehensive catalog of building materials, sources and methods and a measurement tool that can be used to minimize the embodied energy of the building. Based upon other owner's experience, it is entirely feasible that the building could be certified at the Silver Level or beyond with at most a 5% increase in cost which is more than offset by reduced operating costs. 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 and resource conservation will be addressed through the selection of local and sustainable building products.

2. *Total energy requirements of the project by fuel type and end use.*

To meet the requirements of this item 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 qualified energy compliance standards 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, ventilation 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 in kW in July and August. The expected energy use intensities and demand requirements should then be compared to similar buildings in California. 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.

3, *Energy conservation equipment and design features.*

The document should describe the unique features of the proposed building's 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. The lighting power density, minimum target EER of air conditioning equipment, the minimum efficiency of gas-fired equipment, use of premium efficient motors, and variable frequency drives all need to be considered. 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 system, using a clean-burning combined heat and power system to create

[4] http://www.usgbc.org/DisplayPage.aspx?CMSPageID=222&

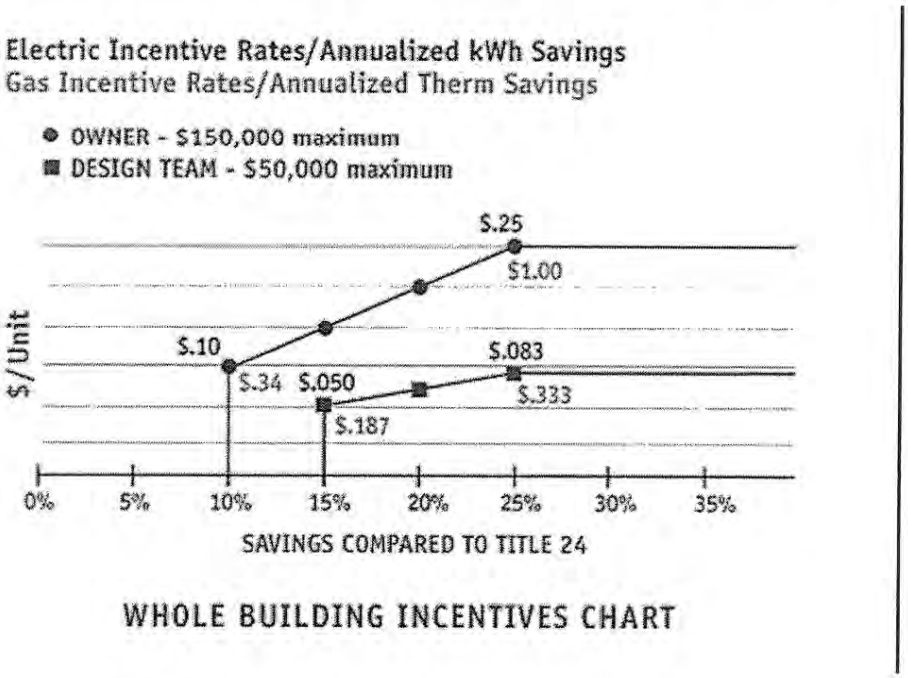
electricity and hot water for space heating, cooling and domestic uses, reduce the need for electricity and natural gas from outside energy suppliers? Also the EIR should include a description of the unique features of the proposed building that will increase its use of renewable energy resources such as the installation of solar photovoltaic panels to generate emissions-free energy on-site.

In the LEED®- NC, Green Building Rating System For New Construction & Major Renovations, Version 2.2, October 2005 the assessment criteria and points checklist table is presented. A Silver certification requires a points score between 33 and 38. DGS and US GSA require this level and a cursory review of the project finds that it can be achieved. But, this will only occur if it the goal from the beginning of the design development. The State of California and others have earned 52 points and higher achieving the highest, Platinum, level of LEED certification.

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. Cost effectiveness analysis would show that the payback for energy efficiency and on-site generation measures is justified compared to the expected life of the building. The schematic building design, or the design of other similar facilities, are used 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 high-rise office buildings. Simply stating that the building will meet the minimum state energy codes does not satisfy this requirement. With this information public could evaluate the selection of equipment and identify unnecessary environmental impacts or suggest alternatives to mitigate these impacts.

In support of cost effective new office buildings, SMUD and PG&E conduct the Savings by Design incentive program. SMUD has summarized the incentives for the Owner and Design Team.[5]



WHOLE BUILDING INCENTIVES CHART

[5] http://www.smud.org/commercial/saving/bydesign.html

Considering only electricity and using 21% as the 500 Capitol Mall project goal, the combined incentive is about $0.275/square foot or $128,684.05 for the project. There may be incentives for natural gas savings depending on the equipment installed with the building. Also, there are combined heat and power incentives which may be applicable to the project if a system is installed. The level of savings will also generate 4 LEED points as shown in the table below.

LEED Energy Efficiency Points	
Points	Efficiency Achieved - Energy Budget below Title 24 2005
Pass	0.0%
1	10.5%
2	14.0%
3	17.5%
4	21.0%
5	24.5%
6	28.0%
7	31.5%
8	35.0%
9	38.5%
10	42.0%

The Savings by Design incentives are justified because Title 24 established the maximum amount of energy a building can consume based on what is cost effective in the most generic, simplified case of a building that incorporates a set of prescriptive energy efficiency measures. Savings by Design and LEED foster energy efficiency that reduces the energy consumed by the project beyond Title 24 based on a whole building performance analysis which allows for the optimization of energy efficiency and cost effectiveness. There are energy efficiency measures that reduce first cost and operating costs. There are other measures which increase first costs while reducing operating costs. When all of these are combined and analyzed, by computer based simulation program, the design team can run various scenarios to determine which yields the best combination of efficiency and first cost.

Because none of these issues are discussed in the EIR it is incomplete and inadequate in its coverage the project life cycle energy costs.

Exterior Lighting

The Draft EIR mentions lighting on the outside of the building in several places with the following being the most complete.

> The proposed project would add light-producing fixtures into the downtown area. Soffit lights under each canopy would illuminate the ground level around the building. Some spotlights located atop the fourth floor roof would illuminate the face of the building along Capitol Mall. Continuous strips of LED lights would be located along the tops of each step in the building façade. A "500 Capitol Mall" sign with backlit chrome or polished-brass characters may be located either on the Capitol Mall building frontage (i.e., the north elevation) or on a monument sign (separated from the building) that would be visible from east- and west-bound Capitol Mall. There would also be street-level signage identifying the various retail users. All signage would be required to comply with the regulations set

> forth in the Sacramento Municipal Code (section 15.148 (Signs)). However, the additional light sources would not significantly affect the ambient nighttime light in the downtown area due to the amount of night lighting that already exists in the area.[6]

There is not enough information to assess exterior lighting will be installed and how it will be operated. Title 24, 2005, regulates outdoor, sign and building façade lighting. It is not clear that the EIR authors are aware of how the building will be impacted by Title 24 regulations. Decision makers do not have the information they need to approve or disapprove exterior lighting without understanding what regulation require. Without this information a concept could be approved that would later be found to be noncompliant with Title 24. LED lights can be energy efficient in some applications but when thousands of feet of building edges are covered with them the power demand can be significant. The spot lights on the building façade are problematic yet seem to be a key design feature. They will need to be designed with Title 24 regulations in mind and not exceed the allowed wattage. Lighting in some areas may need to be designed with "cut-offs" that limit the light going up. A growing concern over night sky light pollution should be addressed with the consideration of wall washing façade lighting that is mounted at the top and shines down the wall.

Bicycle and Carpool Parking

As proposed the project has 30 more parking spaces that the minimum required by the City. Eliminating these and replacing them with parking for bicycles, vanpools and carpools would help mitigate the impact of additional traffic. Bicycle usage is encouraged by having secured and sheltered parking. Cyclists are supported when they are provided with facilities that include clothes lockers and showers that allow them to commute in non-business attire in any type of weather. Vanpools are encouraged by the location of designated parking. Carpools are encouraged when they received preferred parking locations. None of these options are discussed in the EIR.

Recommendations

Bill.... Do you want a summary of recommendations here with a restatement of the positives for all stakeholders?

[6] P. 5.1-21, Draft EIR ....

LETTER 26

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October 3, 2007

SENT VIA HAND DELIVERY

Scott Johnson, Associate Planner
City of Sacramento Development Services Department
North Permit Center
2101 Arena Blvd, Suite 200
Sacramento, CA 95834

RE: Sacramento Railyards Specific Plan (SCH 2006032058)
Our Matter No. 0112.002

Dear Mr. Johnson:

Thank you for the opportunity to comment on the Draft Environmental Impact Report ("DEIR") for the Railyards Specific Plan ("Railyards" or "Proposed Project" herein). These comments are submitted on behalf of Downtown Plaza, LLC, which owns the Sacramento Downtown Plaza.

While generally agreeing with the City's broad vision for redevelopment of the Railyards, Downtown Plaza LLC has some serious concerns about the Proposed Project and the DEIR that is required to identify the potentially significant impacts of the Proposed Project.

First, the development plans that are actually being proposed by the Developer appear inconsistent with the Proposed Project's stated Objective to "[c]reate a dynamic 24-hour mixed use urban village that provides a range of complementary uses . . ." (DEIR p. 3-11). Far from an "urban village," these development plans appear focused on front-loaded retail uses with potential complementing residential and office uses possibly 20 years into the future.

Second, it appears that the DEIR itself is seriously deficient in numerous fundamental aspects that are described more fully below. Unless these deficiencies are cured, the City Council may approve a project that will result in undisclosed and unmitigated significant environmental impacts. The DEIR's most serious deficiencies include: 26-1

- A misleading project description that fails to provide relevant phasing information and impermissibly segments both the hazardous material remediation activity and the City's purchase of the Intermodal Transit Facility ("ITF") site;
- A fatally flawed analysis of Toxic Air Contaminants that fails to analyze health risks in accordance with established local protocol, and fails to disclose potentially serious impacts to future residents, visitors, and patrons of the Proposed Project;
- A refusal to analyze Global Climate Change impacts;
- An archaeological study and mitigation measures that protect archaeological resources on only a portion of the site;
- A traffic analysis of an impermissibly narrow scope; overstates the realistic use of transit, bicycle and pedestrian use; and fails to adequately explain "fair share" mitigation measures;
- Dismissive analysis of impacts to police services, fire services, parks and open space;
- No analysis of potential urban decay;
- An analysis of visual resources that conclusively assumes less than significant impacts resulting from high-rise buildings along the Riverfront;
- A failure to disclose the nature and extent of contamination in the Riverfront District;
- Mitigation Measures in a variety of subject areas that are unenforceable;
- Failure to require construction of facilities that would prevent polluted storm water runoff from entering the Sacramento River;
- A hydrologic discussion that does not take a hard look at critical water supply issues in the Sacramento Region;
- Failure to consider an environmentally superior alternative that is feasible and satisfies all of the stated Project Objectives.

26-1 (con't.)

A DEIR is required to promote the goal of informed decision-making that is the heart of the California Environmental Quality Act ("CEQA"). It appears, however, that significant revisions to the DEIR are necessary before the City's decision-makers and general public will be adequately informed about the nature of the Proposed Project and its potentially significant impacts.

We understand that development of the Railyards represents a unique opportunity due to its characteristics as a large in-fill project of an undeveloped "brownfield" property in the heart of downtown Sacramento. The unique

characteristics of the location are all the more reason to ensure that these unanswered issues are addressed so that both the decision-makers and general public are fully informed about the nature of the Proposed Project and its potential environmental impacts going forward. This is not a time to do the minimum[1], but rather to fully engage the public and fulfill CEQA's mandate of informed public participation.

26-1 (con't.)

This letter also attaches and incorporates detailed comments on the DEIR that have been prepared by consulting firms with advanced expertise in the various technical disciplines that are analyzed in this DEIR. [See Attachment A (HR&A Advisors, Inc.); Attachment B (Carter Burgess); Attachment C (Carter Burgess); Attachment D (PCR Services Corporation); Attachment E (VRPA Technologies, Inc.)].

I. Project Description

CEQA has two basic purposes. First, CEQA is designed to inform decision makers and the public about the potentially significant environmental effects of a project. CEQA Guidelines §15002(a)(1). "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made." Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 564. Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures. CEQA Guidelines §15002(a)(2)-(3).

Several deficiencies exist in the DEIR's description of the Proposed Project that render the DEIR fatally flawed as an informational document.

a. Inaccurate Project Description

An essential element of CEQA's informed decision-making is to provide the lead agency and general public with an accurate and consistent description of a proposed project. County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d 185. Here, however, the DEIR appears to provide an inadequate and misleading Project Description.

26-2

[1]This DEIR includes the statutory minimum 45-day public comment period while the prior DEIR for the 1993 Specific Plan included a 90-day public comment period. It also appears that the Planning, Design and Preservation Commissions will not have the benefit of a Final EIR before being asked to make their recommendations to City Council.

The DEIR's Project Description provides in relevant part:

As shown in Figure 3-5, Land Use Plan, the Specific Plan Area consists of five land use designations, which are described below . . .

• Residential	12,100
• Office	2.4 msf
• Hotel	1,100 rooms
• Historic and Cultural	485,390 sf
• Mixed use Flex Space	491,100 square feet, which could be developed as 491,000 of office, retail or other non-residential users or approximately 400 residential units or some combination of these uses.

(DEIR, p. 3-13).

This description is inaccurate and misleading because it entirely ignores the massive amount of retail space that is also planned for the Proposed Project. Appendix N to the DEIR explains that the Proposed Project will also include 1,539,000 square feet of retail space. (DEIR, Appendix N, p. 6). Yet this 1,539,000 square feet of retail space was not included in the DEIR's "five land use designations" described in the Project Description. 26-2 (con't.)

Also buried in Appendix N is the fact that this massive[2] amount of retail space will be constructed before most of the other "five land uses" described above. As explained in the attached analysis by HR&A Advisors, the Proposed Project includes a four-phase implementation schedule. (Attachment A, p.2). The first phase, identified as "1A" and "1B," includes 1.1 million square feet of retail space while only providing 773 residential dwellings. (City staff report dated August 15, 2007, p. 10). As further explained by the firm Carter Burgess, the Proposed Project's retail component will also include an approximately 200,000 square foot Bass Pro Shop. (Attachment B, p. 3). This big-box retail store is apparently intended to constitute a significant regional draw[3] of retail customers to the Proposed Project.

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[2] "If the proposed Railyards is built, it would . . . nearly double the amount of existing retail space currently existing in the four concentrated locations within Downtown Sacramento." (DEIR, Appendix N, p. 14).

[3] On July 25, 2006, the Developer explained to the City Council that the Bass Pro Shop would constitute such a strong regional destination that customers would travel into Sacramento, stay at a hotel adjacent to the store, and spend the next day at the Bass Pro Shop.

It appears that the net result of the Project's first phase will be a regional shopping mall that is anchored by a big-box retail store (the "Regional Shopping Mall"). Far from "complementing" the 773-unit "urban village," as included in the Project Description (DEIR, p. 3-11), the massive 1.1 million square foot Regional Shopping Mall will dominate the development of the Railyards site.

The Project's Description's failure to identify the significant amount of retail and its phasing schedule misleads the public regarding the true nature of the Proposed Project and constitutes a fundamental violation of CEQA. McQueen v. Board of Directors (1988) 202 Cal.App.3d 1136, 1143 ("An accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity"). Far from providing an accurate project description, it appears that critical information regarding the nature of the Proposed Project was literally "buried in an appendix" as admonished in Santa Clarita Organization for Planning the Environment v. County of Los Angeles (2003) 106 Cal. App. 4th 715, 723.

26-2 (con't.)

This Regional Shopping Mall development concept, nowhere described in the DEIR's Project Description, would appear to actually frustrate one of the Proposed Project's stated objectives to create a transit-oriented development. As explained by Carter Burgess:

> There are three significant drawbacks associated with front-loading the project phasing with large-box and regional-oriented retail uses. First, the phasing may impede realization of the land use synergies necessary for a successful transit oriented development (TOD), by postponing the smaller-scale, neighborhood-oriented uses to the latter stages of the project. Given the cyclical nature of the residential market, and the structure of the phasing program (which includes a super-majority of the retail commercial development and a super-minority of the residential development in the Initial Phase) ***the City could lose the opportunity to create a truly mixed-use urban village as envisioned in the project objectives***.

(Attachment 2, p. 3) (emphasis added).

Consistent with the concerns raised by Carter Burgess, the Developer has given no commitment regarding timelines for the subsequent phases of the

development that may ultimately provide more of the desired "urban, mixed-use" development set forth in the Project Objectives. As recently as September 11, 2007, the Developer could not provide a specific timeline for construction of these subsequent phases. (Oral statement by the Developer at the joint session of Planning, Design and Preservation Commission, September 11, 2007).

26-2 (con't.)

In summary, the DEIR's misleading and inaccurate Project Description contributes to the serious questions regarding whether the Proposed Project will consist of a truly mixed-use, urban village or rather a suburban-style Regional Shopping Mall anchored by big-box retail. It is impossible to have any "intelligent evaluation" about the Proposed Project until this deficiency is corrected. McQueen, supra, 202 Cal.App.3d at 1143.

b. Segmenting the Remediation Activity

The CEQA Guidelines require a "project" to include "the whole of the action . . ." CEQA Guidelines §15376. Put another way, an EIR's Project Description must not omit integral components of a project. Santiago County Water Dist. v. County of Orange (1981) 118 Cal.App.3d 818, 829. The DEIR's Project Description is flawed because it intentionally omitted the remediation activity at the Railyards site.

The Proposed Project's Notice of Preparation ("NOP") stated that the DEIR would include an analysis of the potential impacts of the remediation activity at the Railyard site, explaining in relevant part, "[T]he EIR will analyze potential impacts that may be associated with possible revisions to the approved Remediation Action Plans for contamination on the site and the related Tri-Party Memorandum of Understanding between the City, Department of Toxic Substances Control (DTSC) and UP Railyards." (Exhibit 1, Railyards NOP dated March 10, 2007).

26-3

In an abrupt change in position, however, the DEIR expressly refuses to consider the environmental impacts of the remediation effort on the site. On this issue the DEIR states:

> The Specific Plan Area is currently undergoing remediation of contaminated soils and groundwater. The remediation of the Specific Plan Area must proceed pursuant to Department of Toxic Substance Control's (DTSC) order irrespective of development of the Specific Plan Area. The remediation studies and plans have been subject to CEQA under the jurisdiction of the city of

> Sacramento and DTSC (see Appendix I). ***Because remediation of the Specific Plan Area as a project is independent of the Specific Plan, the environmental effects of remediation activities are not evaluated in this EIR.***

(DEIR, p. 1-2) (emphasis added).

Thus, contrary to the NOP, the DEIR does not include an analysis of the impacts of the remediation because it is "independent" of the Specific Plan.

This conclusion might be justified if the remediation effort were truly independent. But it is simply not accurate to assert that the remediation effort is "independent" from the Proposed Project because the remediation is actually being modified to accommodate the Proposed Project. In other words, the remediation and the development entitlement process are so intertwined that it is impossible to assert that one is "independent" from the other.

There is no question that the remediation effort has been modified to accommodate development changes brought about by the Proposed Project. As explained in the DEIR:

26-3 (con't.)

> The RAP [Remedial Action Plan] was modified again in 2003 to include grading and capping the northwest corner in place with an engineered cover overlain by asphalt-concrete on the top deck and vegetative soil on the side slopes. Subsequent to that amendment, remedial actions at the Railyards have progressed and ***future land uses evolved such that additional modifications to the amended RAP were warranted***. . .¶
>
> In response to concerns raised by the city of Sacramento and DTSC, the ***Vista Park cap design was changed in 2006, in part to facilitate the alignment of an extension of 6th Street*** through the specific Plan Area.

(DEIR, p. 6.5-12) (emphasis added).

The DTSC's "Explanation of Significant Differences" for this RAP modification further explains the reason for this change:

> The draft 2006 revised development plans for the Sacramento Railyard anticipate the proposed land use of the NW corner to be a 13-acre "open space", more specifically defined as a public park. A

> Health Risk Assessment Addendum (HRAA, May 2005) was performed to evaluate the more focused open space scenarios of potential adult and child park users.

(Exhibit 2, DTSC Explanation of Significant Differences, p. 4).

Recent correspondence from the Regional Water Quality Board further demonstrates that changes to development plans will affect the remediation. As stated in a letter dated June 8, 2007, "We understand that a new development plan has been completed which appears to have an impact on the design of the footprint and possibly on other features of the containment unit." (Exhibit 3, letter from Regional Board to DTSC dated June 8, 2007, p. 3).

In short, far from being "independent" as claimed in the DEIR, there is ample evidence demonstrating that the remediation effort is an essential component of the Proposed Project because it is being revised to accommodate the Project. These activities are intertwined, and anything but "independent." [4]

26-3 (con't.)

In fact, this was the position previously taken by the City with respect to the initial Railyards Specific Plan EIRs in 1993 and 1994. At that time, the City believed that the Railyards Specific Plan and the remediation of the Railyards site were the same project. As explained in the DEIR for the 1993 Railyards Specific Plan:

> The known and suspected presence of hazardous materials in the Railyards and Richards Areas presents the potential for exposure of future workers or residents to toxic contaminants. Although these impacts are considered significant for all of the Alternatives, ***the alternatives that contain substantial residential development, particularly in the Railyards Area, could be considered to present the greatest potential for long-term exposure effects.*** A program for mitigation of these impacts is presented that involves careful investigation and testing of soils

[4]Even if we assume, *arguendo*, the correctness of the DEIR's position that certain areas of the Railyards are subject to existing remediation plans and are therefore properly segmented from the Proposed Project, this analysis would not apply to other remediation areas that do not yet have approved Remediation Action Plans such as: (i) Central Shops, (ii) Manufactured Gas Plant; (iii) MGP Groundwater Plume; (iv) Central Shops/South Plume; (v) Lagoon Groundwater Study Area. (DEIR, p. 6.5-10). For these areas, there is no question that the subsequently prepared RAPs will be based on land uses derived from the Proposed Project.

> and groundwater, intricate ties between the remediation and development approval processes, and long-term oversight and monitoring of land use activities in the Planning Area.

(Exhibit 4, 1992 Railyards DEIR p. 1-23) (emphasis added).

The City reaffirmed the interconnectivity between the development plans and the remediation effort in its 1994 Supplemental EIR for the Railyards Specific Plan. The purpose of the Supplemental EIR was to "evaluate[] the environmental effects of the lead soil remediation alternatives described in the draft Feasibility Study prepared by Southern Pacific Transportation Company (SPTCo)." (Exhibit 5, 1994 SEIR p. 1-1). The City explained in that document why it was engaging in this supplemental analysis:

> Although the City does not have authority to approve or reject a lead remediation approach, ***it must examine the new information included in the Feasibility Study in connection with the land use approvals it expects to consider for the Railyards***. This DSEIR evaluates potential environmental impacts arising from the remediation approach recommended by SPTCo in the Feasibility Study as well as some of the Alternative Approaches included in that document. ***While the City will not select a remediation approach, it must consider whether any of the potential approaches would affect its land use decisions***.

26-3 (con't.)

(Exhibit 6, 1994 Railyards SEIR p. 5.1-1) (emphasis added).

Thus, in 1993 and 1994 the City believed that the remediation effort was so central to the development of the Railyards that the City prepared a Supplemental EIR to consider these various remediation approaches that "would affect its land use decisions." Id. The remediation effort appears to be anything but "independent" from the land use decisions.

We also note that the Proposed Project's "Required Discretionary Actions" includes "Approval of the revised tri-party memorandum of Understanding ("MOU") between DTSC, City of Sacramento, and the applicant." (DEIR, p. 1-7). This MOU was an express Mitigation Measure in the 1993 Railyards Specific Plan to mitigate for potential impacts resulting from the presence of hazardous materials and the remediation effort. [1992 DEIR, MM 4.13-1(d), MM4.13-6(e); MM4.13-10(g)]. It now defies logic to assert that the remediation is independent from the Proposed Project when one of the mitigation measures for the remediation effort, namely the MOU, is expressly identified as a component

of the Proposed Project.

In summary, the DEIR's assertion that the remediation effort is a separate, independent project is belied by both the facts and the law. Instead, the City's position asserted in the 1993 EIR, 1994 SEIR and 2006 NOP are correct in that any revisions to the remediation are components of the Proposed Project and should be analyzed as such. The DEIR must include an analysis, as plainly forecasted in the NOP, describing how any changes to the remediation effort may result in substantial impacts to the environment. It cannot be said on the basis of the information presented in this DEIR that no significant unavoidable impacts on proposed land uses will occur due to existing contamination, notwithstanding implementation of remediation plans designed for other uses in earlier plans. CEQA requires a full disclosure of this issue to both the City's decision-makers and the general public in order to satisfy its obligation as an informational document.

26-3 (con't.)

c. The Intermodal Transit Facility and its Acquisition

The DEIR's Project Description is deficient as an informational document because it impermissibly segments the City's acquisition of the Intermodal Transit Facility ("ITF") site.

The Proposed Project's NOP explains that the ITF is a component of the Proposed Project. As explained in that document:

> **PROJECT DESCRIPTION**
> The EIR will provide a programmatic evaluation of the "Railyards Specific Plan" and related entitlements pursuant to section 15168 of the CEQA Guidelines and the proposed Sacramento Intermodal Facility. . .

26-4

(Exhibit 1, p. 2).

Consistent with that position, the City in December 2006 approved a resolution authorizing a purchase and sale agreement with the Developer for the acquisition of the ITF site. According to the City's staff report dated December 5, 2006, the City's acquisition of the ITF site was a component of the Proposed Project. As plainly stated in that report:

> The Purchase and Sale Agreement and the Track Relocation Financing Agreement represent the first phase of the formal

> partnership between the City and S. Thomas Enterprises of Sacramento, LLC (Thomas) for development of the Downtown Sacramento Railyards. These agreements were requested by Thomas prior to their closing escrow and taking ownership of the Railyards property. . . ¶
> ***Approving these agreements creates the first phase of the public-private partnership necessary to develop the Railyards and the Intermodal facility.***

(Exhibit 7, City staff report dated December 5, 2006) (emphasis added).

In short, the Proposed Project includes both the Specific Plan and the ITF. And the City's purchase of the ITF site is the "first phase."

Recognizing that the City's acquisition of a portion of the ITF site was subject to CEQA, the City resolved to "conditionally" approve the acquisition subject to subsequent CEQA review. As explained in the staff report:

> An environmental impact report (EIR) is being prepared to evaluate the environmental impacts of the development, including the ITF. The EIR is estimated to be completed by the summer of 2007. . . ¶
> The acquisition of Parcel B will require additional City Council approval to take place in conjunction with, among other things, certification of the EIR.

(Exhibit 7, Staff Report Attachment 1).

26-4
(con't.)

But this subsequent CEQA review never occurred. The DEIR includes no description or analysis of the City's acquisition of the ITF. In fact, the DEIR's list of "Project Approvals and Entitlements" does not even give a reference to the City's acquisition of the ITF.

CEQA requires an EIR to analyze "the whole of the action." CEQA Guidelines §15378(a). Here, the whole of the action – as explained by the City as recently as eight months ago – includes the ITF and the City's acquisition of the ITF site. In fact, the City already approved the acquisition of the ITF in reliance on the fact that it would be analyzed in this DEIR. The failure to now even identify the City's approval of the ITF as a component of the Proposed Project is the hallmark of an impermissibly segmented EIR. The recirculated DEIR for the Proposed Project must analyze the City's acquisition of the ITF site.

d. Wholesale Changes to the Project

Even correcting the misleading and segmented project description described above may not cure the ultimate deficiencies in the DEIR's project description because the Proposed Project is presently undergoing "wholesale changes" that will apparently not be addressed in the DEIR. This will result in further misleading the general public and impede informed decision-making on the Proposed Project.

Even accounting for the improperly segmented analysis, the Proposed Project consists, in large part, of the City's adoption of a new Railyards Specific Plan. On this issue the DEIR explains, "The project proposes adoption and implementation of the proposed Railyards Specific Plan and approval of related entitlements." (DEIR, p. 1-1). The Specific Plan itself provides further explanation:

> The Specific Plan is the overarching policy document that guides development within the Railyards Plan Area, but it works together with three other documents that provide specific guidance on matters relating to urban design, development regulations and permitting: the *Railyards Design Guidelines,* the *Railyards Special Planning District Ordinance* (SPD) and the *Central Shops Historic District Ordinance.*

26-5

(Railyards Specific Plan, draft dated August 20, 2007, p. 1).

Yet it appears that the City is now proposing to make self described "wholesale changes" to the Proposed Project that will not be subjected to public or environmental review. On the evening of October 2, 2007 – the day before the close of the public comment period on the DEIR – City staff publicly revealed that both the Specific Plan (the "overarching policy document") and the *Design Guidelines* were undergoing "wholesale changes" that would be completed in "three weeks." (Oral statement by City Staff at Joint Session on October 2, 2007). Although not expressly describing the scope of these changes, the Developer and City staff explained that they were "going through the documents page by page" in order to make these "wholesale changes" to the documents.

Moreover, City staff further explained at the Joint Session that the SPD was still in draft form and not yet even available for public review. The only document concerning the SPD that was publicly available consisted of a single-

page flow chart identifying a proposed approval process for subsequent entitlements. (Exhibit 9). Even this single-page flowchart generated great concern by several commissioners at the Joint Session and will likely be substantially revised.

In summary, it appears that the underlying Project is being subjected to fundamental revision that will not even be completed until well after the public comment period on the DEIR. Yet there was no discussion regarding preparation or recirculation of a new DEIR for this revised project. Instead, City staff explained that the approval process would continue to move forward as initially proposed.

26-5 (con't.)

This result confounds CEQA's policy of promoting informed decision-making. "An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." County of Inyo, supra, 71 Cal.App.3d 199. Yet an accurate project description is impossible when the underlying Project is undergoing "wholesale changes" after the close of the public comment period. The only way to cure this fundamental defect is to revise and recirculate a new DEIR after the Developer and City agree on a new proposed project.

II. Failure to Properly Define the Type of this EIR

The deficiencies in the DEIR's project description are further exacerbated by the failure to identify the nature of the DEIR itself and how it will be used in connection with further entitlements within the Railyards Specific Plan area.

The Notice of Preparation ("NOP") for the Proposed Project addressed the type of the forthcoming EIR by explaining:

> Pursuant to CEQA Guidelines section 15168, the EIR is being prepared as a program level EIR for the "Railyards Specific Plan" and the Sacramento Intermodal Facility. . . It is also intended that the EIR will provide Project Level review of development in the Project level Area of The "Railyards Specific Plan."

(Exhibit 1, p. 1).

26-6

This strategy from the NOP was not carried forward into the DEIR. Instead of plainly explaining how the EIR would be used on a project or program level, the DEIR created for itself a new term, a "Specific Plan EIR," and

declined to squarely address the issue.

The DEIR asserts, "[U]se of a Specific Plan EIR to cover later activities is addressed in Public Resources Code section 21080.7 and CEQA Guidelines Sections [*sic*] 15168(c)." (DEIR p. 1-4). This statement is incorrect. First, Public Resources Code section 21080.7 does not exist. The term "Specific Plan EIR" does not exist in the Public Resources Code, or any of the California Codes. Moreover, the DEIR's reference to CEQA Guidelines section 15158(c) is incorrect because that regulation never mentions a "Specific Plan EIR." Instead, that regulation concerns "Program EIRs." CEQA Guidelines §15168(c). Accordingly, the DEIR's argument regarding "use of a Specific Plan EIR" has no legal support.

The ambiguity in the DEIR's description is significant. On one hand, the DEIR refers to CEQA Guidelines section 15168, which creates an impression that it is considered a Program EIR. On the other hand, the DEIR states that specific developments will not require additional CEQA review if the impacts are adequately analyzed in the DEIR. (DEIR, p. 1-4). Curiously, the DEIR never describes any of these subsequent entitlements that will be reviewed "in light of this EIR." (DEIR, p. 1-3). Additionally, the DEIR makes a point of stating that future development projects within the Specific Plan Area may not even require discretionary entitlements.

26-6 (con't.)

This concern was raised by several commissioners during the joint public hearing on September 11, 2007. They expressed concern that subsequent entitlements may be approved by Planning Staff without a public hearing, and without any input by the Design Commission, the Preservation Commission, the Planning Commission or the general public. This cursory approval process is generally indicative of a ministerial approval that may not even be subject to CEQA.

The location of the Railyards site makes this development too significant to simply "hand the keys over to the Developer" and hope that the Developer follows through on its promises. Indeed, the misleading Project Description contained in the DEIR provides some indication that this strategy could result in an undesired outcome. To prevent this, the DEIR must identify the future discretionary entitlements (if any) that will be issued for the Proposed Project and the associated scope of CEQA review for those entitlements. If, on the other hand, this DEIR represents the final opportunity for CEQA review – and, by extension, the final opportunity for public review – then this also must be made clear.

Following CEQA's full disclosure directives, a lead agency must clearly inform the public whether the EIR is a program or project EIR. If the EIR is a program EIR, then it needs to explain the subsequent discretionary entitlements and the associated CEQA review process for those entitlements. If the EIR is a project EIR, then it needs to be revised to set forth project-level detail and not improperly defer mitigation. By identifying itself as a "Specific Plan EIR" and not addressing the issue of whether it is a project or a program EIR, the DEIR fails to explain how the City's certification of this EIR relates to subsequent entitlements in the Railyards Specific Plan. This frustrates CEQA's goal of promoting informed decision-making.

26-6 (con't.)

III. Air Quality

A detailed review of the DEIR's treatment of air quality issues was performed by PCR Services Corporation ("PCR"). (Attachment D). PCR's technical review of the DEIR's treatment of air quality issues identified substantial deficiencies in the areas of Toxic Air Contaminants ("TAC") and Global Climate Change ("GCC"). PCR's comments are incorporated by this reference. (See Attachment D).

a. Toxic Air Contaminants

PCR conducted a review of the DEIR's analysis of TACs and identified numerous deficiencies. These deficiencies are briefly summarized herein:

(i) Inappropriately applying SMAQMD's screening methodology to arrive at an incorrect significance criteria of lifetime increased cancer risk of 446 per million (Attachment D, pp. 1-2);
(ii) Failure to disclose the assumptions made in the DEIR's analysis, namely the distance from residential land uses to Interstate-5 (Attachment D, p. 3);
(iii) Failure to perform an analysis that considers the potential effect on sensitive populations arising from exposure to multiple sources (mobile sources along I-5, rail operations and construction activities) (Attachment D, pp. 4-5).

26-7

According to PCR, "Given the complex spatial and temporal nature of TAC emissions from the freeway, rail operations, and on-going construction in the Specific Plan Area, it is suggested that a detailed refined [health risk assessment] be performed to better quantify the compounding risks."

(Attachment D, p. 4). Applicable SMAQMD guidance dictates that a refined analysis is most appropriate to quantify the risks resulting from the Proposed Project. The results of this comprehensive HRA need to be disclosed under CEQA; therefore the "Draft EIR should be re-drafted and recirculated." (Attachment D, p. 5).

26-7 (con't.)

The DEIR's analysis of TACs must be fundamentally revised to properly disclose the Proposed Project's potentially serious health risk impacts to future residents, visitors and patrons of the Proposed Property and identify feasible mitigation measures for any potentially significant health risks.

b. Global Climate Change

PCR reviewed the DEIR's treatment of the GCC issue. (Attachment D, p. 5). According to PCR, "The Draft EIR errs in its assertion that Global Climate Change (GCC) should not be addressed in the Impacts Analysis." Id.

The DEIR expressly refuses to consider the Proposed Project's impacts to GCC. In a section entitled "**Issues Not Addressed in the Impacts Analysis**" the DEIR provides:

> 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.

26-8

(DEIR, p. 6.1-17).

This refusal to analyze the GCC issue is not allowed under CEQA. According to the CEQA Guidelines, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact." CEQA Guidelines §15145. Here, by contrast, the City terminates its analysis of the GCC issue without any investigation. Even though it is feasible to do so, the DEIR does not include a quantitative analysis of the Proposed Project's Greenhouse Gas ("GHG") Emissions. Nor does the DEIR even include a qualitative discussion of the Proposed Project's impacts to GHG Emissions. Far from conducting a "thorough investigation," the DEIR expressly refuses to conduct any discussion of the impact.

In short, the DEIR fails to proceed in a matter required by law because it

is required to at least provide a "thorough investigation" of the GCC issue before ultimately concluding that it may be too speculative to determine whether impacts are significant. CEQA Guidelines §15145.

26-8 (con't.)

IV. Archaeological Resources

PCR reviewed the DEIR's analysis of archaeological impacts resulting from the Proposed Project. PCR identified several deficiencies in the DEIR's analysis that are incorporated by this reference. (Attachment D, pp. 6-7).

Most significantly, it appears that the DEIR's deficient explanation of whether it is a project or program EIR has resulted in an incomplete analysis of archaeological resources. As explained by PCR, the DEIR's technical report on archaeological resources, contained in Appendix G to the EIR, included only the Proposed Project's "Initial Phase Area" within the geographic scope of review. (Attachment D, p. 6). Consequently, the technical report identified "Archaeologically Sensitive Areas" only within the "Initial Phase Area." (Attachment D, pp. 6-7).

26-9

While the technical report only addressed the "Initial Phase Area," the DEIR's analysis of archaeological impacts expressly includes the entire Specific Plan Area. [DEIR, p. 6.3-47 ("The Proposed Project could cause a substantial adverse change in the significance of an archaeological resource . . .")]. Consequently, the associated Mitigation Measure (6.3-1) also addresses the entire Specific Plan Area. While this mitigation measure is intended to cover the entire Specific Plan Area, this measure only requires testing and monitoring in "Archaeologically Sensitive Areas," which in turn are located in the smaller "Initial Phase Area."

The DEIR states, "A more detailed analysis was prepared for the area within the Initial Phase . . ." (DEIR, p. 6.3-46), but never explains why the Proposed Project's mitigation measure is not similarly limited, or when the necessary archaeological study will be conducted for the balance of the Special Plan Area. The result of this disjointed review of archaeological resources was explained by PCR:

> There is potential for archaeologically sensitive areas to not have been appropriately studied, defined, or mitigated. Thus, significant archaeological resources within the Specific Plan Area may remain unidentified and undisclosed.

(Attachment D, p. 7).

This defect can be corrected when the DEIR is recirculated and clarifies whether it is a project or program EIR. If a project EIR, then the technical study must include "a more detailed analysis" for *all* portions of the project site. If a program EIR, the recirculated DEIR will explain when the subsequent archaeological review will occur and not incorrectly extend mitigation measures intended for an "Initial Phase Area" into the entire Special Plan Area.

26-9 (con't.)

V. Transportation and Circulation

VRPA Technologies, Inc. ("VRPA") conducted a detailed peer review of the DEIR's analysis of traffic and circulation issues. VRPA's detailed comments are attached and incorporated by this reference. (Attachment E).

a. Impermissibly Narrow Traffic Study

VRPA reviewed the geographic scope of the DEIR's traffic study and found that it did not utilize any objective methodology to define the proper scope of study. Instead, it appears that the study intersections and road segments were subjectively selected during a meeting of the City and the traffic consultant. (Attachment E, p. 1). This subjective methodology was employed notwithstanding the fact that the City publishes an objective methodology for identifying study intersections and road segments. (Attachment E, p. 2).

26-10

According to VRPA, the failure to utilize an objective methodology for identifying the study area may result in significant traffic impacts remaining undisclosed. (Attachment E, p. 1).

To correct this deficiency, the traffic study must be expanded to include "all intersections that will attract 100 or more peak hour trips based upon the select zone analysis using the regional traffic model." (Attachment E, p. 2).

b. Unsupported Trip Generation Adjustments

The DEIR's traffic study estimated approximately 25% trip adjustment attributable to transit, walk, bike and other modes including the light rail. According to VRPA, this trip adjustment is not supportable as it relates to retail uses and should either "be eliminated or reduced significantly." (Attachment E, p. 4).

26-11

As explained by VRPA, the DEIR cannot have it both ways with respect to

transit use. If the DEIR relies on unusually high pedestrian, bicycle and transit rates to predict lower vehicle trips for the proposed project, then the DEIR must propose enforceable mitigation measures to ensure that these alternate modes are actually utilized as predicted. Moreover, the DEIR must also include an analysis of the impact of these increased transit trips on the alternate transit facilities. (Attachment E, pp. 6-7).

26-11 (con't.)

c. Inadequate Discussion of "Fair Share" Mitigation Measures

Several mitigation measures for traffic impacts (Mitigation Measures 6.12-1(a), (b), (c), (d), (e), (f), (g), (j), (l), (m), (n), (o), (p), (q), 6.12-6, 6.12-10(b), (c), (d), (f), (g), (j), (k), (l), (m), (n), (o), (p), (q), (r), (s), (t), (u), (v), 6.12-16(a), (b), (c), (d), (f), (g), (h), (i), (j), (m), (n), (o), (p), (q), (s), (t), (u), (v), (w), (x), (y), (z), (aa), (bb), (cc)] rely on "fair share" impact fee payments for identified traffic improvements. The DEIR's analysis of these "fair share" impact fee mitigation measures is inadequate.

The payment of a "fair share" impact fees may constitute adequate mitigation if they "are part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing." Anderson First Coalition v. City of Anderson (2005) 130 Cal.App.4th 1173. The payment of a "fair share" impact fee is not adequate mitigation, however, when there is no evidence that the payment of the fee will actually result in mitigation of a project's significant environmental impacts. The Anderson First decision identified the information that is required in an EIR to establish the adequacy of a "fair share" impact fee mitigation measure. The required elements from the Anderson First decision include:

26-12

(i) An identification of the required improvement;
(ii) An estimate of the cost of the required improvement;
(iii) Sufficient information to determine how much the project would pay towards the improvement;
(iv) The fees must be part of a reasonable, enforceable plan or program sufficiently tied to the actual mitigation of the impacts at issue:
  (a) Required in, incorporated into the project;
  (b) Fully enforceable through permit conditions, agreements, or other measures; and
  (c) The agency must adopt a monitoring program to ensure that the mitigation measures are implemented.

Anderson First, supra, 130 Cal.App.4th at 1188-89.

Here, the DEIR falls well short of providing this information regarding the improvements identified in these above mitigation measures. Instead, the DEIR simply identifies the proposed improvement and states that the "project applicant shall pay a fair share . . ." (DEIR, p. 6.12-100). No cost of the improvement is provided. No formula to actually determine the "fair share" contribution is provided. The amount of the "fair share" is not provided. There is no explanation how these "fair share" fees are tied to an enforceable plan or program that will ultimately result in the proposed improvement.

For a few of these mitigation measures the DEIR explains, "The City has included the cost of this improvement in its approved Richard Boulevard Area Plan and Facility Element and the project applicant shall provide 'fair share' funding for this improvement through payment of traffic impacts fees in accordance with the Railyards Financing Plan." (DEIR, p. 6.12-101). The failure in this analysis, however, is that the "Railyards Financing Plan" was not provided with the DEIR.[5] While a "Sacramento Railyards – Financing and Maintenance of Public Facility Improvements Summary" was included as Attachment P to the DEIR, this summary document provides none of the requisite detail.

26-12 (con't.)

In summary, the DEIR's discussion of the "fair share" mitigation measures is inadequate under CEQA because the DEIR fails to establish that the payment of the "fair share" impact fee will actually result in the identified improvements.

VI. Public Services

A technical review of the DEIR's treatment of public services was performed jointly by the firms HR&A Advisors, Inc. and Whitney & Whitney, Inc. (jointly referred to as "HR&A"). HR&A's comments on the DEIR are included as Attachment A.

26-13

a. Inadequate Analysis of Parks and Open Space

HR&A conducted a technical review of the DEIR's treatment of impacts to Parks and Open Space. HR&A found: (i) the DEIR understated the demand for

[5]It appears that the "Railyards Financing Plan" did not even exist when the DEIR was circulated for comment. Correspondence with City staff during the public comment period indicated that the Financing Plan had a target release date of the end of September.

Parks and Open Space created by the Proposed Project, and (ii) the DEIR relied on inappropriate deferred mitigation to mitigate the Proposed Project's impacts to Parks and Open Space. (Attachment A, pp. 2-3).

Regarding the demand for Parks and Open Space, HR&A found that the DEIR's analysis relied on a point estimate of 1.76 persons per household, which was inconsistent with other sections of the DEIR that utilized 2.1 persons per residence. (Attachment A, p. 2). This inconsistency is indicative of an impermissibly unstable project description and understates the demand for parks and open space.

Regarding mitigation for these impacts to parks and open space, HR&A found that the DEIR did not rely on the existing City standard of 5 acres of neighborhood and community parks and open space for every 1,000 residents. (Attachment A, p. 3). The DEIR's position that the 5 acre standard is inapplicable to "urban" developments is not supported by any substantial evidence. Moreover, the position is particularly suspect in light of the fact that this same standard was satisfied in the prior Railyards Specific Plan from 1993. (Exhibit 8, 1993 Railyards DEIR, p. 1-26). The Proposed Project should be required to comply with applicable, long-standing City standards. 26-13 (con't.)

Even if we assume that a new standard should apply, it constitutes impermissible deferred mitigation for the developer and the City to simply agree on a new standard at a later date. The DEIR should have identified, explained, and supported the new standard with substantial evidence.

b. Inadequate Analysis of Fire and Police Services

The HR&A also conducted a technical review of the DEIR's analysis of impacts to police and fire services. (Attachment A, pp. 4-5).

The DEIR found that the Proposed Project's impact to police service was less than significant without the need for any mitigation measures. (Impact 6.10-1). The stated threshold of significance for this impact was whether "[t]he project requires, or results in, the construction of new, or the expansion of existing, facilities related to the provision of police protection." (DEIR, p. 6.101-6). The DEIR expressly found this to be the case by stating, "[A] new facility would be needed to maintain public safety within the Specific Plan Area." (DEIR, p. 6.10-9). In other words, the DEIR's conclusion of less-than-significant impact is directly contradicted by its own analysis. 26-14

In an apparent effort to avoid consideration of feasible mitigation measures, the DEIR provides an analysis of how the project will incorporate features to reduce this impact. However, as explained by HR&A, the DEIR's analysis of impacts to police services leaves many unanswered questions regarding the feasibility of the proposed mitigating project components and the environmental impacts associated with constructing the new police substation. According to the HR&A report:

> The Project includes two potential locations for a new police substation on the ground floor of a multi-story, mixed use building.[6] But the Draft EIR does not include any estimates or evidence of financial commitments for the capital cost of acquiring or constructing a new police station, nor the costs for personnel and station equipment, staffing, or vehicles. The DEIR also fails to address whether the ground floor space allocated for a substation is large enough to accommodate all 90.5 staff and support space required to mitigate Project impacts, and how specialized space requirements such as detention facilities can be accommodated in a multi-story mixed-use building that is shared with private sector uses.
>
> Finally, the DEIR never quantifies the city revenues generated by the Project, which would demonstrate whether there is any reasonable possibility for the Specific Plan to generate the revenue required to fund a new police station and its associated equipment and staffing costs. In this regard, the fact that the Project is in a Redevelopment Project Area means that property tax revenue generated by the Project would only be available to assist with capital costs, and would not be available for equipment or staffing costs.

(Attachment A, p. 4).

26-14 (con't.)

In summary, the DEIR's finding of less-than-significant impact without any required mitigation measures is not just lacking substantial evidence; rather it is directly contradicted by its own analysis. Additionally, the DEIR's description of the mitigating project components are impermissibly vague and, even if enforceable, constitute deferred mitigation. Moreover, the mitigating project components themselves raise potentially significant impacts that must be addressed more fully in the DEIR. Finally, as serious questions exist

[6](DEIR, p. 6.10-9).

whether constructing, staffing and operating a police sub-station are even feasible in light of the funding questions, the DEIR must identify other feasible mitigation measures for this significant impact.

The DEIR's analysis of fire service impacts suffers from the same deficiency. The relevant threshold of significant asks whether "[t]he project requires, or results in, the construction of new, or the expansion of existing, facilities related to the provision of fire protection." (DEIR, p. 6.10-18). As with police service, this question is answered in the affirmative: "[C]onstruction of the proposed project would require that a fire station be built to serve the proposed project," and yet the DEIR ultimately concludes that the impact is less-than-significant without any required mitigation measures. (DEIR, p. 6.10-19). The DEIR's finding of less-than-significant impact is again directly contradicted by its own analysis.

HR&A also concluded that the DEIR's analysis of fire services suffers from the same deficiencies. According to the HR&A report:

> Using a service standard of one fire station per 20,000 residents, the DEIR concludes that the Project population will require one new fire station, including one engine company, one truck company, one paramedic unit and a battalion chief quarters. This includes 10 staff/shift over three shifts, or a total of 30 staff.
>
> Here again, the DEIR notes that the Project includes two potential locations for a new fire station on the ground floor of a multi-story, mixed-use building. But the DEIR lacks any estimates for the capital cost of acquiring and constructing a new fire station, or the costs for personnel and station equipment, staffing, or vehicles. The DEIR also fails to address whether the ground floor space allocated for substation is large enough and otherwise suitable to accommodate all the staff and required support space and vehicles required to mitigate Project impacts.
>
> As in the case of the police services analysis, the DEIR never quantifies the city revenues generated by the Project, which would demonstrate whether there is any reasonable possibility for the Specific Plan to generate the revenue required for a fire station and its associated equipment and staffing, plus the requirements for a new police station. Once again, the fact that the Project is in a Redevelopment Project Area means that property tax revenue

26-14 (con't.)

generated by the Project would only be available to assist with capital costs, but would not be available for equipment or staffing.

(Attachment A, p. 5).

As with the analysis of police service, the DEIR's conclusion regarding less-than-significant impacts to fire service is directly contradicted by its own analysis. Additionally, the mitigating project components described in the DEIR are impermissibly vague, constitute deferred mitigation, and raise potentially significant impacts that must be addressed more fully in the DEIR. As serious questions exist whether these mitigating project components are even feasible in light of the funding questions, the DEIR must identify feasible mitigation measures for this significant impact. 26-14 (con't.)

VII. Urban Decay Analysis

HR&A conducted a review of the DEIR's analysis of urban decay. HR&A's comments are attached herein and incorporated by this reference. (Attachment A, pp. 5-8).

As described in section I(a) of this comment letter above, the Proposed Project's first phase will be dominated by the development of a Regional Shopping Mall that includes approximately 1.1 million square feet of retail anchored by a 200,000 square foot big-box retail tenant. The anticipated full build-out of 1.5 million square feet would "nearly double the amount of existing retail space currently existing in the four concentrated locations within Downtown Sacramento." (DEIR, Appendix N. p. 14). CEQA requires the DEIR to include an analysis of whether this massive amount of new retail will contribute to "urban decay." 26-15

CEQA requires an EIR to identify both direct and indirect significant effects on the environment from a project. CEQA Guidelines §15126.2(a). It is well settled that these indirect effects include physical deterioration of existing business areas due to economic pressure from a proposed project. Citizens for Quality Growth v. City of Mt. Shasta (1988) 198 Cal.App.3d 433, 445; Bakersfield Citizens for Local Control v. City of Bakersfield (2004) 124 Cal.App.4th 184, 1215.

The DEIR's analysis of urban decay is contained in Section 7.0. This information is based on a technical study contained by Keyser Marston Associates ("KMA Report"). The KMA Report, and by extension the DEIR's

analysis of urban decay, suffers from several deficiencies. As described more fully below, the DEIR fails to proceed in a manner required by law because it declines to make any significance determinations regarding urban decay impacts. Finally, neither the KMA Report nor the DEIR actually perform an analysis of urban decay. The result of these deficiencies is a DEIR that completely ignores its duty to disclose potentially significant impacts of urban decay.

26-15 (con't.)

a. Significant Near-Term Economic Impacts

The KMA Report plainly identifies a near-term oversupply of retail and dining space. Thus, the DEIR's own technical report concludes that the Proposed Project will exacerbate the imbalance between retail supply and demand in 2015. (DEIR, Appendix N, p. 28). This imbalance, according to the KMA Report, "will likely have a negative impact on existing, under-construction and planned retail in the trade area." Id.

26-16

b. No Significance Determinations

Even though the DEIR's own technical report explained that the Proposed Project's significant retail component will exacerbate a negative impact on existing retail in the trade area, the DEIR never concludes whether the Proposed Project's impact on urban decay is significant. As explained by HR&A:

> Appendix N concludes that the proposed supply of new retail space in the Project and other foreseeable retail projects would significantly exceed demand for comparison retail in the relevant market areas by 2015. However, the analysis never takes the necessary next steps to determine whether this significant oversupply in 2015, and the continuation of this oversupply condition until at least 2025, could reasonably be expected to result in "urban decay" in any or all of the four major retail centers or retail concentrations that the report identifies . . ..

(Attachment A, p. 5.)

26-17

CEQA requires the DEIR to identify whether the impact on urban decay is significant. One of the primary purposes of an EIR is to "identify the significant effects on the environment of a project." Pub. Resources Code §21002.1(a). This is necessary to effectuate another primary purpose to

"indicate the manner in which those significant effects can be mitigated or avoided." Id. The DEIR frustrates both of these stated CEQA purposes by failing to identify whether the Proposed Project's impacts on urban decay are significant.

On this issue the Anderson First decision is instructive. According to that case, "Here, as we have seen, City's EIR did consider the issue of the Project's impact on urban decay on the CBD, and ***concluded that the impact was less than significant***." Id. at 1185 (emphasis added). The same cannot be said here because the DEIR failed to determine whether the impact from urban decay is significant or less than significant. 26-17 (con't.)

The DEIR's failure to make a significance determination of urban decay constitutes a failure to proceed in a manner required by law.

c. No Analysis of Urban Decay

While the KMA Report identifies itself as an "Urban Decay Assessment," quite the contrary is true because it lacks an analysis of the actual elements of the urban decay issue.

As an initial matter, the KMA Report acknowledges that no objective methodology was employed to identify the proper scope of the urban decay assessment. The KMA Report explains:

> KMA was retained by PBS&J and the City of Sacramento to evaluate the economic conditions of the Sacramento and to assess whether the development of the proposed Railyards project might create impacts severe and substantial enough to result in urban decay in existing retail concentrations considered most vulnerable to negative impact. ***These vulnerable areas were agreed*** with the City and PBS&J to be the Downtown . . .

(DEIR Appendix N, p. 1) (emphasis added). 26-18

As with the DEIR's improperly-scoped traffic study, the failure to utilize any recognized methodology for identifying the scope of analysis means that there may be urban decay impacts from the Proposed Project in other areas that will be completely undisclosed.

Even if the KMA Report were correctly scoped, the analysis would remain

deficient for the fact that it simply does not analyze urban decay. The KMA Report correctly notes that urban decay is "the closure of retail and other stores in the surrounding area as a result of market competition and disinvestment – leaving decaying building shells in a state of sustained vacancy, long-term abandonment, repeated property damage, and/or deteriorated conditions that significantly impair the proper and safe use of the real estate." (DEIR, Appendix N. p. 1). While noting these elements, the KMA Report never actually conducts an analysis of: (i) closure of stores; (ii) vacancy; (iii) long-term abandonment; (iv) disinvestment; (v) decaying buildings and repeated property damages.

In fact, the KMA Report makes no attempt to conduct a site-specific analysis of urban decay – even for the four areas that were identified as vulnerable. As explained by HR&A:

> Appropriate analysis would require, at minimum: (1) an assessment of the vulnerability of anchor stores, or other concentrations of key retail uses (e.g., restaurants), in each retail center that is potentially affected by adverse market conditions caused by the Project; (2) a determination about whether those anchors or use concentrations are likely to fail; (3) if anchors or other use concentrations are likely to fail, an assessment of the potential for those uses to be replaced by other anchors or retail concentrations; and (4) if no such replacement is likely, the potential for the failed anchors to cause an economic ripple effect in those center and any adjacent retail areas . . .

(Attachment A, p. 6).

This is not a case simply of competing expert opinion. A recent court of appeal decision clarified that an adequate assessment of urban decay requires site-specific analyses of the factors leading to urban decay. Gilroy Citizens for Responsible Planning v. City of Gilroy (2006) 140 Cal.App.4th 911, 932-33. And yet these factors were ignored in the KMA Report and DEIR.

In short, it is not sufficient to simply conduct an economic analysis and re-characterize it as an urban decay analysis. The DEIR must examine how the identified potential economic impacts from the Proposed Project may lead to urban decay in an analysis that actually considers site-specific factors contributing to urban decay.

26-18 (con't.)

VIII. Urban Design and Visual Resources

PCR conducted a review of the DEIR's analysis of impacts to urban design and visual resources. (Attachment D, pp. 7-8). The DEIR's analysis concludes that the visual impacts of "large-floor plate and high-rise buildings" are less than significant without any need for mitigation measures. (Impacts 6.13-1, 6.13-2). PCR found that the DEIR's significance determinations were arbitrary, conclusory and not supported by substantial evidence. PCR explains:

> In both cases, a conclusion of less than significant is reached, yet there is no real analysis to demonstrate that such impacts would indeed be less than significant. For example, the generalized height diagram in the EIR indicates that buildings with heights up to 450 feet would be located between the I-5 and the river. Yet there are no visual renderings, sections or elevations that demonstrate that views of the river from I-5 would not be obstructed. Such graphics are typically included within EIRs, particularly when high-rise buildings are proposed adjacent to known visual resources. The need for this analysis is underscored by the project's conversion of some 240 acres of largely open land directly adjoining the urban core of the Sacramento Metropolitan Area wherein most of the land will be subject to "unrestricted" building heights.

(Attachment D, p. 8).

26-19

In other words, the DEIR's determination of less-than-significant impacts is based on the presumption of new development to be constructed in compliance with municipal goals and policies. Yet the DEIR provides no factual and analytical support for this conclusion. If an EIR concludes that an impact is not significant, the EIR should explain the basis for its conclusion. Protect the Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th 1099, 1111. A bare conclusion unsupported by a factual and analytical basis is not a sufficient analysis. Laurel Heights Improvement Ass'n v. Regents of the Univ. of Cal. (1988) 47 Cal.3d 376, 404.

Indeed, other conclusions in the DEIR's analysis of visual resources actually contradict the DEIR's significance determinations regarding Impacts 6.13-1 and 6.13-2. As explained by PCR:

> [W]ith regard to impact hypotheses 6.13-3 and 6.13-4 regarding program potential to create new sources of nighttime light and glare, respectively, it is concluded that the same development program with the same mass, height and distribution will have potentially significant impacts prior to mitigation. ***How could such a development program causing such complete visual transition in a large downtown environment have significant impact at night or in reflection, but not in plain sight during daylight?***

(Attachment D, p. 8) (emphasis added).

In addition to being internally inconsistent, the DEIR's bare conclusions regarding the less-than-significant visual impact of large-floor plate and high-rise buildings also ignore repeated concerns raised by City officials. On July 25, 2006, the City Council expressed concern that the size of the proposed high-rise buildings in the Riverfront District was "not appropriate." This concern was apparently not subsequently addressed by the Developer because the same issue was again raised by several Commissioners during the recent Joint Session on September 11, 2007. In light of these repeatedly expressed concerns by City officials, the DEIR must do more than make bare conclusions about the Proposed Project's impacts created by the large-floor plate and high-rise buildings.

26-19 (con't.)

IX. Hazards and Hazardous Substances

Section I(b) of this comment letter describes how the DEIR improperly segmented its analysis of the remediation effort on the property formerly owned by the Railroad. In addition to these contaminated parcels, the Proposed Project includes a parcel that is currently owned by the California Department of Parks and Recreation. This parcel is identified in the DEIR is the "Riverfront District Area."

The DEIR explains that the Riverfront District Area may also be a contaminated property. (DEIR, p. 6.5-13). A Phase I site assessment was performed for the parcel that recommended both a Phase II site assessment and a geophysical survey. Rather than conduct these recommended studies so that the nature and extent of the property's contamination is properly disclosed to the decision-makers and general public, the DEIR includes the performance of these studies as a mitigation measure (Mitigation Measure 6.5-9) with the limitation that "the site shall not be developed until the site is remediated to levels that would be protective of the most sensitive population for the planned

26-20

use." (DEIR, p. 6.5-39).

This mitigation measure constitutes impermissible deferred mitigation. Deferral of mitigation is appropriate where the local agency commits itself to mitigation and lists the alternatives to be considered, analyzed and possibly incorporated into the mitigation plan. See Defend the Bay v. City of Irvine (2004) 119 Cal.App.4th 1261, 1275. However, an agency goes too far when it simply requires an applicant to obtain a report and comply with any recommendations. Id. Here, the mitigation measure does require compliance with regulatory law in the remediation of the site and not just implementation of some "recommendations," the efficacy of which has never been evaluated through public review. However, it is unclear what laws and regulations apply and how they would reduce potential impacts to less than significant levels. This approach runs contrary to CEQA's information disclosure requirement.

26-20 (con't.)

X. Unenforceable Mitigation Measures

CEQA requires an EIR to describe feasible mitigation measures for a project's significant environmental impacts. CEQA Guidelines §15126.4(a)(1). These mitigation measures include those proposed by the project applicant as well as those proposed by the lead agency or other agencies. CEQA Guidelines § 15126.4(a)(1)(A). Finally, these mitigation measures must be "fully enforceable through permit conditions, agreements, or other legally binding instruments." CEQA Guidelines §15126.4(a)(2). While it is true that mitigation measures may be "incorporated into the plan, policy, regulation, or project design," this does not obviate the requirements to (i) analyze all feasible measures and (ii) make them fully enforceable. CEQA Guidelines §15126.4(a)(2).

26-21

Here, the DEIR is deficient because numerous feasible mitigation measures are not analyzed for their feasibility and made fully enforceable as required by CEQA. Instead, these measures are characterized as design features of the Proposed Project with highly questionable enforceability. The enforceability is suspect because the Proposed Project's underlying project documents are so vague that it is impossible for the public to know how these design features, or "mitigating project components," will actually be implemented or enforced.

One specific example of this deficiency is the DEIR's treatment of storm water runoff. Impacts 6.6-2 and 6.11-1 correctly identify increased storm water flows as an impact associated with the Proposed Project. The DEIR

explains that the construction of a 27 acre-foot "cistern" will mitigate these increased storm water flows. (DEIR pp. 6.6-21, 6.10-11). However, the construction and operation of this cistern is considered a component of the Proposed Project and not a mitigation measure. The result is that the DEIR never demonstrates to the public how the construction of the cistern will be enforced. To the contrary, the DEIR actually concedes the failure of any enforcement mechanism by stating that "the timing for building the cistern and outfall to the Sacramento River has not been identified" and that the Proposed Project may indeed be constructed and operated without this critical component. (DEIR p. 6.11-10).

This result is a violation of CEQA. The CEQA Guidelines make clear that mitigation measures include those activities proposed both by the lead agency and the project applicant. CEQA Guidelines §15126.4(a)(1)(A). The lead agency may not avoid its obligation under CEQA to consider the feasibility of all mitigation measures – and enforce all feasible mitigation measures - by simply re-characterizing such measures as components of the project.

In order to comply with CEQA, a recirculated DEIR will need to properly identify the construction of the "cistern" as a feasible mitigation measure. The DEIR will also need to consider whether the mitigation measure is improperly deferred[7] and whether it is feasible to require construction of the "cistern" prior to operation of the Proposed Project.[8]

26-21 (con't.)

This strategy of converting mitigation measures into mitigating project components is by no means limited to construction of the "cistern." The DEIR includes numerous examples of using these "mitigating project components" as a means of avoiding enforcement of feasible mitigation measures. [See analysis of Impacts 6.2-4 ("renewal" of presently expired incidental take permit for removal of elderberry shrubs); 6.2-12 ("preparation of a mitigation plan" to mitigate for loss of 0.5 acres of riparian vegetation); 6.4-7 (excavating, remediating and re-engineering soil, and de-watering excavations, to mitigate for unstable geologic units and soils); 6.6-1 (submission of an NOI and preparation of a SWPPP to mitigate for construction-related water quality impacts); 6.8-2 (compliance with Title 24 noise standards to reduce permanent

[7]Although the "cistern" is defined as a critical infrastructure component to the Proposed Project, the DEIR explains, "[T]he proposed cistern design has not been completed and the CVRWQCB has not approved of the discharge from the cistern." (DEIR pp. 6.6-21 through 22).

[8]This DEIR, by contrast provides no estimate of when the "cistern" will be constructed; and yet offers no explanation as to why it is infeasible for the "cistern" to be designed and constructed prior to operation of the Proposed Project.

traffic and rail noise); 6.10-1 (construction and staffing a new police sub-station); 6.10-3 (construction and staffing a new fire station); 6.11-6 (construction of new on-site water supply facilities); 6.14-1 (construction of two new electrical substations).]

These mitigating project components are not included in the DEIR's Table 2-1 (Summary of Impacts and Mitigation Measures), and therefore there is little if any likelihood that they will be included in the Proposed Project's Mitigation Monitoring and Reporting Program. While it is true that some of the measures may be included in the "Draft Specific Plan" that was posted on the City's website (and not circulated with the DEIR itself), this is no guarantee that they will ultimately be enforced measures in the "Final" Specific Plan. Consequently, the public has no way of knowing whether these mitigating project components will actually be implemented as part of the Proposed Project.

26-21 (con't.)

XI. Hydrology and Water Quality

As briefly explained above, the Proposed Project relies on the construction of a 27 acre-foot "cistern" to mitigate for its impacts on storm water discharge. Section X of this comment letter explains how the re-characterization of this mitigation measure as a component of the project leads to unenforceable mitigation. [DEIR, p. 6.11-10 ("the timing for building the cistern and outfall to the Sacramento River has not been identified")]. Even if this re-characterization were allowed, however, additional deficiencies exist concerning the Proposed Project's use of this "cistern."

Carter Burgess' engineering group reviewed the DEIR's information regarding the proposed "cistern." (Attachment C). According to Carter Burgess, several concerns are raised regarding the DEIR's analysis and reliance on the "cistern" as a mitigating project component. These comments are incorporated by this reference. (Attachment C). In summary, it appears that that the design of the "cistern" is far from final such that it is impossible to evaluate it effectiveness.

26-22

In light of the fact that the "cistern" is a fundamental infrastructure improvement for the entire Proposed Project, it is not permissible under CEQA to simply defer adequate formulation of this mitigation measure to a later stage of the development process. CEQA Guidelines §15152(b). Instead, an issue is ripe for evaluation in an EIR when it is a reasonably foreseeable consequence of approval and there exists "sufficient reliable data to permit preparation of a

meaningful and accurate report on the impact." Los Angeles Unified Sch. Dist. v. City of Los Angeles (1997) 58 Cal.App.4th 1019, 1028. There is no explanation in the DEIR why insufficient information exists to design the "cistern." In the absence of such an explanation, CEQA requires the DEIR include a proposed design for the "cistern" in order to (i) disclose whether it may actually address the storm water impacts from the Proposed Project, and (ii) determine whether the construction of the "cistern" itself will result in environmental impacts that will also need to be analyzed. CEQA Guidelines § 15126.4(a)(1)(D) (EIR must include analysis of mitigation measures of a proposed project).

The DEIR must be revised to include design information for the "cistern." Moreover, as operation of the "cistern" is necessary to mitigate storm water impacts from the Proposed Project, actual construction and operation of the "cistern" should be included as an enforceable mitigation measure before any building permit is issued for the Proposed Project.

26-22 (con't.)

Having already established that construction of the cistern is a necessary mitigation measure for the Proposed Project, we only briefly address the DEIR's current mitigation measures that assume construction of the "cistern" will not be completed prior to operation of the Proposed Project.

Mitigation Measure 6.6-2 provides that the Proposed Project "shall limit discharged to the Sacramento River." (DEIR, p. 6.6-22). This mitigation measure is facially defective as it is impermissibly vague and therefore unenforceable. Stanislaus Natural Heritage Project v. County of Stanislaus (1996) 48 Cal.App.4th 182, 195.

Mitigation Measure 6.11-2 is similarly based on the failure to construct the "cistern," and proposes to "limit development of the proposed project" until the "cistern" is constructed. (DEIR, p. 6.11-12). This mitigation measure violates the California Supreme Court's ruling in Vineyard Citizens, which struck down a mitigation measure limiting future development based on inadequate water supply.[9] 40 Cal.4th 412.

XII. Water Supply Analysis

CEQA requires analysis of the environmental impacts associated with

26-23

[9]While Vineyard Citizens concerned inadequate water supply, there is no reason to believe that the court's analysis would not equally apply to an attempt to limit development based on inadequate storm water capacity.

supplying water to a project. The recent California Supreme Court case of Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412 sets forth the legal requirements with respect to CEQA's role in the analysis of water supply for a particular project. These requirements include the following:

- For a large, multi-phased project, the CEQA analysis must assume that all phases of the project will eventually be built and will need water. An EIR must analyze, to the extent reasonably possible, the impacts of providing water to the entire project. Tiering cannot be used to defer analysis of water supplies to serve later project phases.
- The EIR may not assume that a solution to potential water supply issues will be found. Instead, uncertainties regarding water supplies must be fully examined in order to satisfy CEQA's informational purposes.
- Long-term water supplies must bear a ***likelihood of actually proving available*** and the EIR must discuss the circumstances affecting the likelihood of the water's availability. A reasonable probability of accessing a source of "wet water" must be shown.
- If it is impossible to reasonably determine that anticipated future water sources will be available, CEQA requires some discussion of possible replacement sources or alternatives to use of the anticipated water, and of the environmental consequences of those contingencies.
- Although an EIR must discuss the likelihood of future water supplies, the primary issue with respect to water supply under CEQA is whether the EIR adequately addresses the reasonably foreseeable impacts of supplying water to the project.
- An EIR must discuss and analyze the regional water demands and any potential competition for the long-term water supplies identified for the project.

26-23 (con't.)

One of the other critical aspects of water supply analysis under CEQA relates to baseline. In order to adequately assess the environmental impacts of a particular project, the EIR must have some measure against which to compare the proposed impacts. An EIR must describe "the physical environmental conditions in the vicinity of the project" as they exist when the NOP is published. CEQA Guidelines §15125.

With respect to water supply and water rights, the baseline is the prior water use at the time of the NOP or at some other time prior to the NOP. The baseline is not the legal entitlement to water of the water supplier, landowner, or the Project if that full entitlement has never been used. Save Our Peninsula Committee v. Monterey County Board of Supervisors (2001) 87 Cal.App.4th 99. The baseline is instead the amount of water actually put to use at some point in time prior to the NOP as determined by the lead agency regardless of the amount of the entitlement to water. Impacts attributable to new water use above the baseline use must be analyzed in an EIR. Id.

26-23 (con't.)

In the present case, the DEIR in essence determines that the City has entitlements to water far in excess of the demands of the proposed project and therefore concludes with essentially no other analysis that there will be no substantial impacts to the environment. As discussed below, this conclusion and lack of analysis fail to meet the requirements of CEQA.

a. Inadequate Analysis of Potential Groundwater Supply

As discussed below, the DEIR fails to properly analyze the potential impacts of supplying groundwater to the proposed project.

(i) The DEIR Fails to Provide Sufficient Information Regarding the City's Rights to Groundwater.

The DEIR (and the City's Urban Water Management Plan) fails to provide any information on the nature of the City's rights to groundwater. As a municipal supplier, the City's rights are by appropriation (or by prescription) and not as an overlying user. San Bernardino v. Riverside (1921) 186 Cal.7. However, the DEIR is entirely silent as to the nature of the City's rights, if any, to extract groundwater.

26-24

This lack of information is even more striking when compared to the DEIR's analysis of its surface water supplies, which goes into great detail on the nature of the City's surface rights. Further, the DEIR and the City's Urban Water Management Plan both acknowledge some degree of overdraft in the affected groundwater basins.

Without knowing the nature of the City's rights to groundwater, it is impossible to analyze competing claims to that water as required under Vineyard Citizens and to make a determination regarding the likelihood these projected groundwater supplies will be available in the future.

This information is crucial in meeting CEQA's requirement that the DEIR serve as an informational document to inform the decision makers and the public about the potential impacts of the proposed project on groundwater supplies. This information is also required by Water Code section 10910(d)(1) and appears absent from the City's Urban Water Management Plan as well. If the City claims that some agreement or management plan somehow addresses these issues, the DEIR needs to discuss exactly how this occurs in order to assesses the likelihood that these groundwater supplies will be available in the future.

(ii) The DEIR Fails to Identify the Amount of Groundwater Supplied to the Project and the Surplus Groundwater Available.

The DEIR discusses that the applicable groundwater basins are in varying degrees of overdraft although the extent and severity varies. However, the DEIR fails to analyze the amount of surplus water available from each basin and how much groundwater the Proposed Project will use.

26-24 (con't.)

This information is critically important because if the City is pumping groundwater by way of a claim to an appropriative right, it only has the right to use the surplus water from such basins. Peabody v. Vallejo (1935) 2 Cal.2d 351. If there is no surplus water available, then the City has no right to pump any groundwater. Moreno Mutual Irr. Co. v. Beaumont Irr. Dist. (1949) 94 Cal.App.2d 766, 799.10.

This analysis is even more critical because the DEIR includes a purported mitigation measure increasing the pumping of groundwater if future surface water treatment facilities are not constructed. What would be the water available to the City and what are the competing demands for this water? What would be the impacts from increased pumping? The DEIR is required to analyze these impacts.

[10]An appropriator may also acquire a provisional right in the regular supply of groundwater, but only during such times such regular supply is not being used by overlying groundwater users. Burr v. Maclay Rancho Water Co. (1908) 154 Cal. 428, 436-439. However, the DEIR also fails to distinguish the amount of regular supply, if any, available in the applicable basins and discuss the competing claims to such water.

b. Inadequate Analysis of Potential Surface Water Supply

The DEIR additionally fails to adequately comply with CEQA with respect to its analysis of surface water supply as follows:

(i) The DEIR Fails to Use the Proper Baseline for Water Supply

The DEIR is vague as to the baseline conditions used for the analysis of potential impacts resulting from supplying water to the potential project. It appears the DEIR is using the City's total surface water entitlements of 326,800 afa by the year 2030 and 214,000 afa for 2007 as the baseline. (see DEIR p; 6.11-28 to 6.11-29). The DEIR then compares this total "water entitlement" baseline to the total demands of the project over the course of build out, which is 4,295 acre feet per year. The DEIR concludes there will be no significant impacts because the City's water entitlements exceed the projects water supply demands.

The DEIR's analysis is, however, flawed. As noted above, the proper baseline for CEQA analysis of water supply impacts is the actual pre-project water diversions and not the total water entitlements where such total entitlements have never been used. In Save Our Peninsula Committee, the court held: 26-25

> The supplemental EIR clarified that whether the water right was riparian or appropriative, ***any increase*** of water use ***over preproject use*** would be a significant environmental impact requiring mitigation.

Id. at 132 (emphasis added).

Put simply, the amount of water to be used for the project (4,295 afa) exceeds the present amount of water actually put to use by the City. This is acknowledged in the DEIR itself on page 6.11-29:

> The proposed project would increase the demand for water in the City's service area beyond the existing demand of approximately 138,671 AFA in 2006.

Therefore, in the present case, the DEIR itself provides that the water supply used for the project would be an additional new use of water in excess of pre-project water use baseline. The environmental impacts of this

incremental new use must be analyzed. Save Our Peninsula Committee, supra, 87 Cal.App.4th 130-133.

(ii) The DEIR Fails to Analyze Potential Competing Claims to Future Water Supplies

As set forth in Vineyard Citizens, an EIR must consider competitive demands on future water supply. In the present case, the County of El Dorado is presently considering claims of between 30,000 to 40,000 acre feet of water from the City's claimed rights. However, the DEIR fails to discuss this claim or any other competing claims on the future water supplies and the potential risks to the City's water supply from such claims. It may be that the risk is found to be remote; however, the DEIR must discuss the potential claims and corresponding risks. In this regard, the DEIR fails under Vineyard Citizens and under CEQA itself as an informational document.

26-25 (con't.)

c. Inadequate Analysis of Proposed "Mitigation Measures" Regarding the Cumulative Impacts for Future Water Treatment Needs

CEQA Guidelines section 15126.4(a)(1)(b) provides that mitigation measures shall not be deferred. In addition, mitigation measures must be enforceable to be valid through permit conditions, agreements or plans. CEQA Guideline 15126.4(a)(2). Under Vineyard Citizens, long-term water supplies must bear a likelihood of actually proving available and the EIR must discuss the circumstances affecting the likelihood of the water's availability. Additionally, the impacts of providing such future water supplies must be assessed.

26-26

In the present case, the DEIR states that there will be a deficit of potable water within the City by 2020 and the deficit will be critical by 2030. This is not necessarily due to a lack of water rights but due to a lack of adequate facilities to treat raw water from the American and Sacramento Rivers. The Project will contribute cumulatively to that deficit. The impact is deemed significant.

The DEIR identifies several "mitigation options." The DEIR then provides that these options would be available over the next 23 years to allow the City "a degree of flexibility" to implement the measures to address the water treatment shortfall but fails to implement any specific such measure. The DEIR specifically finds that some of the identified measures could have substantial impacts of their own.

The DEIR fails to adequately analyze the potential adverse substantial impacts of some of the proposed mitigation measures. The DEIR identifies and lists potential impacts from the implementation of certain of the mitigation "options" but fails to analyze the impacts, and by doing so improperly defers any such analysis to some unknown later period of time. For example, with respect to mitigation option "d) Increase Groundwater Pumping" (DEIR p. 6.11-36), the DEIR states:

> The implementation of this mitigation measure would require environmental analysis to assess if the construction or operation of new wells would have any adverse environmental consequences and would require environmental evaluation.

As Vineyard Citizens provides, for a large, multi-phased project, the CEQA analysis must assume that all phases of the project will eventually be built and will need water, and therefore, an EIR cannot defer analysis of future water supplies to later project phases. Yet this is exactly what the DEIR does in this case.

Finally, given the lack of information on the City's rights to groundwater and the fact that any such rights may no longer exist as the result of overdraft in the basin and the lack of surplus water, such a mitigation measure may not even be feasible.

26-26 (con't.)

XIII. Alternatives

CEQA requires an EIR to describe a range of reasonable alternatives to a project, or to the location of a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and to evaluate the comparative merits of the alternatives. CEQA Guidelines §15126.6. The alternatives discussion must focus on alternatives "which are capable of avoiding or substantially lessening any significant effect of the project, even if such alternatives would impede to some degree the attainment of the project objectives, or would be more costly." CEQA Guidelines §15126.6(b). An EIR must not only identify but discuss alternatives, and this discussion must "contain facts and analysis, not just the agency's bare conclusions or opinions," that is, it must provide "meaningful detail" to assist the public in its role. Laurel Heights Improvement Ass'n of San Francisco v. Regents of the Univ. of California (1988) 47 Cal.3d 376, 404, 406.

26-27

In light of the above authorities, the DEIR's analysis of alternatives must be based on both the Proposed Project's stated Project Objectives and its significant impacts. As explained by both HR&A and Carter Burgess, the DEIR's alternatives analysis is flawed because it overlooks a readily available alternative consisting of a re-phased development schedule. (Attachment A, p. 7; Attachment B, p. 3).

As described above, the Proposed Project's development phasing schedule, which is not included in the DEIR's Project Description, includes a first phase that is dominated by the development of a massive 1.1 million square foot Regional Shopping Mall. The DEIR recognizes that this Regional Shopping Mall development strategy would create significant adverse impacts to traffic and circulation, including "study area intersections," "study roadway segments," "study freeway mainline segments," "study freeway interchanges," and "study freeway off-ramps" from Opening Day of the Proposed Project through 2030. (DEIR p. 8-3).

Additionally, as explained by Carter Burgess, the front-loaded retail "exacerbates the potential for urban decay identified in the project Urban Decay Study . . ." (Attachment B, p. 3). This near-term (2015) imbalance was recognized in the DEIR's own technical study by Keyser-Marston Associates. (DEIR, Appendix N, p. 28). So while the Proposed Project will admittedly exacerbate the potential for urban decay, the extent of that potential is unknown to both the decision-makers and the general public because the DEIR performed an inadequate analysis of that issue.

26-27 (con't.)

Finally, the Regional Shopping Mall development concept that includes big-box retail development "may impede realization of the land use synergies necessary for a successful transit oriented development (TOD), by postponing the smaller-scale, neighborhood oriented uses to the latter stages of the project." (Attachment B, p. 3).

In lieu of a Regional Shopping Mall development concept, a re-phased alternative (i.e. an alternative that either develops residential units before retail uses or at least concurrently) ("Re-Phased Alternative") would significantly reduce or eliminate these identified impacts of the Proposed Project and more effectively advance the Proposed Project's stated Objectives.

There is no question that a Re-Phased Alternative will significantly reduce the Proposed Project's near-term significant traffic impacts. In fact,

Table 6.12-12 provides virtually all of the information needed to make this determination. Table 6.12-12 provides that full build-out of the residential component (11,300 units) will generate 50,780 weekday trips. Full build-out of the retail will result in 116,989 trips. So even if 100% of the residential is constructed in the Proposed Project's initial phase, only 50% of the traffic will be generated than currently proposed.[11] Even if one also includes 25% of the retail to the 25% residential – which would appear to provide for more of a balanced development – this would result in an approximately 50% reduction of weekday trip generation from the initial phase with the Regional Shopping Mall development concept.

The Re-Phased Alternative is also more consistent with the retail conditions that are identified in the DEIR's own technical report. The KMA Report concludes that an oversupply of retail will exist in 2015, but that the area's population growth will correct this imbalance by approximately 2025. (DEIR, Appendix N, p. 28). Instead of exacerbating the near-term oversupply of retail in 2015, the Re-Phased Alternative will bring the retail on line in a more gradual manner when it may actually be needed in 2025.

26-27 (con't.)

The Re-Phased Alternative is more complementary to the existing contaminations issues and remediation at the Railyard site. The Proposed Project's Land Use Plan reveals that the area designated as primarily residential is generally the location of "Car Shop Nine," which has less contamination and is more readily adaptable to immediate development. The Re-Phased Alternative would allow for immediate development in this area that is less contaminated and more ready for such development. By contrast, the Regional Shopping Mall development concept provides for initial development in areas of the Railyard site that are the most contaminated, namely the "Central Shops" area.

Finally, the Re-Phased Alternative satisfies all of the Project Objectives included in the DEIR. Indeed, as explained by Carter Burgess, the Re-Phased Alternatives satisfies the Project Alternatives better than the proposed Regional Shopping Mall development concept. (Attachment B, pp. 3-4).

In summary, the DEIR's alternatives analysis must include a thorough analysis of the Re-Phased Alternative because it reduces the Proposed Project's significant environmental impacts and satisfies the Proposed Project's Objectives.

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[11]A more realistic assumption for residential build-out would be 25% during the initial phase, which translates into even less traffic.

CONCLUSION

While the Downtown Plaza generally supports the City's goal to create "a dynamic 24-hour mixed use urban village that provides a range of complementary uses" at the former Railyards site, it appears that the Proposed Project that is described in this DEIR will not achieve that goal. Numerous technical deficiencies in the DEIR, coupled with strategies employed to seemingly evade environmental review such as an inaccurate and segmented project description, reliance on unenforceable mitigating project components and an outright refusal to address certain critical environmental impacts, have resulted in a DEIR that fails as an informational document. Too many unanswered questions remain about the nature of the Proposed Project and its potential environmental impacts, which can only be resolved appropriately with additional analysis contained in a recirculated DEIR.

Thank you for the opportunity to comment upon the Proposed Project and the DEIR.

Very Truly Yours,

SOLURI & EMRICK,
A Law Corporation

By: 
Patrick M. Soluri

Attachments:

A. Letter from HR&A Advisors, Inc. dated October 2, 2007
B. Letter from Carter Burgess dated September 19, 2007
C. Letter from Carter Burgess dated September 18, 2007
D. Letter from PCR Services Corporation dated October 3, 2007
E. Letter from VRPA Technologies, Inc. dated September 21, 2007

Exhibits:

1. Railyards NOP dated March 10, 2006
2. DTSC's Explanation of Significant Differences for Northwest Corner
3. Regional Water Board letter dated June 8, 2007
4. 1992 Railyards DEIR, p. 1-23

Exhibit A

LETTER 26

HR&A Analyze. Advise. Act.

HR&A ADVISORS, INC.
Economic Development, Real Estate Advisory and Public Policy Consultants

October 2, 2007

Mr. Patrick M. Soluri, Esq.
Soluri & Emrick, L.L.P.
1822 21st Street, Suite 202
Sacramento, CA 95814

Re: Comments on the Sacramento Railyards Specific Plan Draft Environmental Impact Report

Dear Mr. Soluri:

At your request, HR&A Advisors, Inc. (HR&A) and Whitney & Whitney, Inc. (W&W) have completed a technical review of selected sections of the Draft Environmental Impact Report (DEIR) on the Railyards Specific Plan,[1] a mixed-use development plan that would accommodate up to 12,501 dwelling units, 1.4 million square feet of retail, 491,000 square feet of either office or residential uses, 1,100 hotel rooms, 2.8 million square feet of office space, 485,390 square feet of historical/cultural uses, and 41.2 acres of open space (hereinafter the "Project") located in the downtown area of the City of Sacramento ("City").

We conclude from our review that the DEIR sections on the Project Description, Parks and Open Space, Police Services, Fire Services, and Urban Decay contain significant flaws and/or are incomplete and require further analysis before the document can fulfill the central statutory purpose of the California Environmental Quality Act (CEQA)[2], which is to adequately inform City decision makers and the general public about the possible impacts of the Project on the environment.

HR&A is a full-service economic development, real estate advisory and public policy consultant, whose practice lines include real estate analysis and advisory services, local and regional economic analysis, economic development program formulation and analysis, redevelopment project analysis, fiscal impact analysis, land use policy analysis, development impact fees, housing policy research and analysis, population forecasting and demographic analysis, and transportation and other capital facilities analysis and financing. HR&A has frequently been called on by its public and private sector clients to provide analysis of

[1] PBS&J/EIP, *Railyards Specific Plan, Draft Environmental Impact Report (PO5-097)*, SCH 2006032058, August 2007, prepared for the City of Sacramento. (Hereinafter, "DEIR"). All chapter, section, table, figure and page references used in this letter are to this version of the DEIR.

[2] Referred to herein to mean both Cal. Public Resources Code §21000 *et seq.* and 14 Cal. Code of Reg. §15000 *et seq.* ("CEQA Guidelines").

population, housing, employment, economic, public school facilities and induced growth impacts for projects subject to CEQA and the National Environmental Policy Act. W&W is a real estate development advisory services firm specializing in market feasibility and economic/fiscal impact studies of proposed regional shopping centers and mixed use development programs throughout southern California, Hawaii, other parts of the US and overseas. Summaries of HR&A's and W&W's qualifications are included in Attachment A to this letter.

I. Incomplete Project Description

The Project Description presented in Section 3.0 of the Draft EIR fails to discuss any phasing schedule for the Project. Yet, Draft EIR Appendix N (Urban Decay) sets forth a very specific four-phase implementation schedule.[3] According to that phasing schedule, Phases 1A and 1B include 1.1 million square feet of retail space that is to be constructed between 2009 and 2011and opened for operation during 2011-2014, with 2015 as the first stabilized year of operation. This phasing schedule is also mentioned in DEIR Section 7.0. If this schedule is correct, it should have been discussed in the Project Description. In addition, all sections of the Draft EIR should have addressed this timeline for implementation of the Project, and considered whether there are any differences in the severity of environmental effects of the Project on a phase-by-phase basis, as was done — albeit to a very rudimentary extent given the potential significance — in Appendix N.

26-28

II. Inaccurate Projections of Park and Open Space Demand

A. Understatement of Project Impacts

The Section 6.9 of the Draft EIR presents an analysis of the project's impacts on parks and open space, using the City's current level of service standards for various kinds of park and recreation facilities. However, the analysis uses a point estimate of 1.76 persons per household[4] for 12,500 units instead of 2.1 persons per household and a range of 10,000 to 12,500 units as presented in the Population and Housing analysis (Section 5.0),[5] Appendix N, and all of the Public Services sections (Section 6.10). Thus, the Draft EIR analysis summarized in Table 6.9-2 (p. 6.9-12) understates the demand for parks and trails caused by the Project under the maximum number of housing units. These differences are shown in Table 1.

26-29

[3] DEIR, Appendix N, p. 6.

[4] DEIR, p. 6.9-12.

[5] DEIR, p. 5-8.

Table 1.
Corrected and DEIR Parks and Open Space Calculations

		Min. Housing	Max. Housing
Corrected Values			
Dwelling Units		10,000	12,500
Population	2.1	21,000	26,250
Park per 1,000 pop.			
Neighborhood (ac.)	2.5	52.50	65.63
Community (ac.)	2.5	52.50	65.63
Regional (ac.)	8.0	168.00	210.00
Trails/Bikeways (miles)	0.5	10.50	13.13
DEIR Values			
Dwelling Units		Not Calculated	12,500
Population	1.76	Not Calculated	22,000
Park per 1,000 pop.			
Neighborhood (ac.)	2.5	Not Calculated	55.00
Community (ac.)	2.5	Not Calculated	55.00
Regional (ac.)	8.0	Not Calculated	176.00
Trails/Bikeways (miles)	0.5	Not Calculated	11.00

Sources: DEIR, p. 6.9-12; HR&A, Inc.

26-29 (con't.)

B. Inappropriate Mitigation

Notwithstanding the underestimation of the severity of the parks and open space impacts as noted above, the DEIR concludes that the Project impacts are adverse and significant. It then argues that different standards should apply to urbanized areas of the City, even though the City Council has not adopted any such alternative standards. The need for an alternative standard is questionable, because all of the alternatives, except the no project alternative, in the Draft EIR on a previous version of a Specific Plan for the Railyards indicated that required parks and open space could be accommodated using the City's existing service standards for neighborhood and community parks.[6] Two of these alternatives included numbers of dwelling units that fall within the ranges for the Specific Plan analyzed in the DEIR.[7]

26-30

The DEIR's proposed mitigation is to develop a new urban park standard and pay fees for any difference between the Project's proposed parks acreage and the new standard, or provide additional parks equal in value to the amount of the to-be-determined fee. This proposed set of actions constitutes vague and improperly deferred mitigation. The DEIR should have evaluated more appropriate mitigation, such as additional land area designated as Open Space (OS) sufficient to meet the City's existing service standards.

[6] EIP Associates, *Draft Environmental Impact Report, Executive Summary (Volume I), Railyards Specific Plan, Richards Boulevard Area Plan*, prepared for the City of Sacramento, June 10, 1992, p. I-26.

[7] *Id.*, Table I-1, p. I-7. Alternative 2 included 11,630 dwelling units and Alternative 3 included 11,330 dwelling units.

III. Incomplete Analysis of Police and Fire Services

Section 6.10 presents analysis of Project impacts on Police and Fire Protection. Each section measures Project impacts by multiplying the maximum number of housing units (12,500) by the average population per household (2.1) as presented in Section 5.0, for a total Project population of 26,252. This Project population is then compared with per-capita and other land use-specific service standards for each protective service.

A. Inappropriate Mitigation Because Costs of Police Department Impacts Are Not Quantified and Sources of Revenue are Not Identified

Using, among others, a service standard of 2.0 officers/1,000 population and 0.5 support staff to sworn officers, the DEIR estimates that the Project will generate demand for 90.5 police personnel, as follows:[8]

53.0 officers and	27.0 support staff for residential
4.0 offices and	2.0 support staff for retail
3.0 offices and	1.5 support staff for hotel
60.0	30.5

26-31

The Project includes two potential locations for a new police substation on the ground floor of a multi-story, mixed use building.[9] But the Draft EIR does not include any estimates or evidence of financial commitments for the capital cost of acquiring or constructing a new police station, nor the costs for personnel and station equipment, staffing, or vehicles. The DEIR also fails to address whether the ground floor space allocated for a substation is large enough to accommodate all 90.5 staff and support space required to mitigate Project impacts, and how specialized space requirements such as detention facilities can be accommodated in a multi-story mixed-use building that is shared with private sector uses.

Finally, the DEIR never quantifies the city revenues generated by the Project, which would demonstrate whether there is any reasonable possibility for the Specific Plan to generate the revenue required to fund a new police station and its associated equipment and staffing costs. In this regard, the fact that the Project is in a Redevelopment Project Area means that property tax revenue generated by the Project would only be available to assist with capital costs, and would not be available for equipment or staffing costs.

B. Inappropriate Mitigation Because Costs of Fire Department Impacts Are Not Quantified and Sources of Revenue are Not Identified

Using a service standard of one fire station per 20,000 residents, the DEIR concludes that the Project population will require one new fire station, including one engine company, one truck

[8] DEIR, pp. 6.10-6 and 6.10-9.

[9] DEIR, p. 6.10-9.

company, one paramedic unit and a battalion chief quarters. This includes 10 staff/shift over three shifts, or a total of 30 staff.[10]

Here again, the DEIR notes that the Project includes two potential locations for a new fire station on the ground floor of a multi-story, mixed-use building. But the DEIR lacks any estimates for the capital cost of acquiring and constructing a new fire station, or the costs for personnel and station equipment, staffing, or vehicles. The DEIR also fails to address whether the ground floor space allocated for substation is large enough and otherwise suitable to accommodate all the staff and required support space and vehicles required to mitigate Project impacts.

26-31 (con't.)

As in the case of the police services analysis, the DEIR never quantifies the city revenues generated by the Project, which would demonstrate whether there is any reasonable possibility for the Specific Plan to generate the revenue required for a fire station and its associated equipment and staffing, plus the requirements for a new police station. Once again, the fact that the Project is in a Redevelopment Project Area means that property tax revenue generated by the Project would only be available to assist with capital costs, but would not be available for equipment or staffing.

IV. Incomplete Analysis of the Potential for the Project to Cause "Urban Decay"

Section 7.0 (Urban Decay) of the Draft EIR, and Appendix N (Urban Decay) prepared by Keyser Marston Associates (KMA), discuss the CEQA concept of "urban decay" – i.e., the potential for the Project to cause adverse economic conditions that could result in "a chain reaction of store closures and long-term vacancies, ultimately destroying existing neighborhoods and leaving decaying shells in their wake." These analyses are incomplete for the reasons discussed below.

A. No Analysis of Potential "Urban Decay" Resulting from the Project's Significant Retail Market Impacts.

26-32

Appendix N concludes that the proposed supply of new retail space in the Project and other foreseeable retail projects would significantly exceed demand for comparison retail in the relevant market areas by 2015, and that this supply-demand imbalance raises the potential for urban decay.[11] However, the analysis never takes the necessary next steps to determine whether this significant oversupply in 2015, and the continuation of this oversupply condition until at least 2025, could reasonably be expected to result in "urban decay" in any or all of the four major retail centers or retail concentrations that the report identifies as areas most likely to be

[10] DEIR, p. 6.10-18 and 6.10-19.

[11] DEIR, Appendix N, p. 28.

directly impacted by the Project,[12] nor any other major retail developments in the surrounding primary or secondary market areas. It fails to present any analytic approach to measure "urban decay," nor does it apply a method to the four identified retail centers, nor any other major retail development in the remainder of the primary and secondary market areas. Appropriate analysis would require, at minimum: (1) an assessment of the vulnerability of anchor stores, or other concentrations of key retail uses (e.g., restaurants), in each retail center that is potentially affected by adverse market conditions caused by the Project; (2) a determination about whether those anchors or use concentrations are likely to fail; (3) if anchors or other use concentrations are likely to fail, an assessment of the potential for those uses to be replaced by other anchors or retail concentrations; and (4) if no such replacement is likely, the potential for the failed anchors to cause an economic ripple effect in those centers and any adjacent retail areas leading to ". . . a chain reaction of store closures and long term vacancies, ultimately destroying existing neighborhoods and leaving decaying shells in their wake."[13]

26-32 (con't.)

B. Incomplete Application of Lessons from the Salt Lake City Case Study

Appendix N presents case studies of two purportedly comparable downtown retail redevelopment projects in other cities, including the Gateway project in Salt Lake City. These case studies consist of anecdotal information and do not provide analysis that would demonstrate whether there are sufficient market similarities between them and the Project to make the use of the examples meaningful for the particular situation of the Railyards.

Notwithstanding the anecdotal character of the case studies, Appendix N notes that, according to a University of Utah study, the development of the Gateway project did have negative impacts on existing shopping malls, pulling retail dollars and tenants away from existing facilities. However, Appendix N stops short of evaluating how the "lessons learned" could be applied to the Railyards to mitigate the severity of the identified adverse and significant market impacts of the Project on the four identified retail centers in the downtown area of Sacramento that would be most adversely affected by the Project. These "lessons," which are not discussed as "mitigation," include restrictions on the movement of existing tenants to new retail space in the project, and aggressive efforts by the developer to recruit tenants unique to the market area. The Draft EIR should provide a more detailed evaluation of the mitigation employed in the Gateway situation to assess its applicability to the Project.

26-33

C. Incomplete Discussion of Potential Mitigation Measures and their Applicability to the Project

On page 29, Appendix N lists possible measures to "minimize" potential urban decay, although they are not called "mitigation measures." Further, the report did not evaluate the ability of these measures, individually or cumulatively, to reduce the significant adverse impacts of the Project on market conditions in 2015, and between 2015 and 2025, to a level that would be

26-34

[12] These include the Westfield Downtown Plaza regional shopping center, the historically-themed Old Sacramento restaurant and specialty retail district, the K Street pedestrian/light rail mall, and the Midtown retail district.

[13] *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184 at 1204.

less than significant. Inexplicably, a reduction in Project retail space prior to 2015 or 2025 was not among the measures listed.

26-34 (con't.)

D. Parallel Deficiencies in Draft EIR Section 7.0

Inasmuch as Section 7.0 summarizes the contents of Appendix N, the problems noted above with respect to Appendix N also apply to Section 7.0. Unlike all other impact analysis sections of the DEIR, Section 7.0 does not specify an urban decay significance threshold, nor does it render a determination about whether the urban decay impacts analyzed will be significant. While it summarizes the conclusions from Appendix N that the market will be significantly oversupplied with comparison retail space by 2015, it lists only some of the strategies taken from Appendix N that could be employed to alleviate the Project's impact,[14] these measures are not presented as mitigation measures. And, it fails to preface this list with the language in Appendix N which states that these measures must be part of "an intensive and coordinated public and private strategy and investments to protect and preserve the more vulnerable retail locations in Downtown."[15]

26-35

As noted above with respect to Appendix N, DEIR Section 7.0 lacks any statement or application of a methodology to make an "urban decay" determination based on the significant adverse market impact caused by the Project. More specifically, it does not evaluate the Project's market impacts on existing retail centers, the degree to which these impacts could result in disinvestment, store closures, resulting blight and other manifestations of physical deterioration, nor any mitigation measures for urban decay, and lacks an assessment of the level of post-mitigation significance of any urban decay impacts.

E. No Analysis of Urban Decay Impacts of the Project Alternatives

Because the DEIR never reaches a conclusion about the degree to which the adverse economic impacts of the Project documented in Appendix N are "significant" within the meaning of CEQA, this issue does not find its way onto the list of significant and unavoidable impacts that are supposed to be addressed in evaluating the merits of Project alternatives. Thus, the DEIR also lacks any discussion about the ability of the Project alternatives to reduce potentially significant urban decay impacts. It also points out a glaring omission among the analyzed alternatives — i.e., an alternative that would change the Project's phasing, such that less retail and more residential uses are developed prior to 2015. Such an alternative would have the benefits of reducing significant adverse market competition impacts and increasing the residential source of demand from new households. And, in so doing, it would enhance the Project's ability to meet its central objective of creating a mixed-use urban village near downtown and the Sacramento waterfront.

26-36

[14] For some unexplained reason, Section 7 omitted one of the recommendation in Appendix N to "avoid and/or minimize" the Project's potential to cause urban decay: "Development of a significant amount of private and public amenities, such as parks, plaza, and streetscapes, and the infrastructure needed to support future improvements in the Downtown so that it can truly become a desirable and attractive 'place to be' for residents and visitors alike." (Appendix N, p. 29).

[15] Appendix N, p. 29.

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We believe the foregoing analysis provides substantial evidence that there are significant deficiencies in the DEIR sections discussed above, which will require new or additional analysis that should be included in a recirculated DEIR.

Please contact us by phone or e-mail, if you have any questions about these comments on the DEIR.

Sincerely,

PAUL J. SILVERN,
Partner, HR&A

WILLIAM H. WHITNEY, Ph. D.
Whitney & Whitney, Inc.

ATTACHMENT A

Qualifications of HR&A Advisors, Inc. and Whitney & Whitney, Inc.

HR&A Analyze. Advise. Act.

HR&A ADVISORS, INC.
Economic Development, Real Estate Advisory and Public Policy Consultants

QUALIFICATIONS TO PREPARE CEQA/NEPA DOCUMENTATION ON SOCIO-ECONOMIC ISSUES

HR&A Advisors, Inc. is a full service policy, financial and management consulting firm. Founded in 1976, the firm has a distinguished track record of providing realistic answers to complex economic, economic development, public finance, real estate, housing and strategic planning problems. HR&A clients include Fortune 500 corporations, all levels of government, the nation's leading foundations, and not-for-profit agencies. The firm has extensive experience working for the legal community in such roles as court-appointed special master, consent decree monitor, technical advisor and expert witness.

HR&A's practice lines include local and regional economic analysis, economic development program formulation and analysis, fiscal impact analysis, real estate analysis and advisory services, housing policy research and analysis, population forecasting and demographic analysis, and transportation and other capital facilities analysis and financing.

Among the qualities for which HR&A is widely known and respected are the impeccable quality of its analysis, ability to invent new analytic methods and approaches to suit the needs of a particular client, independent professional judgment honed through extensive exposure to the rigors of the public review process and the scrutiny of the judicial system, the ability to translate complex technical analysis for a variety of non-technical audiences, and the extensive involvement of its Partners in every project it accepts.

The firm's domestic and international consulting is provided by a staff of 25 people located in offices in Los Angeles and New York. Staff members include public finance professionals, planners, economists, architects, lawyers, and experienced project managers. Virtually every member of the firm has substantial public or private sector experience in economic, financial and policy analysis, real estate development and planning.

HR&A has frequently been called on by its public and private sector clients to provide analysis of population, housing, employment, economic, public school facilities and induced growth impacts for projects subject to the California Environmental Policy Act and the National Environmental Policy Act. The following are examples of projects that illustrate this experience.

For Public Sector Clients

- For the City of Lancaster, HR&A is preparing economic, fiscal and "urban decay" analysis for EIRs on the Lane Ranch Towne Center and The Commons at Quartz Hill, two regional shopping centers planned for opposite corners at 60th and Avenue L.

- For Los Angeles World Airports, HR&A prepared all of the economic impact analyses needed to evaluate alternative Master Plan concepts for future development of Los Angeles International Airport. The project included extensive econometric modeling of future baseline (pre-project) economic conditions and forecasts of conditions under alternative development scenarios in the City of Los Angeles, the County of Los Angeles, incorporated and unincorporated areas adjacent to the airport, and the surrounding five-county region.

- For the City of Chicago Department of Aviation, HR&A prepared regional and local economic and fiscal impact analyses of the O'Hare Modernization Program (OMP), which was be used by the Federal Aviation Administration to prepare an Environmental Impact Statement on the project. The analysis includes econometric modeling of the six-county Chicago regional area to forecast the employment, total economic output, population and households, among other factors, that would be associated with the $16-billion OMP project, as compared with a No Project scenario.

- For the City of Los Angeles Environmental Affairs Department, HR&A prepared draft Initial Study screening criteria, thresholds of significance and recommendations for analysis approach on the topics of housing, population and employment impacts.

- For Central City West Association and the City of Los Angeles, HR&A prepared a demographic portrait and forecast, and baseline "jobs/housing balance" analysis as part of the Central City West Specific Plan, a transitional neighborhood located directly north of Pico-Union, and across the Harbor Freeway, from the Los Angeles central business district. HR&A's analysis was used as the technical basis for the population, housing and employment sections of the EIR on the Plan. The firm also assisted counsel for interested parties regarding these issues during subsequent litigation over the adequacy of the Final EIR, which was ultimately decided in favor of the City.

- For the Santa Monica-Malibu Unified School District, HR&A managed a detailed review of the options available to the District to consolidate use of its four properties in the Ocean Park neighborhood of Santa Monica, an area which had been experiencing significant enrollment declines. The project included managing the preparation and certification of an EIR on the multi-site strategy adopted by the Board of Education, which included construction of the first new elementary school since the 1950s.

- For the University of California, Los Angeles, the firm prepared an analysis of the degree to which employment and housing associated with UCLA's 1991 Long Range Development Plan was consistent with the emerging regional planning concept of "jobs-housing balance." The firm's analysis was included as a technical appendix to the Final EIR on the Plan, which received approval by the Regents of the University.

- Also for the University of California, Los Angeles, HR&A prepared the population and housing section, and contributed to the induced growth section of the EIR on the 2000-2010 Long-Range Development Plan Update for the campus. The Final EIR was certified by the Regents.

- For the University of California, Santa Barbara, HR&A analyzed the public school impacts of the 1992 Long-Range Development Plan for the Santa Barbara campus, and prepared a Supplemental Environmental Impact Report on this issue, pursuant to a judgment against the University in an action brought by the Goleta Union School District. The Supplemental EIR was certified by the Regents of the University. Upon return to the writ, the court found that the analysis adequately supported the Regent's action. This determination was upheld by the Second District Court of Appeal in *Goleta Union School District v. Regents of the University of California*, 36 Cal. App. 4th 1121 (1995) (opinion on rehearing), holding that the University was not required to pay school mitigation fees.

- For the Southern California Association of Governments (SCAG), HR&A prepared the economic and fiscal impact sections of the EIR on SCAG's 1996 Regional Comprehensive Plan and Guide.

For Private Sector Clients

- For Westfield Corporation, HR&A prepared "urban decay" and public services impact analyses for a 100,000 square foot addition to the existing Westfield Santa Anita super-regional shopping center in Arcadia, urban decay analysis of a 280,000 square foot addition to Westfield Fashion Square in the Sherman Oaks community of Los Angeles, and a 445,000 square foot addition to Westfield North County in Escondido.

- For Bisno Development Company, HR&A is preparing technical reports on the population, housing employment and school facilities impacts of a 2,300-unit condominium project proposed for a former US Navy housing site in the San Pedro-Wilmington area of Los Angeles.

- For General Growth Properties, HR&A prepared detailed comments on various socio-economic issues in the Draft and Final EIR for the Americana at Brand, a "lifestyle" mall proposed for a site immediately adjacent to the Glendale Galleria in Glendale.

- For Universal Studios, Inc., HR&A analyzed the employment, housing, population and economic and fiscal impacts in Los Angeles County of a proposed $3 billion Specific Plan that will nearly double the intensity of development at Universal City, the home of Universal Studios, Inc.'s film studio, studio tour, various entertainment retail uses, commercial office buildings and hotels. HR&A's analyses were included in the project's Draft EIR.

- For the Ratkovitch-Villaneuva Partnership, HR&A prepared the employment, housing, population and public schools impact analyses for the EIR on a proposal to construct 10 million square feet of new commercial and residential development around the City of Los Angeles' Union Station. The Draft EIR was certified by the Los Angeles City Council.

- For St. John's Hospital and Health Center, HR&A prepared analyses of the economic and fiscal impact of current health center impact on the economy of the City of Santa Monica, and the impact that will result from each of two phases of a major reconstruction of the health center following the 1994 Northridge earthquake. The analysis was relied on by the City's consultants in preparing the project's EIR, which was certified by the Santa Monica City Council. HR&A also prepared analysis for the Health Center on the degree to which draft police services mitigation measures being considered by the City met the requirements of CEQA.

- For The Walt Disney Company, HR&A prepared a comprehensive analysis of the employment, population, housing, "jobs-housing balance" and vehicle miles traveled impacts of Downtown Disney and Disney's California Adventure, in Anaheim. The firm's analysis is contained in a series of technical appendices to the EIR, which was certified by the Anaheim City Council.

- Also for The Walt Disney Company, HR&A analyzed the "jobs-housing balance" implications of a proposal to consolidate all of Disney's studio and studio-related administrative facilities on a single site in the City of Burbank. HR&A's analysis was included as a technical appendix to the project's EIR, which was certified by the Burbank City Council.

- For Wilshire-Barrington Associates, HR&A analyzed the population, housing, employment and jobs-housing balance impacts of a preliminary concept for converting the Barrington Apartments in West Los Angeles into a mixed-use project consisting of 700 apartments, a 262-room hotel, 210,000 s.f. of office space plus miscellaneous retail.

- For the Santa Monica Beach Hotel Development Partnership, HR&A coordinated an extensive review and prepared the Draft EIR comment letter for the developer of a proposed 160-room luxury hotel and community center proposed for a parcel of State-owned land along Santa Monica Beach.

- For Reliance Development Group, HR&A coordinated an extensive review and prepared the Draft EIR comment letter for the developer of a 1.8 million square foot office park and studio complex proposed for surplus land at Santa Monica Airport.

- For Maguire Thomas Partners, HR&A coordinated an extensive review and prepared the Draft EIR comment letter for the developer of a proposed office building and hotel project to be developed on Ocean Avenue in the City of Santa Monica.

REPRESENTATIVE LIST OF CLIENTS

Financial Institutions & Investment Companies

American Council on Life Insurance
Citibank Private Banking Group
Citicorp Real Estate, Inc.
Community Preservation Corporation
First Union National Bank
Fleet Financial Group
Goldman Sachs
Hartland Asset Management
Lehman Bros.
Shorebank Corporation

Real Estate Development Organizations and Private Companies

ARC Development
ARCORP Properties
Bermant Development Company
Boeing Realty Corporation
Casden Properties, Inc.
Castle & Cook Development Company
Centex Homes
Continental Development Corporation
Daniel Island Development Company
Disney Development Corporation
Edward J. Minskoff Equities
Gaylord Entertainment
General Growth Properties
Gibson Speno LLC
Home Depot Company
JMB Urban Realty Corporation
K. Hovnanian Companies of California
Landmark Land Company
Madison Square Garden
Maefield Development Corporation
Maserich Company
Maguire Thomas Partners
Millennium Partners
Newhall Land & Farming Company
New York Times Company
Olympia & York (USA)
The Related Companies
Reliance Development Group
Santa Monica Beach Development Corporation
Starrett Housing Corporation
Sunset Development Corporation
Tishman Speyer Properties
Trammell Crow Company
Trammell Crow Residential
TransAction Companies, Ltd.
Twentieth Century Fox
Universal Studios, Inc.
The Walt Disney Company
Westfield Corporation, Inc.
William Lyon Homes
World Financial Properties

Public Development Agencies

Alliance for Downtown New York
Battery Park City Authority
Brooklyn Bridge Park Development
Brooklyn Navy Yard Development Corporation
Catskill Watershed Corporation
Catholic Charities of Brooklyn
Cincinnati Business Committee
Columbus Downtown Redevelopment Corporation
Downtown Brooklyn Local Development Corporation
Economic Development Growth Enterprises, Oneida Co., NY
Empire State Development Corporation
Inland Valley Development Agency
Memphis Riverfront Development Corp.
National Capital Revitalization Corp.
New York City Economic Development Corporation
New York State Urban Development Corporation
Penmar Development Corporation
Port Authority of New York and New Jersey
Queens West Development Corporation

Cultural, Recreational & Special Events Clients

American Museum of Natural History
Brooklyn Academy of Music Corporation
Brooklyn Museum of Art
City of New Haven Arts & Entertainment Facilities Committee
Lincoln Center for the Performing Arts
Madison Square Garden
New Jersey Performing Arts Center
NYC2008
Public Space for Public Life
Randall's Island Sports Foundation
The Trust for Public Land

Other Quasi-Public and Non-Profit Organizations and Foundations

Apartment Association of Greater Los Angeles
The Bowery Mission
Common Ground Community

Other Quasi-Public and Non-Profit Organizations and Foundations (con't.)

- Cornell University
- Corporation for Supportive Housing
- Community Services Society of New York
- The Enterprise Foundation
- Ford Foundation
- Gay Men's Health Crisis
- Griffiss Local Development Corporation
- Harry Frank Guggenheim Foundation
- Kaiser Permanente
- Local Initiatives Support Corporation
- Los Angeles Collaborative for Community Development
- Metropolitan Boston Housing Partnership
- Metropolitan Jewish Geriatric Center
- National Equity Fund
- Neighborhood Progress, Inc.
- New York Blood Center
- Newark Alliance
- Saint John's Hospital and Health Center
- Saint Vincent's Hospital
- San Gabriel Valley Council of Governments
- Spanish-American Merchant's Assoc.
- University of California, Los Angeles
- University of California, Santa Barbara
- Upper Manhattan Empowerment Zone Development Corp.
- Williamsburg Affordable Housing
- Westside Urban Forum

Governmental Agencies

- Boulder Urban Renewal Authority
- City of Berkeley Rent Stabilization Board
- City of Beverly Hills
- City of Chester (PA)
- City of Columbus
- City of Culver City (CA)
- City of Detroit
- City of Houston
- City of Huntington Beach (CA)
- City of Indianapolis
- City of Los Angeles
- City of New York
- City of Olathe (KS)
- City of Phoenix
- City of San Luis Obispo (CA)
- City of Santa Monica
- City of West Hollywood (CA)
- City of Yonkers
- Community Redevelopment Agency of the City of Los Angeles
- Compton Unified School District (CA)
- County of Santa Barbara
- District of Columbia
- New Jersey Department of Commerce and Economic Development
- Redevelopment Authority of the City of Philadelphia
- San Diego Association of Governments
- Santa Ana Unified School District (CA)
- Santa Monica-Malibu Unified School District
- Southern California Association of Governments
- Yonkers Office of Downtown & Waterfront Development

Transportation Agencies

- City of Chicago Department of Airports
- Connecticut Dept. of Transportation
- Delaware Dept. of Transportation
- Los Angeles County Metropolitan Transportation Authority
- Los Angeles World Airports
- Massachusetts Bay Transportation Authority
- New Jersey Transportation Corp.
- New York Metropolitan Transportation Authority
- San Diego County Regional Airport Authority
- U.S. Dept. of Transportation

Housing Agencies

- Chicago Housing Authority
- Community Redevelopment Agency of the City of Los Angeles
- Cuyahoga Metropolitan Housing Authority (IN)
- Detroit Housing Commission
- Housing Authority of Baltimore City
- Housing Authority of the City of Houston
- Housing Authority of the County of Los Angeles
- Housing Authority of the City of Santa Monica
- Housing Bureau, City of Long Beach
- Indianapolis Housing Authority
- Los Angeles Housing Department
- New York City Housing Authority
- New York City Housing Development Corporation
- New York State Housing Finance Agency
- Omaha Housing Authority (NE)
- Philadelphia Housing Authority
- Redevelopment Authority of the City of Philadelphia
- St. Louis Housing Authority (MO)
- United States Department of Housing and Urban Development

LETTER 26

WHITNEY & WHITNEY, INC.
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Los Angeles, California USA
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e-mail: whitneywhitney@sbcglobal.net

Whitney & Whitney, Inc. (W&W) is a real estate development advisory services firm located in Los Angeles, California. The company was founded by William H. Whitney, Ph.D. in 1984. After six years of serving the southern California and Hawaii markets, W&W reduced the scope of its activities when Mr. Whitney was recruited by Arthur Andersen to assist their Real Estate and Hospitality/Leisure consulting practices in establishing both a national and international presence.

Mr. Whitney served with Arthur Andersen for over nine years, participating on major real estate and hospitality consulting engagements in over 40 different countries throughout the world. Activities during this period also included starting Arthur Andersen's Asia/Pacific Region real estate consulting practice in Manila, and spending three years in Andersen's London offices serving as a resource for the European and Middle East real estate consulting practices.

Following his return to the United States in March 2000 Mr. Whitney has re-activated Whitney & Whitney, Inc. The firm's major focus is on the provision of real estate consulting services to both public and private clients in the following areas:

- Due diligence services for companies involved with the acquisition and operation of real estate assets;
- Participation on multi-disciplinary teams with architects, planners and other design professionals in the planning of resorts, new communities and urban mixed-use projects
- Advisory services related to the maximization of returns from corporate real estate assets;
- Advisory services related to the maximization of public benefits from proper utilization of public lands;
- Market feasibility studies for large scale land development programs, including waterfront projects, shopping centers, resorts, and new communities;
- Master planning for large-scale urban parks and open space programs;
- Financial feasibility studies for proposed real estate investments;
- Negotiation assistance related to the formation and implementation of public/private partnerships;
- Fiscal impact, economic impact, cost-revenue and cost-benefit evaluations of proposed real estate development activities for public agencies and private developers;
- Valuation/expert witness services related to complex real estate transactions and/or arbitration and litigation proceedings; and
- Implementation services related to attaining necessary development entitlements and funding for real estate programs.

W & W's recent projects include the following: since the early 1990s has served as a real estate economic and financial advisor to the State of Hawaii Aloha Tower Development Corporation related to the redevelopment of the downtown Honolulu waterfront; performed a market and financial analysis of a proposed "high technology" park/mixed-use commercial development program in Dubai, United Arab Emirates known as Dubai Internet City; conducted an analysis of the economic feasibility of converting the 4,700-acre El Toro Marine Corps Air Station to an urban park; conducted an analysis of the redevelopment potentials for tourist-serving projects in the Old City of Shanghai; provided a market analysis of the retail redevelopment potential for the International Market Place in Waikiki for the Queen Emma Foundation; performed an evaluation of redevelopment potentials and the resultant fiscal impacts from conversion of certain industrial lands to retail and other uses for the City of San Jose; provided an evaluation of the market feasibility for residential and commercial retail uses on surplus lands owned by Ohlone Community College, Fremont, California; evaluated the market and financial opportunity for development of a major shopping center near Mililani Town on the Island of Oahu, Hawaii for Forest City; and reviewed the market for office and retail commercial uses near the East Eisenhower Transit Station for the City of Alexandria, Virginia; and a market study for a C. J. Segerstrom & Sons development project located near South Coast Plaza in Orange County. Currently, the firm is serving as an advisor to Castle & Cooke on the preparation of a master plan and development strategy for 28,000+/- acres of land located on the North Shore of the Island of Oahu; providing a review of the master plan for the Sa'adiyat Island resort located in Abu Dhabi, United Arab Emirates; and preparing

market/financial analyses and a business plan for a proposed destination spa to be located in the Santa Monica Mountains.

Mr. Whitney's background in the analysis of major shopping center developments and the planning of their adjacent lands supersedes the formation of W & W. He has been conducting investigations of retail development opportunities for nearly 40 years, starting with the re-use of the Chevron properties located in El Segundo and Manhattan Beach that ultimately led to the development of Manhattan Beach Village. One such project, the planning of the Puente Hills Mall and its immediate surrounding lands for the Western Harness Racing Association in 1970, was the inspiration for his doctoral dissertation, "An Investigation of Selected Impacts on Surrounding Lands Which are Generated by Development of Regional Shopping Centers" (UCLA, 1975).

A partial listing of Mr. Whitney's shopping center experience includes the following:

ERNEST W. HAHN, INC. (NOW TRIZECHAHN): Regional Shopping Center Market Analysis and Economic/Fiscal Impact Studies, California and Washington
Conducted numerous market feasibility and economic/fiscal impact studies of proposed regional shopping centers for the Ernest W. Hahn Company, forerunner to TrizecHahn, including analyses for the following existing regional shopping centers: Puente Hills Mall, City of Industry; Mariner's Island, San Mateo; North County Fair, Escondido; Kelso Mall, Kelso, Washington; and Sierra Vista, Clovis, California.

PSB REALTY CORPORATION: Costa Mesa Courtyards, Costa Mesa, California
Performed market and financial feasibility studies for the Costa Mesa Courtyards, a 173,000 square foot shopping center once honored as the "Best Retail Development" in the Western States at the Pacific Coast Builders Conference. The 11-acre project has been an important stimulus to the revitalization of the City of Costa Mesa's old central business district.

JAMES YOUNGBLOOD, DEVELOPER: The Lumberyard, Encinitas, California
Conducted market and financial feasibility studies for the project, a specialty retail center with 80,000 square feet of retail space located in the City of Encinitas. The center has been successfully developed, and has performed at or above initial market expectations.

THE IRVINE COMPANY: Fashion Island and Spectrum Center Impact Studies, Newport Beach and Irvine, California
Conducted economic and fiscal impact evaluations of these two major centers as part of their submissions for general plan amendments to the Cities of Newport Beach and Irvine, respectively. The Fashion Island expansion program focused on the interactive benefits that could be generated between the existing and proposed retail uses and the surrounding hotel and office developments; in contrast, the central concern regarding the proposed Spectrum project was its potential sales and property tax generation for the municipality.

LIVERPOOL DEPARTMENT STORE AND THE FRANSEN COMPANY: Regional Shopping Center Market Evaluations, Various Metropolitan Areas, Mexico
Conducted detailed investigations of the market opportunities for Liverpool Department Store to serve as an anchor tenant and developer of regional shopping centers throughout Mexico. A number of sites in major metropolitan locations were evaluated, and projections were made of potential store sales and supportable retail space. As of 2001, the study had resulted in one new shopping center currently operating in the Mexico City metro area and a second project under construction.

MITSUI TRUST & BANKING CO., LTD.: Aloha Tower Marketplace, Honolulu, Oahu, Hawaii
Provided a market validation study for a festival marketplace that was under construction in downtown Honolulu. The development program, which ultimately became the Aloha Tower marketplace, called for approximately 200,000 square feet of retail and restaurant space at Honolulu Harbors Piers 7, 8 and 9 adjacent to the historic Aloha Tower. The analysis included a thorough examination of each segment of the potential customer base and an assessment of the potential expenditure patterns at the center from those identified market segments. The results of the market studies were then utilized to generate sales projections for the center.

THE ROBERTS GROUP: Wood Ranch Development Program, Simi Valley, California

Performed an analysis of retail commercial potentials for a major community shopping center located in the Wood Ranch planned community. The study involved a detailed assessment of competitive retail projects found within the immediate market area surrounding Wood Ranch and a determination of market support generated by Wood Ranch residents. The center is open and operating successfully.

A&B HAWAII, INC./VANGUARD PROPERTIES: Triangle Square Factory Stores, Kahului, Maui, Hawaii
Provided a market analysis of a proposed factory outlet center in Kahului, Maui near the Kahului Airport. The development program called for 110,000 square feet of retail space to be built at one of Maui's most important highway junctions. The analysis included an examination of the potential customer base, consideration of the potential expenditure patterns by the major market segments, and a projection of potential sales at the project. The project has been developed and is operating successfully.

CITY OF VISALIA: Regional Shopping Center Location Studies; Visalia, California
Served the City of Visalia as market and planning consultants in the evaluation of potential locations for new regional shopping center facilities in the City of Visalia. The analysis included an assessment of the market, fiscal, transportation and other economic and social impacts related to the alternative sites under consideration for the new center.

AMFAC/JMB HAWAII, INC.: Kaanapali North Beach Entertainment / Retail Center Feasibility Studies, Kaanapali, West Maui, Hawaii
Provided a detailed assessment of a proposed themed entertainment/retail attraction at North Beach. A number of different retail and entertainment concepts were evaluated for the property, including specialty retail alternatives similar to Whaler's Village and more elaborate commercial recreation complexes featuring entertainment venues similar to Church Street Station in Orlando, Florida. The major finding of the study was that the most profitable use in terms of land utilization and environmental constraints was a major health spa, as this use generated the highest visitor expenditures per unit of land area and required relatively low market penetration of the existing visitor base.

CASTLE & COOKE PROPERTIES, INC.: Iwilei District Market Feasibility Study, Honolulu, Hawaii
Conducted market feasibility studies to provide development guidelines for the redevelopment of the 50-acre Iwilei property. The site is located near downtown Honolulu in an area transitioning from industrial to commercial uses, and was previously occupied by the Dole Cannery. The market analysis concentrated primarily on the market potential for outlet-type retail shopping activities and "bull-pen"-type office space. Major issues raised by the study pertained to the site's relative accessibility for both local residents and visitors.

CASTLE & COOKE PROPERTIES, INC.: Mililani Town Center Market Assessment, Mililani Town, Oahu, Hawaii
Conducted a market analysis of the existing Mililani Town Center, a 166,500 square foot community shopping center located in central Oahu. The primary purposes of the investigation were to first, assess the current market performance of the center given its location, configuration and competitors; second, determine a strategy for expansion of the center to 400,000 square feet of space after giving full consideration to future market positioning, product mix and anchor tenants. Attention also focused on expanding the range of activities at the center to include a variety of service functions in addition to the retail tenants.

CITY OF LAWNDALE: South Bay Galleria Buyout, Redondo Beach, California
Provided a financial evaluation of the ownership interest held by the City of Lawndale in the South Bay Galleria, a regional shopping center that was undergoing renovation by Forest City Development Company. The work performed by the consultant formed the basis for the city's successful sale of its interest in the project to the developer.

CITY OF PASADENA: Lake/Washington Neighborhood Shopping Center, Pasadena, California
Analyzed the development potential for a major new neighborhood shopping center intended to revitalize an older shopping district in Pasadena. The study involved an extensive review of existing businesses in order to assess both the positive and negative impacts of the new facility. The center has been constructed with a supermarket and drug store as the anchor tenants, and has successfully fostered revitalization of the entire district with new commercial development.

MAGUIRE THOMAS PARTNERS: Peter's Landing Specialty Center, Huntington Harbour, California

Provided market and financial consulting services to Peter's Landing, a specialty retail center and marina complex located in the affluent waterfront residential community of Huntington Harbour. Initially, the focus was on evaluating the market potentials for boat slips and retail and office uses. Later, attention was focused on evaluating the financial trade-offs between retention of the marina as a rental program and sale of the berths under a "dockominium" concept.

THE IRVINE COMPANY: Mervyn's Retail Location Study, Various Locations, Orange County
Assisted The Irvine Company (TIC) in evaluating potential alternative locations for Mervyn's department stores on various properties owned by TIC. The study considered both the provision of "blanket" coverage by the chain store throughout Orange County with multiple locations as well as an evaluation of specific sites on TIC lands. Presented results of the study to Mervyn's leadership in Minneapolis.

SAN DIEGO UNIFIED PORT DISTRICT: Embarcadero Master Planning Program Feasibility Studies San Diego, California
Performed market studies leading to the establishment of Seaport Village, a leading specialty retail center of about 200,000 square feet located on the San Diego waterfront. Other market and related investigations have led to development of hotel, marina, convention center and cruise ship terminal facilities along the Embarcadero.

CITY OF IRVINE: Retail Commercial Needs Assessment Study, Irvine, California
Prepared a retail commercial needs assessment for the City of Irvine that considered the long term demand for and supply of retail commercial space in the community. One of the sites investigated ultimately became the Spectrum specialty/entertainment center. The results of the study were somewhat controversial, as the analysis was critical of a number of the existing and proposed retail locations in the residential villages of Irvine with respect to their long term economic viability.

DAVID HOCKER & ASSOCIATES: Shelter Cove Shopping Centers, Palmetto Dunes, Hilton Head, South Carolina
Performed market investigations of the potential for (1) a 200,000 square foot specialty retail shopping center anchored by "downsized" department stores, and a (2) 120,000 square foot convenience retail center. While the convenience center was accepted and completed as originally conceived, there was significant resistance from department stores to the concept of the specialty center in a resort setting because of the low visitation at Hilton Head during the prime Christmas season.

ARROWHEAD REGIONAL DEVELOPMENT COMMISSION: Downtown Duluth Regional Center Evaluation, Duluth, Minnesota
Performed a comprehensive economic and fiscal analysis of alternative locations for a regional shopping center in the Duluth region. While the study clearly showed the advantages to the community of utilizing the downtown as a location for the facility, these potential benefits did not convince potential chain retailers that there was sufficient market support for the facility or that the center city location could be successfully "retrofitted" with large quantities of retail space.

NANSAY CORPORATION: Market Assessment of Retail Potentials, Westwood Mixed Use Project Westwood, California
Analyzed the market potential for development of a major new retail center in Westwood. The study documented the need for quality retail stores and restaurants in the Westwood area, though the stigma associated with Westwood following several crimes of violence plus the recession of the early 1990s effectively doomed the project. Notwithstanding, in recent years Westwood has been rejuvenated on a piecemeal basis with many of the retail activities proposed in the study.

PRUDENTIAL REALTY/MELVIN SIMON COMPANY: Marina Place Economic/Fiscal Impact Study, Culver City, California
Provided market assessments and economic and fiscal impact analyses of the proposed Marina Place regional shopping center as part of the consultant team that was successful in obtaining approvals for the proposed development on a 30+/- acre site near Marina del Rey. Unfortunately, regional economic conditions coupled with the decline in performance of traditional department stores led to the project's demise; the site was developed instead with a Costco department store.

HAWAII OMORI CORPORATION: Lahaina Cannery Shopping Center Evaluation, Lahaina, Maui
Performed a series of market evaluations for three properties owned by Hawaii Omori Corporation that were located

in the Town of Lahaina, Maui. One of the properties serves as the site for the Lahaina Cannery Shopping Center, an existing 180,000 square foot facility. The study examined the possibility of developing a multi-centered retail complex with both specialty and convenience retail nodes designed to serve the full range of resident and tourist retail needs.

MAUNA LANI RESORT, INC.: Specialty Retail Center Market Studies, Mauna Lani, South Kohala, Big Island of Hawaii
Analyzed the market potentials for the development of a specialty retail center at Mauna Lani Resort. The analysis focused on upper-income visitors and their propensities to support specialty retail shops in hotels and at "boutique" centers similar to The Shops at Kapalua. The study identified candidate tenants for the development, provided recommendations regarding store mix, and offered suggestions with respect to the optimum location for the facility within the resort.

ALOHA TOWER DEVELOPMENT CORPORATION: Aloha Tower Development Program, Fazes I and II, Honolulu, Hawaii
Prepared developer selection criteria and evaluated business terms of proposals for redevelopment of the Aloha Tower complex, a $1 billion redevelopment program for the downtown Honolulu waterfront featuring a "festival market" specialty retail center, the precursor to current "entertainment/retail" projects. The first phase of the project, Aloha Tower Marketplace, was completed in 1994. Following the selection of the preferred developer, Enterprise Development Company, provided leasing advisory services and negotiated the business terms of the lease agreement between parties.

STATE OF HAWAII EMPLOYEES RETIREMENT SYSTEM (ERS): Kaahumanu Regional Center Expansion, Kahului, Maui, Hawaii
Provided a market and financial evaluation of the proposed expansion of Kaahumanu Center from 316,600 square feet of gross leasable area (GLA) to 542,600 square feet. The only regional center located on Maui, the property was owned by Maui Land & Pineapple Company, developers of Kapalua Resort. The analysis measured investment returns to the State of Hawaii ERS under a range of future outcomes. Of particular significance were the assessments of potential competitive impacts on the center from Mainland retailers entering the Maui market. The expansion program was successfully completed.

STATE OF HAWAII EMPLOYEES RETIREMENT SYSTEM (ERS): Waikele Shopping Center, Central Oahu, Hawaii
Completed a due diligence review of a proposed power center and an outlet mall which were developed on 40+/- acres of freeway frontage in the Waikele master-planned community. The services provided to the ERS included a review of major sources of demand for retail goods and services, a survey of existing and proposed competitive facilities on Oahu, and a detailed examination of the developer's proposed tenant mix and pro forma financial projections. Also compared actual leases with the pro-forma rent schedules to ensure that the project would achieve its target levels of return.

QUEEN LILIUOKALANI TRUST/FIRST HAWAIIAN BANK: Mauka Lands Evaluation,Kailua-Kona, Big Island of Hawaii
Served the Queen Liliuokalani Trust as market and financial advisors for 1,200 acres of land located in Kailua-Kona on the Big Island of Hawaii. Following its re-classification to urban use by the State Land Use Commission, provided assistance to the Trust by performing market studies for the site and reviewing proposals for the first phase of development from shopping center developer candidates. The project has gone forward successfully, and several increments of retail commercial development have been completed.

T & S DEVELOPMENT, INC.: Regional Shopping Center Assessment, Riverside, California
Provided a critique of the market study that supported the expansion of the existing Tyler Mall regional shopping center. Also presented a comparative analysis of the economic benefits resulting from the proposed expansion of Tyler Mall with an alternative program to develop a new regional center at Canyon Springs Road.

DONAHUE/SHRIBER AND THE IRVINE COMPANY: Comparative Analysis of Alternative Sites, City of Irvine, California
Assisted the shopping center developer and the Irvine Company in evaluating alternative locations for the development of Target department stores. Primary focus was on two sited in the City of Irvine – Interstate-

5/Myford and Culver/Barranca. The principal basis for comparison was the demographic characteristics of the primary market areas served by the two locations.

HOMART DEVELOPMENT CORP. (SEARS): Proposed Regional Shopping Center, Eugene, Oregon
Evaluated the market potential for a regional shopping center to be located in the Eugene, Oregon metropolitan area. The results of the study suggested that the market was likely too small to absorb the retail space proposed in the Homart project.

THE IRVINE COMPANY: Proposed Regional Shopping Center, Orange County, California
Provided a market analysis of the future potentials for a regional shopping center located on Santiago Canyon Road easterly of the City of Orange. The primary purpose of the study was to guide the master planning for the area and make necessary allocations for lands sufficient to accommodate future commercial space requirements.

AHMANSON COMMERCIAL DEVELOPMENT CORPORTATION: Palm Desert Community Shopping Center, Palm Desert, California
Performed market and financial feasibility studies for this recently completed community shopping center located on Highway 111 adjacent to the Palm Desert Town Center regional mall. One purpose of the study was to consider a tenant mix that would be able to effectively compete with the regional mall.

LOS ANGELES COUNTY CHIEF ADMINISTRATIVE OFFICE: Civic Center Mall Retail Analysis Civic Center Mall, Los Angeles
Evaluated the market potential for specialty retail and service commercial uses at a potential retail location on the Civic Center Mall near the Music Center. The purpose of the facility was to provide for the needs of governmental workers and visitors to County Hall of Administration. Consulting services also included lease negotiations with candidate tenants for the project.

Exhibit B

LETTER 26

Carter::Burgess

2033 Howe Avenue, Suite 220
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Fax: 916. 929.1772

September 19, 2007

Mr. Patrick M. Soluri
Soluri & Emrick, LLP
1822 21st Street, Suite 202
Sacramento, CA 95814

RE: Sacramento Railyards Project

Dear Mr. Soluri:

At your request, Carter & Burgess has reviewed the Draft Environmental Impact Report (DEIR), Specific Plan and related planning documents for the Sacramento Railyards project, with a focus on the Alternatives to the Project contained in Section 8 of the DEIR. We strongly support the City's efforts to transform the Railyards from an underutilized and environmentally contaminated site into a transit-oriented, attractive, and vibrant urban place. We are also encouraged to note the Specific Plan's focus on creating a dynamic 24-hour urban environment that provides a range of complimentary uses – including cultural, office, hospitality, entertainment, retail, residential educational and open space – and a mix of housing products, including affordable housing.

As required in Section 15126 of the California Environmental Quality Act Guidelines (Consideration and Discussion of Alternatives to the Proposed Project), "An EIR must describe a range of alternatives to the project, or project location, that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

The stated objectives of the project include the following:

- Integrate the Railyards area into the fabric of the existing Central City;
- Create a dynamic 24-hour mixed use urban village that provides a range of complementary uses—including cultural, office, hospitality, entertainment, retail, residential and open space-- and a mixture of housing products, including affordable housing;
- Connect the Railyards area with Sacramento's downtown office, retail, government center areas, Old Sacramento, the Richards Boulevard area, and the Alkali Flat neighborhood, using pedestrian and bicycle facilities, roadways, and public transportation routes;
- Connect the Railyards area to the Sacramento River waterfront, and allow for hotel, public open space, residential waterfront and recreational uses consistent with the

Riverfront Master Plan that will result in a vibrant waterfront, valuable to the region and the City;

- Transform the Railyards area from an under-utilized and environmentally contaminated industrial site into a transit-oriented, attractive, and nationally renowned mixed-use urban village;

- Utilize the historic Central Shops buildings as a heritage tourism draw and as inspiration for a mix of uses that will help to create a culturally-vibrant, urban community;

- Create a development that is a regional draw for the City of Sacramento due to its geographic location downtown near the Sacramento River waterfront and its unique mix of transportation, residential, cultural, office, hospitality, entertainment, retail and open space uses;

- Provide a mixture of uses that complement and support the City's planned Sacramento Intermodal Transit Facility (SITF), connecting the Central City to the region, the state and beyond; and

- Create a sustainable community that utilizes green building technology, water conservation measures and renewable energy sources.

Section 8 of the DEIR analyzes four project alternatives, including a No Project/ No Development Alternative, a No Project/ General Plan Buildout Alternative, a Reduced Density/ Reduced Intensity Alternative, and a Water Supply Constrained Alternative. The No Project/ No Development and No Project/ General Plan Buildout Alternatives are rejected as failing to meet the project objectives for developing a mixed use urban center. The Reduced Density/ Reduced Intensity and the Water Supply Constrained Alternatives are rejected on the basis that the office and residential development anticipated in the Specific Plan would need to be accommodated elsewhere in the region, due to projected population and job growth. These uses would be developed farther from the downtown core and result in increased levels of traffic congestion on regional roadways, higher levels of air pollutant emissions, and more conversion of farmland to urban sprawl in the region. The DEIR concludes the Specific Plan as proposed is the environmentally superior alternative, in that it avoids the aforementioned higher overall levels of environmental impacts to the greater region.

In our opinion, the Alternatives to the Project section of the DEIR is deficient, because it fails to consider a readily available alternative that would meet all of the project objectives, reflect a greater degree of consistency with the City's goals for mixed-use development in the downtown core, and reduce the severity of potential environmental impacts. This alternative would entail a significant adjustment to the proposed project phasing program. 26-37

Although not clearly outlined in Section 3 (Project Description) of the DEIR, other associated planning documents and staff reports (reference the July 12th Staff Report to Planning Commission) indicate the project will be broken into two phases: an Initial Phase consisting of Phases 1A, 1B and 2 of the Specific Plan and the Full Project Phase consisting of Phases 3 and 4. There exists, in our judgment, an extreme imbalance in the land uses and types of development between these two phases. The Initial Phase envisions development of 1,373,800 square feet, or 89%, of the total planned retail and up to 3,078 dwellings, or 25%, of the total planned residential. The Staff Report notes the Initial Phase will include a large-box destination retail use (Bass Pro Shops), and regional-drawing retail and entertainment uses. The Full Project Phase contains the remaining 11% (165,000 square feet) of the commercial retail and the remaining 75% (up to 9023 units) of the residential development.

There are three significant drawbacks associated with front-loading the project phasing with large-box and regional-oriented retail uses. First, the phasing may impede realization of the land use synergies necessary for a successful transit oriented development (TOD), by postponing the smaller-scale, neighborhood-oriented uses to the latter stages of the project. Given the cyclical nature of the residential market, and the structure of the phasing program (which includes a super-majority of the retail commercial development and a super-minority of the residential development in the Initial Phase) the City could lose the opportunity to create a truly mixed-use urban village as envisioned in the project objectives. Retail commercial development could proceed as part of the Initial Phase while construction of the residential units could stall indefinitely due to a depressed housing construction market.

26-37 (con't.)

Second, the phasing program exacerbates the potential for urban decay identified in the project Urban Decay Study prepared by Keyser-Marston Associates, Inc. in Appendix N of the DEIR. The study clearly notes that the Railyards Projects' planned 1.5 million square feet of retail development will contribute to a projected imbalance between comparison retail sales requirements (i.e. sales venues) in the trade area and comparison retail sales potential (i.e. consumer demand) in the trade area. Until the future comparison retail market supply is sufficient to support future retail sales requirements, the more vulnerable retail locations in the trade area may experience an interim period (until a least 2015) of economic instability that could lead to vacancies, which, if not mitigated, could be a prolonged condition.

Third, the phasing program exacerbates the severity of the significant traffic and air quality impacts anticipated in the Initial Phase of the project, by virtue of the fact that retail development generates substantially more traffic than residential development. These impacts could be more easily and successfully addressed if the rate of retail development is metered to a commensurate rate of residential development.

The City should require a more balanced and sustainable approach to the phasing program – one that assures development of the residential units concurrent with the proposed commercial retail. Further, this balanced phasing program should be analyzed in the Alternatives to the Project in

the DEIR, and if found to be environmentally superior while still meeting the project objectives, adopted as the Preferred Project Alternative.

26-37 (con't.)

In conclusion, we would like to reiterate our support of the City's ongoing efforts to revitalize the central city, and share their enthusiasm towards realizing the development of the Sacramento Railyards as a vibrant, sustainable mixed-use urban community. If you have any questions regarding this letter, please call me at 916-929-3323.

Sincerely,

JON R. HILLIARD
Senior Land Planner

Cc: Ken Smith

Exhibit C

LETTER 26

Carter=Burgess

2033 Howe Avenue, Suite 220
Sacramento, California 95825-0181
Phone: 916.929.3323
Fax: 916. 929.1772

September 18, 2007

Patrick M. Soluri
SOLURI & EMRICK
1822 21st St, Suite 202
Sacramento, CA 95814

Mr. Soluri,

Upon reviewing the DEIR, some questions and concerns have surfaced regarding the drainage of storm water runoff at the Railyard site. The report mentions that the site already has ponding and drainage issues as it stands undeveloped; after construction, the increase in impervious area will also increase storm water runoff. In fact, the Regional Board has indicated its concern that due to the existing remediation of the property, the developer should implement measures that will actually reduce percolation in open spaces. This will further increase the post-construction storm water flows. The proposed method for handling this increase in storm water runoff is the use of a "cistern" planned to be located near the northwesterly corner of the Specific Plan Area. This cistern will operate as a dual-use water quality/detention basin by treating the "first flush" storm water runoff as well as storing water to be later pumped into the Combined Sewer and Sanitary System (CSS) or the Sacramento River. Some concerns encountered with the cistern are as follows:

- A time frame of construction of the cistern is undefined.
- A responsible party for the construction and maintenance of the cistern is unclear.
- The design for the cistern is not stated. In fact, Impact 6.6-2 states that the "proposed cistern design has not been completed and the CVRWQCB has not approved the discharge from the cistern." It is difficult to determine the environmental impact on water quality and storm water runoff without additional information pertaining to the design of the cistern.
- The applied method for determining the 27 ac-ft runoff is not apparent.
- The effectiveness of the cistern to attenuate peak storm water runoff and address water quality concerns seems uncertain. Perhaps rather than the proposed mitigation measure 6.6-2 to "limit discharges", the developer should be required to obtain Regional Board approval of the design of the cistern or other treatment methods prior to the issuance of grading permits.

26-38

Without the cistern, the post-construction storm drain run off may significantly affect the water quality of the Sacramento River. The DEIR does not propose another means of treatment.

Please feel free to contact us with any further questions or concerns.

Sincerely,

David Lawson

Exhibit D

LETTER 26

October 3, 2007

Mr. Patrick Soluri
SOLURI & EMRICK
1822 21st Street
Suite 202
Sacramento, California 95814

Re: COMMENTS CONCERNING THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE RAILYARDS SPECIFIC PLAN

Dear Mr. Soluri:

At your request, we have completed our review of the Railyards Specific Plan Draft Environmental Impact Report (Draft EIR) with regard to Air Quality, Archeological Resources and Urban Design and Visual Resources. Our comments focus on issues within these topics that relate directly to the adequacy of the Draft EIR's inquiry and conclusions. Our comments are presented as follows:

AIR QUALITY

Impacts from Toxic Air Contaminants

The Draft EIR errs in its determination that risks from placing new sensitive receptors near to the existing sources of toxic air contaminants (TACs) were found to be less than significant. The errors include:

1. Significance Criteria

The Draft EIR sets a significance criterion for proposed residential receptors to be sited near a major source of mobile TACs at a lifetime increased cancer risk of 446 in one million. The Draft EIR erroneously attributes this significance criterion as being established for that purpose by the Sacramento Metropolitan Air Quality Management District (SMAQMD). The SMAQMD issued the *Draft Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways* (Protocol) in January 2007. The stated purpose of the Protocol is as follows (page 2):

> One is to assist local land use jurisdictions in assessing the potential cancer risk of siting sensitive land uses adjacent to major roadways. The second purpose is to provide a disclosure mechanism for those risks. The third is to show the relationship between potential cancer risk from diesel particulate matter exposure and distance from the major roadway.

26-39

The SMAQMD goes on to say (page 2):

> This document does not provide an acceptable cancer risk level or a regulatory threshold; therefore it does not establish which projects are acceptable and which are not. Local land use jurisdictions retain all authority and decide after considering all relevant factors whether the project is appropriate.

The Protocol emphatically states (page 10):

> Note that the evaluation criterion does not represent a "safe" risk level or a regulatory threshold; it is simply the point at which a site specific health risk assessment is recommended.

In addition, the California Air Resources Board (CARB) has issued guidance recommending that sensitive land uses be sited no closer than 500 feet from a freeway or other high traffic roadway. Due to the advisory nature of this guidance, SMAQMD recommends that a site specific health risk assessment (HRA) be performed for proposed development within this 500 foot distance. In its Guide to Air Quality Assessment in Sacramento County (July 2004), the SMAQMD states (see Section 2.6.4 Toxic Air Contaminants Significance Thresholds):

26-39 (con't.)

> The HRA procedure involves the use of an air quality model and a protocol approved by the Air District. Currently no adequate acceptable methodology is available to assess TACs from mobile sources, or to cumulatively assess mobile and stationary sources of air toxics, therefore the environmental document may conservatively consider impacts from TACs significant and unavoidable. The recommended significance thresholds for TACs include:
>
> - Lifetime probability of contracting cancer is greater than 10 in one million;
> - Ground-level concentration of non-carcinogenic toxic air pollutants would result in a Hazard Index (HI) of greater than 1.

On page 6.1-29 of the Draft EIR, it states "...the cancer risks from the freeway diesel particulate matter (DPM) are considered less than the threshold in the SMAQMD guidance (446 per million)." This approach is inconsistent with both SMAQMD guidance documents discussed above. Specifically, the Protocol establishes 446 per million as a threshold under which a refined project-specific HRA (e.g. dispersion modeling) is not required and not as a threshold for determining whether the specific impacts of a project are significant under CEQA.

2. Contradictory Results

The Draft EIR also errs in stating that the unmitigated risk from construction, evaluated in the second technical study, *Health Risk Assessment of Diesel Particulate Matter (DPM) and Soil Fugitives from Construction Activities* (August 2007), is less than significant, which is in contradiction to the supporting quantitative technical study that includes specific data that shows the cancer risk is greater than the significance criterion that should be utilized. 26-40

3. Assumptions Used in the Analyses

Details regarding assumptions used in the analyses, germane to the evaluation and ultimate determination of significance, have been omitted from the Draft EIR. For example, the screening HRA (Appendix O of the Draft EIR) only discusses residential land uses to the east of the I-5 freeway and north of the rail lines. However, the Draft EIR draws conclusions regarding potential residences to the west of the freeway. The Land Use Plan identifies potential Residential Mixed–Use (RMU) to the west of I-5 and directly north of the rail lines, and Residential/Commercial Mixed–Use (RCMU) apparently straddling both east and west of a stretch of the freeway. The reader is unable to easily and clearly ascertain what distances from the major sources of TACs residences are contemplated under the Specific Plan. The Draft EIR uses 50 feet west (upwind of the freeway) and 200 feet east (downwind) of the freeway as design features for evaluation. With respect to the risks from the rail operations, the screening HRA concludes that "...no matter where the new residence is placed, the cancer risks from the locomotive DPM are considered less than the evaluation criterion..." 26-41

Upon review of the screening HRA, the reader is lead to conclude that the study and Draft EIR are establishing a minimum set back distance, beyond which the maximum risks fall below the SMAQMD's evaluation criterion. The risks may not fully account for the potential worst-case scenario with respect to proximity.

The evaluation criterion is the distance at which, given the freeway volume and simplified physical geometry, the risks can be estimated using the provided look-up tables, rather than performing a detailed, site-specific HRA. Therefore if the proposed project allows (or does not specifically disallow) residences within close proximity to the freeway (200 feet and less to the east or 50 feet and less to the west), a detailed, site-specific HRA is required. This was not performed. The SMAQMD Protocol states if the building envelopes are not known at the time of the evaluation, "...the receptor should be placed at the edge of the property boundary." If the distances used in the evaluation are the closest potential distance possible, it should be stated explicitly in the Specific Plan or accompanying zoning regulations, or be otherwise established in the engineering and design studies.

4. Underestimated Risk

The SMAQMD Protocol states that the methodology was developed for simplified roadway scenarios, and is not appropriate (without future refinements) for multiple roadways or other non-roadway TAC sources. The screening HRA applies the protocol to the DPM emissions from the rail operations, and states that the SMAQMD concurred with this approach. Of bigger issue is the lack of consideration in the Draft EIR of the potential effect to sensitive populations arising from exposure to both sources of DPM. The Land Use Plan (see Figure 3-5 of the Draft EIR) identifies some land, designated RMU, which is within 500 feet of both the I-5 freeway and the rail lines. Had a site-specific detailed HRA been performed, which allocates emissions both spatially and temporally to more accurately represent local conditions, the compounding effect would have been calculated for all receptors.

Additionally, the second technical study performed detailed dispersion modeling and health effects screening for construction activities. However, the risk from exposure to TACs released from the soil was assessed separately from the risk from exposure to exhaust DPM from off-road construction equipment. These risks are in fact directly additive as they occur concurrently; the off-road diesel equipment is the mechanism by which the soil is disturbed and TACs released. The risks may be underestimated because they do not consider the changing location of sensitive populations. The existing project boundary was used to establish the location of nearest receptors. Because the specific plan is slated to take 20 years to build out, the exposure of future on-site residential receptors to construction generated TACs in nearby parcels should be evaluated.

26-42

This focused HRA correctly identifies cancer risk of 10 in one million and HI of 1.0 as the applicable significance criteria (see Item No. 1 above), and risks predicted separately from soil and mobile TAC exposure are found to exceed these criteria (page 5-10 of the *Health Risk Assessment of Diesel Particulate Matter (DPM) and Soil Fugitives from Construction Activities*). These numeric values are not presented in Section 6.1 of the Draft EIR; rather the text directs the reader to Section 6.5, Hazards and Hazardous Substances, for additional discussion. The numeric results of the HRA are not presented in Section 6.5 either. Impact 6.5-3 concludes qualitatively that soil remediation activities, occurring concurrently with the development of the proposed Specific Plan could expose occupants to adverse health effects, and poses a potentially significant impact (page 6.5-30). The Draft EIR is internally inconsistent and contradicts the project-specific technical studies, resulting in an under representation of the potential risks.

Given the complex spatial and temporal nature of TAC emissions from the freeway, rail operations, and on-going site construction in the Specific Plan Area, it is suggested that a detailed refined HRA be performed to better quantify the compounding risks.

5. Recommendations

Due to the numerous compounding errors stated above in Items No. 1 through 4, the Draft EIR should be re-drafted and recirculated. The DEIR concludes that "...the project would generate a less-than-significant impact related to cancer risks generated from vehicle emission (specifically, diesel emissions) under buildout conditions." (page 6.1-26). However, this conclusion is reached by inappropriately applying the SMAQMD's screening methodology. The evaluation criterion of 446 in one million increased cancer risk, is the value over which the SMAQMD recommends that a site-specific HRA be performed. The Protocol clearly states the "evaluation criterion does not represent a "safe" risk level or a regulatory threshold". The Protocol further instructs evaluators to report the value from the screening tables in their environmental documentation, which the Draft EIR also fails to do. In recent conversation with the SMAQMD, the recommended significance criteria for mobile source TACs are the same as stationary source standards: 10 in one million increased cancer risk, and HIs of 1 for acute and chronic non-cancer risks. For these reasons, the DEIR fails to fully disclose potential serious health impacts. 26-43

Impacts to Global Climate Change

The Draft EIR errs in its assertion that Global Climate Change (GCC) should not be address in the Impacts Analysis. The Draft EIR states "...it is not appropriate to address the issue within the confines of typical CEQA analysis of cumulative impacts..." (page 6.1-16). Although there remains much uncertainty surrounding the issue of green house gases (GHG) and GCC, Lead Agencies throughout California are performing analyses, and making significance determinations under CEQA. Public Resource Code § 21002.1(b) establishes that the lead agency has the fundamental responsibility to determine whether an impact is significant, triggering the obligation to analyze and require feasible mitigation. Furthermore CEQA Guidelines Section 15064(b) note that "[a]n ironclad definition of significant effect is not always possible ...". 26-44

The approach in this DEIR, to omit quantifying the Project's GHG contribution and to avoid making a conclusion as to the significance of global warming because it lacks the necessary facts, analysis, adopted methodology or thresholds, does not satisfy CEQA. The DEIR should be updated to include a discussion on the regulatory and existing environmental setting, significance criteria, quantitative and qualitative analyses, determination of significance, and mitigation measures if warranted. CEQA expects no less. These additional analyses would require the recirculation of the DEIR for review and comment.

CULTURAL RESOURCES

Archeology

Based upon review of the archaeological portion of the cultural resources section of the Railroads Specific Plan Draft EIR and the cultural resources technical report (Appendix G), we have several concerns with the information, analysis, and mitigation measures as presented therein:

1. Discrepancy Between the Area Addressed by the Technical Report and the Area Addressed by the Specific Plan Draft EIR.

The cultural resources section indicates that the technical report addresses an area referred to as the Initial Phase Area. In turn, the term Specific Plan Area is defined as the entire geographic area addressed on a programmatic level by the analysis in the Draft EIR. The cultural resources section specifically states that the Initial Phase Area or Project Area refers to an area that is smaller than the Specific Plan area and that is addressed in greater detail by the technical report. Maps of the area studied in the technical report identify a smaller area than the area addressed by the Draft EIR; the area not addressed by the Draft EIR is the northeastern part of the railyard. Maps of the Initial Phase Area in the cultural resources section of the Draft EIR, however, have the same boundary as the Specific Plan Area outlined in maps in the project description portion of the Draft EIR. Therefore, it appears that the Draft EIR extends recommendations from the technical report over an area not addressed by the technical report. Further, there is no description in the Draft EIR cultural section of any additional studies or consideration of the portions of the Specific Plan Area not addressed by the technical report.

26-45

2. Lack of Detail from Record Searches with Respect to Prehistoric Resources.

Both the technical report and cultural resources section of the Draft EIR report that assessment of the archaeological sensitivity of the Initial Phase Area included record search information. Description of the record search results, however, is given in summary fashion, indicating that only one prehistoric site has been previously identified in the Initial Phase Area, and does not adequately describe the distribution of previous studies. This information should be balanced against the number and types of archaeological investigations conducted in the Initial Phase Area, the depth at which the prehistoric site was identified, and an assessment of the overall depths and nature of deep ground disturbance in this historically developed area.

26-46

3. Definition of Archaeologically Sensitive Areas not Well Supported by Data and Analysis, Particularly for Prehistoric Resources.

Archaeologically Sensitive Areas (ASAs) were defined for the Initial Phase Area in the technical report. Definition of ASAs for prehistoric resources are described as having been based on

26-47

ethnographic and topographic information. The ethnographic information is described as indicating that cultural resources are most likely to be found on high ground, but is not otherwise detailed. It is noted in the technical report that early 19th century topography of the area is no longer visible as it has been filled in (see page G-5). The technical report indicates that historic maps were used to identify now-hidden topography, but details of past topography of the area are not provided. Human occupation of the project vicinity began at least 4,000 to 5,000 years ago; the emphasis on ethnographic data and historic topography do not adequately address settlement patterns and their possible relationships to the distribution of river channels and marshland in the Initial Phase Area prior to ethnographic times. Moreover, archaeological sensitivity of areas outside of ASAs is not addressed in either the Draft EIR or the technical report. The mitigation measure recommended to implement a testing plan and mitigation plans do not provide sufficient detail to guarantee landscape-level study of these sensitive areas.

26-47 (con't.)

4. Mitigation Measures are Described in Terms of Archaeologically Sensitive Areas

Testing and monitoring are required only in Archaeologically Sensitive Areas. Given the apparent discrepancy between the area covered by the technical report - which is the only area in which Archaeologically Sensitive Areas have been defined - and the Specific Plan Area, to which the mitigation measures apply, there is potential for an archaeologically sensitive area to not have been appropriately studied, defined, or mitigated. Thus, significant archaeological resources within the Specific Plan Area may remain unidentified and undisclosed. This omission should be cured by expanding the scope of Archeological investigation to include the entire Specific Plan Area, re-drafting and re-circulating the Draft EIR

URBAN DESIGN AND VISUAL RESOURCES

The conclusions drawn in the assessment appear arbitrary and unresponsive to the legitimately wide range of opinion that invariably regards visual resources. Impact hypotheses 6.13-1 is posed at page 6.1-23 as follows: " East of I-5, the potential development of large-floor plate and high-rise buildings across the project site could alter public views." The conclusion reached in the Draft EIR at page 6.13-25 in response to the foregoing hypothesis is "Although views of and from the project site would be modified from the existing conditions, the proposed project would not degrade the existing visual character or quality of the site and its surrounding. Rather, development consistent with the proposed Specific Plan would contribute to the visual character and interest of downtown Sacramento, and would improve the visual quality of the downtown area. As such, development under the proposed project would not degrade the existing visual quality of the area or obstruct key existing views and/or vistas in the vicinity. This impact is considered less than significant."

26-48

Impact hypothesis 6.13-2 is stated as follows: "The potential development of high-rise buildings adjacent to the riverfront could represent an introduction of building height and mass that conflicts with the character of the riverfront between Old Sacramento and the Jibboom Street Bridge." At page 6.13-31 of the Draft EIR, the conclusion reached regarding the second hypothesis is "The Guidelines establish specific bulk requirements that would ensure the creation of slender towers with sufficient separation that through-views to the River from I-5 would remain. Notwithstanding the subjective nature of visual effects, the implementation of these Design Guidelines would guide development so that it would be consistent with the intent of the relevant policies of the Sacramento River Parkway Plan and would eliminate the potential for a significant visual conflict or blockage of views such that the impact would be less than significant."

In both cases, a conclusion of less than significant impact is reached, yet there is no real analysis to demonstrate that such impacts would indeed be less than significant. For example, the generalized height diagram in the EIR indicates that buildings with heights up to 450 feet would be located between the I-5 and the river. Yet there are no visual renderings, sections or elevations that demonstrate that views of the river from I-5 would not be obstructed. Such graphics are typically included within EIRs, particularly when high-rise buildings are proposed adjacent to known visual resources. The need for this analysis is underscored by the project's conversion of some 240 acres of largely open land directly adjoining the urban core of the Sacramento Metropolitan Area wherein most of the land will be subject to "unrestricted" building heights. Rather than providing the analysis necessary to demonstrate that aesthetic and view impacts would be less than significant, the conclusions tread on the presumption of new development in compliance with municipal goals and policies.

26-48 (con't.)

It is also interesting to note that with regard to impact hypotheses 6.13-3 and 6.13-4 regarding program potential to create new sources of nighttime light and glare, respectively, it is concluded that the same development program with the same mass, height and distribution will have potentially significant impacts prior to mitigation. How could such a development program causing such complete visual transition in a large downtown environment have significant impact at night or in reflection, but not in plain sight during daylight?

Sincerely,
PCR SERVICES CORPORATION

Gregory J. Broughton
President

Exhibit E

LETTER 26

September 21, 2007

Patrick M. Soluri
SOLURI & EMRICK
1822 21st St, Suite 202
Sacramento, CA 95814

Re: Peer Review of Railyards Development Project Draft Environmental Impact Report (DEIR) Transportation and Circulation Section 6.12

Dear Mr. Soluri:

Per your request, VRPA Technologies, Inc. has conducted a peer review of the Railyards Development Project DEIR Transportation and Circulation Section 6.12, as documented in an April 2007 report prepared by PBS&J/EIP.

Based upon our peer review of that document and the identification of other transportation issues, VRPA Technologies, Inc. has prepared the following detailed comments:

26-49

- **Study Area/Street and Road Network:** The analysis for the Transportation and Circulation report does not appear to be extensive enough. Trips will be attracted from the developed area surrounding the proposed project; however, a significant number of trips will be attracted to the project from the surrounding "region", which means that additional interchanges and other major intersections and street and highway segments may be impacted by the proposed project. While a traffic assessment meeting was conducted between the City and the traffic consultant to determine the intersections and interchanges that should be studied, the consultant should have applied results of a select zone analysis using the regional traffic forecasting model to identify the number and percentage of project trips assigned to the street and road network within the region. This test should be conducted by the traffic consultant to ensure that all potential impacts that may result from the project are addressed. As an example, review of just one intersection identified as #48 in Figure 6.12-1, indicates that at least 100 peak hour project trips would impact the intersection directly to the west. That intersection was not analyzed. Typically, traffic studies are required to analyze all intersections that may attract 100 or more peak hour trips because the level of service at an intersection can change by one grade level of service with the addition of such trips.

26-50

Referencing the City of Sacramento Development Services' website, http://www.cityofsacramento.org/dsd/development-engineering/TrafficImpactStudy.cfm, "A traffic study is required if a project has a potential to create a significant transportation-related environmental impact or a detriment to public safety. The following guidelines have been established to determine if a traffic study is required:

- The project will generate more than 100 new trips during the peak traffic hours of the adjacent roadways (AM, PM, or Midday).
- The project will generate more than 50 new peak hour trips, and if a transportation facility (roadway and/or intersection) located on a main access route to the site is currently operating at an unacceptable Level of Service."

As a result of the above referenced requirement, the traffic consultant should expand the traffic impact study to include all intersections that will attract 100 or more peak hour trips based upon the select zone analysis using the regional traffic model.

26-51

- **Traffic Counts:** As stated in the DEIR traffic counts were taken under the direction of the consultant and the times and dates were documented in DEIR. Approximately 39 existing intersections were analyzed, however only 34 of the 39 count sheets were available in the Appendix of the documents referenced. Typical engineering practice requires that traffic counts should be conducted on Tuesdays, Wednesdays and Thursdays because traffic is lighter on Mondays (employees call in sick) and on Fridays (employees leave early for the weekend). Reviewing the traffic count data sheets, it should be noted that the intersection of 12th Street and Dos Rios was counted on a Monday and may not be representative of average weekday traffic conditions. At a minimum, the intersection should be recounted and the level of service analysis should be revised.

26-52

Referencing the reports, the following intersections were analyzed by the consultant:

Existing conditions – 39 intersections (Table 6.12-1)
Baseline conditions – 39 intersections (Table 6.12-4)
Baseline with Initial Phase conditions – 53 intersections (Table 6.12-5)
Future (2013) No Project conditions – 39 intersections (Table 6.12-6)
Future (2013) with Initial Phase conditions – 53 intersections (Table 6.12-7)
Future (2030) No Project conditions – 57 intersections (Table 6.12-8)
Future (2030) with Initial Phase conditions – 60 intersections (Table 6.12-9)
Future (2030) Full Build conditions – 64 intersections (Table 6.12-10)

In addition, the following segments were analyzed:

Existing Conditions – 8 segments (Pages 6.12-12/13)
Baseline Conditions – 8 segments (Pages 6.12-12/13)
Baseline with Initial Phase conditions – 21 segments (Pages 6.12-12/13)
Future (2013) No Project conditions – 8 segments (Pages 6.12-12/13)
Future (2013) with Initial Phase conditions – 21 segments (Pages 6.12-12/13)
Future (2030) No Project conditions – 8 segments (Pages 6.12-12/13)
Future (2030) with Initial Phase conditions – 21 segments (Pages 6.12-12/13)
Future (2030) Full Build conditions – 32 segments (Pages 6.12-12/13)

26-52 (con't.)

Standard engineering practice requires that street and road segments that connect to intersections studied in the traffic study should be analyzed. According to the DEIR, only a fraction of the study area segments were analyzed under existing, baseline and future year conditions. To address this deficiency, the consultant should study all connecting segments to each intersection studied. Without such an analysis, it is not possible to determine the need for additional travel lanes between intersections in the study area.

- **Trip Generation:** Trip Generation was estimated for each of the uses proposed by the project (reference Table 1). Results of the trip generation analysis indicate that the Project will generate 6,185 weekday AM Peak Hour and 11,301 weekday PM Peak Hour trips for the baseline and near-term conditions under the Maximum Office scenario. The Project will generate 3,860 weekday AM Peak Hour and 8,829 weekday PM Peak Hour trips for the baseline and near-term conditions under the Maximum Residential scenario. Trip Generation for the Maximum Office was analyzed for the report as a worst-case scenario.

26-53

Table 1

TRIP GENERATION SUMMARY FOR MAXIMUM OFFICE AND RESIDENTIAL SCENARIOS

Land Use	Weekday	AM PEAK HOUR			PM PEAK HOUR		
		IN	OUT	Total	IN	OUT	Total
Railyards Initial Phase (Baseline & 2013)							
Initial Phase w Max Office	107,150	4,385	1,800	6,185	4,476	6,822	11,301
Intitial Phase w Max Res	94,792	1,916	1,945	3,860	4,296	4,532	8,829
Railyards Initial Phase (2030)							
Initial Phase w Max Office	105,060	4,215	1,765	5,979	4,415	6,639	11,057
Intitial Phase w Max Res	93,781	1,888	1,922	3,810	4,261	4,484	8,747
Railyards Full Project							
Initial Phase w Max Office	149,461	6,185	4,039	10,222	6,473	8,972	15,447
Intitial Phase w Max Res	140,931	3,173	4,290	7,462	6,591	6,478	13,070

Transit, Walk, Bike, and Other Non-Auto travel adjustments were made to the Maximum Office scenario (reference Table 2) and were generally based on information contained in the *Pre-Census Travel Behavior Report, Analysis of the 2000 SACOG Household Travel Survey* (DKS, 2001).

Table 2

TRIP GENERATION ADJUSTMENTS FOR MAXIMUM OFFICE SCENARIO

Land Use	Amount	Unit	Weekday	AM PEAK HOUR			PM PEAK HOUR		
				IN	OUT	Total	IN	OUT	Total
Office (General Office Buiding 710)	2993	KSF	31,175	3,972	542	4,514	773	3,762	4,535
Retail (Shopping Center)	1566	KSF	116,989	1,937	1,376	3,312	5,273	5,510	10,783
Single-Family Residential (210)	11300	Units	50,780	1,072	2,947	4,018	2,639	1,730	4,369
Other			4,819	516	130	645	167	703	869
Total Program Trips			**203,762**	**7,497**	**4,995**	**12,489**	**8,852**	**11,705**	**20,556**
Transit Adjustments (-3.9%)			-6,895	-504	542	4,514	-245	-555	-799
Walk, Bike & Other Non-Auto Travel Adjustments (-8.9%)			-19,454	-435	1,376	3,312	-866	-911	-1,775
Internal Trips Within Project Area Blocks (-5.6%)			-12,635	-193	2,947	4,018	-596	-596	-1,193
Trips To-From Other Blocks within the Project Area (-6.7)			-15,317	-180	130	645	-671	-671	-1,342
New External Trips (%75) of Total Program Trips			**149,461**	**6,185**	**4,039**	**10,222**	**6,473**	**8,972**	**15,447**

The report indicates that approximately 25% of the mode share in the Downtown Sacramento area is attributable to transit, walk, bike and other modes including light rail. While this may be the case for the Downtown area as it relates to employment and other governmental services, the project includes a significant amount of retail development, which is not typically accessed using these modes, especially for services such as sporting equipment, etc. Because there are no guarantees that the retail will attract a 25% transit, walk, bike and other mode share or trip reduction, it is recommended that the reduction for these modes associated with retail trips be eliminated or reduced significantly. If such adjustments are not made, then the City must monitor the development to ensure that the trip reductions are achieved over time.

26-53 (con't.)

- **Trip Distribution/Assignment:** The consultant used the regional travel demand model developed by SACOG and added project trips to determine trip distribution in the study area. According to the DEIR, adjustments to the model assignment of trips were not made by the traffic consultant to provide a more precise distribution of trips. It is highly unusual for a traffic consultant to use model-assigned trips along a roadway without manually adjusting the assignments considering localized conditions; especially along streets and roads immediately adjacent to the project site. The consultant should have reviewed the assignments and should have made appropriate adjustments to the assignments.

26-54

- **Level of Service (LOS) Results:** Capacity analysis for traffic conditions at each of the studied intersections was prepared using SYNCHRO 7 software. It should be noted that the detailed worksheets from SYNCHRO are not complete in the Appendix. As a result, it not possible to determine the parameters that were used or applied using SYNCHRO to achieve the LOS results identified. Without such worksheets, the Draft EIR is considered incomplete and review of the DEIR is not possible during the 45-day review period.

  It is important to recognize the recommended uses for the SYNCHRO software program. The SYNCHRO User Guide indicates that:

  "For projects where exact HCM results are required, we recommend using the HCS (HCM Software Package) to printout the final reports. SYNCHRO can be used to optimize the timings and then the data can be exported to the HCS.

  When to use HCS for Results:

  - *Traffic Impact Studies*
  - *Planning Applications*
  - *Capacity Related Design Decisions*

  The HCS should be used when an officially accepted procedure is required for policy-making decisions.

  When to use SYNCHRO Reports:

  - *Signal Timing and Operations*
  - *Coordination*
  - *Area wide studies when some areas are above capacity."*

26-55

- **Other Traffic/Circulation Issues:** The following additional traffic and circulation issues should be satisfactorily resolved before the traffic analysis is considered complete:

  - **Mitigation/Fee Assessment Analysis:** Considering the large scale of this project, "fair share" percentages associated with the Project should be calculated to ensure that the project pays its fair share of traffic, transit, pedestrian and bicycle improvements.

26-56

It is not possible to make an informed decision about project mitigation unless more detail is provided. Financial calculations for each of the mitigated intersections and segments should be included in the DEIR to depict the "fair share" portion in dollar amounts to address impacts that the project is responsible for mitigating.

Further, mitigation measures are not included in the Baseline With Initial Phase condition for the intersection of 12th St/16th St/Richards Blvd. during the PM Peak Hour (reference Table 6.12-15 page 6.12-70). The intersection has a "F" Level of Service (LOS) and the estimated delay is 183.3 seconds.

In addition, statements listed on pages 6.12-65, 6.12-84, 6.12-100, and 6.12-119 mention that "One or more of the intersections analyzed as part of this system would continue to operate at unacceptable levels after mitigation. Therefore the impact on the transportation system is considered significant and unavoidable." These statements are unclear and fail to document a resolution. Even though the grade LOS may be deficient, there may be other feasible mitigation measures to improve traffic flow through the intersections and along the affected segments; especially in downtown areas where capacity issues are prevalent. Such an analysis was not developed by the traffic consultant.

26-56 (con't.)

Furthermore, mitigation analysis applied to several scenarios was assumed to be significant and unavoidable because the mitigation required is inconsistent with the City of Sacramento goals and objectives to create pedestrian-friendly street environments and to implement Smart Growth policies. While it is good to promote these policies, mitigation measures must be identified within the report to achieve these objectives. The consultant needs to identify strategies and incentives to ensure that the trip reductions associated with the transit, pedestrian/bicycling development will actually occur over time through the use of enforceable mitigation measures and monitoring. The consultant also needs to identify feasible mitigation measures that will improve traffic flow even along deficient facilities to the extent that those facilities can be improved. Bus bays, Transportation Systems Management (TSM) strategies (such as intersection widening, signal coordination, priority signals for buses, etc.) need to be considered. Without such improvements, even the buses they are relying on to move people through and around the study area cannot travel efficiently given the delays along the system that the buses will also experience. A statement that the project will pay a fee for signal timing improvements is not sufficient mitigation.

Finally, the consultant has not identified the impact that the project may have on other transportation systems; especially those systems that the project will rely on to achieve the vehicle trip reductions specified in the

reports. Given the significant number of trips that are anticipated to use transit, and bicycle and pedestrian facilities, it is imperative that the consultant include an analysis of project impacts on those systems, identify applicable mitigation measures and develop a "pro rata share" of costs to implement the measures. Without such an analysis, impacts will not be known and appropriate mitigation strategies or measures cannot be identified.

26-56 (con't.)

Bottomline: If the consultant desires to take credit for a reduction in trip generation due to transit and other modes, then the consultant needs to identify how that reduction in vehicle trips will be achieved. The consultant also needs to identify how the trip reductions will impact these other modes. The California Environmental Quality Act (CEQA) requires analysis of all transportation-related impacts, not just the street and road system in this case.

- **Left-Turn Pocket Analysis:** The consultant provided an assessment of left-turn pockets adjacent to the project site. The methodology appears to be consistent with standard engineering practice.

Should you have any further questions or need further information, please contact me at 559 271-1200 (office) or 559 259-9257 (cellular).

Sincerely,

Georgiena M. Vivian

Georgiena M. Vivian, Vice President
VRPA TECHNOLOGIES

GV/ldb

Exhibit 1

LETTER 26

CITY OF SACRAMENTO

CALIFORNIA

DEVELOPMENT SERVICES
DEPARTMENT

North Permit Center
2101 Arena Blvd., 2nd Floor
SACRAMENTO, CA 95834

Tele 916-808-5381
FAX 916-808-5328

DATE: March 10, 2006

TO: Interested Persons

FROM: LE Buford, Principal Planner
Development Services Department

RE: **NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE RAILYARDS SPECIFIC PLAN, SACRAMENTO INTERMODAL TRANSPORTATION FACILITY AND PROJECT LEVEL AREA DEVELOPMENT**

INTRODUCTION

The City of Sacramento ("City") is the lead agency for preparation of an Environmental Impact Report (EIR) for the "Railyards Specific Plan', Sacramento Intermodal Transportation Facility (SITF) and "Project Level Area" proposing mixed-use development of approximately 240 acres located in the Central City/Downtown area of the City of Sacramento. The EIR is an environmental review document being prepared in compliance with the California Environmental Quality Act (CEQA). Under CEQA, upon deciding to prepare an EIR, the lead agency must issue a Notice of Preparation (NOP) to inform all responsible agencies of that decision. The purpose of the NOP is to provide information describing the project and its potential environmental effects to enable comments regarding the scope and content of the information to be included in the EIR. Agencies should comment on such information as it relates to their statutory responsibilities in connection with the project.

Pursuant to CEQA Guidelines section 15168, the EIR is being prepared as a program level EIR for the "Railyards Specific Plan" and Sacramento Intermodal Facility. A program EIR may be prepared on a series of related actions that can be characterized as one large project. It is also intended that the EIR will provide Project Level review of development in the Project Level Area of The "Railyards Specific Plan". Subsequent development activities in The "Railyards Specific Plan" area will be examined in light of the program/project EIR to determine whether any further environmental review is required. Additionally, the EIR will analyze potential impacts that may be associated with possible revisions to the approved Remediation Action Plans for contamination on the site and the related Tri-Party Memorandum of Understanding between the City, Department of Toxic Substance Control (DTSC) and UP Railyards.

The project description, location, and environmental issue areas that may be affected by the project are set forth below. The EIR will evaluate the potentially significant environmental impacts of the proposed project, on both direct and cumulative basis, and will identify mitigation measures that may be feasible to lessen or avoid such impacts. The EIR will provide a programmatic evaluation of potential environmental impacts associated with The RSP, SITF and related entitlements pursuant to section 15168 of the CEQA Guidelines. The EIR will provide a project-specific evaluation of development in the Project Level Area of the "Railyards Specific Plan" pursuant to CEQA Guidelines section 15161.

SUBMITTING COMMENTS

Comments and suggestions as to the appropriate scope of analysis in the EIR are invited from all interested parties. Written comments or questions concerning the EIR for the proposed project should be directed to the environmental project manager at the following address by 5:00 p.m. on April 10, 2006 (Please include the contact person's full name and address in order for staff to respond appropriately):

Scott Johnson, Associate Planner,
City of Sacramento Development Services Department,
2101 Arena Boulevard, Suite 200, Sacramento, CA 95834.
Tele (916) 808-5842 fax (916) 566-3968.
E-mail: srjohnson@cityofsacramento.org

SCOPING MEETING

A public scoping meeting will be held on March 29, 2006, from 6:30 p.m. to 8:00 p.m. at the following location:

Historic City Hall Hearing Room
915 I Street, Second Floor
Sacramento, CA 95814

Responsible agencies and members of the public are invited to attend and provide input on the scope of the EIR.

PROJECT LOCATION/SETTING

The "Railyards Specific Plan" area is approximately 240 acres located in the Central City/Downtown area of the City of Sacramento. Figure 1 (Regional Location Map) shows the location of The "Railyards Specific Plan" area within the Sacramento region. The project area is east of Interstate 5 and south of the American River. The project site is comprised of Assessor's Parcel Numbers (APN) 002-0010-035, -037, -039, -041, -043; 001-0210-013,-016, 006-0023-006.

The site contains the rail depot which is listed on the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) as the Southern Pacific Railroad Company's Sacramento Depot. Built in 1925, the Depot and associated REA building were formally listed on the National Register in 1975. Historically, the Depot has served as Sacramento's main rail station for the past 75 years. Amtrak has two passenger platforms and tracks through the station area. In addition, the site contains Union Pacific mainlines for freight and passenger trains. The Central Shops, previously used for activities of the Southern Pacific Locomotive Works, have been vacant for years.

BACKGROUND

The City Council certified the current Railyards Specific Plan (RSP) and Richards Boulevard Area Plan (RBAP) Environmental Impact Report (EIR) in December, 1993. At that time the City Council approved amendments to the City's General Plan and Central City Community Plan that provided for the land uses proposed in the two plans. The Railyards Specific Plan was approved by the City Council on December 13, 1994. A Supplemental EIR (SEIR) for the RSP and RBAP was certified in late 1994. The SEIR addressed several aspects of the RSP and RBAP that had been further refined including levels of development and timing of infrastructure improvements. Additionally the SEIR evaluated the effects of soil remediation alternatives described in the draft Feasibility Study prepared by Southern Pacific Transportation Company. Development in the RSP area has not occurred with the exception of the restoration and re-use of the REA Building and the extension of Seventh Street. Remediation of contaminated soils on the site is ongoing.

PROJECT DESCRIPTION

The EIR will provide a programmatic evaluation of the "Railyards Specific Plan" and related entitlements pursuant to section 15168 of the CEQA Guidelines and the proposed Sacramento Intermodal Facility. The EIR will provide a

project-specific evaluation of development in the Project Level Area of The "Railyards Specific Plan" pursuant to CEQA Guidelines section 15161.

THE RAILYARDS SPECIFIC PLAN

The project proposes adoption and implementation of the "Railyards Specific Plan" in accordance with section 65451 of the Government Code and approval of related entitlements, including a development agreement, development standards and design guidelines, that would allow mixed-use development, including high-density housing, parks, a canal, open space, cultural, office, hospitality, entertainment, sports, and retail uses, and supporting infrastructure, on approximately 240 acres in the Central City/Downtown Area.

The "Railyards Specific Plan" proposes up to 11,085 mixed-use high density residential units, including town homes, apartments, condominiums, and affordable housing. These units are proposed to be incorporated throughout The "Railyards Specific Plan" area with a focus on the northeast portion of The Railyards site. The "Railyards Specific Plan" also would allow up to 2,986,500 square feet of office uses, up to 1,370,000 square feet of retail, up to 1,000 hotel rooms, up to 421,700 square feet of cultural and entertainment uses, and would include approximately 43 acres of open space.

The project applicant (Thomas Enterprises of Sacramento, LLC) would enter into a development agreement with the City of Sacramento setting forth the needed infrastructure improvements, the timing and method for financing improvements, and other specific performance obligations of the project applicant and the City of Sacramento as they relate to development pursuant to the "Railyards Specific Plan".

The "Railyards Specific Plan" proposes to integrate The Railyards site into the existing downtown area by raising Fifth and Sixth Streets gradually over the Union Pacific Railroad tracks, and by the extension of light rail to the site. On a regional and statewide level, the "Railyards Specific Plan" incorporates existing transportation linkages and the City's plans for the Sacramento Intermodal Transportation Facility ("SITF"), consisting of a variety of transportation services that would integrate cross-country passenger rail, regional rail, light rail and buses, taxis, and other automobiles, bicycles and pedestrians. Transit providers and services are anticipated to include, but are not limited to, Amtrak Capitol Corridor and long-haul trains, Regional Transit buses and trains, Greyhound buses, charter buses, taxis, and possibly high-speed rail.

The "Railyards Specific Plan" also proposes a performing arts facility, the adaptive reuse of the historic central shop buildings (the "Central Shops"), which includes the proposed California Railroad Technology Museum, and a public marketplace. In addition, the "Railyards Specific Plan" proposal includes a series of public parks, including a meandering canal, that would span the development with pedestrian and bicycle trails linking residents to the regional open space system and the Sacramento River.

As described above, the "Railyards Specific Plan" proposes mixed-use development of approximately 240 acres in downtown Sacramento. The "Railyards Specific Plan" identifies proposed uses on the land use plan (Figure 2) with several designations. These land use designations are set forth below:

	Office (sq./ft.)	Residential (units)	Retail (sq./ft.)	Hotel (rooms)	Cultural and Entertainment (sq./ft.)	Open Space (acres)
Max.	2,986,500	11,085	1,370,000	1,000	421,700	43.04
Min.	---	7,534	---	---	---	---

The "Railyards Specific Plan" is divided into the following neighborhood districts that contain varying mixtures of land uses. These districts have no hard boundaries and are intended to represent general concentration areas that highlight and emphasize different amenities and uses throughout plan area.

THE DEPOT DISTRICT

The Depot District would encompass the general area south of the Central Shops from the Sacramento River to Seventh Street. It would include a mix of uses between the areas of Fifth Street and Seventh Street. The "Railyards Specific Plan" would be designed to reflect and support relocation of the rail tracks to an alignment north of the existing tracks, and anticipates that the Depot District would include the City's preferred plan for the SITF,

including inter-city passenger train, light rail, bus, and freight services. The Depot District also would provide an opportunity for connections to the potential future statewide high-speed rail service.

Fifth Street would be extended north and aligned along the eastern edge of the City's anticipated SITF. Fifth Street is proposed as a meandering two-lane street with wide sidewalks and a mix of office, residential, and retail uses. Sidewalks along Fifth Street thus would serve as the primary pedestrian links between downtown and the SITF, integrating The Railyards into downtown Sacramento. Fifth Street would connect the southern portion of the plan area to the north by bridging the 200+ foot wide inter-city rail corridor and would be intended to minimize the visual and physical barriers between downtown and the City's northern neighborhoods.

Sixth Street would be a four-lane north/south arterial street that would traverse the center of the "Railyards Specific Plan" area, providing connection between the Richards Boulevard area to the north and the existing downtown area to the south. Development on either side of Sixth Street is proposed to include residential, commercial, office, and retail uses. Sixth Street connects the Depot District to the Alkali Flat neighborhood, and the scale and design of buildings in this area would reflect this relationship. In addition, Sixth Street serves as a connection for Alkali Flat residents to the various project amenities of the Depot District, the Riverfront District, and the overall plan area.

CENTRAL STATION

Central Station represents the historic core of The Railyards and consists of the area north of the Depot District, bordered on the west by Interstate-5 and on the east and north by Fifth Street. Fifth Street would gradually transition from the Depot District to Fifth Street Emporium and would open up to Central Station on the west, adjacent to the historic Central Shops. The Central Shops would form the heart of Central Station. These are historic brick structures, some dating from as early as 1868, that would be preserved and renovated to provide a mixture of cultural and entertainment uses. One of the historic buildings would hold a public marketplace intended to include specialty food shops and fine dining restaurants. An outdoor plaza is proposed to provide open space sufficient to provide community uses such as a farmer's market, outdoor seating, live entertainment, and other functions intended to make it a community and regional gathering place.

The "Railyards Specific Plan" anticipates that two of the historic buildings would be renovated to create the new Museum of Railroad Technology, expanding the offerings of the existing State Railroad Museum in Old Sacramento. The remaining Central Shops are proposed for cultural and entertainment uses. To the north of the Central Shops, the "Railyards Specific Plan" proposes a state-of-the-art performing arts facility, with access to nearby art galleries, jazz clubs, and restaurants.

FIFTH STREET EMPORIUM

Fifth Street Emporium runs along the eastern and northern boundaries of Central Station. Interstate 5 borders the Fifth Street Emporium to the west. The "Railyards Specific Plan" proposal for this area is to create a 24-hour pedestrian-oriented neighborhood featuring one and two stories of retail and entertainment facilities with loft-style housing and office space uses above. Also proposed are connecting plazas providing access to shops, a boutique hotel, and retail uses. Fifth Street Emporium also is planned to serve as a connector to Central Station, the Riverfront District, the Canal District, and the Sports and Entertainment District.

SPORTS AND ENTERTAINMENT DISTRICT

The Sports and Entertainment District includes the area north of Fifth Street Emporium, from Sixth Street to the east across to Interstate 5 to the west. This District is proposed to include themed restaurants, entertainment, nightclubs, parking structures, a sports arena, office space, a hotel, retail, and residential uses. These uses are proposed within a network of urban open space, including the western edge of the canal feature, an outdoor amphitheater, and large plazas that are intended to function as community gathering spaces.

CANAL DISTRICT

The Canal District occupies the northeast quadrant of the plan area, east of Sixth Street. This District proposes a meandering canal. Open space, pedestrian and bicycle paths, restaurants, neighborhood-supporting retail, and residential units border the canal. A mixed-use transit village surrounding the Regional Transit light-rail station at the intersection of Seventh Street and Big Four Boulevard also is proposed in this District. The station is proposed

in a central location to deliver transit riders to adjacent residential areas as well as to the commercial/office district on Sixth Street. Grocery and other neighborhood-serving retail uses are proposed to surround the station at street level, with office and residential uses above. The housing types proposed in this area, similar to the rest of the "Railyards Specific Plan", include for-sale units, rental units, and affordable housing.

RIVERFRONT DISTRICT

The Railyards would connect to the Sacramento River, with a marina, restaurants featuring views of the area, a hotel, housing, parks and open space and the removal of the elevated portion of Jibboom Street. This redirection of traffic is intended to provide the City, surrounding local jurisdictions, and the region with better pedestrian access to the river.

SACRAMENTO INTERMODAL TRANSPORTATION FACILITY

The Sacramento Intermodal Transportation Facility (SITF) is envisioned as a regional transportation hub that maximizes transit service, connectivity and patronage. The facility would offer service and transferring among multiple modes, including long distance passenger rail, commuter rail, light rail transit, local bus service, intercity bus, bicyclists, pedestrians, taxis, shuttles, automobiles and future high speed rail, regional rail and trolleys.

Situated at the edge of the current downtown and adjacent to the relocated rail corridor the facility would serve the needs of the commuter and long-distance traveler, and is planned as a regional destination and gateway. With its concentration of transportation services, it would enable users from local communities to connect to regional, national and international destinations via direct transfers. The facility would incorporate and continue transportation uses in the Historic Depot with expanded, refurbished and new components providing for retail, commercial, office and entertainment development and user parking.

The facility would encompass approximately 30 acres located between 2nd Street, the Central Shops, 7th Street and I Street. Its design features transportation elements that include passenger waiting areas and amenities, concourse connections to passenger rail platforms, light rail station, local bus transit area, regional bus berths, passenger pick-up and drop-off areas, shuttle and taxi bays, bicycle station, service areas and parking. Surrounding and integrated with these facilities would be plazas, walkways, public open space and landscaped areas. Accessibility and sustainable design would be incorporated into the facility.

The axial alignment of Fourth Street with the Depot would be reestablished along with a pedestrian connection at the intersection of Fourth and I Streets. Similarly on its west side, access improvements are planned that include a Third Street extension into the SITF. Additional on-site circulation improvements, connections with local streets and trails and grade-separated crossings of the rail corridor are anticipated. The SITF would be developed in phases over several years and would require further environmental review pursuant to CEQA and NEPA as appropriate.

THE PROJECT LEVEL AREA OF THE "RAILYARDS SPECIFIC PLAN"

The Project Level Area of the "Railyards Specific Plan" is depicted in Figure 3. The applicant (Thomas Enterprises of Sacramento, LLC) proposes to begin construction within the Project Level Area, and the EIR will analyze development of this subarea of the "Railyards Specific Plan" at a project level.

The Project Level Area of the "Railyards Specific Plan" consists of approximately 86 acres that include part of the Depot District, Central Station, Fifth Street Emporium, and the Sports and Entertainment District. The Project Level Area of The "Railyards Specific Plan" is to be redeveloped with a mixture of residential, cultural, retail, entertainment, public, and office uses. Below is a table summary of proposed land uses in the Project Level Area:

	Office (sq./ft.)	Residential (units)	Retail (sq./ft.)	Hotel (rooms)	Cultural and Entertainment (sq./ft.)	Open Space (acres)
Max.	1,076,500	2,235	1,250,000 and a 20,000 seat sports/event facility	650	421,700	30.96
Min.	----	1,384	---	---	---	---

PROJECT APPROVALS AND/OR ENTITLEMENTS

The City approvals/actions anticipated to be considered for the proposed project include, but are not limited to, certification of an EIR and adoption of a Mitigation Monitoring and Reporting Program (MMRP), rescission of the existing Railyards Specific Plan and adoption of the "Railyards Specific Plan", adoption of project-specific development standards and design guidelines, adoption of a development agreement, General Plan amendment, Zoning Code amendment, City Code amendments to sections 18.36 et seq. and 18.48 et seq. The City will further rely on the EIR in conjunction with its consideration of entitlements for subsequent project development, including but not limited to entitlements for the Project Level Area of the "Railyards Specific Plan", as deemed appropriate and consistent with the requirements of CEQA by the City as lead agency and possible . The EIR will also consider possible revisions to the approved Remediation Action Plans for contamination on the site and the related Tri-Party Memorandum of Understanding between the City, Department of Toxic Substance Control (DTSC) and UP Railyards.

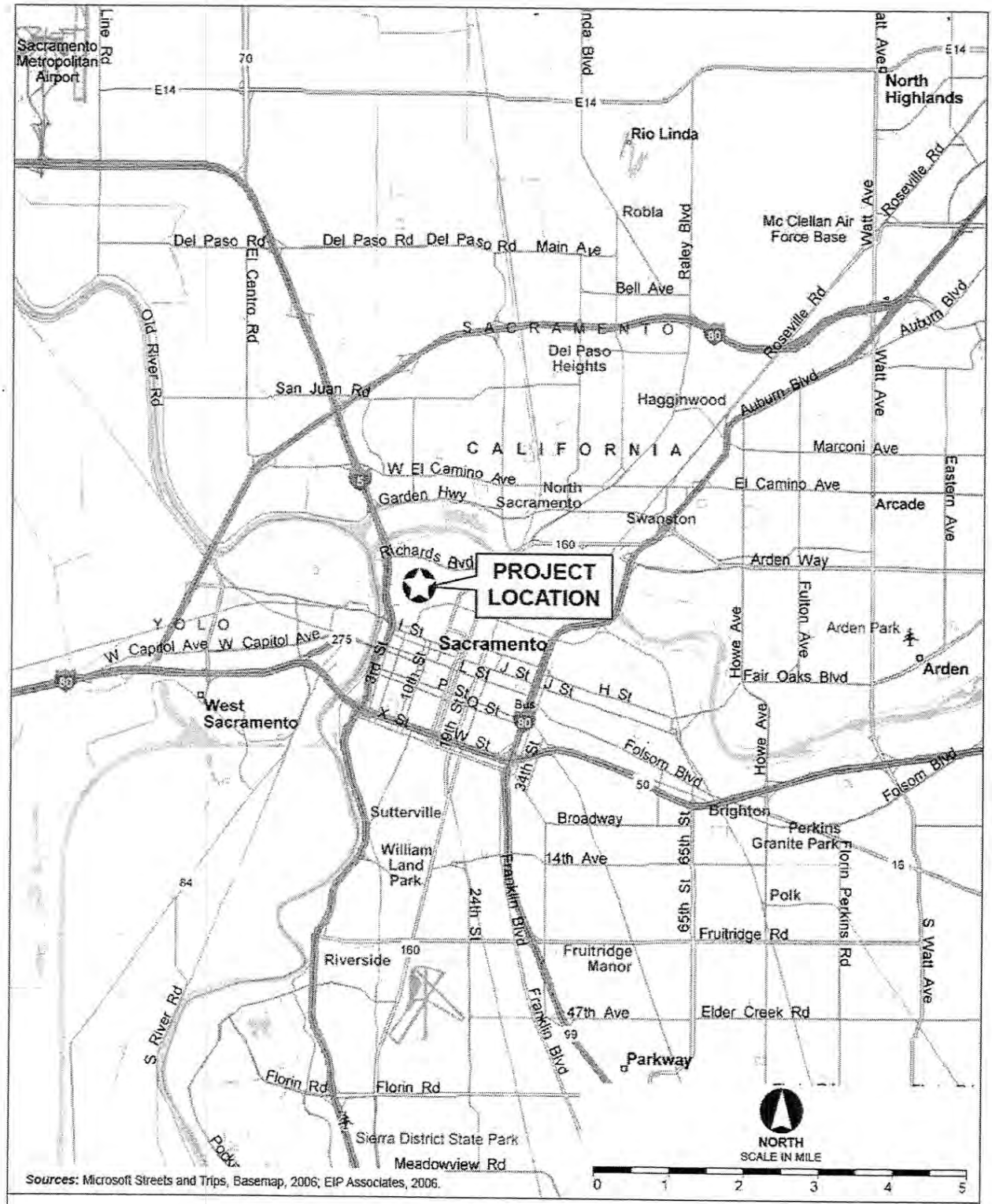
In addition to the approvals required from the City of Sacramento, development of the proposed project would require entitlements, approvals, and permits from other local, state, and federal agencies. Such other project approvals may include, but are not limited to, a Section 404 permit from the U.S. Army Corps of Engineers (Corps); a Section 401 certification from the Regional Water Quality Control Board (RWQCB); a construction activity stormwater permit from the RWQCB; a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (DFG); a Biological Opinion from the U.S. Fish and Wildlife Service (USFWS); a National Pollutant Discharge Elimination System (NPDES) permit from the RWQCB; and Department of Toxic Substances Control (DTSC) clearances.

ENVIRONMENTAL EFFECTS AND SCOPE OF THE EIR

The EIR will analyze plan-related potentially significant impacts to resources in the plan area. Pursuant to section 15063, subdivision (a), of the CEQA Guidelines, no "Initial Study" has been prepared for the proposed project. Rather, it is anticipated that the EIR will evaluate the full range of environmental issues contemplated for consideration under CEQA and the CEQA Guidelines, including:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities

LETTER 26



Sources: Microsoft Streets and Trips, Basemap, 2006; EIP Associates, 2006.

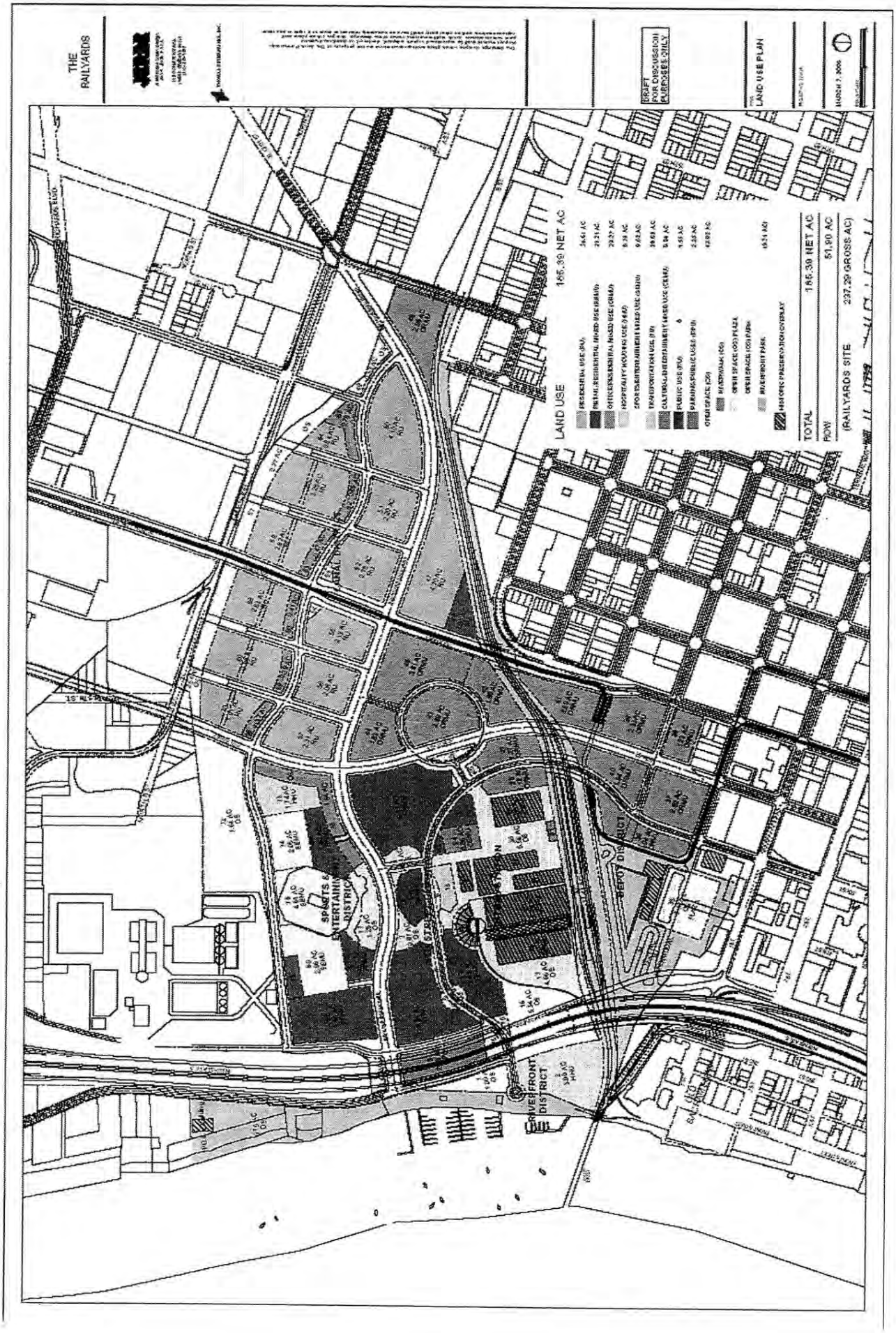
EIP

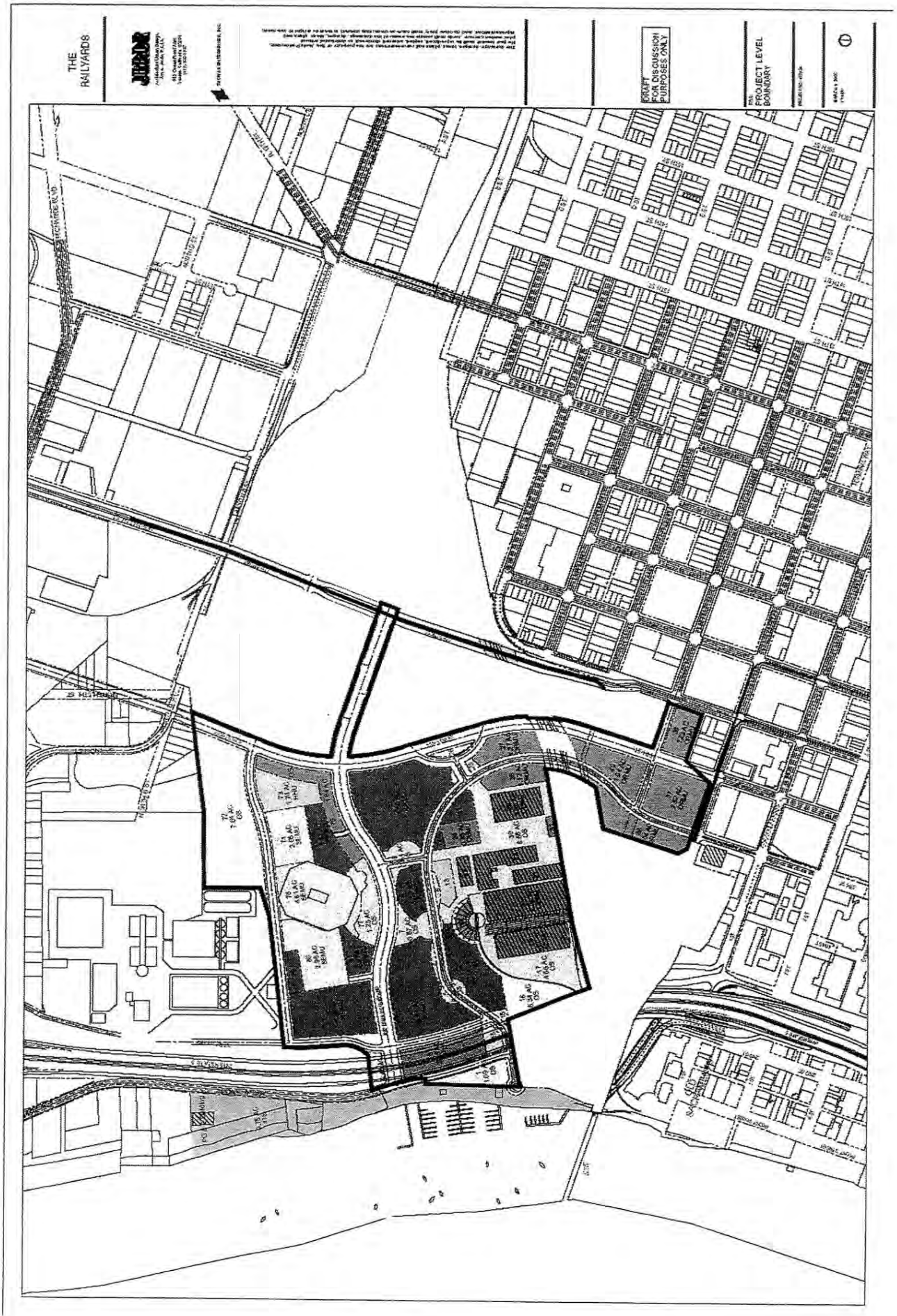
Regional Location Map

10641-00

City of Sacramento

LETTER 26


THE RAILYARDS
LAND USE
165.39 NET AC
TOTAL 165.39 NET AC
ROW 51.90 AC
(RAILYARDS SITE 237.29 GROSS AC)
LAND USE PLAN
SPORTS & ENTERTAINMENT DISTRICT
RIVERFRONT DISTRICT


THE RAILYARDS
DRAFT FOR DISCUSSION PURPOSES ONLY
PROJECT LEVEL BOUNDARY

LETTER 26

Environmental Planning Services
City of Sacramento
2101 Arena Blvd., Suite 200
Sacramento, CA 95834

Scott Johnson/
Railyards NOP

PUBLIC NOTICE

Exhibit 2

LETTER 26

Department of Toxic Substances Control

Linda S. Adams
Secretary for
Environmental Protection

Maureen F. Gorsen, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Arnold Schwarzenegger
Governor

EXPLANATION OF SIGNIFICANT DIFFERENCES
Cap Expansion and Foundation Material Modifications
Lagoon Study Area Northwest Corner
Union Pacific Railroad Company - Sacramento Railyard Site

INTRODUCTION

The Union Pacific Railroad Company (UPRR) Sacramento Railyard (Sacramento Railyard) is located at 401 I Street in Sacramento, California. The Sacramento Railyard lies immediately north of downtown Sacramento, near the confluence of the Sacramento and American Rivers, and encompass approximately 240 acres. The Sacramento Railyard, owned for many years by SPTCo and currently owned by UPRR, successor-in-interest to SPTCo., was used for over one hundred (100) years as a locomotive construction, repair and maintenance facility.

The Department of Toxic Substances Control (DTSC) and UPRR entered into an Enforceable Agreement, dated June 2, 1988, as amended, for the investigation and appropriate remediation of the UPRR Sacramento Railyard. The site has been divided into seven study areas including Northern Shops/ Drum Storage, Central Shops, Car Shop Nine, Central Corridor, Sacramento Station, Pond and Ditches, and Lagoon. This Explanation of Significant Differences (ESD) focuses on the Northwest (NW) Corner of the Lagoon Study Area (LSA), which consists of approximately 10.3 acres in the northwestern portion of the LSA and adjoining 3.5 additional acres consisting of the Former Oil Storage Area (FOSA, see Attachment A). A more detailed description of these areas is provided in the "Site History, Contamination and Selected Remedy" section, herein.

For the LSA, DTSC approved the LSA Remedial Action Plan (RAP) (2000) and NW Corner RAP Amendments (2003), as referenced in the "List of Documents and Correspondence" section of this document. DTSC continues to provide regulatory oversight as lead agency for cleanup of hazardous substances at the UPRR site. The Central Valley Regional Water Quality Control Board (CVRWQCB), the City of Sacramento (City), and the Sacramento Air Quality Management District (SAQMD) provide oversight as support agencies.

This ESD addresses modifications to the approved NW Corner RAP Amendments, as listed in the "List of Documents and Correspondence" section of this document. This ESD has been prepared to modify the approved 2003 NW Corner RAP Amendments for the following three modifications:

- Using inert onsite soils as a foundation layer at the NW Corner (including the FOSA), with a maximum volume of soil (determined by the area footprint and slope factors) as 230,000 cubic yards;
- Modifying the top deck material from asphalt to a High Density Poly Ethylene (HPDE) geosynthetic barrier material overlain by two feet of clean soil (vegetative layer), with appropriate protective measures and controls.
- Expanding the area to be covered to include the additional 3.5 acres of the FOSA.

REGULATORY BASIS OF THIS DOCUMENT

If the lead agency (DTSC) determines that a significant change to the remedy selected in a RAP is necessary after the RAP is approved, the law requires the lead agency to address post-RAP significant changes.

This action is taken pursuant to Section 1178 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act of 1986 (CERCLA) and 40 Code of Federal Regulations (CFR) Section 300.435(c)(2)(1) (National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The NCP requires that an ESD be prepared where significant differences in the scope, performance, or cost of a remedy adopted by the RAP occur, but do not fundamentally alter the remedy selected, as described in this ESD.

SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

The Sacramento Railyard was used as a locomotive maintenance yard from 1863 until the 1990's. It currently encompasses about 240 acres located adjacent to downtown Sacramento, near the confluence of the Sacramento and American Rivers. Heavy industrial maintenance and locomotive rebuilding work conducted at the site included foundry and machine work, blacksmithing, painting, and machine cleaning. The site is now inactive, with industrial activities and principal functions moved elsewhere, and many buildings and structures removed. For remediation, the Railyard has been divided into seven study areas based on historical land use and industrial practices, contaminant profiles and matrix type (i.e., soil or groundwater).

The LSA occupies approximately 51 acres within the northern and eastern portions of the Sacramento Railyard and has been further subdivided into the Lagoon Proper and Lagoon NW Corner areas. The LSA NW Corner occupies approximately 10.3 acres in the northwestern portion of the LSA. The boundaries of the LSA NW Corner are defined by the 3.5 acre FOSA to the west, the Sacramento Railyard Property Line to the north, and the former Lagoon Proper and the flood control levee to the east and south

(Attachment A). Heavy industrial operations did not occur in the LSA NW Corner. These areas are all vacant and have been inactive for several years. Two small areas (2,000 cubic yards) of bunker fuel-impacted soil were removed in the FOSA in 1993.

The following general conditions are noted for the LSA NW Corner:

1. The distribution of contaminants in soil is sporadic, and is indicative of the use of the area for disposal of solid waste, mostly construction debris;
2. Significant quantities of large concrete debris are present;
3. The materials pose minimal risks to groundwater, and no sources of groundwater impact are present;
4. Debris with asbestos containing materials (ACM) is present.

The primary Constituents of Concern (COCs) identified at the NW Corner and the FOSA include benzo(a)pyrene, lead, antimony, nickel, extractable hydrocarbons and ACM debris. The contaminants have been determined by DTSC and the RWQCB to not exceed the concentrations which pose a threat to groundwater. There are no current sources of groundwater contamination at the NW Corner or FOSA, although underlying groundwater has been impacted by other Railyard sources.

Soil remediation methods approved under the 2000 LSA RAP include excavation of impacted soil, treating and stabilizing certain soils prior to reuse or disposal, and offsite disposal of soil impacted above Remedial Action Goals (RAGs). The approved 2003 NW Corner RAP Amendments expanded the remedial alternative to include grading and capping approximately 10.3 acres in the LSA NW Corner beneath an engineered protective cover designed with the intent of meeting California Code of Regulations (CCR) Title 27 requirements to the extent feasible.

BASIS FOR THE ESD DOCUMENT

The decision that the proposed modifications do not represent a fundamental departure from the design approved in the 2003 Amendments to LSA RAP for NW Corner Soil is based on the following:

1. The onsite soil proposed for placement in the NW Corner as foundation materials beneath the proposed cap area shall consist of inert material, as defined for this site in a letter submitted by Environmental Resources Management (ERM) to the CVRWQCB dated March 29, 2005 and approved by the CVRWQCB on April 14, 2005, with the clarification that the water quality goal used for calculating the Soluble Designated Level for lead be 2.0 mg/l.

2. The geosynthetic cap material and two foot vegetative layer are equally or more protective than the approved asphalt cover, because the geosynthetic material has a lower permeability and higher durability. The vegetative layer will prevent wind and water erosion, minimize percolation of surface water into the waste layer and maximize evapotransporation. Drainage features will also be constructed to route

excess runoff to a percolation pond constructed adjacent to the capped area. These drainage features will enhance runoff and minimize infiltration of excess water through the cap.

3. The FOSA incorporation into the proposed NW Corner remedy does not alter the NW Corner remedy effectiveness, and will provide an equal or enhanced remedial alternative for the FOSA. During clearing and grubbing activities in the FOSA in Spring 2003, appreciable amounts of construction debris and ACM were identified in the FOSA. Removal of this debris in accordance with approved LSA RAP was found to be impractical, and led to the proposals to incorporate the FOSA into the NW Corner cap remedy. The additional 3.5-acre FOSA expands the approved LSA NW Corner cap from 10.3 to 13.8 acres. The FOSA lies in an area of limited access and is continuous to the LSA NW Corner, hence the grading and drainage plan will not change significantly from that presented in the 2003 Amendments to LSA RAP for NW Corner Soil.

4. The draft 2006 revised development plans for the Sacramento Railyard anticipate the proposed land use of the NW Corner to be a 13-acre "open space", more specifically defined as a public park. A Health Risk Assessment Addendum (HRAA, May 2005) was performed to evaluate the more focused open space scenarios of potential adult and child park users. The HRAA also includes evaluation of the data collected within the FOSA, which was not previously included in the LSA NW Corner HRA/FFS. The HRAA concluded that the use of the LSA NW Corner as a park (with a geosynthetic cap overlain by two feet of clean soil) does not pose unacceptable risks to potential adult and child park users and park maintenance workers. DTSC's Human and Ecological Risk Division (HERD) has reviewed the HRAA, and has concurred with these conclusions.

5. Under the terms of the 1994 Memorandum of Understanding (MOU), the Department has coordinated with the City of Sacramento on the proposed NW Corner modifications outlined in this document. The City has agreed the modified cap design will be adequately protective as an alternative to the Land Use Specific Remediation Approach (LUSRU) approved under the 1994 MOU. The City has also concurred with revisions which provide accommodations for the anticipated roadways in the NW Corner area, such as the extension of Sixth Street, and that the modifications will not conflict with the anticipated land use. The City has also acknowledged the long term maintenance requirements and restrictions associated with the cap remedy which will ensure the long term protection and effectiveness of the cap system.

All protective measures considered in the RAP, Amendments to the RAPs, EIRs, correspondence, design documents and design implementation plans will apply to the cap construction activities, including the following: dust control, air monitoring, runoff control, transportation route monitoring, noise controls, limited hours of operation for onsite work and transportation of soils.

Exhibit 3

LETTER 26

California Regional Water Quality Control Board
Central Valley Region
Karl E. Longley, ScD, P.E., Chair

Linda S. Adams
Secretary for Environmental Protection

Sacramento Main Office
11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
http://www.waterboards.ca.gov/centralvalley

Arnold Schwarzenegger
Governor

FILE COPY

8 June 2007

RECEIVED
cutlass
senior

Mr. Paul Carpenter
Project Manager
Northern California Central Cleanup Operations Branch
Site Mitigation Program
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, CA 95826

FINAL IMPLEMENTATION PLAN – NORTHWEST CORNER SOIL PLACEMENT, THE FORMER SACRAMENTO RAILYARD, UNION PACIFIC RAILROAD COMPANY AND THOMAS ENTERPRISES, INC., SACRAMENTO COUNTY

The California Regional Water Quality Control Board, Central Valley Region (Regional Water Board) staff has reviewed the *Final Implementation Plan, Northwest Corner Soil Placement* (FIP) dated 8 March 2007. The FIP was prepared and submitted by ERM-West, Inc. (ERM) on behalf of Thomas Enterprises of Sacramento, LLC (Thomas Enterprises). The FIP summarizes the hierarchy of soil placement within the Northwest Corner of the Lagoon Study Area (LSA NW Corner) of the former Sacramento Railyard facility. Based on our review of the FIP, the Regional Water Board staff generally concurs with the proposed final implementation plan with the following conditions:

1. In the introductory paragraph, the FIP states: *"...the inert soil will be capped with a cover system (cap) that includes a compacted soil foundation layer, a low-permeability geomembrane, a geocomposite drainage layer, and a layer of vegetative soil."* The FIP later includes a statement on page 5 in the last paragraph: *"Currently, there are approximately 100,000 cubic yards of cap-eligible soil (i.e. meets one of the categories described above) stockpiled on-site (Table 1)."* If the term "cap", as indicated, includes the vegetative cover soils, then the statement regarding the 100,000 cubic yards of cap-eligible soils is incorrect. To date, none of the proposed soils on-site meet the criteria to be used as vegetative cover material based on Title 27 requirements. To clarify the use of the term "cap," we suggest that the term "cap" refer to the engineered cover, and that all soils beneath the "cap" be referred to as the "contaminated" soils. In accordance with Title 27, only soils that have not been impacted by human activities may be used in the vegetative layer.

2. The Regional Water Board staff concurs with placement of the existing 100,000 cubic yards of stockpiled soil according to the established hierarchy. However, following the placement of the existing 100,000 cubic yards of soil, the FIP indicates that the placement of the remaining soil (up to 130,000 cubic yards) as per approved soil hierarchy may not be practical due to timing or because of the types of soil generated.

As an example, Category 4 soils may be generated prior to Category 1 soils, making the soil placement according to the hierarchy extremely difficult. Due to these issues, it is understandable that there will be limitations on how closely the soil placement hierarchy can be followed after the initial placement of approved soil. However, given the remaining amount of soil that may be placed in the containment unit, Thomas Enterprises needs to develop a more detailed Soils Management Plan describing how they propose to sample, profile and stage newly excavated material based on information available from the remedial investigation conducted previously on-site. The Soils Management Plan must detail the following:

a. A method for placing the existing categorized soils (100,000 cubic yards) in the containment unit (capped area) so that future soils can be placed according to the soil placement hierarchy.

b. Locations, amount and sampling analysis for soil samples collected from soil stockpiles and/or insitu areas to be excavated to ensure adequate soil characterization. The current soil sample collection protocol that allows one sample per 250 cubic yards does not appear adequate for proper waste characterization in all cases. The FIP cited the Department of Toxic Substances Control's (DTSC) *October 2001 Information Advisory, Clean Import Fill Material* guidance fact sheet as appropriate for the sampling protocol at the former railyard. This document appears to apply to only sites or properties without any prior industrial and/or commercial activities. Given that extensive industrial and commercial activities occurred at the railyard for over 100 years, we request that a more rigorous sample collection protocol be proposed in the soil management plan (i.e. one sample per 50 cubic yards).

c. How soil stockpiles and excavated soils will be sampled (i.e. vapor collection) to verify that volatile compounds are not placed in the containment unit.

d. A handling and disposal method for soils with waste constituents (including lead, copper, zinc and asbestos) that exceed their corresponding TTLCs. We request that these soils be consolidated to a specific location within the containment unit to the greatest extent possible.

3. Table 2 provides a summary of remedial goals for the former railyard and contains the lead (Pb) remedial goal for groundwater protection at 1,723 milligrams per kilogram (mg/Kg). Category 3 and 4 soil placement criteria allow soils that exceed 1,723 mg/Kg of Pb to be placed in the containment unit as long as the deionized water waste extraction test (DI-WET) method results show an extract Pb concentration that is less than the approved solubility standard (20 ug/L). Given that the total threshold limit concentration (TTLC) for Pb is 1,000 mg/Kg, category 3 and 4 criteria allow waste soils with Pb concentrations that exceed the TTLC to be placed in the containment unit. This does not apply to soils that may contain other constituents that exceed their corresponding TTLCs (i.e. antimony, arsenic, chromium, mercury, etc.), which must be managed as a hazardous waste according to the approved RAP. Although the soils to be placed in the containment unit have been called "inert" in several documents, the

soils are "inert" only with respect to threat to water quality. Since the levels of some constituents (i.e. Pb) will exceed their corresponding TTLCs, these soils should no longer be referred to as "inert", but as "contaminated" soils only.

4. The Regional Water Board requests that Thomas Enterprises submit a Storm Water Pollution Prevent Plan (SWPPP) for review. The SWPPP should provide for adequate monitoring and maintenance plans prior to any soil placement activities within the NW Corner containment unit.

5. The Regional Water Board staff concurs with the surveying of the cap limits to ensure the construction will be completed in accordance with the design criteria. This will also allow accurate as-builts to be prepared at the completion of the project.

6. On page 7, under *Well Abandonment Plan*, the FIP refers to the ERM 's February 2007 *Draft Remedial Design Implementation Plan* (RDIP) for the procedures to abandoned monitoring wells within the NW Corner containment unit footprint. Based on our discussions with DTSC and never having received this draft report, it appears that a February 2007 Draft RDIP was never formally submitted. As a result, we believe that the reference to this Draft RDIP in the FIP is incorrect. ERM's March 2007 *Final Soil Remediation Activities –2007* report indicates that the latest version of well abandonment procedures is presented in the 2004 RDIP. Therefore, we believe that that the correct reference for well abandonment procedures should have been the 2004 RDIP. If this is incorrect, please have Thomas Enterprises inform us of the correct reference document. All wells must be abandoned under permit by the Sacramento County Environmental Health Department.

The Regional Water Board staff request that Thomas Enterprise copy us on all future design documents regarding the NW Corner containment unit to assure compliance with Title 27 requirements. We understand a new development plan has been completed which appears to have an impact on the design of the footprint and possibly on other features of the containment unit. We further request that Thomas Enterprise respond to our comments and submit a Soils Management Plan as requested by **30 July 2007**.

If you have any questions regarding this correspondence, please contact me by telephone at (916) 464-4678 or by email at smeeks@waterboards.ca.gov.

Steven W. Meeks, P.E.
Water Resource Control Engineer

CC: Mr. Fernando A. Amador, DTSC, 8800 Cal Center Drive, Sacramento, Ca 95826

California Regional Water Quality Control Board
Central Valley Region
Karl E. Longley, ScD, P.E., Chair

Linda S. Adams
Secretary for Environmental Protection

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Arnold Schwarzenegger
Governor

8 May 2007

FILE COPY

APPROVED
author
senior

Elias A. Rashmawi
Thomas Enterprises
431 I Street, Suite 202
Sacramento, California 95814

OVERSIGHT COST REIMBURSEMENT PROGRAM, THE RAILYARDS (FORMERLY UNION PACIFIC SACRAMENTO RAILYARD FACILITY), THOMAS ENTERPRISES, INC., SACRAMENTO COUNTY

Based on your application for Site Designation (AB 2061), the Department of Toxic Substances and Control (DTSC) was recently appointed as the designated agency for the former Sacramento railyard facility. As required by Cal/EPA Site Designation Committee Resolution No. 07-03, Thomas Enterprises agreed to reimburse the Central Valley Regional Water Quality Control Board (Regional Water Board) for its expenses associated with reviewing documents related to water quality and for reviewing documents at the request of DTSC. Due to the extensive groundwater impacts that remain on and off site, the Regional Water Board will remain involved with the project as a consultative agency to DTSC. Section 13304 of the Porter Cologne Water Quality Control Act allows the Regional Water Board to recover reasonable expenses from responsible parties to oversee cleanup and abatement of discharges, which have adversely affected waters of the state. Based on these facts, a cost recovery account must be established for your facility, so the Regional Water Board time charges can be billed to you.

On 21 March 2007, Ms. Cori Condon of my staff discussed with you by telephone the reimbursement provisions of the California Water Code and Site Designation Resolution for this site. Accordingly, please sign and return the enclosed *Acknowledgement of Receipt of Oversight Cost Reimbursement Account Letter* by **15 June 2007**.

California Water Code Section 13365 requires that the Regional Water Board provide you with the following information when initiating a cost recovery account:

1. A detailed estimate of the work to be performed or services to be provided, including a statement of the expected outcome of that work, based upon data available to the agency at the time.

2. The billing rates for all the individuals and classes of employees expected to engage in the work or service.

3. An estimate of all the expected charges to be billed to the responsible party by the agency.

The following paragraphs provide the required information.

Normally, the Regional Water Board would estimate the amount of regulatory oversight work required for the site for the entire fiscal year that runs from 1 July 2006 through 30 June 2007. However, given that the property was transferred to Thomas Enterprises on 29 December 2006, the Regional Water Board staff is submitting only a partial year estimate for our oversight costs that cover the time period from 29 December 2006 until the end of our fiscal year 30 June 2007. The Regional Water Board regulatory oversight work, which includes past, present and future work with the expected outcomes for the partial fiscal year 2006-07, is as follows:

1. Reviewed the "Revised Health Risk Assessment Addendum, Lagoon Study Area, Northwest Corner, Sacramento Rail Yard" dated October 2006.

2. Reviewed Application for Site Designation Request from Thomas Enterprises and prepare response. Included inter-office and agency (DTSC) meetings and correspondence.

3. Review *Final Draft Feasibility Study* for Central Shops Study Area and Soil and South Plume Study Area.

4. Review *Draft and Final Remedial Action Plan* (RAP) for Central Shops Study Area and Soil and South Plume Study Area.

5. Participate in CEQA Review Process for *RAP* for Central Shops Study Area and Soil and South Plume Study Area.

6. Review *Draft Feasibility Study* for Lagoon Study Area.

7. Review *Draft Remedial Investigation* (RI) report from drilling activities in MGP Area.

8. Review *Draft Remedial Design Implementation Plan* (RDIP) for proposed Landfill Surface Cap Area.

9. Address/Discuss concerns for proposed Landfill Surface Cap Area - Northwest Corner.

10. Review *Remedial Summary* reports for Central Corridor and Car Shop Nine Area.

11. Review *Quarterly and Annual Groundwater Monitoring Reports.*

12. Review Monthly *Wastewater Discharge Reports* to County for system operations at the site.

13. Review *Semi-Annual Status Reports* for System Operation and Maintenance.

14. Conduct site inspections, phone calls and attend meetings with DTSC to keep informed on the progress of the investigation, remedial implementations and current system operations.

15. Prepare written correspondence, including monitoring programs, review/approval memos and Board orders (if needed) to clearly communicate the Board's requirements to DTSC.

Regional Water Board staff expects to charge approximately **250** hours in the conduct of cleanup oversight for this project during the partial fiscal year 2006-07, The number of hours given is merely an estimate, and you will be billed only for the actual hours spent. The State-billing rate is approximately $110 per hour, but the rate will vary depending on the salary of the individual(s) responsible for the oversight. Based on the average rate, the estimated billing charge for this site is approximately $ **27,500** for the partial fiscal year 2006-07. Attachment 1 lists the billing rates for the classes of employees that may be working on this site, including an example of how the hourly billing rate is calculated. Attachment 2 describes the billing process in detail.

Should you have any questions regarding the information in this letter, please call Ms. Cori Condon at (916) 464-4619. For questions regarding the technical aspects of this project, you may call Steven Meeks, the Board's project manager, at (916) 464-4678 or email him at smeeks@waterboards.ca.gov.

PAMELA C. CREEDON
Executive Officer

Attachments (3)

cc: Mr. David Ceccarelli, State Water Resources Control Board, Sacramento
Mr. Paul Carpenter, DTSC.

Exhibit 4

LETTER 26

City of Sacramento
Planning and Development Department
Environmental Services Division

DRAFT ENVIRONMENTAL IMPACT REPORT EXECUTIVE SUMMARY (VOLUME 1)

RAILYARDS SPECIFIC PLAN

RICHARDS BOULEVARD AREA PLAN

Prepared by:

EIP Associates
Sacramento, California

June 10, 1992

parts of the downtown roadway system. Alternatives 1, 4 and 5 would have significant impacts at the fewest intersections. Alternatives 4 and 5 would have no significant impacts that would be unavoidable. Alternative 6 would have the greatest number of significant impacts at local intersections (16 intersections in the AM and PM peak hours) and most of these impacts would be unavoidable (14 intersections).

Like traffic impacts, increased **air emissions** from the Planning Area and cumulative development in the region would result in violations of state and federal standards for air pollutants. These impacts would be present with any of the Alternatives due to the amount of pollution generated by traffic associated with cumulative development in the region.

Noise sensitive residential uses in the Planning Area have been located in the Alternatives, generally, outside of the noisiest areas in the vicinity. The most significant noise impacts would be those associated with cumulative increases in heavy rail traffic on the Southern Pacific mainline which could adversely effect adjacent uses in the Planning Area, such as the social services campus, and in areas adjacent to the Planning Area, such as the Alkali Flat and Washington School neighborhoods.

The known and suspected presence of **hazardous materials** in the Railyards and Richards Areas presents the potential for exposure of future workers or residents to toxic contaminants. Information exists to confirm the presence of contamination within the Railyards Area; much less is known about the Richards Area but numerous localized contaminants are suspected. Although these impacts are considered significant for all of the Alternatives, the Alternatives that contain substantial residential development, particularly in the Railyards Area, could be considered to present the greatest potential for long-term exposure effects. A program for mitigation of these impacts is presented that involves careful investigation and testing of soils and groundwater, intricate ties between the remediation and development approval processes, and long-term oversight and monitoring of land use activities in the Planning Area.

Impacts to **historic buildings** in the Planning Area would occur to some degree under all of the Alternatives. However, Alternatives 2 and 3 which would involve demolition of all or most of the buildings in the historic Central Shops complex would likely have the greatest level of impact on such structures. Similarly, Alternative 1 could result in the long-term loss of all of the historic structures by providing no economically feasible adaptive reuse for the buildings.

Impacts to the local **school systems** would be greatest under Alternatives 2 and 3 which would result in substantially higher numbers of school children than any of the other Alternatives. Similarly, those two Alternatives would generate the largest demand for new community and neighborhood **parks** which may not be able to be accommodated within the Planning Area.

The construction of a new rail bridge across the Sacramento River, and the development of an amphitheater on the east bank of the river in the Railyards Area, would generate potential impacts to **biological habitats** in and adjacent to the river under all of the Alternatives except Alternatives 1 and 5.

Exhibit 5

LETTER 26

City of Sacramento
Planning and Development Department
Environmental Services Division

Draft
Supplemental Environmental Impact Report

RAILYARDS SPECIFIC PLAN

RICHARDS BOULEVARD AREA PLAN

SCH# 91042057

Prepared by:

EIP Associates
Sacramento, California

June 10, 1994

1. INTRODUCTION

INTRODUCTION

An Environmental Impact Report for the Draft Railyards Specific Plan and Draft Richards Boulevard Area Plan was certified by the City Council (City) and Redevelopment Agency of the City of Sacramento (RACS) in December, 1993 (the Certified EIR). The Certified EIR evaluated the environmental effects of land uses presented in the Draft Railyards Specific Plan (RSP), Draft Richards Boulevard Area Plan (RBAP), and the Draft Facility Element, which sets forth the combined infrastructure improvements needed to serve the two planning areas. The Certified EIR also considered six land use alternatives. The RSP and RBAP propose residential, office, retail and public uses for the 240-acre Southern Pacific Railyards Area (Railyards Area) and the 1070-acre Richards Boulevard Area (Richards Area), bounded by the Sacramento and American rivers, North B Street and Highway 160. At the same time that the EIR was certified, the City approved amendments to the City's General Plan and the Central City Community Plan that would allow the land uses proposed in the RSP and RBAP. The Preliminary Agreement was also approved at that time. The final RSP and final RBAP, along with the Facility Element, zoning ordinance amendments, tentative map and related documents, are anticipated to be considered by the City and RACS in September, 1994.

This Draft Supplemental Environmental Impact Report (DSEIR) addresses several aspects of the RSP and RBAP that have been refined during the ongoing planning process. They include variations from earlier assumptions regarding the levels of development and the timing of infrastructure improvements during Phase 1 of the development; the alignment of the new 7th Street to avoid the historic Sentry House; the configuration of minor streets in the Railyards Area; the criteria for siting of fire protection facilities in the Railyards Area; and the criteria for siting school facilities in the Railyards Area. In addition, the DSEIR evaluates the environmental effects of the lead soil remediation alternatives described in the draft Feasibility Study prepared by Southern Pacific Transportation Company (SPTCo).

This DSEIR is being prepared in compliance with the California Environmental Quality Act (CEQA) and the environmental guidelines of the City of Sacramento. A Notice of Preparation was prepared and circulated on March 29, 1994, for a 30-day public review period, which closed on April 28, 1994. The DSEIR is being publicly circulated for 45 days, and written comments will be accepted until 5pm, Monday, July 25, 1994. Written comments may be sent to:

Wendy Saunders
Environmental Services Division
City of Sacramento
1231 I Street, Suite 301
Sacramento, CA 95814

Exhibit 6

LETTER 26

City of Sacramento
Planning and Development Department
Environmental Services Division

Draft
Supplemental Environmental Impact Report

RAILYARDS SPECIFIC PLAN

RICHARDS BOULEVARD AREA PLAN

SCH# 91042057

Prepared by:

EIP Associates
Sacramento, California

June 10, 1994

5.1 INTRODUCTION

Background

Approximately 500,000 cubic yards of lead-contaminated soil at the Railyards must be remediated (see Figure 5-1). The Certified EIR discusses various technologies that could be employed to remediate the lead soil, including disposing of it at a hazardous waste facility, "fixing" it through a chemical process to reduce lead solubility, or reusing it in a manner that eliminates the potential for human exposure and protects the environment. SPTCo has recently submitted a Feasibility Study for Lead Soil Remediation[1] to the State Department of Toxic Substances Control (DTSC), which is overseeing cleanup of the Railyards. The Feasibility Study evaluates a number of Alternative Approaches to addressing the lead soil[2], and recommends an approach that was not evaluated in the Certified EIR. The recommended approach includes encapsulating most of the lead soil within the new railroad berm that is planned to be constructed on the northern perimeter of the Railyards.

As discussed in the Certified EIR (pp. 4.13-17-18), the site cleanup process overseen by DTSC involves data gathering in order to characterize the extent of contamination, evaluation of the cleanup options, assessment of human health and environmental risks, approval of a final cleanup approach, implementation of the approach, and documentation of its effectiveness. The Feasibility Study is one of the initial steps taken in the site cleanup planning process. DTSC will review the Alternative Approaches and recommended approach proposed by the Feasibility Study and determine the final cleanup strategy, known as a Remedial Action Plan ("RAP), based on information provided in the Feasibility Study. DTSC's approval of the final cleanup strategy is anticipated in 1996.

Although the City does not have authority to approve or reject a lead remediation approach, it must examine the new information included in the Feasibility Study in connection with the land use approvals it expects to consider for the Railyards. This DSEIR evaluates potential environmental impacts arising from the remediation approach recommended by SPTCo in the Feasibility Study as well as some of the Alternative Approaches included in that document. While the City will not select a remediation approach, it must consider whether any of the potential approaches would affect its land use decisions. The City may choose to condition its land use approvals upon the selection by DTSC of a cleanup approach that is compatible with the anticipated redevelopment of the Railyards.

Process for Determining the Remediation Approach

SPTCo and DTSC entered into an Enforceable Agreement in 1988 regarding the investigation and remediation of hazardous substances at the Railyards[3]. The purpose of the Enforceable Agreement is to ensure that releases or threatened releases of hazardous substances from the

Exhibit 7

REPORT TO COUNCIL 22
City of Sacramento

915 I Street, Sacramento, CA 95814-2604
www. CityofSacramento.org

Staff Report
December 5, 2006

Honorable Mayor and
Members of the City Council

Title: Railyards: Intermodal Site Acquisition and Track Relocation Agreements

Location/Council District: Railyards/District 1

Recommendation: 1) Adopt a resolution approving the Purchase and Sale Agreement for the acquisition of the Intermodal Transportation Facility site; 2) Adopt a resolution approving the Track Relocation Financing Agreement subject to environmental review and future Council action 3) Direct staff to proceed with negotiating a Development Agreement for Council approval for development of the Railyards project, if the developer closes escrow on the Railyards Property.

Contact: Marty Hanneman, Assistant City Manager 808-7508; Dave Harzoff, Special Projects Manager/Economic Development 808-5385

Presenters: Marty Hanneman, Assistant City Manager

Department: City Manager

Division:

Organization No: 0310

Description/Analysis

Issue: The Purchase and Sale Agreement and the Track Relocation Financing Agreement represent the first phase of the formal partnership between the City and S. Thomas Enterprises of Sacramento, LLC (Thomas) for development of the Downtown Sacramento Railyards. These agreements were requested by Thomas prior to their closing escrow and taking ownership of the Railyards property. The major deal points of the two agreements are listed in Attachment 1 and the full agreements are on file with the City Clerk. The terms of these two agreements are contingent upon Thomas closing escrow with Union Pacific Railroad (UPRR). Thomas has also agreed to negotiate shared infrastructure funding and phased construction over the life of the project consistent with the City's Memorandum of Understanding with Millennia Associates (Agreement 2003-176 -1), now known as S. Thomas Enterprises of Sacramento, LLC.

Policy Considerations: The development of the Railyards supports the City of Sacramento's strategic goals of implementing a smart growth development strategy,

improving and diversifying the transportation system, and expanding economic development throughout the City.

Environmental Considerations: In connection with the Purchase and Sale Agreement, as indicated in the Background Section, the City's acquisition of Parcel A is intended to preserve, operate, repair and rehabilitate the Historic Depot and related parking and rail facilities without increasing or intensifying the use of such improvements. As such, the acquisition of Parcel A is exempt from environmental review pursuant to CEQA Guideline Sections 15300 and 15301. The completion of the acquisition of Parcel B is subject to environmental review, including the review conducted as part of the preparation of the EIR. Likewise, the implementation of the Track Relocation Financing Agreement is subject to environmental review. Both agreements are structured so certain obligations are subject to further action after completion of the environmental review process. Consequently, certain obligations contained in the agreements cannot be legally binding until the environmental review process is completed. The City Council retains full discretion to terminate or modify those obligations based on environmental concerns.

Rationale for Recommendation: Approving these agreements creates the first phase of the public-private partnership necessary to develop the Railyards and the Intermodal facility. The terms of these two agreements are contingent upon Thomas closing escrow with UPRR. Thomas has requested this first phase commitment of City resources concurrent with their close of escrow on the Railyards property.

Financial Considerations: Both land acquisition and track relocation will ultimately be paid for from Measure A funds committed over the next four years to the Intermodal project. A one-year short term borrowing from transportation contingency funds will be necessary to raise $30 million immediately but will be repaid from next year's Measure A installment. Funding for these agreements is in the Sacramento Intermodal Transportation capital improvement project (CF41).

Emerging Small Business Development (ESBD): No goods or services are being acquired with this action.

Respectfully Submitted by: _____

Marty Hanneman
Assistant City Manager

Recommendation Approved:

_____

for Ray Kerridge
City Manager

Table of Contents:

ATTACHMENT 1

BACKGROUND

The approximately 240-acre Union Pacific Railyards property is under contract to be purchased by a subsidiary of S. Thomas Enterprises of Sacramento, LLC (Thomas) from Atlanta, Georgia. The property includes the site for the planned Intermodal Transportation Facility (ITF) which is approximately 15.3 acres and includes the existing Sacramento Valley Station. An additional 17.5 acres contains a portion of the existing rail line and the new proposed relocated track alignment. Thomas submitted an entitlement application for development of the full Railyards property in the spring of 2006. An environmental impact report (EIR) is being prepared to evaluate the environmental impacts of the development, including the ITF. The EIR is estimated to be completed by the summer of 2007.

The purchase and sales transaction between Thomas and Union Pacific Railroad (UPRR) requires Thomas to close escrow by December 31, 2006. Thomas wants the City to commit to purchasing the ITF site and financing the relocation of the rail tracks prior to their moving forward and acquiring the property. This requires that the two agreements which are the subject of this report be approved by the City Council before the end of the year and are contingent upon Thomas closing escrow with UPRR. Staff believes there is very little probability that Thomas could postpone acquiring the Railyards beyond the end of the year. Portions of these agreements will require further Council action after the EIR for the Railyards is completed.

The subject two agreements include a purchase and sale agreement relating to two parcels (Parcel A and Parcel B – see Attachment 3) that are located within the Depot district of Thomas' development plans for the Railyards. While development of the ITF is subject to numerous approvals by the City and applicable stakeholders to that project, the City seeks to obtain the Historic Railroad Depot and related parking in order to preserve, improve and operate the historic structure and to improve parking operations, all in support of current rail transportation services. The acquisition of Parcel A supports these purposes and the City does not anticipate, nor does it intend that its acquisition will increase or intensify the use of acquired assets. The acquisition of Parcel B will require additional City Council approval to take place in conjunction with, among other things, certification of the EIR. Likewise, the Track Relocation Funding Agreement, the second agreement proposed for approval would require further environmental review before its terms are implemented.

ATTACHMENT 2

Sacramento Railyards
Summary of the Major Business Terms for the Intermodal Site Purchase and Sale Agreement and Track Relocation Financing Agreements

The following Terms and Conditions are contingent on S. Thomas Enterprises of Sacramento, LLC and Union Pacific Railroad closing escrow and expires at midnight 12/29/06 (unless extended per item 14. below).

Intermodal Site Purchase and Sale Agreement

1. City acquires Intermodal site in 2 phases (Parcels A: existing station – 8.82 ac; and Parcel B: expansion area north of existing station and relocated rail corridor – 23.99 ac; for a total of **32.81 acres**)

2. Final property value and purchase price to be determined by appraisal/mediation/arbitration process

3. City to pay Thomas $30 million cash down payment; provide a promissory note for $25 million at closing; and gets title to Parcel A

4. Parcel B to be transferred to City after environmental review is completed and additional action taken; City provides note if adequate funds not available

5. Thomas provides financial security for up to $55 million for repayment if City overpaid for Parcel A. Any City overpayment will be returned with interest at the prime rate and may be applied to the purchase price of Parcel B and/or the track relocation and interim passenger facility improvements

6. Thomas provides environmental indemnity and toxics insurance coverage to City

7. City takes over all parking operations at close of Thomas and UPRR escrow

Track Relocation Financing Agreement

8. Implementation of the terms of this agreement is subject to completion of environmental review and final Council action required to be legally binding

9. City pays up to $40 million for track relocation and to build interim passenger facilities; any cost overruns to be shared equally; Thomas to carry note on financing if necessary (24 mo's @ prime rate)

10. Track relocation to be completed based on a mutually agreed upon schedule

11. Thomas to construct and City provides note if adequate funds not on hand when needed

Additional Terms

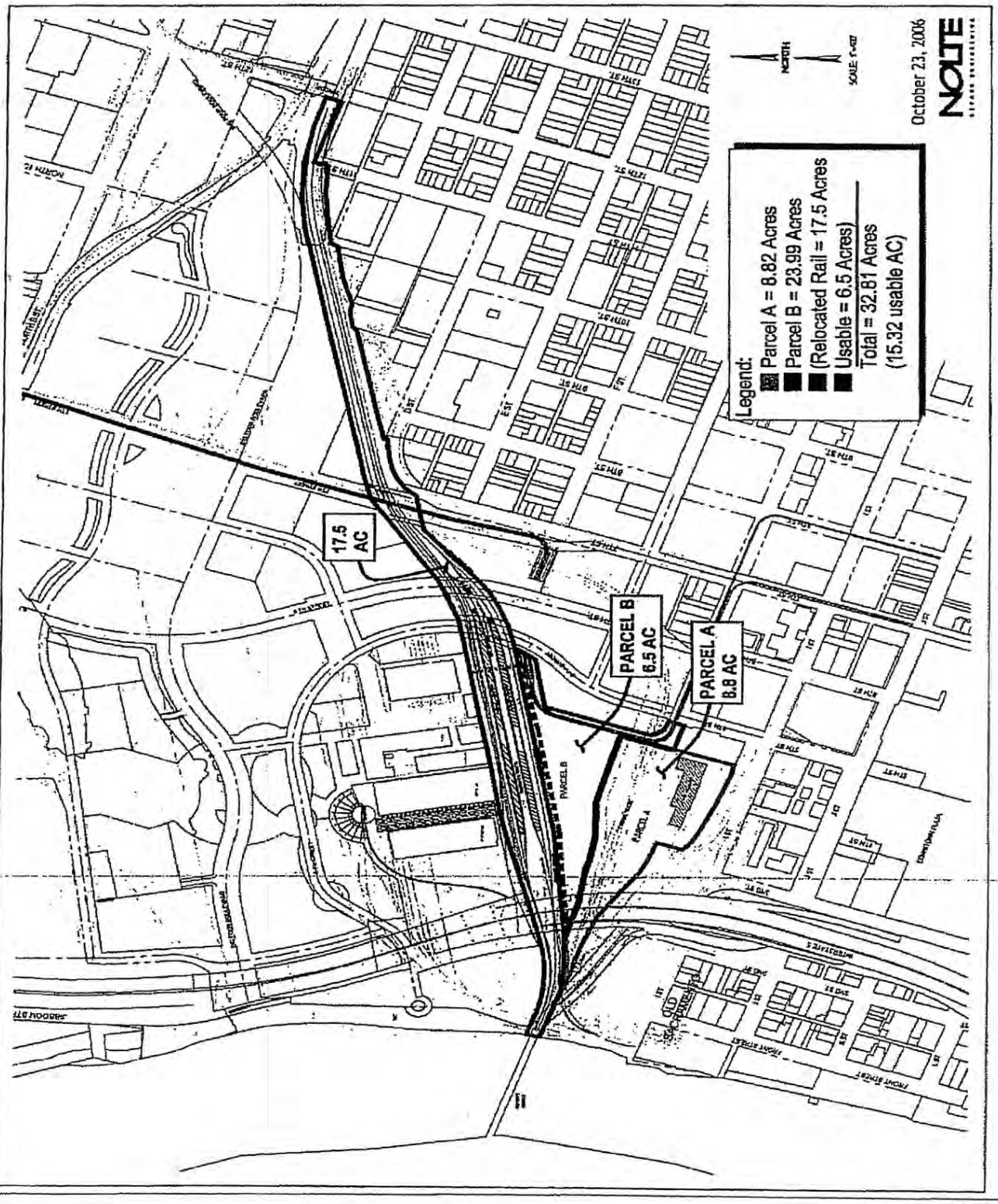
12. Thomas agrees to prepay all outstanding entitlement application costs in advance

13. The parties agree to negotiate shared funding for infrastructure and phased construction over the life of the development project (per MOU with Millennia; Agreement 2003-176-1)

14. The City Manager is authorized to extend these terms and conditions by 30 days

Attachment 3

Map Showing Two Intermodal Site Acquisition Parcels



Attachment 3

ATTACHMENT 4

RESOLUTION NO.

Adopted by the Sacramento City Council

RESOLUTION APPROVING A PURCHASE AND SALE AGREEMENT AND JOINT ESCROW INSTRUCTIONS FOR ACQUISITION OF THE INTERMODAL TRANSPORTATION FACILITY SITE

BACKGROUND

A. S. Thomas Enterprises of Sacramento, LLC is in escrow to buy the Sacramento Railyards property from the Union Pacific Railroad.

B. The City of Sacramento has identified the Sacramento Valley Station-Intermodal Transportation Facility as its number one priority capital improvement project.

C. S. Thomas Enterprises of Sacramento, LLC wants a financial commitment from the City to purchase the Intermodal site and to relocate the existing rail line prior to closing escrow on their purchase of the Railyards property.

D. S. Thomas Enterprises of Sacramento, LLC has agreed to negotiate shared funding for infrastructure and phased construction over the life of the development project consistent with the Memorandum of Understanding with Millennia Associates (Agreement 2003-176-1).

E. The acquisition of Parcel A, the existing train station operation, will result in no new environmental impacts.

F. Environmental review law requires that a full environmental analysis be completed prior to the completion of the acquisition of Parcel B for the expansion of the Intermodal Facility.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

Section 1. The City Manager is hereby authorized to execute the Purchase and Sale Agreement and Joint Escrow Instructions Agreement with S. Thomas Enterprises of Sacramento, LLC for acquisition of the Intermodal Transportation Facility site with such contingencies, conditions and other provisions as described therein.

Section 2. The City Manager is authorized to make a $30 million cash advance payment from CIP CF41 for this purpose.

Section 3. The City Manager is authorized to execute a $25 million note payable in Fiscal Year 2009 for this purpose.

Section 4. The City Manager is further authorized to extend the terms and conditions of this agreement by thirty days beyond the December 29, 2006 termination date.

Section 5. Staff is directed to return to the City Council for its further consideration of the acquisition of Parcel B in conjunction with appropriate environmental review and after consultation with State and Federal agencies relative to the status of federal funding for the future intermodal transportation project.

Section 6. Staff is directed to negotiate shared funding for infrastructure and phased construction over the life of the development project as called for in the Memorandum of Understanding with Millennia Associates (Agreement 2003-176-1).

ATTACHMENT 5

RESOLUTION NO.

Adopted by the Sacramento City Council

RESOLUTION APPROVING A TRACK RELOCATION AND FINANCING AGREEMENT FOR RELOCATION OF THE MAIN LINE AND PASSENGER STATION RAIL TRACKS IN THE VICINITY OF THE INTERMODAL STATION

BACKGROUND

A. S. Thomas Enterprises of Sacramento, LLC is in escrow to buy the Sacramento Railyards property from the Union Pacific Railroad.

B. The City of Sacramento has identified the Sacramento Valley Station-Intermodal Transportation Facility as its number one priority capital improvement project.

C. The City of Sacramento has identified the relocation of the rail lines as important for the development of the expanded Intermodal Facility and the first phase of the Sacramento Railyards development project.

D. S. Thomas Enterprises of Sacramento, LLC wants a financial commitment from the City to relocate the existing rail lines and to purchase the expanded Intermodal site prior to closing escrow on their purchase of the Railyards property.

E. Environmental review law requires that a full environmental analysis be completed and a subsequent discretionary action be taken by the City Council prior to the implementation of the Track Relocation and Financing Agreement.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

Section 1. The Track Relocation and Financing Agreement with S. Thomas Enterprises of Sacramento, LLC is approved and implementation of various provisions of the agreement is subject to completion of the full environmental analysis and subsequent City Council discretionary action.

Section 2. The City Manager is hereby authorized to execute the agreement with the contingencies, conditions and other provisions as stated therein.

Section 3. The City Manager is authorized to execute a note for the City's share of track relocation costs. This note will be payable two years after its authorization.

Section 4. The City Manager is further authorized to extend the terms and conditions

of this agreement by thirty days beyond the December 29, 2006 termination date.

Section 5. Staff is directed to return to the City Council for its further consideration of the implementation of the Track Relocation and Financing Agreement in conjunction with appropriate environmental review and after consultation with State and Federal agencies relative to the status of federal funding for the future intermodal transportation project.

Exhibit 8

LETTER 26

City of Sacramento
Planning and Development Department
Environmental Services Division

DRAFT ENVIRONMENTAL IMPACT REPORT EXECUTIVE SUMMARY (VOLUME 1)

RAILYARDS SPECIFIC PLAN

RICHARDS BOULEVARD AREA PLAN

Prepared by:

EIP Associates
Sacramento, California

June 10, 1992

the conclusion is reached that the general effect of implementation of the Alternatives would be the further concentration of the regional office market in downtown Sacramento. This redistributional effect is considered to be beneficial due to its positive relationship to anticipated public investment in the regional transit system, as well as potential positive effects of such economic concentration on traffic, air quality, and other environmental issues.

Parks and Open Space

The parks and open space chapter of the EIR addresses potential demand created by growth in the Planning Area for parks and open space services and facilities. In addition, the EIR discusses the relationship of the Alternatives to goals and policies of local parks and open space planning documents.

The analysis in the EIR assesses the impacts of the Alternatives based on the City's standard of the provision of 5 acres of neighborhood or community parks for every 1,000 residents. Since the Alternatives for the Railyards Area designate adequate land to meet City standards for parks and open space, the EIR concludes that, other than Alternative 1, all of the Alternatives would have a less-than-significant or beneficial impact on the availability of parks and open space land. In the Richards Area, parkland is not designated in many of the Alternatives. Due to the nature of the RBAP, existing uses are anticipated to "transition" from one use to another, and it is not possible at the outset to predict the way in which this transition will occur. Therefore, for the Alternatives in which the parkland requirement is not met in the Richards Area, as mitigation, the EIR requires that the RBAP include policies to meet the required residential parkland and dedication.

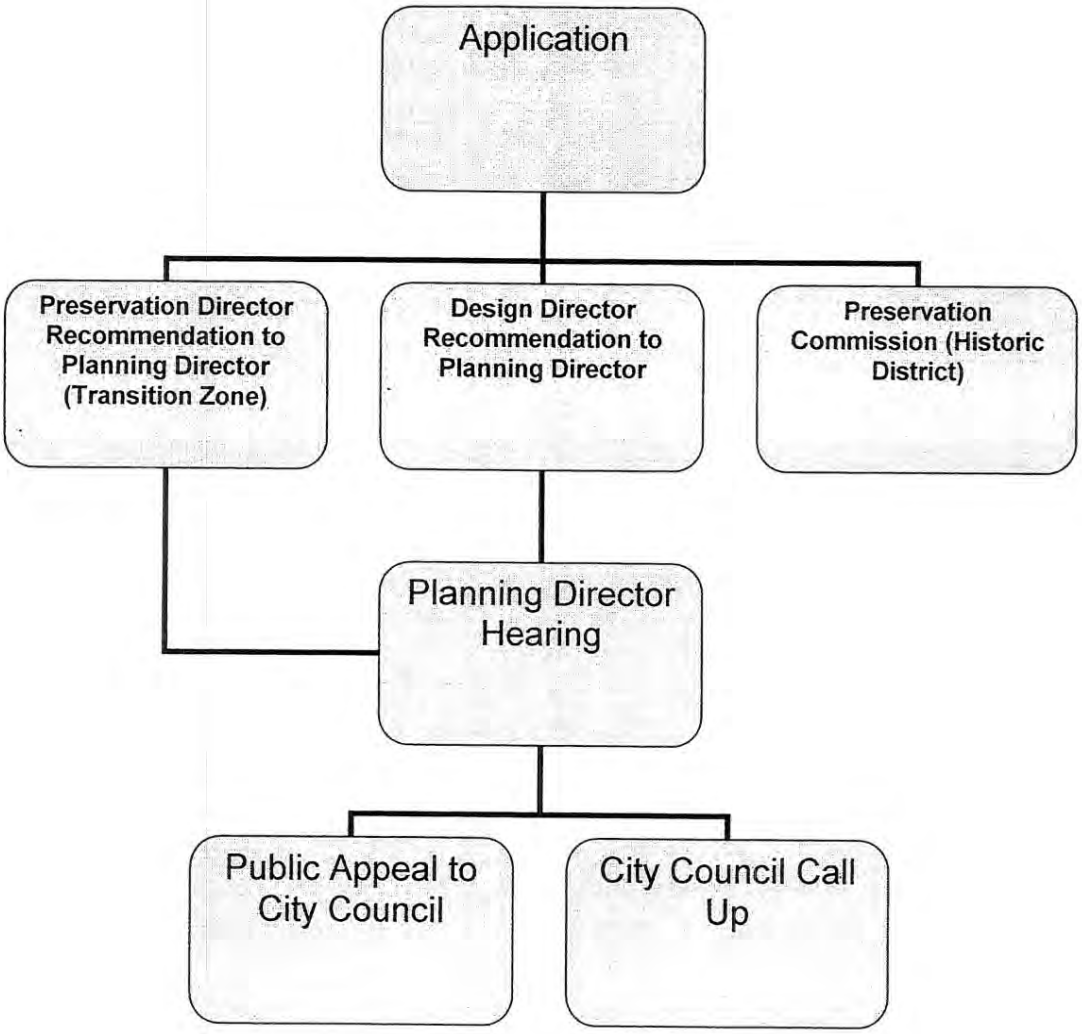
In examining the potential impacts of the Alternatives on bicycle and pedestrian linkages in and through the Planning Area, the EIR concludes that all of the Alternatives, with the exception of Alternative 1, would have a beneficial impact by providing new and continuous bicycle and pedestrian linkages through the Planning Area. In examining the relationship of the Alternatives to the wide range of planning documents that address parks and open space, including the American River Parkway Plan and the Sacramento Parkway Plan, as well as the City of Sacramento Master Plan for Parks Facilities and Recreation Services, the EIR concludes that the impacts of all of the Alternatives would be less than significant.

Urban Design and Visual Quality

The urban design and visual quality chapter of the EIR examines the potential impacts of the Alternatives on the visual character of the Planning Area, including changes to the City's skyline, impacts on critical view corridors, the potential impacts of new shadows generated by high-rise development, and the relationship of the Alternatives to local urban design policies and plans.

The EIR describes a range of significant, unavoidable impacts due to the development of substantial new high-rise buildings throughout the Planning Area. The focus of the concern expressed by the EIR involves the relationship of new high-rise development to adjacent sensitive users, particularly residents of the neighboring Alkali Flat neighborhood. Mitigation measures are provided that guide the design of buildings, and address the relationship of buildings to each

Exhibit 9

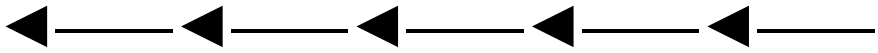


The benefits of this process are several: (1) It achieves the City Council adopted goal to promote infill development by creating an efficient, certain, and streamlined process; (2) It maintains a role for the public through early noticing and an appeal process; (3) it implements the policy goals and standards of the commissions established in the guiding planning documents (The Railyards Specific Plan, the Design Guidelines, and the SPD); (4) it preserves a role for the public in the hearing process; (5) it combines what typically is a cumbersome multi-hearing process into one streamlined hearing; and (6) it provides certainty for the City, developers, and developer lenders thereby making infill development feasible and ensuring ultimately a better development project.

In addition, to establishing process, it also establishes allowed uses, development standards, and other site specific requirements (such as demonstrating evidence of

LETTER 27

Franchise of **A**mericans **N**eeding **S**ports



City of Sacramento
c/o S. Johnson
925 "I" Street
Sacramento, Ca. 95814

Re: Comments relative to the Rail Yards Draft EIR

To Whom It May Concern:

I have read through the draft EIR and would like to make the following comment:

The draft EIR has zero material in it relative to the construction of an NBA quality arena in the area. Even though the voters of Sacramento turned down the possibility of public financing for the facility, they did not 'vote down' the possibility of constructing an arena in the area in the future. In my opinion, all the voters did was turn down the plan that was presented to them, with the largest element being the possibility of public payments for an arena. 27-1

If this report is to move forward, there should be an analysis of the possible transportation, pollution and economic impact(s) of an arena on the property, and that analysis should be made part of the EIR.

Thank you very much for allowing me to respond to the EIR.

I look forward to hearing from you.

Sincerely;

Michael C. Ross, JD
(916) 923-2215

LETTER 28

MCR Public Affairs & Advocacy

City of Sacramento 10/2/2007
c/o S. Johnson
925 “I” Street
Sacramento, Ca. 95814

Re: Comments relative to the Rail Yard EIR.

Dear Mr. Johnson,

Attached you will find a copy of comments relative to the Rail Yard EIR that are being submitted on behalf of our client, Moller International.

I look forward to talking to you about our comments at your earliest opportunity.

Sincerely;

Michael C. Ross, JD
(916) 923-2215

37 Derow Court, Sacramento, CA. 95833 – 916.923.2215 – ssorleahcim@comcast.net – fax 916.923.2216

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MOLLER INTERNATIONAL
ENVIRONMENTAL IMPACT REPORT RESPONSE
RAIL YARD PROJECT

INTRODUCTION

I am writing today on behalf of Moller International Inc, a California corporation involved in designing, developing, manufacturing and marketing new transportation products, specifically a 4-passenger line of Vertical Take-off and Landing ("VTOL") aircraft that combines the cruise performance of an airplane with the vertical-flight capabilities of a helicopter

The aircraft is designated the "M400 Skycar®."

The concepts surrounding the Skycar are simple. It is designed as a personal transportation vehicle and with its VTOL-capabilities it will be practical and affordable,. We believe it will replace for some portion of the travel done today by both the automobile and private or commercial airplanes, with on-demand, point-to-point travel which may make the preferred the consumer's transportation choice of the future.

With that in mind, and the potential to deploy this technology within the next five years, we believe that your project will need to address this form of alternative transportation system and establish methodologies that will be used to integrate this type of travel into public transportation systems around the world.

PROJECT CONCERNS

Our concerns about the Environmental Impact Report (EIR) that is being developed for the Rail Yard Project fall into the following categories:

1) There is no discussion of the use, location and role of exiting VTOL aircraft (such as helicopters) in conjunction with emergency vehicles in the draft EIR.
2) There is discussion of the use and role of this technology by the general public in the draft EIR
3) The EIR does not take into consideration the principles outlined in SB 375 (2007)
4) The EIR underestimates the impact of vehicle emissions levels in the city's air, and the potential benefits of low-emissions, airborne vehicle like ours.

28-1

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WHAT IS VTOL?

I) BACKGROUND

Personal Air Vehicle or PAV is a term widely adopted by the U.S. aviation community and is used to describe a class of light general aviation aircraft which meet a specialized set of design and performance goals. The basic premise of this frontier technology is to make the capability of flight convenient for an individual with a reduction in the specialized skills required to operate an aircraft. The final goal being a practical "highway in the sky" scenario where an individual is able to fly from point to point with the ease of driving an automobile.

It calls for a new mode of transportation

Gridlocked roadways increasingly burden our society, with the average car speed being 35 mph. As an automobile-centric culture, California is severely impacted by the use of the car, and its expected that the average speed in Sacramento in the year 2020 will be much slower than it is today. Additionally, the U.S. Department of Transportation (DOT) states that 6.7 billion gallons of gasoline are wasted in traffic jams each year, and this has a direct impact on air quality.

A future system of travel by PAVs expressly avoids air traffic jams and can substantially help to relieve those on our earthbound roads and highways. With thoughtful implementation of available technologies we can improve travel times while decreasing harmful emissions and improving air quality.

General PAV Definition is an aircraft with:

- Accomodation for 2 to 6 passengers.
- 200+ mph cruising speed/600+ mile range
- Quiet, Safe, Comfortable, and Reliable.
- Able to be flown by anyone with basic automotive driving skills.
- As affordable as travel by car or airliner.
- Near all-weather capability enabled by Synthetic Vision Systems.
- Highly fuel efficient (able to use alternative fuels).

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- Provide “door-to-door” travel capabilities, via vehicle roadability, or small residential airfields or vertiports with only a short walk from the aircraft to the final destination.

Current Technological Barriers To PAV Implementation

A pure Synthetic Vision System infrastructure does not currently exist for general aviation aircraft. Current implementations of "Glass Cockpits" are now being adopted by general aircraft manufactures such as Cirrus Aircraft, Piper, Cessna, and Beechcraft.

The Federal Aviation Administration (FAA) current infrastructure is not currently capable of handling the sizable increase in aircraft traffic that would be generated by PAVs. The FAA is currently planning the Next Generation Air Transportation System targeted for 2025 to expand and completely transform the current aged system. FAA NGATS Modeling by NASA and others have shown that PAV's using new smaller community airports would reduce traffic into larger airports serving the commercial fleet.

Of the two methods proposed for providing “door-to-door” capabilities, only the roadable option can be achieved utilizing existing airport facilities and ordinary roads. Currently, the only vehicles able to legally take off and land from a residential street are life-flight helicopters via special permission granted by the FAA on a case-by-case basis. In order to meet the goals set by NASA, thousands of small residential airports would be required to be built.

Community noise generated by aircraft is serious consideration for residential PAVs operations for take-off and landing. Without lower noise levels enabling residential landing capabilities, any PAV must still take off and land at an FAA controlled airport or private airfield, where the higher sound levels of operating aircraft have been approved.

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A Path Forward

California needs to take a leadership role in order to solve its unique transportation problems. The following project areas are independent tasks that can educate us and assist in this process.

EMERGENCY SERVICE ACCESS UPGRADES

First adopters of the emerging high-speed VTOL aircraft will likely be those persons or organizations that can effectively utilize the immediate benefits that this technology offers. Life-flight helicopters have been shown to reduce travel time needed to respond to and transport critically ill or injured people. With the even higher speed of the new PAV technologies this travel time can be further reduced. Studies should be conducted to identify areas that are currently outside of the range of rapid airborne responders, or those areas that have limited access by emergency aircraft. The goal of this study should be to identify the criteria that would allow for every Californian to receive, if required, emergency airborne transportation to an appropriate medical facility within minutes of the notification for a call to transport.

IMPACT OF COMMUNITY-BASED AIRPORTS

The near-term availability of small aircraft capable of vertical take off and landing has the potential to provide new alternatives to private and public transportation requirements. Given the opportunity to use a doorstep to destination transportation system that can drastically decrease travel time, some portion of California's long-distance commuters are going to be very interested in using this form of travel. As a result, the transportation planning commissions should be mandated to evaluate VTOL aircraft-enabled transportation options along with other transportation options as part of their 5- and 10-year plans. To facilitate these plans, Sacramento should direct the appropriate agency to conduct studies, which would identify the potential ground and air traffic in and out of regional helipad/heliport facilities with the understanding that roadable VTOL aircraft may be able to access these facilities from the surrounding community.

AIR TAXI TRANSPORTATION STUDY

Taking the VTOL concept one step further and combining it with the Multi-transportation center concept, either together with the Community-Based Airport Study or separately, the EIR study should help determine if VTOL aircraft-enabled on-

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demand air taxi services are a cost effective scenario for the city and county of Sacramento's transportation issues. High density traffic areas that suffer from regularly reoccurring traffic congestion should be targeted for the study. A mix of private and publicly funded transportation scenarios exploiting the characteristics of VTOL passenger aircraft with payloads of between 3 to 8 persons would be examined. The Legislature should direct the appropriate public agency to oversee the study, but much of the data collection and analysis could be accomplished within the context of existing transportation study proposals.

VTOL PROJECTS

Moller International is committed to developing effective PAV Programs. The following are Moller's basic programs.

1) OFF ROAD USE

Synopsis: General vehicle for off road use. This specially designed vehicle is capable of navigating the off road using VTOL technology to "lift off" and move.
Deployment Expected by: 2008
Costs: Minimal costs to the state.
Energy Type: Alternative fuels including: Ethanol, Biodisel and Electricity.
Environmental Statement:

a) Compared to other off road vehicles, these vehicles are clean burning and effectively use fuel, meaning that their gas mileage is often better than the other guys

b) Since these vehicles do not actually operate on land, they do not cause the same environmental damage BMX Motorcycles and Dune Buggies do.

c) Designed to operate as a "Green Vehicle," these vehicles will be used to showcase California's technological and environmental commitments.

Economic Statement: Because the vehicle is expected to be constructed in California, this program will create jobs and tax revenue for the state.

2) PRIVATE USE - DOMESTIC TRAVEL

Synopsis: General vehicle for domestic travel. This specially designed vehicle is capable of navigating surface streets, as well as using VTOL technology to "lift off" at pre-selected locations throughout the community. These locations, called vertiports, are 90 foot by 90-foot cement pad(s) that are accessible at strategically selected locations. This

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project has several focuses, with the largest being to take people off the traffic grid while lowering greenhouse gases.
Deployment Expected by: 2013
Costs: Minimal costs to the state. Any costs are offset by revenue enhancements that include vehicle registration at DMV and take off and landing fees at vertiports.
Energy Type: Alternative fuels including: Ethanol, Biodisel and Electricity.
Environmental Statement:

a) Vehicle emissions will be lowered – thus lowing green house gases.
b) This program will take people of the traffic grid.
c) Gas Savings will be lowered, reducing dependence on foreign oil.

Economic Statement: Because the vehicle is expected to be constructed in California, this program will create jobs and tax revenue for the state.

3) TRANSPORTATION CORRIDOR USE (TRUCKS)
Synopsis: This program focuses on using "air trucks" to delivery goods throughout the state along specifically designed transportation corridors. These corridors will parallel current highways, with the difference being that they will be either to the side or "stacked" on top of each other. The beauty of this mode of transportation is that there are minimal state costs upfront. The initial focus will be on using trade corridors along two sets of highway systems – the state and federal. Initially targeted highways are:

1) State Highways 50 and 99,
2) Federal Highways (99, 80 & I-5).

Deployment Expected by: 2011
Costs: Minimal state costs simply because no new roads will need to be constructed, allowing the state to send vital financial resources elsewhere. Additionally, any suspected costs are expected to be offset by revenue enhancements that include DMV registration, fuel taxes and take off and landing fees at designated locations.
Energy Type: Alternative fuels including: Ethanol, Biodisel and Electricity.
Environmental Statement:

a) Because trucks will be traveling above current traffic, the delivery of goods will be enhanced.

b) Greenhouse gas emissions will be lowered because there is less diesel traffic on the 'grid'.

b) Gas Savings will be lowered, reducing dependence on foreign oil because there will be less road traffic.

Economic Statement:

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a) This program will save money for employers and consumers because of overall lower transportation costs.
b) Because the trucks are expected to be constructed in California, this program will create jobs and tax revenue.
c) As corporations rush to compete, new truck fleets will be purchased that will help spur economic development.

4) MASS TRANSIT ORIENTED (AIR BUS)

Synopsis: Establish 6 major "airbus" hubs that will have transportations lines designed to rapidly move people from city to city using VTOL concepts. The initially suggested paths are:

1) Sacramento to SF
2) SF to Los Angeles
3) Sacramento to Los Angeles
4) SF to Orange County
5) Sacramento to Orange County
6) Sacramento to San Diego
7) SF to San Diego

Deployment Expected by: 2011

Minimal state costs. State costs are offset by revenue enhancements that include registration at DMV, fuel taxes and take off and landing fees at designated locations. Business and/or Local Government costs are offset by the establishment of service fees.

Energy Type: Alternative fuels including: Ethanol, Biodisel and Electricity.

Environmental Statement:

a) Because people are taken off the traffic grid, vehicle green house gases will be lowered..

b) Gas Savings will be lowered, reducing dependence on foreign oil.

Economic Statement:

a) This program will encourage consumer travel and provide savings of both time and money.

5) EMERGENCY VEHICLES

Synopsis: Use VTOL aircraft to move patients from one location to another. For example, imagine an emergency vehicle responding to a crash on a freeway. Currently they will have to navigate traffic that is often backed up. With a VTOL craft, they can

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by-pass all traffic and land next to the crash site, load the patient and then take them directly to a hospital.
Deployment Expected by: Current (helicopters). We suggest that this be expanded.
Costs: Costs depend on the ownership of the emergency vehicle.
Energy Type: Alternative fuels including: Ethanol, Biodisel and Electricity.
Environmental Statement:

a) Vehicle emissions will be lowered – thus lowing green house gases.
b) Gas Savings will be lowered, reducing dependence on foreign oil.

Economic Statement:

a) This program will save lives while helping to lower overall medical (ambulance) costs.

NEED(S)

1) EIR confirmation
2) A change (update to reflect new technology) in local ordinance(s) with respect to the use of emergency vehicles
3) Inclusion of VTOL technology at the transportation center
4) Construction of a friendly 'flight plain' (no power lines and telephone poles)
5) A landing and take off facility that equates to 75' by 75'.

26-2

CONCLUSION

VTOL is a future technology that will have a major impact on the people and state of California. In Sacramento, whether it is used for emergency use or public transportation will have an impact on the design, construction and use of the multi-model transportation facility. Additionally, it will have a positive impact on the region's air quality, and we look forward to it being made part of the EIR.

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LETTER 29

Friends of the Earth 1717 Massachusetts Ave NW Washington DC 20036
Contact: Fred Millar, Ph.D. 703-979-9191 fmillar@erols.com

Friends of the Earth /US is pleased to comment on the Draft Environmental Impact Report [DEIR] (PO5-097) dated August 2007.

DEIR recognizes the potential enormous impacts of accidental or terrorist-caused railcar hazmat releases at the railyard site, but summarily dismisses the likelihood of increasing these risks by completing the proposed dense infill project at the railyard site. DEIR relies on supposedly adequate federal regulations and local ER capabilities, and on specious arguments about existing and future risks. We suggest numerous ways for the DEIR to be amended. 29-1

Detailed comments:

1. City of Sacramento (City) in its DEIR should not pretend that the likely flows and potential risks from hazardous materials transportation through the area is so "unpredictable" ("would vary from day to day" – see comment 3 below). It should demand much more hazmat flow and storage information from Union Pacific (UP), BNSF, and the most relevant shippers, especially, but failing that from the US Surface Transportation Board, etc. re historical and typical numbers of and identity of hazmat shipments (6.5-14) Some state agency may have already requested this information from the STB. In addition, relevant data on violations, safety problems, etc. should be asked from US FRA. 29-2

2. It is good that the DEIR gives at least facial deference to the potential project-related increases in both terrorism and accidental releases as potential serious hazards for existing occupants of the study area. **Regarding the DEIR's sections on "Standards of Significance": p. 6.5-24 "Substantially increase the risk of exposure of <u>site occupants</u> [my emphasis] to inadvertent or accidental releases of hazardous substances transported on adjacent roadways and rail lines within the Specific Plan Area":**
A major question that needs discussion in the DEIR is the extent to which *the new development might subject the existing populations to increased terrorism risk, insofar as the infill development might increase the attractiveness of the area as a terrorism target.* The same consideration applies to new residents (see below). 29-3

"Hazardous substances that are not related to project construction or occupancy can be legally transported through the Specific Plan Area via rail or in trucks and other vehicles (on 7th Street, for example), or on adjacent roadways such as Richards Boulevard and I-5. The exact types and amounts of non-project-related hazardous substances that could be transported via rail within the Planning Area or adjacent to the Planning Area on roadways <u>would vary from day-to-day</u> [my emphasis] , as would occur on roadways and rail elsewhere throughout the Sacramento metropolitan region. As noted in the Regulatory Setting, above, many federal and industry programs are already in place, and more are being developed, to help improve transport of hazardous substances.

A primary safety and security concern related to the rail transportation of hazardous materials is the catastrophic release or explosion in proximity to densely populated areas, including urban areas and events or venues with large numbers of people in attendance. Also of major concern is the release or explosion of a rail car in proximity to iconic buildings, landmarks, or environmentally significant areas. Such a catastrophic event could be the result of an accident, or a deliberate act of terrorism.
The consequences of an intentional release of hazardous material by a criminal or terrorist action are likely to be more severe than the consequences of an unintentional release because an intentional action is designed to inflict the most damage possible.[18]
The causes of intentional and unintentional releases of hazardous material are very different; however, in either case the potential consequences of such releases could be substantial. Using chlorine gas as a worst-case example,[19] compressed chlorine released from a pressurized tank expands rapidly as a gas cloud that remains at ground level. Exposure to chlorine gas can severely burn the eyes, skin, and lungs, and can be fatal.[20] Generally, the concentration would be highest at the source of the release, and the concentration would diminish at various distances from the release.[21] The Chlorine Institute estimates that levels (concentrations) "immediately dangerous to life or health" could occur 0.6 miles downwind in the event of a release from a 150-pound gas cylinder, 2.2 miles downwind for a 1-ton container, and 14 to 25 miles downwind for a 90-ton tank car rupture, depending on meteorological conditions and other factors.[22] The federal government has developed numerous scenarios to estimate the human health effects of a catastrophic release, and the Department of Homeland Security estimates that a major chlorine railcar spill could kill 17,500 people. Under a scenario involving large gatherings or holiday crowds, 100,000 serious injuries or deaths could occur.[23]"

29-3 (con't.)

3. It is good that DIER outlines some potential consequences in the case of increased serious hazmat releases. DEIR should include information on the worst case impacts of the other major kinds of hazardous materials (hazmat) releases, whether by accident or sabotage: fire, blasts and toxic gas clouds. City planners should utilize vivid graphics of potential hazard zones – plume maps, blast impact zones – see the local CUPA or the area Local Emergency Planning Committee (LEPC) for possible precedents, and refer to the federal EPA guidance documents for the EPCRA (SARA Title III)-mandated LEPCs, especially NRT-1 and the Technical Guidance for Hazard Analysis – popularly known as the Green Book.

4. The main need is to calculate and vividly display the populations, critical infrastructure, environmental and other "receptors" in the area at potentially increased hazmat risk. City should refer to the Risk Management Plan (RMP) summaries -- available to the public -- from the regional EPA reading room to see some precedents for estimating worst case scenarios and their impacts on various receptors.

29-4

5. The fact that these RMP data have no doubt been withheld assiduously from general public view in Sacramento (as elsewhere) should undermine the DEIR's easy assumptions that minimize the hazmat risks:

"In the unlikely event of a worst-case scenario release of a hazardous substance in the Railyards, the City of Sacramento has an extensive emergency response network in place to provide first response, which is described in the "Regulatory Setting." As described in greater

detail in Impact 6.10-3 in Section 6.10, Public Services, the SFD has also requested that a new fire station be built within the project site. In the event of a real or potential chlorine release, CHLOREP[24] teams are available 24/7 to respond, along with CHEMTREC[25] teams."

The DEIR should seriously and independently evaluate whether (rather than the boosterism of DEIR's current assuming that) state and local emergency response planning and preparedness are likely to be adequate for serious releases. Maybe the emergency response equipment has been located right where the toxic cloud is most likely to be released, likely rendering it useless, as in the case of the chlorine releases at Henderson NV and Graniteville SC. Refer to the Army and US GAO oversight documents analyzing the military's Chemical Stockpile Emergency Prevention and Preparedness (CSEPP) program for how to evaluate the existence of "reliable functioning capabilities" rather than relying on self-serving grandiose and untested claims of planning agencies. DEIR should assess whether the existing hazmat response and evacuation capabilities will be overwhelmed by the scale and new complexities of a dense infill project at the railyard.

29-4 (con't.)

The US CSB former Chairman Carolyn Merritt has recently testified in Congress that their investigations revealed that in the US local emergency preparedness is often gravely lacking. One important question to ask: have state and local agencies conscientiously and vividly implemented the two post-Bhopal (i.e., post 1984) federal right to know laws in ways that have informed the local citizens of the risk, as these laws aim for? Have worst case scenario plume maps for potential fixed facility and transportation releases been published in the media (see the West County Times for a very vivid precedent)? Or has the population been kept in the dark -- deliberately -- by knowledgeable industry and public officials, with the stated rationale being "not to alarm" the citizens of Sacramento?

6. DEIR should look much more adequately at School Siting (6.5-19) and provide a graphic of schools as well as other sensitive potential receptors near the railyard area. City should contact the L.A. USD re its methodology for calculating risks to schools.

29-5

7. The issue of hazmat railcar routing:

"As noted in the Environmental Setting, freight trains do not stop in the Specific Plan Area (or any other locations in the downtown Sacramento area) for any planned purpose. [my emphasis]"

Which raises the issue of protective routing: the DEIR should consider as a mitigating factor the voluntary re-routing by the railroads where possible, using interchange agreements if necessary, of the most dangerous hazmat railcars around the proposed development area.

29-6

8. The issue of train or railcar delays:

"But if there is a delay in the system, there is the potential that a freight train carrying hazardous substances would be stopped in the Specific Plan Area for a short amount of

time. Such occurrences would be completely random and unscheduled, however, and the number of cars carrying hazardous materials and their contents would be similarly unpredictable. The risk of an accident involving a rail car carrying hazardous substances traveling through the Railyards would be similarly unpredictable.
(As noted in the Regulatory Setting, incidents are rare throughout the U.S.)."

DEIR should include and assess railroad and federal data on the range of hazmat railcar delays in the area in recent history (e.g., the last 5 years) This is a key terrorism-related concern for US DHS and Canadian national transportation regulators. cf. DEIR 6.5-37 also.

Accidents may be seen by the DEIR authors as acceptably "rare", but rail hazmat accident rates are used by academic risks researchers (cf. the long-time work of Ted Glickman, e.g.) in the US and elsewhere,

Railroads themselves have tons of historical data on "dwell times" of trains and hazmat railcars in urban areas – time is money to a railroad and its shippers, and their planners constantly pore over the data to find ways to cut minutes off the delays, as regularly repeated feature reports in Railway Age magazine would show. US DHS and US DOT probably have the most up-do-date summary of this data related to terrorism potentials of these delays. To say that such flows and storage-related data are "unpredictable" is specious. It may be "unpredictable" as to whether UP will someday carry moon rocks through Sacramento, but DEIR can make fair estimates based on historical data as to near-term future freight flows.

29-6 (con't.)

9. DEIR should include analyses of the reasons for such railcar delays and ways to minimize these. US DHS and US DOT have been studying such railroad data as part of their focused concern on the terrorism hazards posed by delayed hazmat shipments. They are pushing the railroads to expedite hazmat shipments- see the Supplemental Security Action Items and UP's letter specifically mandating railroad compliance to this "voluntary" initiative.

10. **"6.5-8 Development of the proposed project would bring <u>new residents</u> [my emphasis] in proximity to existing non-project-related hazardous substances transportation routes, such as I-5 and the UPRR rail lines" (pp. 6.5-36ff)**

New residential uses are proposed to be developed in close proximity to the relocated main line, which would continue to be used to transport freight through the Specific Plan Area. During the day, a large number of office workers would also be present in the Specific Plan Area. While development of the proposed project would increase the number of people within the Planning Area who could be exposed to a risk of hazardous substances exposure from an unintentional release, the proposed project in and of itself would not alter the types of rail shipments through the Specific Plan Area. <u>Further, it is likely that many of the future occupants (residences and businesses) will simply be those that move from an existing location in the Sacramento metropolitan area (or other highly urbanized area) where there is already a risk from a catastrophic release of an acutely hazardous substance</u>. [my emphasis]

29-7

This is quite an unverified assumption, since the future residents will be moving (from widely differing kinds of locations, presumably) into what was after all historically a

railyard, by definition in close proximity to tracks that in this case will continue to carry even the most dangerous hazmats.

In any case, surely the increased risk of a terrorist attack in such a high-visibility addition to an already-existing target area will be incurred by such new residents who move into central Sacramento. DEIR should refer to insurance industry information as to the current terrorism risk in Sacramento (cf. national data from AIR Worldwide, Inc as used by the Washington DC Council) and estimate the impacts of adding a new railyard development.

"Moreover, an accidental or intentional release of an acutely hazardous substance would not be limited to the Specific Plan Area, but could have severe consequences downtown and even greater distances. An unintentional or intentional release of hazardous substances within the Specific Plan Area could occur, regardless of whether the proposed project is developed or not.
For the reasons outlined above, the proposed project not substantially increase the risk of exposure of West Jibboom Street site occupants to inadvertent or accidental releases of hazardous substances transported on adjacent roadways and rail lines within the Specific Plan Area, as compared to existing conditions.

29-7 (con't.)

Therefore, [for the potential threat of increased exposure hazardous cargoes] the impact is considered ***less than significant***. Mitigation Measure *None required."*

What this dismissive section overlooks, and what DEIR must consider, is the potential for increased terrorist attack based on the potential increased attractiveness of the area as a target.

11. DEIR reliance on an assumed adequacy of federal regulations is vastly misplaced. The US had deregulated its railroads earlier, in 1980, and subsequently has also had quite feeble government oversight and very often a Missing In Action federal regulatory agency, the Federal Railroad Administration. The New York Times in fact won the Pulitzer Prize in 2005 for a series of articles by Walt Bogdanich documenting this lack of an effective government in US rail safety and portraying an agency notoriously close to (almost literally in bed with) the railroads it is supposed to regulate -- and consequent serious safety and security problems.

12. DEIR ignored significant data and developments recently re rail <u>safety</u> problems, but should consider these:

    i. Serious freight rail hazmat releases continue apace. DEIR should assemble data on UP's record specifically and the CA PUC responses.
    ii. The new federal regulation HM-223 on railcar hazmat storage -- DEIR should explain why there has been no local or state action to implement it.

29-8

iii. The CA PUC's new action plan responded to serious accident trends. Has it impacted safety in Sacramento?

13. DEIR ignored significant developments recently re rail *security* issues, and should elaborate its discussion to consider the local implications for the proposed development.

A. There have been significant US political and regulatory developments, in the post- 9/11 time frame, in protecting target cities. In the US, there has been for some time rising concerns for continued transportation through all major target cities of through shipments of chemical rail and truck cargoes ("dangerous goods" in UN and Canadian regulations) that the US government actually terms Weapons of Mass Destruction. By not re-routing voluntarily the most dangerous through shipments onto available non-target routes, chemical shippers and carriers are in effect recklessly pre-positioning them for right in our 46 High Threat Urban Areas for the benefit of the terrorists.
A city council re-routing ordinance was enacted in Washington DC and similar laws introduced in ten other major cities and in three state legislatures. In addition, more than 25 major TV and print investigative reports have convincingly highlighted the threat posed by such WMD cargoes and the absence of any effective security in the US railway system. The Washington DC ordinance was opposed in federal court by CSXT railroad, other railroads, chemical shippers and the Bush Administration. DC won at the Federal District Court level, but the case is still on appeal (see www.oag.dc.gov) DEIR should consider the possibility of a local re-routing ordinance, pending implementation of the new federal law HR-1.

29-8 (con't.)

The recent news from Iraq is that for several months the insurgents there have been honing their skills with a new kind of terror weapon: blowing up chlorine trucks (see the NY Sun article in Appendices). And the Chlorine Institute has warned US officials that someone has been stealing chlorine containers – in California.

Despite the well-known threat of WMD cargoes, U.S. railroads have steadfastly resisted security measures involving re-routing, which they see as the beginnings of governmental "re-regulation" and as encouraging the proposed Congressional "railroad reform" legislation advocated by their "captive shippers". No US railroad and no US chemical shipper has announced a national policy of voluntarily re-routing their most dangerous through shipments around major target areas, except in cases of short-lived Special National Security Events like the SuperBowl or the Presidential Inauguration.

The only ongoing "voluntary" rail re-routing that citizen pressure has so far achieved is the partial re-routing of hazardous materials away from the CSXT Railroad "I-95 line", the "photo-op line", where many media photographers have shown chlorine tank cars with the US Capitol only four blocks in the background. CSXT still threatens iconic D.C. targets and populations, however, with hazmat cargoes on its other, less media-visible CSXT "Metropolitan" freight route, which cavalierly dips into DC to a point only 20

blocks north of the US Capitol, not a significant difference for a chlorine cloud, depending on the wind and weather.

HM-232 was promulgated in 2004 by US DOT and requires shippers and carriers of hazmat to create security plans. DEIR should evaluate for adequacy the ones produced for hazmat movements locally.

B. Insurance Issues: Railroads have complained in Congress that they cannot buy adequate terrorism insurance in the private market to cover their exposure when carrying toxic gas cargoes. DEIR should discuss the local situation, the vulnerability of local residents and institutions in the case of serious hazmat releases, and possible mitigations. In recent Congress testimony on rail security (June 13, 2006 and earlier years) the railroads and their Congressional allies have backhandedly acknowledged the huge terrorism risks of rail transport of poison gas cargoes through target cities, mainly because they highlighted the resulting liability and insurance problems. Despite these risks, however, they assert target cities should not protect themselves by re-routing – this should be a federal role only, if at all.

Ed Hamberger, CEO of the Association of American Railroads**,** outlined for Congress the "ruinous liability" and "untenable" high insurance costs railroads face with hazmat transportation, predicted total insurance unavailability in near future for the "multi-billion dollar risks associated with highly-hazardous shipments", and asked the Congress to provide one or more federal bailouts. Lamenting that US railroads have a statutory "common carrier obligation" to carry unwillingly the most dangerous hazmat cargoes, Hamberger also cited widespread discussion of target cities' re-routing efforts to protect themselves, and opposed these efforts.

29-8 (con't.)

Most dramatic, the insurance industry testimony from AON Risk Services' James Beardsley highlighted the substantial "contraction" of the catastrophe insurance market because of the industry's sober assessment of the huge risks in hazmat railcar routing through major cities (no specific mention of the port insurance parallels). "Over the last 10 years freight railroads have sustained several catastrophic liability losses" costing $600 million against only $300 million paid in premiums. "As a result … several insurance companies have ceased writing railroad insurance."

"The recent bombings in both London and Madrid have focused underwriters' attention to the terrorism threat as it relates to the rail industry… Any further terrorist event on a transit passenger or freight could have a disastrous impact…[on future insurance coverage]": an additional contraction and a spike in price. Insurance companies would likely raise the railroads' deductibles from the current $25 million to $50 million. "Underwriters focus on the hauling of hazardous materials because they have been the proximate cause of many of the largest rail industry losses to date… Terrorism and hazardous chemical data must be looked at in conjunction with each other… These are the two major areas of concern…"

C. The US Congress has now legislated to decisively alter the rail security landscape: the new national consensus is that the railroads (including Canadian railways) will re-route around US target areas wherever possible. DEIR should discuss potentials for re-routing as soon as possible around the railyard area, as a way of lessening any mitigations that might otherwise be seen as necessary.

Recently the U.S. Congress has enacted (on July 29, 2007) and President Bush promptly signed homeland security legislation (H.R. 1) implementing recommendations made by the 9/11 Commission. http://thomas.loc.gov/cgi-bin/bdquery/z?d110:h1:
It will eventually help protect some 46 U.S. cities from attacks against trains carrying hazardous materials. One of the legislation's hard-fought provisions (Section 1551) requires the government within nine months to promulgate regulations to "ensure" that railroads route the most dangerous hazardous cargo shipments around, rather than through, major U.S. cities ("high-consequence areas") wherever possible.

29-8 (con't.)

The rail safety mandate is part of the Democrats' bill implementing recommendations made by the 9/11 Commission. The eventually bipartisan legislation includes the requirement that railroads identify alternatives to routes going through high-threat target areas, analyze the risks along these routes, and annually "select" the "safest and most secure" routes [including storage sites] for railcars [not whole trains] carrying the most dangerous hazardous cargo, even when those routes might require "interchanging" dangerous good railcars with other railroads. The final votes in favor of the legislation were 371-40 in the House and 85-8 in the Senate. Concrete implementation of the bill may not occur for two years, however.

APPENDICES:

washingtonpost.com op-ed "**We Could Breathe Easier :**
The government must increase the security of toxic chemicals in transit"

By Richard A. Falkenrath Tuesday, March 29, 2005; Page A15

The basic strategy al Qaeda used on Sept. 11, 2001, was to strike a common, poorly secured commercial system in a way that would cause catastrophic secondary effects. The terrorists did a better job of identifying the vulnerability associated with fully fueled commercial airliners than the government did -- and they exploited this vulnerability to terrible effect. Now, because of the work of the Transportation Security Administration, commercial aircraft in the United States are all but impossible to hijack. But the terrorist is an adaptive enemy. One central question in homeland security is whether terrorists will again locate a catastrophic civilian vulnerability before the government gets around to addressing it.

There are an infinite number of potential targets in America that, if attacked, could result in hundreds of civilian casualties. The number of potential targets that could result in *thousands* of civilian casualties is, however, finite and knowable. In the federal government, the Department of Homeland Security is responsible for identifying these potentially catastrophic targets, analyzing their security schemes and taking action if the security arrangements are deficient. It is in general a bad idea to call attention to America's most serious civilian vulnerabilities. Government officials should never do so and should not be asked to. Private citizens should do so with care, and only when the government fails to act.

Of the all the various remaining civilian vulnerabilities, one stands alone as uniquely deadly, pervasive and susceptible to terrorist attack: industrial chemicals that are toxic when inhaled, such as chlorine, ammonia, phosgene, methyl bromide, and hydrochloric and various other acids. These chemicals, several of which are identical to those used as weapons on the Western Front during World War I, are routinely shipped through and stored near population centers in vast quantities, in many cases with no security whatsoever.

A cleverly designed terrorist attack against such a chemical target would be no more difficult to perpetrate than were the Sept. 11 attacks. The loss of life could easily equal that which occurred on Sept. 11 -- and might even exceed it. I am aware of no other category of potential terrorist targets that presents as great a danger as toxic industrial chemicals. The federal government has the authority to regulate the security of chemicals as they are being transported on roads, railways and waterways. With only one minor exception, the administration has not exercised this authority in any substantial way since Sept. 11. There has been no meaningful improvement in the security of these chemicals moving through our population centers.

In a desperate step, the D.C. council recently voted to ban hazardous material shipments through downtown Washington. This ordinance is clearly good for Washington, but it is bad for the other parts of the country that will absorb the diverted chemical loads. Furthermore, its economic burden falls principally on CSX Corp., the company that owns the two rail lines through downtown Washington. CSX is suing to block implementation of the ordinance. The federal government is supporting CSX's effort, an awkward position for a security-conscious administration that has so far failed to mandate a systematic, nationwide reduction in the vulnerability of this sector.

The administration can and should act immediately to enhance the security of toxic chemicals in transit nationwide; no new legislation is required. Specifically, the departments of Homeland Security and Transportation should promulgate regulations that will, over time, require chemical shippers to track the movement of all hazardous chemicals electronically; to report this data to DHS in real time; to use fingerprint-based access controls for all chemical conveyances; to adopt container signs that do not reveal the contents to most observers; to perform rigorous background checks on all employees; to strengthen the physical resilience of chemical containers; to reduce chemical loads; to ship decoy containers alongside filled containers; and to install perimeter security at loading and switching stations. Violators should suffer harsh civil and criminal penalties.

But the federal government does not have authority to regulate the security measures inside chemical plants and storage facilities. President Bush has twice called on Congress to pass legislation granting the Department of Homeland Security this authority. The 108th Congress declined to do so. It is often alleged -- incorrectly -- that lobbying by the chemical industry was behind Congress's inaction. The real reasons had to do with the full agendas of the committees involved; the administration's competing legislative priorities; and the obscure, esoteric and theoretical nature of the issue.

The voluntary security enhancements many of the larger chemical firms have implemented -- in some cases with assistance from the Department of Homeland Security -- are a step in the right direction but are insufficient. Congress should promptly grant powerful authority to regulate chemical-plant security to that department as the president has requested.

There is no silver bullet to improving the security of chemicals that are toxic when inhaled. A layered, nationwide approach is required. It is right and proper for the government to require industries to take on the security costs of their activities. The immediate cost of these regulations would be borne by the chemical industry. Over time, costs would be passed on to consumers, and the market would adjust to a new, more socially responsible equilibrium. The real losers would be al Qaeda and its successors.

The writer was deputy homeland security adviser to President Bush until May 2004. He is now a visiting fellow at the Brookings Institution and senior director of the Civitas Group, an advisory and investment services firm serving the homeland and national security markets.

LETTER 29

NY Times editorial June 20 2005 "Corporate Profit vs Public Safety"

One of the first steps any sane person would take to guard against terrorism is to stop rail tankers filled with deadly chemicals from passing within a few blocks of the Capitol. If a rail tanker was attacked in downtown Washington, it could put every member of Congress - and much of the rest of the city - at risk of instant death. But the railroad industry, concerned with saving money, has blocked reasonable rules for the transport of extremely hazardous materials. Senator Joseph Biden, Democrat of Delaware, has just introduced a bill to fix this disturbing hole in our national defense. Every member of the Senate and House should be supporting it.

One of the deadliest terrorist scenarios the Department of Homeland Security has come up with is an attack on a 90-ton rail tanker filled with chlorine. As many as 100,000 people could be killed or injured in less than 30 minutes. The simplest way of reducing the risk is banning rail tankers with deadly materials from areas that are likely terrorist targets. The Washington City Council recently did just that, banning hazardous materials from being transported within 2.2 miles of the Capitol without special permission. But CSX, the railroad giant, got a federal court to block the law from taking effect.

Other cities are considering following Washington's lead, as well they should. But city-by-city legislation will not solve this problem. The railroads will argue, as CSX did in its suit against Washington, that city governments do not have the authority to regulate them. And in any case, defending the country from a terrorist attack on hazardous materials requires a single national strategy, coordinated by the Department of Homeland Security.

Senator Biden's bill, though not perfect, would go a long way toward making the nation safer. It would require the Department of Homeland Security to develop a list of extremely hazardous materials, and to designate "high-threat corridors" that because of dense population, strategic importance or other factors are particularly likely to be terrorist targets. In most cases, railroads would be required to reroute shipments containing extremely hazardous materials along safer paths.

The bill contains other common-sense provisions. It would require that governors, mayors and emergency responders be notified when hazardous materials are shipped through high-threat corridors. And it would give states and local governments standing to sue companies that put lives in danger by violating the law.

President Bush was re-elected on a pledge to do everything he could to keep the nation safe, but again and again, his administration has put corporate interests ahead of national security. Notably, the president has failed to push for a strong law to reduce the risk of terrorist attacks on chemical plants, which the chemical industry has strongly opposed. And when CSX sued Washington to block its ban on hazardous materials, the administration joined in on the railroad's behalf, arguing that the city did not have the authority to block the shipments.

The Bush administration indicated last week that it now supports passage of strong chemical plant safety legislation. That will be a welcome shift in policy, if the administration sticks to its word. But if it favors chemical plant safety rules, it should also back Mr. Biden's bill. There is little point in reducing the risk at chemical plants if the same chemicals become easy targets once they are put in rail tanks and shipped through populated areas. *An Insecure Nation: Editorials in this series remain online at nytimes.com/insecurenation*

The New York Sun

May 1, 2007 Edition

Police on Alert As Chlorine Hits Iraq
NYPD Quietly Begins Tracking Shipments

BY BRADLEY HOPE - Staff Reporter of the Sun May 1, 2007
URL: http://www.nysun.com/article/53493

The New York Police Department has quietly begun tracking chlorine shipments in the city and requiring increased security at some storage areas in response to terrorists' use of the chemical weapon in Iraq, police officials said.

In Ramadi yesterday, a tanker full of chlorine gas was exploded near a restaurant, killing as many as six people and injuring 10 others, the Associated Press reported. Twenty-seven people were killed in a similar attack in the Iraq city on April 6.

The police department's chief spokesman, Deputy Commissioner Paul Browne, said the department's analysts several months ago started looking at chlorine. As the attacks in Iraq became more frequent, officers in the counterterrorism and intelligence divisions began taking a closer look at chlorine in the city.

Mr. Browne said officers have also been stopping vehicles transporting chlorine to check if they are properly licensed. At a recent New York Shield briefing — a periodic meeting where private security directors from around the New York metropolitan area get updated on potential threats against the city — police officials described the nature of a chlorine threat, he said.

Detectives regularly visit locations around the city to reduce the risk of certain chemicals or materials getting into the hands of a terrorist as part of what is called Operation Nexus,

officials said. They visit hospitals that have equipment with radioactive materials, industrial storage areas, and truck rental agencies, among other locations. Business owners are asked to call in tips about suspicious activity.

"NYPD has been concerned about dangerous materials that are stored in or transited through the city," a former head of the department's counterterrorism division, Michael Sheehan, a fellow at New York University's Center on Law and Security, said. "NYPD intelligence analysts also closely track international trends in counterterrorism in order to anticipate what types of threats could be manifested in New York City, such as the use of chemical weapons in Iraq."

He added: "This most recent action is part of a much broader strategy — a local nonproliferation strategy — implemented by Commissioner Kelly in an attempt to pre-empt chemical, biological, or radiological threats before they get organized in the city."

The infrastructure protection chief of the Department of Homeland Security, Robert Stephan, said last week that authorities should step up their scrutiny of chlorine across the country, adding that 150-pound containers of chlorine are in wide commercial use throughout the country.

"We've got to be prepared for it," he told USA Today. The paper reported that the Chlorine Institute, a trade group for the industry, recently alerted the FBI to stolen chlorine tanks in California. A 1,600-gallon tank of chlorine disappeared from a parking lot in Tallahassee, Fla., early last month, the Tallahassee Democrat reported.

Chlorine is widely used in water purification and sewage plants, which is where Iraqi insurgents are thought to have been stealing tanks from in recent months. In small concentrations chlorine gas causes coughing, blurred vision, nausea, burning pain, and makes it difficult to breathe, according to the Centers for Disease Control and Prevention. When the chemical comes into contact with water, it produces acid, which makes the eyes and respiratory system especially vulnerable. Higher concentrations can cause death.

According to a U.S. Coast Guard study, a chlorine gas cloud can spread two miles in 10 minutes. "The people are here, the knowledge can get here, the materials are here," the director of the Manhattan Institute's Center for Policing Terrorism, Timothy Connors, said. "It's used in a lot of industrial applications, huge chemical plants, and it's stored in train cars. … If it could be put together in Iraq, it could be put together in New York." There are no specific terrorist threats against the city, Mr. Browne said.

Journalist Ron Suskind, in his book "The One Percent Doctrine: Deep Inside America's Pursuit of Its Enemies Since 9/11," said Al Qaeda operatives planned an attack using hydrogen cyanide gas in the subways in 2003, but called it off 45 days before the proposed deadline.

Railroads Interchange Cargoes Very Frequently for Commercial Purposes:

CN/BC Rail Joint Press Release
New BC Rail / Canadian National Reciprocal Agreement October 27, 1997
Dear Customer,
I am pleased to announce that BC Rail and Canadian National have reached agreement to allow the seamless flow of new rail traffic over the Prince George interchange to either the Port of Prince Rupert or Vancouver. This agreement is consistent with announcements made today in Prince George by Paul McElligott, President and Chief Executive Officer, BC Rail and Gerald Davies, Executive Vice President - Marketing, Canadian National.
What this means to customers on BC Rail is they have access to the Port of Prince Rupert from BC Rail origins for a number of commodities including lumber, panel products, woodpulp, coal and general commodities excluding dangerous commodities and dimensional loads. For customers on CN, BC Rail will bridge the traffic from Prince George to the interchange in North Vancouver. This will significantly reduce CN miles. Most importantly, this agreement provides competitive access provisions to the ports of Prince Rupert and Vancouver for rail customers in the province whether they are served by BC Rail or CN. This represents a significant effort on the part of BC Rail and CN to facilitate new growth and economic development for the province.
Customers located in the north or the central interior of British Columbia can now access all ports on a seamless rail transportation system. The primary features of the agreement are as follows:

- BC Rail will have commercial access on new business to the Port of Prince Rupert, and will be responsible for the marketing from points on BC Rail. Traffic to intermediate destinations on CN is not included.
- CN will have commercial access on new business to Vancouver via BC Rail trackage from Prince George. CN will be responsible for the marketing from points on CN.
- Commodities include forest products, general freight (excluding dangerous commodities and oversize or dimensional loads) and coal to Prince Rupert.
- Each railway will be responsible for providing adequate crews, locomotives power and transit times to handle the additional traffic volumes.
- Rail cars will be supplied by the originating railway.
- BC Rail and CN are exploring the options for the movement of grain from the Peace River region of British Columbia and Alberta

under this reciprocal access agreement.
. The agreement is for five years.
To further assist the seamless flow of traffic between BC Rail and CN, both railways have also concluded an agreement to improve the interchange of rail cars at Prince George. CN will receive BC Rail forest products traffic directly into departing trains at Prince George thereby eliminating the marshalling that currently delays traffic. This initiative will reduce transit times by a minimum of 48 hours on shipments to Eastern Canada and Chicago.
This agreement provides shippers with competitive rates to access the ports of Prince Rupert and Vancouver and improves the flow of traffic over the interchange. This will benefit shippers by providing new opportunities to pursue markets and economic growth that will support the economies of both British Columbia and Alberta.
Sincerely, W. C. Banks
Vice President Sales and Customer Service Delivery

“Report: U.S. Rails with Hazardous Materials Vulnerable to Terrorists”
Insurance Journal

January 18, 2007

Train lines that carry hazardous shipments have little or no police presence and shoddy security that makes them easy targets for terrorists, according to a newspaper investigation.

During a several-month, nationwide investigation, a reporter with the Pittsburgh Tribune-Review was able to penetrate 48 hazardous chemical plants and the freight lines that service them, including in Atlanta. The reporter, who left his business cards on the cars, was never questioned when he climbed trains, photographed derailing levers and peeked into signaling boxes that control rail traffic, the newspaper reported in a series of stories that began Sunday.

"What you uncovered is a criminal tragedy, and it's a criminal tragedy that's just waiting to happen. It's also criminal what we haven't done about this," U.S. Sen. Joseph Biden, D-Del., told the newspaper. Biden has sponsored legislation to revamp rail security nationwide and pledged to hold hearings on the issue.

The newspaper visited rail lines from Seattle to New Jersey that had been documented by the Federal Railroad Administration since 2003 for defects in security. The newspaper found that little, if anything, had changed since those first reports were issued.

In Las Vegas, the Tribune-Review reporter reached 11 hazmat tankers either inside plants or along rail tracks. As a result of the findings, the Nevada Homeland Security Commission said it is investigating security shortfalls.

"Closing gates, making sure workers and guards and police are aware of our chemicals, that's important," Commission Supervisor Larry Casey said. "Unfortunately, the farther we get from 9/11, the more people forget about staying vigilant."

The Tribune-Review reporter left about 100 business cards on Union Pacific hazmat tankers from Las Vegas to Seattle. "Our only statement is that we believe what you did is dangerous and we strongly encourage people to stay away from railroad tracks," Jim Barnes, a spokesman for Union Pacific railroad, told the newspaper.

Among other things, the newspaper also found defects or lapses in security in several other areas, including:

In Atlanta, the reporter climbed aboard unguarded stores of deadly insecticides, flammable petroleum distillates and acetone. Atlanta and Georgia homeland security officials declined to comment on the newspaper's findings.

Despite security cameras, roving patrols and high fences at Pioneer America's Tacoma, Wash., bleach plant, the reporter walked past rail switching levers and safety chocks to access a railcar filled with chlorine that was sitting outside the railyard gates. Pioneer's plant manager said police did patrol the area.

In the New Jersey suburbs abutting New York City, the Tribune-Review found the toughest chemical plant security of anywhere, but was still able to enter 12 chemical facilities or railroads. Richard Canas, director of the New Jersey Office of Homeland Security and Preparedness, said the state is vigilant about protecting its rail lines but there are some vulnerabilities.

Nancy Wilson, vice president and director of security for the Association of American Railroads, said freight security has improved since 2001 but more must be done. There is about 240,000 miles of unprotected railroad line in the U.S. "You've got to remember the open architecture of railroads. We're not static facilities. We cannot protect every railcar, every rail yard or every customer's facility all the time," said Wilson, whose organization represents haulers who handle about 90 percent of the nation's hazmat truck cars.

Homeland Security officials and the association said there's no indication that terrorists are plotting any rail attacks in the U.S. "To me, this is a no-brainer for terrorists in Atlanta or anywhere else," Sal DePasquale, a Georgia State University expert on counterterrorism and retired security director for chemical titan Georgia Pacific, told the newspaper. "It's toxic material. It's unprotected. If you're a railroad or a chemical plant and you won't have someone ready to kill the adversary ready to attack your plant, then what can you do?"

___Information from: Pittsburgh Tribune-Review, http://pghtrib.com

LETTER 30

To whom it may concern: 9/21/2007

As a Stakeholder in the upcoming Railyards Development, Alkali Flat holds the distinction of being Sacramento's oldest intact residential neighborhood. We hope that those charged with this Development remember this as they go forward, particularly on the "Alkali edge".

When we look at the Development as a whole, we are pleased to see that a great deal of thought has gone into the Project concept. It is appreciated that the Developers incorporated Sacramento's history and our crowning glory, the "City of trees" canopy into the plan.

30-1

We feel that Alkali will benefit from the concept of housing over retail whenever possible to ensure a mix of housing, (homeownership, apartments, and lofts) with a variety of configurations and scale of cost so that there will *not* be sections of Development that are essentially left "unattended" after working hours. Hopefully this will help alleviate public safety issues and save on the cost of security.

We see that the concept of "walkability" is being incorporated in some Districts and we would like to see this along the Alkali edge in the Depot District as well.

The plans include "open spaces" in all of the Districts with the exception of the Depot District, which is adjacent to the Alkali edge.
In fact, there are no green spaces or "Pedestrian Zones" to speak of. There is a large area directly across the tracks at the "D" and 7th street connection (Alkali side), that was designated for a "Sports and Entertainment Facility". Due to noise, traffic and other issues that are a known byproduct of such facilities, Alkali might be better served by using that space for a park such as the Central Park in New York or Bidwell Park in Chico, Ca. For revenue, an amphitheater could provide a variety of entertainment venues. This could also help to mitigate the lack of green space on the Alkali edge.

30-2

There is a great need for a "real "store in this area. Perhaps the Railyards Development could accommodate. With the development of Globe Mills and the Crystal Creamery property in the planning stage, coupled with the amount of housing within the project itself, we would feel that there would be sufficient patronage.

30-3

Traffic considerations are a *major concern* for Alkali:

- --flow
- --pollution(air, noise)
- --parking

30-4

It is noted and appreciated that there are efforts in this plan to move traffic around our neighborhood by having some of the flow on 12th street go around Alkali by installing Railyards Blvd and N. B street as major arteries. There are

still concerns however, in regard to having heavy"cut-through" traffic. Signage will be a very important step as an effective deterrent to deflect "parking and shortcut hunters".

Due to the fact that 7th street will be a major inflow street for the Development and that there will also be an increase in traffic on 12th, we feel that Alkali should have extra measures allotted to insure that the increase of noise and air pollution could be mitigated. Green space and trees would be a good start for example.

30-4 (con't.)

We are very excited about the Development of the Railyards . It is a long time in coming. Sometimes the extra time is needed to build something enduring that we can all be proud of. We feel that way about Alkali Flat. We want to preserve and protect our historic neighborhood but also we want Alkali to be a part of the energy and vibrancy of what "is to come".

Laura Lough & Dan Frankfield
Residents of Alkali Flat currently serving as:
Members of the Redevelopment Advisory Committee
Board members of the Alkali-Mansion Historic Neighborhood Association

LETTER 31

Daniel A. Airola
2700 6th Ave
Sacramento, CA 95818
September 19, 2007

Scott Johnson
Development Services Department
City of Sacramento
915 I St.
Sacramento, CA 95814

Subject: Comments on the Railyard Specific Plan Draft Environmental Impact Report, Regarding Effects of the Project on the Purple Martin

This letter responds to the analysis of impacts of the Downtown Railyard project Environmental Impact Report (EIR) on the Purple Martin, a state Species of Special Concern. I am an ornithologist and Certified Wildlife Biologist and have led and conducted volunteer-based intensive studies of Purple Martins in Sacramento under permits from the California Department of Fish and Game (DFG) and the California State Railroad Museum, since 1991 (intensively since 2002). 31-1

In summary, the EIR analysis does not consider the considerable body of research and management findings on Sacramento Purple Martins that I and my colleagues have published since 2002. The I St. Purple Martin colony is important to the maintenance of the martin population in Sacramento and the recovery of the species in the Central Valley as a whole. The EIR analysis is inadequate, in that it only looks at the potential construction impacts of the project and not the long-term effects of the proposed project. The proposed mitigation measures for construction effects are inadequate, and could result in significant harm to the population. Long-term effects of habitat changes resulting from the project could result in significant direct and indirect impacts to the I St. colony. The EIR also does not consider the cumulative impact of planned and proposed projects at other this and other Sacramento Purple Martin colony sites that support 70% of the remaining population. I recommend a number of feasible mitigation measures that could reduce or compensate for the potential impacts of the project and suggest monitoring measures to evaluate the effectiveness of these measures. 31-2 31-3

Context for Comments:
Information on the I St. Purple Martin Colony

The only information presented in the EIR on the Purple Martins that nest beneath the I Street Bridge onramp ("I St. Colony") appears to have resulted from limited surveys conducted only during 2006. Because the EIR preparers appear to have been unaware of the extensive published information available on this colony and others in Sacramento, I briefly summarize some relevant information.

The Purple Martin has been eliminated from the Central Valley of California, except for the 10-12 colonies in Sacramento that annually nest in bridges, where they access nesting chambers through "weep-holes" in the undersides of the bridge structures (Airola and Grantham 2003, Airola and Kopp 2007). Martins have survived in Sacramento because they learned to use elevated freeways and overpasses ("bridges") in the 1960-70s before the arrival in California of the European Starling (Airola, in preparation). The starling is widely recognized as an intense nest site competitor with the martin (Brown 1997), and likely eliminated martins from natural nest sites (woodpecker cavities in trees) and other human structures that they once commonly used in the Central Valley (Airola and Grantham 2003, Airola and Williams, in press). The 2007 nesting population in Sacramento was only 106 pairs and the population has declined by nearly 40% over the last 3 years (Airola and Kopp 2007, Airola unpub. data).

The I St. colony has been consistently among the largest martin colonies in the Sacramento area, supporting 11-37 nesting pairs, representing 10-27 % of the total annual nesting population in Sacramento (and thus Central Valley) (Airola and Kopp 2007, Airola unpub. data). This colony also has been the focus of the most intense martin research, including monitoring of population sizes, banding and evaluation of survival rates, reproductive monitoring, testing of monitoring and management techniques, disease evaluation, and genetic and morphological evaluation to determine systematics of western martin subspecies (Airola and Grantham 2003; Airola et al. 2003, 2004, 2006; Airola and Kopp 2005, 2007; Airola in preparation; Airola and Kostka in preparation; Airola and Williams, in press; Baker et al, in press, Cousins and Airola 2005; Kostka et al. 2003, Leeman et al 2003).

The I St. colony is among the most protected from onsite and external influences, because of it presence above the parking lot of the California State Railroad Museum. Unfortunately, this colony has declined by nearly 70% since 2004, most likely at least partly as a result of predation from feral cats that are being fed on Railyard property near the colony (Airola and Kopp 2007, Airola, unpub. data – see later discussion). Thus, the colony is important for its direct biological value, its research value, and its high level of protection relative to other colonies.

Comments on Proposed Construction Impacts and Mitigation

The project EIR identifies that construction activities including the modification of the I St. bridge ramp, removal of the elevated portions of Jibboom St., and realignment of the Amtrak tracks under I-5, could directly affect nesting Purple Martins. I concur that these activities have potential to significantly affect martin nesting. The proposed mitigation measures, however, do not address the population effects of reducing reproduction through displacement, which clearly meet the second CEQA impact significance criteria listed on Page 6.2-30 of the EIR. 31-4

The proposed mitigation measures to address construction impacts are not clear. The mitigation measures states that the applicant "…will identify active roost and nest 31-5

sites and provide for a construction window that would avoid impact to roosting or nesting Purple Martins". However a more careful reading of measures 6.2-7 a) and b) suggests that construction in existing nesting sites will not be avoided, but rather nesting will be prevented in these areas to allow construction to proceed, and that buffers will be applied only if species are not effectively excluded.

Excluding martins from nest sites prior to the nesting season would prevent disturbance and abandonment of active nests, but it does not eliminate the potential effect of disrupting annual reproduction. As the EIR notes, and our research with color-banded martins confirms, martins show a high degree of fidelity to nest sites used in previous years (Airola and Kostka, in preparation). We also know that previous efforts to exclude martins from the colony at 20th St. resulted in a population decline there from which the species has never recovered (Airola and Grantham 2003, Airola and Kopp 2007, Airola, unpublished data.). Forced displacement of martins during the breeding season is likely to result in reduced reproductive success of displaced individuals. A loss of reproduction from a small population that has declined by 30% over the last 3 years (Airola and Kopp 2007, Airola unpub. data) could contribute to a subsequent population decline in this vulnerable Species of Special Concern, and therefore is a significant impact.

The mitigation measures should specify that effects of construction should be carefully evaluated on a project-specific basis. If construction is determined to be likely to disrupt nesting at the colony site, then construction should be scheduled during the non-nesting period.

31-5 (con't.)

The proposed measure to examine nest sites to verify presence or absence of nestlings does not address the important post-fledging use of nest sites by family groups for roosting for up to 3 weeks after fledging occurs (Brown 1997; Airola and Grantham 2003; Kopp unpublished data). This roosting use is mostly completed by August 1st. Detection of roosting use requires evaluation before first light or after sunset.

Direct examination of use nest sites for nestlings would require the use of a camera that can fit into nest-hole entrances. Roosting fledglings also may be examined directly using a camera, but it should employ an infra-red light source to avoid disturbing birds. Indirect evaluation of use by nestlings and roosting birds may be as effective and more efficient than camera use (through observation of feeding behavior of adults, visual and auditory detection of older young, and viewing of returning family groups to roost).

If scheduling of construction outside the nesting season is determined to be infeasible, and martin reproduction is determined to be likely to be disrupted, then the project EIR should recognize this effect as a significant unavoidable impact. The City, however, should not lightly adopt an override statement simply to avoid addressing project impacts. The determination of whether significant impact results depends in part upon the City's willingness to adopt additional mitigation measures that may offset the effects of loss of reproduction by taking active measures to increase populations or reproductive success at other colonies (see below).

The determination as to whether the proposed construction activities would disrupt nesting, when avoidance is infeasible, should be made by a biologist with direct experience with martin responses to construction activities. This evaluation is particularly important, because martins are more tolerant of human activity than is generally recognized, and past projects in Sacramento have needlessly excluded martins when disturbance was unlikely (Airola and Grantham 2003)

31-5 (con't.)

The proposed methods used to displace nesting martins described in the EIR are incorrect, and should be modified. Martins do not build mud nests on the bridges, but rather enter weep holes to build within the structures. Therefore, washing mud nests from the structure is not effective as a deterrent (and obviously, absence of mud nests is not a sign of absence of nesting martins). Erecting netting is more expensive and less effective than blocking individual weep holes with wire mesh or inserted "top-hat" hole-blockers (such as was used by Regional Transit at the 20th St. colony during light rail construction).

If construction is determined to be likely to disrupt breeding, and avoidance during the breeding season (March 15-Aug 1) is infeasible, then mitigation should be proposed to increase reproductive success at other Sacramento nesting colonies. Potential measures that should be evaluated could include:

- installing wire nest guards within nest hole entrances to reduce the incidence of nest fallout (Kostka et al 2003, Airola and Grantham 2003),
- direct control of starling populations at those colonies where they are abundant and martin populations have declined,
- habitat management by removing vegetation that blocks martin flight access or encourages starling nest site competition, and/or
- support for an ongoing program to install nest boxes and attract a box-nesting martin population to adjacent rural areas.

Comments on Long-term Impacts of Project Implementation

The EIR analysis does not address the potential longer-term impact of habitat changes on Purple Martin populations. There are important potential effects of the proposed development that could result in significant long-term impacts to the existing I St. martin colony. These potential impacts are discussed below.

Loss of Perching Wires

The primary perching area for the I St. Purple Martin colony is the utility wires that cross the southwestern portion of the Railyard site, just north of the railroad tracks. If these wires are removed or relocated, it could reduce the suitability of the nesting habitat and result in a population decline. This impact would be considered significant.

31-6

Mitigation that could be applied to reduce potential impacts includes avoiding removal of wires, or creating alternate perch sites for martins by installing new wires or

other perches closer to the colony. This mitigation is considered feasible to implement at low cost and should be highly effective. It is recommended that alternate perch sites be erected at least several years prior to removal of existing utility wires, to allow the birds to adjust to them and to evaluate their effectiveness. Concurrence from the California State Railroad Museum will be required if the perches are to be erected on state lands.

31-6 (con't.)

Eliminating of Foraging Space and Access

The proposed construction of tall buildings immediately to the north of the I St. martin colony has the potential to disrupt foraging spaces and access of martins to the colony. My anecdotal observations suggest that the most martins leave perch and nest sites to forage and return from areas to the south and west of the colony (and thus not over the Railyard). If this pattern is verified and alternate perching habitat is successfully installed, this impact will not be significant. However, the potential for impact to martin flight paths should be studied more comprehensively by mapping the travel routes and access points used by martins at the I St. colony.

31-7

If further evaluation shows that travel routes and access points may be impinged upon by proposed project facilities, options to address this impact could including project redesign, modification of other access impediments at the site, or (as a less preferred option) enhancement of access at other Sacramento colony sites for which access is compromised.

Loss of Nesting Material Collecting Sites

Extensive observations conducted during the nesting season at the I St. colony show that nearly all material used by martins to construct nests is collected within the Railyard property (including both within the remaining railroad right-of-way and the proposed development area)(Airola and Kopp 2007). Our direct observations of nest building and video observation of nest sites shows that martins primarily use dried grasses and weed stems for nest construction. The existing nest collection areas are the only suitable sites for nest material collection. At other more developed colony sites, martins also collect leaves and stems from parking lots and un-landscaped weedy areas. The loss of habitat suitable for collection of nesting materials could reduce the martin population or nesting success and thereby would be a significant impact.

31-8

Several mitigation measures are readily available to ensure an adequate supply of nesting material, including:

- planting trees onsite that produce suitable nesting material,
- designation of un-maintained nest material collection areas, and
- annual placement of nesting material (straw, pine needles, etc.) in designated areas for use by martin.

The active provision of nesting material has been shown to be effective on an experimental basis at I St. in 2007 (Airola, personal observation). It also has the potential benefit of placing material where martins will be less susceptible to feral cat predation (see **Increased Exposure to Predation from Feral Cats,** below). However, such a method relies on an active human management which may not be sustained over time. I recommend that a combination of all three methods be employed as mitigation, especially while cat predation continues to be a problem for this colony.

31-8 (con't.)

Increased Exposure to Competition from European Starlings

The current role of the starling in the population status of bridge nesting Purple Martins is not fully understood, in part due to the difficulty of obtaining research information to evaluate effects. It is generally recognized that bridges provide the only habitat in the Central Valley that are safe enough from starling competition to allow nesting (Airola and Grantham 2003, Airola and Williams in press). Although starling competition with martins in bridges is lower than in other historic nesting substrates, starlings do use "weep-hole" nest sites within existing martin colonies. Recent declines in several colonies where starling numbers have increased suggests that where present in sufficient numbers, starling may depress populations of bridge-nesting martins.

The I St. colony has had among the lowest use rates by starlings, with an average of <1 nesting pair per year over 2002-2007 (Airola unpub. data). Low starling numbers likely reflect the relatively small amount of suitable starling foraging habitat in the surrounding area. In urban environments during the nesting season, starlings forage primarily in areas supporting irrigated turf and in fruit-bearing ornamental trees.

Enhancement of foraging habitats for starlings at the proposed Railyard development has potential to enhance starling habitat and promote competition with Purple Martins at the I St. colony. Creation of turf areas and planting of typical fruiting ornamental species within the Railyard development (as well as colonization of landscaped areas by weedy fruit-bearing trees such as privet [*Ligustrum* sp.]) could substantially increase the carrying capacity for nesting starlings at the I St. colony, with resulting disruption of martin reproduction. Such an impact, if it were to occur, would be a highly significant impact to this remnant population. The fact that the northern ramp to the I St. bridge may help to discourage starlings from nesting by causing all nest holes in the adjacent offramp to be perceived as "interior" holes, which are generally avoided by starlings. However, this cannot be predicted with certainty.

31-9

Mitigation for this potential effect is difficult because of : 1) its uncertainty and 2) if it occurs, it is difficult to reverse. For now, I suggest that it is prudent to conduct long-term monitoring of starling use of the I St. colony to determine if starling use increases. If so, more intensive monitoring may help to determine if starlings are disrupting martin reproduction. If such disruption is occurring, strategies to address the impact include direct control (i.e., trapping), temporary blocking of holes each year (since a substantial proportion of starling nesting begins before martins return from migration), or modification of landscape conditions. Of course, designing landscapes to minimize the

amount of suitable foraging habitat for starlings could be incorporated into the project at the start as well.

31-9 (con't.)

Increased Exposure to Predation from Feral Cats

Over the past two years, the I St. colony has declined dramatically, from an average of 33 pairs during 2002-2005 to 17 pairs in 2006 and to 11 pairs in 2007 (Airola and Kopp 2007, Airola unpub. data). This decline is attributed at least in part to the predation from a newly established feral cat colony on the Railyard property. Feral cats have been observed stalking and killing martins on the ground when they are collecting nesting material (Airola and Kopp 2007). To date, attempts to discourage the feeding of cats or to remove them, through contacts with the individual who maintains this colony, the City's parking supervisor at the rail depot, and City animal control, have been ineffective. Since the feeding is occurring within the parking lot of the City-leased parking lot, it should be the City's responsibility to resolve this serious threat.

31-10

The EIR should evaluate the potential effects of increasing the human population in the Railyard area and the resulting population of free-ranging pets and feral cat colonies. Currently, several areas with high human populations support food-subsidized cat colonies along the Sacramento River between River Park and Old Sacramento. I believe that the project is likely to increase the current detrimental threat of pet and feral cats to Purple Martins. The EIR should find this to be a potentially significant impact, and should adopt a mitigation measure to make it clear that the establishment and maintenance of feral cat colonies in the vicinity of the I St. Purple Martin colony is unlawful. It also should specify that the City will apply necessary animal control services to remove the existing cat colony and prevent the establishment of new cat colonies.

Increased Mortality from Vehicle Collisions

Martin collision with vehicles, both trains and autos, has been documented to be a substantial source of mortality at several martin colonies (Airola and Kopp 2006, 2007). For example, the long-term colony at 34th and T St. has declined by 90% (from 30-35 pairs in the 1990s [Airola and Grantham 2003] to 3 pairs in 2007 [Airola unpublished data]), during a period when traffic volumes beneath the colony increased dramatically following development and expansion of the nearby UC Medical Center and Shriner's Hospital. Currently, vehicle collisions with traffic at the I St. bridge colony appears to be only a moderate source of mortality, with 0-3 mortalities found annually.

The increased human population in the Railyard area, and resulting increase in automobile and train traffic, has the potential to increase vehicle mortality of Purple Martins. I have not studied the project's circulation and traffic modeling projections in detail to make this assessment. The EIR should evaluate this potential source of mortality. The assessment should be highly site-specific, analyzing the local net effects of collisions based on traffic volumes, road heights and configurations, vegetative and other screening, and distances from nest and perch sites. If effects are found to be significant, potential mitigation may include adding screening, enhancing perch sites

31-11

away from collision sources, redesigning the project traffic plan, or enacting mitigation to reduce mortality at other colonies. 31-11 (con't.)

Cumulative Impacts

The City of Sacramento needs to be aware of, and the EIR needs to reflect, the potential for cumulative impacts to the Purple Martin from multiple projects in Sacramento that are at various stages of planning and approval. The following projects all are proposed in areas that support or are immediately adjacent to Purple Martin colonies:

- Curtis Park Railyard Redevelopment,
- Caltrans' proposal for construction of carpool exit lanes (the "Over-the-top" project) at Interstate 80 at Roseville Road,
- Sacramento State's proposed redevelopment of the area around Highway 50 near 65th St and Redding Road,
- Mercy Hospital's construction and rehabilitation of a parking facility beneath the Capital City Freeway at 29th and R St., and
- The City's rehabilitation of a parking lot beneath the Capital City Freeway at 20th and W St.

31-12

Together the colonies in these areas, along with the I St. colony have supported 72-121 nesting pairs of Purple Martins during 2002-2007, representing an average of 70% of the entire remnant Sacramento nesting population (Airola and Kopp, 2007, Airola unpub. data). The effects of these projects need to be evaluated individually in their environmental documents and should be addressed cumulatively in the Railyard EIR. If these projects have received (or are expected to receive) similar cursory treatment of their construction and long-term impacts to Purple Martins, then the cumulative impacts should be considered significant.

An effective mitigation measure for the cumulative impacts of these projects is for the City to work with applicants and cooperating agencies (Caltrans, Sacramento Regional Transit, Union Pacific, DFG) to develop a cumulative assessment and a set of development guidelines for treatment of Purple Martin nesting colonies, based partly on the recommendations provided in this comment letter. Monitoring, management, and protection of this species over the last 6+ years have been largely left to me and my volunteer collaborators. In my view, the continued survival of the Purple Martin in Sacramento, and the eventual repopulation of the Central Valley to recover the species, requires that the City and other agencies step forward and fund a comprehensive plan to protect, manage, and address project impacts at individual colonies and for the population as a whole.

I appreciate the opportunity to comment on the EIR.

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LETTER 32

From: "Charlotte Delgado" <celticcat000@gmail.com>
To: <srjohnson@cityofsacramento.org>
Date: 10/3/07 1:54PM
Subject: Railyards DEIR comments

As a long time resident of Historic Alkali Flat (almost 40 years), I wish to comment on the Railyards Project. I am very upset that even though I have been involved since we first started meeting together, pushing miniature houses and buildings, streets and trees around on a large blank table trying to envision what we wanted to see in the development, I was not noticed about the comment period. We know how long it has taken to put this plan together, and it certainly wasn't done in 45 days. Yet because of the lack of notification I have even less than the required length of time ,to be allowed to comment. Since the majority of the people who live in Alkali Flat are renters. we were not notified about anything until I was notified by the Union that a meeting was being held about this, at which time I was speaking in Washington D.C., and could only send a short statement to the hearing asking for a longer comment period, I have received no answer. The majority of the property owners do not live in the neighborhood, which compounds the problem of proper notice to the people who will be impacted the most, the residents. Because of the lack of notice, the lack of the availability of the plans and the shortened comment period many people who live here still have heard absolutely nothing. Compound this with the lack of computer access to the plan by the majority of the residents, it is unconsciously absurd to expect that the most impacted people, the residents should have no say in ,their future. This is the same thing that happened when the 7th Street extension was pushed through, effectively sealing off the west end of our neighborhood. This has caused increased traffic with frustrated drivers speeding through our streets, trying to find a short cut to where they are going, thereby causing an endangerment to our children,and elderly pedestrians, and an increase in noise and air pollution. I, myself, have not yet had the opportunity to read and carefully examine the entire plan.

I am delighted to see the hope of the railyards again being talked about involving things that we envisioned so many years ago. The businesses, and residential areas and the walking neighborhood. We had dreamed of a business district with residences above them, so that when those businesses were closed, people who lived there were the eyes and ears that are needed to keep the commercial areas safe without an increase of security patrolling empty businesses. This would perhaps be a solution to the desperate need of affordable housing that Sacramento needs so very much, to bring us into compliance with the law, and to replace the affordable housing that is being lost at such an alarming rate and will only become worse, specially with the rapid growth that the Sacramento area is experiencing now and can look forward to in the future, and the expiring 40 year mortgages in housing that were built in late 60's and 70's, to be 100% affordable. Thanks to the voters the plan to give this land to the multi-millionaire owners of the Kings for free was defeated. This land should be the birthright to Sacramento residents to build businesses, housing, parks and open areas for our future. Don't get me wrong I and my entire family are dyed in the wool King's fans, but, the adverse effects that the noise, traffic, and polution would have on this historic neighborhood compared to the housing and business impact on the economy of the area is incomparable. There must be a

buffer zone on our western edge of green space, and walking access across 7th Street to again unite us with our city instead of being treated like little red-headed step children, and cordoned off from the revitalization of the railyards. Also at the same time there must be clear and concise traffic noticing and routing to relieve the the traffic that our neighborhood is experiencing now and will surely experience even more so with this huge expansion of our city. I especially envision parks to make up for the lack that is so easily seen in our downtown area. The north area, the south area and even east Sacramento have these in abundance. It is time that downtown received our fair share.

Now! I come to the most important area of this plan that must be addressed openly and fully and not swept under a rug as the 7th Street extension was. And that is the pollution and contamination of the land. Because of having to go to court and one of residents paying hundreds of dollars for documents that should have been free through the freedom of information act, we, in Alkali Flat, now know that the railyards is a superfund, with pcp, arsenic and dozens of other carcinogen's, that must be cleaned and safely disposed of . We will not settle for less. Because of bypassing these regulations and the unsafe removal and disposal of the dirt that was removed for 7th Street extension we are now looking for someone to do a study on the dramatic health issues, especially lung disorders, and attention disorders, on the residents of our neighborhood. We now know that in order to safely remove the contamination, in some places it would be necessary to dig down for up to 90 feet. This not to mention the removal of engines, railroad cars, batteries, rails and other debris that was used to fill up the lakes that were once in the railyards. We know that the plume now runs all the way to Sutter's Fort. We also now know through experience that in certain places the bare ground when caught on fire could not be put out for the longest time, because it was so saturated with oil bare dirt would burn for hours. No city, county, state, or country should even discuss going forward with any project a any size, much less one of this size until the land has been cleaned completely to protect their citizens. This means those of us that now live on the boundaries of this health disaster, much less those who would be expected to invest their money in homes and businesses must know that our government will protect our lives, their lives, and the lives of our future generations. Until this is addressed and taken care of I tell you, the city, the citizens of Sacramento, the Federal Government and the world that no other action must be taken. 32-1

Thank you,

Charlotte Delgado
803 E St. #1
Sacramento, Ca
95814-1318

LETTER 33

From: Roxanne Fuentez <rmf323@yahoo.com>
To: <srjohnson@cityofsacramento.org>
Date: 10/3/07 1:57PM
Subject: Re: Railyards Specific Plan Draft Environmental Impact Report (P05-097)

Re: Railyards Specific Plan Draft Environmental Impact Report (P05-097)

To whom it may concern:

The location, height and massing of new construction will diminish the Historic District's historic integrity. Twenty-five to 30 story buildings would affect the historic nature of the Railyards. Such high structures would also affect the aesthetic quality of the Sacramento River Parkway. I suggest lowering the allowable height of the proposed structures, so as not to interfere with historic and natural settings. I support Alternative 3: Reduced Density/Intensity Alternative, which would limit the height of buildings. It would also lower proposed housing densities, which are too high -- 10,000 to 12,500 units. 33-1

Lighting from the proposed development will interfere with Sacramento River Parkway and affect the ability to see the stars, and also the ability of nocturnal animals to carry on with survival activities. In addition, annoying glare from lights will affect nearby neighborhoods. New lights should be limited in height and have light shields to prevent light from going upward and outward. 33-2

Also, the plan appears to include many glass walls that will create affecting people's vision, and heat islands causing more energy use. This should be avoided. 33-3

The Historic District and Central Shops buildings should be retained as a historic district with museums, and no tall structures should be built near this area. Also, a rail spur should connect this district to Old Sacramento to provide a historic rail link, signifying the Transcontinental Railroad, between the two areas. Additionally, a museum and outdoor area should be included recognizing the significant contribution of the Chinese to the development of the railroad – they built the railroad. 33-4

I do not believe that the UPRR main line tracks should be moved, nor should the Sacramento Depot be moved. This would cause an adverse change to the Sacramento Depot and Railway Express Agency Building because they would require the demolition of platform amenities which have been determined as contributing elements to the National Register of Historic places – listed Depot. Also, the water tower should be retained 33-5

LETTER 33

33-5 (con't.)

at its present location.

33-6

I also believe that more open space and parkland should be included in the plan than is currently proposed. Additionally, some of the vegetation, especially The Chinese Tree of heaven, ailanthus altissima (“Chouchun” in Chinese) was one of the first tress brought west. It was brought form China to the United States in 1784. It was hailed as a beautiful garden specimen. It is used in traditional Chinese medicine. It is a host plant for the ailanthus silk moth, a moth used in silk production. Ailanthus has become a part of western culture, with the tree serving as the subject of the best-selling American novel,"A Tree Grows in Brooklyn" by Betty Smith. Finally, is anyone aware that an entire locomotive is buried in the railyard grounds? There are undoubtedly many other items buried there, either historic or toxic in nature, all of which should be thoroughly explored before any development is initiated. Thank you.

33-7

Sincerely,

Roxanne Fuentez
1100 64th Street
Sacramento, CA 95819
(916) 739-0226

LETTER 34

From: "Huck, Mark" <mhuck@parks.ca.gov>
To: <srjohnson@cityofsacramento.org>
Date: 10/2/07 2:45PM
Subject: Railyards Project Public Comment

Dear Mr. Johnson:

Thank you for the opportunity to comment on the Draft EIR for the Railyards project. I am responding to the draft EIR as a private citizen of Sacramento and not in any other capacity.

I am concerned that the Vibration Study in Appendix K does not address potential physical damage to the Central shops in the proposed historic district. The analysis provided documents the effect of vibration and noise on land use, the people and activities only. The vibration study should include an analysis for this type of impact on the historic buildings and a categorical statement made on whether damage to historic brick structures would be sustained over time.

More specifically, a chart should be included, similar to Figure 5-7, showing a curve for freight trains moving the stated maximum speed of 30 miles per hour (page 22), at the stated closest distance the tracks could be located to the shops of 45 feet (page 8), as well as analyzed at sites 2 and 5, which appear closer to the shops than sites 3 and 4 (figure 5-5), which are used in the published charts. The existing charts imply that the RMS vibration velocity could exceed 85 microin/sec, which is closer to the damage level for older buildings on the chart found on page 7, figure 2-2. I am concerned that a revised chart using the parameters above would raise the vibrations into the range of possible damage to older buildings.

34-1

I look forward to having my concern addressed in the final EIR. Thank you for coordination of the comments.

Sincerely,

Mark C. Huck, AIA, LEED AP

LETTER 35

From: "Steve Nagrabski" <snagrabski@adsitech.com>
To: <srjohnson@cityofsacramento.org>
Date: 8/25/07 1:51PM
Subject: Sacramento Railroad Specific Plan Draft

Yawn!

Until the City recognizes the need to attract and keep people who not only pay taxes but are net contributors to the tax rolls, the City will never be successful in maintaining a vibrate City. Natomas is a perfect example of how the City destroyed a new development area by creating housing developments that are quickly deteriorating into another South Sacramento because as the upper income move out .. the less desirable element move in. I visited Natomas last weekend to look for housing to relocate to. I was disappointed and headed back to Roseville and Folsom. Streets are narrow, parking spots are too narrow for automobiles to park in, houses are looking like trash, grocery carts lying along streets are numerous. Vast areas are barren fields . doubtful that they will ever be developed. 35-1

I cannot see the Railroad yards developing into anything that will be attractive to people like me. The area; if it is ever developed, will simply be another South Sacramento and Natomas area!

I say again as I read the draft report .. "Yawn"!

LETTER 36

From: <jesales@surewest.net>
To: Scott_Johnson <srjohnson@cityofsacramento.org>
Date: 10/3/07 3:59PM
Subject: Comments, Sacramento Railyards Dreft EIR

Date: October 03, 2007

Subject: Comments Regarding, Draft Environmental Impact Report SCH No. 2006032058

From: Jack Sales
5978 Woodbriar Way
Citrus Heights, California 95621

To: Scott Johnson
srjohnson@cityofsacramento.org

Comments General
All lighting in this project should be "Fully Shielded" or "Full Cutoff" and directed down. When sign lighting is external it to should be directed down "top lit".
Replacement of existing lighting with "Fully Shielded" or "Full Cutoff" around the project area should be considered as a "Mitigation Measure".

Comments by Section or Page

REF.
6.2-9 Development of the Specific Plan could result in the isolation or interruption of
contiguous habitat which would interfere substantially with the movement of resident
or migratory fish or wildlife species, migratory wildlife corridors, or impede the use of
native wildlife nursery sites. 36-1

Mitigation Measure
Implementation of Mitigation Measure 6.2-9 will provide mechanisms to reduce potential night
lighting impacts by ensuring light spillover in minimized to the extent practicable in areas within
500 feet of the river.
Comment: "500 feet of the river" is not sufficient and should be extended to the entire project.
Exactly what will be done to minimized off site stray light (up or to the side)?

Page 6.2-45
6.2-9 a) To avoid degradation of habitat values for wildlife along the river portion of the site
automobile headlights that are directed at a 90 degree angle onto the vegetation

along the river shall be screened along the western project edge. This may be accomplished at the western foot of Railyards Boulevard and Camille Lane through
the placement of a 3’-4’ vegetated hedge or other structural methods that would not
additionally hinder wildlife movement through the aforementioned riverine riparian
vegetation.
Comment - Ecological Light Pollution is defined in part, to include temporary, unexpected fluctuations in lighting.
The authors are to be commended in recognizing this.
However the Mitigation Measure of vegetated hedge is insufficient as it is not permanent and may be seasonal.
More permanent structures may be more appropriate or consideration of evergreen planting and maintenance requirements should be specified.
Exactly what will be done to screen the river.

Page 6.2-46

b) Outdoor lighting within 500 feet of the river shall be of the minimum wattage required
for the particular use and shall be directed to the specific location intended for
illumination (e.g., roads, walkways, or recreation fields) to prevent stray light spillover
onto sensitive habitat.
Comment - Negative effects of outdoor lighting extend far beyond 500 feet into "sensitive habitat".
The negative effects of outdoor lighting may well extent to "miles" if not properly mitigated.
Ref. Ecological Consequences of Artificial Night Lighting By Catherine Rich, Travis Longcore,
Measuring light pollution in urban lakes and its effects on lake invertebrates Marianne V. Moore Page 365

36-1 (con't.)

c) All fixtures on elevated light standards west of I-5 within the project boundaries, such
as in parking lots or along roadways, shall be shielded to reduce glare.
Comment - simple "shielded" is not sufficient terms such as "Fully Shielded", "Full Cutoff" should be used in addition special "House Side" type shielding may be necessary.

Page 6.3-44
...In addition, the following guidelines are provided for new development in the Transition Zone. These
guidelines are designed to complement the Central Shops Historic District. ...

Neighboring buildings, streetscape and plaza designs should incorporate contemporary
versions of elements used on historic resources, such as window detailing, materials,
building ornament, paving, furniture, signs, and lighting. ...

LETTER 36

Comment: Lighting in Central Shops Historic District can use "Fully Shielded", "Full Cutoff" and maintain a historic feel, a number of old style "industrial" fixtures available to day that meet this requirement.

Page 6.13-31

Mitigation Measure
None required.
6.13-3 The proposed project could create substantial new sources of light.
Comment: The idea that "None required" is totally false.

"Due to the urbanized nature of the surrounding area, a significant amount of ambient nighttime light
currently exists, reducing the views of stars and affecting views of the nighttime sky. The increase in
nighttime light that would occur under the proposed project would not significantly affect nighttime
views of the sky (ability to see stars), because such views are already limited in city settings."
Comment: Every unshielded light wastes energy and diminishes views of the night sky.
The authors do not consider that light from this project travels hundreds of miles. Every new light source has an impact on the surrounding area not just the project site. As an example measurements taken by the National Park Service at Lassen Volcanic National Park, clearly show the sky glow and it's consequences from the Sacramento Area 133 miles south.
Ref.http://www2.nature.nps.gov/air/lightscapes/monitorData/lavo/lP20040716.cfm
In addition the Milky Way is visible from cities which require proper lighting, an example is Tucson AZ. Mitigation at this site will enable future development to adhere to "Dark Sky" policies. 36-1 (con't.)

Mitigation is clearly required and the appropriate measure is to require "Fully Shielded" or "Full Cutoff" throughout the project including street and wall mounted lighting.

Spillover Light
Comment: regardless of adjacent uses "Spillover Light" or "Light Trespass" beyond the project or individual properties should not be allowed.
Mitigation is clearly required and the appropriate measure is to require "Fully Shielded" or "Full Cutoff" and may require "house side shielding".

Page 6.13-32

"Levels, Direction, and Quality of Illumination Limit Light Pollution. Illumination generally should
be focused down toward the ground, avoiding all unnecessary lighting of the night sky. In
addition to standard street light poles, light sources that are mounted closer to and focus
illumination directly onto the ground plane, such as bollard-mounted lighting, stair lighting, and
wall- and bench-mounted down-lighting, are desirable."
Comment: Good Statement as far as it goes, again "Fully Shielded" or "Full

Cutoff should be required.

"Light fixtures should include internal reflector caps, refractors, or shields that provide an efficient and focused distribution of light and avoid glare or reflection into upper stories of adjacent buildings."
Comment: Fixtures which rely on or are "refractors" should be avoided or prohibited. Specifically refractor style Wall Packs, Acorn Street Lights, Drop Lens Cobra Street Lights should be prohibited.

"Facade lighting should focus on illuminating the building's surfaces."
Comment: Because all structures are new there is no reason that facade lighting should not be directed down.
New technology such as LED light sources allow facade lighting to be very low level and unobtrusive.

"Private Realm
o Lighting: Nighttime lighting should be limited and discreet, with light-levels similar to adjacent
properties."
Comment: Lighting should be limited and discreet regardless of the adjacent properties.
Adjacent properties may very well be significantly over lit. The use of the "adjacent properties" is undesirable
in that light trespass often extends well beyond the "adjacent property".

36-1 (con't.)

"Depending on the location and design specifications of lighting on tall buildings, this type of lighting could also present a potentially significant impact."
Comment: Lighting on tall buildings does present a significant impact.

Mitigation Measure
6.13-3 a) ... "In addition, monument lighting and night-lit signage is prohibited on
building facades that face existing residential neighborhoods."
Comment: This statement should include "existing" or proposed residential neighborhoods.
In addition it should also be considered as additional degradation of habitat values for wildlife.

References from www.cityofsacramento.org

Sacramento Railyards
http://www.cityofsacramento.org/dsd/projects/railyards/

Sacramento Railyards Draft Environmental Impact Report (DEIR)
http://www.cityofsacramento.org/dsd/projects/railyards/deir/

Section 6: Environmental Analysis (PDF - 85,561 KB)
http://www.cityofsacramento.org/dsd/projects/railyards/deir/documents/06-Railyards-DEIR-Environmental%20Analysis.pdf

LETTER 36

Regards
Jack Sales

LETTER 37

From: <jjmyoung@surewest.net>
To: <srjohnson@cityofsacramento.org>
Date: 9/27/07 3:38PM
Subject: Comments on the Draft EIR for Railyards Project

Dear Scott;

I have read over the Draft EIR for the Railyards Project and noted an omission on the possible hazards the Sacramento Water Treatment Plant may have to the new development. The City's Water Treatment Plant uses pressurized liquid chlorine stored in one-ton cylinders. On any particular day there are 20 tons of liquid chlorine stored in the Chlorine containment building. During use, six 1-ton cylinders are air-linked together to provide chlorine for the disinfection of water for the City of Sacramento. In the event of a catastrophic failure, their is a possibility of five tons of chlorine venting to the atmosphere. Scrubbers inside the containment building can theoretically handle up to one ton (never been tested.)
According to the American Meteorological Service, 14% of the time the prevailing winds are from the north, 14% of the time the winds are in transition, and 72% of the time the prevailing winds are from the south (AMS Journal, Volume 38, Issue 10.) That means there is roughly a 1 in 4 chance of the winds blowing the chlorine gas cloud into the Railyards Project area. 37-1
Chlorine gas is a very toxic agent that is listed as a weapon of mass destruction. It was used in World War 1 againest both Allied and Axis troops in trenches and produced horrendous casualties. It has recently been used again in August 2007 in Iraq againest the civilian population by terrorists.
Liquid chlorine expands to 462 times its volume at normal air temperature. One ton of chlorine would require an evacuation of everyone within approximately 1.5 miles downwind of the point of origin during the day or 4.5 miles downwind during the night.
In recent memory (26 years), there has been 2 chlorine gas leaks at the Sacramento Water Treatment Plant. One was fairly minor, the other resulted in the chlorine gas blowing off-site and into the City's 911 Center, which resulted in a temporary shelter in place. The gas cloud produced a "kill-zone" of approximately 50 feet wide and almost 500 feet long. Everything within the kill-zone died; grass, shrubs,trees, insects. Again, this was also considered a "minor leak".
In the event of a catastrophic failure, warning time may be from 10 minutes to none at all. Mass

casualties may be high depending on time of day and day of week. Major factor is the prevailing wind direction and speed. The use of a major park at the point closest to the Chlorine containment building has good points and bad. Good point is that organic compounds react with chlorine, that is it uses chlorine up. Grass, trees, shrubs, lessens the overall size of a chlorine gas cloud. (Of course under a worst case scenario nothing is going to stop a 5-ton chlorine gas cloud.) Bad point is on weekends lots of people and children make use of parks (think soccer, softball, picnics.) In addition, the County and City of Sacramento have been building schools next to large parks to enable joint-use of these parks. In my opinion, this should not be done to the largest of the parks. An average middle school would have over 800 people including staff all located in one place.
I think that any builder should inform the buyers of the danger that may exist in the event of a chlorine gas leak. I am hopeful that a catastrophic failure (or even a minor failure) never occurs but I am a firm believer of Murphy's Law. And if something were to occur, people and agencies will be pointing the finger and saying why was this danger not addressed?

37-1
(con't.)

Note: The opinions expressed belong solely to the author of this article and in no way represents the views of the City of Sacramento, the Department of Utilities, or any other divisions or departments within the City. This letter was composed and written on private time.

Sincerely,
James Young
Water Quality Chemist

LETTER 38

From: <steveyee@yeefowmuseum.org>
To: <srjohnson@cityofsacramento.org>
Date: 10/2/07 3:07PM
Subject: Comments on the DEIR

Comments on the DEIR

Scott Johnson, Associate Planner
Development Services Department, Environmental Planning Services
North Permit Center
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834

October 2, 2007

Mr. Johnson:

The Friends of the Yee Fow Museum is a nonprofit, volunteer-supported, civic group with over 500 members. Its mission is to advocate for the commemoration of the Chinese pioneers who built the Central Pacific Railroad in the Railyards. The Chinese were the first to call the Railyards "home," establishing the Chinatown of Yee Fow in the mid 1800s when the area was proclaimed a cesspool and health hazard and the Chinese were deemed by California constitution as "dangerous to the well-being of the State," eventually driving the Chinese out.

We find that it is our ancestral duty and we would be remiss not to provide comments to the Draft Environmental Impact Report (DEIR). In working with the City of Sacramento and Thomas Enterprises in the project's process from the onset, we are generally pleased with the comprehensive and evidentiary report contained in the DEIR and Appendix G "Sacramento Railyards, Program-Level Assessment, Archeology and Initial Phase Archeology."

As noted throughout the Cultural Resources chapter of the DEIR and Appendix G, the Railyards remains rich in Chinese cultural resources. Invariably, the proposed Specific Plan has the potential to cause a substantial adverse change to those Chinese historical resources through alteration of those resources and their immediate surroundings. We feel the following mitigation measures necessary:

Firstly, we feel the mitigation measure to incorporate a Chinese Garden and the story of the Chinese of Yee Fow into the Interpretive Walks is fitting.

38-1

Secondly and of utmost importance, we feel the most effective mitigation measure is to commemorate the Chinese pioneers with a Chinese American Museum and Center of History, Culture, and Trade. This center will not only honor the workers who built the Central Pacific Railroad but will also tell the story of the Chinese in California, provide a rich and diverse entertainment venue, and segue into opportunities to partner with China in terms of trade and tourism. We feel the City of Sacramento and the State of California deserves nothing less.

Steve Yee
Chair
Friends of the Yee Fow Museum
www.yeefowmuseum.org

LETTER 39

No bass pro store in rail yard redevelopment

The proposal to construct a basketball arena and bass pro mega-store upon the old central pacific rail yard is detrimental to sacramento area residents. The rail yard is a significant urban redevelopment site. The point of a redevelopment site is to give housing, parks, and high paying employment opportunity within city boundaries, therefore, decreasing ch the land area of the redevelopment site is wasted. Sacramento area residents will have to pay for this waste of space while suffering the side effects of traffic and pollution.

The bass pro store is a waste of resources and will attract low quality fisherman from outlaying areas. The bass complex will take away from the high quality fly fishing economy already established in the sacramento area. Fly fisherman are educated and understand native fisheries and how to sustain them. Striped bass, Chinook salmon, American shad in the sacramento river are almost extinct. We do not need anymore motor boats polluting our rivers and drinking water supplies. We do not need any more wasteful consumerism.

A new arena for the kings will not offer high paying employment leading to a higher economic standing for sacramento residents. Instead, the maloof brothers will profit from the arena, media and entertainment, artificially increasing their wealth which was not earned, only given to them by their father. Maloofs have ties to las vegas, the most consuming and wasteful city in the nation. A closed basketball arena offers no view or interaction with the spectacular sacramento river area, unlike raley field. 39-1

The proposal that construction around arco arena will offset the price of a new arena is false. The north natomas area lies in the sacramento river floodplain, placing development and humans at risk. California's levee system is a massive disaster waiting to happen. As global temperature rises, the sierra snow pack melts in one quick pulse instead of slowly over late spring and summer, increasing the probability of flooding caused by a break in the levee. By the end of the century, the sierra snow pack will decrease by 90%. If California's complex water diversion system does not fall apart, it will run dry. Therefore, the 500 million in revenue and property from development in north natomas will be lost eventually. Continued suburban development will increase the waste of water, land and energy.

Please do what is in your power to stop the arena, bass fishing emporium proposal. Sacramento necessitates real urban redevelopment that offers high quality, technical employment, affordable housing, and a decrease in suburban sprawl. Constructing sustainable housing, libraries, museums, schools, colleges, hospitals, parks, within city limits is a wiser use of resources, and will add to sacramento being an educational, technical, historic and cultural center. Sacramento should not be a center for consumption and waste.

Author. Michael Lee. Andrea Lee. Barbara Hailer. Robert Lee. 303 Paddock ct. Roseville 95661
Brianna Littlejohn. 3227 Green springs way. Roseville, CA, 95747.
Phylis L. McGarvey. 7504 Versailles way, sacramento 95842.
Niefu and Lindsey Zupancic. 4966 Hamilton street, sacramento, ca 95841.
Nicole Wasson. 6119 wasson lane, sacramento 95843.
Andrew Reeves. 1505 F street. Sacramento, CA, 95814.
April Farnham. 1176 Langaroft street, West Sacramento, Ca, 95691.

LETTER 40

RAILYARDS CASE

CITY PLANNING COMMISSION

PUBLIC HEARING

TRANSCRIPT OF PROCEEDINGS

Held at:

Historic City Hall

915 I Street, 2nd Floor - Hearing Room

Sacramento, CA 95814

5:30 p.m.

September 13, 2007

Reported by:
CARRIE PEDERSON
CSR No. 4373, RPR, RMR, CRR
Job No. 57503

LETTER 40

RAILYARDS CASE

CITY PLANNING COMMISSION

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5:30 p.m.

September 13, 2007

Reported by:
CARRIE PEDERSON
CSR No. 4373, RPR, RMR, CRR
Job No. 57503

LETTER 40

APPEARANCES

COMMISSIONERS PRESENT:

D.E. "Red" Banes

John Boyd

Joe Contreraz

Joseph Yee, Chair

Sabina Gilbert, City Attorney

Darrel Woo

Jodi Samuels

Chris Givens

Barry Wasserman

David Kwong

LETTER 40

APPEARANCES

SPEAKERS:

Greg Bitter

Ellie Buford

Jacque Sales

Sam Ong

Steve Yee

Raymond Mills

Roxanne Fuentez

Elizabeth Wong

LETTER 40

BE IT REMEMBERED that on Thursday, September 13, 2007, commencing at the hour of 8:26 p.m., at the Historic City Hall, 915 I Street, 2nd Floor, Hearing Room, Sacramento, California, before me, CARRIE PEDERSON, a Certified Shorthand Reporter in the State of California, duly authorized to administer oaths and affirmations, the following proceedings were held:

--o0o--

(Whereupon other cases were called).

CHAIRMAN YEE: We'll now go to item six, P05-097, Sacramento Railyards Draft Environmental Impact Report for public comment hearing.

Staff report, please.

MR. BITTER: Chair Yee, members of the Commission, I'll get -- well, I think we probably have some folks waiting outside.

COMMISSIONER BANES: Also could you check downstairs? I understand there's people downstairs because they asked me --

MR. BITTER: Ellie Buford is going to make the staff introduction to this item, and

LETTER 40

she's checking right now, so I'll go downstairs.

(Recess taken.)

CHAIRMAN YEE: Okay. We'll now go to item six, P05-097, Sacramento Railyards Draft Environmental Impact Report, public comment hearing.

MS. BUFORD: Thank you, Chairman Yee, Commissioners.

I'm Ellie Buford with Environmental Plans Services with the City of Sacramento. The purpose of the hearing tonight is to take comments on the Draft Environmental Impact Report for the Railyards Specific Plan. The public review period on this EIR will close on October 3rd. Comments received, both at tonight's hearing as well as in writing or by E mail, will be responded to and included in the Final Impact Report, Environmental Impact Report that will be presented to the decision-makers at time of approval of the project.

I'd like to also mention that if you want to add additional comments or make comments in writing, they can be sent to the E mail to sjohnson@cityofsacramento.org.

We also have copies of the CD, the EIR

LETTER 40

with us tonight, if anybody would like a copy, and, additionally, you can give me a call at 808-5935 if you need more information or would like copies of the EIR or would like to know where to send comments. I'm sorry. Yeah. It's srjohnson. There's two Johnsons. Actually Scott Johnson's with the city.

So that concludes my presentation.

CHAIRMAN YEE: Great.

Any questions at this point from the Commission? Then we'll begin the public comments.

Let me remind everyone again of three-minute limit on comments. If you feel that three minutes is not adequate, as Ellie had mentioned, you may submit written comments, and they will be reviewed and taken and acted upon.

So with that, then, we will begin with Jacque Sales, followed by Sam Ong, followed by Steve Yee, Brendan Bills, Roxanne Fuentez and Elizabeth Wong.

MR. SALES: Thank you. I'm Jacque Sales.

Let me make a real quick statement that kind of covers all of what I'm concerned about. How will the applicant address light pollution?

40-1

LETTER 40

Light pollution is defined as sky glow layer light trespass among other things. How will this applicant address these design standards? This will be a source of light and glare. I'm concerned about reduction of light gas above the horizon, that it be fully addressed and design standards will fully address creation of light pollution glare sources. Light pollution travels for hundreds of miles.

This project will undoubtedly, if not designed properly, increase the sky glow over Sacramento and affect areas far beyond Sacramento. Is the night sky a cultural resource? It may not be defined specifically in SEQUA, but the night sky is perhaps the most universal of all cultural resources, transcending time and place, changing only by time of night, season and latitude, yet at every changing part of our environment -- I'm sorry. Yet it is an ever changing part of our environment, and it is a part of our environment, it is one-half of our environment.

If anyone thinks that the interest in science and space is not part of our environment or not part of what we're concerned about, think

40-1 (con't.)

LETTER 40

back to Shoemaker-Levy 9 and the comets into Jupiter. Those things that we see in the night sky are truly part of our environment. What mitigation measures will be taken to eliminate sky glow?

40-1 (con't.)

Biological resources. I'm concerned about the adverse effect of light at night including spill lights, sky glow and light pollution, nocturnal animals, fishes and other organisms, the parkways nearby. The entire region has important ecological concerns, and light at night is a definite ecological problem.

40-2

In fact, there's now a new term called ecological light pollution, and extremely low light levels can affect some organism, extremely low, less than -- certainly less than a full moon, more likely less than a quarter of a moon or even less.

So I would like to make sure that this project address these issues.

Thank you. And I would like one of those CD's.

CHAIRMAN YEE: Thank you. Sam Ong.

MR. ONG: Chairman Yee, ladies and gentlemen, good evening. My name is Sam K. Ong,

LETTER 40

I'm the president of our Ong Family Association in Sacramento representing well over 2,000 of our clansmen.

I'm proud to say that the Chinatown Mall vitalization is its origin. If you read today's Bee, Sacramento Bee in today's "City" section, you will read more about it. We are going to have a street fair in the Chinatown Mall this coming September 23rd. It's long in coming, but we're going to do it.

I'm also proud to say that if you read Sacramento Bee, today's Bee, the column here say "Varied Interest For Inside Track At Railyard."

If you read that article, you will find that they mention about the Yee Fou Museum that also has its origin from Ong Association.

All right. The friendship of the Yee Fou Museum advocate that we build a Chinese museum in the Railyard. I'd like to add that this museum should commemorate the early Chinese immigrant, especially the Railyard workers, especially those who buried in the Railyard. But is there a Chinese cemetery in the Railyard? Today I'm here to challenge anyone who deny that there is a Chinese cemetery in the Railyard. As a matter of

40-3

LETTER 40

fact, I'd like to add that there might be several cemetery located different part of the Railyard. To mention a few, there's Indian cemetery there, there's Mr. Schultz, black man, cemetery there, there is Sam Hill cemetery there, and we also found histone belonging to a Japanese gentleman, so there many people buried there.

So today I'm here also to ask the recommendation of those people.

It was said that the best way to learn the culture of a country is to see how the country's people treat their dead ones. Certainly the Chinese have long been under our ancestor, and there's one reason why, in early days when the Chinese pass away, they would do all they can to ship their bone back home. So what I'm trying to say is their bone is very important to us. The cemetery is very, very important to us, and certain anyone come along under any pretext at all to try to ignore it, okay, that's my point here.

I also read this report with great trouble. On this page, page 71 of the Sacramento County Grand Jury Report, a finding under the heading "The Train Has Left, And The City Now Has

40-3 (con't.)

LETTER 40

The Station," and it said, "Has the city initiate the much-wished-for revitalization of downtown, or has it stepped into a polluted black hole?"

Ladies and gentlemen, I don't know what the "black hole" mean. Certainly I'd like to challenge anyone come out here say, "No, there's no black hole," but is the black hole there? Then I think Sacramento can -- I think I would say, "How come you're not angry?"

CHAIRMAN YEE: Excuse me, Mr. Ong. If you could conclude your statement, please.

MR. ONG: Okay. All right.

CHAIRMAN YEE: Thank you.

MR. ONG: So lastly I'd like to mention about it that the environmental report, they took 150 days to make, they only allow us 45 days to study it. I think we should have extension so that the more people have a chance to read it so that we can come out with a better solution. 40-4

Thank you very much.

CHAIRMAN YEE: Thank you.

Next speaker is Steve Yee.

MR. YEE: Good evening, Commissioners. My name is Steve Yee, and I'm chair of the Yee family.

LETTER 40

As you can see, we have read the pertinent sections of the Draft EIR. Not surprisingly, there is overwhelmingly substantial references to the archeological sensitive areas that is home to our Chinese ancestors of Yee Fou.

As a native Sacramentan, I am very excited to see the potential the Railyards has to offer. As a Chinese American, I have the sacred duty to protect the heritage of my ancestors.

For the record, the Railyards project has the potential to cause a substantial adverse change in the significant historical resources of the Yee Fou, a homeland of some of the first Asian pioneers to America.

Commissioners, the U.S. Congress passed the U.S. Exclusion Act of 1882. For over a year, this racist Act was a national disgrace and led to the demise of Yee Fou. We do not want the Chinese to be excluded again. I remind you the built environment is only a reflection of humanity for which the buildings are built. I respectfully request that we do not lose site of the fact that had not the Chinese built the Central Pacific Railroad, there would not be historical at the Railyard. The city must ensure

40-5

LETTER 40

that mitigation measures to reduce the environmental impacts are sufficiently implemented and that Chinese sacred land of Yee Fou is honored and commemorated in the landscape and the built environment of the Railyard project.

40-5 (con't.)

We will be submitting our written comments in the near future. Thank you.

CHAIRMAN YEE: Thank you.

Raymond Mills.

MR. Mills: Good evening, Mr. Chairman, Commissioners. My name is Raymond Mills. I'm past chairman of the International Association Of Machinists. I worked at the Sacramento Locomotive Works from 1974 -- between the years of 1974 and 1990.

In addition to the concerns that I've heard raised here about the archeological and the cultural issues present on the proposed site, my concern has to do with the planned encapsulation of the contaminants that exist on the site and the potential for a breach of that cap.

40-6

I, too, would like to request that the public be given an extension of time to respond. We're dealing with a thousand-page report.

40-7

LETTER 40

Significant to me are some fairly vague statements concerning some of the pollutants and contaminants that have been identified on the property. For example, at -- and I don't have the page numbers in the disk, but I have at 6.5-7 there's a statement that heavy metal soil cleanup for a majority of the Railyards has been completed, but there's no additional information in this portion of the report that indicates to what extent that cleanup has taken place or how much more cleanup is necessary. It talks about remediation activities in areas where elevated levels of heavy metals exist are under way, but it does not describe to what extent they are under way, to what extent the remedial actions are necessary to remove those metals from the soil and to what extent they've done so so far.

40-8

In addition, there's some vague statements regarding the extent of the contamination concerning volatile organic compounds. My experience at the Railyard involved my personal observations of the rebuilding of the batteries. Now I did a search on the disk. "Battery" only comes up on four occasions in this site. It does not talk about

LETTER 40

what's involved in the rebuilding of the batteries, and if I could just describe it for you quickly, the batteries used in diesel locomotives are very similar to automobile batteries. They contain electrolyte, but those batteries are rebuildable, and when they rebuild those batteries, they take out the electrolyte, they put in new plates, and they add new electrolyte to the battery, and it's re-useable.

Unfortunately, during my entire time at the railroad, and I know for countless years previous to my experience, the electrolyte in those batteries was poured into a drain behind the battery shop, and knowing that the ground at that site is substantially sand fill, I know what happened with that electrolyte and where it went. I also know that it was saturated with led.

Now they do talk about led. But if you would look closely, they talk about a -- and let me describe it here. It's a cap that they propose. The proposed cap is going to be designed with an impermeable geomembrane, and then they're going to cover that cap up, and basically they're sweeping all of that contaminant under the cap, and they talk about

40-8 (con't.)

LETTER 40

restrictions in the deeds. The problem that I have with that is they do not address what will occur if the restrictions in the deeds are violated and somebody or some organization punctures the cap that they plan on putting over that property. To what extent will that eliminate the protections that the city has?

So I believe that more needs to be in this report concerning the contaminants that are there.

40-8 (con't.)

CHAIRMAN YEE: Great. Thank you.

Roxanne Fuentez.

MS. FUENTEZ: Hi. My name is Roxanne Fuentez, I'm a Sacramento resident, and I think the Railyards should include a larger component for the historic aspect of the arts because, after all, that's why they're there in the first place, and the acreage for the Railyard Museum should go all the way to the river and hook up to Old Sac, and also the proposed high-rises should be scaled back near this historic area, and I also think that there should be more acreage for open space and for parks in that area for everyone's enjoyment.

Thank you.

LETTER 40

CHAIRMAN YEE: Thank you.

Elizabeth Wong.

MS. WONG: Good evening, Commissioners. My name is Elizabeth Shu Wong. I'm a resident of Sacramento over the last 26 years, and I am a fourth generation California Chinese.

What I want to talk about basically is that in my involvement of what I have seen in the Chinese community and how it would be very important to have a community representative of the Railyards.

It was 12 years ago on 4th and I Streets when they were commemorating the year of the war with the U.S. postage stamp, that was the first of a series, and now they've reached a full cycle of 12 animals and on one side of the street with a Confucius temple where they were honoring the stamp. Well, right across the street on 4th and I Street on the corner, they were excavating the remains of that Chinatown, and they were getting ready for the federal courthouse, so what the federal courthouse has done to honor the early Chinese settlement was to have exhibits, and so they have one floor where they have saved and reserved to display artifacts and display cases.

LETTER 40

That's honoring the old.

Honoring the new, they've put up artwork that's inspired by the Chinese pioneers.

So the mitigation I see here is that the Railyards can do a very similar type of mitigation where the important thing is to not only excavate but preserve these artifacts under the Railyards but have sufficient time. 40-9

I was with the archeologist 12 years ago, ankle deep in mud, and there was not enough time to excavate thoroughly the artifacts that may have been hidden underneath the ground, and at the end of that short time period, they had to cover everything and start constructing. 40-10

So I would like to see sufficient time allowed to study, preserve and excavate what may be hidden underneath these grounds.

Thank you.

CHAIRMAN YEE: Thank you.

I do not have the other speaker slips for this. Would anyone else care to make comments on this project? Any comments from the Commission?

Hearing nothing, staff, does that provide information?

MR. BITTER: Yes.

LETTER 40

CHAIRMAN YEE: Okay. Great. Thank you. With that, then, we will move to the next item, item 11.

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LETTER 40

REPORTER'S CERTIFICATE

I certify that the foregoing proceedings in the within-entitled cause were reported at the time and place therein named; that said proceedings were reported by me, a duly Certified Shorthand Reporter of the State of California, and were thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for either or any of the parties to said cause of action, nor in any way interested in the outcome of the cause named in said cause of action.

IN WITNESS WHEREOF, I have hereunto set my hand this 17 day of September 2007.

CARRIE PEDERSON
Certified Shorthand Reporter
State of California
Certificate No. 4373

APPENDICES

APPENDIX A

Downtown Railyards Project Storm Drain System Analysis Technical Memorandum

CITY OF SACRAMENTO

DOWNTOWN RAILYARDS PROJECT
STORM DRAIN SYSTEM ANALYSIS
TECHNICAL MEMORANDUM

DRAFT

AUGUST 2007

NOLTE

BEYOND ENGINEERING

CITY OF SACRAMENTO

DOWNTOWN RAILYARDS PROJECT
STORM DRAIN SYSTEM ANALYSIS

TECHNICAL MEMORANDUM

DRAFT

AUGUST 2007

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DOWNTOWN RAILYARDS PROJECT

STORM DRAIN SYSTEM ANALYSIS

TECHNICAL MEMORANDUM
DRAFT
AUGUST 2007

1.0 BACKGROUND

The Downtown Railyards project consists of approximately 237 acres in the northwestern portion of the City of Sacramento (City), immediately adjacent to the Central Business District. Figure 1 is a schematic representation of the proposed project area. The project area is bounded by the Sacramento River and the City's Water Filtration Plant on the west, North B Street on the north, Alkali Flat neighborhood on the east, and I Street and Downtown Sacramento on the south.

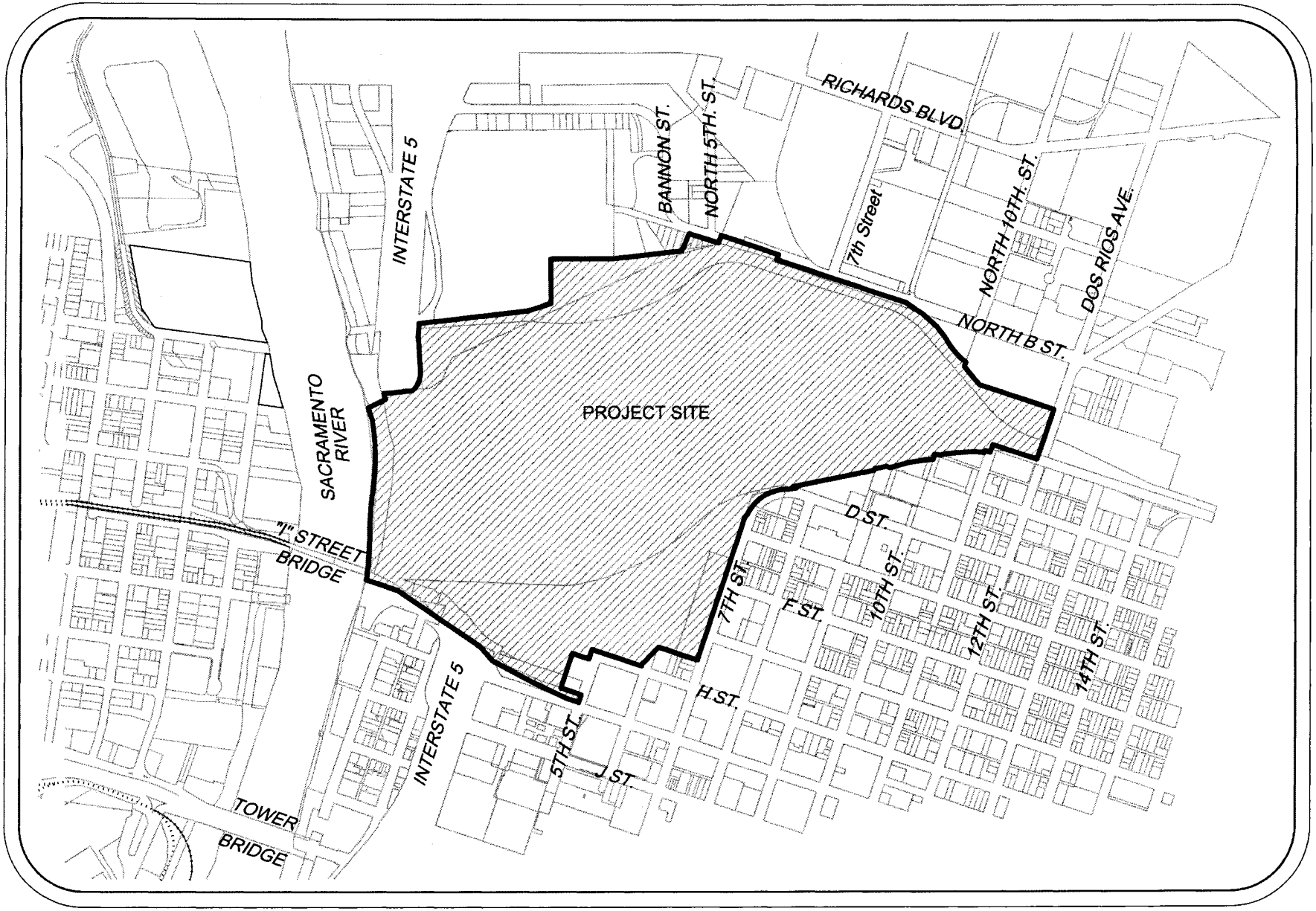
The plan includes a redevelopment of available land (approximately 180 acres) with numerous land uses that include the existing Amtrak Station, residential, office, open space, and retail/mixed used land uses.

2.0 LAND USE PLAN

Thomas Enterprises retained the services of Jerde Architecture Urban Design (Jerde) to define the land use plan for the development project. Jerde provided a preliminary land use plan dated April 5, 2007. Figure 2 is a schematic representation of the preliminary land use plan for the proposed Downtown Railyards project. In summary, the project will include the following land uses:

- Retail/Residential Mixed Use (RRMU)
- Office/Residential Mixed Use (ORMU)
- Residential Mixed Use (RMU)
- Open Space (OS)
- Transit Use (TU) – this is merely the existing railroad lines and the Amtrak Station.

Appendix A includes a complete listing of all the land uses with total acreage, dwelling units, and designations.



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CITY OF SACRAMENTO
DOWNTOWN RAILYARDS PROJECT
FIGURE 1 - PROJECT LOCATION

RAILYARDS

THOMAS ENTERPRISES, INC.

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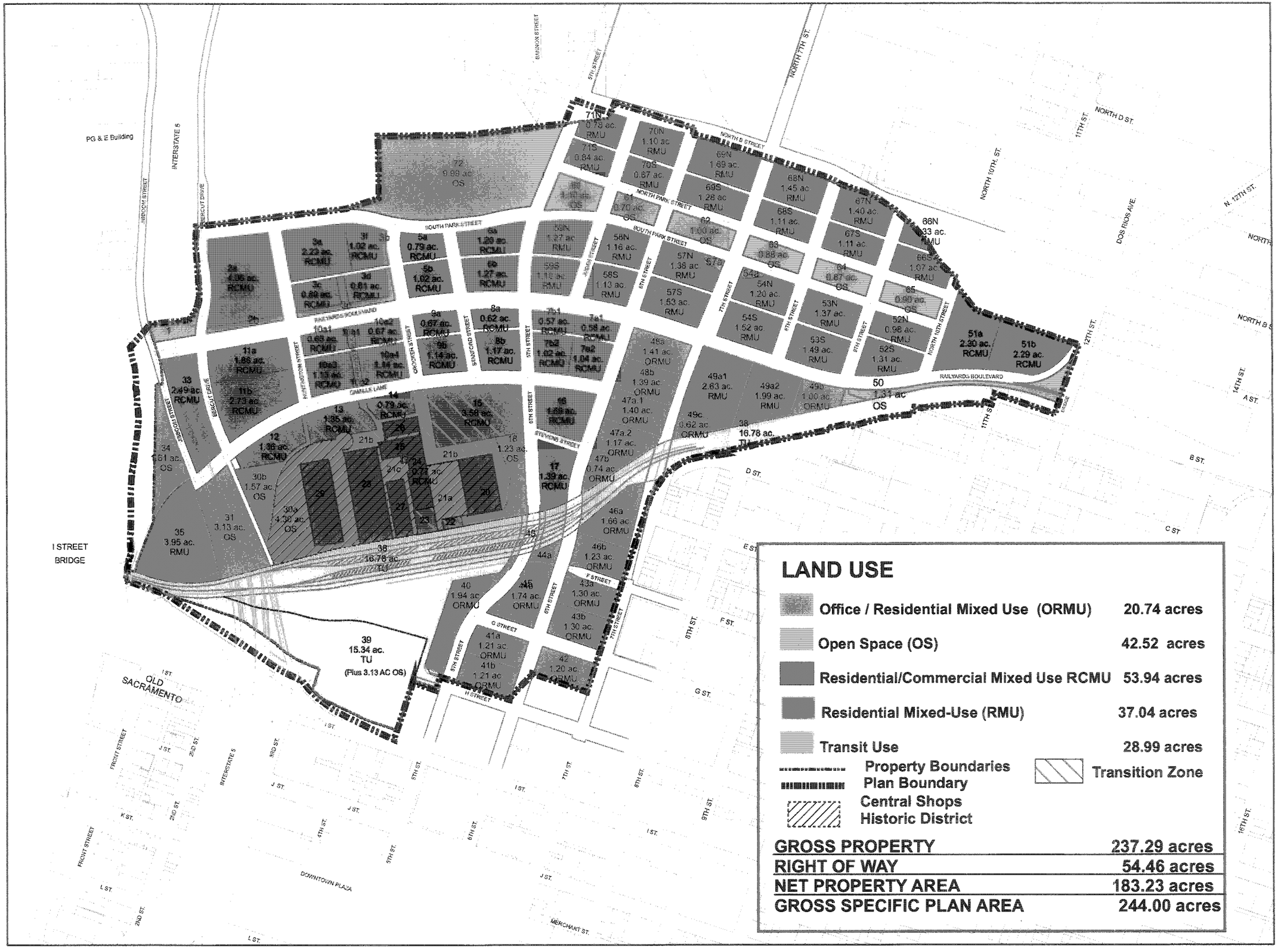

LAND USE

Office / Residential Mixed Use (ORMU)	20.74 acres
Open Space (OS)	42.52 acres
Residential/Commercial Mixed Use RCMU	53.94 acres
Residential Mixed-Use (RMU)	37.04 acres
Transit Use	28.99 acres

Property Boundaries
Plan Boundary
Central Shops Historic District
Transition Zone

GROSS PROPERTY	237.29 acres
RIGHT OF WAY	54.46 acres
NET PROPERTY AREA	183.23 acres
GROSS SPECIFIC PLAN AREA	244.00 acres

LAND USE PLAN

August 10, 2007

P-1.01

3.0 SERVICE AREA AND DRAINAGE SHED

The Downtown Railyards consists of 237 acres, most of which is in a primary drainage shed defined by the existing berm along the north side, the existing main line railroad track embankment near the southerly and easterly boundary, and the I-5 freeway embankment and the Sacramento River on the west. The majority of the Railyards (approximately 220 acres) will drain by gravity to a detention facility and pumping station in the west end of the Railyards. A minor area fronting on 7th Street and H Street along the east side of the existing main line railroad embankment (approximately 6 acres) is about six feet lower than the track and Central Shops area, and will continue to drain easterly to the CSS at 7th Street. The northerly slope of the berm along the north boundary (approximately 5 acres) will continue to drain northerly to the Sump 111 drainage system. A small area northeast of the berm fronting on 12th Street (approximately 4 acres) will also drain northerly. These exceptions to the primary drainage shed may vary somewhat as final site design refines the exact shed line.

4.0 EXISTING FACILITIES

Historically, the Railyards has been drained by a combination of drainage and combined drainage and sewage pipelines which discharged to both the 3rd Street and 7th Street combined sewers. This system formerly served the entire Railyards drainage shed (except for about 18 acres on the fringes), including the Amtrak Station and platform and main line track area (Figure 3). These pipelines were designed to a much lower runoff standard than that in use today, and heavy storms resulted in ponding in parts of the Railyards until a combination of pipeline discharge and infiltration into the ground were able to drain the area.

Remediation excavations have removed most of the existing pipelines which lie north of the Central Shops area, but the remaining pipelines continue to drain the hardscape areas of the Central Shops, the Amtrak Depot and the Depot platform area (Figure 4). Outside of these areas, drainage in the service area consists largely of infiltration into the ground. It is estimated that a peak flow of approximately 10 cubic feet per second can drain to the combined sewer system from the Central Shops and Amtrak Depot areas through the remaining pipelines to 3rd Street and 7th Street. Development of the Railyards drainage system will divert drainage from these areas from the combined sewer system into the proposed Railyards drainage system.

5.0 FLOWS

Peak storm flows reaching the cistern from the developed project during the design 100-year 6-hour storm are estimated to reach approximately 410 cubic feet per second (cfs). This was determined using an HEC-1 model as described in the City and County of Sacramento Drainage Manual, Volume 2, Hydrology Standards. Flows will be confirmed during final design using the City's SWMM model. Sustainable design measures such as infiltration in parkway areas will be considered for flow reduction, if permitted by regulatory agencies.

Pipeline design is based upon peak flows resulting from the 10-year 6-hour storm as calculated from the formula $Q_{Peak} = kA^n$, where A is the cumulative area in acres, k is a coefficient based

upon percent impervious, and n is an exponent based upon percent impervious. This formula is described as the Sacramento method in the above described Drainage Manual.

Multifamily areas were assigned 80 percent impervious, and commercial and office areas were assigned 90 percent impervious. The drainage system has two primary subsheds which join at the cistern. The northerly subshed will have a peak flow of 103.4 cfs, and the southerly subshed will have a peak flow of 93.8 cfs. The arithmetic sum of these is 197.2 cfs; however, if the formula is applied to the combined acreage, the peak flow would be174.0 cfs.

6.0 DESIGN CRITERIA

Drainage pipelines are designed to carry the peak 10-year 6-hour storm flow with a hydraulic grade line at least 0.5 foot below the lowest street drop inlet (except at 7th Street). The design for 100-year 6-hour peak flows will not cause flooding higher than 0.5 foot below the lowest finish floor elevation. Drainage pipelines are designed to flow full at design flow, with a minimum velocity of 2.0 feet per second. Initial preliminary design was performed using the Sacramento formula method in the Design Manual, and will be refined using the city's SWMM model during final design.

7.0 MODELING RESULTS AND PROPOSED DRAINAGE SYSTEM

The proposed drainage system will serve the primary drainage shed with a gravity system of drainage pipelines which drain westerly to an underground detention storage facility, referred to as the cistern. The cistern will provide water quality treatment by detention before discharge into the Sacramento River, and by diverting the initial first flush flow to the combined sewer system.

As described above in Section 3.0, an area along 7th Street north of I Street and east of the existing main line railroad track embankment, flows to the two existing combined sewer pipelines flowing south in 7th Street. This method of drainage will be maintained due to the lower elevation (around six feet lower) in this drainage area. Since this area is largely hardscape, little change in runoff is expected from development.

The north face of the existing berm along North B Street and the space between the berm and North B Street now drain northerly into North B Street. This also includes an area fronting on 12th Street. This area is tributary to the Richards area separate drainage system flowing to Sump 111. This method of drainage will be maintained due to the lower elevation of North B Street (around 6 feet or more lower). Figure 6 shows the drainage subsheds, nodes and pipe segment numbers assigned to each reach of pipe. Figure 7 shows the drainage pipe segment numbers and pipe diameters. Table 1 gives the design data for each segment and the cumulative flows and invert elevations.

RAILYARDS
Storm Drain Layout

where: k= 2.08
k= 2.04
$Q_{10} = kA^n$ n= 0.819

August 2007
Designed by : John Wm Mountin
Checked by: Ivan Gennis

Description	ID Number			Tributary Area			Q10 in Pipe (cfs)	Pipe Slope	Pipe Full Capacity (cfs)	Pipe Dia. (inches)	Pipe Length (feet)	D/S Invert (feet)	U/S Invert (feet)
	Node	Sub Areas	Pipe	Sub Areas (ac)	Total Area to Pipe (ac)	Sub Area Q10 (cfs)							
	N-44	DA-17	SD-44	0.8	0.8	1.8	**1.8**	0.0010	3.3	**18**	155	25.01	25.16
	N-43	DA-28	SD-43	2.4	3.2	3.8	**5.4**	0.0010	7.2	**24**	414	24.09	24.51
	N-42	DA-16	SD-42	2.3	2.3	4.0	**4.1**	0.0022	4.9	**18**	345	24.59	25.35
	N-41	DA-27	SD-41	3.5	9.0	5.3	**12.6**	0.0014	15.3	**30**	400	23.03	23.59
	N-40	DA-15	SD-40	2.8	2.8	4.7	**4.8**	0.0022	4.9	**18**	345	24.03	24.79
	N-39	DA-26	SD-39	3.8	15.6	5.7	**19.7**	0.0011	22.1	**36**	436	22.06	22.53
	N-38	DA-14	SD-38	3.0	3.0	5.0	**5.1**	0.0024	5.1	**18**	345	23.56	24.38
	N-37	DA-25	SD-37	4.0	22.6	5.9	**26.7**	0.0009	30.2	**42**	417	21.18	21.56
	N-36	DA-13	SD-36	2.7	2.7	4.6	**4.7**	0.0020	4.7	**18**	342	23.18	23.86
	N-35	DA-24	SD-35	3.6	28.9	5.4	**32.7**	0.0012	34.9	**42**	330	20.78	21.18
	N-34	DA-12	SD-34	2.3	2.3	4.0	**4.1**	0.0016	4.2	**18**	357	22.78	23.36
	N-33	DA-23	SD-33	3.5	34.7	5.3	**38.0**	0.0016	40.2	**42**	379	20.18	20.78
	N-32	DA-11	SD-32	1.3	1.3	2.5	**2.6**	0.0011	3.5	**18**	474	22.18	22.70
	N-31	DA-22	SD-31	3.6	39.6	5.4	**42.3**	0.0010	45.4	**48**	253	19.42	19.68
	N-30		SD-30	0.0	39.6	0.0	**42.3**	0.0010	45.4	**48**	237	19.19	19.42
	N-13	DA-29	SD-13	1.6	1.6	3.0	**3.0**	0.0012	3.6	**18**	261	24.63	24.94
	N-12	DA-43	SD-12	4.2	5.8	6.6	**8.8**	0.0017	9.3	**24**	445	23.37	24.13
	N-11	DA-42	SD-11	5.1	10.9	6.6	**14.7**	0.0014	15.3	**30**	401	22.31	22.87
	N-10	DA-41	SD-10	5.9	16.8	8.8	**20.9**	0.0011	22.1	**36**	468	21.30	21.81
	N-52	DA-40	SD-52	3.6	3.6	5.9	**5.9**	0.0033	6.0	**18**	257	23.29	24.14
	N-51		SD-51	0.0	3.6	0.0	**5.9**	0.0033	6.0	**18**	151	22.80	23.29
	N-9	DA-39	SD-9	4.9	25.3	7.5	**29.3**	0.0009	30.2	**42**	389	20.45	20.80
	N-50		SD-50	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	293	22.45	22.77
	N-8	DA-38	SD-8	4.2	29.5	6.7	**33.2**	0.0012	34.9	**42**	327	20.05	20.45
	N-7	DA-37	SD-7	2.8	32.3	4.8	**35.8**	0.0013	36.3	**42**	282	19.69	20.05
	N-6	DA-36	SD-6	3.3	75.2	5.5	**71.6**	0.0009	78.1	**60**	350	17.87	18.19
	N-27	DA-21	SD-27	1.8		3.4							
		DA-10	SD-27	5.0	6.8	6.3	**10.0**	0.0020	10.1	**24**	395	20.87	21.66
	N-5	DA-35	SD-5	3.4	85.4	5.7	**79.4**	0.0010	82.4	**60**	325	17.55	17.87
	N-26	DA-9	SD-26	5.1	5.1	6.4	**7.9**	0.0011	7.5	**24**	195	21.23	21.45
	N-25	DA-20	SD-25	3.3	8.4	5.5	**11.9**	0.0028	12.0	**24**	244	20.55	21.23
	N-4	DA-34	SD-4	4.7	98.5	7.4	**89.3**	0.0008	95.0	**66**	638	16.54	17.05
	N-24		SD-24	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	365	23.39	23.79
	N-23	DA-19	SD-23	4.6	4.6	7.3	**7.3**	0.0050	7.4	**18**	331	21.74	23.39
	N-22		SD-22	0.0	4.6	0.0	**7.3**	0.0050	7.4	**18**	240	20.54	21.74
	N-20	DA-30	SD-20	0.8	0.8	1.7	**1.7**	0.0011	3.5	**18**	235	22.16	22.42
	N-21	DA-18	SD-21	2.3	2.3	4.1	**4.1**	0.0016	4.2	**18**	615	22.16	23.14
	N-2a	DA-31	SD-2	2.1	2.1	3.8	**3.8**	0.0014	3.9	**18**	241	22.16	22.50
	N-2	DA-32	SD-3	3.8	9.0	6.2	**12.6**	0.0031	12.6	**24**	523	20.04	21.66
	N-3	DA-33	SD-1	5.8	117.9	8.8	**103.4**	0.0010	106.2	**66**	317	16.22	16.54
North System	N-1				117.9		**103.4**						

TABLE 1- **DRAINAGE DESIGN DATA**

Description	ID Number			Tributary Area			Q10 in Pipe (cfs)	Pipe Slope	Pipe Full Capacity (cfs)	Pipe Dia. (inches)	Pipe Length (feet)	D/S Invert (feet)	U/S Invert (feet)
	Node	Sub Areas	Pipe	Sub Areas (ac)	Total Area to Pipe (ac)	Sub Area Q10 (cfs)							
	N-180		SD-180	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	465	23.16	23.67
	N-179	DA-131	SD-179	1.8	1.8	3.4	**3.4**	0.0011	3.5	**18**	182	23.16	23.36
	N-178		SD-178	0.0	1.8	0.0	**3.4**	0.0011	3.5	**18**	216	22.92	23.16
	N-177		SD-177	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	207	22.92	23.15
	N-176		SD-176	0.0	1.8	0.0	**3.4**	0.0011	3.5	**18**	45	22.87	22.92
	N-175		SD-175	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	209	23.07	23.30
	N-174	DA-130	SD-174	2.6	2.6	4.5	**4.5**	0.0018	4.5	**18**	114	22.87	23.07
	N-173		SD-173	0.0	4.4	0.0	**7.0**	0.0010	7.2	**24**	218	22.15	22.37
	N-172	DA-134	SD-172	2.6	2.6	4.5	**4.5**	0.0020	4.7	**18**	444	23.33	24.22
	N-171		SD-171	0.0	2.6	0.0	**4.5**	0.0020	4.7	**18**	340	22.65	23.33
	N-170		SD-170	0.0	7.0	0.0	**10.2**	0.0020	10.1	**24**	213	21.72	22.15
	N-113	DA-140	SD-113	2.8	2.8	4.8	**4.8**	0.0020	4.7	**18**	408	23.72	24.54
	N-112	DA-141	SD-112	1.8		3.3							
		DA-144	SD-112	0.9	5.4	1.9	**8.3**	0.0020	10.1	**24**	363	22.50	23.22
	N-111	DA-139	SD-111	2.2	2.2	4.0	**4.0**	0.0015	4.1	**18**	272	23.00	23.41
	N-110		SD-110	0.0	7.6	0.0	**11.0**	0.0035	13.4	**24**	221	21.72	22.50
	N-109	DA-138	SD-109	2.8	17.4	4.8	**21.6**	0.0016	26.7	**36**	363	20.14	20.72
	N-108	DA-143	SD-108	6.1	23.5	9.2	**27.6**	0.0007	38.0	**48**	400	18.86	19.14
	N-107	DA-142	SD-107	5.2	28.7	8.0	**32.5**	0.0007	38.0	**48**	271	18.67	18.86
	N-106		SD-106	0.0	28.7	0.0	**32.5**	0.0007	38.0	**48**	165	18.56	18.67
	N-161	DA-137	SD-161	2.0	2.0	3.7	**3.7**	0.0013	3.8	**18**	165	21.55	21.77
	N-160	DA-136	SD-160	1.5	3.5	2.9	**5.8**	0.0030	5.8	**18**	165	21.06	21.55
	N-105	DA-135	SD-105	2.7	34.9	4.7	**38.2**	0.0005	44.0	**54**	223	17.95	18.06
	N-156	DA-129	SD-156	1.0	1.0	2.1	**2.1**	0.0011	3.5	**18**	132	21.94	22.09
	N-155		SD-155	0.0	1.0	0.0	**2.1**	0.0011	3.5	**18**	124	21.80	21.94
	N-154	DA-128	SD-154	1.3	1.3	2.6	**2.6**	0.0011	3.5	**18**	132	21.80	21.95
	N-153		SD-153	0.0	2.3	0.0	**4.1**	0.0016	4.2	**18**	292	21.34	21.80
	N-152	DA-127	SD-152	2.2	4.5	4.0	**7.1**	0.0010	7.2	**24**	167	20.67	20.84
	N-151		SD-151	0.0	4.5	0.0	**7.1**	0.0010	7.2	**24**	223	20.45	20.67
	N-150	DA-124	SD-150	5.1	5.1	7.9	**7.9**	0.0015	8.8	**24**	344	20.45	20.96
	N-104	DA-125	SD-104	3.0	47.5	5.1	**49.1**	0.0005	58.2	**60**	130	17.38	17.45
	N-103	DA-126	SD-103	3.6	51.1	5.9	**52.2**	0.0005	58.2	**60**	398	17.18	17.38
	N-120	DA-111	SD-120	2.9		5.0							
		DA-112	SD-120	2.0	4.9	3.7	**7.6**	0.0054	7.7	**18**	260	21.52	22.93
	N-121	DA-101	SD-121	2.2		4.0							
		DA-102	SD-121	0.4	7.5	1.0	**10.8**	0.0024	11.1	**24**	110	20.76	21.02
	N-122		SD-122	0.0	7.5	0.0	**10.8**	0.0024	11.1	**24**	240	20.18	20.76
	N-102	DA-113	SD-102	3.3	61.9	5.5	**61.0**	0.0006	63.8	**60**	398	16.94	17.18
	N-149		SD-149	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	122	21.57	21.71
	N-148	DA-116	SD-148	1.2	1.2	2.4	**2.4**	0.0011	3.5	**18**	121	21.44	21.57
	N-147		SD-147	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	122	21.44	21.58
	N-146	DA-115	SD-146	1.3	2.5	2.6	**4.4**	0.0020	4.7	**18**	142	21.16	21.44
	N-145		SD-145	0.0	0.0	0.0	**0.0**	0.0010	3.3	**18**	118	21.16	21.28

Description	ID Number			Tributary Area			Q10 in Pipe (cfs)	Pipe Slope	Pipe Full Capacity (cfs)	Pipe Dia. (inches)	Pipe Length (feet)	D/S Invert (feet)	U/S Invert (feet)
	Node	Sub Areas	Pipe	Sub Areas (ac)	Total Area to Pipe (ac)	Sub Area Q10 (cfs)							
	N-144		SD-144	0.0	2.5	0.0	**4.4**	0.0020	4.7	**18**	282	20.59	21.16
	N-143		SD-143	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	195	20.59	20.81
	N-142	DA-114	SD-142	2.0	4.5	3.7	**7.1**	0.0010	7.2	**24**	58	20.04	20.09
	N-141		SD-141	0.0	4.5	0.0	**7.1**	0.0010	7.2	**24**	91	19.94	20.04
	N-101		SD-101	0.0	66.4	0.0	**64.6**	0.0006	63.8	**60**	221	16.81	16.94
	N-133	DA-133	SD-133	0.6	0.6	1.4	**1.4**	0.0011	3.5	**18**	235	22.96	23.22
	N-132	DA-122	SD-132	1.3	1.9	2.6	**3.5**	0.0012	3.6	**18**	320	22.58	22.96
	N-131	DA-110	SD-131	3.7		6.1							
		DA-109	SD-131	1.7		3.2							
		DA-123	SD-131	3.3	10.6	5.5	**14.4**	0.0013	14.8	**30**	212	21.30	21.58
	N-130		SD-130	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	262	22.30	22.59
	N-129	DA-108	SD-129	1.5	12.1	2.9	**16.0**	0.0016	16.4	**30**	237	20.92	21.30
	N-128		SD-128	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	264	21.92	22.21
	N-139	DA-132	SD-139	1.1	1.1	2.2	**2.2**	0.0011	3.5	**18**	279	22.19	22.50
	N-138	DA-121	SD-138	1.5	2.6	2.9	**4.5**	0.0008	6.4	**24**	336	21.42	21.69
	N-127	DA-106	SD-127	1.8		3.4							
		DA-107	SD-127	0.8	17.3	1.7	**21.5**	0.0011	22.1	**36**	291	20.10	20.42
	N-126		SD-126	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	247	21.60	21.87
	N-125	DA-105	SD-125	3.5	20.8	5.8	**25.0**	0.0014	25.0	**36**	328	19.64	20.10
	N-124		SD-124	0.0	0.0	0.0	**0.0**	0.0011	3.5	**18**	236	21.14	21.40
	N-137	DA-120	SD-137	1.2	1.2	2.4	**2.4**	0.0011	3.5	**18**	151	22.52	22.68
	N-136	DA-119	SD-136	1.6	2.8	3.1	**4.8**	0.0021	4.8	**18**	362	21.76	22.52
	N-135	DA-118	SD-135	1.4	1.4	2.7	**2.7**	0.0011	3.5	**18**	56	21.76	21.82
	N-134	DA-117	SD-134	1.6	5.8	3.1	**8.8**	0.0015	8.8	**24**	409	20.64	21.26
	N-123	DA-104	SD-123	5.6	32.2	8.5	**35.7**	0.0013	36.3	**42**	639	18.31	19.14
	N-100	DA-103	SD-100	6.0	104.6	9.0	**93.8**	0.0008	95.0	**66**	115	16.22	16.31
South System	N-100a				104.6		**93.8**						

8.0 CISTERN

The cistern will be an underground detention basin designed to detain the drainage runoff from the Railyards, and is planned to be located under the parking deck of a mixed use development structure. The cistern will provide water quality treatment by a combination detention and diversion to the combined sewer system. The detention volume will consist of two water quality volume components and one peak-shaving volume component. The two water quality components will be established by the volume method depth factor given in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions, May 2007.* The total of the water quality volumes was determined using the WEF-ASCE Basin Sizing Method, discussed in the CASQA New Development Handbook. The watershed is comprised of commercial and office areas with an assumed imperviousness of 90 percent, and multi-family areas with an assumed imperviousness of 80 percent. Using the 48-hour drawdown, mean storm precipitation depth of 0.55 inches, and 0.85 percent composite imperviousness, the depth of runoff P_0 is 0.714 inches. Water quality volume is this depth divided by 12, times the 220 acres of the shed, giving 13.09 acre-feet.

The first flush water quality component will be captured in a compartment of the cistern of approximately 5 acre-feet and will be pumped to the combined sewer system. Thus, the most heavily polluted first-flush storm drainage will be prevented from reaching the balance of the cistern. When drainage flows exceed the capacity of this compartment, excess flows will flow over a weir and be captured in the remaining cistern compartment. After detention, the flows will be pumped to the river at a controlled rate which will discharge 75 percent of the water quality volume in 24 hours and the total in 48 hours.

The cistern will also contain a peak-shaving storm flow volume component which will serve to reduce high peak storm flows to a more sustainable rate for pumping to the river. Drainage flows which cause the water quality volume to be exceeded during large storms will cause the large discharge pumps to begin pumping to the Sacramento River.

9.0 DETENTION AND PUMPING OPERATION

The peak-shaving storm flow detention component for large storms can vary, being a trade-off between peak pumping rate and detention volume. Three 40 cfs pumps are proposed to pump to the river during the design 100-year 6-hour storm, which will require approximately 13 acre-feet of peak-shaving detention volume. The total detention volume would be the sum of the water quality components and the peak-shaving components, giving a total detention volume of approximately 27 acre-feet. Other combinations of pump capacity and detention volume may be used. Actual delivery of each pump will vary somewhat with variation in cistern water level due to the varying pumping head.

The first 40 cfs river pump would start when water level in the cistern rises above the total water quality volume elevation. Pump capacities are nominal ratings under design conditions.

Nominal dimensions of a cistern to store this volume could be 2.7 acres in plan with a water depth of 10 feet. Dimensions may be reduced somewhat when storage in the large diameter

pipelines leading to the cistern is considered, and if regulatory agencies permit infiltration of storm water for flow reduction. It is planned to make the cistern the bottom level of a structure which will also contain shops at street level and automobile parking above.

The first-flush fraction of the water quality volume will bleed to the combined sewer system by pumping at a controlled rate. A rate of five cubic feet per second for a period no longer than 12 hours has been proposed as a trade-off between the need to empty the cistern rapidly and placing a larger drainage load on the combined sewer system. This flow rate is less than the current estimated peak storm flow rate from the existing Railyards pipelines to the combined system. The Department of Utilities has indicated that it is necessary to constrain the bleed rate due to limited pipeline capacity downstream in the combined sewer system. The bleed pump can discharge to a nearby sanitary sewer line, and be controlled by telemetry to cease operating during the brief periods when the downstream system in the vicinity of 5th and S Streets is surcharged during storm peaks. When storm flows exceed the capacity of this 5 acre-foot first flush compartment, the excess will flow over a weir to the remaining portion of the cistern.

The pumping station will be either adjacent to or integrated into the cistern, and will handle both the small and the large discharges to the Sacramento River. This will require a special design to accommodate its location, but will be designed to include the features of a typical city drainage pumping station.

The river pump discharge lines will discharge westerly to the Sacramento River. A discharge structure will be constructed at the edge of the river which will control erosion at the site, and which could also provide a platform for a scenic overlook to the river from the bicycle trail.

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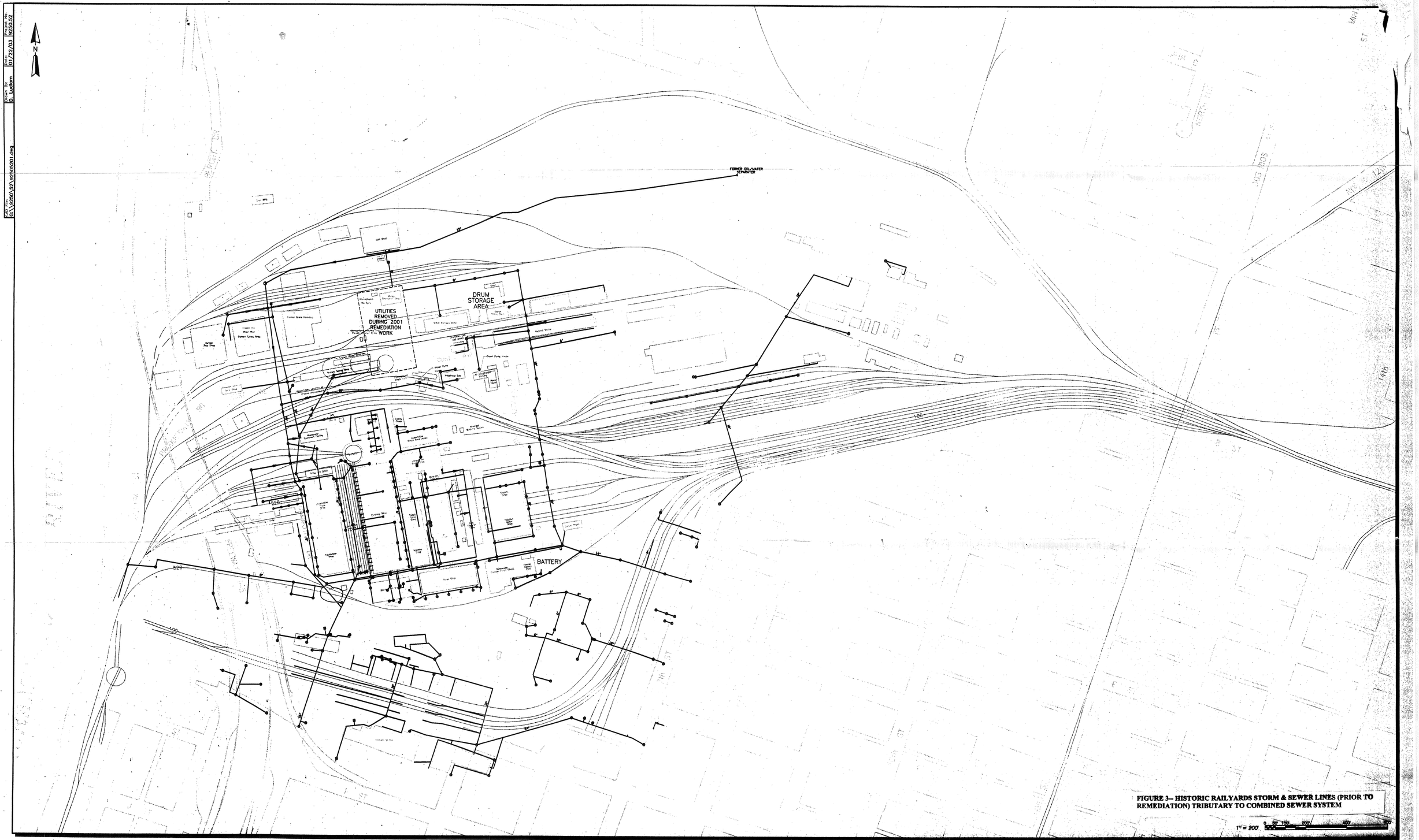

FIGURE 3– HISTORIC RAILYARDS STORM & SEWER LINES (PRIOR TO REMEDIATION) TRIBUTARY TO COMBINED SEWER SYSTEM

1" = 200'

Combined Storm and Sanitary Sewer Lines
Catch Basin
Maintenance Access Hole (Manhole)
Direction of Flow

ABANDONED . No Longer in Service
CI . Cast Iron Pipe
STL . Steel Pipe

NOTES:

These drawings represent the results of geophysical locating and GPS mapping by ERM. These are not design or as–built utility drawings. These drawings should not be solely relied upon for utility locating purposes. They are intended to provide a guide for potential utility conflicts with remedial excavations.

Utility Survey Map
Storm and Sewer Lines
Former Southern Pacific Transportation Company
Sacramento Rail Yard
Sacramento, California

ERM *01/03*

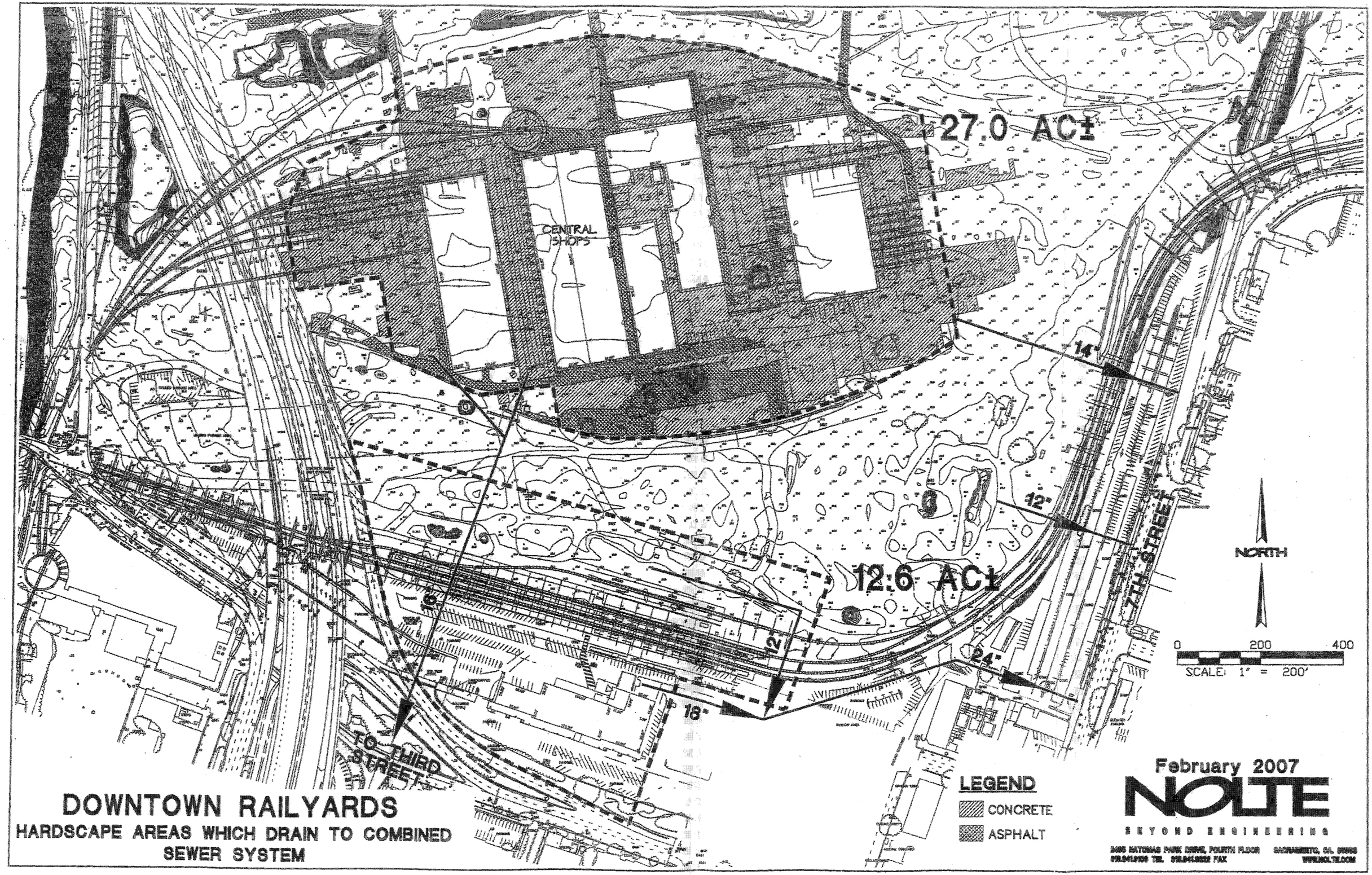

FIGURE 4—EXISTING HARDSCAPE AREAS WHICH DRAIN TO COMBINED SEWER SYSTEM


SD-1
SD-2
SD-3
SD-4
SD-5
SD-6
SD-7
SD-8
SD-9
SD-10
SD-11
SD-12
SD-13
SD-20
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SD-153
SD-155
SD-170
SD-171
SD-172
SD-173
SD-174
SD-176
SD-178
SD-179
SD-180
SD-182
SD-183 (Temp)
SD-184 (Temp)
CISTERN
24" SD
EXISTING 24" SD
EXISTING 36" SD
EXISTING 48" SD
EXISTING 60" SD
EXISTING 72" SD
EXISTING 84" SD
EXISTING 96" SD
EXISTING 108" SD
EXISTING 120" SD
EXISTING 132" SD
EXISTING 144" SD
EXISTING 156" SD
EXISTING 168" SD
EXISTING

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DESIGNER: TJN PROJ. MGR: ####				

CAUTION: The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

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RAILYARDS UTILITIES

FIGURE 7
PROPOSED DRAINAGE COLLECTION SYSTEM

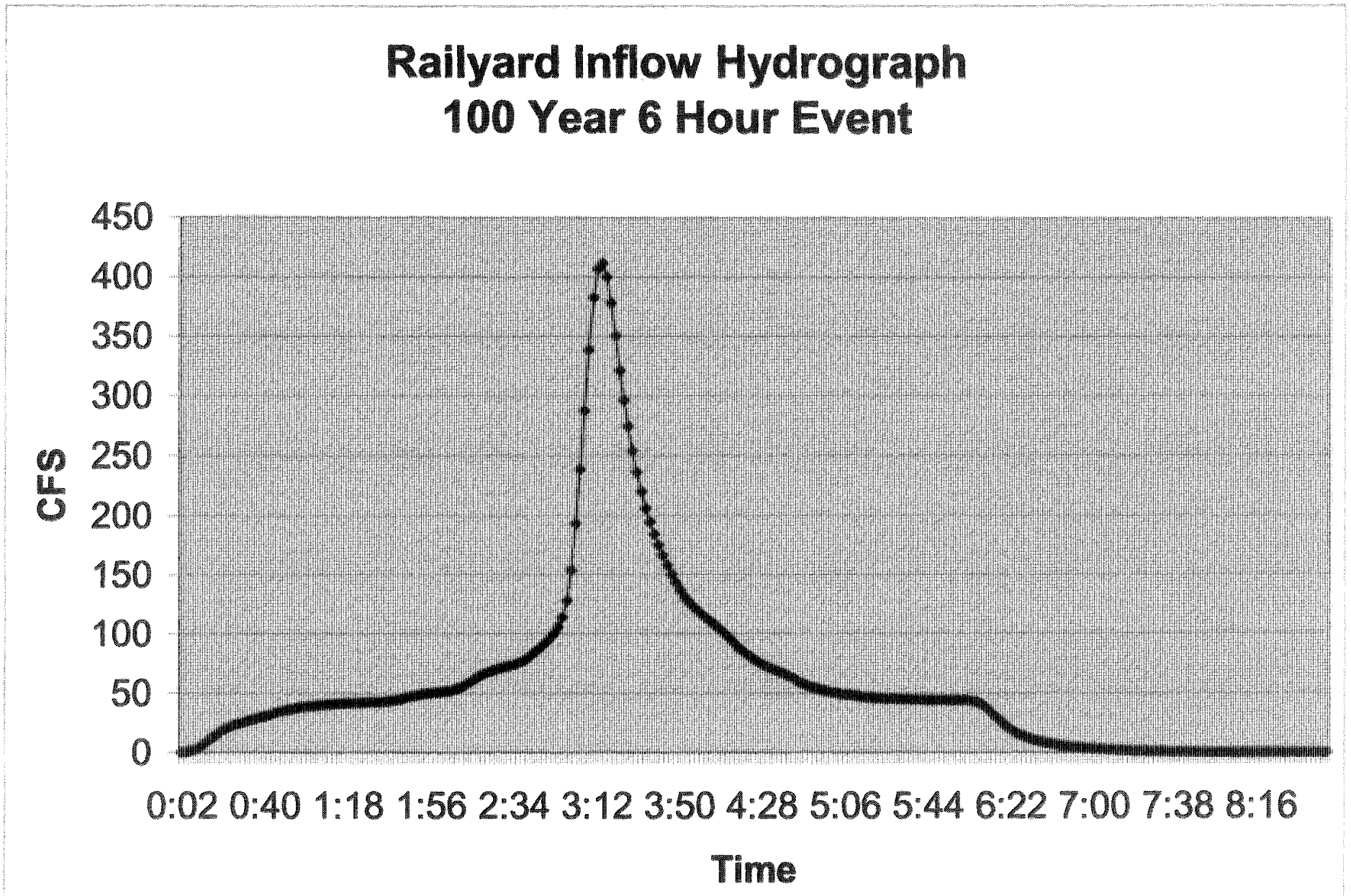
PREPARED FOR: THOMAS ENTERPRISES

DATE SUBMITTED: 04/05/2007

SHEET NUMBER
OF 1 SHEETS
SCALE
VERTICAL: 1"= N/A
HORIZONTAL: 1"= 150'

JOB NUMBER
SA0137405

FIGURE 5
RAILYARDS INFLOW HYDROGRAPH
100 YEAR 6 HOUR EVENT



APPENDIX A

LAND USE MATRIX

THE RAILYARDS

Land Use Distribution and Densities - Prefered Plan — April 5, 2007

PROGRAMMATIC LEVEL

Parcel #			Land Use	Residential Density			Retail		Mixed-Use 2nd Level on Camille		Hotel		Office FAR			Hist./Cultural		Open Space	
1	0.75	AC	OS															0.75	AC
2	4.31	AC	RRMU				200,000	SF											
3a	2.84	AC	RRMU	49	DU/AC														
3b	0.13	AC	OS															0.13	AC
3c	0.93	AC	RRMU								500	Kys							
3d	0.73	AC	RRMU	230	DU/AC	168	28,000	SF	32,000	SF									
3e	0.67	AC	OS															0.67	AC
3f	0.28	AC	RRMU			140	DU												
5a	1.14	AC	RRMU	91	DU/AC	104	DU												
5b	0.68	AC	RRMU	118	DU/AC	80	DU	27,000	SF	29,000	SF								
6a	1.26	AC	RRMU	189	DU/AC	242	DU												
6b	1.07	AC	RRMU	93	DU/AC	100	DU	43,000	SF	47,000	SF								
6c	0.15	AC	OS															0.15	AC
7a	2.06	AC	RRMU	90	DU/AC	186	DU	18,000	SF	18,000	SF								
7b	1.19	AC	RRMU	91	DU/AC	108	DU	54,000	SF	58,000	SF								
7c	0.03	AC	OS															0.03	AC
8a	0.61	AC	RRMU	36	DU/AC	22	DU	27,000	SF	27,000	SF								
8b	1.22	AC	RRMU	39	DU/AC	48	DU	33,000	SF	38,000	SF								
9a	0.60	AC	RRMU	73	DU/AC	44	DU	26,000	SF	26,000	SF								
9b	1.27	AC	RRMU	38	DU/AC	48	DU	34,000	SF	38,000	SF								
10a	3.88	AC	RRMU	27	DU/AC	106	DU	116,000	SF	65,000	SF								
10b	0.57	AC	OS															0.57	AC
11a	4.42	AC	RRMU				223,000	SF											
11b	0.27	AC	OS															0.27	AC
12	1.17	AC	RRMU				71,000	SF	43,000	SF									
13a	0.11	AC	RRMU				3,500	SF											
13b	0.23	AC	RRMU				8,000	SF											
13c	0.12	AC	RRMU				5,600	SF											
13d	0.66	AC	OS															0.66	AC
14	0.62	AC	RRMU				13,000	SF			100	Kys							
15a	3.33	AC	RRMU	22	DU/AC	72	DU	65,500	SF	40,000	SF					100,000	SF		
15b	0.05	AC	OS															0.05	AC
16a	1.67	AC	RRMU	141	DU/AC	236	DU	28,000	SF	30,000	SF								
16b	0.07	AC	OS															0.07	AC
17	1.48	AC	RRMU																
18a	1.05	AC	OS															1.05	AC
18b	0.25	AC	RRMU				38,500	SF											
20	1.30	AC	RRMU													56,278	SF		
21	5.30	AC	OS															5.30	AC
22	0.15	AC	RRMU													8,500	SF		
23	0.34	AC	RRMU													22,500	SF		
24	0.73	AC	RRMU													42,028	SF		
25	0.53	AC	RRMU													38,711	SF		
26	0.33	AC	RRMU													28,500	SF		
27	0.65	AC	RRMU													28,043	SF		
28	2.24	AC	RRMU													93,134	SF		
29	1.67	AC	RRMU													69,696	SF		
30a	5.07	AC	OS															5.07	AC
30b	1.35	AC	OS															1.35	AC
31a	2.66	AC	OS															2.66	AC
31b	0.32	AC	OS															0.32	AC
33	2.62	AC	RRMU																
34	1.26	AC	OS															1.26	AC
35	4.00	AC	RMU	225	DU/AC	900	DU	15,000	SF			500	Kys						
38	16.78	AC	TU															3.13	AC
39	15.34	AC	TU																
40	1.93	AC	ORMU	50	DU/AC	***96***	DU*	36,000	SF					1.4	***115,200***	SF*			
41	2.43	AC	ORMU	66	DU/AC	***160***	DU*	85,000	SF					1.8	***192,000***	SF*			
42	1.19	AC	ORMU	229	DU/AC	***273***	DU*	6,200	SF					5.8	***300,000***	SF*			
43	2.56	AC	ORMU	178	DU/AC	***455***	DU*	12,000	SF					4.5	***500,000***	SF*			
44	1.96	AC	ORMU	116	DU/AC	***227***	DU*	16,500	SF					2.9	***250,000***	SF*			
45	0.33	AC	OS															0.33	AC
46	2.89	AC	ORMU	57	DU/AC	***164***	DU*							1.4	***160,000***	SF*			
47a	2.21	AC	ORMU	123	DU/AC	***273***	DU*							3.1	***300,000***	SF*			
47b	0.78	AC	RRMU																
48	2.56	AC	ORMU	178	DU/AC	***455***	DU*							4.5	***500,000***	SF*			
49a	4.87	AC	RMU	133	DU/AC	650	DU	60,000	SF										
49b	0.73	AC	ORMU																
49c	1.00	AC	ORMU																
50	1.26	AC	OS															1.26	AC
51	4.70	AC	RMU	138	DU/AC	650	DU	40,000	SF										
52N	0.98	AC	RMU	107	DU/AC	105	DU												
52S	1.30	AC	RMU	300	DU/AC	390	DU												
53N	1.38	AC	RMU	109	DU/AC	150	DU												
53S	1.49	AC	RMU	299	DU/AC	445	DU												
54N	1.35	AC	RMU	204	DU/AC	275	DU	15,000	SF										
54S	1.68	AC	RMU	298	DU/AC	500	DU	10,000	SF										
54a	0.12	AC	OS															0.12	AC
57a	0.12	AC	OS															0.12	AC
57N	1.24	AC	RMU	202	DU/AC	250	DU	15,000	SF										
57S	1.38	AC	RMU	301	DU/AC	415	DU	10,000	SF										
58N	1.17	AC	RMU	107	DU/AC	125	DU												
58S	1.15	AC	RMU	300	DU/AC	345	DU												
59N	1.27	AC	RMU	106	DU/AC	135	DU												
59S	1.11	AC	RMU	300	DU/AC	333	DU												
60	1.12	AC	OS															1.12	AC
61	0.71	AC	OS															0.71	AC
62	0.92	AC	OS															0.92	AC
63	0.97	AC	OS															0.97	AC
64	0.89	AC	OS															0.89	AC
65	0.92	AC	OS															0.92	AC
66N	0.33	AC	RMU	106	DU/AC	35	DU												
66S	1.07	AC	RMU	107	DU/AC	115	DU												
67N	1.27	AC	RMU	303	DU/AC	385	DU												
67S	1.12	AC	RMU	159	DU/AC	178	DU												
68N	1.48	AC	RMU	291	DU/AC	430	DU												
68S	1.17	AC	RMU	111	DU/AC	130	DU												
69N	1.64	AC	RMU	293	DU/AC	480	DU												
69S	1.21	AC	RMU	112	DU/AC	135	DU												
70N	1.10	AC	RMU	300	DU/AC	330	DU												
70S	0.88	AC	RMU	125	DU/AC	110	DU												
71N	0.77	AC	RMU	260	DU/AC	200	DU												
71S	0.84	AC	RMU	119	DU/AC	100	DU												
72	10.37	AC	OS															10.37	AC

	Acres			Residential	Retail	Mixed Use 2nd Level	Hotel	Office	Hist./Cultural	Open Space
TOTAL	**180.39**	**AC**	*Max.*	**12,101 DU**	**1,384,800 SF**	**491,000 SF**	*Max.* **1,100 Kys**	*Max.* **2,337,200 SF**	**485,300 SF**	**41.16 AC**
			Min.	**10,000 DU**				*Min.* **0 SF**		
Roads	56.90	AC								
Site Total	237.29	AC								
Devel Total	100.79	AC	42%							
RRMU	48.83	AC								
RMU	41.95	AC								
TU	28.99	AC								
OS	41.16	AC								
ORMU	19.46	AC								
Total	180.39	AC								

* Indicates General Mixed Land Use. Either residential dwelling units OR office sf's OR hotel rooms apply, OR combinations fitting within the zoning envelope.

APPENDIX B

Railyards Specific Plan NOP and Draft EIR Distribution List

RAILYARDS NOP - 1000 foot buffer Mailing List **3/10/2006**

1215 D ST A LTD PARTNERSHIP	2805 H ST	SACRAMENTO	CA	95816
301 CAPITOL MALL ASSOCIATES L P	4378 AUBURN BL 300	SACRAMENTO	CA	95841
516 8TH STREET VENTURE	P O BX 2681	ROSEVILLE	CA	95746
520 NINTH ST	520 9TH ST	SACRAMENTO	CA	95814
700 E STREET BUILDING PARTNERSHIP	700 E ST	SACRAMENTO	CA	95814
714 E STREET ASSOCIATES LTD	P O BX 2681	ROSEVILLE	CA	95746
A JAY D SERPA LTD/ETAL	8401 JACKSON RD	SACRAMENTO	CA	95826
ADAMS CAPITAL MANAGEMENT CO	221 MAIN ST 440	SAN FRANCISCO	CA	94105
AJAYI SAMUEL/MARGARET	2845 MAYBROOK DR	SACRAMENTO	CA	95835
AK AUTOSPORT PROPERTY LLC	1501 EL CAMINO AVE 1	SACRAMENTO	CA	95815
ALBERT DOSSMAN TRUST	119 DEVILLE ST	VILLE PLATTE	LA	70586
ALEXANDER B/RACHEL E ALLEN TRUST	P O BOX 15707	SACRAMENTO	CA	95852
ANNE MARIE JENNINGS TRUST	2321 H ST	SACRAMENTO	CA	95816
ANSPACH C/ETAL(R M SURFIELD/ETAL)	2707 K ST 3	SACRAMENTO	CA	95816
ANTHONY/CINDY G OROPEZA 1993 REVOCABLE TRUST	609 SAN MIGUEL WY	SACRAMENTO	CA	95819
AVILA ROSE MARY/MANUEL ALFONSO	2117 3RD ST	SACRAMENTO	CA	95818
BAUTISTA GEORGE N/KEIKO H	521 7TH ST	SACRAMENTO	CA	95814
BERCUT RICHARD PACKING CO	0 N B ST	SACRAMENTO	CA	95814
BERRY ARNOLD R	418 8TH ST	SACRAMENTO	CA	95814
BING KONG TONG OF SACRAMENTO	918 5TH ST	SACRAMENTO	CA	95814
BJ ENTERPRISES L P/C/W TRUST/ETAL	2707 K ST 3	SACRAMENTO	CA	95816
BOUDIER JOHN E/LINDA D	2652 16TH ST	SACRAMENTO	CA	95818
BOWMAN/BAY BUILDING JOINT VENTURE	901 H ST	SACRAMENTO	CA	95814
BRAME MARGARET ANN/JAMES E NELSON	1120 D ST	SACRAMENTO	CA	95814
C/J WAREHOUSE	1330 NORTH B ST	SACRAMENTO	CA	95814
C/J WAREHOUSE	P O BX 308	SACRAMENTO	CA	95812
CALIFORNIA FRUIT BUILDING CO	1006 4TH ST 210	SACRAMENTO	CA	95814
CAMACHO JULIAN/CATHERINE	517 8TH ST	SACRAMENTO	CA	95814
CAMACHO JULIAN/CATHERINE MARIE	517 8TH ST	SACRAMENTO	CA	95814
CAMERON JAMES W JR	629 J ST	SACRAMENTO	CA	95814
CAMTON PROFESSION	P O BX 2681	ROSEVILLE	CA	95746
CANTU OLEGARIO M/MARIA	417 11TH ST REAR	SACRAMENTO	CA	95814
CAPITOL LANDING PARTNERS LLC	350 MENARD CIR	SACRAMENTO	CA	95835
CARLSON GLORIA	316 13TH ST	SACRAMENTO	CA	95814
CHESTER E FLINT FAMILY TRUST	1317 N B ST	SACRAMENTO	CA	95814
CHIN JAMES	821 F ST	SACRAMENTO	CA	95814

CHRISTOPHER H WING APC PROFIT SHARING PLAN/TRU	1101 E ST	SACRAMENTO	CA	95814
CHRISTOPHER H WING APC PROFIT SHARING PLAN/TRU	1105 E ST	SACRAMENTO	CA	95814
CITY OF SACRAMENTO	915 I ST 301	SACRAMENTO	CA	95814
CITY OF SACRAMENTO	915 I ST 200	SACRAMENTO	CA	95814
CITY OF SACRAMENTO	P O BX 3011	SACRAMENTO	CA	95812
CITY OF SACRAMENTO	1416 9TH ST 425	SACRAMENTO	CA	95814
CITY OF SACRAMENTO	915 I ST 301	SACRAMENTO	CA	95814
CITY OF SACRAMENTO	101 J ST	SACRAMENTO	CA	95814
COLINS JACOBO/MARIA	3600 DOWNEY WY	SACRAMENTO	CA	95817
CONF CH OF SACTO	P O BOX 188053	SACRAMENTO	CA	95831
COOK ROBERT C	1108 2ND ST	SACRAMENTO	CA	95814
COTTON EDWARD	705 F ST	SACRAMENTO	CA	95814
COUNTY OF SACRAMENTO	10545 ARMSTRONG AV 201C	MATHER	CA	95655
COUNTY OF SACRAMENTO	3284 RAMOS CR	SACRAMENTO	CA	95827
COUNTY OF SACRAMENTO	10545 ARMSTRONG AV 202C	MATHER	CA	95655
COUNTY OF SACRAMENTO	609 9TH ST	SACRAMENTO	CA	95814
COUNTY OF SACRAMENTO	700 H ST	SACRAMENTO	CA	95814
COUNTY OF SACRAMENTO	6TH ST	SACRAMENTO	CA	95814
COUNTY OF SACRAMENTO -	3284 RAMOS CIR	SACRAMENTO	CA	95827
COX JOHN W/CHERYL L	950 RICHARDS BL	SACRAMENTO	CA	95814
CRYSTAL CREAM/BUTTER CO	PO BOX 1313	SACRAMENTO	CA	95812
CRYSTAL CREAM/BUTTER CO	1001 C ST	SACRAMENTO	CA	95814
CUNNINGHAM PETER H/MARCEIL C/JAMIE O'NEAL	441 46TH ST	SACRAMENTO	CA	95819
DIAZ JOSE L	4819 MARIETTA WY	SACRAMENTO	CA	95841
DOROTHY RIVERS 1996 REVOCABLE TRUST/ETAL	300 N 12TH ST	SACRAMENTO	CA	95814
DOS RIOS PARK LIMITED PARTNERSHIP	670 CORONADO BLVD	SACRAMENTO	CA	95864
DOWNTOWN PLAZA LLC	11601 WILSHIRE BL FL 12	LOS ANGELES	CA	90025
DUFFY EDWARD C	916 E ST	SACRAMENTO	CA	95814
DUFOUR JAMES T	831 F ST	SACRAMENTO	CA	95814
DUFOUR JAMES T	P O BX 1316	SACRAMENTO	CA	95812
DUNPHY ANNA E (Est Of)	2115 L ST	SACRAMENTO	CA	95814
DURAN JESSIE R/LORTA ROSE R	354 BANNON ST	SACRAMENTO	CA	95814
EBENEZER BENJAMIN	914 E ST	SACRAMENTO	CA	95814
EDGAR EVAN W R	1301 D ST	SACRAMENTO	CA	95814
ENGSTROM MATS/DAFNE/TR	2171 JACKSON ST	SAN FRANCISCO	CA	94115
ENTERPRISE ASSOCIATES	3810 J ST	SACRAMENTO	CA	95816
ENTEZARI HOSSEIN A/KARIM M MIRZA	116 HORN CT	FOLSOM	CA	95630

ESTHER BERGER REVOCABLE TRUST /ETAL	713 9TH ST	SACRAMENTO	CA	95814
F STREET ASSOCIATES	901 F ST	SACRAMENTO	CA	95814
FJELD FAMILY LIMITED PARTNERSHIP	3450 3RD ST 1A	SAN FRANCISC(	CA	94124
FOREST HARBOR INC	3921 WATT AV	SACRAMENTO	CA	95821
FORT SUTTER CO	P O BX 1467	W SACRAMENT(	CA	95691
FOSTER BILL/CHARLOTTE E	7830 GLEN TREE DR	CITRUS HEIGHT:	CA	95610
FRANK FAT PROPERTIES	1015 FRONT ST	SACRAMENTO	CA	95814
G CARAVANTES ENTERPRISES	322 N 12TH ST	SACRAMENTO	CA	95814
GALARDO MARCOS/SUZANNA	3349 MONTROSE ST	SACRAMENTO	CA	95838
GARWOOD DENNIS/JEREANN	10320 JACKSON RD	SACRAMENTO	CA	95827
GAYTAN EMILIANO	411 11TH ST	SACRAMENTO	CA	95814
GENE WONG FAMILY TRUST	P O BX 2798	RANCHO CORD(	CA	95741
GIANNINI LINDA/MARK	2555 DONNER WY	SACRAMENTO	CA	95818
GIANNINI MARK/LINDA	2011 I ST	SACRAMENTO	CA	95814
GILREATH ROBERT/ROBERT J HOFFMAN	5652 EL CAMINO AV	CARMICHAEL	CA	95608
GLENNON MARIA	3547 MISSION ST	SAN FRANCISC(	CA	94110
GLENNON MARIA A	P O BX 31848	SAN FRANCISC(	CA	94131
GLOBE MILLS DEVELOPMENT LLC	4833 CRESTWOOD WAY	SACRAMENTO	CA	95822
GOMEZ RICHARD	1107 D ST	SACRAMENTO	CA	95814
GOMEZ SALVADOR H/LUCY R	671 SAN ANTONIO WY	SACRAMENTO	CA	95819
GREENWOOD 2000 TRUST	7230 LINCOLN AV	CARMICHAEL	CA	95608
HAMMER PHYLLIS/THOMAS J/1230 3RD STREET LLC	630 FULTON AV	SACRAMENTO	CA	95825
HARO MARGARITA	1235 D ST	SACRAMENTO	CA	95814
HEARST-ARGYLE STATIONS INC	3 TELEVISION CIR	SACRAMENTO	CA	95814
HEARST-ARGYLE STATIONS INC	227 W TRADE ST	CHARLOTTE	NC	28202
HELMUTH/LEONE R WILDEMANN REVOCABLE TRUST	13 ROSEMEAD CR	SACRAMENTO	CA	95831
HERBERT K/INEZ F YEE REVOCABLE TRUST	1301 NORMANDY LN	SACRAMENTO	CA	95822
HERMOSILLO ANGEL A/BERTHA	1716 27TH ST	SACRAMENTO	CA	95816
HERNANDEZ PATRICIA R	220 13TH ST	SACRAMENTO	CA	95814
HIATT PARTNERS	9490 SAN PAULO CIR	ELK GROVE	CA	95624
HILDEBRAND EXEMPT GRANDCHILDRENS RESIDUAL TRU	2707 K ST 3	SACRAMENTO	CA	95816
HOFMANN KENNETH HARRY/MARTHA JEAN/TR	1380 GALAXY WY	CONCORD	CA	94522
HOUSING AUTHORITY CITY OF SACRAMENTO	P O BX 1834	SACRAMENTO	CA	95812
HOUSING AUTHORITY CITY OF SACRAMENTO	630 I ST	SACRAMENTO	CA	95814
HOUSING AUTHORITY COUNTY OF SACRAMENTO	P O BOX 1834	SACRAMENTO	CA	95812
HOUSING AUTHORITY COUNTY OF SACRAMENTO	JIBBOOM ST	SACRAMENTO	CA	95814
HOUSING AUTHORITY COUNTY OF SACRAMENTO	616 I ST	SACRAMENTO	CA	95814

HOUSING AUTHORITY COUNTY OF SACRAMENTO	630 I ST	SACRAMENTO	CA	95814
HOUSING AUTHORITY COUNTY OF SACRAMENTO	900 7TH ST	SACRAMENTO	CA	95814
HOUSING AUTHORITY COUNTY OF SACRAMENTO	910 7TH ST	SACRAMENTO	CA	95814
HOUSING AUTHORITY OF THE CITY OF SACRAMENTO	P O BX 1834	SACRAMENTO	CA	95812
J ST PROPERTIES INC	PO BOX 1737	SACRAMENTO	CA	95812
J STREET REFORMATION	400 CAPITAL MALL 1560	SACRAMENTO	CA	95814
J STREET REFORMATION PARTNERSHIP	400 CAPITOL MALL 1560	SACRAMENTO	CA	95814
JAMES E VENDLEY FAMILY TRUST B	1605 4TH AVE	SACRAMENTO	CA	95818
JAMES/ROXANNE LOEN REVOCABLE TRUST/ETAL	711 9TH ST	SACRAMENTO	CA	95814
JB MANAGEMENT L P	2101 EVERGREEN ST	SACRAMENTO	CA	95815
JOHN BROWNSTON FAMILY REVOCABLE TRUST	2443 FAIR OAKS BL 277	SACRAMENTO	CA	95825
JOHN Q HAMMONS HOTELS L P	4243 HUNT RD	CINCINNATI	OH	45242
JOHN/ELIZABETH KASSIS REVOCABLE TRUST/ETAL	711 9TH ST	SACRAMENTO	CA	95814
JOHNSON MONTE E/SHEPARD M	6085 SEVEN CEDARS PL	GRANITE BAY	CA	95746
JONES ERIC	5709 MONTEREY WY	SACRAMENTO	CA	95822
JOSEPH JEREMIAH FALLON JR FAMILY TRUST	2640 MONTGOMERY WY	SACRAMENTO	CA	95818
KGP INVESTORS LLC	592 35TH ST	SACRAMENTO	CA	95816
KINCAID JAMES MARVIN/ESTRELLA A	P O BOX 163733	SACRAMENTO	CA	95816
KORNER JACK J	452 N B ST	SACRAMENTO	CA	95814
KORNER JEAN I/RUTH	815 SAN JUAN RD 1	SACRAMENTO	CA	95834
KURASAKI JOHN/EST OF/KAZUKO KURASAKI/ETAL	P O BOX 1450	SAN J BAUTISTA	CA	95045
KUVAKOS MARY/JULIE A ROSS	1315 D ST	SACRAMENTO	CA	95814
LBNJ	4308 GREENVALE RD	FAIR OAKS	CA	95628
LEABO HARVEY L JR	2852 VERNA WY	SACRAMENTO	CA	95821
LEGAL BUILDING JOINT VENTURE	901 H ST 102	SACRAMENTO	CA	95814
LEGAL BUILDING JOINT VENTURE	901 H ST	SACRAMENTO	CA	95814
LEVIN METALS CORP	130 N 12TH ST	SACRAMENTO	CA	95814
LINDA DANKMAN 1991 REVOCABLE LIVING TRUST/ETAL	1129 D ST	SACRAMENTO	CA	95814
LOAVES/FISHES	P O BX 2161	SACRAMENTO	CA	95812
LORTA DAVID/VELMA	350 BANNON ST	SACRAMENTO	CA	95814
LORTA LIBRADO/ROSE R	354 BANNON ST	SACRAMENTO	CA	95814
LORTA SALVADOR/MARIA Z	330 BANNON ST	SACRAMENTO	CA	95814
LOUIE FAMILY REVOCABLE TRUST(NEW WEST PETROLE	2833 LAND PARK DR	SACRAMENTO	CA	95818
LUNA IGNACIO/ROSALINA	409 11TH ST	SACRAMENTO	CA	95814
MACHALICA KRZYSZTOF/PIOTR STELMASZCZYK	1215 C ST	SACRAMENTO	CA	95814
MADSEN CHRISTOPHER L/GAIL A	5455 GARDEN HWY	YUBA CITY	CA	95991
MAKI STEVE/CALIFORTECH INC	6830 EXCELSIOR RD	SACRAMENTO	CA	95829

MALDONADO ROBERT/MONICA	7704 WILLOW POINT WY	SACRAMENTO	CA	95831
MALLET RICHARD L/JUDITH R	1509 FOREBAY RD	POLLOCK PINES	CA	95726
MARIN EDWARD R/LYNETTE LARE MICHON	405 11TH ST	SACRAMENTO	CA	95814
MARION I JORGENSEN REVOCABLE TRUST/ETAL	152 E ELVERTA RD	ELVERTA	CA	95626
MATHESON ROBERT B/CAROLE L	P O BX 970	ELK GROVE	CA	95759
MATL VICTOR G	827 F ST	SACRAMENTO	CA	95814
MATTHEW E/SHARI M GUEFFROY REV TRUST	2649 7TH AVE	SACRAMENTO	CA	95818
MCINTYRE WAYNE G/DELLA GILLERAN	1112 D ST	SACRAMENTO	CA	95814
MENDOZA RICHARD J/DONNA E	900 4TH AV	SACRAMENTO	CA	95818
MERCADO RAOUL G/LINDA D	3930 TERRA VISTA WY	SACRAMENTO	CA	95821
MERCADO RUBEN G/XAVIER G	1239 D ST	SACRAMENTO	CA	95814
MILLER JAMES O/ANN MCCORMACK/SIMONE RATHE/ETAI	PO BOX 1646	SACRAMENTO	CA	95812
MILLER MARY/SIMONE A/JAMES O/FITZGERALD/ETAL	PO BOX 1646	SACRAMENTO	CA	95812
MINER LOYAL A JR	813 F ST	SACRAMENTO	CA	95814
MOENIG CHRISTOPHER J	1104 D ST	SACRAMENTO	CA	95814
MOHANNA M H	1025 9TH ST 205	SACRAMENTO	CA	95814
MOHANNA MOHAMMED H /ETAL	1025 9TH ST	SACRAMENTO	CA	95814
MONTOYA PEDRO B/MARIA INEZ	420 8TH ST	SACRAMENTO	CA	95814
MONTOYA RICHARD J/SUZANNE	3341 SCOBEE WY	SACRAMENTO	CA	95838
MORSE BUILDING LLC	1027 2ND ST	SACRAMENTO	CA	95814
N 10TH STREET BUSINESS PARK	1722 3RD ST 202	SACRAMENTO	CA	95814
NAAKE VERNON L/GLADYS I/TR	31 STARGLOW CIR	SACRAMENTO	CA	95831
NAYGROW TOM	1416 45TH ST	SACRAMENTO	CA	95819
NNN SACRAMENTO CORPORATE CENTER LLC/ETAL	P O BX 441069	AURORA	CO	80044
OLDTOWN BENNETT INVESTORS/ETAL	540 FULTON AV	SACRAMENTO	CA	95825
ONG KO MET BENEVOLENT ASSN	427 J ST	SACRAMENTO	CA	95814
OROPEZA-GUTIERREZ ALEJANDRO/JANET C OROPEZA	2220 LONGVIEW DR	ROSEVILLE	CA	95747
ORTIZ TEODORO C (Est Of)	5370 GREAT SMOKEY ST	SACRAMENTO	CA	95823
OSMUNDSON ANTHONY D/STACY A/TR	5 JENNEY CT	SACRAMENTO	CA	95831
OWEN RANDAL S/WALLACE D	P O BOX 2901	SACRAMENTO	CA	95812
P BRUCE BOOHER/MARK GIANNINI DEVELOPMENT PARTI	1217 38TH ST	SACRAMENTO	CA	95816
PACIFIC FEDERATION BROTHERHOOD MAINT WAY EMPL	510 8TH ST	SACRAMENTO	CA	95814
PACIFIC GAS/ELECTRIC CO	PO BOX 770000	SAN FRANCISCC	CA	94177
PAGODA LLC	1416 45TH ST	SACRAMENTO	CA	95819
PATINO NELLY B	812 9TH ST	SACRAMENTO	CA	95814
PATINO NELLY/ETAL	1010 J ST	SACRAMENTO	CA	95814
PEARSON ELMER BERTIL/JUNE MARION/ETAL	2145 BELLA CASA ST	DAVIS	CA	95616

PHAM AI MINH/HUNG Q TOAN/TIEN PHAM	6125 STOCKTON BLVD 36	SACRAMENTO	CA	95824
PING YUEN ASSOCIATES	100 BUSH ST 925	SAN FRANCISCC	CA	94104
PLATINUM GROUP INVESTMENTS	4012 FOOTHILLS BL	ROSEVILLE	CA	95747
PORTER FAMILY TRUST	5250 VALHALLA DR	CARMICHAEL	CA	95608
QUISTBERG KRISTEN H	320 13TH ST	SACRAMENTO	CA	95814
RAMGARIA MEIK SINGH/SATNAM SINGH	1311 E ST	SACRAMENTO	CA	95814
RAMONA HOTEL INVESTORS	1001 SIXTH ST 200	SACRAMENTO	CA	95814
RANDALL LOUIS E SR/ESTELITA S	14 LACOTA CT	SACRAMENTO	CA	95823
REA PARTNERS	2484 NATOMAS PARK DR 100	SACRAMENTO	CA	95833
REALTY ADVISORS INC	501 S ST 1	SACRAMENTO	CA	95814
REDEVELOPMENT AGENCY CITY OF SACRAMENTO	P O BX 1834	SACRAMENTO	CA	95814
REDEVELOPMENT AGENCY CITY OF SACRAMENTO	630 I ST	SACRAMENTO	CA	95814
REDEVELOPMENT AGENCY CITY OF SACRAMENTO	630 I ST FL3	SACRAMENTO	CA	95814
REED DONNA L/ETAL	3463 RAMON AV 16	SACRAMENTO	CA	95826
REYES JOSE	426 8TH ST	SACRAMENTO	CA	95814
RICCI ALVIN E	705 J ST	SACRAMENTO	CA	95814
RICCI HOLDINGS L P	924 8TH ST	SACRAMENTO	CA	95814
RICCI HOLDINGS L P	2711 LACY LN	SACRAMENTO	CA	95821
RICHARDS GARDEN OFFICE LLC	P O BX 3011	SACRAMENTO	CA	95812
RISCH FAMILY TRUST	122 J ST	SACRAMENTO	CA	95814
RODOLFO O CUELLAR FAMILY TRUST	1212 D ST	SACRAMENTO	CA	95814
ROSE RODNEY B	PO BX 15453	SACRAMENTO	CA	95851
ROSS ESPERANZA	1700 L ST	SACRAMENTO	CA	95814
S M U D	P O BX 15830	SACRAMENTO	CA	95852
SACPROP(FEDERATED DEPT STORES INC)	7 W SEVENTH ST	CINCINNATI	OH	45202
SACRAMENTO CO EMP CREDIT UNION	800 H ST	SACRAMENTO	CA	95814
SACRAMENTO DOWNTOWN INVESTORS	P O BOX 2563	EL MACERO	CA	95618
SACRAMENTO REGIONAL TRANSIT DISTRICT	P O BX 2110	SACRAMENTO	CA	95812
SACRAMENTO THTRCL LIGHTING	950 RICHARDS BL	SACRAMENTO	CA	95814
SACRAMENTO VAGABOND INN EXECUTIVE OLDTOWN LL	5933 W CENTURY BL 200	LOS ANGELES	CA	90045
SAG/WIG LLC	939 COMMONS DR	SACRAMENTO	CA	95825
SALVATION ARMY	P O BX 348000	SACRAMENTO	CA	95834
SALVATION ARMY	180 E OECAN BL FL 3	LONG BEACH	CA	90802
SATYA N CHATTERJEE FAMILY REVOCABLE TRUST	8167 RIVER FRONT LN	FAIR OAKS	CA	95628
SCHETTER ELECTRIC INC	P O BX 1377	SACRAMENTO	CA	95812
SCHETTER FRANK E/LINDA A	471 BANNON ST	SACRAMENTO	CA	95814
SCHMIDT ROSA MARIE	7 JIB CT	SACRAMENTO	CA	95831

SECOND RICHARDS BOULEVARD PARTNERSHIP	3184 J AIRWAY AVE	COSTA MESA	CA	92626
SHERWOOD COURT CO	2636 FULTON AV	SACRAMENTO	CA	95821
SMITH JEFFREY D/DEAN P	911 46TH ST	SACRAMENTO	CA	95819
SOLOMON FRANK JR	2848 ARDEN WAY 210	SACRAMENTO	CA	95825
SOO YUEN BENEV ASSN OF SACTO	401 J ST	SACRAMENTO	CA	95814
SOUTHERN CALIFORNIA WATER COMPANY	915 I ST 301	SACRAMENTO	CA	95814
SOUTHERN PACIFIC TRANSPORTATION	300 RICHARDS BL	SACRAMENTO	CA	95814
SOUTHERN PACIFIC TRANSPORTATION COMPANY	1 MARKET PLAZA 225	SAN FRANCISCC	CA	94105
SRI SIX USBP LLC	555 CALIFORNIA ST F49	SAN FRANCISCC	CA	94104
STATE OF CALIFORNIA	344 N 7TH ST	SACRAMENTO	CA	95814
STATE OF CALIFORNIA	650 HOWE AV	SACRAMENTO	CA	95825
STATE OF CALIFORNIA	400 P ST 3110	SACRAMENTO	CA	95814
STATE OF CALIFORNIA	111 I ST	SACRAMENTO	CA	95814
STATE OF CALIFORNIA	100 I ST	SACRAMENTO	CA	95814
STATE OF CALIFORNIA	101 J ST	SACRAMENTO	CA	95814
STATE OF CALIFORNIA	P O BX 63931	SAN FRANCISCC	CA	94163
STIVERS LIVING TRUST	634 COLLEGE AV	MENLO PARK	CA	94025
STN LTD	1023 2ND ST	SACRAMENTO	CA	95814
STRIBLING INEZ S	416 8TH ST	SACRAMENTO	CA	95814
SUN YAT-SEN MEMORIAL ASSOCIATION	415 J ST	SACRAMENTO	CA	95814
SUTHERLAND KEVIN J	912 E ST	SACRAMENTO	CA	95814
TAYLOR GLENHALL E III/VIVICA M	114 MUIR LN	ALAMO	CA	94507
TAYLOR JEFFREY L	PO BOX 645	PENRYN	CA	95663
TINUCCI RICHARD M	1220 C ST	SACRAMENTO	CA	95821
TSAKOPOULOS FAMILY TRUST/ETAL	7423 FAIR OAKS BL 10	CARMICHAEL	CA	95608
U S HOUSING PARTNERS II L P	2950 BUSKIRK AV 312	WALNUT CREEK	CA	94596
U S HOUSING REVOCABLE LIVING TRUST	162 PINEDALE AVE	SACRAMENTO	CA	95838
UNION GOSPEL MISSION	P O BX 1108	SACRAMENTO	CA	95812
UNITED STATES OF AMERICA	525 MARKET ST 9L	SAN FRANCISCC	CA	94105
UNSWORTH PARTNERS L P	550 HAMILTON ST 329	PALO ALTO	CA	94301
VENEGAS PEDRO M	1033 ROGERS ST	BRODERICK	CA	95691
VERBRUGGE DAVID J	1219 C ST	SACRAMENTO	CA	95814
VERDUZCO FAMILY TRUST	108 FEATHER FALLS CIR	FOLSOM	CA	95630
VOLLMANN WILLIAM T/JANICE KONG-JA RYU	2090 8TH AVE	SACRAMENTO	CA	95818
WALLACE EDWARD E	408 SAN MIGUEL WY	SACRAMENTO	CA	95819
WASHINGTON SQUARE III	1832 TRIBUTE RD G	SACRAMENTO	CA	95815
WASHINGTON SQUARE III LTD	9983 FOLSOM BL	SACRAMENTO	CA	95827

WEEMS GLENN KARL	440 N B ST	SACRAMENTO	CA	95814	
WEEMS JOANNA	P O BX 15624	SACRAMENTO	CA	95852	
WHATLEY JACK E/DESIREE CALDWELL	808 E ST	SACRAMENTO	CA	95814	
WILLA-MYER	2642 KADEMA DR	SACRAMENTO	CA	95864	
WILLIAM E MASTERS REVOCABLE TRUST	1100 E ST	SACRAMENTO	CA	95814	
WILLIAM H MARKLEY FAMILY REVOCABLE TRUST/ETAL	2807 SHERIDAN WY	SACRAMENTO	CA	95821	
WILLIAM W APPLEGATE LIVING TRUST	18 VISTA DEL SOL	MILL VALLEY	CA	94941	
WILLIAMS COMMUNICATIONS INCORPORATED	1 WILLIAMS CENTER	TULSA	OK	74172	
WONG CENTER	331 J ST	SACRAMENTO	CA	95814	
YERBY LAWRENCE T	1313 C ST	SACRAMENTO	CA	95814	
YU FAMILY REVOCABLE TRUST	9431 MARIS LN	ELK GROVE	CA	95624	
ZUNIGA ANDREW MARK	320 BANNON ST	SACRAMENTO	CA	95814	
BUSINESS NAME	**ADDRESS**	**CITY**	**STAT**	**ZIP**	**P**
APCOA/STANDARD PARKING INC.	501 J ST	SACRAMENTO	CA	95814	
BATH & BODY WORKS #544	545 K ST #2011	SACRAMENTO	CA	95814	
BELLI GRILL	500 I ST	SACRAMENTO	CA	95814	
BROOKSTONE COMPANY	545 K ST	SACRAMENTO	CA	95814	
CALENDAR CLUB	545 K ST #2057	SACRAMENTO	CA	95814	
CALENDAR CLUB	545 K ST #1093	SACRAMENTO	CA	95814	
CAMERON & ASSOCIATES	629 J ST	SACRAMENTO	CA	95814	
CAPITOL PLAZA HOLIDAY INN	300 J ST	SACRAMENTO	CA	95814	
CRYSTAL CREAM & BUTTER CO	1013 D ST	SACRAMENTO	CA	95814	
D MINI MART	400 12TH ST	SACRAMENTO	CA	95814	
FAT CITY BAR AND CAFE	1001 FRONT ST	SACRAMENTO	CA	95814	
FEDERAL COURHOUSE CAFE'	501 I ST	SACRAMENTO	CA	95814	
FOOT LOCKER #7003	545 K ST #2084	SACRAMENTO	CA	95814	
FULTONS	900 2ND ST	SACRAMENTO	CA	95814	
GEOFFREY WONG	331 J ST #200	SACRAMENTO	CA	95814	
GIRARD & VINSON LLP	1006 4TH ST 8TH FL	SACRAMENTO	CA	95814	
GUESS ? INC.	545 K ST #1098	SACRAMENTO	CA	95814	
HESSE STOBBE & O'SULLIVAN LLC	428 J ST #550	SACRAMENTO	CA	95814	
HINTZ & WELCH	1006 4TH ST #220	SACRAMENTO	CA	95814	
IMPRESSIVE CLEANING SPECIALIST	320 NORTH 10TH ST	SACRAMENTO	CA	95814	
JADE GARDEN RESTAURANT	701 J ST	SACRAMENTO	CA	95814	
JAMES CHIN	821 F ST	SACRAMENTO	CA	95814	
JOHNNY ROCKETS #137	545 K ST #2117	SACRAMENTO	CA	95814	
KAUFMAN JAMES J	930 F ST	SACRAMENTO	CA	95814	

LAURA PLANTE	428	J ST #350	SACRAMENTO	CA	95814
LAW OFFICE HAYES H GABLE III	428	J ST #354	SACRAMENTO	CA	95814
LAW OFFICE OF DOUGLAS LEHRMAN	428	J ST #610	SACRAMENTO	CA	95814
LAW OFFICES OF ANTHONY M PEREZ	331	J ST #200	SACRAMENTO	CA	95814
LAWRENCE S. JANOF	701	E ST #B	SACRAMENTO	CA	95814
MCCALLUM BARBARA E	901	H ST #310	SACRAMENTO	CA	95814
NANCY P DI CENZO ATTNY AT LAW	711	9TH ST #100	SACRAMENTO	CA	95814
NORCAL MOTORS	1401	NORTH B ST	SACRAMENTO	CA	95814
PATRICK MCCARTHY	901	H ST #304	SACRAMENTO	CA	95814
PRINTING DYNAMICS	1014	2ND ST #300	SACRAMENTO	CA	95814
SIMS GROUP USA CORPORATION	130	NORTH 12TH ST	SACRAMENTO	CA	95814
SOMACH SIMMONS & DUNN	813	6TH ST 3RD FL	SACRAMENTO	CA	95814
SPUD SHACKS HOMEMADE FRIES	906	2ND ST	SACRAMENTO	CA	95814
STUDIO INTERNATIONAL	711	J ST	SACRAMENTO	CA	95814
SUNGLASS HUT TRADING CORP #688	545	K ST #2003	SACRAMENTO	CA	95814

NOP RAILYARDS - SITF Mailing List **3/10/2006**

Acanthus	Mark Green	1723 J Street	Sacramento
Acanthus	Adam Kringel / Brent Thrams	1723 J Street	Sacramento
ACB Captiol Chapter, Cal Council for the Blir	Gene Lozano	4537 Sycamore Avenue	Sacramento
Alkali Flat P.A.C.	Marilyn Prosser	414 12th Street	Sacramento
Alkali Flate Neighborhood Improvement Assr	Dan Hood	630 I Street, Suite 250	Sacramento
Alkali Mansion Flats Historic Neighborhood A	Sean Wright	1326 E Street	Sacramento
Alkali Flat Redevelopment Advisory Committ	Marti Brown	630 I Street, Suite 250	Sacramento
Alkali Flat P.A.C.	Catherine Camacho	517 8th Street	Sacramento
Amador Regional Transit System	Patrick Ireland	11400B American Legion Drive	Jackson
Amtrak	Anthony Chapa / Gregg Baxter	401 I Street	Sacramento
Amtrak	Jason Steffensen	530 Water Street	Oakland
Amtrak	Richards Guy	530 Water Street, Floor 5	Oakland
Amtrak Bus and Rail	Darrell Johnson	530 Water Street, Floor 5	Oakland
Boulevard Park Neighborhood Association	Rob Sperling	P.O. Box 163179	Sacramento
Boulevard Park Neighborhood Association	Jon Marshack	2308 H Street	Sacramento
Boulevard Park Neighborhood Association	Dale Kooyman	801 21st Street	Sacramento
California State Railroad Museum	Cathy Taylor / Robert Baxter	111 "I" Street	Sacramento
Caltrans, Director of Rail	Bill Bronte	1120 N Streetq	Sacramento
Caltrans, District 3 Project Manager	Carlos Portillo	P.O. Box 911	Marysville
Caltrans, District 3	Alyssa Begley	P.O. Box 942874	Sacramento
Caltrans	Steve Hetland	2389 Gateway Oaks Drive	Sacramento
Caltrans - Rail	Warren Weber	P.O. Box 942874, MS 74	Sacramento
Capitol Corridor Joint Powers Authority	Eugene Skoropowski	1000 Broadway Street, Suite 604	Oakland
Capitol Corridor Riders Association	Estelle Shiroma	1412 62nd Street	Emeryville
Capitol Station District	Patti Kleinknecht	1515 North C Street	Sacramento
CARB	Jim Lerner	420 Santa Ynez Way	Sacramento
Children First Flats Network	Juanita Jue	520 18th Street	Sacramento
REA Building Developer	Johan Otto	1722 3rd Street, Suite 202	Sacramento
Central City Alliance of Nieghborhoods	Karen Jacques / Dale Kooyman	801 21st Street	Sacramento
Chinese Benevolent Assocation	Dr. Hebert Yee	1301 Normandy Lane	Sacramento
Colliers International	Buz Miller	700 51st Street	Sacramento
COMCAST		4350 Pell Drive	Sacramento
Design Review Preservation Sac Airport Sys	John Febbo	6900 Airport Blvd.	Sacramento
DGS	Marcia Johnston	5032 9th Avenue	Sacramento
Diepenbrock Harrison	Andrea Matarazzo	400 Capitol Mall, Suite 1800	Sacramento
Diepenbrock Harrison	Jeff Dorso	400 Capitol Mall, Suite 1800	Sacramento

Downtown Plaza Merchants Assn.		547 L Street	Sacramento
Downtown Sacramento Partnership	Michael Ault	900 J Street, Second Floor	Sacramento
Downtown Sacramento Partnership	Danielle del'Etoile	900 J Street, #200	Sacramento
Economic & Planning Systems, Inc.	Jamie Gomes	2150 River Plaza Drive, Suite 400	Sacramento
Economic & Planning Systems, Inc.	Tim Youman	2150 River Plaza Drive, Suite 400	Sacramento
EIP	Brian Boxer	1200 2nd Street, Suite 200	Sacramento
El Dorado County Transit Authority	Mindy Jackson	6565 Commerce Way	Woodland
Environmental Council of Sacramento	Graham Brownstein	2012 K Street	Sacramento
Environmental Council of Sacramento	Earl Withycombe	1801 J Street	Sacramento
Federal Bar Association	Matthew Jacobs	555 Capitol Mall, Floor 10	Sacramento
FEDSHRA		P.O. Box 6404	Folsom
Folsom, El Dorado and Sacramento Historic	Bill Anderson	198 Wool Street	Folsom
Friends of Light Rail	Seann Rooney	P.O. Box 2110	Sacramento
Friends of Light Rail	Marq Truscott	1808 Q Street	Sacramento
Gregory Taylor Architecture	Gregory Taylor	1024 22nd Street	Sacramento
Greyhound	Bill Lewis / Chris Brooks	715 L Street	Sacramento
High Speed Rail	Carrie Pourvahidi	925 L Street, Suite 1425	Sacramento
Sacramento History and Science Commissio	Chairperson	551 Sequoia Pacific Blvd.	Sacramento
League of Women Voters of Sacramento	Rick Bettis	1716 P Street, #9	Sacramento
League of Women Voters of Sacramento	Barbara Hopkins	3427 Hunnicut Lane	Sacramento
Mennemeier, Glassman, and Stroud	Kenneth Mennemeier	980 9th Street, Suite 1700	Sacramento
Midtown Business Association	Michael Boyd	P.O. Box 161147	Sacramento
Midtown Business Association	Dick Skelton	P.O. Box 161147	Sacramento
Thomas Enterprises / Jerde Partnership	Paul Senzaki	913 Ocean Front Walk	Venice
Thomas Enterprises / Jerde Partnership	Richard Poulos	913 Ocean Front Walk	Venice
Thomas Enterprises / Jerde Partnership	David Taylor	1201 K Street, Suite 1840	Sacramento
Thomas Enterprises / Jerde Partnership	Ellen Warner	1201 K Street, Suite 1840	Sacramento
Thomas Enterprises	Suheil Totah	431 I Street, Suite 202	Sacramento
Thomas Enterprises	Richard Rich	431 I Street, Suite 202	Sacramento
Modern Transit Society	Richard Tolmach	1730 13th Street	Sacramento
NAAG / ECOS	Ken Wemmer	500 N Street, #1209	Sacramento
NAG	Thomas J. Prittie	2526 I Street, # 104	Sacramento
Neighborhood Area Advisory Group (NAAG)	George Raya	P.O. Box 161851	Sacramento
New Era Park Neighborhood Association	Susan Moe	P.O. Box 161662	Sacramento
Nolte & Associates, Inc.	William Ishmael	1750 Creekside Oaks Dr., Ste. 200	Sacramento
Nolte & Associates, Inc.	Ivan Gennis	1750 Creekside Oaks Dr., Ste. 200	Sacramento
Nolte & Associates, Inc.	Sean Smith	1750 Creekside Oaks Dr., Ste. 200	Sacramento

Old City Guardian	Brooks Truitt	1504 Q Street	Sacramento
Old Sacramento Business Association	Executive Director	1002 2nd Street, Suite 200	Sacramento
Old Sacramento Management Board	Ed Astone	1111 2nd Street, #300	Sacramento
Olson Hagel & Fishburn	Lance Olson	555 Capitol Mall, #1425	Sacramento
PG&E Land Develolpment Division	Steven B. Jones	343 Sacramento Street	Auburn
Platinum Parking	Rob Noiles / Seth De La Riva	P.O. Box 1042	Sacramento
Regional Rail (Placer Co. Transportation Pla	Celia McAdam	11414 B Avenue	Auburn
Ridership for the Masses	Barbara Stanton	1649 Kathleen Avenue	Sacramento
River Park Neighborhood Assn.	Dave O'Toole	P.O. Box 19866	Sacramento
SACOG	Olin Woods	1415 L Street, Suite 300	Sacramento
SACOG	Greg Chew	1415 L Street, Suite 300	Sacramento
SACOG	Mike Mckeever	1415 L Street, Suite 300	Sacramento
Sacramento Area Bicycle Advocates	Walt Seifert	909 12th Street, Suite 114	Sacramento
Sacramento County EMD	Mel Knight	8475 Jackson Road, Suite 230/240	Sacramento
Sacramento County Planning	Dave Pevney	827 7th Street, Room 230	Sacramento
Sacramento County PW, Water Quality Div.	John Boehm	9660 Ecology Lane	Sacramento
Sacramento County PW, Transportation Div.	Jeff Clark	906 G Street, Suite 510	Sacramento
SAFCA	Pete Ghelfi	1007 7th Street, 7th Floor	Sacramento
Sacramento County Neighborhood Alliance	Mary Brill	P.O. Box 22898	Sacramento
Sacramento County Alliance of Neighborhoods		P.O. Box 191257	Sacramento
Sacramento ENRICHES	Peggy Tapping	8928 Volunteer Lane, #210	Sacramento
Sacramento Heritage		1415 38th Street	Sacramento
Sacramento Metropolitan Chamber of Comm	Dave Butler / Darin Gale	917 7th Street	Sacramento
Sacramento Old City Association (SOCA)	Linda Whitney	P.O. Box 162140	Sacramento
Sacramento Old City Association (SOCA)	Brooks Truitt	1504 Q Street	Sacramento
Sacramento Regional Transit	Planning Manager	P.O. Box 2110	Sacramento
Sacramento Regional Transit	Mike Wiley	1400 29th Street	Sacramento
Sacramento Transportation Equity Network (	Alan Hirsch	3850 San Ysidro Way	Sacramento
Sacramento Transportation Management As	Marilyn Bryant	917 7th Street	Sacramento
San Joaquin Regional Transit District	Dona Kelsay	1533 East Lindsay Street	Stockton
Save Our Rail Depot Coalition	Kay Knepprath	2620 P Street	Sacramento
Save Our Rail Depot Coalition	Roxanne Miller	1400 K Street, Suite 315	Sacramento
SBC	Cheryl Summers	3675 T Street, Room 111	Sacramento
SCUSD	M. Magdalena Carrillo Mejia, Ph.D	5735 - 47th Avenue	Sacramento
SCUSD	Jim Dobson	425 1st Street	Sacramento
SHRA	Chris Erias	600 I Street, Ste. 250	Sacramento
SMAQMD	Jeane Borkenhagen	777 12th Street, 3rd Floor	Sacramento

SMUD	Land Development MSB304	P.O. Box 15830	Sacramento
SRCSD		10545 Armstrong Avenue	Mather
Solano Transportation Authority	Daryl Halls	One Harbor Center, Suite 130	Suisun City
Thomas Enterprises, Inc.	Leslie G. Valpey	431 I Street, Suite 202	Sacramento
Train Riders Association of California (TRAC	Alan Miller	926 J Street, Suite 612	Sacramento
U.S. Army Corps of Engineers	Will Ness	1325 J Street	Sacramento
U.S. District Court Eastern District	Jack Wagner, Court Clerk	501 I Street	Sacramento
U.S. District Court Eastern District	Judge Kim Mueller	501 I Street, Floor 8	Sacramento
U.S. District Court	Lance Olson	555 Capitol Mall, #1425	Sacramento
U.S. House of Representatives, Office of Co	Anne Sanger	501 I Street, Suite 16-600	Sacramento
Union Pacific Railroad	Mike Casey	1215 K Street, Floor 17	Sacramento
Union Pacific Railroad	Jim Levy	915 L Street, Suite 1230	Sacramento
Union Pacific Railroad	Jerry Wilmoth / Gary Riddle	9451 Atkinson Street, Suite 100	Roseville
USMS	Todd Guendert	501 I Street	Sacramento
Valley Center NA	Vickey Scott	6766 Hollyhurst Drive	Sacramento
Valley Vision	Susan Frazier	1900 S Street	Sacramento
Walk Sacramento	Renee Spain	909 12th Street	Sacramento
Yellow Cab Company	Frederick Pleines Jr.	900 Richards Blvd.	Sacramento
Yolo County Transportation Department	Martie Dote	350 Industrial Way	Woodland
Yolo County Transportation Department	Terry Bassett	350 Industrial Way	Woodland
	Andrea Rosen	2226 Portola Way	Sacramento
	Kenny Smith	3178 T Street	Sacramento
	Dan Franklin	415 11th Street, #1	Sacramento
	Ameen Khan	501 I Street, Suite 12-600	Sacramento
	Richard Judd	P.O. Box 521	El Dorado
	Warren Cushman	2445 Wyda Way, Apt. 3	Sacramento
	Tim Morgan	714 P Street, #216	Sacramento
	Jeremy Moats	800 D Street, #7	Sacramento
	Sue Stack	14298 Edgehill Lane	Auburn
	Bill Grant	600 I Street	Sacramento
	J.J. Jacobs	1722 3rd Street	Sacramento
	B. Huang	333 J Street, #716	Sacramento
	Randy Owen	820 E Street	Sacramento
	Yuanhe Sun	333 J Street, Apt. 520	Sacramento
	George Lawson	1209 El Toro Way	Sacramento
	Joe Ortiz	190 Redondo Avenue	Sacramento
	Gladys Bell	2 Cinder Court	Sacramento

Adolfo Mercado	2110 Broadway	Sacramento
Richard Wilson	2604 27th Street	Sacramento
Sharon Patrician	3633 57th Street	Sacramento
Keith Smith	3805 61st Street	Sacramento
Janet Myles	3903 Bartley Drive	Sacramento
Emily Nahat	501 J Street, #530	Sacramento
Jackie Thompson	515 P Street, #512	Sacramento
Joanne Solov	5737 Raybel Avenue	Sacramento
Linda Hawkins	606 Lyndhurst Avenue	Roseville
Cathy Winkleman	6111 16th Avenue	Sacramento
Alia Youdell	7110 Gloria Drive, #66	Sacramento
Steve Argonza	725 Howe Avenue, #96	Sacramento
Carl Frazier	812 Fremont Way	Sacramento

EIP Associates
Attn: Brian Boxer
1200 Second St., Ste. 200
Sacramento, CA 95814

SMAQMD
Attn: Jeanne Borkenhagen
777 12th Street, 3rd Floor
Sacramento, CA 95814

NOP RAILYARDS
March 10, 2006

CERTIFIED MAILING LIST

State of California DOT (Caltrans) Dist 3
Office of Transportation Planning /SW
c/o Bruce DeTerra MS-15
PO Box 942874
Sacramento, CA 94274-0001

Office of Historic Preservation
California Dept. of Parks & Recreation
Milford Wayne Donaldson, FAIA, SHPO
P.O. Box 942896
Sacramento, CA 94296-0001

Caltrans Rail
Bill Bronte, Director
1120 N Street
Sacramento, CA 95814

CA Department of Fish & Game
1701 Nimbus Road
Rancho Cordova, CA 95670

Dept. of Toxic Substance Control
Attn: Susan Goss
8800 Cal Center Drive
Sacramento, CA 95826-3200

CA State Reclamation Board
P.O. Box 942836
Sacramento, CA 94236

Public Utilities Commission
Sacramento Office
770 "L" Street, Ste. 1050
Sacramento, CA 95814

CA State Lands Commission
Sacramento Office
Paul D. Thayer
100 Howe Ave Suite 100 South
Sacramento, CA 95825-8202

Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

AGENCY	NAME	ADDRESS	CITY	STATE	ZIP
	106 J State Llc	2728 J St C	Sacramento	CA	95816
	1215 D St A Ltd Partnership	2805 H St	Sacramento	CA	95816
	12th Street Collaborative For Montessori Education	414 12th St	Sacramento	CA	95814
City of Folsom - Planning Services	2nd Floor City Hall Building	50 Natoma Street	Folsom	CA	95630
	301 Capitol Mall Associates L P	4378 Auburn Bl 300	Sacramento	CA	95841
	428 Associates Limited Partnership	8739 Research Dr	Charlotte	NC	28262
	520 Ninth St	520 9th St	Sacramento	CA	95814
	700 E Street Building Partnership	700 E St	Sacramento	CA	95814
	928 2nd State Llc	1015 27th St	Sacramento	CA	95816
	928 2nd State Llc	200 P St D33	Sacramento	CA	95814
Acanthus	Adam Kringel / Brent Thrams	1723 J Street	Sacramento	CA	95814
	Adolfo Mercado	2110 Broadway	Sacramento	CA	95818
	Ak Autosport Property Llc	1501 El Camino Ave 1	Sacramento	CA	95815
Towe Auto Museum	Al Buescher	2200 Front Street	Sacramento	CA	95818
Archstone-Smith	Al Durkovic	One Spectrum Pointe Drive, Suite 225	Lake Forest	CA	92630
	Alan C/Carolyn E Markis Revocable Living Trust	10 Park Sierra Ln	Sacramento	CA	95864
Sacramento Transportation Equity Network (SACTE	Alan Hirsch	3850 San Ysidro Way	Sacramento	CA	95864
Train Riders Association of California (TRAC)	Alan Miller	926 J Street, Suite 612	Sacramento	CA	95814
Train Riders Association of California (TRAC)	Alan Miller	1008 10th Street, # 276	Sacramento	CA	95814
Train Riders Association of California (TRAC)	Alan Miller	PMB 276, 1008 10th Street	Sacramento	CA	95814
	Albert Dossman Trust	119 Deville St	Ville Platte	LA	70586
	Albert Dossman Trust	119 Deville St	Ville Platte	LA	70586
	Alex Kelter MD	6485 Longridge Way	Sacramento	CA	95831
	Alexander B/Rachel E Allen Trust	P O Box 15707	Sacramento	CA	95852
	Alfonso Avila	400 8th Street	Sacramento	CA	95814
	Alia Youdell	7110 Gloria Drive, #66	Sacramento	CA	95831
Caltrans, District 3	Alyssa Begley	P.O. Box 942874	Sacramento	CA	94273-0001
Caltrans District 3	Alyssa Begley	P.O. Box 942874	Sacramento	CA	95838
	Ameen Khan	501 I Street, Suite 12-600	Sacramento	CA	95814
	Amy van Riessen	3323 Watt Avenue, #279	Sacramento	CA	95821
Diepenbrock Harrison	Andrea Matarazzo	400 Capitol Mall, Suite 1800	Sacramento	CA	95814
	Andrea Rosen	2226 Portola Way	Sacramento	CA	95818
	Anne Marie Jennings Trust	2321 H St	Sacramento	CA	95816
U.S. House of Representatives, Office of Congrewo	Anne Sanger	501 I Street, Suite 16-600	Sacramento	CA	95814
	Anspach C/Etal(R M Surfield/Etal)	1012 2nd St	Sacramento	CA	95814
Amtrak	Anthony Chapa / Gregg Baxter	401 I Street	Sacramento	CA	95814
	Anthony/Cindy G Oropeza 1993 Revocable Trust	609 San Miguel Wy	Sacramento	CA	95819
	Atrium Finance I Lp	152 W 57th St	New York	NY	10023
	Avila Manuel A	400 8th St	Sacramento	CA	95814
	B. Huang	333 J Street, #716	Sacramento	CA	95814
League of Women Voters of Sacramento	Barbara Hopkins	3427 Hunnicut Lane	Sacramento	CA	95821
Ridership for the Masses	Barbara Stanton	1649 Kathleen Avenue	Sacramento	CA	95815
	Barry Wasserman	6456 Fordham Way	Sacramento	CA	95831
	Bautista Keiko K/George N	9235 Carla Wy	Sacramento	CA	95826

	Beale Family Living Trust	3000 Dorlaine Ct	Sacramento	CA	95821
	Bercut Richard Packing Co	N B St	Sacramento	CA	95814
	Berry Arnold R	418 8th St	Sacramento	CA	95814
Folsom, El Dorado and Sacramento Historical Railr	Bill Anderson	198 Wool Street	Folsom	CA	95630
Caltrans, Director of Rail	Bill Bronte	1120 N Street	Sacramento	CA	95814
Marshall School Neighborhood Association	Bill Burgua	P.O. Box 19043	Sacramento	CA	95819
	Bill Grant	600 I Street	Sacramento	CA	95814
Greyhound	Bill Lewis / Chris Brooks	715 L Street	Sacramento	CA	95814
	Bing Kong Tong Of Sacramento	918 5th St	Sacramento	CA	95814
	Bj Enterprises L P/C/W Trust/Etal	1015 27th St	Sacramento	CA	95816
SCU Cibsulting Group	Blair Aas	4745 Mangels Blvd.	Sacramento	CA	94534
SCI Consulting Group	Blair E. Aas	2300 Boynton Avenue, Suite	Sacramento	CA	94533
Winn Park Capitol Avenue Neighborhood Association	Board of Directors	P.O. Box 162555	Sacramento	CA	95816-2555
Volunteer Station Host Assn. Of CA	Bob Koski	401 Dunbarton Circle	Sacramento	CA	95816
	Bowman/Bay Building Joint Venture	901 H St 401	Sacramento	CA	95814
EIP	Brian Boxer	1200 2nd Street, Suite 200	Sacramento	CA	95814
Old City Guardian	Brooks Truitt	1504 Q Street	Sacramento	CA	95814
Sacramento Old City Association (SOCA)	Brooks Truitt	1504 Q Street	Sacramento	CA	95814
	Brown Shirley A	405 11th St	Sacramento	CA	95814
Friends of H Street	Bruce Ansell	3322 H Street	Sacramento	CA	95816
Caltrans	Bruce De Terra	2389 Gateway Oaks Drive	Sacramento	CA	95833
Colliers International	Buz Miller	700 51st Street	Sacramento	CA	95819
	C/J Family Trust	3732 T St	Sacramento	CA	95816
	C/J Warehouse	1330 North B St	Sacramento	CA	95814
	C/J Warehouse	P O Bx 308	Sacramento	CA	95812
	California Fruit Building Co	1006 4th St 210	Sacramento	CA	95814
	Camacho Julian/Catherine	517 8th St	Sacramento	CA	95814
	Cameron James W Jr	629 J St	Sacramento	CA	95814
	Capitol Investments/Projects Limited Partnership	170 Audubon Cir	Sacramento	CA	95831
	Capitol Landing Partners Llc	350 Menard Cir	Sacramento	CA	95835
	Carl Frazier	812 Fremont Way	Sacramento	CA	95818
Caltrans, District 3 Project Manager	Carlos Portillo	P.O. Box 911	Marysville	CA	95901-0911
	Carlota Gutierrez	810 T Street	Sacramento	CA	95814
	Carlson Gloria	316 13th St	Sacramento	CA	95814
State Reclamation Board	Carol Calton	P.O. Box 942836	Sacramento	CA	94236
High Speed Rail	Carrie Pourvahidi	925 L Street, Suite 1425	Sacramento	CA	95814
Alkali Flat P.A.C.	Catherine Camacho	517 8th Street	Sacramento	CA	95814
	Catherine Moults	2026 Capitol Ave	Sacramento	CA	95814
CA State Parks	Cathy Taylor	111 I Street	Sacramento	CA	95814
California State Railroad Museum	Cathy Taylor / Robert Baxter	111 "I" Street	Sacramento	CA	95814
	Cathy Winkleman	6111 16th Avenue	Sacramento	CA	95820
Remy, Thomas, Moose & Manley	Catrina Fobian	455 Capitol Mall, Suite 210	Sacramento	CA	95814
	Ccaa Partners Llc/Bruce W Bell/Etal	1801 I St 202	Sacramento	CA	95814
Regional Rail (Placer Co. Transportation Planning)	Celia McAdam	11414 B Avenue	Auburn	CA	95603
Sacramento History and Science Commission	Chairperson	551 Sequoia Pacific Blvd.	Sacramento	CA	95814
	Chase Merritt Sacramento I Llc	660 Newporter Wy 1240	Newport Beach	CA	92660

SBC (Pac Bell)	Cheryl Summers	3675 T Street Room 111	Sacramento	CA	95816
	Chester E Flint Family Trust	1644 Main Av 1	Sacramento	CA	95838
	Choi Byong Rok/Kyung Sook	7915 Shelborne Dr	Granite Bay	CA	95746
20th Street Neighborhood Association	Chris Brown	2005 Capitol Avenue	Sacramento	CA	95814
SHRA	Chris Erias	600 I Street, Ste. 250	Sacramento	CA	95814
Rainforth Gran Architects	Chris Lovin	2327 C St.	Sacramento	CA	95816
	Chris Richtsmeier	200 P Street, #B14	Sacramento	CA	95814
	Christopher H Wing Apc Profit Sharing Plan/Trust	1101 E St	Sacramento	CA	95814
	Church Scientology Sacramento	825 15th St	Sacramento	CA	95814
	Cindy Anderson	5350 Dunlay Drive, #115	Sacramento	CA	95835
SHRA	Cindy Cavanaugh	600 I Street, Suite 250	Sacramento	CA	95814
	City Of Sacramento	101 J St	Sacramento	CA	95814
	City Of Sacramento	1416 9th St 425	Sacramento	CA	95814
	City Of Sacramento	5730 24th St 4	Sacramento	CA	95822
	City Of Sacramento	915 I St 200	Sacramento	CA	95814
	City Of Sacramento	915 I St 301	Sacramento	CA	95814
	City Of Sacramento	915 I St 5th	Sacramento	CA	95814
	City Of Sacramento	P O Bx 3011	Sacramento	CA	95812
US Corp of Engineers	Col John Reese	1325 J Street	Sacramento	CA	95814
	Colins Jacobo/Maria	3600 Downey Wy	Sacramento	CA	95817
	COMCAST	547 L Street	Sacramento	CA	95814
West Sacramento	Community Development Department	1110 West Capitol Avenue	West Sacramento	CA	95691
City of Davis	Community Development Dept.	23 Russell Blvd.	Davis	CA	95616
	Community Housing Opportunities C	1490 Drew Av	Davis	CA	95618
	Community Housing Opportunities C	1490 Drew Av 160	Davis	CA	95618
	Conf Ch Of Sacto	Po Box 188053	Sacramento	CA	95831
Agency	**Contact**	**Address**	**City**	**State**	**Zip**
	Cook Robert C	1108 2nd St	Sacramento	CA	95814
	Corcos Family Trust	4780 Lakeside Wy	Fair Oaks	CA	95628
	Cotton Edward	1115 F St	Sacramento	CA	95814
	County Of Sacramento	10545 Armstrong Av 201c	Mather	CA	95655
	County Of Sacramento	10545 Armstrong Av 202d	Mather	CA	95655
	County Of Sacramento	609 9th St	Sacramento	CA	95814
	County Of Sacramento	6th St	Sacramento	CA	95814
	County Of Sacramento	700 H St	Sacramento	CA	95814
	County Of Sacramento	10545 Armstrong Av 201c	Mather	CA	95655
	County Of Sacramento	609 9th St	Sacramento	CA	95814
	County Of Sacramento	700 H St	Sacramento	CA	95814
	County Of Sacramento -	730 I St	Sacramento	CA	95814
	Cox John W/Cheryl L	950 Richards Bl	Sacramento	CA	95814
	Crystal Cream/Butter Co	1001 C St	Sacramento	CA	95814
	Crystal Cream/Butter Co	P O Box 1313	Sacramento	CA	95812
	Crystal Cream/Butter Co	1001 C St	Sacramento	CA	95814
	Cuellar Rodolfo O	1212 D St	Sacramento	CA	95814
CA State Lands Commission	Curtis Fossum	100 Howe Ave., Ste. 100 South	Sacramento	CA	95825
	Cynthia Anderson	5350 Dunlay Drive #115	Sacramento	CA	95835

	D/S Development Inc	1329 H St	Sacramento	CA	95814
	Dail Hiller	730 E Street	Sacramento	CA	95814
Boulevard Park Neighborhood Association	Dale Kooyman	801 21st Street	Sacramento	CA	95814
Alkali-Mansion Neighborhood Assn	Dan Frankfield	415 11th Street, #1	Sacramento	CA	95814
	Dan Franklin	415 11th Street, #1	Sacramento	CA	95814
Alkali Flate Neighborhood Improvement Assn.	Dan Hood	630 I Street, Suite 250	Sacramento	CA	95814
Alkali Flat NIA	Dan Hood	1029 F Street	Sacramento	CA	95814
Downtown Sacramento Partnership	Danielle del'Etoile	900 J Street, #200	Sacramento	CA	95814
Amtrak Bus and Rail	Darrell Johnson	530 Water Street, Floor 5	Oakland	CA	94607
Solano Transportation Authority	Daryl Halls	One Harbor Center, Suite 1	Suisun City	CA	94585
Sacramento Metropolitan Chamber of Commerce	Dave Butler / Darin Gale	917 7th Street	Sacramento	CA	95814
West Midtown Neighborhood Association	Dave Jenet	1818 H Street	Sacramento	CA	95814
Emanuel Jones & Associates	Dave Jones	1400 K Street, Suite 306	Sacramento	CA	95814
River Park Neighborhood Assn.	Dave O'Toole	P.O. Box 19866	Sacramento	CA	95819
Sacramento County Planning	Dave Pevney	827 7th Street, Room 230	Sacramento	CA	95814
Sims Hugo Nev	Dave Rogers	130 N. 12th St.	Sacramento	CA	95814
Thomas Enterprises / Jerde Partnership	David Taylor	1201 K Street, Suite 1840	Sacramento	CA	95814
	Dear Business Owner	1000 2nd St	Sacramento	CA	95814
	Dear Business Owner	1000 4th St	Sacramento	CA	95814
	Dear Business Owner	1001 2nd St	Sacramento	CA	95814
	Dear Business Owner	1001 6th St	Sacramento	CA	95814
	Dear Business Owner	1001 E St	Sacramento	CA	95814
	Dear Business Owner	1001 Front St	Sacramento	CA	95814
	Dear Business Owner	1005 2nd St	Sacramento	CA	95814
	Dear Business Owner	1005 N B St	Sacramento	CA	95814
	Dear Business Owner	1006 4th St	Sacramento	CA	95814
	Dear Business Owner	1007 6th St	Sacramento	CA	95814
	Dear Business Owner	1008 2nd St	Sacramento	CA	95814
	Dear Business Owner	1009 2nd St	Sacramento	CA	95814
	Dear Business Owner	101 K St	Sacramento	CA	95814
	Dear Business Owner	1010 5th St	Sacramento	CA	95814
	Dear Business Owner	1011 E St	Sacramento	CA	95814
	Dear Business Owner	1012 2nd St	Sacramento	CA	95814
	Dear Business Owner	1012 D St	Sacramento	CA	95814
	Dear Business Owner	1013 2nd St	Sacramento	CA	95814
	Dear Business Owner	1013 D St	Sacramento	CA	95814
	Dear Business Owner	1013 Front St	Sacramento	CA	95814
	Dear Business Owner	1014 2nd St	Sacramento	CA	95814
	Dear Business Owner	1014 C St	Sacramento	CA	95814
	Dear Business Owner	1015 2nd St	Sacramento	CA	95814
	Dear Business Owner	1015 Front St	Sacramento	CA	95814
	Dear Business Owner	1017 2nd St	Sacramento	CA	95814
	Dear Business Owner	1017 Front St	Sacramento	CA	95814
	Dear Business Owner	1019 2nd St	Sacramento	CA	95814
	Dear Business Owner	1019 Front St	Sacramento	CA	95814
	Dear Business Owner	1020 7th St	Sacramento	CA	95814
	Dear Business Owner	1020 N D St	Sacramento	CA	95814

Dear Business Owner	1021 2nd St	Sacramento	CA	95814
Dear Business Owner	1021 Front St	Sacramento	CA	95814
Dear Business Owner	1023 2nd St	Sacramento	CA	95814
Dear Business Owner	1023 Front St	Sacramento	CA	95814
Dear Business Owner	1025 2nd St	Sacramento	CA	95814
Dear Business Owner	1025 3rd St	Sacramento	CA	95814
Dear Business Owner	1025 Front St	Sacramento	CA	95814
Dear Business Owner	1027 2nd St	Sacramento	CA	95814
Dear Business Owner	1028 2nd St	Sacramento	CA	95814
Dear Business Owner	1031 Front St	Sacramento	CA	95814
Dear Business Owner	1039 2nd St	Sacramento	CA	95814
Dear Business Owner	106 J St	Sacramento	CA	95814
Dear Business Owner	1075 3rd St	Sacramento	CA	95814
Dear Business Owner	109 K St	Sacramento	CA	95814
Dear Business Owner	1100 Front St	Sacramento	CA	95814
Dear Business Owner	1101 E St	Sacramento	CA	95814
Dear Business Owner	1102 Front St	Sacramento	CA	95814
Dear Business Owner	1103 N B St	Sacramento	CA	95814
Dear Business Owner	1104 Front St	Sacramento	CA	95814
Dear Business Owner	1105 E St	Sacramento	CA	95814
Dear Business Owner	1106 N D St	Sacramento	CA	95814
Dear Business Owner	111 I St	Sacramento	CA	95814
Dear Business Owner	111 K St	Sacramento	CA	95814
Dear Business Owner	1110 Front St	Sacramento	CA	95814
Dear Business Owner	1112 C St	Sacramento	CA	95814
Dear Business Owner	1112 D St	Sacramento	CA	95814
Dear Business Owner	1112 Front St	Sacramento	CA	95814
Dear Business Owner	1114 C St	Sacramento	CA	95814
Dear Business Owner	1115 E St	Sacramento	CA	95814
Dear Business Owner	1116 D St	Sacramento	CA	95814
Dear Business Owner	112 J St	Sacramento	CA	95814
Dear Business Owner	1123 D St	Sacramento	CA	95814
Dear Business Owner	1124 D St	Sacramento	CA	95814
Dear Business Owner	1129 D St	Sacramento	CA	95814
Dear Business Owner	113 K St	Sacramento	CA	95814
Dear Business Owner	1131 C St	Sacramento	CA	95814
Dear Business Owner	114 J St	Sacramento	CA	95814
Dear Business Owner	1140 Front St	Sacramento	CA	95814
Dear Business Owner	115 K St	Sacramento	CA	95814
Dear Business Owner	116 I St	Sacramento	CA	95814
Dear Business Owner	117 J St # 203	Sacramento	CA	95814
Dear Business Owner	117 J St # 301	Sacramento	CA	95814
Dear Business Owner	117 K St	Sacramento	CA	95814
Dear Business Owner	118 I St	Sacramento	CA	95814
Dear Business Owner	1198 Front St	Sacramento	CA	95814
Dear Business Owner	120 J St	Sacramento	CA	95814
Dear Business Owner	1201 C St	Sacramento	CA	95814

Dear Business Owner	1206 C St	Sacramento	CA	95814
Dear Business Owner	121 J St	Sacramento	CA	95814
Dear Business Owner	121 K St	Sacramento	CA	95814
Dear Business Owner	1211 C St	Sacramento	CA	95814
Dear Business Owner	1212 D St	Sacramento	CA	95814
Dear Business Owner	1215 C St	Sacramento	CA	95814
Dear Business Owner	1217 C St	Sacramento	CA	95814
Dear Business Owner	1218 C St	Sacramento	CA	95814
Dear Business Owner	1219 C St	Sacramento	CA	95814
Dear Business Owner	122 I St	Sacramento	CA	95814
Dear Business Owner	122 J St	Sacramento	CA	95814
Dear Business Owner	1225 D St	Sacramento	CA	95814
Dear Business Owner	1226 N B St	Sacramento	CA	95814
Dear Business Owner	1228 N B St	Sacramento	CA	95814
Dear Business Owner	123 J St	Sacramento	CA	95814
Dear Business Owner	1236 C St	Sacramento	CA	95814
Dear Business Owner	1239 D St	Sacramento	CA	95814
Dear Business Owner	124 J St	Sacramento	CA	95814
Dear Business Owner	126 J St	Sacramento	CA	95814
Dear Business Owner	1270 N B St	Sacramento	CA	95814
Dear Business Owner	128 J St	Sacramento	CA	95814
Dear Business Owner	1301 C St	Sacramento	CA	95814
Dear Business Owner	131 K St	Sacramento	CA	95814
Dear Business Owner	1310 C St	Sacramento	CA	95814
Dear Business Owner	1313 C St	Sacramento	CA	95814
Dear Business Owner	1317 C St	Sacramento	CA	95814
Dear Business Owner	1317 N B St	Sacramento	CA	95814
Dear Business Owner	1320 N C St	Sacramento	CA	95814
Dear Business Owner	1330 N B St	Sacramento	CA	95814
Dear Business Owner	1331 C St	Sacramento	CA	95814
Dear Business Owner	1375 Garden Hwy	Sacramento	CA	95833
Dear Business Owner	1400 N B St	Sacramento	CA	95814
Dear Business Owner	1400 N C St	Sacramento	CA	95814
Dear Business Owner	1401 C St	Sacramento	CA	95814
Dear Business Owner	200 11th St	Sacramento	CA	95814
Dear Business Owner	200 J St	Sacramento	CA	95814
Dear Business Owner	200 N 12th St	Sacramento	CA	95814
Dear Business Owner	201 14th St	Sacramento	CA	95814
Dear Business Owner	201 N 12th St	Sacramento	CA	95814
Dear Business Owner	210 13th St	Sacramento	CA	95814
Dear Business Owner	210 Dos Rios St	Sacramento	CA	95814
Dear Business Owner	210 N 12th St	Sacramento	CA	95814
Dear Business Owner	211 11th St	Sacramento	CA	95814
Dear Business Owner	211 N 12th St	Sacramento	CA	95814
Dear Business Owner	212 11th St	Sacramento	CA	95814
Dear Business Owner	212 13th St	Sacramento	CA	95814
Dear Business Owner	213 13th St	Sacramento	CA	95814

Dear Business Owner	215 14th St	Sacramento	CA	95814
Dear Business Owner	218 11th St	Sacramento	CA	95814
Dear Business Owner	220 11th St	Sacramento	CA	95814
Dear Business Owner	231 12th St	Sacramento	CA	95814
Dear Business Owner	241 N 10th St	Sacramento	CA	95814
Dear Business Owner	250 Dos Rios St	Sacramento	CA	95814
Dear Business Owner	255 Dos Rios St	Sacramento	CA	95814
Dear Business Owner	260 Bannon St	Sacramento	CA	95814
Dear Business Owner	270 Bannon St	Sacramento	CA	95814
Dear Business Owner	3 Television Cir	Sacramento	CA	95814
Dear Business Owner	300 12th St	Sacramento	CA	95814
Dear Business Owner	300 J St	Sacramento	CA	95814
Dear Business Owner	300 N 12th St	Sacramento	CA	95814
Dear Business Owner	300 N 7th St	Sacramento	CA	95814
Dear Business Owner	301 N 10th St	Sacramento	CA	95814
Dear Business Owner	301 N 10th St	Sacramento	CA	95814
Dear Business Owner	304 N 12th St	Sacramento	CA	95814
Dear Business Owner	307 N 10th St	Sacramento	CA	95814
Dear Business Owner	308 14th St	Sacramento	CA	95814
Dear Business Owner	310 10th St	Sacramento	CA	95814
Dear Business Owner	310 10th St	Sacramento	CA	95814
Dear Business Owner	314 12th St	Sacramento	CA	95814
Dear Business Owner	315 12th St	Sacramento	CA	95814
Dear Business Owner	315 N 10th St	Sacramento	CA	95814
Dear Business Owner	318 12th St	Sacramento	CA	95814
Dear Business Owner	325 N 5th St	Sacramento	CA	95814
Dear Business Owner	325 N 7th St	Sacramento	CA	95814
Dear Business Owner	325 N 7th St	Sacramento	CA	95814
Dear Business Owner	333 N 7th St	Sacramento	CA	95814
Dear Business Owner	360 N 10th St	Sacramento	CA	95814
Dear Business Owner	400 J St	Sacramento	CA	95814
Dear Business Owner	400 K St	Sacramento	CA	95814
Dear Business Owner	401 I St	Sacramento	CA	95814
Dear Business Owner	401 J St	Sacramento	CA	95814
Dear Business Owner	406 11th St	Sacramento	CA	95814
Dear Business Owner	410 12th St	Sacramento	CA	95814
Dear Business Owner	410 N 10th St	Sacramento	CA	95814
Dear Business Owner	414 K St	Sacramento	CA	95814
Dear Business Owner	415 H St	Sacramento	CA	95814
Dear Business Owner	419 J St	Sacramento	CA	95814
Dear Business Owner	424 11th St	Sacramento	CA	95814
Dear Business Owner	425 I St	Sacramento	CA	95814
Dear Business Owner	425 J St	Sacramento	CA	95814
Dear Business Owner	426 10th St # 30	Sacramento	CA	95814
Dear Business Owner	428 J St	Sacramento	CA	95814
Dear Business Owner	428 N B St	Sacramento	CA	95814
Dear Business Owner	429 J St	Sacramento	CA	95814

Dear Business Owner	431 I St	Sacramento	CA	95814
Dear Business Owner	431 I St Ste 202	Sacramento	CA	95814
Dear Business Owner	450 K St	Sacramento	CA	95814
Dear Business Owner	455 Bannon St	Sacramento	CA	95814
Dear Business Owner	500 9th St	Sacramento	CA	95814
Dear Business Owner	500 I St	Sacramento	CA	95814
Dear Business Owner	501 I St	Sacramento	CA	95814
Dear Business Owner	501 J St	Sacramento	CA	95814
Dear Business Owner	501 N B St	Sacramento	CA	95814
Dear Business Owner	510 9th St	Sacramento	CA	95814
Dear Business Owner	515 9th St Apt D	Sacramento	CA	95814
Dear Business Owner	517 9th St	Sacramento	CA	95814
Dear Business Owner	520 9th St	Sacramento	CA	95814
Dear Business Owner	520 9th St Ste 100	Sacramento	CA	95814
Dear Business Owner	526 J St	Sacramento	CA	95814
Dear Business Owner	545 K St	Sacramento	CA	95814
Dear Business Owner	547 L St	Sacramento	CA	95814
Dear Business Owner	547 L St Ste 1066e	Sacramento	CA	95814
Dear Business Owner	570 K St	Sacramento	CA	95814
Dear Business Owner	579 K St	Sacramento	CA	95814
Dear Business Owner	600 8th St	Sacramento	CA	95814
Dear Business Owner	600 I St Ste 100	Sacramento	CA	95814
Dear Business Owner	600 J St	Sacramento	CA	95814
Dear Business Owner	601 I St	Sacramento	CA	95814
Dear Business Owner	601 J St	Sacramento	CA	95814
Dear Business Owner	615 7th St	Sacramento	CA	95814
Dear Business Owner	615 9th St	Sacramento	CA	95814
Dear Business Owner	616 8th St	Sacramento	CA	95814
Dear Business Owner	627 7th St	Sacramento	CA	95814
Dear Business Owner	630 J St	Sacramento	CA	95814
Dear Business Owner	631 J St	Sacramento	CA	95814
Dear Business Owner	631 N B St	Sacramento	CA	95814
Dear Business Owner	650 J St	Sacramento	CA	95814
Dear Business Owner	650 K St	Sacramento	CA	95814
Dear Business Owner	700 H St	Sacramento	CA	95814
Dear Business Owner	701 E St	Sacramento	CA	95814
Dear Business Owner	701 F St	Sacramento	CA	95814
Dear Business Owner	701 J St	Sacramento	CA	95814
Dear Business Owner	703 J St	Sacramento	CA	95814
Dear Business Owner	705 9th St	Sacramento	CA	95814
Dear Business Owner	705 F St	Sacramento	CA	95814
Dear Business Owner	707 1/2 J St	Sacramento	CA	95814
Dear Business Owner	707 J St	Sacramento	CA	95814
Dear Business Owner	710 E St	Sacramento	CA	95814
Dear Business Owner	711 E St	Sacramento	CA	95814
Dear Business Owner	711 G St	Sacramento	CA	95814
Dear Business Owner	711 J St	Sacramento	CA	95814

Dear Business Owner	713 9th St	Sacramento	CA	95814
Dear Business Owner	715 6th St	Sacramento	CA	95814
Dear Business Owner	715 9th St	Sacramento	CA	95814
Dear Business Owner	715 E St	Sacramento	CA	95814
Dear Business Owner	719 1/2 J St	Sacramento	CA	95814
Dear Business Owner	719 G St	Sacramento	CA	95814
Dear Business Owner	719 J St	Sacramento	CA	95814
Dear Business Owner	720 9th St	Sacramento	CA	95814
Dear Business Owner	721 9th St	Sacramento	CA	95814
Dear Business Owner	721 G St	Sacramento	CA	95814
Dear Business Owner	721 J St	Sacramento	CA	95814
Dear Business Owner	721 N B St	Sacramento	CA	95814
Dear Business Owner	723 9th St	Sacramento	CA	95814
Dear Business Owner	723 E St	Sacramento	CA	95814
Dear Business Owner	723 J St	Sacramento	CA	95814
Dear Business Owner	725 J St	Sacramento	CA	95814
Dear Business Owner	727 1/2 J St	Sacramento	CA	95814
Dear Business Owner	727 J St	Sacramento	CA	95814
Dear Business Owner	729 J St	Sacramento	CA	95814
Dear Business Owner	731 J St	Sacramento	CA	95814
Dear Business Owner	799 G St	Sacramento	CA	95814
Dear Business Owner	800 10th St	Sacramento	CA	95814
Dear Business Owner	800 9th St	Sacramento	CA	95814
Dear Business Owner	801 H St	Sacramento	CA	95814
Dear Business Owner	801 J St	Sacramento	CA	95814
Dear Business Owner	809 8th St	Sacramento	CA	95814
Dear Business Owner	813 6th St	Sacramento	CA	95814
Dear Business Owner	816 D St # 13	Sacramento	CA	95814
Dear Business Owner	816 H St	Sacramento	CA	95814
Dear Business Owner	817 E St # 1	Sacramento	CA	95814
Dear Business Owner	819 F St	Sacramento	CA	95814
Dear Business Owner	821 F St	Sacramento	CA	95814
Dear Business Owner	821 N B St	Sacramento	CA	95814
Dear Business Owner	827 7th St	Sacramento	CA	95814
Dear Business Owner	829 D St	Sacramento	CA	95814
Dear Business Owner	831 F St	Sacramento	CA	95814
Dear Business Owner	831 H St	Sacramento	CA	95814
Dear Business Owner	900 2nd St	Sacramento	CA	95814
Dear Business Owner	900 G St	Sacramento	CA	95814
Dear Business Owner	901 D St	Sacramento	CA	95814
Dear Business Owner	901 F St # 100	Sacramento	CA	95814
Dear Business Owner	901 G St	Sacramento	CA	95814
Dear Business Owner	901 H St	Sacramento	CA	95814
Dear Business Owner	901 N B St	Sacramento	CA	95814
Dear Business Owner	905 G St	Sacramento	CA	95814
Dear Business Owner	906 2nd St	Sacramento	CA	95814
Dear Business Owner	906 G St	Sacramento	CA	95814

Dear Business Owner	907 F St	Sacramento	CA	95814
Dear Business Owner	908 2nd St	Sacramento	CA	95814
Dear Business Owner	908 D St	Sacramento	CA	95814
Dear Business Owner	909 3rd St	Sacramento	CA	95814
Dear Business Owner	909 F St	Sacramento	CA	95814
Dear Business Owner	909 G St	Sacramento	CA	95814
Dear Business Owner	910 2nd St	Sacramento	CA	95814
Dear Business Owner	911 F St	Sacramento	CA	95814
Dear Business Owner	912 2nd St	Sacramento	CA	95814
Dear Business Owner	913 F St	Sacramento	CA	95814
Dear Business Owner	914 2nd St	Sacramento	CA	95814
Dear Business Owner	915 I St	Sacramento	CA	95814
Dear Business Owner	915 N B St	Sacramento	CA	95814
Dear Business Owner	916 2nd St	Sacramento	CA	95814
Dear Business Owner	916 N B St	Sacramento	CA	95814
Dear Business Owner	917 7th St	Sacramento	CA	95814
Dear Business Owner	917 8th St	Sacramento	CA	95814
Dear Business Owner	917 F St	Sacramento	CA	95814
Dear Business Owner	918 5th St	Sacramento	CA	95814
Dear Business Owner	918 8th St	Sacramento	CA	95814
Dear Business Owner	920 8th St	Sacramento	CA	95814
Dear Business Owner	920 D St # 4	Sacramento	CA	95814
Dear Business Owner	921 F St	Sacramento	CA	95814
Dear Business Owner	922 2nd St	Sacramento	CA	95814
Dear Business Owner	922 8th St	Sacramento	CA	95814
Dear Business Owner	922 E St Unit A	Sacramento	CA	95814
Dear Business Owner	923 7th St	Sacramento	CA	95814
Dear Business Owner	923 F St	Sacramento	CA	95814
Dear Business Owner	924 2nd St	Sacramento	CA	95814
Dear Business Owner	925 E St # 37	Sacramento	CA	95814
Dear Business Owner	926 2nd St	Sacramento	CA	95814
Dear Business Owner	926 8th St	Sacramento	CA	95814
Dear Business Owner	928 2nd St	Sacramento	CA	95814
Dear Neighbor	1000 4th St	Sacramento	CA	95814
Dear Neighbor	1005 1/2 E St	Sacramento	CA	95814
Dear Neighbor	1005 E St	Sacramento	CA	95814
Dear Neighbor	1006 4th St	Sacramento	CA	95814
Dear Neighbor	1007 E St	Sacramento	CA	95814
Dear Neighbor	1025 3rd St	Sacramento	CA	95814
Dear Neighbor	1104 D St	Sacramento	CA	95814
Dear Neighbor	1105 D St	Sacramento	CA	95814
Dear Neighbor	1107 D St	Sacramento	CA	95814
Dear Neighbor	1120 D St	Sacramento	CA	95814
Dear Neighbor	120 I St Ste 200	Sacramento	CA	95814
Dear Neighbor	120 I St Ste 205	Sacramento	CA	95814
Dear Neighbor	120 I St Ste 210	Sacramento	CA	95814
Dear Neighbor	120 I St Ste 300	Sacramento	CA	95814

Dear Neighbor	120 I St Ste 305	Sacramento	CA	95814
Dear Neighbor	120 I St Ste 310	Sacramento	CA	95814
Dear Neighbor	120 J St	Sacramento	CA	95814
Dear Neighbor	1200 N B St	Sacramento	CA	95814
Dear Neighbor	1210 D St	Sacramento	CA	95814
Dear Neighbor	1212 1/2 D St	Sacramento	CA	95814
Dear Neighbor	1212 D St	Sacramento	CA	95814
Dear Neighbor	1213 D St Apt 17	Sacramento	CA	95814
Dear Neighbor	1213 D St Apt 18	Sacramento	CA	95814
Dear Neighbor	1213 D St Apt 19	Sacramento	CA	95814
Dear Neighbor	1213 D St Apt 20	Sacramento	CA	95814
Dear Neighbor	1213 D St Apt 21	Sacramento	CA	95814
Dear Neighbor	1213 D St Apt 22	Sacramento	CA	95814
Dear Neighbor	1213 D St Apt 23	Sacramento	CA	95814
Dear Neighbor	1213 D St Apt 24	Sacramento	CA	95814
Dear Neighbor	1215 C St	Sacramento	CA	95814
Dear Neighbor	1215 D St Apt 10	Sacramento	CA	95814
Dear Neighbor	1215 D St Apt 11	Sacramento	CA	95814
Dear Neighbor	1215 D St Apt 12	Sacramento	CA	95814
Dear Neighbor	1215 D St Apt 13	Sacramento	CA	95814
Dear Neighbor	1215 D St Apt 14	Sacramento	CA	95814
Dear Neighbor	1215 D St Apt 15	Sacramento	CA	95814
Dear Neighbor	1215 D St Apt 16	Sacramento	CA	95814
Dear Neighbor	1215 D St Apt 9	Sacramento	CA	95814
Dear Neighbor	1217 D St Apt 1	Sacramento	CA	95814
Dear Neighbor	1217 D St Apt 2	Sacramento	CA	95814
Dear Neighbor	1217 D St Apt 3	Sacramento	CA	95814
Dear Neighbor	1217 D St Apt 4	Sacramento	CA	95814
Dear Neighbor	1217 D St Apt 5	Sacramento	CA	95814
Dear Neighbor	1217 D St Apt 6	Sacramento	CA	95814
Dear Neighbor	1217 D St Apt 7	Sacramento	CA	95814
Dear Neighbor	1217 D St Apt 8	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 1	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 10	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 11	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 12	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 13	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 14	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 2	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 3	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 4	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 5	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 6	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 7	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 8	Sacramento	CA	95814
Dear Neighbor	1218 D St Apt 9	Sacramento	CA	95814
Dear Neighbor	1222 N B St	Sacramento	CA	95814

Dear Neighbor	1224 N B St	Sacramento	CA	95814
Dear Neighbor	1228 D St	Sacramento	CA	95814
Dear Neighbor	1230 D St	Sacramento	CA	95814
Dear Neighbor	1231 D St	Sacramento	CA	95814
Dear Neighbor	1232 D St	Sacramento	CA	95814
Dear Neighbor	1235 D St	Sacramento	CA	95814
Dear Neighbor	1238 D St Apt 1	Sacramento	CA	95814
Dear Neighbor	1238 D St Apt 2	Sacramento	CA	95814
Dear Neighbor	1238 D St Apt 3	Sacramento	CA	95814
Dear Neighbor	1239 D St	Sacramento	CA	95814
Dear Neighbor	124 J St	Sacramento	CA	95814
Dear Neighbor	1301 D St	Sacramento	CA	95814
Dear Neighbor	1315 1/2 D St	Sacramento	CA	95814
Dear Neighbor	1315 D St	Sacramento	CA	95814
Dear Neighbor	1317 D St Lowr	Sacramento	CA	95814
Dear Neighbor	1317 D St Uppr	Sacramento	CA	95814
Dear Neighbor	1400 N A St Bldg A	Sacramento	CA	95814
Dear Neighbor	1400 N A St Bldg B	Sacramento	CA	95814
Dear Neighbor	1801 Garden Hwy Unit 3rdfl	Sacramento	CA	95833
Dear Neighbor	1801 Garden Hwy Unit E1	Sacramento	CA	95833
Dear Neighbor	1801 Garden Hwy Unit G10	Sacramento	CA	95833
Dear Neighbor	220 13th St	Sacramento	CA	95814
Dear Neighbor	255 Dos Rios St	Sacramento	CA	95814
Dear Neighbor	315 11th St Apt A	Sacramento	CA	95814
Dear Neighbor	315 11th St Apt B	Sacramento	CA	95814
Dear Neighbor	315 11th St Apt C	Sacramento	CA	95814
Dear Neighbor	316 Bannon St	Sacramento	CA	95814
Dear Neighbor	317 13th St Apt 1	Sacramento	CA	95814
Dear Neighbor	317 13th St Apt 2	Sacramento	CA	95814
Dear Neighbor	317 13th St Apt 3	Sacramento	CA	95814
Dear Neighbor	317 13th St Apt 4	Sacramento	CA	95814
Dear Neighbor	318 13th St Lowr	Sacramento	CA	95814
Dear Neighbor	322 12th St	Sacramento	CA	95814
Dear Neighbor	323 11th St	Sacramento	CA	95814
Dear Neighbor	324 Bannon St	Sacramento	CA	95814
Dear Neighbor	328 Bannon St Apt A	Sacramento	CA	95814
Dear Neighbor	328 Bannon St Apt B	Sacramento	CA	95814
Dear Neighbor	328 Bannon St Apt C	Sacramento	CA	95814
Dear Neighbor	330 Bannon St # B	Sacramento	CA	95814
Dear Neighbor	330 J St	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1001	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1002	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1003	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1004	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1005	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1006	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1007	Sacramento	CA	95814

Dear Neighbor	333 J St Apt 1008	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1009	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1010	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1011	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1012	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1013	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1014	Sacramento	CA	95814
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Dear Neighbor	333 J St Apt 1016	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1017	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1018	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1019	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1020	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1101	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1102	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1103	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1104	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1105	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1106	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1107	Sacramento	CA	95814
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Dear Neighbor	333 J St Apt 1109	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1110	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1111	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1112	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1113	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1114	Sacramento	CA	95814
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Dear Neighbor	333 J St Apt 1116	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1117	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1118	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1119	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1120	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1201	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1202	Sacramento	CA	95814
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Dear Neighbor	333 J St Apt 1204	Sacramento	CA	95814
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Dear Neighbor	333 J St Apt 1208	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1209	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1210	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1211	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 1212	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 301	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 302	Sacramento	CA	95814

Dear Neighbor	333 J St Apt 303	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 305	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 306	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 307	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 309	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 310	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 311	Sacramento	CA	95814
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Dear Neighbor	333 J St Apt 313	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 314	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 315	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 316	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 401	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 402	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 403	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 404	Sacramento	CA	95814
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Dear Neighbor	333 J St Apt 406	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 407	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 408	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 409	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 410	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 411	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 412	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 413	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 414	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 415	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 416	Sacramento	CA	95814
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Dear Neighbor	333 J St Apt 419	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 420	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 501	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 502	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 503	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 504	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 505	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 506	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 507	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 508	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 509	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 510	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 511	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 512	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 513	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 514	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 515	Sacramento	CA	95814

Dear Neighbor	333 J St Apt 516	Sacramento	CA	95814
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Dear Neighbor	333 J St Apt 518	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 519	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 520	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 601	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 602	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 603	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 604	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 605	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 606	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 607	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 608	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 609	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 610	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 611	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 612	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 613	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 614	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 615	Sacramento	CA	95814
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Dear Neighbor	333 J St Apt 617	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 618	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 619	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 620	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 701	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 702	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 703	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 704	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 705	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 706	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 707	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 708	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 709	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 710	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 711	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 712	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 713	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 714	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 715	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 716	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 717	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 718	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 719	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 720	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 801	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 802	Sacramento	CA	95814

Dear Neighbor	333 J St Apt 803	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 804	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 805	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 806	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 807	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 808	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 809	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 810	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 811	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 812	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 813	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 814	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 815	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 816	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 817	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 818	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 819	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 820	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 901	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 902	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 903	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 904	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 905	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 906	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 907	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 908	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 909	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 910	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 911	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 912	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 913	Sacramento	CA	95814
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Dear Neighbor	333 J St Apt 915	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 916	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 917	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 918	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 919	Sacramento	CA	95814
Dear Neighbor	333 J St Apt 920	Sacramento	CA	95814
Dear Neighbor	342 Bannon St	Sacramento	CA	95814
Dear Neighbor	401 11th St	Sacramento	CA	95814
Dear Neighbor	404 12th St Apt A	Sacramento	CA	95814
Dear Neighbor	404 12th St Apt B	Sacramento	CA	95814
Dear Neighbor	404 12th St Apt C	Sacramento	CA	95814
Dear Neighbor	404 12th St Apt D	Sacramento	CA	95814
Dear Neighbor	404 12th St Apt E	Sacramento	CA	95814
Dear Neighbor	404 12th St Apt F	Sacramento	CA	95814
Dear Neighbor	404 12th St Apt G	Sacramento	CA	95814

Dear Neighbor	404 12th St Apt H	Sacramento	CA	95814
Dear Neighbor	404 12th St Apt I	Sacramento	CA	95814
Dear Neighbor	404 12th St Apt J	Sacramento	CA	95814
Dear Neighbor	404 12th St Apt K	Sacramento	CA	95814
Dear Neighbor	404 12th St Apt L	Sacramento	CA	95814
Dear Neighbor	406 8th St	Sacramento	CA	95814
Dear Neighbor	408 10th St # 10	Sacramento	CA	95814
Dear Neighbor	408 10th St # 11	Sacramento	CA	95814
Dear Neighbor	408 10th St # 12	Sacramento	CA	95814
Dear Neighbor	408 10th St # 13	Sacramento	CA	95814
Dear Neighbor	408 10th St # 14	Sacramento	CA	95814
Dear Neighbor	408 10th St # 15	Sacramento	CA	95814
Dear Neighbor	408 10th St # 16	Sacramento	CA	95814
Dear Neighbor	408 10th St # 17	Sacramento	CA	95814
Dear Neighbor	408 10th St # 18	Sacramento	CA	95814
Dear Neighbor	408 10th St # 19	Sacramento	CA	95814
Dear Neighbor	408 10th St # 20	Sacramento	CA	95814
Dear Neighbor	408 10th St # 5	Sacramento	CA	95814
Dear Neighbor	408 10th St # 6	Sacramento	CA	95814
Dear Neighbor	408 10th St # 7	Sacramento	CA	95814
Dear Neighbor	408 10th St # 8	Sacramento	CA	95814
Dear Neighbor	408 10th St # 9	Sacramento	CA	95814
Dear Neighbor	409 11th St	Sacramento	CA	95814
Dear Neighbor	411 11th St Apt 1	Sacramento	CA	95814
Dear Neighbor	411 11th St Apt 2	Sacramento	CA	95814
Dear Neighbor	411 11th St Apt 3	Sacramento	CA	95814
Dear Neighbor	411 11th St Apt 4	Sacramento	CA	95814
Dear Neighbor	412 13th St	Sacramento	CA	95814
Dear Neighbor	414 13th St	Sacramento	CA	95814
Dear Neighbor	415 11th St Apt 1	Sacramento	CA	95814
Dear Neighbor	415 11th St Apt 2	Sacramento	CA	95814
Dear Neighbor	415 11th St Apt 3	Sacramento	CA	95814
Dear Neighbor	415 11th St Apt 4	Sacramento	CA	95814
Dear Neighbor	416 8th St	Sacramento	CA	95814
Dear Neighbor	417 11th St	Sacramento	CA	95814
Dear Neighbor	417 11th St # Rear	Sacramento	CA	95814
Dear Neighbor	418 10th St # 25	Sacramento	CA	95814
Dear Neighbor	418 10th St # 26	Sacramento	CA	95814
Dear Neighbor	418 10th St # 27	Sacramento	CA	95814
Dear Neighbor	418 10th St # 28	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 101	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 102	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 103	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 104	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 105	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 106	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 107	Sacramento	CA	95814

Dear Neighbor	420 I St Apt 108	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 109	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 110	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 111	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 112	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 113	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 114	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 115	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 116	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 117	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 118	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 119	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 120	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 121	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 122	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 123	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 124	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 201	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 202	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 203	Sacramento	CA	95814
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Dear Neighbor	420 I St Apt 209	Sacramento	CA	95814
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Dear Neighbor	420 I St Apt 214	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 215	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 216	Sacramento	CA	95814
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Dear Neighbor	420 I St Apt 219	Sacramento	CA	95814
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Dear Neighbor	420 I St Apt 221	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 222	Sacramento	CA	95814
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Dear Neighbor	420 I St Apt 224	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 301	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 302	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 303	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 304	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 305	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 306	Sacramento	CA	95814

Dear Neighbor	420 I St Apt 307	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 308	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 309	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 310	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 311	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 312	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 313	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 314	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 315	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 316	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 317	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 318	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 319	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 320	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 321	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 322	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 323	Sacramento	CA	95814
Dear Neighbor	420 I St Apt 324	Sacramento	CA	95814
Dear Neighbor	422 10th St # 21	Sacramento	CA	95814
Dear Neighbor	422 10th St # 22	Sacramento	CA	95814
Dear Neighbor	422 10th St # 23	Sacramento	CA	95814
Dear Neighbor	422 10th St # 24	Sacramento	CA	95814
Dear Neighbor	422 N B St	Sacramento	CA	95814
Dear Neighbor	426 10th St # 29	Sacramento	CA	95814
Dear Neighbor	426 10th St # 30	Sacramento	CA	95814
Dear Neighbor	426 10th St # 31	Sacramento	CA	95814
Dear Neighbor	426 10th St # 32	Sacramento	CA	95814
Dear Neighbor	426 10th St # 33	Sacramento	CA	95814
Dear Neighbor	426 10th St # 34	Sacramento	CA	95814
Dear Neighbor	426 10th St # 35	Sacramento	CA	95814
Dear Neighbor	426 10th St # 36	Sacramento	CA	95814
Dear Neighbor	426 8th St	Sacramento	CA	95814
Dear Neighbor	427 10th St	Sacramento	CA	95814
Dear Neighbor	428 N B St	Sacramento	CA	95814
Dear Neighbor	429 10th St Apt East	Sacramento	CA	95814
Dear Neighbor	429 10th St Apt West	Sacramento	CA	95814
Dear Neighbor	434 N B St	Sacramento	CA	95814
Dear Neighbor	446 N B St	Sacramento	CA	95814
Dear Neighbor	452 N B St	Sacramento	CA	95814
Dear Neighbor	458 N B St	Sacramento	CA	95814
Dear Neighbor	468 N B St	Sacramento	CA	95814
Dear Neighbor	470 Bannon St	Sacramento	CA	95814
Dear Neighbor	502 10th St Apt A	Sacramento	CA	95814
Dear Neighbor	502 10th St Apt B	Sacramento	CA	95814
Dear Neighbor	502 10th St Apt C	Sacramento	CA	95814
Dear Neighbor	504 10th St Apt B	Sacramento	CA	95814
Dear Neighbor	504 10th St Apt C	Sacramento	CA	95814

Dear Neighbor	504 10th St Apt D	Sacramento	CA	95814
Dear Neighbor	504 10th St Apt E	Sacramento	CA	95814
Dear Neighbor	505 10th St Apt 1	Sacramento	CA	95814
Dear Neighbor	505 10th St Apt 10	Sacramento	CA	95814
Dear Neighbor	505 10th St Apt 11	Sacramento	CA	95814
Dear Neighbor	505 10th St Apt 12	Sacramento	CA	95814
Dear Neighbor	505 10th St Apt 13	Sacramento	CA	95814
Dear Neighbor	505 10th St Apt 14	Sacramento	CA	95814
Dear Neighbor	505 10th St Apt 15	Sacramento	CA	95814
Dear Neighbor	505 10th St Apt 16	Sacramento	CA	95814
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Dear Neighbor	505 10th St Apt 18	Sacramento	CA	95814
Dear Neighbor	505 10th St Apt 19	Sacramento	CA	95814
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Dear Neighbor	505 10th St Apt 20	Sacramento	CA	95814
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Dear Neighbor	505 10th St Apt 3	Sacramento	CA	95814
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Dear Neighbor	505 10th St Apt 32	Sacramento	CA	95814
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Dear Neighbor	505 10th St Apt 38	Sacramento	CA	95814
Dear Neighbor	505 10th St Apt 39	Sacramento	CA	95814
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Dear Neighbor	505 10th St Apt 40	Sacramento	CA	95814
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Dear Neighbor	505 10th St Apt 9	Sacramento	CA	95814
Dear Neighbor	506 8th St	Sacramento	CA	95814
Dear Neighbor	508 10th St Apt 1	Sacramento	CA	95814
Dear Neighbor	508 10th St Apt 2	Sacramento	CA	95814
Dear Neighbor	508 10th St Apt 3	Sacramento	CA	95814
Dear Neighbor	508 10th St Apt 4	Sacramento	CA	95814

Dear Neighbor	508 8th St	Sacramento	CA	95814
Dear Neighbor	511 8th St	Sacramento	CA	95814
Dear Neighbor	511 9th St	Sacramento	CA	95814
Dear Neighbor	512 10th St Apt 1a	Sacramento	CA	95814
Dear Neighbor	512 10th St Apt 1b	Sacramento	CA	95814
Dear Neighbor	512 10th St Apt 1c	Sacramento	CA	95814
Dear Neighbor	512 10th St Apt 2a	Sacramento	CA	95814
Dear Neighbor	512 10th St Apt 3a	Sacramento	CA	95814
Dear Neighbor	512 10th St Apt 3b	Sacramento	CA	95814
Dear Neighbor	515 8th St	Sacramento	CA	95814
Dear Neighbor	515 9th St Apt A	Sacramento	CA	95814
Dear Neighbor	515 9th St Apt B	Sacramento	CA	95814
Dear Neighbor	515 9th St Apt C	Sacramento	CA	95814
Dear Neighbor	515 9th St Apt D	Sacramento	CA	95814
Dear Neighbor	515 9th St Apt E	Sacramento	CA	95814
Dear Neighbor	515 9th St Apt F	Sacramento	CA	95814
Dear Neighbor	517 7th St	Sacramento	CA	95814
Dear Neighbor	523 7th St	Sacramento	CA	95814
Dear Neighbor	530 9th St Apt 1	Sacramento	CA	95814
Dear Neighbor	530 9th St Apt 2	Sacramento	CA	95814
Dear Neighbor	530 9th St Apt 3	Sacramento	CA	95814
Dear Neighbor	530 9th St Apt 4	Sacramento	CA	95814
Dear Neighbor	530 9th St Apt 5	Sacramento	CA	95814
Dear Neighbor	560 J St	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1001	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1002	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 1009	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1010	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1011	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1101	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1102	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1103	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1104	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 1107	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1108	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 1110	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1111	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 1202	Sacramento	CA	95814

Dear Neighbor	600 I St Apt 1203	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1204	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 1206	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1207	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 1210	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1211	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1301	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1302	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1303	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 1311	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1401	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 1410	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 1411	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 302	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 303	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 304	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 307	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 308	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 309	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 310	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 311	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 401	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 402	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 403	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 404	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 405	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 406	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 407	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 408	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 409	Sacramento	CA	95814

Dear Neighbor	600 I St Apt 410	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 411	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 501	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 502	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 503	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 504	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 507	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 508	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 511	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 512	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 601	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 602	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 603	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 604	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 605	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 606	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 607	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 609	Sacramento	CA	95814
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Dear Neighbor	600 I St Apt 611	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 701	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 702	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 703	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 704	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 705	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 707	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 708	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 709	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 710	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 711	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 801	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 802	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 803	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 804	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 805	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 806	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 807	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 808	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 809	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 810	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 811	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 901	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 902	Sacramento	CA	95814

Dear Neighbor	600 I St Apt 903	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 904	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 905	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 907	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 908	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 909	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 910	Sacramento	CA	95814
Dear Neighbor	600 I St Apt 911	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1001	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1002	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1003	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1004	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1005	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1006	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1007	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1008	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1009	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1010	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1011	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1012	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1101	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1102	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1103	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1104	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1105	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1106	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1107	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1108	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1109	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1110	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1111	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1112	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1201	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1202	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1203	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1204	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1205	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1206	Sacramento	CA	95814
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Dear Neighbor	626 I St Apt 1210	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1211	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 1212	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 401	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 402	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 403	Sacramento	CA	95814

Dear Neighbor	626 I St Apt 404	Sacramento	CA	95814
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Dear Neighbor	626 I St Apt 406	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 407	Sacramento	CA	95814
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Dear Neighbor	626 I St Apt 410	Sacramento	CA	95814
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Dear Neighbor	626 I St Apt 509	Sacramento	CA	95814
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Dear Neighbor	626 I St Apt 601	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 602	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 603	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 604	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 605	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 606	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 607	Sacramento	CA	95814
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Dear Neighbor	626 I St Apt 609	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 610	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 611	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 612	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 701	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 702	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 703	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 704	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 705	Sacramento	CA	95814
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Dear Neighbor	626 I St Apt 707	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 708	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 709	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 710	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 711	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 712	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 801	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 802	Sacramento	CA	95814

Dear Neighbor	626 I St Apt 803	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 804	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 805	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 806	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 807	Sacramento	CA	95814
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Dear Neighbor	626 I St Apt 810	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 811	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 812	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 901	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 902	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 903	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 904	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 905	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 906	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 907	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 908	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 909	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 910	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 911	Sacramento	CA	95814
Dear Neighbor	626 I St Apt 912	Sacramento	CA	95814
Dear Neighbor	651 I St	Sacramento	CA	95814
Dear Neighbor	660 J St	Sacramento	CA	95814
Dear Neighbor	670 J St	Sacramento	CA	95814
Dear Neighbor	727 1/2 J St	Sacramento	CA	95814
Dear Neighbor	728 E St Unit 101	Sacramento	CA	95814
Dear Neighbor	728 E St Unit 102	Sacramento	CA	95814
Dear Neighbor	728 E St Unit 201	Sacramento	CA	95814
Dear Neighbor	728 E St Unit 202	Sacramento	CA	95814
Dear Neighbor	728 E St Unit 301	Sacramento	CA	95814
Dear Neighbor	728 E St Unit 302	Sacramento	CA	95814
Dear Neighbor	729 E St Apt A	Sacramento	CA	95814
Dear Neighbor	729 E St Apt B	Sacramento	CA	95814
Dear Neighbor	729 E St Apt C	Sacramento	CA	95814
Dear Neighbor	730 E St Unit 102	Sacramento	CA	95814
Dear Neighbor	730 E St Unit 103	Sacramento	CA	95814
Dear Neighbor	730 E St Unit 203	Sacramento	CA	95814
Dear Neighbor	730 E St Unit 204	Sacramento	CA	95814
Dear Neighbor	730 E St Unit 303	Sacramento	CA	95814
Dear Neighbor	730 E St Unit 304	Sacramento	CA	95814
Dear Neighbor	800 D St # 1	Sacramento	CA	95814
Dear Neighbor	800 D St # 2	Sacramento	CA	95814
Dear Neighbor	800 D St # 3	Sacramento	CA	95814
Dear Neighbor	800 D St # 4	Sacramento	CA	95814
Dear Neighbor	800 D St # 5	Sacramento	CA	95814
Dear Neighbor	800 D St # 6	Sacramento	CA	95814

Dear Neighbor	800 D St # 7	Sacramento	CA	95814
Dear Neighbor	800 D St # 8	Sacramento	CA	95814
Dear Neighbor	801 E St # 10	Sacramento	CA	95814
Dear Neighbor	801 E St # 11	Sacramento	CA	95814
Dear Neighbor	801 E St # 12	Sacramento	CA	95814
Dear Neighbor	801 E St # 13	Sacramento	CA	95814
Dear Neighbor	801 E St # 14	Sacramento	CA	95814
Dear Neighbor	801 E St # 15	Sacramento	CA	95814
Dear Neighbor	801 E St # 16	Sacramento	CA	95814
Dear Neighbor	801 E St # 9	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 1	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 10	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 11	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 12	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 2	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 3	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 4	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 5	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 6	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 7	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 8	Sacramento	CA	95814
Dear Neighbor	801 F St Unit 9	Sacramento	CA	95814
Dear Neighbor	802 D St # 10	Sacramento	CA	95814
Dear Neighbor	802 D St # 11	Sacramento	CA	95814
Dear Neighbor	802 D St # 12	Sacramento	CA	95814
Dear Neighbor	802 D St # 13	Sacramento	CA	95814
Dear Neighbor	802 D St # 14	Sacramento	CA	95814
Dear Neighbor	802 D St # 15	Sacramento	CA	95814
Dear Neighbor	802 D St # 16	Sacramento	CA	95814
Dear Neighbor	802 D St # 9	Sacramento	CA	95814
Dear Neighbor	803 E St # 1	Sacramento	CA	95814
Dear Neighbor	803 E St # 2	Sacramento	CA	95814
Dear Neighbor	803 E St # 3	Sacramento	CA	95814
Dear Neighbor	803 E St # 4	Sacramento	CA	95814
Dear Neighbor	803 E St # 5	Sacramento	CA	95814
Dear Neighbor	803 E St # 6	Sacramento	CA	95814
Dear Neighbor	803 E St # 7	Sacramento	CA	95814
Dear Neighbor	803 E St # 8	Sacramento	CA	95814
Dear Neighbor	804 E St	Sacramento	CA	95814
Dear Neighbor	806 E St	Sacramento	CA	95814
Dear Neighbor	808 E St Unit 2	Sacramento	CA	95814
Dear Neighbor	810 E St	Sacramento	CA	95814
Dear Neighbor	812 E St	Sacramento	CA	95814
Dear Neighbor	813 E St # 1	Sacramento	CA	95814
Dear Neighbor	813 E St # 2	Sacramento	CA	95814
Dear Neighbor	813 E St # 3	Sacramento	CA	95814
Dear Neighbor	813 E St # 4	Sacramento	CA	95814

Dear Neighbor	813 E St # 5	Sacramento	CA	95814
Dear Neighbor	813 E St # 6	Sacramento	CA	95814
Dear Neighbor	813 E St # 7	Sacramento	CA	95814
Dear Neighbor	813 E St # 8	Sacramento	CA	95814
Dear Neighbor	814 D St # 1	Sacramento	CA	95814
Dear Neighbor	814 D St # 2	Sacramento	CA	95814
Dear Neighbor	814 D St # 3	Sacramento	CA	95814
Dear Neighbor	814 D St # 4	Sacramento	CA	95814
Dear Neighbor	814 E St	Sacramento	CA	95814
Dear Neighbor	815 E St # 10	Sacramento	CA	95814
Dear Neighbor	815 E St # 11	Sacramento	CA	95814
Dear Neighbor	815 E St # 12	Sacramento	CA	95814
Dear Neighbor	815 E St # 13	Sacramento	CA	95814
Dear Neighbor	815 E St # 14	Sacramento	CA	95814
Dear Neighbor	815 E St # 15	Sacramento	CA	95814
Dear Neighbor	815 E St # 16	Sacramento	CA	95814
Dear Neighbor	815 E St # 9	Sacramento	CA	95814
Dear Neighbor	816 D St # 10	Sacramento	CA	95814
Dear Neighbor	816 D St # 11	Sacramento	CA	95814
Dear Neighbor	816 D St # 12	Sacramento	CA	95814
Dear Neighbor	816 D St # 13	Sacramento	CA	95814
Dear Neighbor	816 D St # 14	Sacramento	CA	95814
Dear Neighbor	816 D St # 15	Sacramento	CA	95814
Dear Neighbor	816 D St # 16	Sacramento	CA	95814
Dear Neighbor	816 D St # 9	Sacramento	CA	95814
Dear Neighbor	816 E St	Sacramento	CA	95814
Dear Neighbor	817 E St # 1	Sacramento	CA	95814
Dear Neighbor	817 E St # 2	Sacramento	CA	95814
Dear Neighbor	817 E St # 3	Sacramento	CA	95814
Dear Neighbor	818 D St # 1	Sacramento	CA	95814
Dear Neighbor	818 D St # 2	Sacramento	CA	95814
Dear Neighbor	818 D St # 3	Sacramento	CA	95814
Dear Neighbor	818 D St # 4	Sacramento	CA	95814
Dear Neighbor	818 D St # 5	Sacramento	CA	95814
Dear Neighbor	818 D St # 6	Sacramento	CA	95814
Dear Neighbor	818 D St # 7	Sacramento	CA	95814
Dear Neighbor	818 D St # 8	Sacramento	CA	95814
Dear Neighbor	818 E St	Sacramento	CA	95814
Dear Neighbor	820 E St	Sacramento	CA	95814
Dear Neighbor	821 F St	Sacramento	CA	95814
Dear Neighbor	827 F St	Sacramento	CA	95814
Dear Neighbor	830 D St # 1	Sacramento	CA	95814
Dear Neighbor	830 D St # 2	Sacramento	CA	95814
Dear Neighbor	830 D St # 3	Sacramento	CA	95814
Dear Neighbor	830 D St # 4	Sacramento	CA	95814
Dear Neighbor	830 D St # 5	Sacramento	CA	95814
Dear Neighbor	830 D St # 6	Sacramento	CA	95814

Dear Neighbor	830 D St # 7	Sacramento	CA	95814
Dear Neighbor	830 D St # 8	Sacramento	CA	95814
Dear Neighbor	831 E St # 10	Sacramento	CA	95814
Dear Neighbor	831 E St # 11	Sacramento	CA	95814
Dear Neighbor	831 E St # 12	Sacramento	CA	95814
Dear Neighbor	831 E St # 13	Sacramento	CA	95814
Dear Neighbor	831 E St # 14	Sacramento	CA	95814
Dear Neighbor	831 E St # 15	Sacramento	CA	95814
Dear Neighbor	831 E St # 16	Sacramento	CA	95814
Dear Neighbor	831 E St # 9	Sacramento	CA	95814
Dear Neighbor	832 D St # 10	Sacramento	CA	95814
Dear Neighbor	832 D St # 11	Sacramento	CA	95814
Dear Neighbor	832 D St # 12	Sacramento	CA	95814
Dear Neighbor	832 D St # 13	Sacramento	CA	95814
Dear Neighbor	832 D St # 14	Sacramento	CA	95814
Dear Neighbor	832 D St # 15	Sacramento	CA	95814
Dear Neighbor	832 D St # 16	Sacramento	CA	95814
Dear Neighbor	832 D St # 9	Sacramento	CA	95814
Dear Neighbor	833 E St # 1	Sacramento	CA	95814
Dear Neighbor	833 E St # 3	Sacramento	CA	95814
Dear Neighbor	833 E St # 4	Sacramento	CA	95814
Dear Neighbor	833 E St # 5	Sacramento	CA	95814
Dear Neighbor	833 E St # 6	Sacramento	CA	95814
Dear Neighbor	833 E St # 7	Sacramento	CA	95814
Dear Neighbor	833 E St # 8	Sacramento	CA	95814
Dear Neighbor	833 E St Apt 2	Sacramento	CA	95814
Dear Neighbor	900 1/2 E St	Sacramento	CA	95814
Dear Neighbor	900 7th St	Sacramento	CA	95814
Dear Neighbor	900 E St	Sacramento	CA	95814
Dear Neighbor	906 E St Apt A	Sacramento	CA	95814
Dear Neighbor	906 E St Unit B	Sacramento	CA	95814
Dear Neighbor	906 E St Unit C	Sacramento	CA	95814
Dear Neighbor	906 E St Unit D	Sacramento	CA	95814
Dear Neighbor	909 3rd St	Sacramento	CA	95814
Dear Neighbor	912 E St Unit 1	Sacramento	CA	95814
Dear Neighbor	912 E St Unit 2	Sacramento	CA	95814
Dear Neighbor	914 E St Unit 1	Sacramento	CA	95814
Dear Neighbor	914 E St Unit 2	Sacramento	CA	95814
Dear Neighbor	915 Commonwealth Aly Ste	Sacramento	CA	95814
Dear Neighbor	915 Commonwealth Aly Ste	Sacramento	CA	95814
Dear Neighbor	915 Commonwealth Aly Ste	Sacramento	CA	95814
Dear Neighbor	916 E St	Sacramento	CA	95814
Dear Neighbor	917 8th St	Sacramento	CA	95814
Dear Neighbor	918 1/2 E St	Sacramento	CA	95814
Dear Neighbor	918 5th St	Sacramento	CA	95814
Dear Neighbor	918 E St	Sacramento	CA	95814
Dear Neighbor	920 D St # 1	Sacramento	CA	95814

	Dear Neighbor	920 D St # 2	Sacramento	CA	95814
	Dear Neighbor	920 D St # 3	Sacramento	CA	95814
	Dear Neighbor	920 D St # 4	Sacramento	CA	95814
	Dear Neighbor	922 E St Unit B	Sacramento	CA	95814
	Dear Neighbor	922 E St Unit C	Sacramento	CA	95814
	Dear Neighbor	925 E St # 37	Sacramento	CA	95814
	Dear Neighbor	925 E St # 38	Sacramento	CA	95814
	Dear Neighbor	925 E St # 39	Sacramento	CA	95814
	Dear Neighbor	925 E St # 40	Sacramento	CA	95814
	Dear Neighbor	925 F St	Sacramento	CA	95814
	Dear Neighbor	927 F St	Sacramento	CA	95814
	Demetrius J. Burton	3670 Gold Creek Lane	Sacramento	CA	95827
Winn Park Neighborhood Assn.	Diane Heinzer	2130 L Street	Sacramento	CA	95816
	Diaz Jose L	4819 Marietta Wy	Sacramento	CA	95841
Midtown Business Association	Dick Skelton	P.O. Box 161147	Sacramento	CA	95816
San Joaquin Regional Transit District	Dona Kelsay	1533 East Lindsay Street	Stockton	CA	95205
PG& E Land Development	Donald Kennedy	343 Sacramento St	Auburn	CA	95603
	Dorothy Rivers 1996 Revocable Trust/Etal	300 N 12th St	Sacramento	CA	95814
	Dos Rios Park Limited Partnership	Po Box 2590	Sacramento	CA	95812
North Sacramento School District	Doug Marquand	670 Dixianne Avenue	Sacramento	CA	95815
North Sacramento Unified	Douglas Marquand	670 Dixieanne Avenue	Sacramento	CA	95838
	Dowling Daniel K	Po Box 75000	Davis	CA	95617
	Downtown Plaza Llc	Po Box 4900	Scottsdale	AZ	85261
	Downtown Plaza Llc	11601 Wilshire Bl Fl 12	Los Angeles	CA	90025
	Dr. Fred Millar	915 S Buchanan Street, #29	Arlington	VA	22204
Chinese Benevolent Assocation	Dr. Hebert Yee	1301 Normandy Lane	Sacramento	CA	95822
Chinatown Tong Benevolent Association	Dr. Herbert Yee	1301 Normandy Lane	Sacramento	CA	95822
	Duffy Edward C	916 E St	Sacramento	CA	95814
	Dufour James T	831 F St	Sacramento	CA	95814
	Dunphy Anna E (Est Of)	2115 L St	Sacramento	CA	95814
	Dunphy James	427 10th St	Sacramento	CA	95814
California State Lands Commission	Dwight E. Sanders	100 Howe Ave Suite 100 South	Sacramento	CA	95825-8202
Environmental Council of Sacramento (ECOS)	Earl Withycombe	1801 J Street	Sacramento	CA	95814
	Ebenezer Benjamin	914 E St	Sacramento	CA	95814
Old Sacramento Management Board	Ed Astone	1111 2nd Street, #300	Sacramento	CA	95814
SMUD	Ed Sanchez	by email			
	Edgar Evan W R	1301 D St	Sacramento	CA	95814
Thomas Enterprises / Jerde Partnership	Ellen Warner	1201 K Street, Suite 1840	Sacramento	CA	95814
David Taylor Interests	Ellen Warner / Debra Flannery	1201 K Street, Suite 1840	Sacramento	CA	95814
	Emily Nahat	501 J Street, #530	Sacramento	CA	95814
	Engstrom Mats/Dafne/Tr	2171 Jackson St	San Francisco	CA	94115
	Entezari Hossein A	815 27th St	Sacramento	CA	95816
	Entezari/Koshfam A General Partnership	2443 Fair Oaks Bl 166	Sacramento	CA	95825
	Entezari/Koshfam A General Partnership	2443 Fair Oaks Bl 166	Sacramento	CA	95825
Grove Investment	Ernie Gallardo	300 Richards Boulevard	Sacramento	CA	95814
Capitol Corridor Riders Association	Estelle Shiroma	1412 62nd Street	Emeryville	CA	94608
	Esther Berger Revocable Trust /Etal	713 9th St	Sacramento	CA	95814

Capitol Corridor Joint Powers Authority	Eugene Skoropowski	1000 Broadway Street, Suite	Oakland	CA	94607
Alkali Flats	Evan Edgar	1301 D Street	Sacramento	CA	95814
Capitol Area R Street Association	Evan Smestad	904 Q Street	Sacramento	CA	95814
Old Sacramento Business Association	Executive Director	1002 2nd Street, Suite 200	Sacramento	CA	95814
	F Street Associates	901 F St	Sacramento	CA	95814
	Forest Harbor Inc	3440 River Shoal Av	Sacramento	CA	95833
	Fort Sutter Co	Po Box 214746	Sacramento	CA	95821
	Foster Charlotte E/Bill/Jesslyn E Gawlick/Etal	1848 Allenwood Cr	Lincoln	CA	95648
	Frank Fat Properties	1012 2nd St	Sacramento	CA	95814
Yellow Cab Company	Frederick Pleines Jr.	900 Richards Blvd.	Sacramento	CA	95814
	G B Properties Inc	101 Lucas Valley Rd 380	San Rafael	CA	94903
	G Caravantes Enterprises	322 N 12th St	Sacramento	CA	95814
	Galardo Marcos/Suzanna	3349 Montrose St	Sacramento	CA	95838
	Galgani Patricia K/Peter A/Kyle Rodger Knapp/Etal	1120 D St	Sacramento	CA	95814
	Garwood Jereann Lefever	2124 Montgomery St	Oroville	CA	95965
	Gaytan Emiliano	411 11th St	Sacramento	CA	95814
ACB Captiol Chapter, Cal Council for the Blind	Gene Lozano	4537 Sycamore Avenue	Sacramento	CA	95814
	Gene Wong Family Trust	P O Bx 2798	Rancho Cordova	CA	95741
	George Lawson	1209 El Toro Way	Sacramento	CA	95864
Neighborhood Area Advisory Group (NAAG)	George Raya	P.O. Box 161851	Sacramento	CA	95814
	Giannini Linda/Mark	2555 Donner Wy	Sacramento	CA	95818
	Giannini Mark/Linda	2011 I St	Sacramento	CA	95814
	Gilreath Robert L/Robert J Hoffman	5652 El Camino Av	Carmichael	CA	95608
	Gladys Bell	2 Cinder Court	Sacramento	CA	95831
	Glennon Jason/Maria A	Po Box 720120	San Francisco	CA	94172
	Gma Investors Lp	1006 4th St 701	Sacramento	CA	95814
	Gomez Richard	1107 D St	Sacramento	CA	95814
	Gomez Salvador H/Lucy R	671 San Antonio Wy	Sacramento	CA	95819
Environmental Council of Sacramento	Graham Brownstein	2012 K Street	Sacramento	CA	95814
	Greenwood 2000 Trust	7230 Lincoln Av	Carmichael	CA	95608
SACOG	Greg Chew	1415 L Street Suite 300	Sacramento	CA	95814
	Greg Parker	830 Jefferson Blvd., Suite 20	Sacramento	CA	95691
Gregory Taylor Architecture	Gregory Taylor	1024 22nd Street	Sacramento	CA	95816
	Hansen Michael/Richard Staff	711 9th St	Sacramento	CA	95814
	Haro Margarita	1235 D St	Sacramento	CA	95814
	Harris-Winkle Building Ltd	2819 Crow Canyon Rd 200	San Ramon	CA	94583
	Hearst-Argyle Stations Inc	227 W Trade St	Charlotte	NC	28202
	Hearst-Argyle Stations Inc	3 Television Cir	Sacramento	CA	95814
	Helmuth/Leone R Wildemann Revocable Trust	13 Rosemead Cr	Sacramento	CA	95831
	Herbert K/Inez F Yee Revocable Trust	1301 Normandy Ln	Sacramento	CA	95822
	Hermosillo Angel A/Bertha	1716 27th St	Sacramento	CA	95816
	Hernandez Patricia R	220 13th St	Sacramento	CA	95814
	Historic California Combination Company	1033 Front St	Sacramento	CA	95814
	Hofmann Kenneth Harry/Martha Jean/Tr	1380 Galaxy Wy	Concord	CA	94522
	Housing Authority City Of Sacramento	630 I St	Sacramento	CA	95814
	Housing Authority City Of Sacramento	P O Bx 1834	Sacramento	CA	95812
	Housing Authority City Of Sacramento	630 I St	Sacramento	CA	95814

	Housing Authority County Of Sacramento	616 I St	Sacramento	CA	95814
	Housing Authority County Of Sacramento	900 7th St	Sacramento	CA	95814
	Housing Authority County Of Sacramento	910 7th St	Sacramento	CA	95814
	Housing Authority County Of Sacramento	P O Box 1834	Sacramento	CA	95812
	Housing Authority County Of Sacramento	900 7th St	Sacramento	CA	95814
	Housing Authority County Of Sacramento	P O Box 1834	Sacramento	CA	95812
UNITE HERE!, Local 2	Ian Lewis	209 Golden Gate Avenue	San Francisco	CA	94102
Nolte & Associates, Inc.	Ivan Gennis	1750 Creekside Oaks Dr., St	Sacramento	CA	95833
	J St Properties Inc	Po Box 1737	Sacramento	CA	95812
	J Street Reformation Partnership	2150 River Plaza Dr 150	Sacramento	CA	95833
Boyden, Cooluris, Livingston & Saxe PC	J. Cleve Livingston	400 Capitol Mall, Suite 1625	Sacramento	CA	95814
	J.J. Jacobs	1722 3rd Street	Sacramento	CA	95814
U.S. District Court Eastern District	Jack Wagner, Court Clerk	501 I Street	Sacramento	CA	95814
	Jack/Princie Smith Family Trust/Jeffrey D Smith	911 46th St	Sacramento	CA	95819
	Jackie Thompson	515 P Street, #512	Sacramento	CA	95814
SCUSD	James C. Dobson	5735 47th Avenue	Sacramento	CA	95824
	James Chin Living Trust	821 F St	Sacramento	CA	95814
	James E Vendley Family Trust B	1605 4th Ave	Sacramento	CA	95818
	James E Vendley Family Trust C	1605 4th Ave	Sacramento	CA	95818
Economic & Planning Systems, Inc.	Jamie Gomes	2150 River Plaza Drive, Suit	Sacramento	CA	95833
	Janet Myles	3903 Bartley Drive	Sacramento	CA	95822
Amtrak	Jason Steffensen	530 Water Street	Oakland	CA	94501
	Jb Management L P	1825 Bell St 100	Sacramento	CA	95825
SMAQMD	Jeane Borkenhagen	777 12th Street, 3rd Floor	Sacramento	CA	95814
	Jeff Asay	10031 Foothills Blvd.	Roseville	CA	95747
Sacramento County PW, Transportation Div.	Jeff Clark	906 G Street, Suite 510	Sacramento	CA	95814
Diepenbrock Harrison	Jeff Dorso	400 Capitol Mall, Suite 1800	Sacramento	CA	95814
	Jeff Maurer	8118 Tevrin Way	Sacramento	CA	95828
	Jeremy Moats	800 D Street, #7	Sacramento	CA	95814
Union Pacific Railroad	Jerry Wilmoth / Gary Riddle	9451 Atkinson Street, Suite 1	Roseville	CA	95747
United Auburn Indian Community of the Auburn	Jessica Tavares	575 Menlo Drive, Suite 2	Rocklin	CA	95765
SCUSD	Jim Dobson	425 1st Street	Sacramento	CA	95818
CARB	Jim Lerner	420 Santa Ynez Way	Sacramento	CA	95816
Union Pacific Railroad	Jim Levy	915 L Street, Suite 1230	Sacramento	CA	95814
K & A / RT	Joanne Koegll	3316 Sierra Oaks Dr	Sacramento	CA	95864
	Joanne Solov	5737 Raybel Avenue	Sacramento	CA	95841
	Joe Ortiz	190 Redondo Avenue	Sacramento	CA	95815
REA Building Developer	Johan Otto	1722 3rd Street, Suite 202	Sacramento	CA	95814
Sacramento County Water Quality Division	John Boehm	9660 Ecology Lane	Sacramento	CA	95827
	John Brownston Family Revocable Trust	2443 Fair Oaks Bl 277	Sacramento	CA	95825
ECOS	John Deeter	2012 K Street	Sacramento	CA	
Design Review Preservation Sac Airport Sys	John Febbo	6900 Airport Blvd.	Sacramento	CA	95837
Sacramento Self Help Housing	John Foley	1422 C Street	Sacramento	CA	95814
CA Department of General Services	John H. Brooks	707 Third Street, 6th Floor	West Sacramento	CA	95798-9052
	Johnson/Johnson Llc	Po Box 254605	Sacramento	CA	95825
Old City Assn/Midtown Business Assn	Jon Heinzer	2130 L Street	Sacramento	CA	95816
Boulevard Park Neighborhood Association	Jon Marshack	2308 H Street	Sacramento	CA	95816

BPNA / SORD / DRPB	Jon Marshack	2308 H Street	Sacramento	CA	95816
	Jonathon Martin	1416 Q Street, Apt. #10	Sacramento	CA	95814
	Jonathon Oakleaf	5917 Fair Oaks Blvd	Carmichael	CA	95608
	Jones Eric	5709 Monterey Wy	Sacramento	CA	95822
Sims Hugo Nev	Jory Core	130 N. 12th St.	Sacramento	CA	95814
SMAQMD	Joseph Hurley	777 12th Street, 3rd Floor	Sacramento	CA	95814
	Joseph Jeremiah Fallon Jr Family Trust	2640 Montgomery Wy	Sacramento	CA	95818
Children First Flats Network	Juanita Jue	520 18th Street	Sacramento	CA	95814
Children First Flats Network	Juanita Jue	c/o Washington Elementary School, 520 18th Street	Sacramento	CA	95814
U.S. District Court Eastern District	Judge Kim Mueller	501 I Street, Floor 8	Sacramento	CA	95814
Central City Alliance of Nieghborhoods	Karen Jacques / Dale Kooyman	801 21st Street	Sacramento	CA	95814
	Kate Bell	1717 I Street	Sacramento	CA	95814
Carson Development Company	Katharine Ayes	1722 3rd Street	Sacramento	CA	95814
California State Railroad Museum Foundation	Kathy Daigle	111 I Street	Sacramento	CA	95814
Save Our Rail Depot Coalition	Kay Knepprath	2620 P Street	Sacramento	CA	95816
	Keith Smith	3805 61st Street	Sacramento	CA	95820
	Kelada Youssry Y	Po Box 2877	Granite Bay	CA	95746
NAAG / ECOS	Ken Wemmer	500 N Street, #1209	Sacramento	CA	95814
Mennemeier, Glassman, and Stroud	Kenneth Mennemeier	980 9th Street, Suite 1700	Sacramento	CA	95814
	Kenny Smith	3178 T Street	Sacramento	CA	95816
Sacramento County, Office of Communications & IT	Kent Eldridge	799 G Street	Sacramento	CA	95814
California Public Utilities Commission	Kevin Boles	505 Van Ness Avenue	San Francisco	CA	94102-3298
	Kgp Investors Llc	592 35th St	Sacramento	CA	95816
	Knapp Kyle Rodger/Patricia K Galgani/Peter A	1120 D St	Sacramento	CA	95814
	Korner Jean I/Ruth	815 San Juan Rd 1	Sacramento	CA	95834
Towe Auto Museum	Kristin Hartley	2200 Front Street	Sacramento	CA	95818
	Kurasaki John/Est Of/Kazuko Kurasaki/Etal	P O Box 1450	San J Bautista	CA	95045
	Kurasaki Kazuko/Kurt/Etal	P O Bx 1450	Sn Jn Bautista	CA	95045
	Kuvakos Mary/Julie A Ross	1315 D St	Sacramento	CA	95814
CA State Parks	Kyle Wyatt	111 I Street	Sacramento	CA	95814-2204
Olson Hagel & Fishburn	Lance Olson	555 Capitol Mall, #1425	Sacramento	CA	95814
U.S. District Court	Lance Olson	555 Capitol Mall, #1425	Sacramento	CA	95814
SMUD	Land Development MSB304	P.O. Box 15830	Sacramento	CA	95852-18380
	Lanyadoo Nissim/Jody W/Joseph	Po Box 470277	San Francisco	CA	94147
	LaTrenda Easton	PO Box 15145	Sacramento	CA	95851-0145
Alkali-Mansion Neighborhood Assn	Laura Lough	415 11th Street, #1	Sacramento	CA	95814
	Lawrence/Betty Yerby Revocable Living Trust	7308 Golden Cir	Rancho Murieta	CA	95683
	Lbnj	4308 Greenvale Rd	Fair Oaks	CA	95628
	Lbnj	4308 Greenvale Rd	Fair Oaks	CA	95628
	Leabo Harvey L Jr	2852 Verna Wy	Sacramento	CA	95821
Thomas Enterprises, Inc.	Leslie G. Valpey	431 I Street, Suite 202	Sacramento	CA	95814
	Levin Metals Corp	130 N 12th St	Sacramento	CA	95814
Ong Ko Met Association	Lillie Shiroi	427 J Street	Sacramento	CA	95814

	Linda A Schetter 1999 Revocable Trust/Etal	Po Box 1137	Sacramento	CA	95812
	Linda A Schetter Revocable Trust/Frank E Schetter	1000 Piedmont Dr	Sacramento	CA	95822
East Sacramento Improvement Association	Linda Cook	P.O. 19147	Sacramento	CA	95819
	Linda Hawkins	606 Lyndhurst Avenue	Roseville	CA	95678
Sacramento Old City Association (SOCA)	Linda Whitney	P.O. Box 162140	Sacramento	CA	95816
	Linda Wrenq	38 Yuba River Circle	Sacramento	CA	95831
	Loaves/Fishes	P O Bx 2161	Sacramento	CA	95812
	Loaves/Fishes	P O Bx 2161	Sacramento	CA	95812
	Lorta David/Velma	350 Bannon St	Sacramento	CA	95814
	Lorta Librado/Rose R	354 Bannon St	Sacramento	CA	95814
	Lorta Salvador/Maria Z	330 Bannon St	Sacramento	CA	95814
	Lorta Salvador/Maria Z	330 Bannon St	Sacramento	CA	95814
	Louie Family Revocable Trust(New West Petroleum	2833 Land Park Dr	Sacramento	CA	95818
Citizen Utilities	Louise Labrie	P.O. Box 340	Elk Grove	CA	95759
	Luna Ignacio/Rosalina	409 11th St	Sacramento	CA	95814
LPA & Associates	Lynn Pomeroy	2484 Natomas Park Drive	Sacramento	CA	95833
SCUSD	M. Magdalena Carrillo Mejia, Ph.D	5735 - 47th Avenue	Sacramento	CA	95824
	Madsen Christopher L/Gail A	5455 Garden Hwy	Yuba City	CA	95991
	Maldonado Robert/Monica	7704 Willow Point Wy	Sacramento	CA	95831
	Mallet Richard L/Judith R	1509 Forebay Rd	Pollock Pines	CA	95726
	Manuel Avila	400 8th Street	Sacramento	CA	95814
DGS	Marcia Johnston	5032 9th Avenue	Sacramento	CA	95820
Dept General Services	Marcia Johnston	707 3rd Street 4th Floor	West Sacramento	CA	95605
Alkali-Flat/Mansion	Margaret Calmevaes	516 13th Street	Sacramento	CA	95814
New Era Park Neighborhood Association	Marge & Tom Leffingwell	2315 D Street	Sacramento	CA	95816
Sacramento Transportation Management Assn.	Marilyn Bryant	917 7th Street	Sacramento	CA	95814
	Marilyn Dennis Wessler	1020 Casilada Way	Sacramento	CA	95822
Alkali Flat P.A.C.	Marilyn Prosser	414 12th Street	Sacramento	CA	95814
	Mark Edgar	5704 Beach River Place	Elk Grove	CA	95757
Acanthus	Mark Green	1723 J Street	Sacramento	CA	95814
	Mark Huck	3149 McKinley Blvd., Apt. C	Sacramento	CA	95816
Friends of Light Rail	Marq Truscott	1808 Q Street	Sacramento	CA	95814
CA Department of General Services	Marsha Johnston	707 Third Street, 6th Floor	West Sacramento	CA	95798-9052
Alkali Flat Redevelopment Advisory Committee	Marti Brown	630 I Street, Suite 250	Sacramento	CA	95814
Yolo County Transportation Department	Martie Dote	350 Industrial Way	Woodland	CA	95776
Towe Auto Museum	Marvin Mart	2200 Front Street	Sacramento	CA	95818
Sacramento County Neighborhood Alliance	Mary Brill	P.O. Box 22898	Sacramento	CA	95822
	Matheson Robert B/Carole L	Po Box 970	Elk Grove	CA	95759
	Matheson Robert B/Carole L	Po Box 970	Elk Grove	CA	95759
	Matl Victor G	827 F St	Sacramento	CA	95814
	Matthew E/Shari M Gueffroy Rev Trust	372 Florin Rd Pmb 207	Sacramento	CA	95831
Sacramento County, Dept. of Transportation	Matthew G Darrow	906 G Street, Suite 510	Sacramento	CA	95814
Federal Bar Association	Matthew Jacobs	555 Capitol Mall, Floor 10	Sacramento	CA	95814
	Mcintyre Wayne Gerard/Della Anderson Gilleran	1112 D St	Sacramento	CA	95814
	Meador Family/Friends Trust	9305 Malheur Wy	Elk Grove	CA	95758
Sacramento County EMD	Mel Knight	8475 Jackson Road, Suite 2	Sacramento	CA	95826-3913

Sierra Oaks Neighborhood Association	Melinda Eppler	2800 Huntington Road	Sacramento	CA	95864
	Mercado Raoul G/Linda D	3930 Terra Vista Wy	Sacramento	CA	95821
	Mercado Ruben G/Xavier G	1239 D St	Sacramento	CA	95814
	Merin Mark E	605 10th St	Sacramento	CA	95814
	Merin Mark E/Cathleen A Williams	2001 P St	Sacramento	CA	95814
Downtown Sacramento Partnership	Michael Ault	900 J Street, Second Floor	Sacramento	CA	95814
Midtown Business Association	Michael Boyd	P.O. Box 161147	Sacramento	CA	95814
	Michael Casey	3017 Douglas Blvd, Suite 300	Roseville	CA	95661
	Michael Faust	One Captiol Mall, Suite 300	Sacramento	CA	95814
	Mihir Modi	34444 Coach Lane #102	Cameron Park	CA	95682
Union Pacific Railroad	Mike Casey	1215 K Street, Floor 17	Sacramento	CA	95814
SACOG	Mike Mckeever	1415 L Street, Suite 300	Sacramento	CA	95814
	Mike Melenchek	3050 Danner Way	Sacramento	CA	95817
Sacramento Regional Transit	Mike Wiley	1400 29th Street	Sacramento	CA	95816
	Miller James O/Ann Mccormack/Simone Rathe/Etal	Po Box 1646	Sacramento	CA	95812
	Miller Mary/Simone A/James O/Fitzgerald/Etal	Po Box 1646	Sacramento	CA	95812
El Dorado County Transit Authority	Mindy Jackson	6565 Commerce Way	Woodland	CA	95695
	Miner Loyal A Jr	813 F St	Sacramento	CA	95814
	Moenig Christopher J	1104 D St	Sacramento	CA	95814
	Mohanna M H	1025 9th St 205	Sacramento	CA	95814
	Mohanna Mohammed H /Etal	1025 9th St	Sacramento	CA	95814
	Montoya Richard J/Suzanne	3341 Scobee Wy	Sacramento	CA	95838
	Morse Building Llc	1027 2nd St	Sacramento	CA	95814
	Mpc Villa Llc	Po Box 15508	San Francisco	CA	94115
East Sacramento/Alhambra Corridor Neighborhood Association	Murray Cohen	P.O. Box 160282	Sacramento	CA	95816
	Murray Robert	320 13th St	Sacramento	CA	95814
	N 10th Street Business Park	1722 Third St 202	Sacramento	CA	95814
	Naake Vernon L/Gladys I/Tr	31 Starglow Cir	Sacramento	CA	95831
Company	**Name**	**Address**	**City**	**State**	**Zip**
SHRA	Nancy Conk	600 I Street, Suite 250	Sacramento	CA	95814
	Naygrow Tom	1416 45th St	Sacramento	CA	95819
	New Baytree Llc	2325 Clayton Rd	Concord	CA	94520
Shingle Springs Band of Miwok Indians	Nicholas Fonseca	P.O. Box 1340	Sacramento	CA	95682
	Northend Lofts Ii Llc	Po Box 1307	Roseville	CA	95678
Old Sacramento Business Association	Old Sacramento Business Association	1111 2nd Street, #300	Sacramento	CA	95814
	Oldtown Bennett Investors/Etal	540 Fulton Av	Sacramento	CA	95825
SACOG	Olin Woods	1415 L Street, Suite 300	Sacramento	CA	95814
	Oneal Jamie	320 N 10th St	Sacramento	CA	95814
	Ong Ko Met Benevolent Assn	427 J St	Sacramento	CA	95814
	Oropeza Janet	2220 Longview Dr	Roseville	CA	95747
	Osmundson Anthony D/Stacy A/Tr	5 Jenney Ct	Sacramento	CA	95831
	Owen Randal S	Po Box 2901	Sacramento	CA	95812
	P Bruce Booher/Mark Giannini Development Partne	1217 38th St	Sacramento	CA	95816
	Pacific Federation Brotherhood Maint Way Employe	510 8th St	Sacramento	CA	95814
	Pacific Gas/Electric Co	Po Box 770000	San Francisco	CA	94177

	Pagoda Llc	1416 45th St	Sacramento	CA	95819
	Patino Nelly B	928 Stern Cir	Sacramento	CA	95822
	Patino Nelly B/Morgan John/Alex Padilla/Etal	816 H St	Sacramento	CA	95814
Amador Regional Transit System	Patrick Ireland	11400B American Legion Dr	Jackson	CA	95642
Capitol Station District	Patty Kleinknecht	1515 North C Street	Sacramento	CA	95814
River District PBID	Patty Kleinknecht	1515 North C Street	Sacramento	CA	95814
DTSC	Paul Carpenter	8800 Cal Center Drive	Sacramento	CA	95826
Thomas Enterprises / Jerde Partnership	Paul Senzaki	913 Ocean Front Walk	Venice	CA	90291
Washington Park Neighborhood Improvement Group	Paul Tsamtis	1630 F Street	Sacramento	CA	95814
	Pdra/Company Llc	746 Webster St	Palo Alto	CA	94301
	Pearson Elmer Bertil/June Marion/Etal	Po Box 984	Walnut Grove	CA	95690
	Pearson Elmer Bertil/June Marion/Etal	2145 Bella Casa St	Davis	CA	95616
Sacramento Enriches	Peggy Taping	8928 Volunteer Lane, Suite 210	Sacramento	CA	95826
Sacramento ENRICHES	Peggy Tapping	8928 Volunteer Lane, #210	Sacramento	CA	95826
SAFCA	Pete Ghelfi	1007 7th Street, 7th Floor	Sacramento	CA	95814
	Peter L. Villanueva	P.O. Box 3027	Sacramento	CA	95812
	Pham Ai Minh/Hung Q Toan	640 Hawkcrest Cir	Sacramento	CA	95835
	Ping Yuen Associates	1000 Broadway 300	Oakland	CA	94607
City of Roseville	Planning	311 Vernon Street	Roseville	CA	95678
Placer County	Planning Department	11414 B Avenue	Auburn	CA	95603
City of Rancho Cordova	Planning Department	2729 Prospect Park Drive	Rancho Cordova	CA	95670
City of Citrus Heights	Planning Division	6237 Fountain Square Drive	Citrus Heights	CA	95621
City of Elk Grove	Planning Division	8400 Laguna Palms Way	Elk Grove	CA	95758
City of Rocklin	Planning Division	3970 Rocklin Road	Rocklin	CA	95677
Sacramento Regional Transit	Planning Manager	P.O. Box 2110	Sacramento	CA	95812
Sutter County	Planning Services	1130 Civic Center Blvd.	Yuba City	CA	95993
El Dorado County - DSD	Planning Services, Building C	2850 Fairlane Court	Placerville	CA	95667
Yolo County	Planning, Resources, & Public Works	292 West Beamer Street	Woodland	CA	95695
	Platinum Group Investments	4012 Foothills Bl	Roseville	CA	95747
	Porter Family Trust	5250 Valhalla Dr	Carmichael	CA	95608
McKinley East Sacramento Neighborhood Association	President	P. O. Box 160222	Sacramento	CA	95816
	Rachel Minnick	9961 Horn Road	Sacramento	CA	95827
EIP Associates	Rachel Yelo	1200 Second Street, Suite 2	Sacramento	CA	95814
	Rae Jeana Monohan	1473 5th Street	Sacramento	CA	95814
	Ramgaria Meik Singh/Satnam Singh	1311 E St	Sacramento	CA	95814
	Randy Owen	820 E Street	Sacramento	CA	95814
	Rea Limited Partnership	Po Box 2590	Sacramento	CA	95812
	Realty Advisors Inc	501 S St 1	Sacramento	CA	95814
	Rearden Trust	23340 Soili Rd	Grass Valley	CA	95949
	Redevelopment Agency City Of Sacramento	630 I St Fl3	Sacramento	CA	95814
	Redevelopment Agency City Of Sacramento	P O Bx 1834	Sacramento	CA	95812
	Redevelopment Agency City Of Sacramento	630 I St	Sacramento	CA	95814
	Redevelopment Agency City Of Sacramento	630 I St Fl3	Sacramento	CA	95814
	Redevelopment Agency City Of Sacramento	P O Bx 1834	Sacramento	CA	95812

	Reed Donna L/Alfonso Z Gonzalez Trust	Po Box 576	Courtland	CA	95615
Walk Sacramento	Renee Spain	909 12th Street	Sacramento	CA	95814
	Reyes Jose	426 8th St	Sacramento	CA	95814
JDtA	Rhett Beavers	P.O. 189278	Sacramento	CA	95818
	Ricci Alvin E	705 J St	Sacramento	CA	95814
	Ricci Holdings L P	2711 Lacy Ln	Sacramento	CA	95821
	Ricci Holdings L P	916 8th St	Sacramento	CA	95814
Newton Booth Neighborhood Association	Richard Halliday	P.O. Box 161466	Sacramento	CA	95816
	Richard Judd	P.O. Box 521	El Dorado	CA	95623
Thomas Enterprises / Jerde Partnership	Richard Poulos	913 Ocean Front Walk	Venice	CA	90291
Thomas Enterprises	Richard Rich	431 I Street, Suite 202	Sacramento	CA	95814
	Richard Rojo	2618 E Street	Sacramento	CA	95816
California Railroad Foundation	Richard Tolmach	1730 13th Street	Sacramento	CA	95814
Modern Transit Society	Richard Tolmach	1730 13th Street	Sacramento	CA	95814
	Richard Wilson	2604 27th Street	Sacramento	CA	95818-2617
	Richards Garden Office Llc	P O Bx 3011	Sacramento	CA	95812
Amtrak	Richards Guy	530 Water Street, Floor 5	Oakland	CA	94607
League of Women Voters of Sacramento	Rick Bettis	1716 P Street, #9	Sacramento	CA	95814
	Risch Family Trust	122 J St	Sacramento	CA	95814
Patty Kleinknecht	River District PBID	1515 North C Street	Sacramento	CA	CA
	Riverview Plaza Associates	630 I St	Sacramento	CA	95814
McMartin Realty/SOCA	Rob McQuade	2031 K St., Ste. 100	Sacramento	CA	95814
Platinum Parking	Rob Noiles / Seth De La Riva	P.O. Box 1042	Sacramento	CA	95812
Boulevard Park Neighborhood Association	Rob Sperling	P.O. Box 163179	Sacramento	CA	95816-8147
	Robert B Matheson 2006 Trust/Carole L Matheson	Po Box 970	Elk Grove	CA	95759
	Robert B Matheson 2006 Trust/Carole L Matheson	Po Box 970	Elk Grove	CA	95759
CA State Parks	Robert Baxter	111 I Street	Sacramento	CA	95814
	Robert Baxter	7496 Rio Mondego Drive	Sacramento	CA	95831
McMartin Realty	Rod Stewart	2031 k St., Ste. 100	Sacramento	CA	95814
	Rodolfo O Cuellar Family Trust	1212 D St	Sacramento	CA	95814
	Rose Rodney B	Po Bx 15453	Sacramento	CA	95851
	Ross Esperanza	1700 L St	Sacramento	CA	95814
Save Our Rail Depot Coalition	Roxanne Miller	1400 K Street, Suite 315	Sacramento	CA	95814
	S M U D	P O Bx 15830	Sacramento	CA	95852
	S Thomas Enterprises Of Sacramento Llc	431 I St 202	Sacramento	CA	95814
	S Thomas Enterprises Of Sacramento Llc	431 I Street, Suite 202	Sacramento	CA	95814
Remy, Thomas, Moose & Manley	Sabrina V. Teller	455 Capitol Mall, Suite 210	Sacramento	CA	95814
	Sacprop(Federated Dept Stores Inc)	7 W Seventh St	Cincinnati	OH	45202
	Sacramento Atrium Associates				
	Sacramento Co Emp Credit Union	800 H St	Sacramento	CA	95814
	Sacramento County Alliance of Neighborhoods	1415 38th Street	Sacramento	CA	95816
	Sacramento Downtown Investors	Po Box 711	Davis	CA	95617
	Sacramento Regional Transit District	P O Bx 2110	Sacramento	CA	95812
	Sacramento Thtrcl Lighting	950 Richards Bl	Sacramento	CA	95814
	Sacramento Vagabond Inn Executive Oldtown Llc	5933 W Century Bl 200	Los Angeles	CA	90045
	Sacto Electri Contractors Association Incorporated	1129 D St	Sacramento	CA	95814
	Sag/Wig Llc	939 Commons Dr	Sacramento	CA	95825

	Salvation Army	180 E Oecan Bl Fl 3	Long Beach	CA	90802
	Salvation Army	P O Bx 348000	Sacramento	CA	95834
	Sam Ong	6821 Willowood Way	Sacramento	CA	95831
Southside Park Neighborhood Association	Sarah Soto-Taylor	P.O. Box 1421	Sacramento	CA	95812
	Satya N Chatterjee Family Revocable Trust	8167 River Front Ln	Fair Oaks	CA	95628
	Schetter Electric Inc	P O Bx 1377	Sacramento	CA	95812
	Schetter Frank E/Linda A	471 Bannon St	Sacramento	CA	95814
	Schmidt Rosa Marie	7 Jib Ct	Sacramento	CA	95831
CS65	Scott Syphax	424 N. 7th Street	Sacramento	CA	95814
Nolte & Associates, Inc.	Sean Smith	1750 Creekside Oaks Dr., St	Sacramento	CA	95833
Alkali Mansion Flats Historic Neighborhood Associat	Sean Wright	1326 E Street	Sacramento	CA	95814
Friends of Light Rail	Seann Rooney	P.O. Box 2110	Sacramento	CA	95812-2110
	Sharon Patrician	3633 57th Street	Sacramento	CA	95820
	Shepard Johnson Properties Llc	Po Box 1307	Roseville	CA	95678
SHRA	Sheri Smith	600 I Street, Suite 250	Sacramento	CA	95814
Nicholas Fonseca	Shingle Springs Band of Miwok Indians	P.O. Box 1340	Shingle Springs	CA	
Nepenthe Homeowners Association	Shirley Ferguson	1131 Commons Drive	Sacramento	CA	95825
	Skinner Pamela A/Stanley J Lukowicz	1225 D St	Sacramento	CA	95814
	Smith Jeffrey D/Dean P	911 46th St	Sacramento	CA	95819
	Soo Yuen Benev Assn Of Sacto	401 J St	Sacramento	CA	95814
	Southern Pacific Transportation Company	1400 Douglas St 1640	Omaha	NE	68179
	Stafford Michael D/Dara Z	4240 Watkins Dr	Fair Oaks	CA	95628
	Standford Lofts Llc	Po Box 1307	Roseville	CA	95678
	State Of California	0 Front St	Sacramento	CA	95814
	State Of California	100 I St	Sacramento	CA	95814
	State Of California	100 J St	Sacramento	CA	95814
	State Of California	101 I St	Sacramento	CA	95814
	State Of California	101 J St	Sacramento	CA	95814
	State Of California	111 I St	Sacramento	CA	95814
	State Of California	113 J St	Sacramento	CA	95814
	State Of California	125 I St	Sacramento	CA	95814
	State Of California	344 N 7th St	Sacramento	CA	95814
	State Of California	400 P St 3110	Sacramento	CA	95814
	State Of California	401 I St	Sacramento	CA	95814
	State Of California	650 Howe Av	Sacramento	CA	95825
	State Of California	P O Bx 63931	San Francisco	CA	94163
	State Of California	101 J St	Sacramento	CA	95814
	State Of California	111 I St	Sacramento	CA	95814
	State Of California	344 N 7th St	Sacramento	CA	95814
	State Of California	P O Bx 63931	San Francisco	CA	94163
	Stelmaszczyk Trust/Krzysztof Machalica	9520 Flintridge Wy	Orangevale	CA	95662
	Steve Argonza	725 Howe Avenue, #96	Sacramento	CA	95825
Oxbow	Steve Carlin	1127 Pope St., Ste. 202	St. Helena	CA	94574
CS65	Steve Goodwin				
Caltrans	Steve Hetland	2389 Gateway Oaks Drive	Sacramento	CA	94274
Boulevard Park Neighborhood Assoc.	Steve Rodgers	720 23rd St.	Sacramento	CA	95816
	Steve Yee	1614 K Street, Loft 3	Sacramento	CA	95814

PG&E Land Develolpment Division	Steven B. Jones		343 Sacramento Street	Auburn	CA	95759
CA Regional Water Quality Control Board	Steven Meeks		11020 SunCenter Drive, #20	Rancho Cordova	CA	95670
	Stn Ltd		1023 2nd St	Sacramento	CA	95814
	Stribling Inez S		416 8th St	Sacramento	CA	95814
	Strumwasser Michael J/Silvia M		100 Wilshire Bl 1900	Santa Monica	CA	90401
	Stults Timothy R/Margret Salmon		1105 E St	Sacramento	CA	95814
	Sue Stack		14298 Edgehill Lane	Auburn	CA	95603
Thomas Enterprises	Suheil Totah		431 I Street, Suite 202	Sacramento	CA	95814
	Sun Yat-Sen Memorial Association		415 J St	Sacramento	CA	95814
Valley Vision	Susan Frazier	Ex. Director	1900 S Street	Sacramento	CA	95814
New Era Park Neighborhood Association	Susan Moe		P.O. Box 161662	Sacramento	CA	95816
	Sutherland Kevin J		912 E St	Sacramento	CA	95814
Regional Transit	Taiwo Jaeoba		P.O. Boox 2110	Sacramento	CA	95810
Urban Design Alliance	Tani Elliott		3504 J St. #19	Sacramento	CA	95816
	Taylor Glenhall E Iii/Vivica M		114 Muir Ln	Alamo	CA	94507
	Taylor Jeffrey L		Po Box 645	Penryn	CA	95663
	Taylor Jeffrey L		Po Box 645	Penryn	CA	95663
	Teachers Ins/Annuity Assoc Of America		303 E Wacker Dr 260	Chicago	IL	60601
Yolo County Transportation Department	Terry Bassett		350 Industrial Way	Woodland	CA	95776
NAG	Thomas J. Prittie		2526 I Street, # 104	Sacramento	CA	95816
	Tim Morgan		714 P Street, #216	Sacramento	CA	95814
Economic & Planning Systems, Inc.	Tim Youman		2150 River Plaza Drive, Suit	Sacramento	CA	95833
	Tinucci Richard M		1220 C St	Sacramento	CA	95821
USMS	Todd Guendert		501 I Street	Sacramento	CA	95814
	Tomo Nori Financial Partners		112 N Highland Av	Los Angeles	CA	90036
	Trevor Hood		1029 F Street	Sacramento	CA	95814
Sacramento County Planning	Tricia Stevens		827 7th Street Room 230	Sacramento	CA	95814
	Trudy Ziebell		48 Aiken Way	Sacramento	CA	95819
	Tsakopoulos Family Trust/Etal		7423 Fair Oaks Bl 10	Carmichael	CA	95608
	U S Housing Partners Ii L P		2950 Buskirk Av 312	Walnut Creek	CA	94596
	U S Housing Revocable Living Trust		162 Pinedale Ave	Sacramento	CA	95838
	Union Gospel Mission		102 Mainsail Ct	Folsom	CA	95630
	Union Gospel Mission		400 Bannon St	Sacramento	CA	95814
Jessica Tavares	United Auburn Indian Community of the Auburn		575 Menlo Drive, Suite 2	Rocklin	CA	
	United States Of America		525 Market St 9l	San Francisco	CA	94105
	United States Of America		801 I St	Sacramento	CA	95814
	Unsworth Partners L P		550 Hamilton St 329	Palo Alto	CA	94301
	Venegas Pedro M		528 4th St	West Sacrament	CA	95605
	Verbrugge David J		1219 C St	Sacramento	CA	95814
	Verduzco Family Trust		108 Feather Falls Cir	Folsom	CA	95630
Valley Center NA	Vickey Scott		6766 Hollyhurst Drive	Sacramento	CA	95814
	Vicki Beaton		749 Lake Front Drive	Sacramento	CA	95831
	Vivian Gerlach		P.O. Box 163688	Sacramento	CA	95816
	Vollmann William T/Janice Kong-Ja Ryu		2090 8th Ave	Sacramento	CA	95818
	Wahba Mike		1023 Front St C	Sacramento	CA	95814
	Wallace Edward E		408 San Miguel Wy	Sacramento	CA	95819
Sacramento Area Bicycle Advocates	Walt Seifert		909 12th Street, Suite 114	Sacramento	CA	95814

	Warren Cushman	2445 Wyda Way, Apt. 3	Sacramento	CA	95825
Caltrans - Rail	Warren Weber	P.O. Box 942874, MS 74	Sacramento	CA	94274
	Weems Glenn Karl	440 N B St	Sacramento	CA	95814
	Weems Joanna	Po Box 15624	Sacramento	CA	95852
SRCSD	Wendy Haggard	10545 Armstrong Avenue	Mather	CA	95655
	Whatley Jack E	808 E St	Sacramento	CA	95814
East Sacramento Preservation Task Force	Will Green	5714 Folsom Blvd. PMB 169	Sacramento	CA	95819
U.S. Army Corps of Engineers	Will Ness	1325 J Street	Sacramento	CA	95814
	Willa-Myer	2642 Kadema Dr	Sacramento	CA	95864
	Willa-Myer	2642 Kadema Dr	Sacramento	CA	95864
	William E Masters Revocable Trust	1100 E St	Sacramento	CA	95814
	William H Markley Family Revocable Trust/Etal	2807 Sheridan Wy	Sacramento	CA	95821
Nolte & Associates, Inc.	William Ishmael	1750 Creekside Oaks Dr., S	Sacramento	CA	95833
	William Kopper	417 E Street	Davis	CA	95616
	William W Applegate Living Trust	18 Vista Del Sol	Mill Valley	CA	94941
	Williams Communications Incorporated	1025 Eldorado Bl	Broomfield	CO	80021
	Wong Center	331 J St	Sacramento	CA	95814
	Yeung Stanley	417 11th St	Sacramento	CA	95814
	Yu Family Revocable Trust	9431 Maris Ln	Elk Grove	CA	95624
	Yuanhe Sun	333 J Street, Apt. 520	Sacramento	CA	95814
	Zimmerman Sarah L	420 8th St	Sacramento	CA	95814
	Zuniga Andrew Mark	320 Bannon St	Sacramento	CA	95814
COMCAST		4350 Pell Drive	Sacramento	CA	95838
Downtown Plaza Merchants Assn.		547 L Street	Sacramento	CA	95814
FEDSHRA		P.O. Box 6404	Folsom	CA	95763-6404
Sacramento County Alliance of Neighborhoods		P.O. Box 191257	Sacramento	CA	95819
Sacramento Heritage		1415 38th Street	Sacramento	CA	95816
State of California DOT (Caltrans) Dist 3	c/o Bruce DeTerra MS-15	PO Box 942874	Sacramento	CA	94274-0001
Caltrans Rail	Bill Bronte, Director	1120 N Street	Sacramento	CA	95814
Dept. of Toxic Substance Control	Attn: Fernando Amador	8800 Cal Center Drive	Sacramento	CA	95826-3200
Public Utilities Commission	Sacramento Office	770 "L" Street, Ste. 105	Sacramento	CA	95814
Regional Water Quality Control Board	Central Valley Region	11020 Sun Center Drive, Suite	Rancho Cordova	CA	95670
CA State Lands Commission	Dwight E Sanders	100 Howe Ave Suite 100 South	Sacramento	CA	95825-8202
	CA State Reclamation Board	P.O. Box 942836	Sacramento	CA	94236
	CA Department of Fish & Game	1701 Nimbus Road	Rancho Cordova	CA	95670
Office of Historic Preservation CA Dept of P&R	Milford Wayne Donaldson, FAIA, SHPO	P.O. Box 942896	Sacramento	CA	94296-0001
West Sacramento	Community Develolpment	1110 West Capitol Avenue	West Sacramento	CA	95691
SMAQMD	Jeane Borkenhagen	777 12th Street, 3rd Floor	Sacramento	CA	95814
SMAQMD	Jeane Borkenhagen	777 12th Street, 3rd Floor	Sacramento	CA	95814
SMAQMD	Jeane Borkenhagen	777 12th Street, 3rd Floor	Sacramento	CA	95814

Attn: Scott Johnson

NO 457 PUBLIC NOTICE

NOTICE OF PREPARATION AND SCOPING HEARING FOR AN ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE DOWNTOWN RAILYARDS SPECIFIC PLAN, SACRAMENTO INTERMODAL TRANSPORTATION FACILITY AND DEVELOPMENT PROJECTS

(Public Review Period: March 10, 2006 through April 10, 2006)

The City of Sacramento ("City") is the lead agency for preparation of an Environmental Impact Report (EIR) for adoption of "The Railyards Specific Plan" and a specific development proposal for an area in the proposed Specific Plan known as the "Project Level Area". Additionally, the EIR will analyze, at a programmatic level, the proposed Sacramento Intermodal Transit Facility. The project site is approximately 240 acres and is located on the northwestern edge of the downtown area of the City of Sacramento. The project area is east of Interstate 5 and south of the American River.

The "project" that is the subject of this EIR includes rescission of the Railyards Specific Plan adopted by the City Council on December 13, 1994 and the adoption of a new "Railyards Specific Plan" in accordance with section 65451 of the Government Code and approval of related entitlements, including a development agreement, development standards and design guidelines, that would provide for development of mixed uses, including high-density housing, parks, a canal, open space, cultural, office, hospitality, entertainment, sports, and retail uses, an intermodal facility and supporting infrastructure. The EIR analysis for this component of the project will be programmatic pursuant to section 15168 of the CEQA Guidelines. The EIR will also include project-specific evaluation of development proposed in the Project Level Area of The Railyards Specific Plan pursuant to CEQA Guidelines section 15161. The Project Level Area of The Railyards Specific Plan consists of approximately 86 acres that include part of the Depot District, Central Station, Fifth Street Emporium, and the Sports and Entertainment District. The Project Level Area of The Railyards Specific Plan is to be redeveloped with a mixture of residential, cultural, retail, entertainment, public, and office uses.

Below is a table summary of proposed land uses in the Project Level Area:

	Office (sq./ft.)	Residential (units)	Retail (sq/ft)	Hotel (rooms)	Cultural and Ent. (sq/ft)	Open Space (ac)
Max.	1,076,500	2,235	1,250,000 and a 20,000 seat sports/event facility Min.	650	421,700	30.96
Min.	—	1,384	—	—	—	—

Copies of the Notice of Preparation can be obtained from 915 I Street, New City Hall, 3rd Floor Planning Reception Desk, Sacramento, CA 95814 or at 2101 Arena Boulevard, Suite 200, Sacramento, CA 95834.

Written comments regarding the scope and content of the information to be included in the EIR for the proposed project must be received no later than 5:00 p.m. on April 10, 2006. All comments must include your full name and address. Please send comments to: Scott Johnson, Associate Planner, City of Sacramento Development Services Department, 2101 Arena Boulevard, Suite 200, Sacramento, CA 95834. Or FAX comments to (916) 566-3968. If you would like to receive a more detailed project description or have any questions, please call (916) 808-5842.

A public scoping meeting is scheduled for March 29, 2006 from 6:30 pm until 8:00 pm at Historic City Hall Hearing Room, 915 I Street, Second Floor, Sacramento, CA.

1Ti March 13, 2006

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Let me know if you have any questions

Thanks!

Sierra 916 321 1541 or Slmith@sacbee.com

NO 425 PUBLIC NOTICE

NOTICE OF AVAILABILITY - DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE RAILYARDS SPECIFIC PLAN (P05-097) (SCH: 2006032058) AND PUBLIC HEARING TO TAKE COMMENTS

COMMENT PERIOD: August 20, 2007 through October 3, 2007 (Comment Period Ends, 5:00 p.m. October 3, 2007)

PROJECT LOCATION: The Railyards Specific Plan area is located on approximately 244 acres in the Central City Community Plan area and Downtown area of the City of Sacramento. The site is immediately north of the Central Business District, east of the Sacramento River and Interstate 5 (I-5), south of B Street and the Richards Boulevard area, and northwest of the Alkali Flat neighborhood. The project site is comprised of 12 Assessor's Parcel Numbers (A.P.N.), including 001-0210-013, -016, and 002-0010-018,-019,-025,-035,-036,-037,-038,-039,-041,-043.

The City of Sacramento, Development Services Department, Environmental Planning Services has completed the Draft Environmental Impact Report (DEIR) for the Railyards Specific plan project. The document is now available for public review and comment. You may view a copy or obtain a CD version at the New City Hall Building, 915 I Street, 3rd Floor Reception Desk, between 8:00 am and 5:00 pm Monday through Friday (except holidays). Or you may obtain a hard copy of the document at the North Natomas Permit Center, 2101 Arena Boulevard, Second Floor, between 7:30 AM and 3:30 PM Monday through Friday (except holidays). The DEIR is also available on the City's Web site at:
http://www.cityofsacramento.org/dsd/projects/railyards/ and
http://www.cityofsacramento.org/dsd/planning/CurrentEnvironmentalImpactReportsProjects.cfm

The Railyards Specific Plan is a proposed mixed-use development in the Richards Boulevard area in the City of Sacramento. The proposed project would involve the development of between 10,000 and approximately 12,500 dwelling units (du); 1,384,800 square feet (sf) of retail; 1,100 hotel rooms; 2,337,200 sf of office; 487,390 sf of historic/cultural space; and approximately 41.6 acres of open space. The project would include low-, medium-, and high rise single use and mixed use residential, retail, office and hotel structures. The project also provides cultural/recreational facilities including but not limited to the refurbished Central Shops buildings, numerous public parks and walkways, and a proposed performing arts center/theater. The proposed project offers a network of public streets with vehicular, bicycle, and pedestrian access, aboveground and subgrade parking facilities and above surface and subsurface energy, water, wastewater, and drainage infrastructure and facilities. The project would also include approximately 12.21 acres designated for the development of the Sacramento Intermodal Transit Facility, which would provide multiple modes of public transit service including bus, rail, light rail, and passenger auto. The proposed project would also involve the realignment of the railroad tracks running from 3rd Street to 11th Street for use by Amtrak, Union Pacific (UP), Sacramento RT, and the potential future construction of a regional high speed rail line. The project will involve approval of the Railyards Specific Plan and related entitlements.

The issues discussed within the EIR are those that have been identified as having potentially significant impacts including: Air Quality; Biological Resources; Cultural Resources; Seismicity, Soils, and Geology; Hazardous Materials; Hydrology and Water Quality; Land Use; Noise and Vibration; Parks and Open Space; Public Services (Police and Fire, Solid Waste, Libraries and Schools); Transportation and Circulation; Urban Design and Visual Resources; Utilities (Wastewater, Drainage and Water Supply); and Energy. Mitigation is included in the EIR where appropriate.

The Draft EIR is being circulated for a 45 day public review period from Monday, August 20, 2007 through Wednesday, October 3, 2007. Written comments regarding the Draft EIR should be received by Environmental Planning Services NO LATER THAN 5:00 P.M., Wednesday, October 3, 2007. Written comments should be submitted to:

Scott Johnson, Associate Planner
City of Sacramento, Development Services Department
Environmental Planning Services
North Permit Center
2101 Arena Boulevard, Suite 200
Sacramento, CA 95834
srjohnson@cityofsacramento.org

The Draft EIR has been forwarded to the City Central Library. If you have any questions concerning the environmental review process, please call Scott Johnson at (916) 808-5842. Thank you.

A public hearing will be held during this comment period at:
City of Sacramento's Historic City Hall
Planning Commission Hearing Room
915 I Street, 2nd Floor
Sacramento, CA
on
Thursday, September 13, 2007 at 5:30pm.

Responsible agencies and members of the public are invited to attend and provide comments on the Draft Environmental Impact Report.

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APPENDIX C

Greenhouse Gas Emissions

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Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\21478\Desktop\Sacramento Railyards GHG Emissions\Railyards 2030.urb9

Project Name: Sacramento Railyards GHG Emissions

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	43,871.95

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	216,101.47

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	259,973.42

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	CO2
Natural Gas	33,268.16
Hearth	10,602.80
Landscape	0.99
Consumer Products	
Architectural Coatings	
TOTALS (tons/year, unmitigated)	43,871.95

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	CO2
Apartments mid rise	59,158.84
Regnl shop. center	116,179.20
General office building	35,977.73
Other	4,785.70
TOTALS (tons/year, unmitigated)	216,101.47

Operational Settings:

Does not include correction for passby trips

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Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Apartments mid rise	297.37	3.30	dwelling units	11,300.00	37,290.00	318,818.31
Regnl shop. center		54.80	1000 sq ft	1,566.00	85,816.80	632,469.82
General office building		7.64	1000 sq ft	2,993.00	22,866.52	194,937.08
Other		10.00	1000 sq ft	353.50	3,535.00	26,052.95
					149,508.32	1,172,278.16

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Other				2.0	1.0	97.0

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Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\21478\Desktop\Sacramento Railyards GHG Emissions\Construction Phase IA.urb9

Project Name: Sacramento Railyards GHG Emissions

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	CO2
2007 TOTALS (tons/year unmitigated)	78.83
2008 TOTALS (tons/year unmitigated)	3,460.28

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	CO2

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2007	78.83
Fine Grading 11/30/2007-01/11/2008	77.56
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	74.98
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	2.58
Asphalt 12/28/2007-01/11/2008	1.28
Paving Off-Gas	0.00
Paving Off Road Diesel	0.00
Paving On Road Diesel	1.28
Paving Worker Trips	0.00

2008	3,460.28
Asphalt 12/28/2007-01/11/2008	5.74
Paving Off-Gas	0.00
Paving Off Road Diesel	0.00
Paving On Road Diesel	5.74
Paving Worker Trips	0.00
Fine Grading 11/30/2007-01/11/2008	31.73
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	30.67
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	1.05
Building 01/11/2008-08/22/2008	3,404.97
Building Off Road Diesel	2,439.67
Building Vendor Trips	235.63
Building Worker Trips	729.67
Coating 08/08/2008-09/05/2008	17.84
Architectural Coating	0.00
Coating Worker Trips	17.84

Phase Assumptions

Phase: Fine Grading 11/30/2007 - 1/11/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 47.35

Maximum Daily Acreage Disturbed: 11.84

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

2.8 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2.8 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2.8 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 12/28/2007 - 1/11/2008 - Default Paving Description

Acres to be Paved: 11.84

Off-Road Equipment:

Phase: Building Construction 1/11/2008 - 8/22/2008 - Default Building Construction Description

Off-Road Equipment:

41.4 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

Phase: Architectural Coating 8/8/2008 - 9/5/2008 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\21478\Desktop\Sacramento Railyards GHG Emissions\Construction Phase IB.urb9

Project Name: Sacramento Railyards GHG Emissions

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	CO2
2007 TOTALS (tons/year unmitigated)	140.97
2008 TOTALS (tons/year unmitigated)	4,577.74

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	CO2

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2007	140.97
Fine Grading 11/30/2007-01/11/2008	138.49
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	133.89
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	4.60
Asphalt 12/28/2007-01/11/2008	2.48
Paving Off-Gas	0.00
Paving Off Road Diesel	0.00
Paving On Road Diesel	2.48
Paving Worker Trips	0.00

2008	4,577.74
Asphalt 12/28/2007-01/11/2008	11.16
Paving Off-Gas	0.00
Paving Off Road Diesel	0.00
Paving On Road Diesel	11.16
Paving Worker Trips	0.00
Fine Grading 11/30/2007-01/11/2008	56.66
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	54.77
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	1.88
Building 01/11/2008-08/22/2008	4,484.60
Building Off Road Diesel	2,863.97
Building Vendor Trips	292.83
Building Worker Trips	1,327.81
Coating 08/08/2008-09/05/2008	25.32
Architectural Coating	0.00
Coating Worker Trips	25.32

Phase Assumptions

Phase: Fine Grading 11/30/2007 - 1/11/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 92.04

Maximum Daily Acreage Disturbed: 23.01

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

5 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

5 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

5 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 12/28/2007 - 1/11/2008 - Default Paving Description

Acres to be Paved: 23.01

Off-Road Equipment:

Phase: Building Construction 1/11/2008 - 8/22/2008 - Default Building Construction Description

Off-Road Equipment:

48.6 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

Phase: Architectural Coating 8/8/2008 - 9/5/2008 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\21478\Desktop\Sacramento Railyards GHG Emissions\Construction Phase II.urb9

Project Name: Sacramento Railyards GHG Emissions

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	CO2
2007 TOTALS (tons/year unmitigated)	62.06
2008 TOTALS (tons/year unmitigated)	5,386.67

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	CO2

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2007	62.06
Fine Grading 11/30/2007-01/11/2008	58.17
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	56.24
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	1.93
Asphalt 12/28/2007-01/11/2008	3.89
Paving Off-Gas	0.00
Paving Off Road Diesel	0.00
Paving On Road Diesel	3.89
Paving Worker Trips	0.00

2008	5,386.67
Asphalt 12/28/2007-01/11/2008	17.51
Paving Off-Gas	0.00
Paving Off Road Diesel	0.00
Paving On Road Diesel	17.51
Paving Worker Trips	0.00
Fine Grading 11/30/2007-01/11/2008	23.80
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	23.01
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	0.79
Building 01/11/2008-08/22/2008	5,283.09
Building Off Road Diesel	1,803.24
Building Vendor Trips	942.85
Building Worker Trips	2,537.00
Coating 08/08/2008-09/05/2008	62.28
Architectural Coating	0.00
Coating Worker Trips	62.28

Phase Assumptions

Phase: Fine Grading 11/30/2007 - 1/11/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 144.38

Maximum Daily Acreage Disturbed: 36.1

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

2.1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2.1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2.1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 12/28/2007 - 1/11/2008 - Default Paving Description

Acres to be Paved: 36.1

Off-Road Equipment:

Phase: Building Construction 1/11/2008 - 8/22/2008 - Default Building Construction Description

Off-Road Equipment:

30.6 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

Phase: Architectural Coating 8/8/2008 - 9/5/2008 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\21478\Desktop\Sacramento Railyards GHG Emissions\Construction Phase III.urb9

Project Name: Sacramento Railyards GHG Emissions

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	CO2
2007 TOTALS (tons/year unmitigated)	154.17
2008 TOTALS (tons/year unmitigated)	8,373.91

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	CO2

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2007	154.17
Fine Grading 11/30/2007-01/11/2008	149.57
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	144.60
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	4.97
Asphalt 12/28/2007-01/11/2008	4.60
Paving Off-Gas	0.00
Paving Off Road Diesel	0.00
Paving On Road Diesel	4.60
Paving Worker Trips	0.00

2008	8,373.91
Asphalt 12/28/2007-01/11/2008	20.70
Paving Off-Gas	0.00
Paving Off Road Diesel	0.00
Paving On Road Diesel	20.70
Paving Worker Trips	0.00
Fine Grading 11/30/2007-01/11/2008	61.19
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	59.16
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	2.03
Building 01/11/2008-08/22/2008	8,203.51
Building Off Road Diesel	3,076.11
Building Vendor Trips	1,538.51
Building Worker Trips	3,588.89
Coating 08/08/2008-09/05/2008	88.51
Architectural Coating	0.00
Coating Worker Trips	88.51

Phase Assumptions

Phase: Fine Grading 11/30/2007 - 1/11/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 170.71

Maximum Daily Acreage Disturbed: 42.68

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

5.4 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

5.4 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

5.4 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 12/28/2007 - 1/11/2008 - Default Paving Description

Acres to be Paved: 42.68

Off-Road Equipment:

Phase: Building Construction 1/11/2008 - 8/22/2008 - Default Building Construction Description

Off-Road Equipment:

52.2 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

Phase: Architectural Coating 8/8/2008 - 9/5/2008 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\21478\Desktop\Sacramento Railyards GHG Emissions\Construction Phase IV.urb9

Project Name: Sacramento Railyards GHG Emissions

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	CO2
2007 TOTALS (tons/year unmitigated)	78.09
2008 TOTALS (tons/year unmitigated)	6,562.59

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	CO2

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2007	78.09
Fine Grading 11/30/2007-01/11/2008	74.79
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	72.30
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	2.48
Asphalt 12/28/2007-01/11/2008	3.30
Paving Off-Gas	0.00
Paving Off Road Diesel	0.00
Paving On Road Diesel	3.30
Paving Worker Trips	0.00

2008	6,562.59
Asphalt 12/28/2007-01/11/2008	14.85
Paving Off-Gas	0.00
Paving Off Road Diesel	0.00
Paving On Road Diesel	14.85
Paving Worker Trips	0.00
Fine Grading 11/30/2007-01/11/2008	30.59
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	29.58
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	1.02
Building 01/11/2008-08/22/2008	6,444.43
Building Off Road Diesel	2,139.13
Building Vendor Trips	1,365.68
Building Worker Trips	2,939.61
Coating 08/08/2008-09/05/2008	72.71
Architectural Coating	0.00
Coating Worker Trips	72.71

Phase Assumptions

Phase: Fine Grading 11/30/2007 - 1/11/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 122.53

Maximum Daily Acreage Disturbed: 30.63

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

2.7 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2.7 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2.7 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 12/28/2007 - 1/11/2008 - Default Paving Description

Acres to be Paved: 30.63

Off-Road Equipment:

Phase: Building Construction 1/11/2008 - 8/22/2008 - Default Building Construction Description

Off-Road Equipment:

36.3 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

Phase: Architectural Coating 8/8/2008 - 9/5/2008 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Railyards Greenhouse Gas Analysis - Model Input Data

Land use	Amount	Units	Unadjust Weekday ADT	Fraction	Reduction	Adjust Weekday ADT	URBEMIS Entry: Adjust Daily Trip Rate
Office (General Office Bldg)	2993	KSF	31175	0.15	8308	22867	7.64
Retail (Shopping Center)	1566	KSF	116989	0.57	31177	85812	54.80
Residential	11300	Units	50780	0.25	13532	37248	3.30
Other			4819	0.02	1284	3535	
			203763	1.00	54301	149462	
Adjustments							
Transit (-3.9%)	6895						
Walk, etc. (-8.9%)	19454						
Internal (-5.6%)	12635						
Trips To-From other blocks (-6.7%)	15317						
	54301						

Traffic data taken from Railyards Specific Plan Draft EIR, Chapter 6.12, Tansportation and Circulation, Table 6.12-12.

Railyards Greenhouse Gas Analysis - Model Input Data

CH4 and N2O Emission Factors for Railyards Motor Vehicle Fleet

			Gasoline			
	Vehicle	Fuel	CH4		N2O	
Vehicle Type (from URBEMIS)	Type Frac	Frac	EMFAC	Wt EMFAC	EMFAC	Wt EMFAC
Light Auto	0.475	1.000	0.04	0.019	0.04	0.019
Light Truck < 3750	0.100	0.999	0.05	0.005	0.06	0.006
Light Truck < 5750	0.229	1.000	0.05	0.011	0.06	0.014
Med Truck	0.101	1.000	0.12	0.012	0.20	0.020
Lite Heavy Truck < 10000	0.021	0.810	0.12	0.002	0.20	0.003
Lite Heavy Truck < 14000	0.009	0.556	0.12	0.001	0.20	0.001
Med Heavy Truck < 33000	0.016	0.188	0.12	0.000	0.20	0.001
Heavy Truck 33000 - 60000	0.004	0.000	0.12	0.000	0.20	0.000
Other Bus	0.001	0.000	0.12	0.000	0.20	0.000
Urban Bus	0.000	1.000				
Motorcycle	0.035	1.000	0.09	0.003	0.01	0.000
School Bus	0.001	0.000	0.12	0.000	0.20	0.000
Motor Home	0.008	0.875	0.12	0.001	0.20	0.001
	1.000			**0.055**		**0.066**

Emission factors taken from California Climate Action Registry General Reporting Protocol, Version 2.2, March 2007; Appendix C, Table C4

			Diesel			
	Vehicle	Fuel	CH4		N2O	
Vehicle Type (from URBEMIS)	Type Frac	Frac	EMFAC	Wt EMFAC	EMFAC	Wt EMFAC
Light Auto	0.475	0.000	0.01	0.000	0.02	0.000
Light Truck < 3750	0.100	0.001	0.01	0.000	0.03	0.000
Light Truck < 5750	0.229	0.000	0.01	0.000	0.03	0.000
Med Truck	0.101	0.000	0.06	0.000	0.05	0.000
Lite Heavy Truck < 10000	0.021	0.190	0.06	0.000	0.05	0.000
Lite Heavy Truck < 14000	0.009	0.444	0.06	0.000	0.05	0.000
Med Heavy Truck < 33000	0.016	0.812	0.06	0.001	0.05	0.000
Heavy Truck 33000 - 60000	0.004	1.000	0.06	0.000	0.05	0.000
Other Bus	0.001	1.000	0.06	0.000	0.05	0.000
Urban Bus	0.000	0.000				
Motorcycle	0.035	0.000	0.09	0.000	0.01	0.000
School Bus	0.001	1.000	0.06	0.000	0.05	0.000
Motor Home	0.008	0.125	0.06	0.000	0.05	0.000
	1.000			**0.002**		**0.000**

Emission factors taken from California Climate Action Registry General Reporting Protocol, Version 2.2, March 2007; Appendix C, Table C4

Composite EMFACs	CH4 (g/mi)	N2O (g/mi)
	0.056	**0.066**

Project Greenhouse Gas Emissions from Electricity Use

Source	Electricity Use MWh/year	GHG Emissions (tons/year) CO2	N2O	CH4	CO2 Equivalent Emissions (tons/year) CO2	N2O	CH4	Total
State of California	272,464,000	109,604,093	504.1	912.8	109,604,093	156,258.1	19,167.8	109,779,519
Sacramento County	10,574,000	4,253,603	19.6	35.4	4,253,603	6,064.2	743.9	4,260,411
City of Sacramento	3,363,000	1,352,834	6.2	11.3	1,352,834	1,928.7	236.6	1,354,999
Project*	587,000	236,132	1.1	2.0	236,132	336.6	41.3	236,510

* The SMUD estimates that an additional 67 MW of electrical generating capacity would be needed to serve the project.
The annual electricity use of the project was estimated by multiplying this capacity by the number of hours in a year (8,760 hours).
Emission factors taken from California Climate Action Registry General Reporting Protocol, Version 2.2, March 2007; Appendix C, Table C1 & C2

Project Greenhouse Gas Emissions from Natural Gas Use

Source	Natural Gas Use Therms/year	GHG Emissions (tons/year) CO2	N2O	CH4	CO2 Equivalent Emissions (tons/year) CO2	N2O	CH4	Total
Project	24,532,000	142,780	0.27	15.95	142,780	83.8	335.0	143,199

Emission factors taken from California Climate Action Registry General Reporting Protocol, Version 2.2, March 2007; Appendix C, Table C1

Project Greenhouse Gas Emissions from Solid Waste

Source	Solid Waste tons/year	Landfill Gas tons/year	GHG Emissions (tons/year) CO2	CH4	CO2 Equivalent Emissions Emissions (tons/year) CO2	CH4	Total
City of Sacramento							
2005	291,691	33,106.3	21,067.7	12,038.7	21,067.7	252,812.1	273,880
2005 (including private hauling)	632,800	71,821.5	45,704.6	26,116.9	45,704.6	548,455.4	594,160
Project (Max Operational)	22,194	2,519.0	1,603.0	916.0	1,603.0	19,235.6	20,839
Project (After Waste Diversion Plan)	12,464	1,414.6	900.2	514.4	900.2	10,802.6	11,703

Methodology and emission factors from State Workbook: Methodologies for Estimating Greenhouse Gas Emissions (pages 5-1 to 5-3).

APPENDIX D

Final Air Quality Mitigation Plan

The Railyards – Final Air Quality Mitigation Plan

For submittal to:
Sacramento Metropolitan Air Quality
Management District
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Sacramento, California 95814-1908
Telephone: 916 874-4800

Submitted by:
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Contact: Tim Rimpo
Phone: 916/737-3000

November 9, 2007

Jones & Stokes. 2007. *The Railyard – Final Air Quality Mitigation Plan*. November. (J&S 61194.06.) Sacramento, CA. Prepared for the Sacramento Metropolitan Air Quality Management District, Sacramento, CA 95814-1908.

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Introduction

The Railyards is a master-planned, mixed-use development located on the western terminus of the 1869 Transcontinental Railroad located adjacent to the downtown core of Sacramento, California. Hotel, office, residential, entertainment, plazas, historic renovations and cultural attractions will complement specialty shops, dining and marketplace retailing in this historic revitalization project.

The project is subject to the California Environmental Quality Act (CEQA), which requires the preparation of an Environmental Impact Report (EIR). The project will cause both direct and indirect air quality impacts during its construction and operational phases. This Air Quality Mitigation Plan (AQMP) contains mitigation measures proposed to address operational emissions. These measures are necessary for the project to meet the requirements of CEQA and to meet regional air quality goals.

The Railyards is subject to CEQA and the Sacramento Metropolitan Air Quality Management District (SMAQMD), as a commenting agency, must assess whether this project has significant air quality impacts. If emissions are significant, then under the Sacramento Metropolitan Air Quality Management District's (SMAQMD's) CEQA guidelines, a mitigation plan must be prepared to address these significant impacts. This AQMP addresses those air quality impacts. The AQMD specifies the measures that will be applied to address the potentially significant impact of regional ozone precursor emissions.

Purpose of the Air Quality Mitigation Plan (AQMP)

CEQA requires that environmental impact reports (EIRs) identify and mitigate any significant environmental impacts of a proposed project. The analysis of significant effects must include both direct project impacts and indirect impacts. The analysis must then describe feasible mitigation measures that could minimize and mitigate significant adverse impacts. To assist in the evaluation of air quality impacts, the SMAQMD developed a Guide to Air Quality Assessment in Sacramento County (June 2004) ("Guide"). The Guide outlines a methodology for calculating project emissions whereby a project is divided into separate construction and operational phases. For each phase, the Guide establishes significance thresholds related to elevated regional ambient ozone concentrations, a cumulative impact. Project emissions are compared to these significance thresholds, and mitigation measures are required for projects with emissions exceeding these thresholds.

Pursuant to CEQA, the project's operational emissions are calculated and impacts are estimated in the draft EIR (DEIR). The Guide requires preparation of an AQMP that addresses mitigation of a project's operational emission impacts as reported in the DEIR. The AQMP requires that projects mitigate emissions by 15%, a number that historically came from the Sacramento General Plan, Policy AQ-15, but now has been extended to all significant projects within California. The Draft Plan is a condition to approval and a mitigation measure to ensure implementation. Once fully built out, the project would include from 10,000 to 12,500 residential units, 1,384,800 square feet of retail, 491,000

square feet of mixed use, 1,100 hotel rooms, from zero up to 2,828,200 square feet of office space, 485,390 square feet of historical/cultural land uses, and 41.16 acres of open space.

Operational emissions would include vehicle exhaust emissions related to commuter vehicles, delivery vehicles, and municipal service vehicles. The project would also generate area source emissions associated with fuel combustion used for space and water heating, landscape maintenance equipment, and from evaporative emissions associated with consumer products.

The County of Sacramento adopted a land use review requirement (Policy AQ-15) for the air quality element of the General Plan. Several incorporated areas within Sacramento County have adopted air quality elements to their general plans, and the City of Sacramento has proposed to do so as part of its current General Plan Update. The SMAQMD's land use review policy suggests that projects with significant operational air quality impacts reduce direct and indirect emissions by a minimum of 15% by selecting and implementing mitigation measures from a list of SMAQMD recommendations. The SMAQMD has further determined that this 15% emissions reduction satisfies the "all feasible measures" mitigation requirement under CEQA for operational impacts for all jurisdictions within Sacramento County.

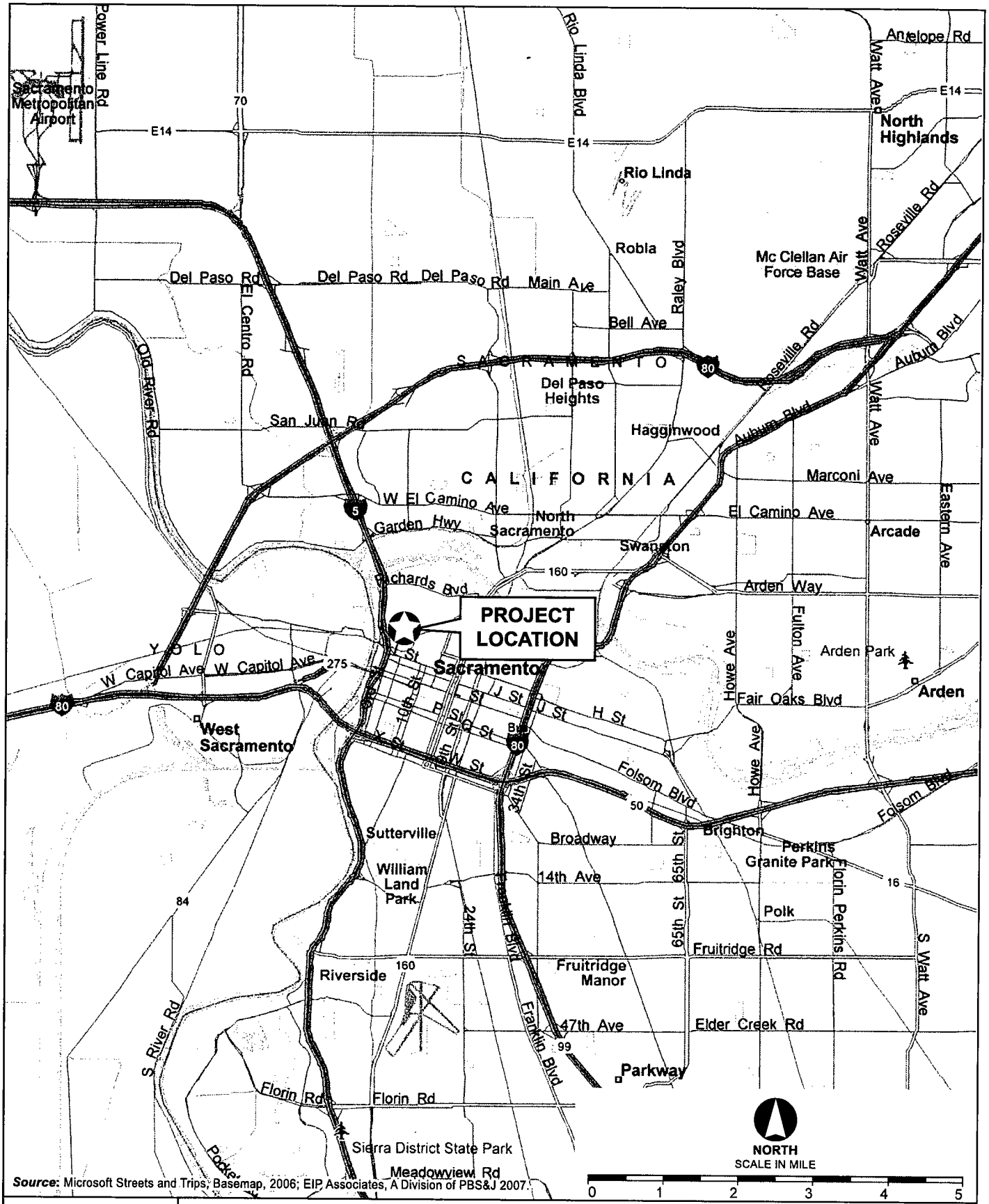
To assist in documenting, quantifying, and monitoring the mitigation measures selected by the project proponent, the SMAQMD has prescribed that the selected operational mitigation measures be explained in the context of the AQMP. The AQMP is a stand alone document separate from any other documents or plans required by CEQA or other laws, ordinances, or regulations. During the environmental review process, and before certification of the DEIR by the lead agency, the SMAQMD independently endorses the AQMP by letter. The endorsed AQMP is then referenced in the DEIR as an air quality mitigation measure, appended to the DEIR, and at the discretion of the lead agency, may be referenced as a separate condition of approval.

Project Description

The project is fully described in the Introduction and Project Description chapters of the DEIR. The following serves as a summary of pertinent information relevant to the AQMP.

PROJECT LOCATION

The Railyards Specific Plan Area (project site) is located in Sacramento County within the existing downtown area of the City of Sacramento, near the confluence of the American and Sacramento Rivers, as depicted in Figure 1, Regional Location Map. The approximately 244-acre Specific Plan Area is immediately north of the Central Business District, east of the Sacramento River and Interstate 5 (I-5) south of North B Street and the Richards Boulevard area, and north of the Alkali Flat Neighborhood, as depicted in Figure 2, Local Vicinity Map. The Specific Plan Area is roughly bounded by the Sacramento River Water Treatment Plant and industrial and commercial uses along Richards Boulevard to the north; the Alkali Flats neighborhood to the southeast; the



Source: Microsoft Streets and Trips, Basemap, 2006; EIP Associates, A Division of PBS&J 2007.

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Regional Location Map

D51234.00

Railyards Specific Plan EIR

Figure 1. Regional Location Map

Source: City of Sacramento, Basemap; EIP Associates, A Division of PBS&J, 2007.

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FIGURE **3-2**

Local Vicinity Map

Figure 2. Local Vicinity Map

Central Business District to the south; Old Sacramento to the southwest; and I-5 and the Sacramento River to the west.

The Specific Plan Area is located in the Central City Community Plan ("CCCP") area and Downtown area of the City of Sacramento. The CCCP includes the area bounded by the American River to the north, Broadway to the south, the Sacramento River to the west, and Alhambra Boulevard to the east. I-5, which runs along the western edge of the project site near the Sacramento River, is elevated above the existing Amtrak rail line and vacant lands of the project site. The project site is comprised of 12 Assessor's Parcel Numbers (APN), including 001-0210-013, -016; and 002-0010-018, -019, - 025, -035, -036, -037, -038, -039, -041, -043.

PROJECT OBJECTIVES

The overall goal of the Specific Plan is the orderly and systematic development of an integrated mixed-use component of the downtown community that is compatible with site characteristics and consistent with the City's goals and policies. The following objectives are intended to support this goal:

- Integrate the Railyards area into the fabric of the existing Central City. The Railyards have historically been isolated from the City. Now the opportunity exists to integrate the area from all points, not just downtown, into a seamless patch of the City fabric.
- Create a dynamic 24-hour mixed use urban village that provides a range of complementary uses - including cultural, office, hospitality, entertainment, retail, residential and open space - and a mixture of housing products, including affordable housing.
- Connect the Railyards area with Sacramento's downtown office, retail, government center areas, as well as Old Sacramento, the Richards Boulevard area, and the Alkali Flat neighborhood, using pedestrian and bicycle facilities, roadways, and public transportation routes.
- Connect the Railyards area to the Sacramento River waterfront, and allow for hotel, public open space, residential waterfront and recreational uses consistent with the Riverfront Master Plan that will result in a vibrant waterfront, valuable to the region and the City.
- Transform the Railyards from an under-utilized and environmentally contaminated industrial site into a transit-oriented, attractive, and nationally renowned mixed-use urban environment.
- Utilize the historic Central Shops buildings as a heritage tourism draw and as an inspiration for a mix of uses that will create a culturally-vibrant, urban community.
- Create a development that is a regional draw for the City of Sacramento due to its geographic location downtown near the Sacramento River waterfront and its

unique mix of transportation, residential, cultural, office, hospitality, entertainment, retail and open space uses and historic sites.

- Provide a mixture of uses that compliment and support the City‘s planned Sacramento Intermodal Transit Facility (SITF), connecting the Central City to the region, the state and beyond.
- Create a sustainable community that utilizes green building technology, water conservation measures and renewable energy sources.

The Specific Plan Area consists of five land use designations, which are described below. Each of these designations allows for some combination of typical land uses, such as office, retail, residential, and open space.

In order to provide as much flexibility as possible, the Specific Plan sets maximum densities for each use allowed within the three mixed use land use designations – Residential/Commercial Mixed Use (“RCMU”), Office/Residential Mixed Use (“ORMU”) and Residential Mixed Use (“RMU”). The Specific Plan does not, however, specify how much of the development must occur in a particular use. Consequently, the amount of each use that is developed will depend at least in part on the amount of other uses developed. For example, the maximum amount of residential development that could occur would be approximately 12,500. However, if the maximum amount of allowed office space were developed, only 10,000 residential units would be built.

Table 1 summarizes the maximum amount of allowed development, by land use, within each of the proposed land use designations. As noted above, these designations are intended to provide a mix of uses. Although Table 1 shows development maximums, each parcel identified as RCMU, ORMU, and RMU may develop some combination of these uses, with some limitations (discussed below).

Maximum development amounts in the TU designation would be determined through the final planning for the Sacramento Intermodal Transportation Facility and its associated facilities and uses. Open Space (OS) designated areas would generally not be developed with major buildings or structures of any significant size, therefore, no development amounts is specified for these areas. Figure 3, Allowable Land Uses, shows which land uses would be allowed on each parcel.

Figure 3. Land Use Plan

TABLE 1. SPECIFIC PLAN LAND USE DEVELOPMENT LEVELS BY DESIGNATION AREAS

	RCMU	ORMU	RMU	OS	TU	Total
Acreage	48.83	19.46	41.95	38.03	32.12	180.39
Residential Units	1,704 to 2,104	2,101	8,296	-	-	10,000 to 12,501
Retail (sf)	1,062,100	157,700	165,000	-	-	1,384,000
Mixed Use (sf)	491,000	-	-	-	-	491,000
*Hotel (Rooms)	600	0	500	-	-	1,100
Office (sf)	38,000 to 491,000	2,337,200	-	-	-	0 to 2,828,200
Historic/Cultural (sf)	485,390	-	-	-	-	485,390
Open Space (acres)	-	-	-	38.03	3.13	41.16
Utilities (acres)	-	1.73	-	-	-	1.73
Parking (spaces)	7,425	2,275	-	-	-	9,700

Notes:

RCMU (commercial/residential mixed-use) - mixed use residential, destination retail, restaurant, entertainment historical and cultural, and public facility uses.

ORMU (office/residential mixed-use) - office, residential, hotel, supporting retail, and educational uses.

RMU (residential mixed-use) - high density residential, neighborhood serving retail, and educational uses.

TU (transportation use) – land uses that serve intercity passengers, such as retail, office, hotel, residential, and other uses

OS (open space) – parks, pedestrian trails, plazas, playfields, bike trails, and related public open space

Residential Retail Mixed-Use

The Residential/Commercial Mixed-Use (RCMU) designation allows for a broad range of retail and residential uses, such as multifamily residential, destination retail, office, hotel, restaurant and entertainment uses, including but not limited to theaters, health clubs and nightclubs. The emphasis in the RCMU designation is on residential and retail uses. Public facilities and quasi-public uses, such as historic and cultural uses, educational facilities, museums, theaters and other similar public uses are also allowed in this land use designation. The majority of the RCMU uses would be located in the western portion of the Specific Plan Area, generally north of the relocated rail line, east of I-5 and west of 6th Street. A net maximum floor area ratio (FAR) of 5.0, exclusive of streets, would apply to all development types on each site within this designation with the exception of residential units.

The RRMU land uses located within and adjacent to the Central Shops District and the majority of are proposed to develop with "historic/cultural" uses, such as a performing arts theatre complex with 1,200 and 600-seat theatres, exhibit space (which could include an extension of the Railroad Museum), a large open market, food and beverage services, and a relatively small amount of retail and office development.

The RCMU designation includes 491,000 square feet of mixed-use flex space, which could be any combination of retail, office, residential, and educational uses. The maximum residential density would be 230 units per acre on parcels where office uses are not maximized. Assuming all mixed-use areas are developed as residential, up to 2,100 dwelling units could be constructed within this designation.

Office/Residential Mixed-Use

The Office/Residential Mixed-Use (ORMU) land use designation allows for a broad range of mixed uses, including office, residential, hotel, supporting retail and other uses. The majority of office space, would be located within this designation, which is concentrated in proximity to the City's existing Central Business District. The ORMU designation is shown along 5th, 6th, and 7th Streets south of Railyards Boulevard. Schools, museums, theaters and other public and quasi-public uses are also allowed in this land use designation. The majority of the ORMU uses are located in the southern and central portions of the Railyard Specific Plan Area.

A net maximum FAR of 8.0 would apply to all development types on each site within this designation with the exception of residential units and hotel rooms. A maximum of 2.4 msf of office and 160,000 sf of retail could be constructed within the ORMU designation. Residential uses would be allowed at a maximum density of 230 du/acre, which would allow for the construction of up to 2,100 units.

Residential Mixed-Use

The Residential Mixed-Use (RMU) designation is intended to include primarily residential and supporting retail uses, such as restaurants, cafes, and a hotel. No office is allowed within this designation. Incidental cultural and civic uses are allowed, as are public and quasi-public uses such as schools, museums and theaters. The RMU designation occurs primarily in the northeastern portion of the project site, generally east of 5th Street and north of Railyards Boulevard. A four-acre RMU parcel also exists in the western portion of the project area within the Riverfront District, which would include residential, hotel and retail uses.

A net maximum FAR of 1.0 would be applied to retail uses within the RMU designation. The maximum residential density would be 310 du/acre. The total number of residential units in this designation would not exceed 8,300 units.

Open Space

The Open Space (OS) designation would allow parks, pedestrian trails, plazas, playfields, bicycle paths, and incidental cultural, institutional and retail uses. OS-designated areas generally would not be developed with major buildings or structures of any significant size; accordingly, no development amounts are specified for these areas.

Transportation Use

The Transportation Use (TU) designation applies to the Sacramento Intermodal Transit Facility (SIFT) and the realigned tracks. This designation would allow uses that serve rail and other transit users, such as retail, office, hotel, and other uses.

Districts

The Specific Plan is divided into five neighborhood districts, each with its own character, dominant uses and regulations. For example, each district has its own set of Design Guidelines.

Depot District

The Depot District would encompass the general area south of the Central Shops, including the relocated tracks. The Depot District would include the intermodal facility, including the existing depot building and a planned expanded terminal facility. Although a specific design has not yet been determined, it is expected that the Sacramento Intermodal Transportation Facility (SITF) would provide the City with a single transfer point between regional, local, and interstate transit and transportation modes. The SITF, as currently envisioned, would accommodate inter-city passenger train, light rail, bus, and freight services, all within close proximity to local bicycle and pedestrian ways, and accessibility to the interstate highway system, including I-5 and I-80. It also would provide an opportunity to include the proposed statewide high-speed rail service.

Outside of the SITF, the Depot District is designated ORMU, which provides for a high concentration of office uses, mixed with residential and retail development.

Central Shops District

The Central Shops District is located north of the Depot District, bordered on south by the relocated mainline rail tracks, on the west by I-5, and on the east and north by the West End District. This district is intended to provide close connectivity to Old Sacramento, and, within the Railyards, the Riverfront, West End and East End Districts.

The existing Central Shops would be the focus of this district. The existing historic Central Shop buildings are brick structures, some dating from as early as 1868. Eight of the original buildings would be structurally-stabilized, renovated, and adaptively-reused to accommodate a mixture of cultural and entertainment uses. Specific uses are anticipated to include a public marketplace with specialty food shops and restaurants, museums and exhibit space, cafes and restaurants, art galleries, clubs and other entertainment-supporting uses.

West End District

The West End District would extend from the Central Shops District to South Park Street on the north, 7th Street to the east and Jibboom Street to the west. The West End District would be made up entirely of RCMU and Open Space designations. The western portion of the West End District would be dominated by two large retail parcels adjacent to the freeway, including a new Bass Pro on Parcel 2 bounded by Bercut Drive, Huntington Street, Railyards Boulevard and South Park Street. Camille Lane, which would run east-west through the district, would connect the center of the Railyards to the Riverfront District. Buildings along Camille Lane would be scaled down to provide a transition to the Central Shops to the south. A variety of pedestrian paths are expected to connect the

Camille Lane area to the Central Shops. The proposed Performing Arts Center would be located in the West End District, at the southwest corner of Camille Lane and 5th Street.

East End District

The East End District comprises most of the Railyards Specific Plan Area east of 7th Street and the areas north of the West End District. Development in the East End is intended to replicate the traditional grid system from the neighborhoods to the east of the Railyards. Mid-block alleys are planned. The majority of the land use would be residential, with some retail. Two ORMU parcels are located within the East End District, between 6th and 7th Streets, south of Railyards Boulevard. In addition to the approximately six-acre "boxcar" parks between North Park and South Park Streets, the 10-acre park would be located in the northwestern corner of this district.

Riverfront District

The Riverfront District is located between the Sacramento River, I-5 and the I Street bridge. Development in this area is planned to include a hotel, residential uses, restaurants, parks and open space. An approximately 30-story building is proposed to house a 500-room hotel and up to 900 residential units.

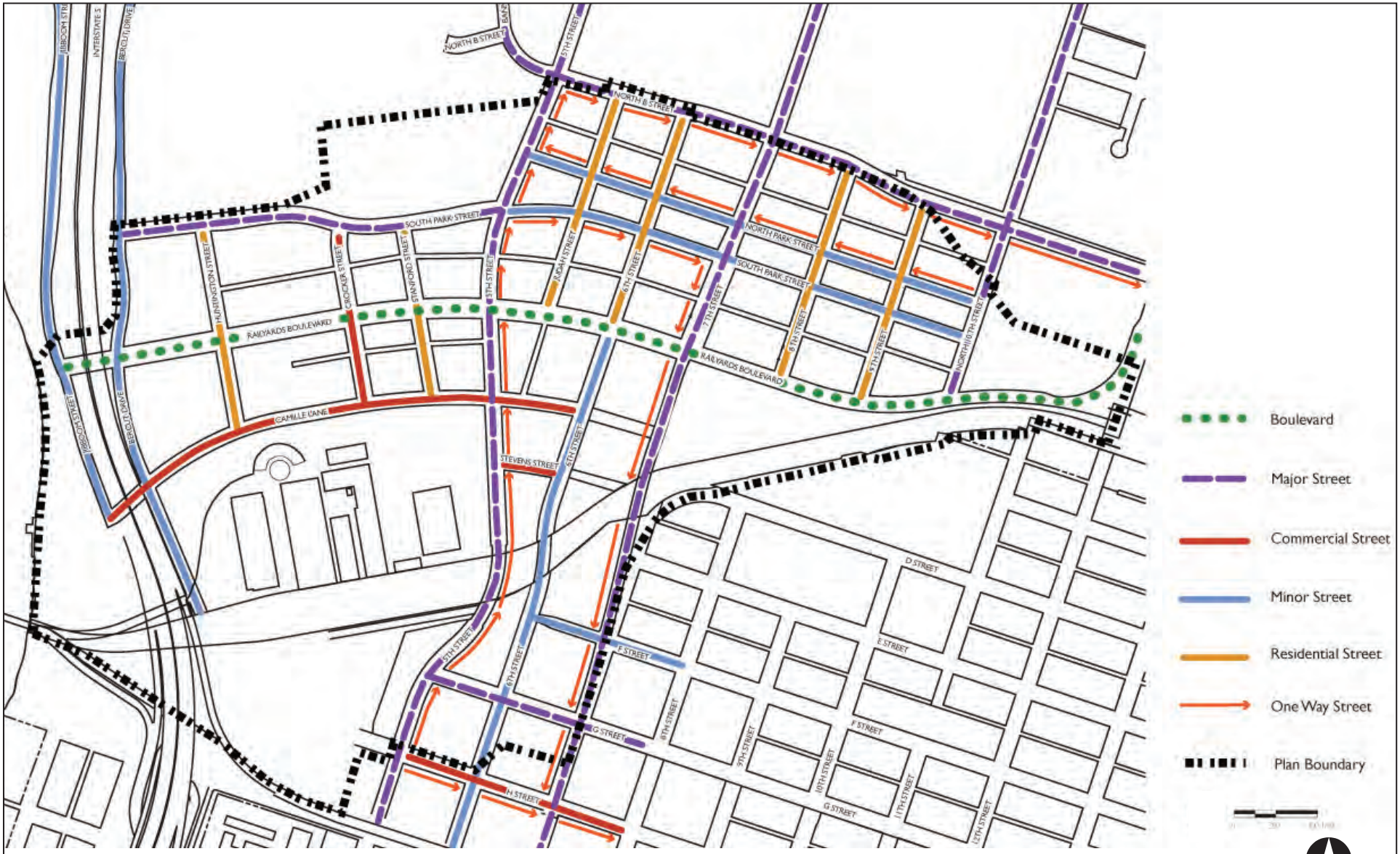
The Specific Plan proposes to remove the elevated portion of Jibboom Street that connects to the I Street Bridge and replace the connection with a link from I Street to Bercut Drive. The removal of Jibboom Street and the creation of the new I Street connection is intended to improve connectivity to the Sacramento River, by providing better pedestrian access to the river, and create developable parcels along the riverfront, west of I-5.

No development or project features are proposed to extend into the river, except for a stormwater outfall. No marina or boat access is planned.

Proposed Circulation

Roadway Network

The existing project site has no interior roadways, except for 7th Street, which connects downtown Sacramento to the Richards Area. The Specific Plan proposes to extend existing streets through the Railyards and to create new streets to provide a circulation grid. Roadways with direct access to the site include 5th Street, 6th Street, 7th Street/North 7th Street, North 10th Street, North 12th Street, F Street, G Street, H Street, Bercut Drive, and Jibboom Street. These streets would be extended into the Railyards Specific Plan Area, and some would extend across the Specific Plan Area and connect again with existing streets. Streets within the Railyards Specific Plan Area would organized in a hierarchy consisting of Boulevards, Major streets, Minor streets, a Main Street, and Residential streets, each with specific objectives for use and physical characteristics to satisfy those objectives. Figure 4 provides a circulation plan for the entire Specific Plan Area.



***Source*:** City of Sacramento, , 2007.

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FIGURE **3-8**

Circulation Plan

Figure 4. Circulation Plan (Figure 3-8 from DEIR))

Pedestrian and Bicycle Circulation

Pedestrian features would be integrated throughout the Specific Plan Area. Pedestrian activity and safety would be addressed through relatively narrow street widths, street trees, and broad sidewalks. Pedestrian pathways would be separated from vehicular streets and when the two meet at intersections there would be a change in grade and materials to improve visibility and safety. Lighting would be provided for safety and visual access.

The Plan also calls for a network of on- and off-street bicycle paths. Class I (off-street) bikepaths would be provided on 7th Street between F Street and the underpass. Class II bikepaths (minimum five-foot-wide minimum with painted lane striping) would be constructed along major streets including Railyards Boulevard, 5th Street, 6th Street, portions of 7th Street, South Park Street, North 10th Street, North B Street, Bercut Drive and Jibboom Street, allowing bicyclists to travel across the entire Railyards area from north to south and east to west. Bicycle parking would be located close to all residential buildings and commercial amenities. Figure 5 provides an overview of the bicycle network in the Specific Plan Area.

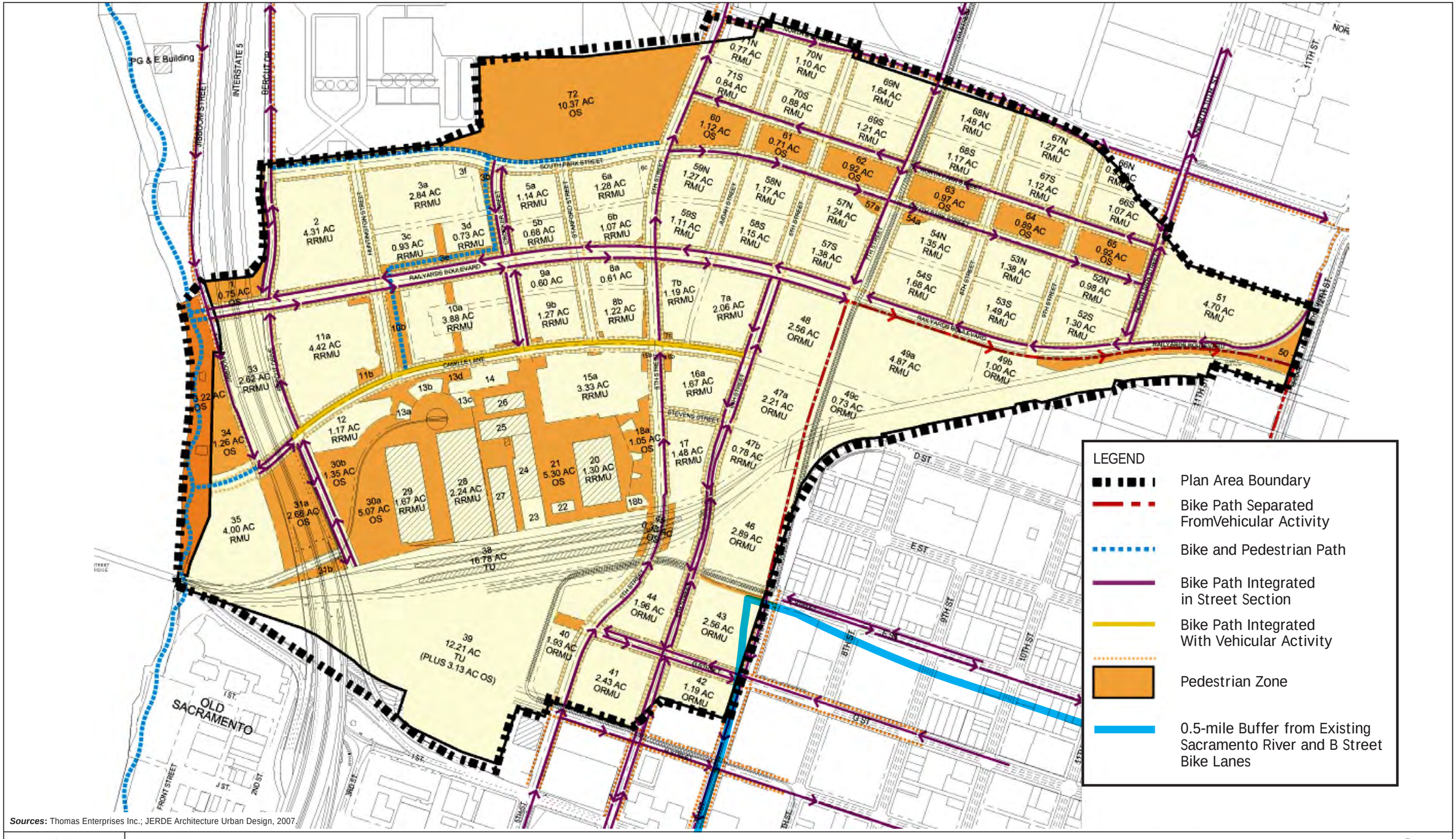
Transit Systems

Sacramento Intermodal Transportation Facility

The Specific Plan recognizes and is intended to coordinate with the City's planned Sacramento Intermodal Facility (SITF). The SITF is expected to be a regional intermodal terminal that can support increased commuter and intercity rail service, as well as an expanded LRT system. The intermodal terminal would provide a direct connection between these systems, bringing together Amtrak, the Capitol Corridor and the San Joaquin Corridor intercity rail services, intercity bus service, Regional Transit and other local fixed route bus services, regional bus and local shuttle services serving the area. The proposed SITF is a 15.34-acre trapezoidal site north of I Street bounded by 2nd and the riverfront on the west, 5th on the east, and the proposed main rail line to the north and the approximately 16.78 acre relocated track alignment. The SITF site contains the existing Depot, the rail lines, and associated lands and structures. A concept for the SITF was developed for the City of Sacramento following a series of public outreach forums conducted in 2003. The City gathered input from the public and project stakeholders and identified the following four alternatives for evaluation.[1]

The alternative plans contained many of the same essential facility components, but were designed with different configurations and slight changes in the types of structural amenities. After analyzing the advantages and disadvantages of each objective, the project consulting team determined that Alternative's A and B best fulfilled the goals and objectives for the intermodal facility as determined by the project stakeholders. The City Council ultimately determined that Alternative B-Sacramento Northern should be

[1] City of Sacramento, *Sacramento Intermodal Transportation Facility- Draft for Public Review Working Paper #8- S SITF Alternatives,* February 6, 2004.



Sources: Thomas Enterprises Inc.; JERDE Architecture Urban Design, 2007.

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FIGURE **3-9**
Bicycle Plan

Figure 5. Bike and Pedestrian Network (Figure 3-9 from DEIR)

0 200 400 600 800
Scale in Feet

NORTH

considered the preferred alternative.[2] The "Sacramento Northern" alternative would relocate the Historic Depot approximately 400' north along the historic 4th Street axis and integrate it into a new Terminal Building. This alignment would accommodate planned rail service growth and would improve rail operations. Despite the presence of the preferred alternative, no formal proposed project has been approved and no project level designs of the Intermodal Transportation Facility have been developed for use in environmental analysis.

Any future SITF would incorporate a terminal facility consisting of the Historic Depot and a proposed terminal extension. The current Historic Depot is a three-story facility with 57,000 sf and an office and a basement. While multiple designs have been submitted for the SITT, no final design has been determined. However, all of the alternatives would incorporate the following uses within the proposed terminal and the historic depot:[3]

- A ticketing area for Amtrak and Greyhound
- Baggage for Amtrak and Greyhound
- Waiting Area for Amtrak and Greyhound
- Passenger Amenities for Amtrak, Greyhound and RT (restrooms, phones, food service, vending service, telephone, internal circulatory system, custodial service)
- Administrative and employee uses
- On-site parking for 350 spaces
- Joint Uses with Specific Plan Area

Passenger Rail

Sacramento continues to experience an increasing demand for transportation services. The Capitol Corridor intercity train service experienced a 172 percent increase in ridership between 1998 and 2005. Currently, the Capitol Corridor train service runs 32 trains per day. Amtrak's long distance inter-city service is also expected to increase its ridership, which will necessitate an increase in the number of trains serving the region.

Light Rail

Light rail service would be available in the Specific Plan Area. Existing light rail lines would be extended to the Specific Plan Area in an east-west direction along H Street. The Plan identifies a light rail station immediately behind the Historic Depot. Plans are underway to continue that route as the Downtown-Natomas-Airport (DNA) route. In 2003, Regional Transit developed a Locally Preferred Alternative for the DNA line, showing light rail traversing the Specific Plan Area along 7th Street, traveling west along

[2] City of Sacramento, *Sacramento Intermodal Transportation Facility- Draft for Public Review Working Paper #9- S SITF Alternatives,* September 29, 2004.

[3] City of Sacramento, *Sacramento Intermodal Transportation Facility- Draft for Public Review Working Paper #9- S SITF Alternatives,* September 29, 2004.

Richards Boulevard towards the I-5 freeway, and crossing the American River into the Natomas area.

Local and Regional Bus Service

The ultimate bus system serving the Specific Plan Area would consist of a Regional Transit operation facility at the Intermodal facility and extensions to future downtown service provided by Regional Transit. Other municipal operators in the region serving downtown Sacramento would also serve the SITF; 7th Street would be designated as a transit-priority street connecting downtown with Richards Boulevard.

Freight Rail

Union Pacific trains would continue to operate through the Railyards Specific Plan Area along the realigned tracks south of the Central Shops.

High Speed Rail

The California High-Speed Rail Authority has been evaluating a high-speed rail line beginning in Sacramento, serving the Central Valley and terminating in Los Angeles and San Diego. Although high-speed rail is still in the initial stage of the planning process, the Specific Plan allows for future expansion of the Sacramento Intermodal Transit Facility to accommodate high-speed rail passengers and provide for the required 1,300 feet of straight platform on elevated track at the SITF location.

Phasing

In some cases, primarily traffic, the EIR analyzes an Initial Phase of development expected to occur in the first few years of development. The Initial Phase land uses are based on the parcel-by-parcel assumptions for those parcels that fall within the Initial Phase boundaries. The Initial Phase boundary includes the Depot District, the Historic Central Shops District, The Riverfront District and the West End District. The East End District would be developed in the Second Phase.

Methodology

The SMAQMD guidelines include a list of potential mitigation measures approved by the SMAQMD. These measures are related to bicycle/pedestrian use, transit, parking, commercial and residential development design, building design, and commuting. Each of the measures has been assigned a land use type for which credit may be claimed for that measure, and a point value. Each point corresponds to a one percent reduction in emissions. The SMAQMD requires a total of 15% emissions reductions.

The land use types include residential (R), commercial (C), and mixed-use (M). Each point or fraction thereof associated with a particular measure corresponds to an equal percentage of emission reductions. Residential and commercial projects may only claim credit for measures identified as “R” or “C” respectively, while mixed-use residential and commercial projects may claim credit for any measure. Mixed-use projects claiming

credit for a strictly commercial or residential measure must scale the credit claimed to that fraction of project that is commercial or residential.

Tables 2 and 3 list land use types by gross square footage and by trip generation. Table 2 shows land uses under the maximum residential scenario, which assumes that 12,501 residences are built and that only a minimal amount of office space is constructed. At the other extreme, Table 3 shows the land uses for the maximum office scenario, which assumes that 10,000 residences and 22,828,200 square feet of office space would be constructed. Both scenarios assume the same square footage and trip generation for retail and hotel/historic/cultural land uses.

TABLE 2. SQUARE FOOTAGE ASSUMING MAXIMUM RESIDENTIAL

Land Use Type	Gross Square Footage	% of Total Gross Sq. Footage	Trip Generation	% of Total Trip Generation
Residential (R)	15,401,200	87%	61,761	33%
Retail (C)	1,566,000	8%	116,989	63%
Hotel/Historic/Cultural (C)	595,390	3%	4,819	3%
Office (C)	164,000	1%	2,246	1%
Total (M)	18,716,590	100%	185,815	100%

Residential assumes 1,112 square feet per residence for 15,000 residences. Hotels assume 1,100 rooms at 100 square feet per room.

TABLE 3. SQUARE FOOTAGE ASSUMING MAXIMUM OFFICE

Land Use Type	Gross Square Footage	% of Total Gross Sq. Footage	Trip Generation	% of Total Trip Generation
Residential (R)	12,565,600	71%	50,780	25%
Retail (C)	1,566,000	9%	116,989	57%
Hotel/Historic/Cultural (C)	595,390	3%	4,819	2%
Office (C)	2,993,000	17%	31,175	16%
Total (M)	17,719,990	100%	203,762	100%

Residential assumes 1,112 square feet per residence for 10,000 residences. Motels assume 1,100 rooms at 100 square feet per motel room.

Mitigation Measures/Project Design Features

The following headings contain the mitigation measures that have been selected from the SMAQMD list to reduce operational air pollutant emissions, and the point value (percent reduction) associated with each measure.

Several of the mitigation measures apply to mixed-use projects, that is, to both commercial and residential land uses. However, some of the mitigation measures apply only to residential or commercial measures. The mitigation credit for these land uses is scaled based on either trip generation rates or square footage.

For the purposes of this analysis, mitigation measures associated with trip generation are scaled using the trip generation rates. These include several of the applicable mitigation measures 1 through 24.

Mitigation measures associated with energy use are adjusted based on building square footage. These consist of the building mitigation measures 25 through 32. These measures are scaled based on total residential versus total non-residential square footage.

Tables 2 and 3 above show the scaled credit claimed for each measure based on SMAQMD guidance. This analysis is conservative. For example, when a residential only mitigation measure is analyzed below, the credit applied to this mitigation measure is assumed to be the lower percentage for residential land uses found in Tables 2 and 3. A concise explanation of each mitigation measure follows each heading.

Table 4 summarizes the total points for each measure and the sum of all measures included in the Railyards AQMP. As Table 4 shows, the total mitigation credit for the project equals 21.55 points, or 21.55 percent reduction in emissions. This value substantially exceeds the SMAQMD's requirement of 15 points.

TABLE 4. SUMMARY OF RAILYARDS MITIGATION MEASURES

Mitigation Measure	Points	Adjustment	Adjusted Points
1. Bike parking	0.625	100%	0.625
4. Proximity to bike path/bike lanes	0.625	100%	0.625
5. Pedestrian network	1	100%	1.0
6. Pedestrian barriers minimized	1	100%	1.0
7. Bus and transit service	1	100%	1.0
9. Traffic calming	1	100%	1.0
10a. Employee and/or customer parking	7.2	67%	4.82
14. Off street parking	1.5	100%	1.5
15. Office/Mixed use density	NC	NC	NC
18. Residential density	11	25%	2.75
19. Street grid	1	100%	1.0
21. Affordable housing component	.0.6	25%	0.15
22. Urban mixed-use	4.9	100%	4.9
25. No fireplaces	1	71%	0.71
27. Energy star roof	1	12%	0.12
29. Exceed Title 24 requirements	NC	NC	NC
30. Solar orientation	0.5	71%	0.35
31. Non-roof surfaces	NC	NC	NC
		Totals	**21.55**
NC = no credit given for this measure.			

1. Bike Parking: Non-residential projects provide plentiful short-term and long-term bicycle parking facilities to meet peak season maximum demand (0.625 points maximum x 1 [100% Mixed Use] = 0.625 points).

The availability of permanent, secure bicycle parking encourages employees and business patrons to use bicycles for commuting. Bicycle storage systems are classified as either Class I (fully enclosed and locked); Class II (frame/both wheel locking where only a bicyclist-supplied padlock is needed); or Class III (stationary rack which provides for frame and single-wheel locking with a bicyclist supplied cable and padlock).

The project will supply one bicycle parking facility for every ten (10) off-street vehicle parking spaces as required by Sacramento Municipal Code 17.64.050. At least fifty (50) percent of the required bicycle parking facilities will be Class I and the remaining facilities will be a combination of Class I, Class II or Class III.

There are currently no design documents that contain information on the type and location of proposed bike parking facilities. Those facilities will be designed during schematic building, streetscape, and area development design.

4. Proximity to Bike Path/Bike Lanes: Entire project is located within ½ mile of an existing Class I or Class II bike lane and project design includes an internal network that connects the project to the existing project (0.625 points maximum x 1 [100% Mixed Use] = 0.625 points).

Figure 5 shows bike paths for the Railyards project site and how those bike paths will integrate into Sacramento's existing bike path network. The Railyards project will include both Class I and Class II bike paths/lanes. The project will include Class I bike trails (denoted in blue) and Class II bike paths (denoted in red) that run through the entire project and connect with existing Sacramento bike paths.

As Figure 5 shows, the entire project will lie within ½ mile of existing Class I and II bike lanes. The solid, light blue line shows the ½ mile buffer from the existing bike lanes along the Sacramento River and on North B Street. The east-west trending portion of the blue line represents the ½ mile distance from North B Street, while the north-south trending portion of the blue line represents the ½ mile distance from the Sacramento River bike trail. All of the Railyards area west of 5th Street is within ½ mile of the existing Class I bike path that parallels the Sacramento River. The portion of the Railyards project east of 5th Street and north of F Street is within ½ mile of the existing North B bike path. Similarly, the portion of the Railyards project east of 5th Street and south of F Street is within ½ mile of the existing H Street bike lane. The proximity of these Class I and II bike trails located on the western and eastern sides of the project results in the entire project being within ½ mile of existing Class I and II bike lanes.

5. Pedestrian Network: The project provides a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site (1 point maximum x 1[100% Mixed Use] = 1 point).

The project will include a street grid that allows for easy pedestrian movement. Figure 5 shows the pedestrian zones of the project (orange and blue dots). The Railyard's gridded street pattern allows for pedestrian movement throughout the project. Access to the Railyards from downtown Sacramento will be along 5th and 6th Streets. These paths will include bridges over the train tracks. From within the Depot District, there will also be a pedestrian tunnel under the train tracks that connects to the Central Shops District.

The Central Shops represents a pedestrian friendly zone where pedestrians rather than autos will have preferential access. The most direct pedestrian access to Old Sacramento from the Railyards will be from Camille Lane to the pedestrian path adjacent to the Sacramento River.

All streets will have wide sidewalks on both sides and will be a minimum of 5 feet wide. All sidewalks will have vertical curbs.

6. Pedestrian Barriers Minimized: Site design and building placement minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping, and slopes between residential and non-residential uses that impede bicycle or pedestrian circulation are eliminated (1 point maximum x 1[100% Mixed Use] = 1 point)

The proposed Railyards project is designed to be pedestrian friendly. As discussed previously, the project will have few, if any, barriers to pedestrian access. The only barriers will be those designed to protect pedestrian safety by preventing access to railroad tracks. Pedestrians will have full access on east-west streets except for that portion of the project south of Railyards Boulevard and east of 6th Street due to the railroad tracks. Also, pedestrians will have full access on north-west streets within the Railyards project area. The only exception to this is for the area between the Central Shops and the Depot District. However, a pedestrian tunnel between these two areas will provide interconnectivity (shown in Figure 6).

7. Bus and Transit Service: Bus or streetcar service provides headways of one hour or less for stops with ¼ mile; project provides safe and convenient bicycle/pedestrian access to transit stop(s) and provides essential transit stop improvements (i.e., shelters, route information, benches, and lighting) (1.0 points maximum x 1[100% Mixed Use] = 1 point).

The Railyards Project is designated as a transit oriented development. Due to its proximity to downtown Sacramento and its projected residential density, bus accessibility is intended for all residences. In addition, the project will have access to the light rail station in the Depot District and along 7th Street. Although future bus and transit schedules within the project's boundaries are unknown, existing light rail headways are

15 minutes at the Sacramento Regional Transit Light Rail Station located adjacent to the Amtrak Station. Also, several RT bus routes provide service to the Amtrak station as well as along 7th Street adjacent to the Railyards. Although exact bus routes and stops are currently unknown, given the Railyards' proposed residential densities exceeding 150 units per acre, future headways of 15 minutes would be expected. In addition, a future light rail station is proposed for 7th Street and Railyards Boulevard. As stated in the traffic section of the EIR, this light rail stop is projected to have 15 minute headway during peak periods.

9. Traffic Calming: Project design includes pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways are designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips by featuring traffic-calming measures (1 point maximum x 1[100% Mixed Use] = 1 point).

The Railyards project has been designed to accommodate pedestrians, bicycles and transit. It contains several pedestrian safety/traffic calming design measures including marked crosswalks, sidewalks of 5 feet or more in width, separation of sidewalks from roads by bike lanes, on-street parking, and/or planter boxes. The appendix to this AQMP contains cross sections of all street types within the project area.

10a. Employee and/or Customer Paid Parking System: (7.2 points maximum x .67% [Commercial] = 4.8 points).

All daily parking will be charged at rates that are equal to or greater than the cost of Sacramento Regional Transit day passes plus 20%. Monthly charges for parking will be equal to or greater than the cost of an RT monthly pass plus 20%. There will be no customer or employee validations for parking. Pursuant to the Mitigation Monitoring Plan and as incorporated by reference in the Railyards Development Agreement, this measure shall run with the land and shall bind all successors, assigns, and other subsequent owners and tenants of the property.

Since all parking lots will be within an urban area and within ¼ mile of transit stops, the maximum credit for this measure is 7.2 points. However, this value has been adjusted by 67% to account for commercial land uses, which constitute 67% of total trip generation (under the maximum residential scenario).

14. Off Street Parking: Parking facilities are not adjacent to street frontage: (1.0 points x 1 [100% Mixed Use] = 1 point).

The Railyards project will include several parking structures. Most, though not all of the parking garages will be located behind buildings in relation to street frontage, in areas that are proximate to high density/mixed land uses. With two exceptions, all parking garages with street frontage will have commercial/retail on the first floor. The two exceptions include a parking garage proposed for under Interstate 5 and one that will be adjacent to the proposed Bass Pro store (see Figure 6).

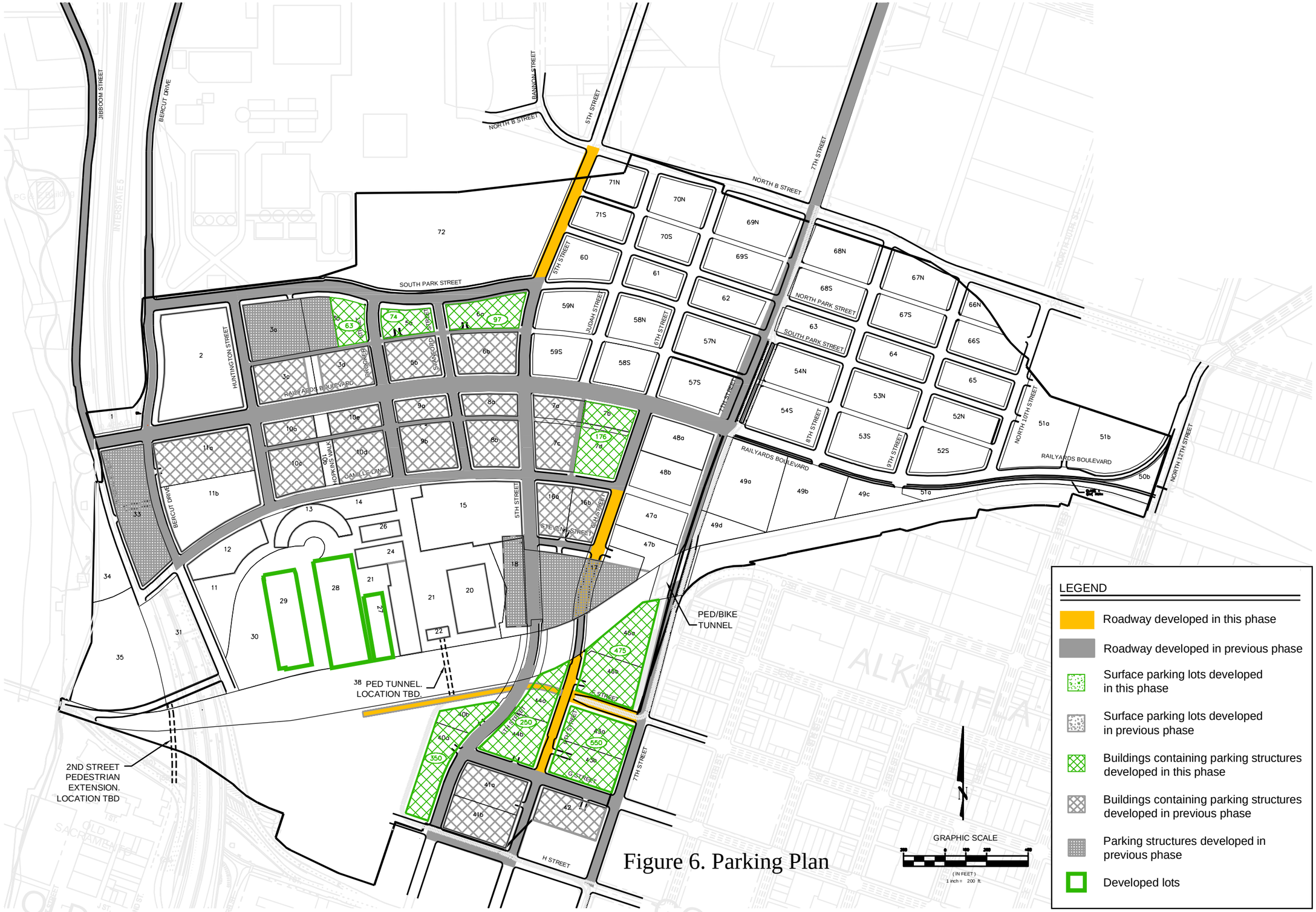


Figure 6. Parking Plan

Kimley-Horn and Associates, Inc.
© 2006 KIMLEY-HORN AND ASSOCIATES, INC.
11060 White Rock Road, Suite 150
Rancho Cordova, California 95670
Engineering, Planning, and Environmental Consultants
(916) 858-5800

THOMAS ENTERPRISES INC.

SCALE (H): 1"=400'
SCALE (V): NA
DESIGNED BY: KMS
DRAWN BY: KMS
CHECKED BY: DRC
DATE: JULY 30, 2007

SACRAMENTO RAILYARDS
ROADWAY & PARKING PHASING
PHASE 2

PROJECT NO.
097922000
DRAWING NAME
922000PHASE.dwg

Figure 6 shows the Railyards parking plan only through Phase 2. Parking has not been determined for phases beyond Phase 2, although a similar approach to parking will be used for future phases. One point, instead of 1.5 points has been credited for this measure because two parking garages will be designated entirely for parking and will be adjacent to streets. The majority of parking garages will be off-street. Those that are adjacent to streets will have commercial or retail on the first floor.

15. Office/Mixed Use Density: Project provides high density or mixed-use proximate to transit.

The proposed project will provide safe and convenient pedestrian and bicycle access to all transit stops. Currently, negotiations are underway between Thomas Enterprises and Sacramento Regional Transit to identify the location of transit stops. However, those negotiations are ongoing and information specific to this measure is not currently available. Consequently, no credit is being taken for this measure.

18. Residential Density: Project provides high-density residential development (11 points x 0.25 [25% Residential] = 2.75 points).

Residential density could vary depending on market conditions. Some areas proposed for residential could be developed as office space or vice versa. The total number of residences would vary from a minimum of 11,300 to a maximum of 13,850. Residential development would occur on acreage ranging from 63 to 81 acres. This would result in a residential density ranging from a minimum of 139 units per acre (11,300 units/81 acres) to a maximum of 220 units per acre (13,850 units/63 acres).

This residential density falls within the 50+ dwelling units per acre in the SMAQMD's recommended guidance document and therefore qualifies for 10 points. Additional points are available if the developments are in close proximity to transit (1/4 mile to existing or planned light rail or bus transit). Currently, the Railyards area south of Camille Lane is located within ¼ mile of the existing light rail station at the Amtrak Station (Sacramento Valley Station). The proposed Downtown-Natomas-Airport Corridor would extend light rail through the center of the Railyards project along 7th Avenue, with a planned light rail stop near the intersection of 7th Avenue and Railyards Boulevard. This proposed extension is projected to reach Richards Boulevard by 2014 (Sacramento Regional Transit's Short Range Transit Plan (FY2000-2010).

Due to the Railyard project's projected high housing densities, bus service would be expected throughout the project area. As described in the DEIR, there would be 15 minute light rail headways at the nearest light rail stops at the Amtrak station and at the 7th Avenue/Railyards Boulevard station. In addition, mitigation measure 6.12-6 requires that the project applicant coordinate with Sacramento Regional Transit to provide modifications to both bus and light rail services and to fund necessary improvements to serve transit demand generated by the project. Given the high residential densities of the project, 15-minute headways are also likely for the bus routes that would serve the project.

In addition to the 10 points for the project's density, an additional 1 point has been included because approximately ½ of the project's residential units will be within ¼ mile of light rail stops.

19. Street Grid: Multiple and direct street routing (grid style) (1 point maximum x 1 [100% Mixed Use] = 1 point).

Figure 4 illustrates the Railyard's gridded street pattern, along with pedestrian and bike paths. The Railyard project's proposed street grid pattern includes no cul-de-sacs. Consequently, it will have an internal connectivity factor of 1.0. The project will connect directly to the adjacent portions of Sacramento in a similar grid pattern. Consequently, block perimeters will all be less than 1,350 feet, except for a few of the blocks in the northwest corner than will include the Bass Pro retail store.

21. Affordable Housing Component: (4 points maximum) (0.04 x 0.25 [25% residential]] x 15 [15% residential units deed-restricted below market housing rate] = 0.15 points).

The affordable housing trip reduction credit is based on the fact that household income is one of the most important predictors of household trip generation characteristics. Under the maximum office alternative, 11,300 residential units would be constructed, which represents the minimum number of residential units. The percentage reduction in trips and emissions is based on the following equation: % reduction = 15 (15% units deed-restricted below marketing rate housing) x .25 (25% of project trips are residential for the maximum office alternative) x 0.04.

22. Urban Mixed Use: Development of projects predominately characterized by properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or in a single site in an integrated development project with functional interrelationships and a coherent physical design (4.9 points maximum x 1.0 [100% mixed use] = 4.91 points).

The following employment/housing balance formula was used to estimate the maximum number of mitigation points:

Mitigation points = (1-ABS(1.5*h-e)/(1.5*h+e))-0.25)/0.25*.03, where
h = study area housing units,
e = study area employment, and
ABS = absolute value.

Based on the formula above, the project would result in a maximum credit of 4.9 points. The credit would equal 4.9 if the minimum commercial office space of 2,325,390 square feet were built, along with the maximum residential of 13,850 units. The estimate assumes total employment of 6,008 based on 387 square feet per commercial office space employee (2,325,390 square feet commercial/387 square feet per employee). The square feet per worker estimates are based on data compiled by the Energy Information Administration:

http://www.eia.doe.gov/emeu/consumptionbriefs/cbecs/pbawebsite/office/office_howmanyempl.htm

To calculate the equation listed above, the Railyards specific values for employment and dwelling units have been combined with existing employment and dwelling unit information within ½ mile. That data was based on information contained in the following web site for zip code 95814:

http://ssl.sacbee.com/onboard/community.html

Within zip code 95814, there are a total of 66,123 employees, which when combined with 6,008 employees from the Railyards project, results in a total of 72,121 employees. Within zip code 95814, there are a total of 9,535 dwelling units, which when combined with 13,850 dwelling units from the Railyards project, results in a total of 23,385 dwelling units.

The calculation of the credit for measure 22 is based on the combined existing plus projected employment and dwelling unit estimates for zip code 95814.

Credits for the remaining mitigation measures have been adjusted based on the percentage of residential versus commercial building square footage.

25. No Fireplaces: Project does not feature fireplaces or wood burning stoves. (1 point maximum x 0.71 [71% residential] = 0.71 points)

Fireplaces and wood burning stoves will be prohibited in all Railyards residential units, based on communication from Richard Rich with Thomas Enterprises.

27. Energy Star Roof: Install energy star roof materials (1 point maximum x 0.12 [12% commercial] = 0.12 points)

All roofing materials used in commercial/retail buildings will be Energy Star certified. All roof products will also be certified to meet ATSM high emissivity requirements.

28. Onsite Renewable Energy System: Project Provides Onsite Renewable Energy Systems

The project would include both solar photovoltaic systems on individual buildings and landfill gas combustion from the district co-generation system. However, no points are being included in this AQMP because these energy systems have not yet been specified in enough detail.

29. Exceed Title 24 Requirements: Project exceeds Title 24 requirements by 20%

The overall project will be submitted for LEED-ND (Leadership in Environmental and Energy Design - Neighborhood Development) and the intent is for buildings to be LEED-

ND qualified[4]. The Railyard target is to exceed Title 24 requirements by 20%, if feasible. Although residential is relatively straightforward, it is currently not known where this goal can be achieved for commercial development. Consequently, no credit is being taken for this measure.

30. Solar Orientation: Orient 75 or more percent of homes and/or buildings to face either north or south (within 30 degrees of N/S) (0.5 points maximum x 0.71 [71% residential] = 0.35 points)

The proposed Railyards project is laid out in a north south grid that does not vary by 30 degrees from N/S. At least one face of every building will face south. Buildings will have passive solar design features that include roof overhangs or canopies that block summer shade, but that allow winter sun from penetrating south facing windows. Trees and other shade structures will be incorporated into residential development to maximize summer shade and to minimize winter shade.

31. Non-Roof Surfaces: This mitigation measures reduces heat islands by incorporating strategies so that 50% of the site's hardscape had shade coverage within 15 years of occupancy, at least 50% of the site's paving materials have a solar reflectance index of at least 29 and/or the site's hardscape is comprised of an open grid pavement system.

A goal of the proposed Railyards project is to meet the non-roofing surfaces requirement through a combination of shade coverage, open grid pavement, and paving materials that meet the solar reflectance index requirements, if feasible and practicable. Given restrictions placed on the site relative to infiltration, soil pockets for plantings, state and federal historic approvals for plantings, and paving in the Central Shops area, the Railyards project cannot fully commit to meeting this goal.

99. Other Proposed Strategies:

The Railyards project includes several additional mitigation measures not described above. The AQMP's primary goal is to identify operational emission reduction strategies. However, construction-related mitigation measures are also listed below (along with additional operational measures) because ultimate buildout of the Railyards project will require several years of construction.

Although this section describes additional construction and operational mitigation measures, no credit is being taken for these measures as part of this AQMP.

The construction related mitigation measures are as follows:

[4] LEED for Neighborhood Development is a rating system that integrates the principles of smart growth, new urbanism, and green building into the first national standard for neighborhood design. More information is available at: http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148

- The project would limit vehicle idling during construction to five minutes or less.
- The project applicant shall coordinate with the SMAQMD for payment of fees into the Heavy-Duty Low-Emission Vehicle Program designed to reduce construction related emissions within the region.
- Construction equipment shall be kept in optimum running condition at all times.
- When appropriate, use alternative fueled (such as aqueous diesel fuel) or catalyst equipped diesel construction equipment.
- When appropriate, replace fossil-fueled equipment with electrically driven equivalents, provided they are not run via a portable generator set.
- The project sponsor will require the reuse or recycling of construction waste materials in all construction contracts, as appropriate and feasible.
- The project sponsor will require the use of "green" cement (which contains recycled materials and is produced using emission-reducing technologies), if available, structurally appropriate for the intended use, and where feasible and practicable.

The additional operational mitigation measures are as follows:

- The project will require the installation of facilities to support the use of alternative fuel vehicles, if feasible and available based on market conditions.
- The project will require the use of LED traffic lights, where feasible.
- The project will include transportation demand management (TDM) strategies that can increase transportation system efficiency by changing travel behavior – frequency, mode, destination, or timing (e.g., shifting from peak to off-peak). TDM strategies are numerous, and may include alternative work schedules, bicycle improvements, bike/transit integration, security improvements, park & ride, pedestrian improvements, ridesharing, shuttle services, improved taxi service, telecommuting, traffic-calming, and transit improvements.
- The project will support the implementation of a car-sharing program through physical measures such as identifying preferential parking spaces, if feasible and if such a program is implemented on an area-wide or regional basis.
- The project includes the Sacramento Intermodal Transportation Facility (SITF), which is envisioned as a regional transportation hub that maximizes transit service, connectivity, and patronage. The facility would offer service and transferring among multiple modes, including long distance passenger rail, commuter rail, light rail, local bus service, intercity bus, bicyclists, pedestrians, taxis, shuttles, automobiles, and future high speed rail, regional rail, and trolleys.
- The project applicant shall coordinate with RT to provide modifications to both bus and light rail services and to help fund necessary improvements in order to serve the transit demand generated by the Initial Phase. The project applicant shall also dedicate right of way for the Downtown Natomas Airport (DNA) light

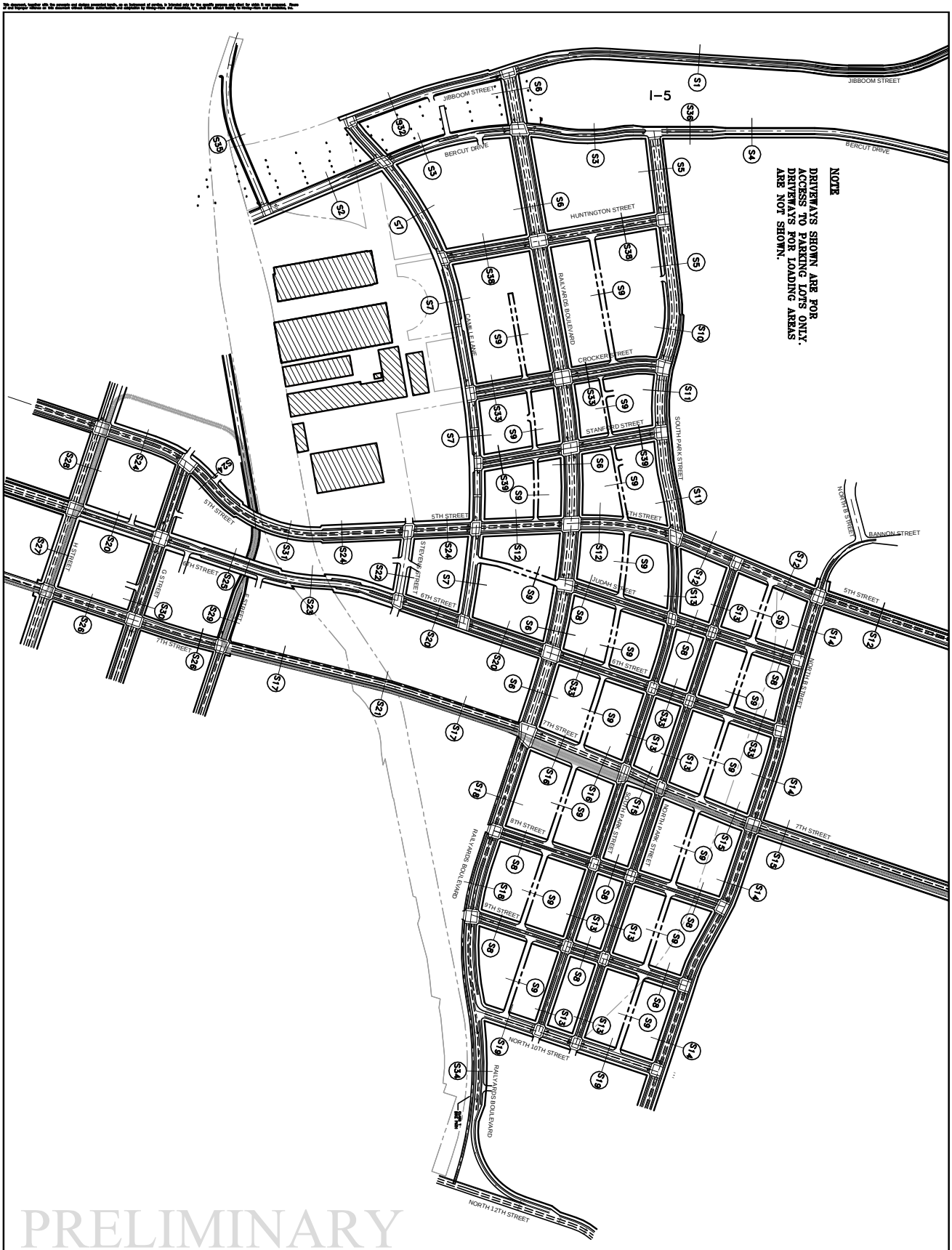
rail system for the alignment and station located within the Specific Plan Area and pay a fair share contribution to fund construction of the DNA light rail system to mitigate the impacts of the project on transit capacity. This fair share contribution will also mitigate emissions from freeways by providing funding for alternative transportation. It should further be noted that all of the housing units in the proposed Specific Plan Area would be within walking distance to transit.

- The project sponsor will ensure that participation in the Transportation Management Agency (TMA) and in the Spare the Air program are included in future Transportation Management Plans, where feasible and appropriate.
- The project sponsor will require the installation of water saving devices that reduce the flow of wastewater to the sewer system, to the extent feasible.
- The overall project will be submitted for LEED-ND (Leadership in Environmental and Energy Design – Neighborhood Development) and buildings will be designed to meet LEED-ND standards, or the equivalent, if feasible.
- The project sponsor will require future building owners and tenants to use energy efficient lighting, to the extent feasible and appropriate.
- For consumer products, when the California Air Resources Board adopts regulations to reduce hydrofluorocarbons, any products that the regulations apply to will comply with these measures.
- The project sponsor will require the installation and use of electrical support for transportation refrigeration units (TRUs) at loading docks, to the extent feasible and practicable.

The Railyards Specific Plan proposes to integrate the Railyards site into the existing downtown area by raising Fifth and Sixth Streets gradually over the Union Pacific Railroad tracks, and by the extension of light rail to the site. On a regional and statewide level, the project incorporates existing transportation linkages and the City's plans for the Sacramento Intermodal Transportation Facility, consisting of a variety of transportation services that would integrate cross-country passenger rail, regional rail, light rail and buses, taxis, and other automobiles, bicycles and pedestrians. Transit providers and services are anticipated to include, but are not limited to, Amtrak Capitol Corridor and long-haul trains, Regional Transit buses and trains, Greyhound buses, charter buses, taxis, and possibly high-speed rail. Therefore, this project encourages in-fill development, rather than leap-frog development.

Appendix A

Pedestrian Friendly Street Standards



PRELIMINARY

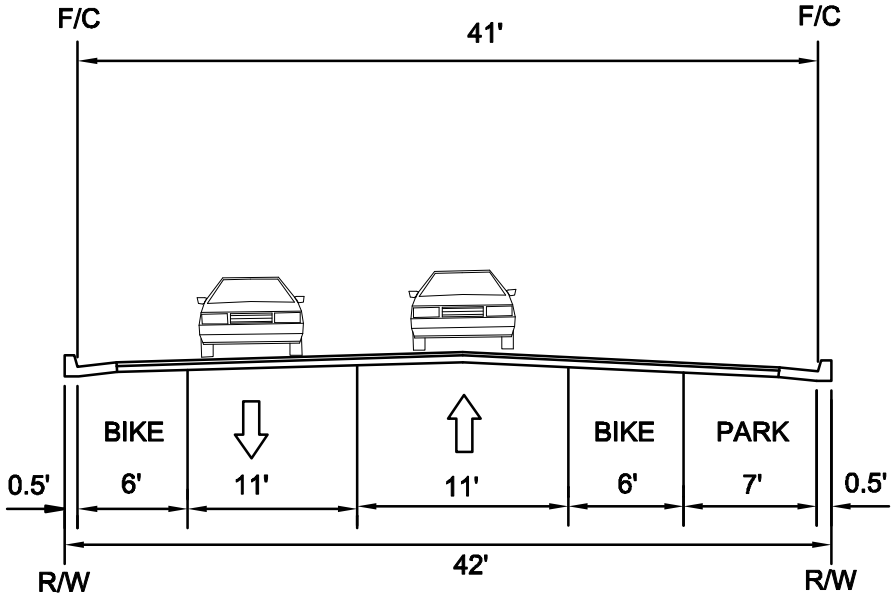
1 of 1	PROJECT NO. 097022000	DRAWING NAME: 97022000-Key	SACRAMENTO RAILYARDS STREET CROSS SECTION KEY CITY OF SACRAMENTO	SCALE (V): 1"=150' SCALE (V): N/A DESIGNED BY: KS DRAWN BY: ZAJ CHECKED BY: DC DATE: JULY 23, 2007	THOMAS ENTERPRISES INC.	Kimley-Horn and Associates, Inc. © 2006 KIMLEY-HORN AND ASSOCIATES, INC. Engineering, Planning, and Environmental Consultants 11080 White Rock Road, Suite 150 Rancho Cordova, California 95670 (916) 858-5800	NO. REVISION BY DATE APPR.

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street **S1**

Collector Street - Minor

Bike Lane	Yes
Parking	Yes



DESIGNATED STREETS:

JIBBOOM STREET (B/T RICHARDS BLVD & RAILYARDS BLVD.) - LOOKING SOUTH

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 20, 2007
PROJECT NO. 097922000

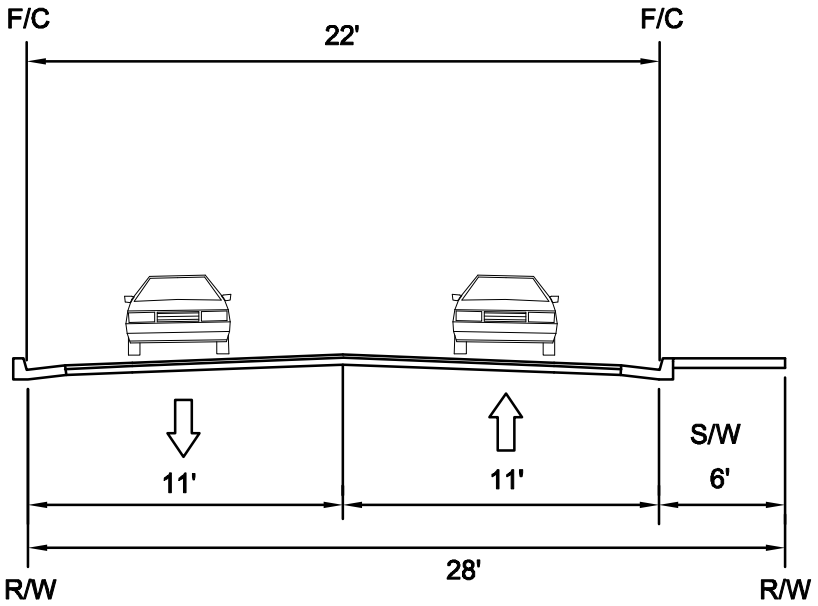
SHEET 1 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S2

Collector Street - Minor

Bike Lane	No
Parking	No



DESIGNATED STREETS:

BERCUT DRIVE (SOUTH OF CAMILLE LANE) - LOOKING NORTH

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 20, 2007
PROJECT NO. 097922000

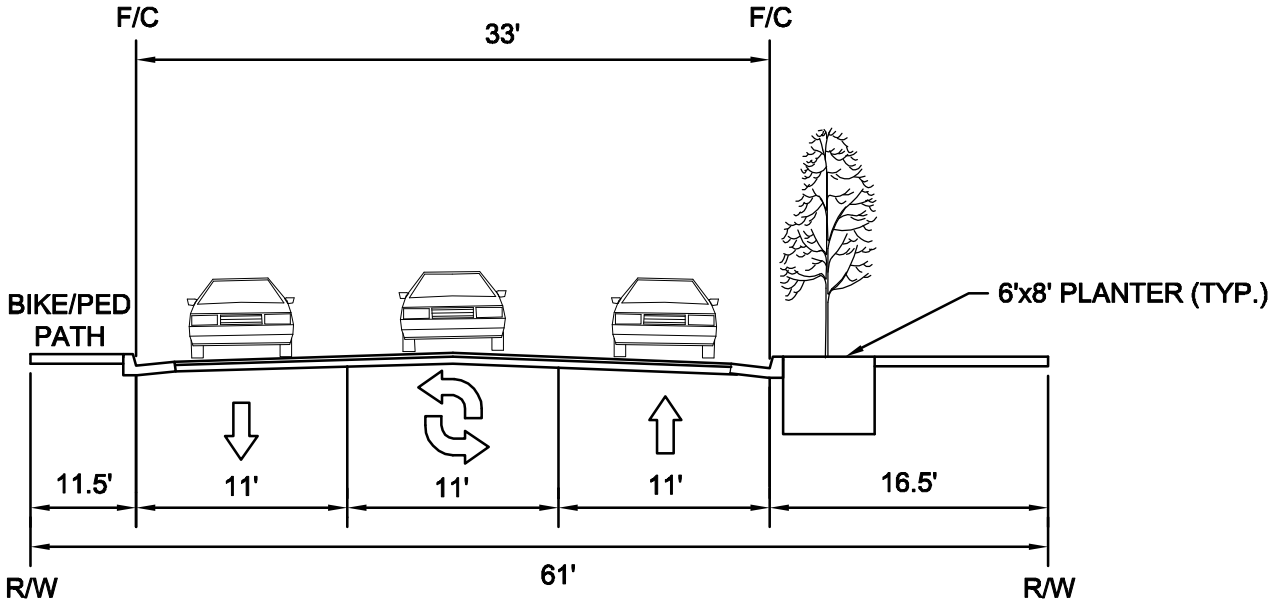
SHEET 2 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S3

Collector Street - Minor

Bike Lane	No
Parking	No



DESIGNATED STREETS:

BERCUT DRIVE (B/T CAMILLE LANE & SOUTH PARK STREET) - LOOKING NORTH

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

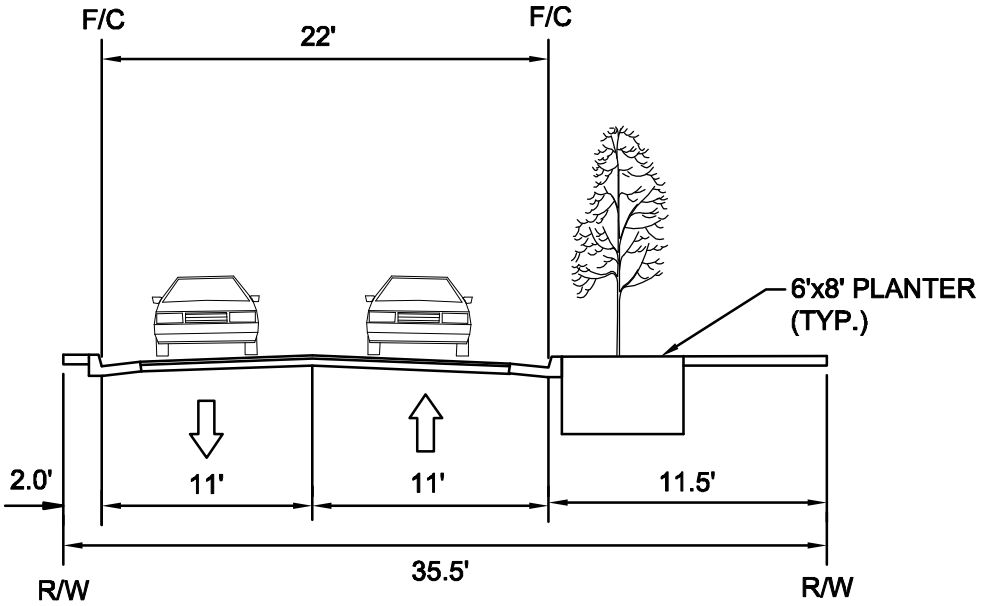
SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 20 2007
PROJECT NO. 097922000

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S4

Collector Street - Minor

Bike Lane	No
Parking	No



DESIGNATED STREETS:

BERCUT DRIVE (NORTH OF SOUTH PARK STREET) - LOOKING NORTH

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

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DATE: JULY 20, 2007
PROJECT NO. 097922000

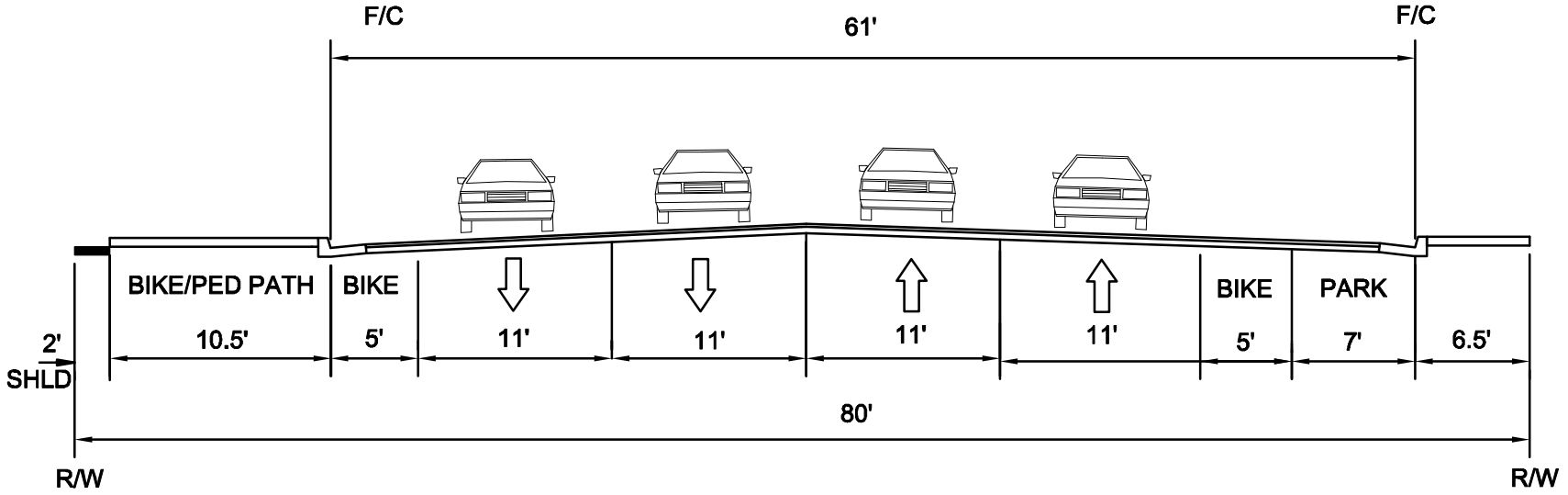
SHEET 4 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S5

Collector Street-Major

Bike Lane	Yes + Ped/Bike
Parking	Yes - south side only



DESIGNATED STREET(S):

SOUTH PARK STREET (B/T BERCUT DRIVE & CROCKER STREET) - LOOKING EAST

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 20, 2007
PROJECT NO. 097922000

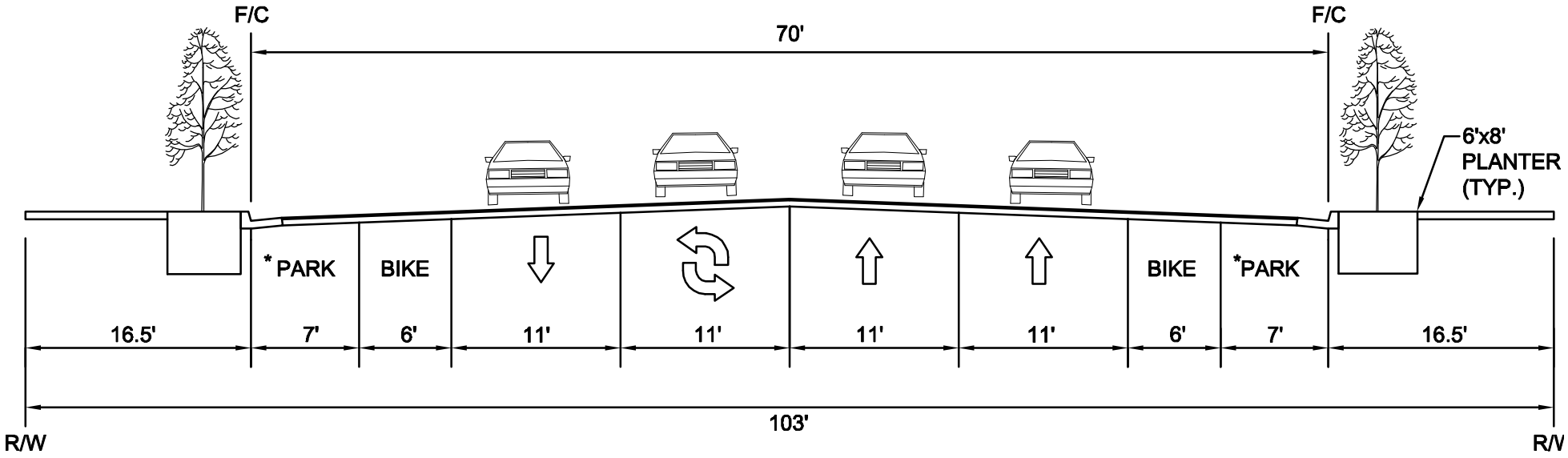
SHEET 5 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street **S6**

Four-Lane Arterial

Bike Lane	Yes
Parking	Yes



DESIGNATED STREETS:

RAILYARDS BOULEVARD (B/T JIBBOOM & 7TH STREET) - LOOKING WEST

* NO PARKING B/T BERCUT & JIBBOOM.

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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ.	N/A
VERT.	N/A
DATE:	JULY 20, 2007
PROJECT NO.	097922000

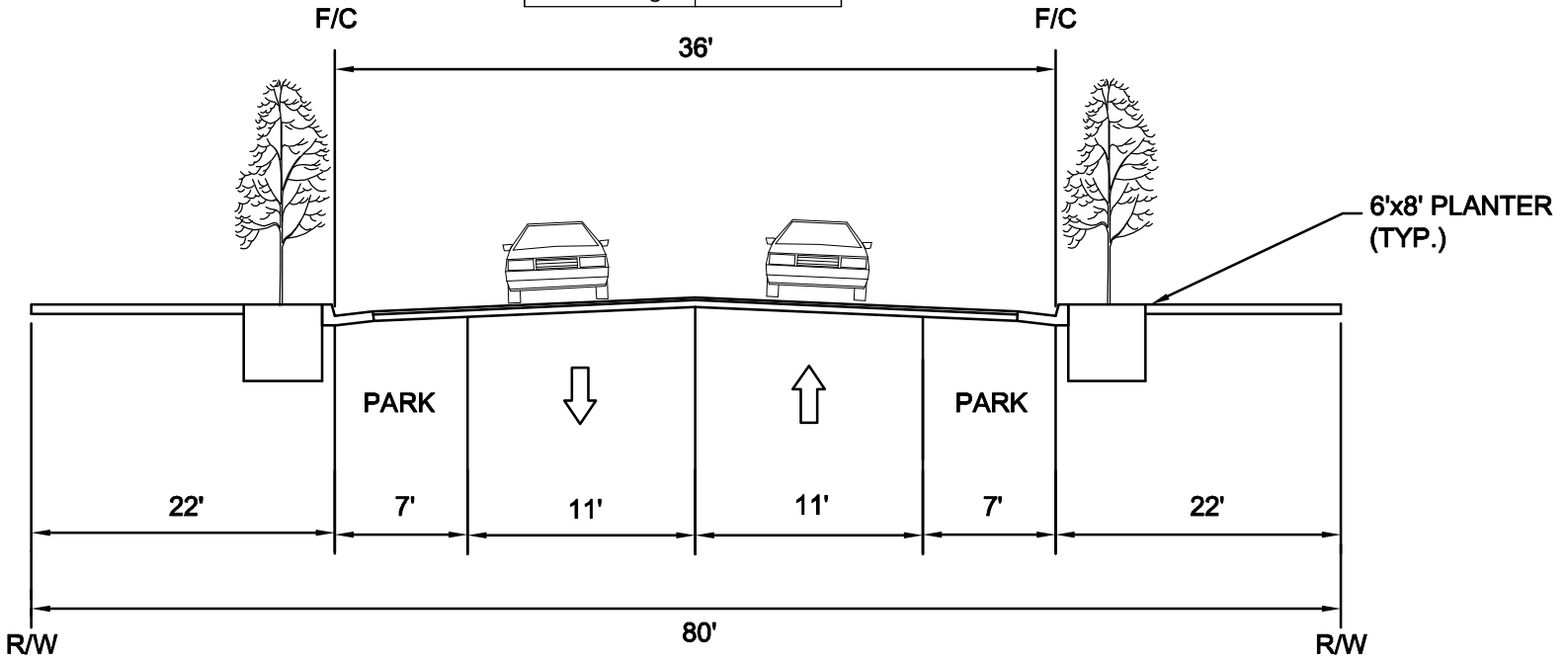
SHEET 6 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S7

Local - Commercial Street

Bike Lane	No
Parking	Yes



DESIGNATED STREET(S):

CAMILLE LANE

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 20, 2007
PROJECT NO. 097922000

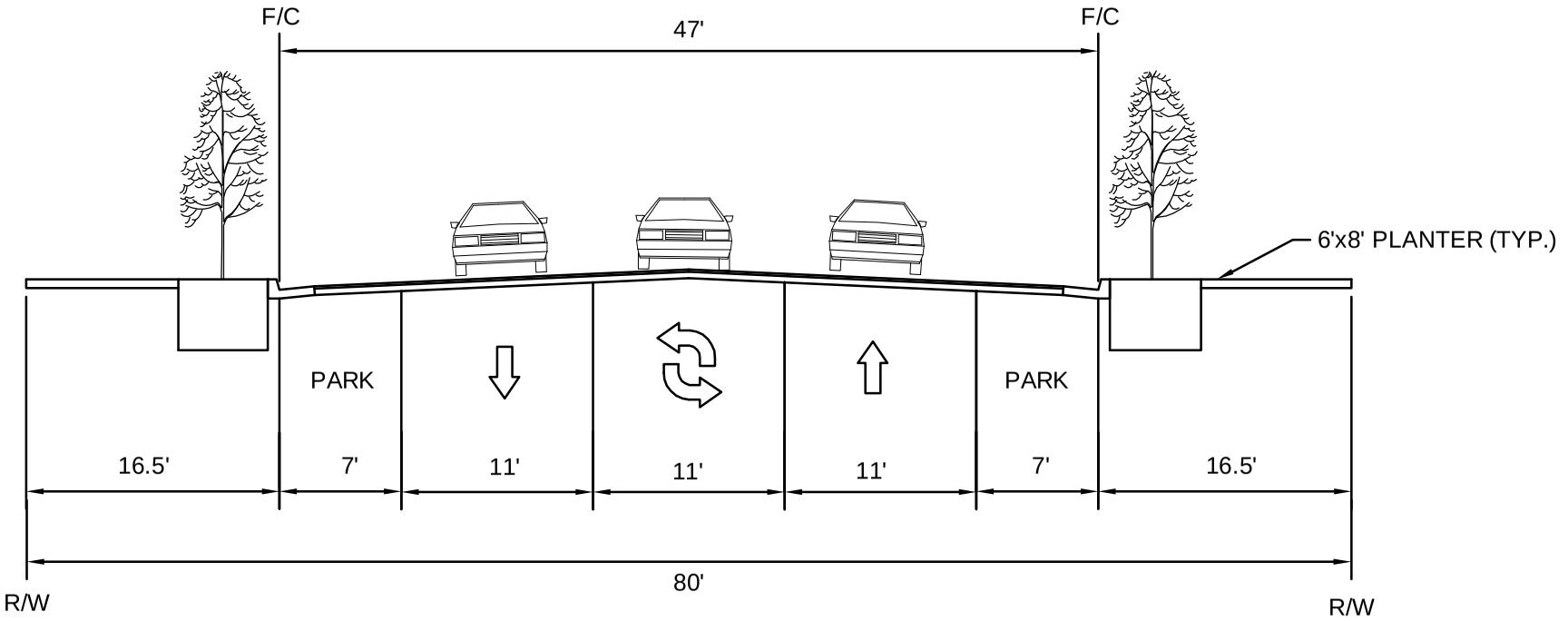
SHEET 7 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S8

Local - Residential Street

Bike Lane	No
Parking	Yes



DESIGNATED STREET(S):

JUDAH STREET (B/T RAILYARDS BLVD & NORTH B)
8TH STREET
9TH STREET

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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 20, 2007
PROJECT NO. 097922000

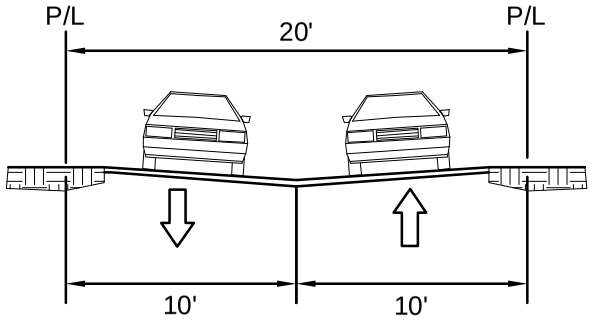
SHEET 8 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S9

Alley Way

Bike Lane	No
Parking	No



DESIGNATED STREETS:

COMMERCIAL & RESIDENTIAL ALLEY

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Engineering, Planning, and Environmental Consultants
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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 23, 2007
PROJECT NO. 097922000

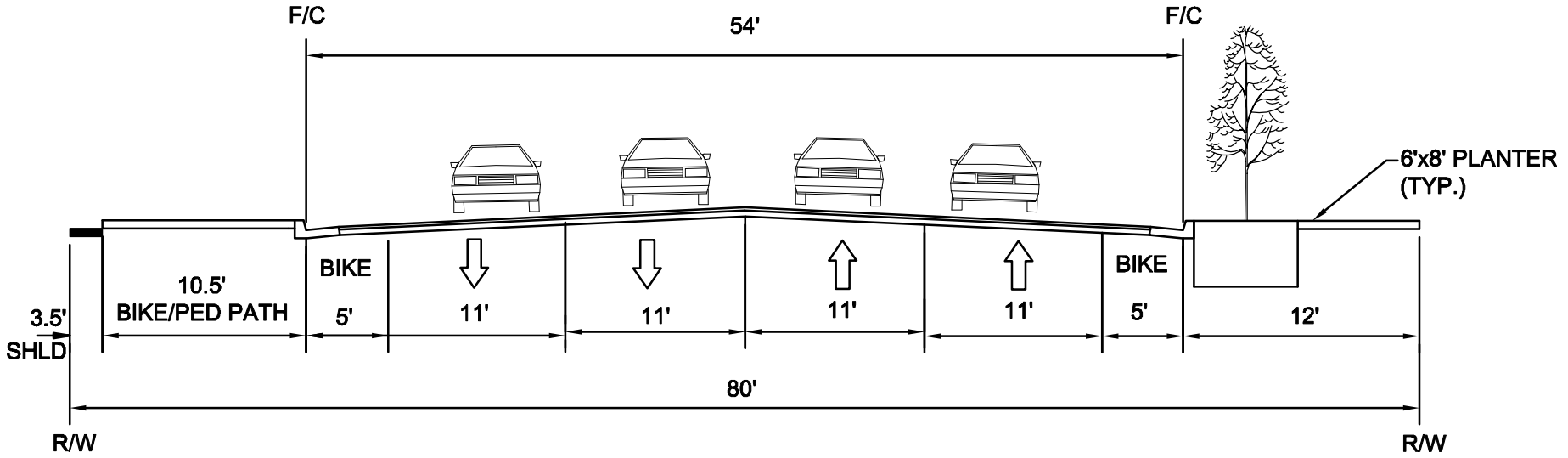
SHEET 9 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street **S10**

Collector Street-Major

Bike Lane	Yes
Parking	No



DESIGNATED STREET(S):

SOUTH PARK STREET (B/T CROCKER STREET & STANFORD STREET) - LOOKING EAST

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ.	N/A
VERT.	N/A
DATE:	JULY 20, 2007
PROJECT NO.	097922000

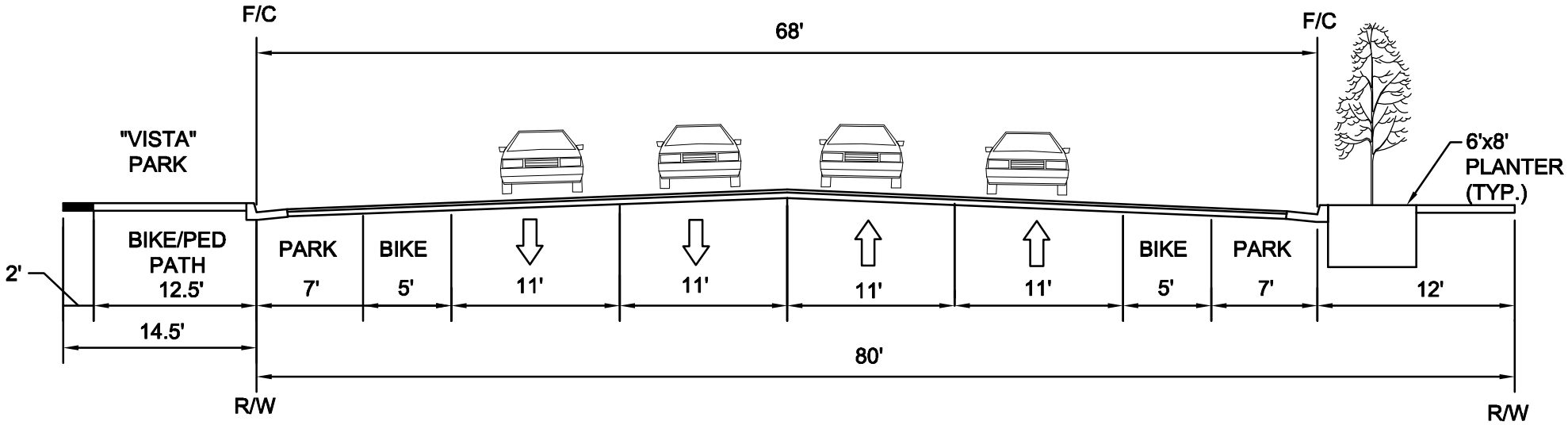
SHEET 10 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street **S11**

Collector Street-Major

Bike Lane	Separate
Parking	Yes (both sides)



DESIGNATED STREET(S):

SOUTH PARK STREET (B/T STANFORD STREET& 5TH STREET) - LOOKING EAST

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 20, 2007
PROJECT NO. 097922000

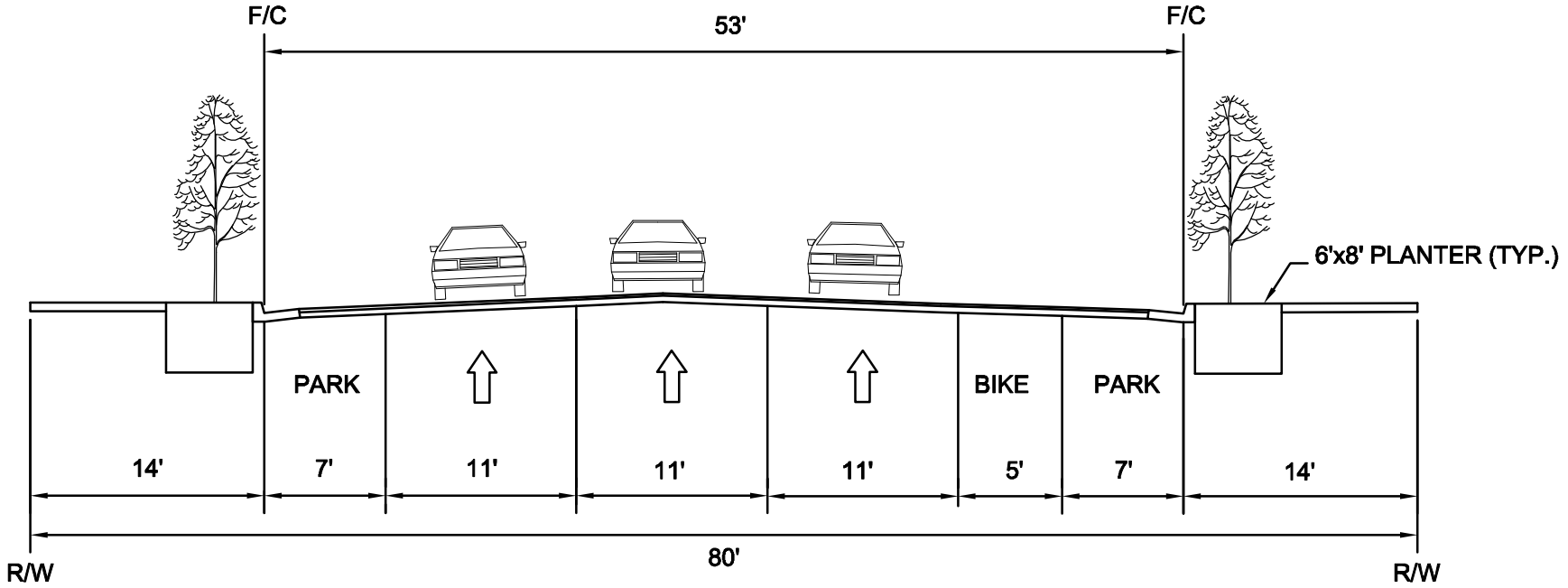
SHEET 11 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S12

Three-Lane Arterial

Bike Lane	Yes
Parking	Yes



DESIGNATED STREET(S):

5TH STREET (NORTH OF CAMILLE LANE) - LOOKING NORTH

Kimley-Horn and Associates, Inc.
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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 23, 2007
PROJECT NO. 097922000

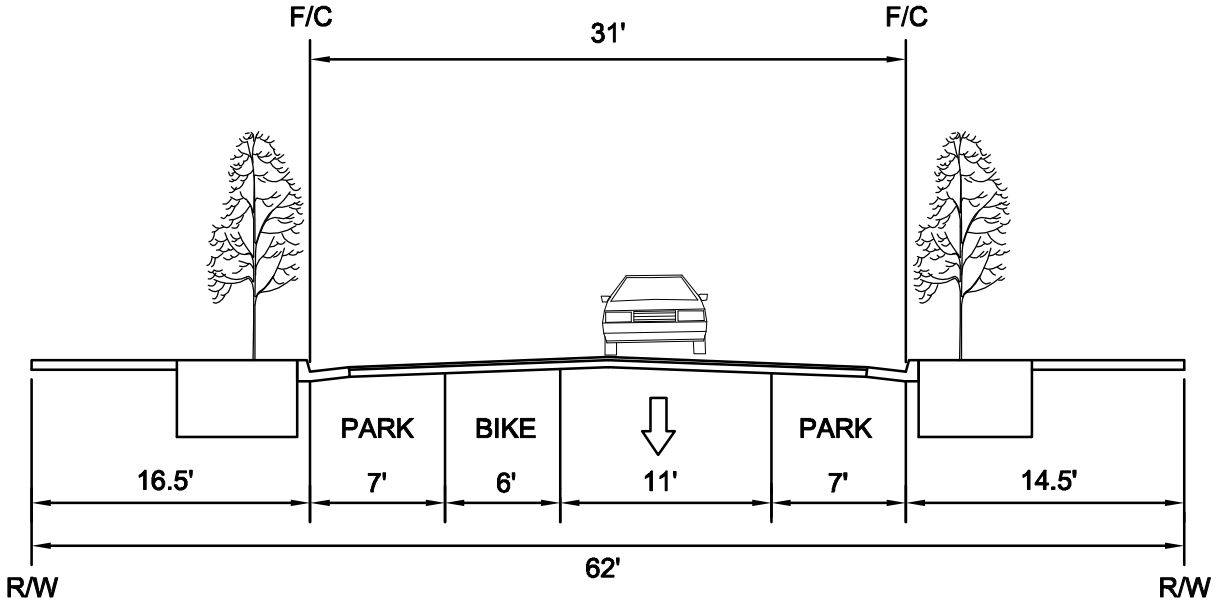
SHEET 12 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S13

Collector Street - Minor

Bike Lane	Yes
Parking	Yes



DESIGNATED STREETS:

NORTH PARK STREET (B/T 5TH & NORTH 10TH STREETS) - LOOKING EAST
SOUTH PARK STREEET (B/T 5TH & NORTH 10TH STREETS) - LOOKING WEST

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

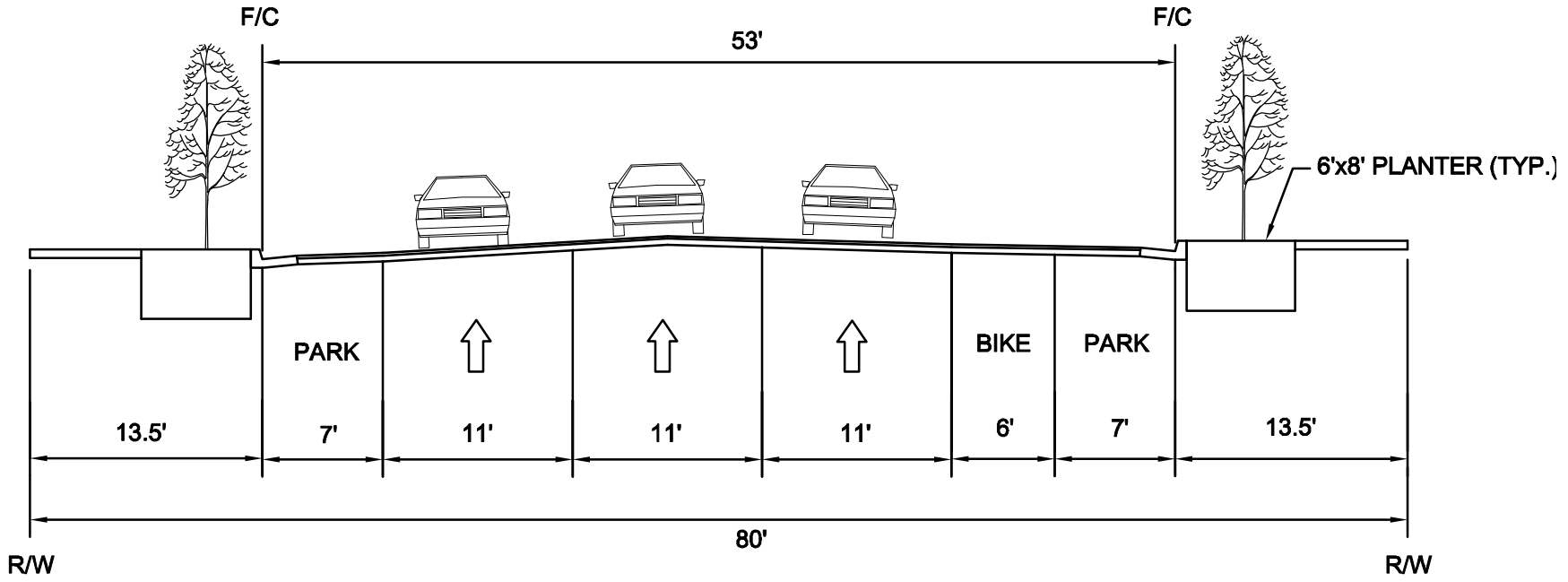
SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 23, 2007
PROJECT NO. 097922000

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S14

Three-Lane Arterial

Bike Lane	Yes
Parking	Yes



DESIGNATED STREET(S):

NORTH B STREET - LOOKING EAST

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 23, 2007
PROJECT NO. 097922000

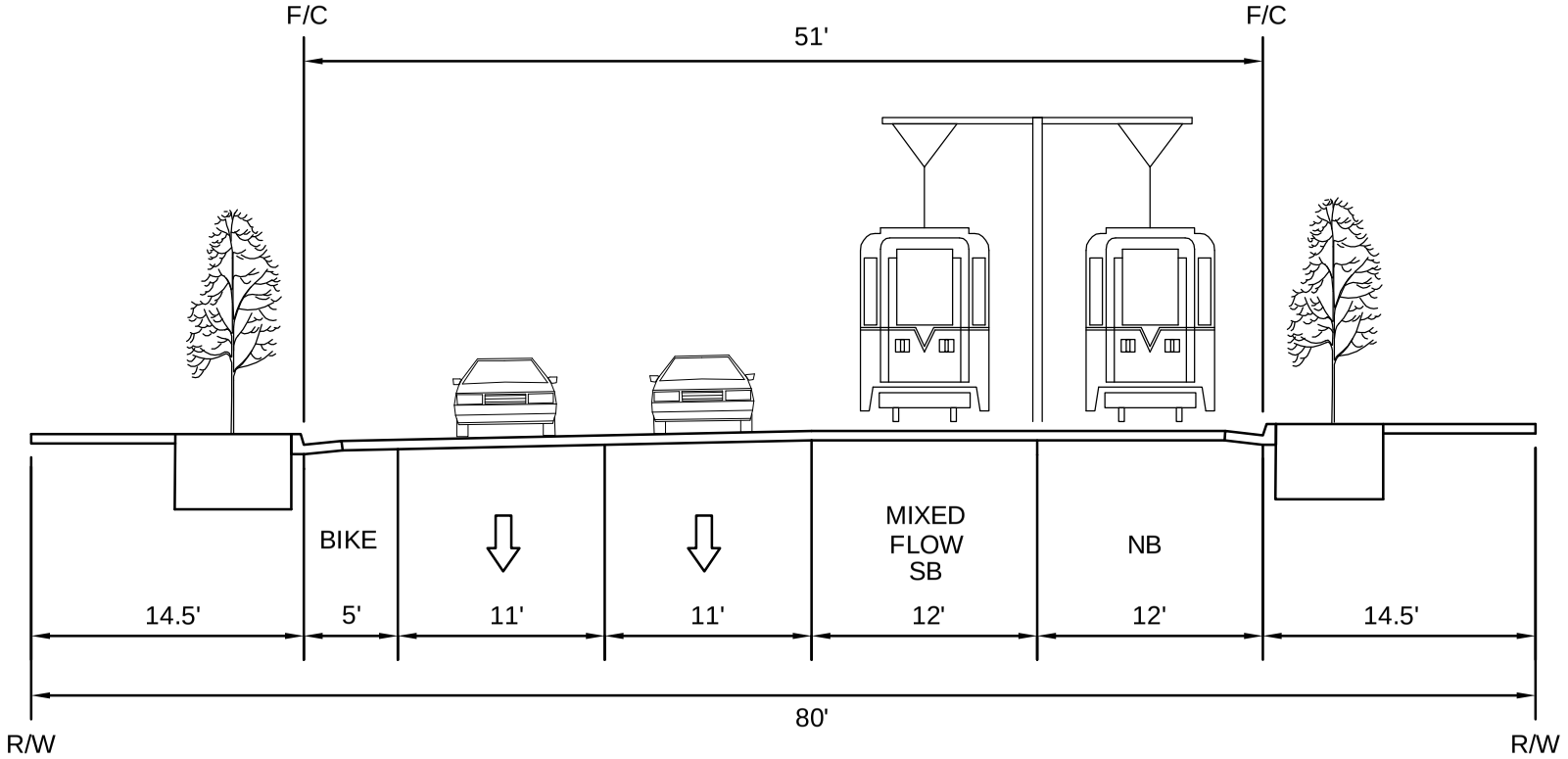
SHEET 14 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S15

Three-Lane Arterial w/LRT

Bike Lane	Yes
Parking	No



DESIGNATED STREET(S):

7TH STREET (NORTH OF SOUTH PARK STREET) - LOOKING NORTH

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 23, 2007
PROJECT NO. 097922000

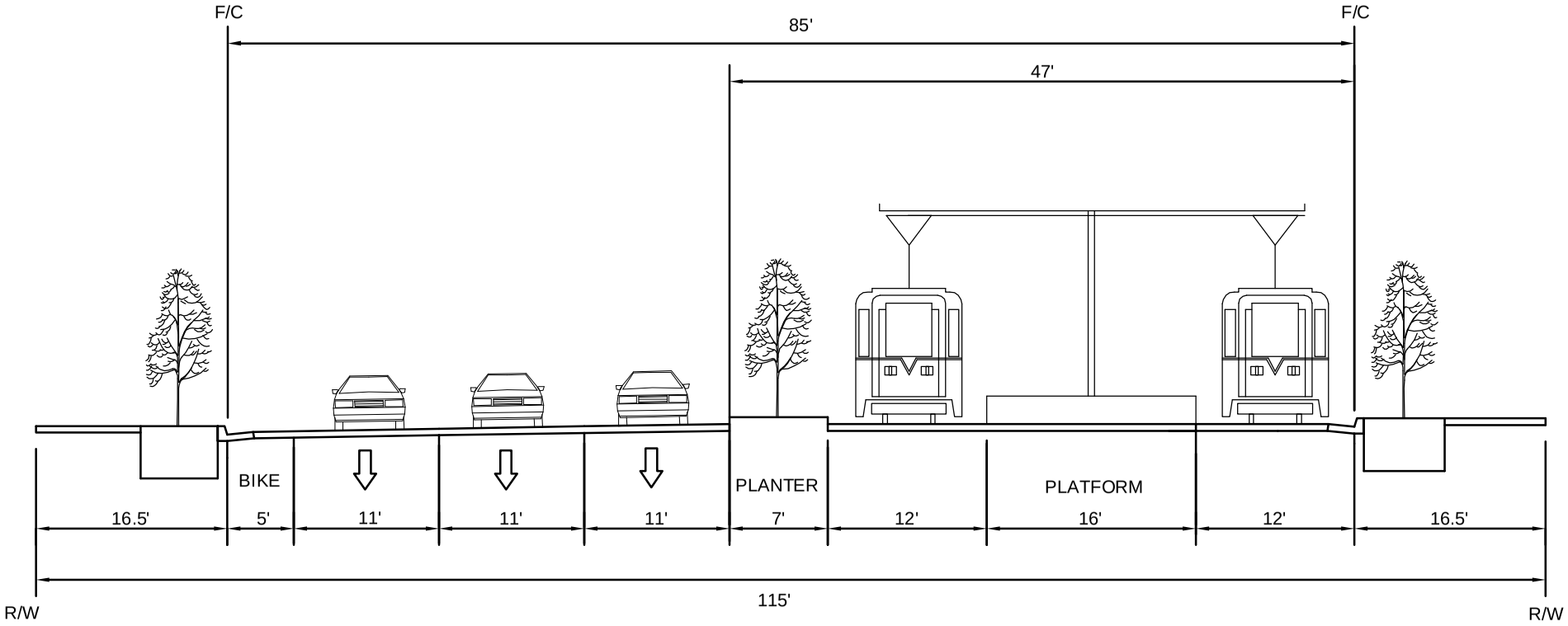
SHEET 15 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S16

Three-Lane Arterial w/LRT

Bike Lane	Yes
Parking	No



DESIGNATED STREET(S):

7TH STREET (B/T RAILYARDS BLVD. & SOUTH PARK ST.) - LOOKING NORTH

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 23, 2007
PROJECT NO. 097922000

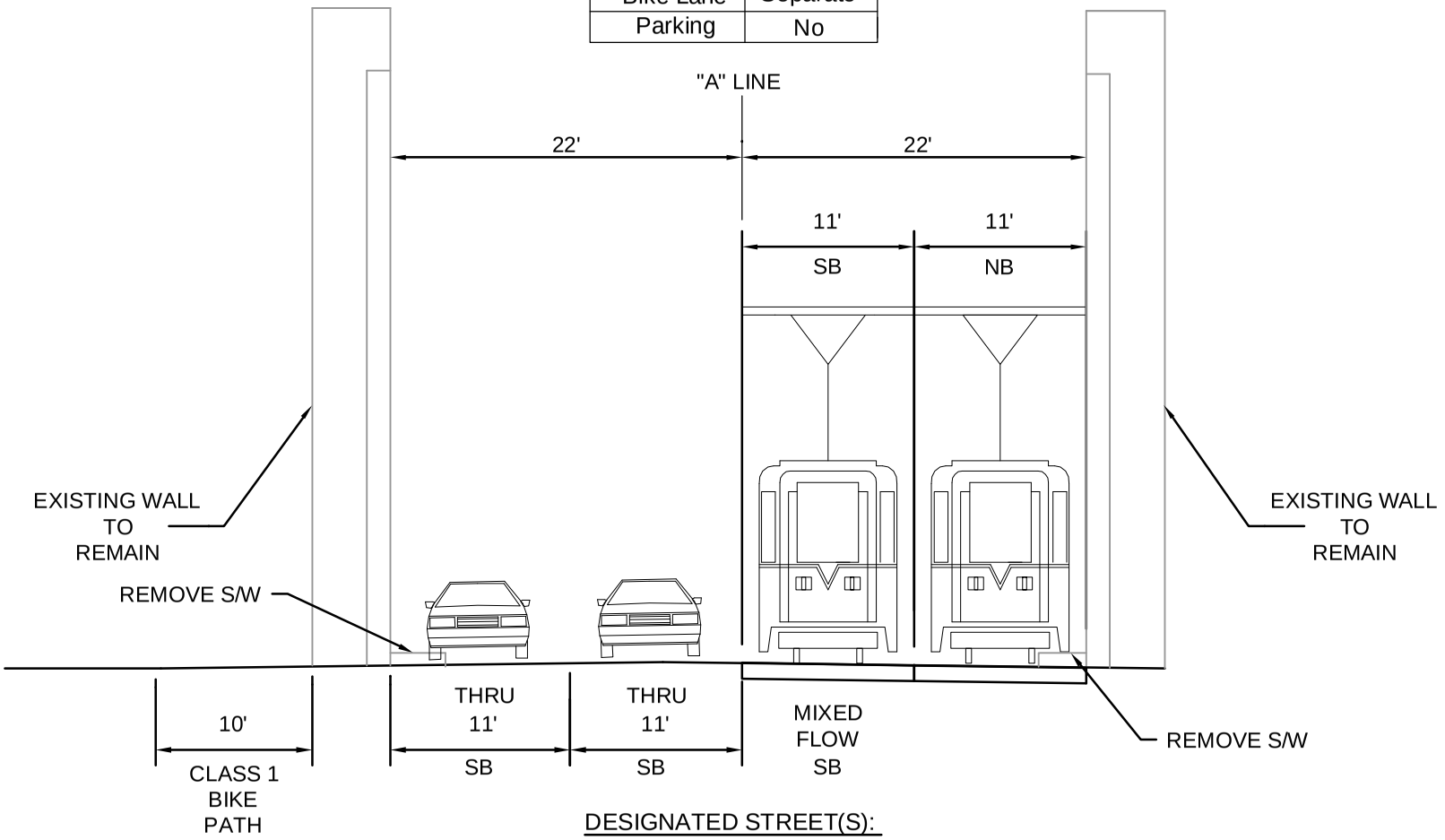
SHEET 16 OF 39

TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S17

Three-Lane Arterial w/ LRT

Bike Lane	Separate
Parking	No



DESIGNATED STREET(S):

7TH STREET (B/T F STREET & UPPR CROSSING) - LOOKING NORTH
7TH STREET (B/T UPPR CROSSING & RAILYARDS BLVD.) - LOOKING NORTH

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THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 23, 2007
PROJECT NO. 097922000

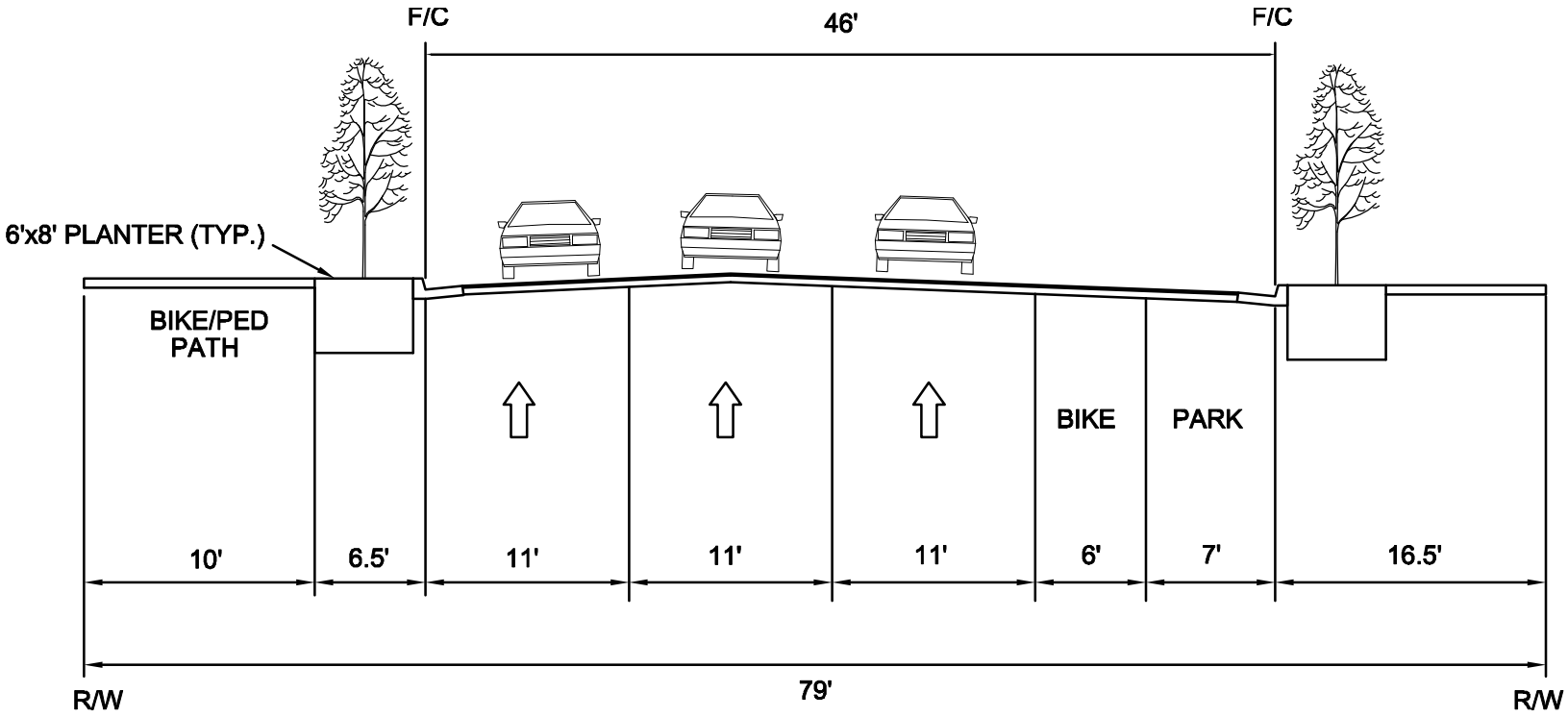
SHEET 17 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S18

Three-Lane Arterial

Bike Lane	Yes
Parking	Yes



DESIGNATED STREET(S):

RAILYARDS BOULEVARD (B/T 7TH STREET & NORTH 10TH STREET) - LOOKING WEST

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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 20, 2007
PROJECT NO. 097922000

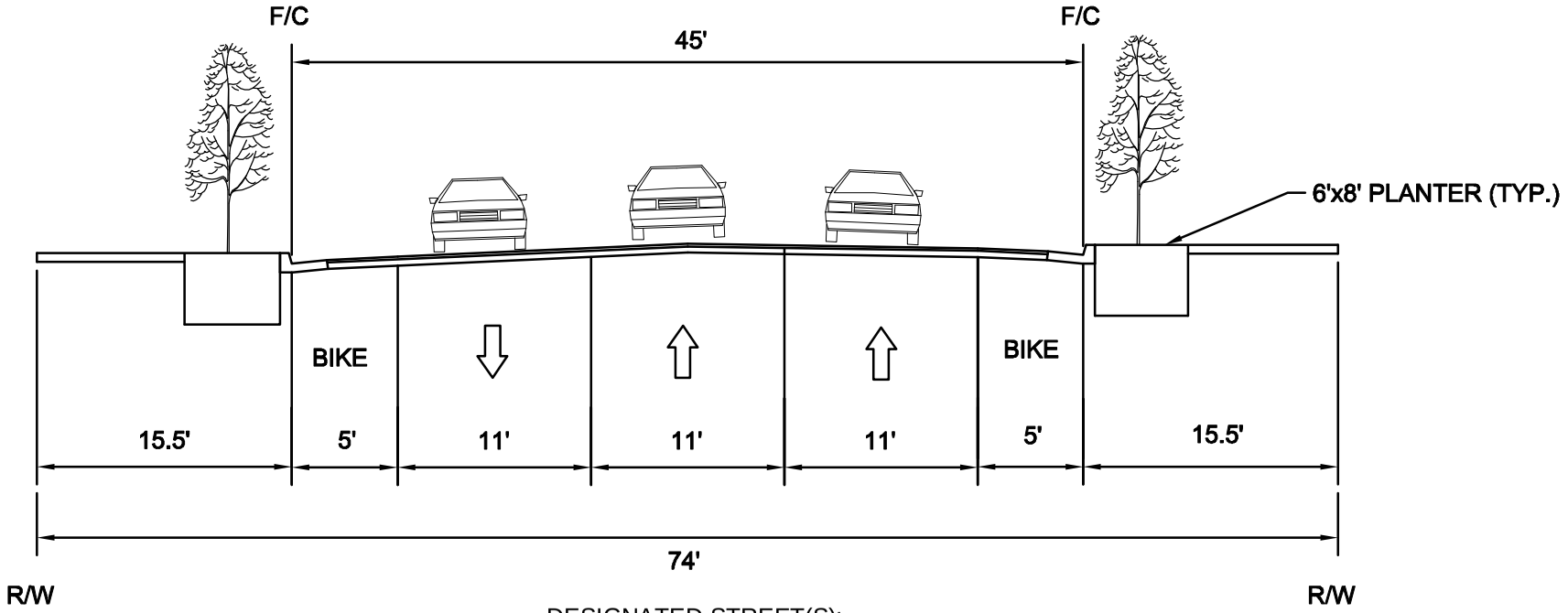
SHEET 18 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street **S19**

Collector Street - Major

Bike Lane	Yes
Parking	No



DESIGNATED STREET(S):

NORTH 10TH STREET - LOOKING NORTH

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805
www.kimley-horn.com

THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ.	N/A
VERT.	N/A
DATE:	JULY 23, 2007
PROJECT NO.	097922000

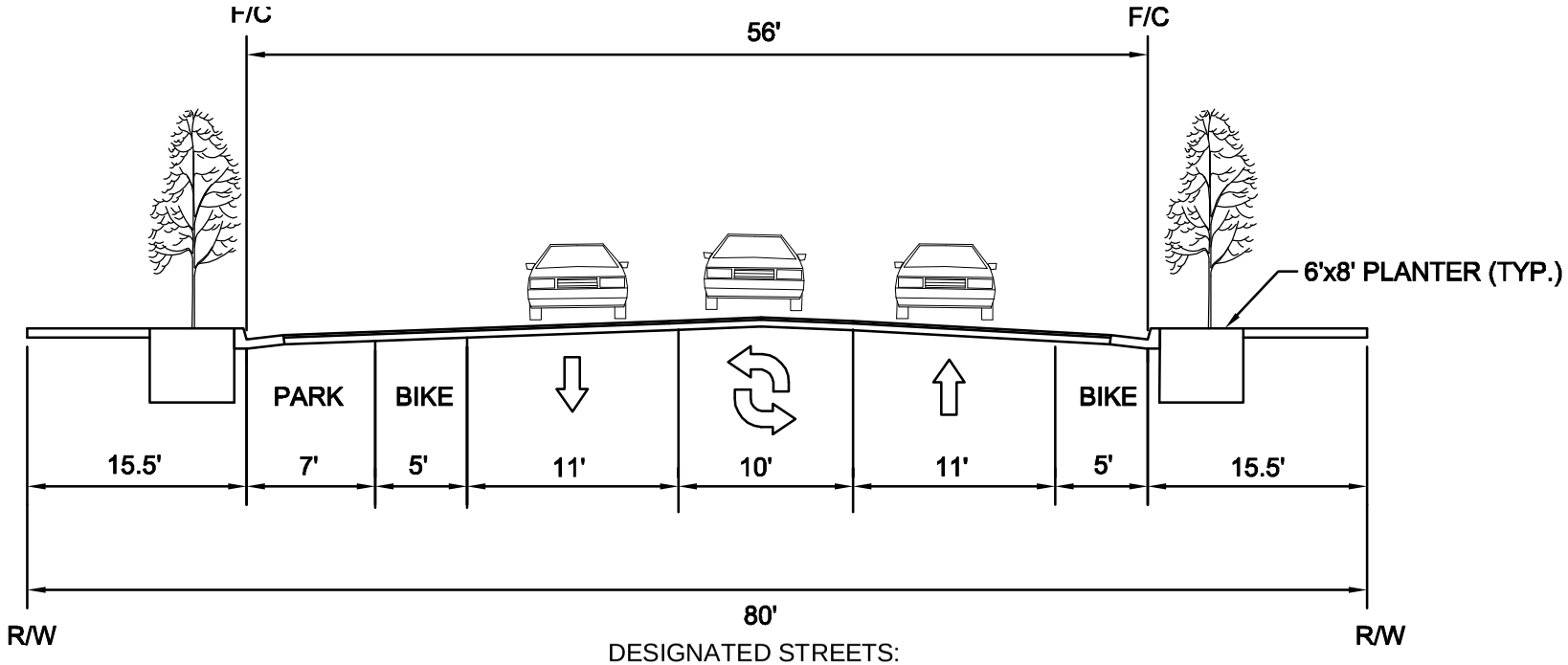
SHEET 19 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S20

Collector Street - Minor

Bike Lane	Yes
Parking	Yes



DESIGNATED STREETS:

6TH STREET (UPRR TO RAILYARDS BLVD.) - LOOKING NORTH
6TH STREET (H STREET TO G STREET)

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805
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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 23, 2007
PROJECT NO. 097922000

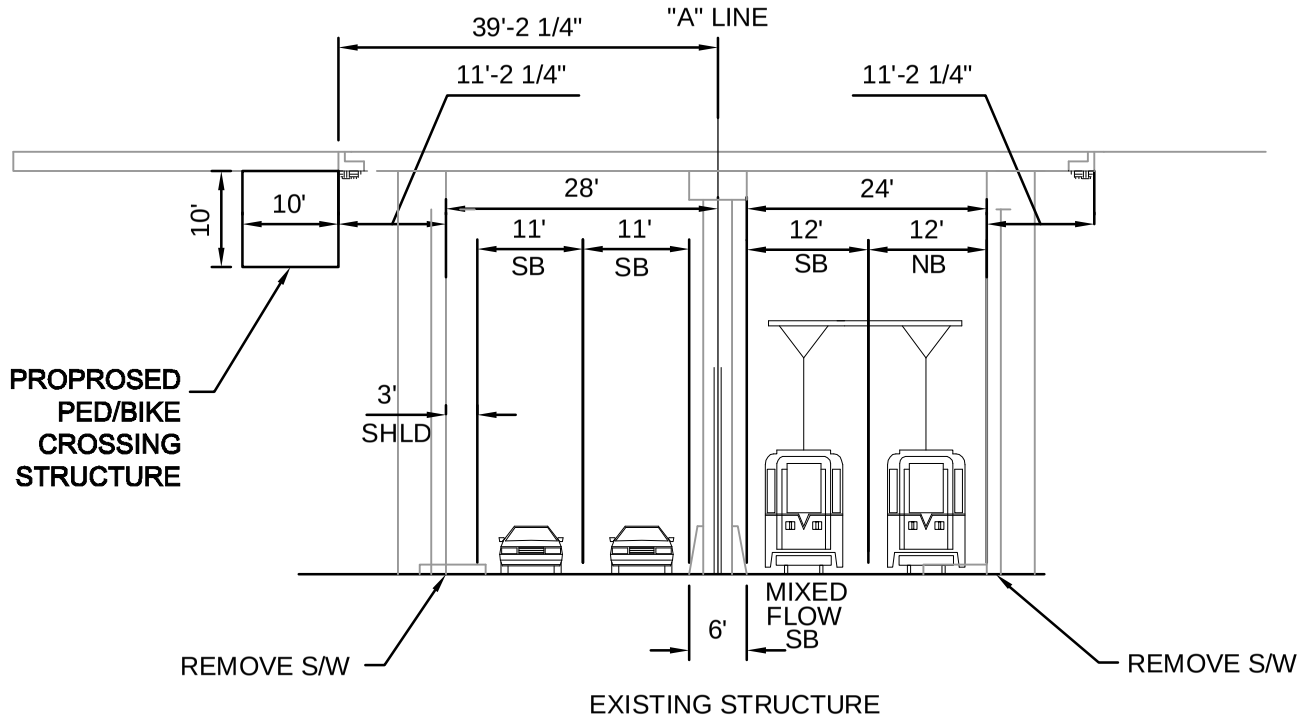
SHEET 20 OF 39

TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S21

Three-Lane Arterial w/ LRT

Bike Lane	Separate
Parking	No



EXISTING STRUCTURE

DESIGNATED STREET(S):

7TH STREET @ UPRR CROSSING - LOOKING NORTH

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805

THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

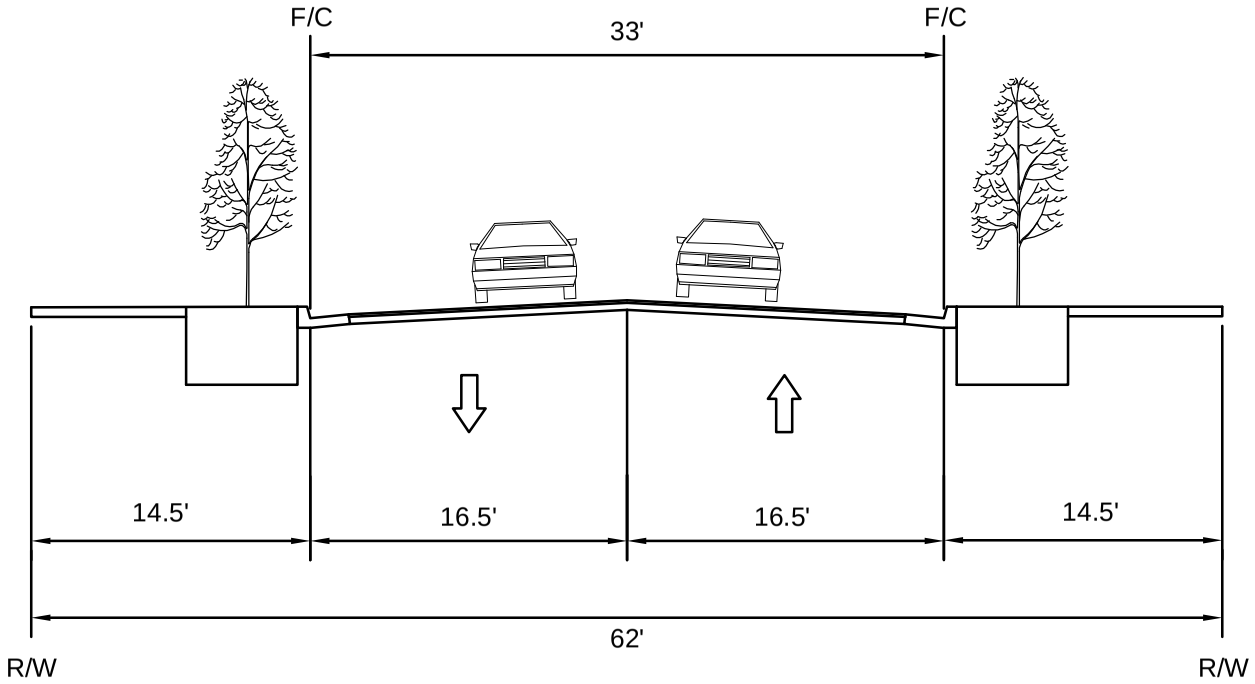
SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 23, 2007
PROJECT NO. 097922000

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S22

Local - Commercial Street

Bike Lane	No
Parking	No



DESIGNATED STREET(S):

STEVENS STREET

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805

THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

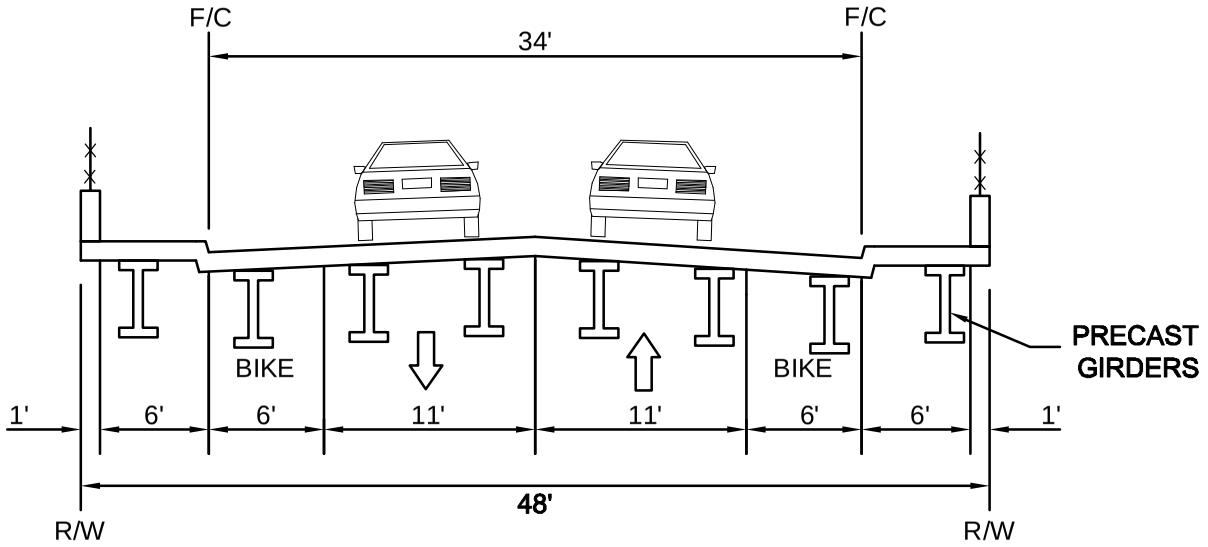
SCALE: HORIZ. N/A VERT. N/A
DATE: APRIL 6, 2007
PROJECT NO. 097922000

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S23

Collector Street - Minor

Bike Lane	Yes
Parking	No



DESIGNATED STREET(S):

6TH STREET @ UPRR CROSSING - LOOKING NORTH

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
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Fax No. (916) 858-5805
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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: APRIL 6, 2007
PROJECT NO. 097922000

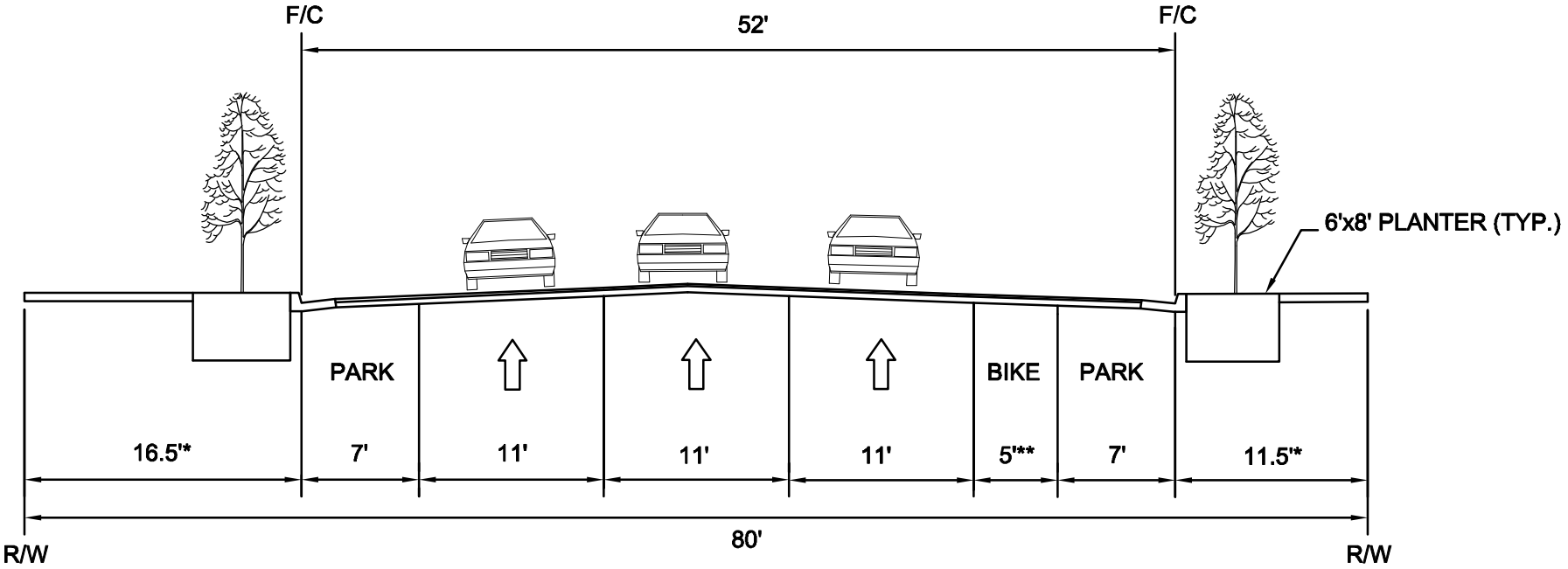
SHEET 23 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S24

Three-Lane Arterial

Bike Lane	Yes
Parking	Yes



DESIGNATED STREET(S):

5th STREET (SOUTH OF CAMILLE LANE) - LOOKING NORTH

* WEST SW = 8.5' SOUTH OF H STREET
EAST SW = 8.5' SOUTH OF H STREET

** BIKE LANE = 6' SOUTH OF H STREET

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805
www.kimley-horn.com

THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ.	N/A
VERT.	N/A
DATE:	APRIL 6, 2007
PROJECT NO.	097922000

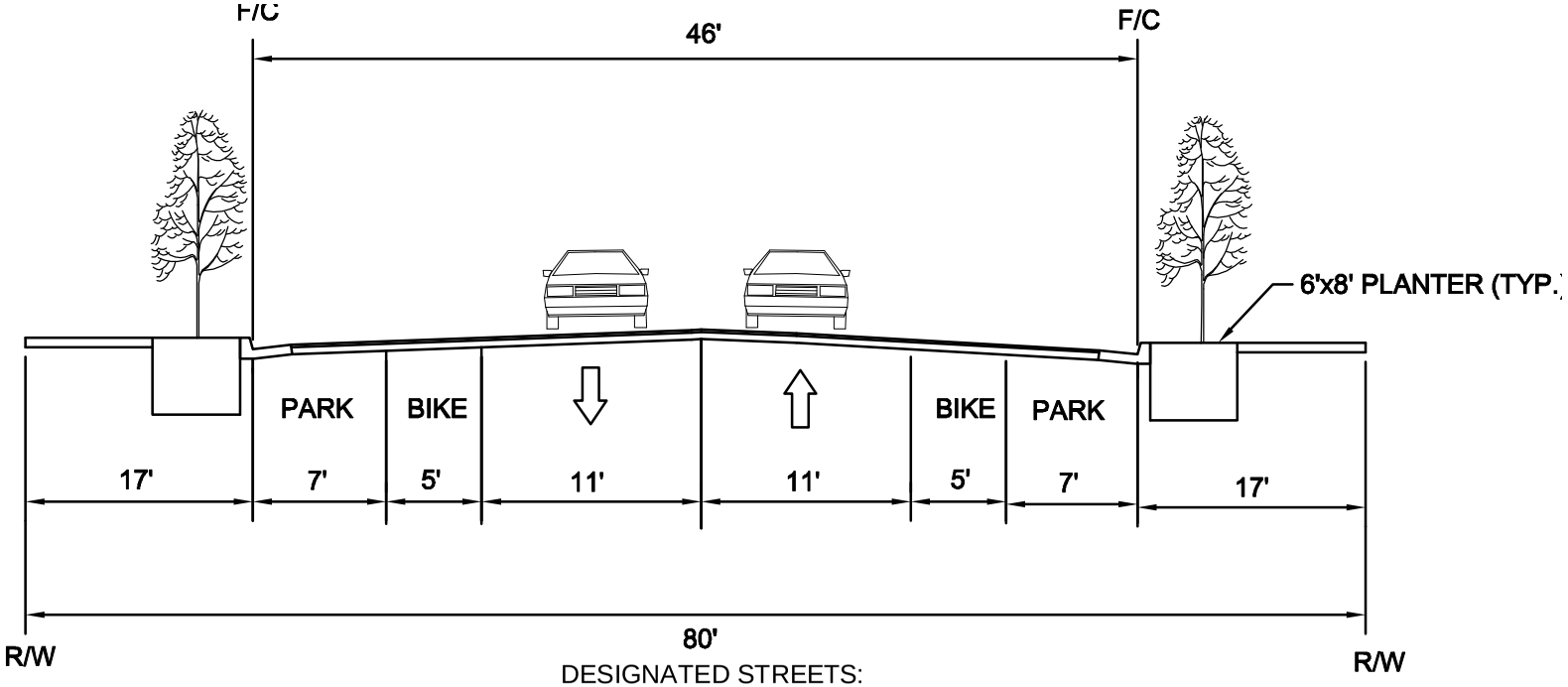
SHEET 24 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S25

Collector Street - Minor

Bike Lane	Yes
Parking	Yes



DESIGNATED STREETS:

6TH STREET (G STREET TO UPRR) - LOOKING NORTH
6TH STREET (UPRR TO STEVENS)

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805
www.kimley-horn.com

THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ.	N/A
VERT.	N/A
DATE:	JULY 23, 2007
PROJECT NO.	097922000

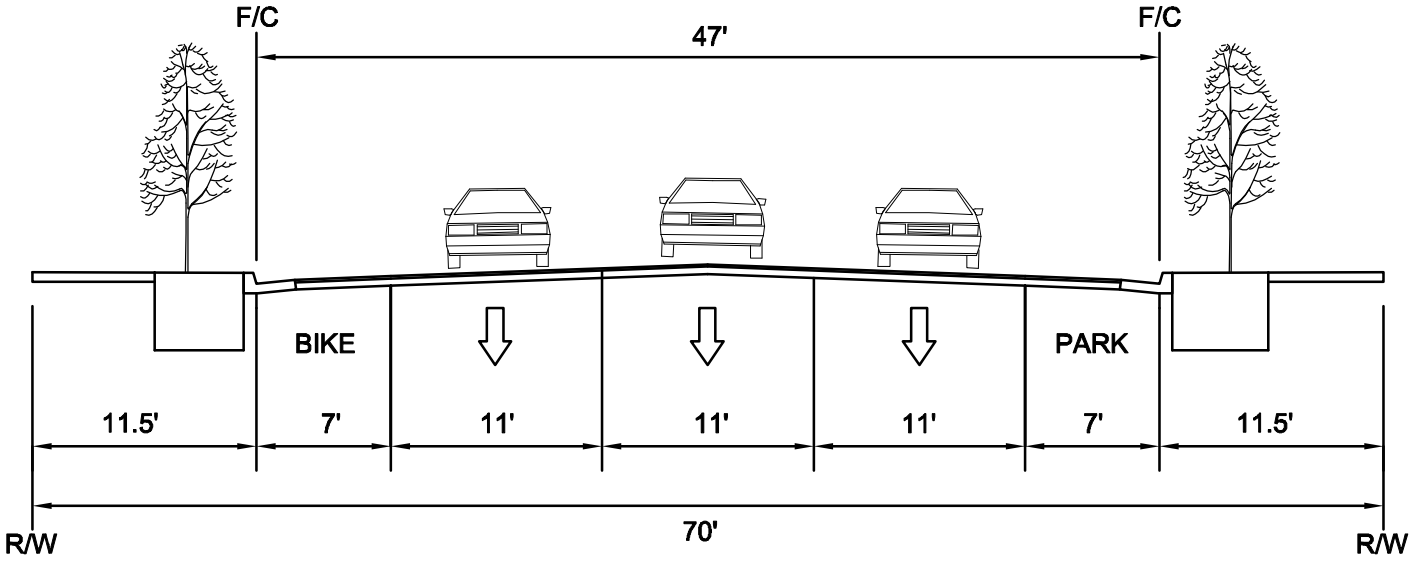
SHEET 25 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S26

Three-Lane Arterial

Bike Lane	Yes
Parking	Yes



DESIGNATED STREETS:

7TH STREET (B/T H STREET & F STREET) - LOOKING NORTH

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805

THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: APRIL 6, 2007
PROJECT NO. 097922000

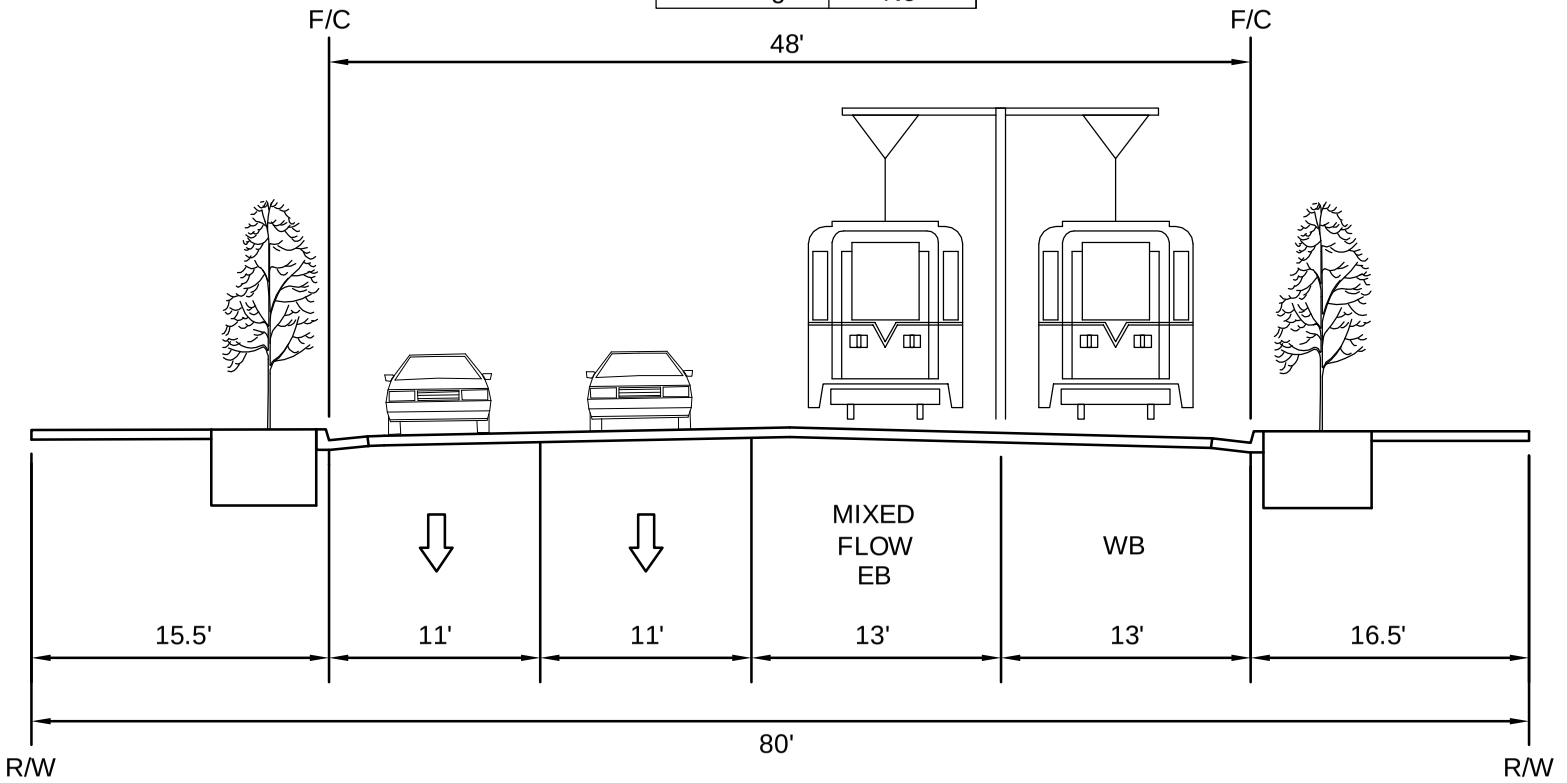
SHEET 26 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S27

Collector Street - Major

Bike Lane	No
Parking	No



DESIGNATED STREET(S):

H STREET (B/T 6TH & 7TH STREET) - LOOKING WEST

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
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www.kimley-horn.com

THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ.	N/A
VERT.	N/A
DATE:	APRIL 6, 2007
PROJECT NO.	097922000

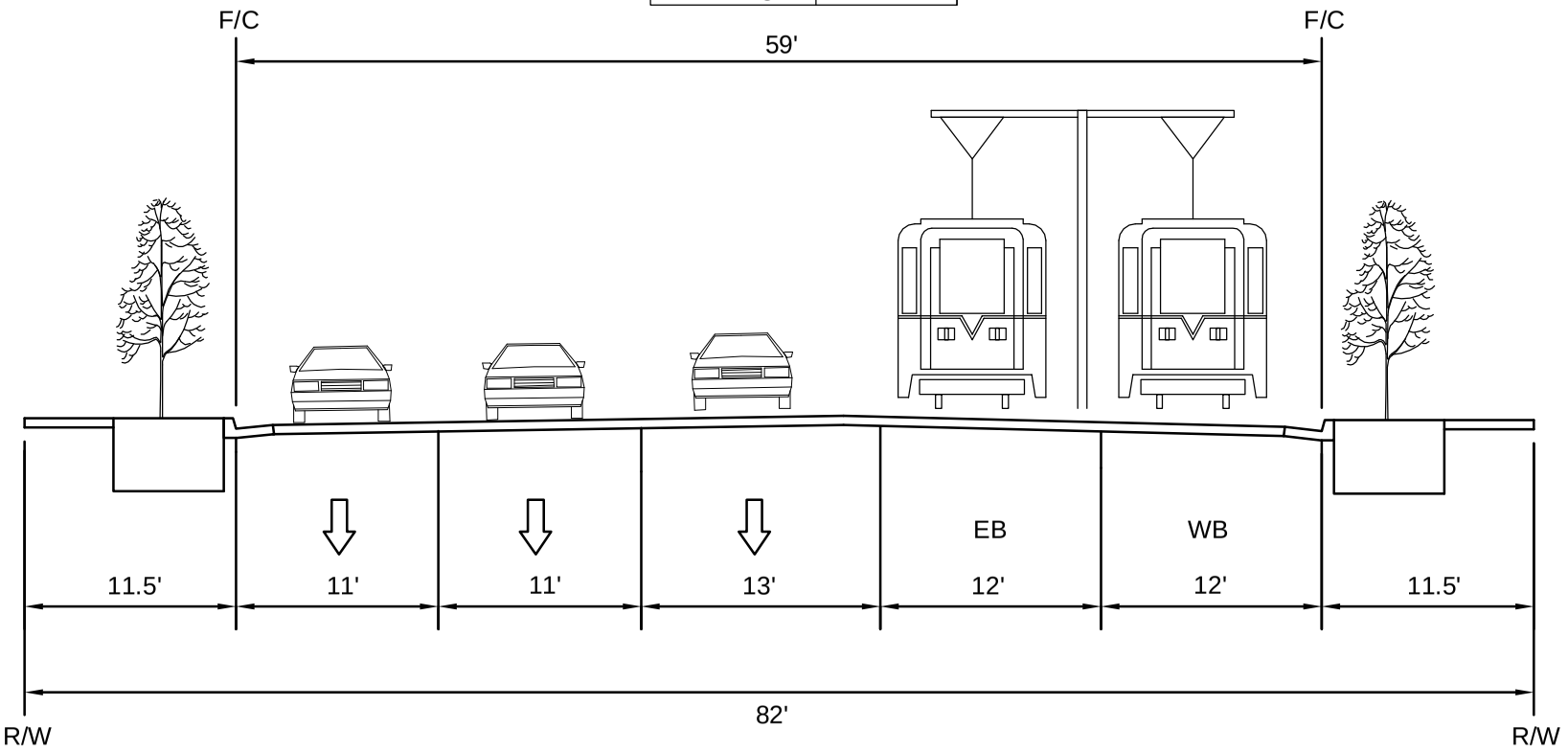
SHEET 27 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S28

Collector Street - Major

Bike Lane	No
Parking	No



DESIGNATED STREET(S):

H STREET (B/T 5TH & 6TH STREET) - LOOKING WEST

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ.	N/A
SCALE: VERT.	N/A
DATE:	APRIL 6, 2007
PROJECT NO.	097922000

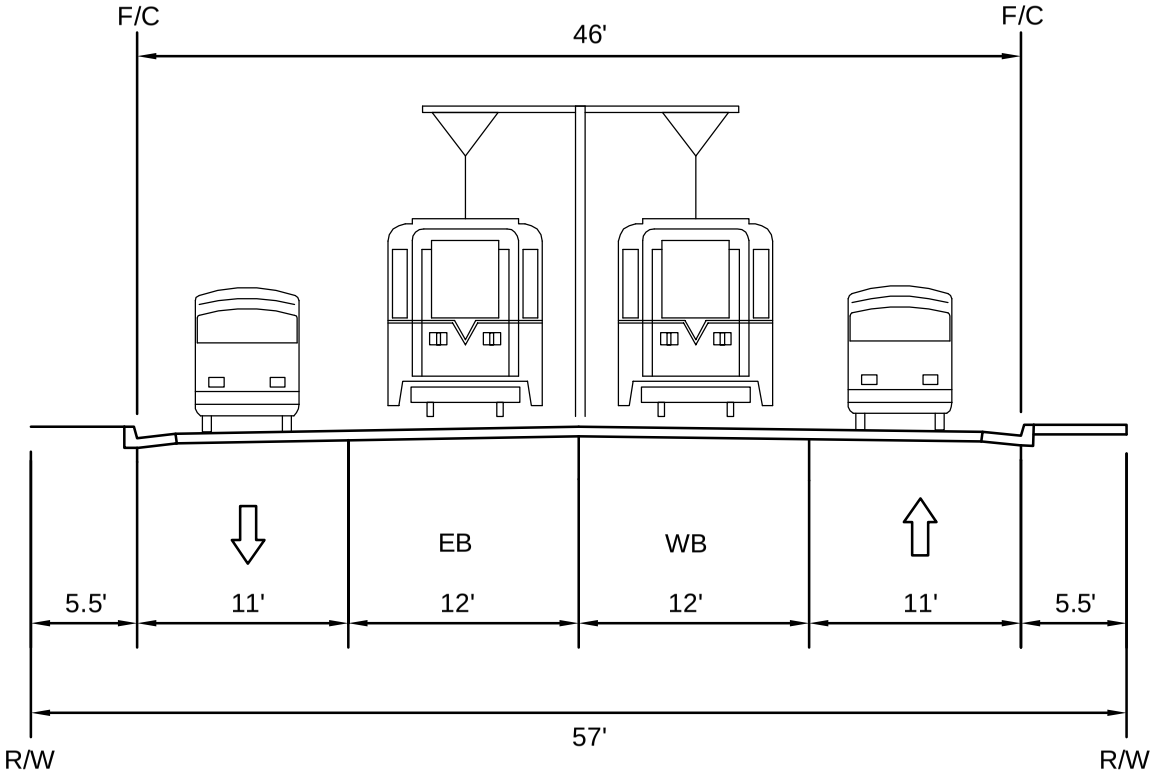
SHEET 28 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S29

Local-Industrial Street

Bike Lane	No
Parking	No



DESIGNATED STREET(S):

F STREET (B/T 6TH & 7TH STREET) - LOOKING WEST

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805

THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 10, 2007
PROJECT NO. 097922000

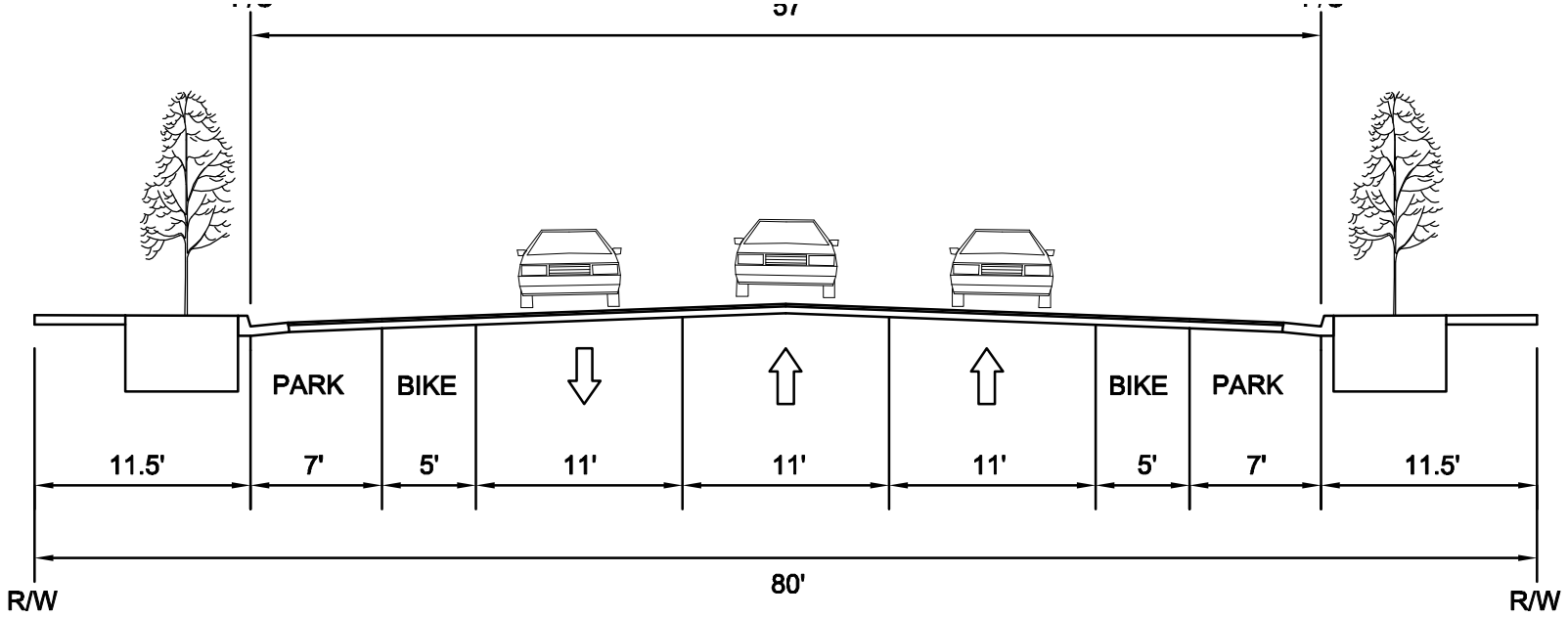
SHEET 29 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S30

Collector Street - Major

Bike Lane	Yes
Parking	Yes



DESIGNATED STREETS:

G STREET (B/T 7TH STREET & 5TH STREET) - LOOKING WEST

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805
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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ.	N/A
VERT.	N/A
DATE:	JULY 10, 2007
PROJECT NO.	097922000

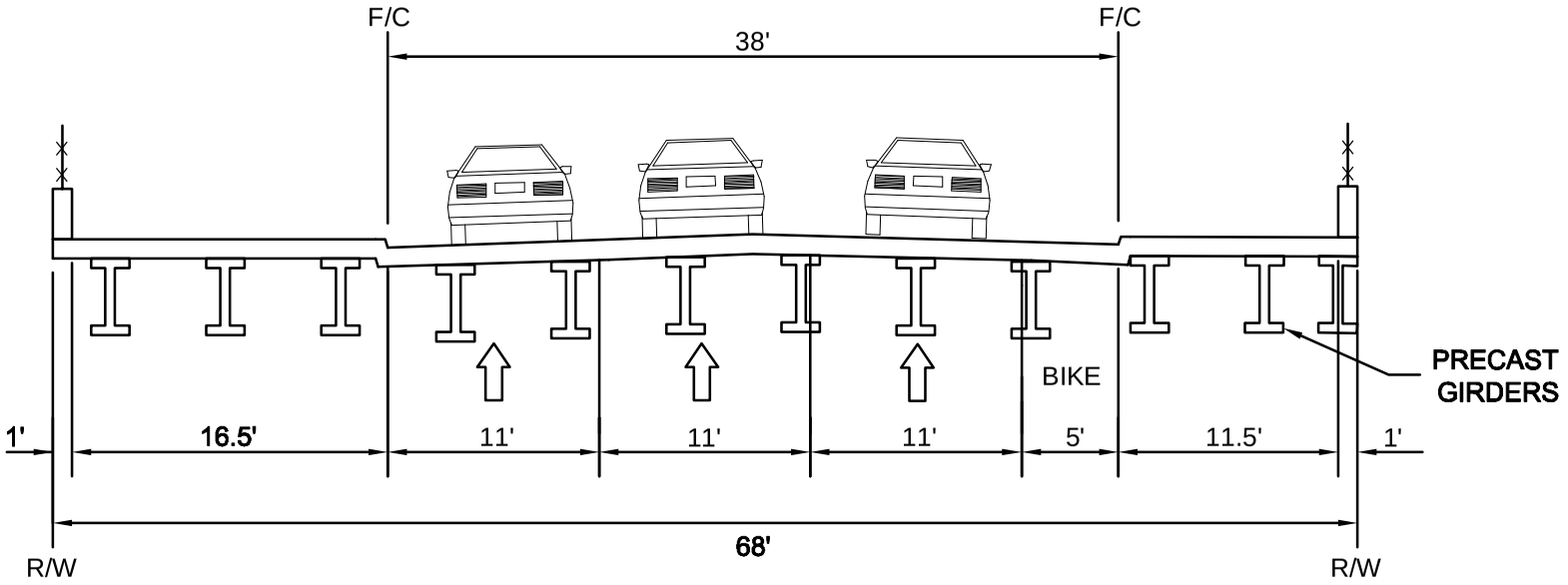
SHEET 30 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S31

Three-Lane Arterial

Bike Lane	Yes
Parking	No



DESIGNATED STREET(S):

5TH STREET @ UPRR CROSSING - LOOKING NORTH

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805
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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

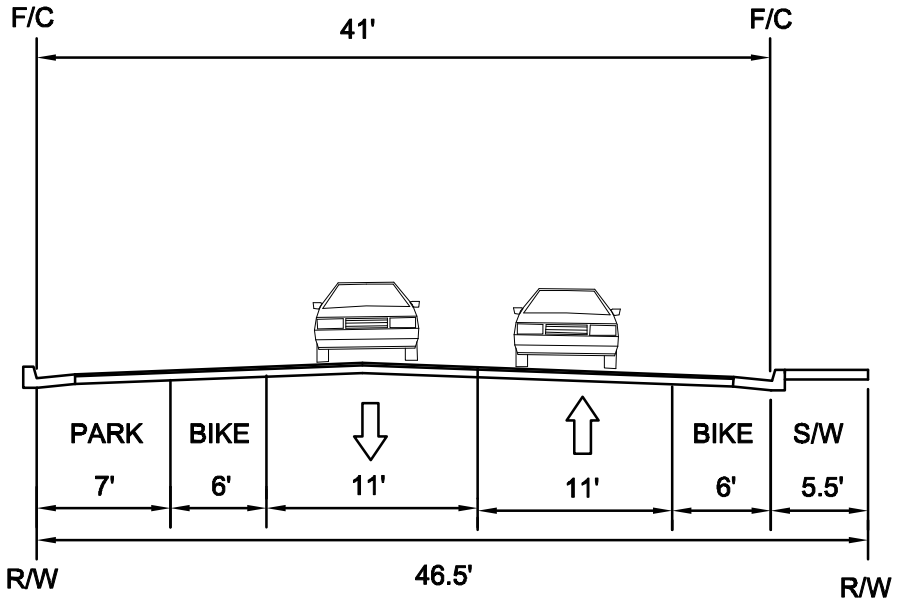
SCALE: HORIZ. N/A VERT. N/A
DATE: APRIL 6, 2007
PROJECT NO. 097922000

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S32

Collector Street - Minor

Bike Lane	Yes
Parking	Yes



DESIGNATED STREETS:

JIBBOOM (B/T CAMILLE AND RAILYARDS) - LOOKING NORTH

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805
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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 20, 2007
PROJECT NO. 097922000

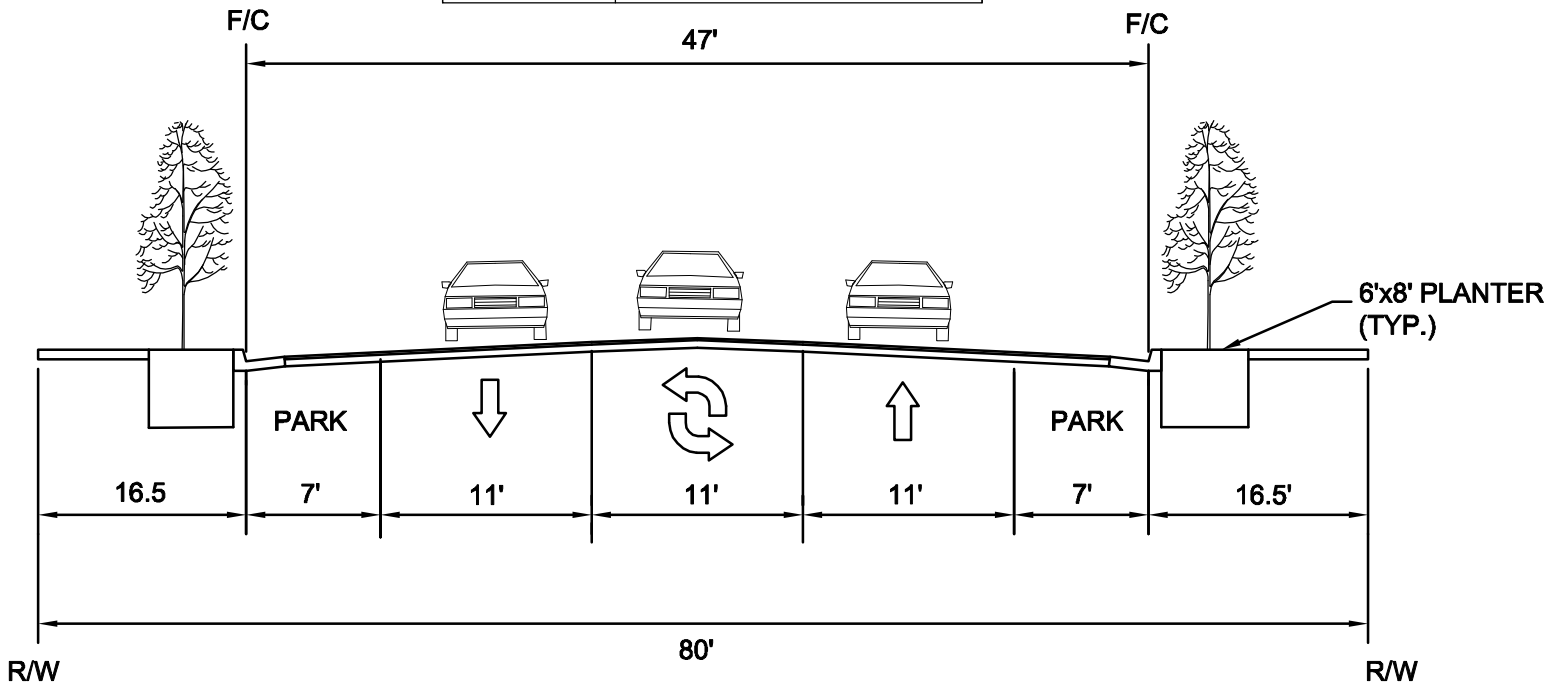
SHEET 32 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S33

Local - Commercial Street

Bike Lane	Shared Bike/Car Travel Lane
Parking	Yes



DESIGNATED STREETS:

CROCKER STREET
6TH STREET (RAILYARDS TO NORTH B STREET)

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
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Fax No. (916) 858-5805
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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 23, 2007
PROJECT NO. 097922000

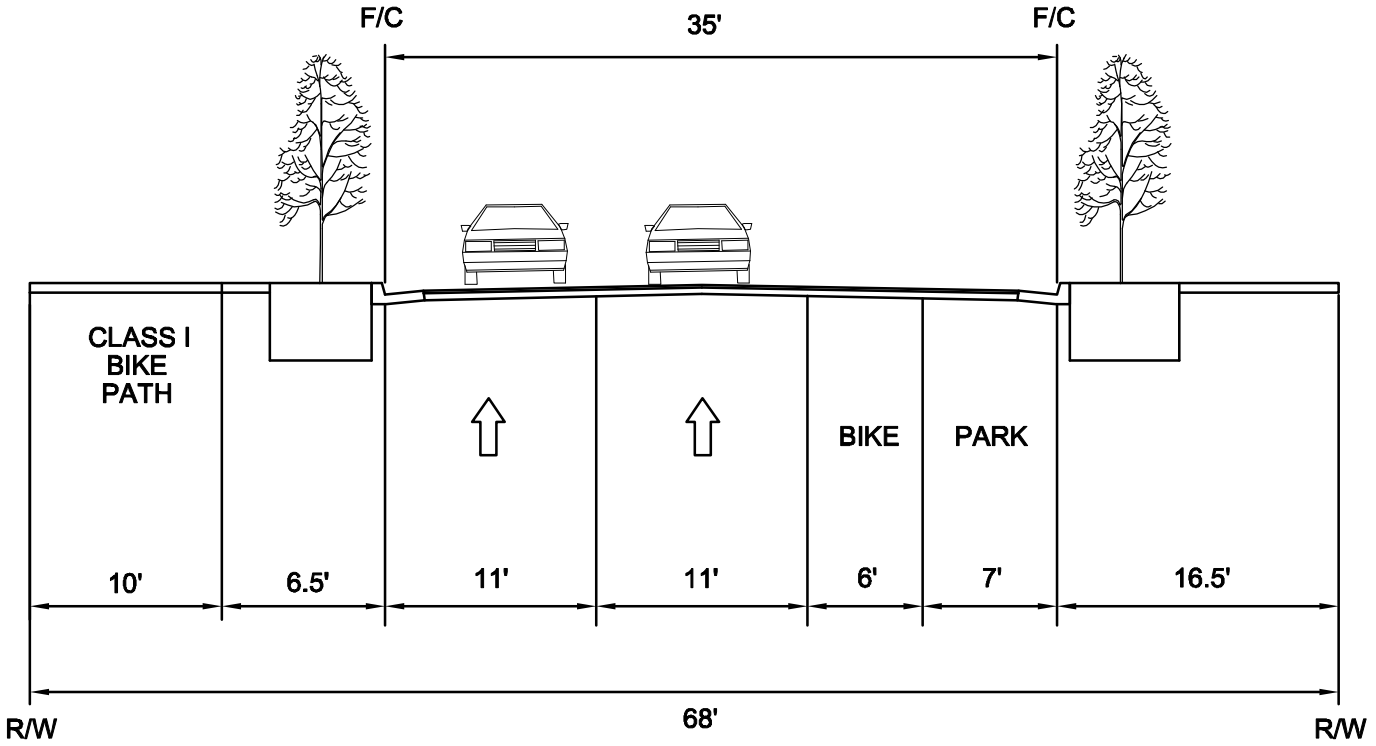
SHEET 33 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S34

Two-Lane Arterial

Bike Lane	Yes
Parking	Yes



DESIGNATED STREET(S):

RAILYARDS BOULEVARD (B/T NORTH 12TH STREET & NORTH 10TH STREET) - LOOKING WEST

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
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Rancho Cordova, California 95670
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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 10, 2007
PROJECT NO. 097922000

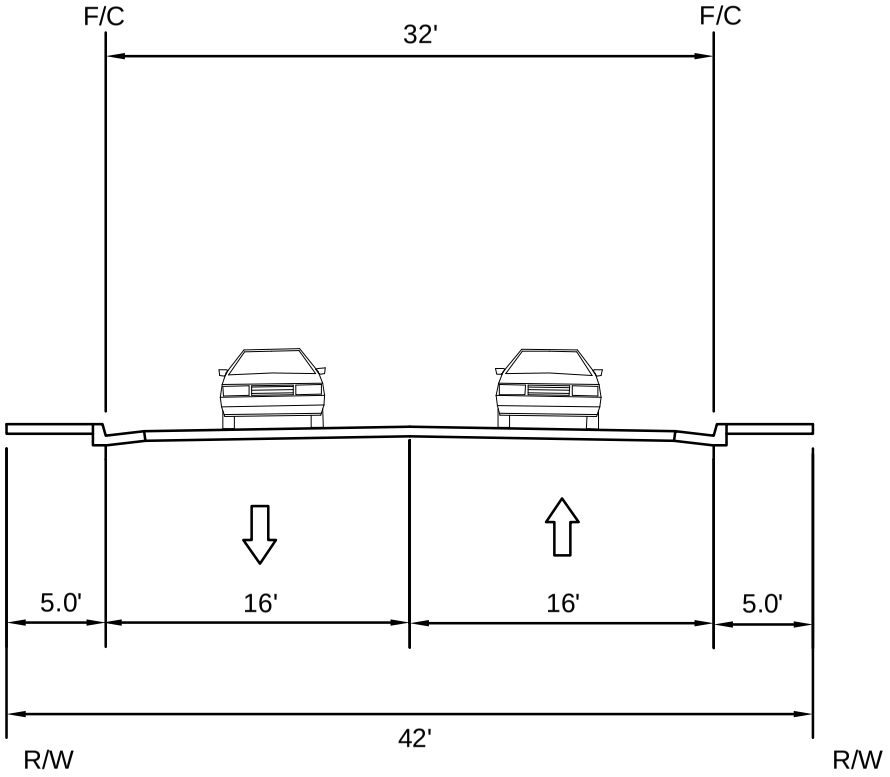
SHEET 34 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S35

Local-Industrial Street

Bike Lane	No
Parking	No



DESIGNATED STREET(S):

I STREET (CONNECTS TO I STREET BRIDGE) - LOOKING WEST

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805
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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 10, 2007
PROJECT NO. 097922000

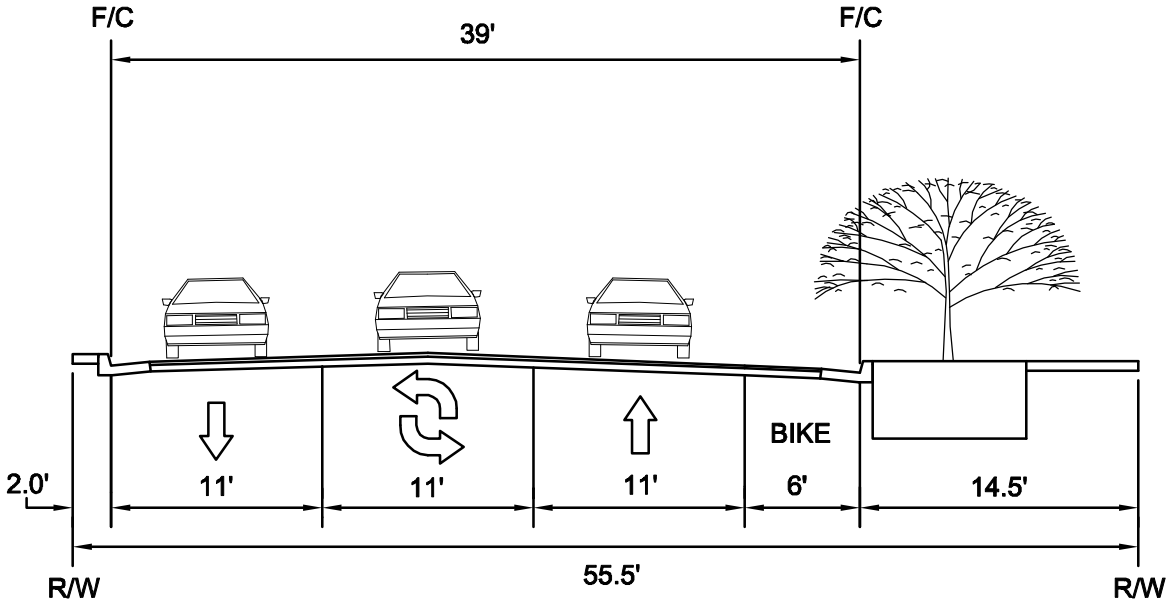
SHEET 35 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S36

Collector Street - Minor

Bike Lane	Yes
Parking	No



DESIGNATED STREETS:

BERCUT DRIVE (NORTH OF SOUTH PARK STREET) - LOOKING NORTH

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
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Fax No. (916) 858-5805
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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 10, 2007
PROJECT NO. 097922000

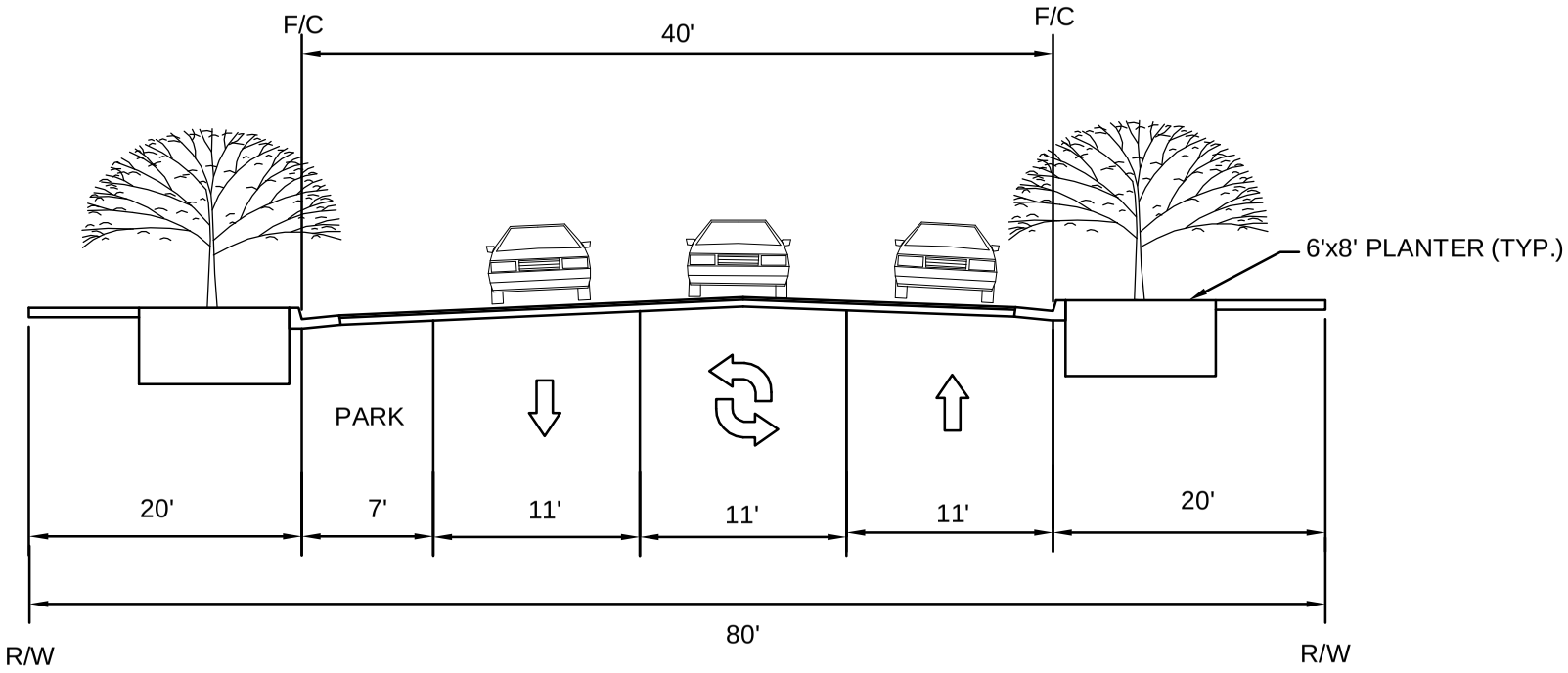
SHEET 36 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S38

Local - Commercial Street

Bike Lane	No
Parking	Yes (west side only)



DESIGNATED STREET(S):

HUNTINGTON STREET (LOCAL-COMMERICAL STREET) - LOOKING NORTH

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
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Fax No. (916) 858-5805
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THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ. N/A VERT. N/A
DATE: JULY 20, 2007
PROJECT NO. 097922000

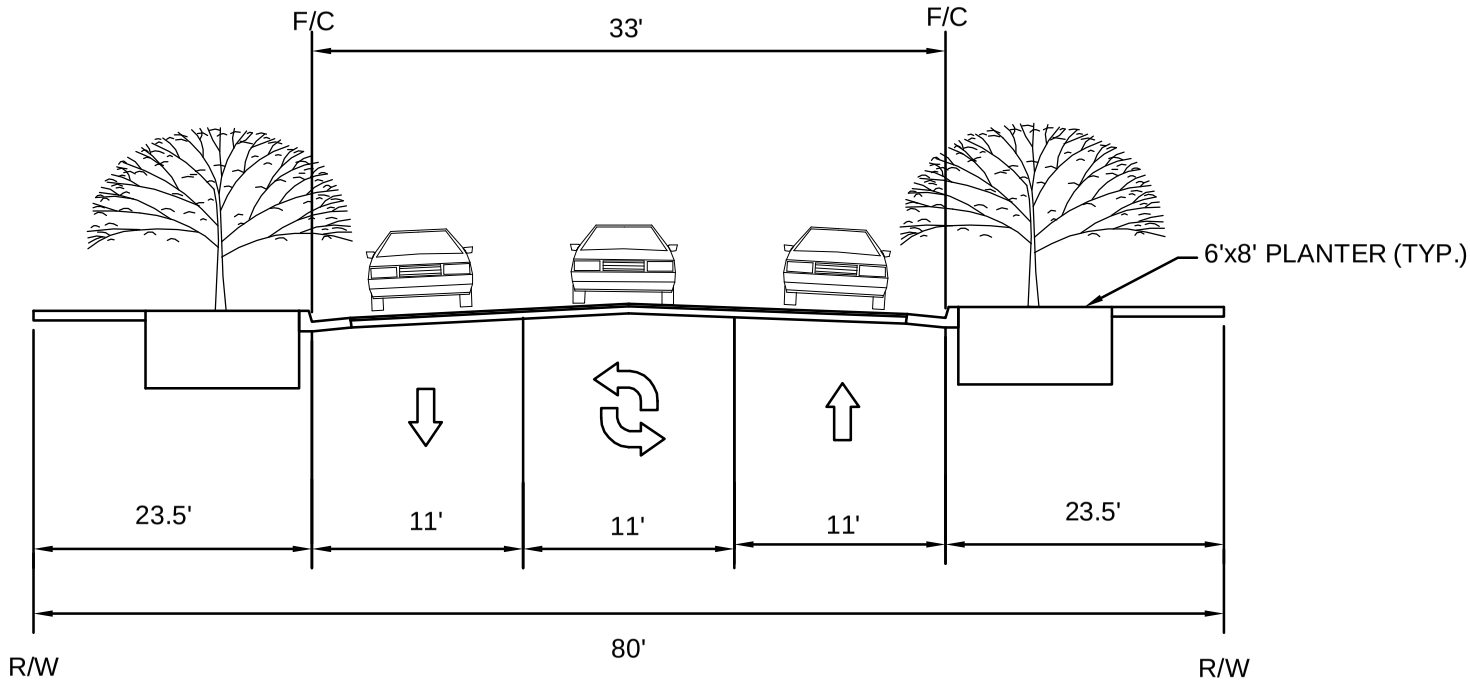
SHEET 38 OF 39

PEDESTRIAN FRIENDLY STREET STANDARDS
TYPICAL CROSS-SECTIONS
CITY OF SACRAMENTO

Street S39

Local - Commercial Street

Bike Lane	No
Parking	No



DESIGNATED STREET(S):

STANFORD STREET (LOCAL-COMMERICAL STREET)

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
11080 White Rock Road, Suite 150
Rancho Cordova, California 95670
Tel. No. (916) 858-5800
Fax No. (916) 858-5805
www.kimley-horn.com

THOMAS ENTERPRISES INC.

THE RAILYARDS
TYPICAL STREET SECTIONS
SACRAMENTO, CALIFORNIA

SCALE: HORIZ.	N/A
VERT.	N/A
DATE:	JULY 20, 2007
PROJECT NO.	097922000
SHEET	39 OF 39