

# I-5 Riverfront Reconnection Project Initial Study/Mitigated Negative Declaration

July 2011

Prepared for  
**City of Sacramento**

Prepared by  
**ATKINS**

1200 Second Street, Sacramento, CA 95814



I-5 Riverfront Reconnection Project (T15998100)  
Initial Study/Mitigated Negative Declaration

Prepared for:

City of Sacramento

Prepared by:

Atkins

July 2011



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## ***LIST OF ACRONYMS***

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ADWF	average dry weather flow
ASR	Archaeological Survey Report
BMPs	best management practices
CBC	California Building Code
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CIDH	cast-in-drilled hole
CO	carbon monoxide
CRHR	California Register of Historical Resources
CSS	Combined Sewer System
cy	cubic yards
dB	decibel
dba	A-weighted decibel scale
DTM	district traffic manager
EPA	Environmental Protection Agency
e-trans	Elk Grove Transit
FIRM	Flood Insurance Rate Map
GHG	greenhouse gases
Hz	hertz
I-5	Interstate 5
IS/MND	Initial Study/Mitigated Negative Declaration
LOS	level of service
mgd	million gallons per day
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O&M	operation and maintenance
O <sub>3</sub>	ozone
PCBs	polychlorinated biphenyls
PCMSs	portable changeable message signs
PM	particulate matter
PM <sub>2.5</sub>	2.5 micrometers in diameter

ppm	parts per million
PRMP	Parks and Recreation Master Plan
PS&E	plans, specifications, and estimates
PSI	Preliminary Site Investigation
PSR	Project Study Report
ROG	reactive organic gases
RT	Sacramento Regional Transit District
RWQCB	Central Valley Regional Water Quality Control Board
SHPO	State Historic Preservation Officer
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SRCSD	Sacramento Regional County Sanitation District
SRWTP	Sacramento Regional Wastewater Treatment Plant
SVAB	Sacramento Valley Air Basin
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminants
TMP	traffic management plan
ug/m <sup>3</sup>	micrograms per cubic meter
USFWS	U.S. Fish and Wildlife Service
V/C ratio	Volume-to-Capacity Ratio
VdB	vibration decibels
VOC	volatile organic compounds



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***MITIGATED NEGATIVE DECLARATION***

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COMMUNITY DEVELOPMENT  
DEPARTMENT

ENVIRONMENTAL PLANNING  
SERVICES

CITY OF  
SACRAMENTO  
CALIFORNIA

300 Richards Boulevard  
Third Floor  
Sacramento, CA 95811

**MITIGATED NEGATIVE DECLARATION**

The City of Sacramento, California, a municipal corporation, does hereby prepare, declare, and publish this Mitigated Negative Declaration for the following described project:

**I-5 Riverfront Reconnection Project (T15998100)** - The proposed project would augment existing multi-modal connections between the Downtown and Riverfront/Old Sacramento areas including along Capitol Mall, the Crocker Art Museum campus, the Riverfront areas, and between Capitol Mall and the northern part of 2<sup>nd</sup> Street into the Old Sacramento Historic District. This would be accomplished by constructing an additional I-5 overcrossing at N Street, converting a portion of existing Neasham Circle into a bicycle/pedestrian-only facility between Front Street and 2<sup>nd</sup> Street, constructing a viaduct (raised roadway) above the existing Neasham Circle south of Capitol Mall, and creating a 2<sup>nd</sup> Street connector as a new connection into Old Sacramento from Capitol Mall. The interface between the Front Street viaduct/2<sup>nd</sup> Street Connector and Capitol Mall would result in a new intersection. The existing slip ramps connecting N Street and L Street with Capitol Mall will be closed and the street pavement for the ramps may be removed. In addition, the following bicycle and pedestrian improvements are proposed: adding a sidewalk on the south side of the existing O Street overcrossing, adding sidewalk along the south side of existing N Street between I-5 and 3<sup>rd</sup> Street, and adding bicycle lanes and widened sidewalks on the existing Capitol Mall overcrossing.

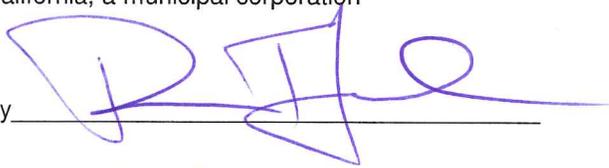
The Lead Agency is the City of Sacramento. The City of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that there is no substantial evidence that the project, with mitigation measures as identified in the attached Initial Study, will have a significant effect on the environment. This Mitigated Negative Declaration reflects the lead agency's independent judgment and analysis. An Environmental Impact Report is not required pursuant to the Environmental Quality Act of 1970 (Sections 21000, et seq., Public Resources Code of the State of California).

This Mitigated Negative Declaration has been prepared pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Sections 15000 et seq. of the California Code of Regulations), the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento, and the Sacramento City Code. A copy of this document and all supportive documentation may be reviewed or obtained during normal business hours (9:00 am to 4:00 pm) at the City of Sacramento, Community Development Department, 300 Richards Boulevard, 3<sup>rd</sup> Floor, Sacramento. The City's Community Development Department is closed the first Friday of every month.

Environmental Services Manager, City of Sacramento,  
California, a municipal corporation

By \_\_\_\_\_

Date \_\_\_\_\_

  
July 19, 2011



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***INITIAL STUDY CHECKLIST***

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## I-5 Riverfront Reconnection Project (T15998100)

### INITIAL STUDY/MITIGATED NEGATIVE DECLARATION for

#### ANTICIPATED SUBSEQUENT PROJECT IN THE 2030 GENERAL PLAN MASTER EIR

This Initial Study was prepared by the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations) and the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento.

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#### Organization of the Initial Study

This Initial Study is organized into the following sections:

**SECTION I - BACKGROUND:** Provides summary background information about the project name, location, sponsor, and the date this Initial Study was completed.

**SECTION II - PROJECT DESCRIPTION:** Includes a detailed description of the proposed project.

**SECTION III - ENVIRONMENTAL CHECKLIST AND DISCUSSION:** Reviews proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the Master EIR for the 2030 General Plan.

**SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:** Identifies which environmental factors were determined to have additional significant environmental effects.

**SECTION V - DETERMINATION:** States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

**REFERENCES CITED:** Identifies source materials that have been consulted in the preparation of the Initial Study.

## Section I - Background

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**Project Name and File Number:** I-5 Riverfront Reconnection Project (CIP Number)

**Project Location:** City of Sacramento along Interstate 5, bound by the Sacramento River, L Street, 3rd Street, and O Street

**Project Applicant:** City of Sacramento

**Project Manager:** Jesse Gothan, City of Sacramento Department of Transportation, 916-808-6897

**Environmental Planner:** Scott Johnson, City of Sacramento Community Development Department, 916-808-5842

**Date Initial Study Completed:** July 19, 2011

This Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA) Public Resources Code Sections 1500 *et. seq.* The Lead Agency is the City of Sacramento.

The City of Sacramento, Community Development Department, reviewed the proposed project and, on the basis of the whole record before it, determined that the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR (Master EIR) and is consistent with the land use designation and the permissible densities and intensities of use for the project site as set forth in the 2030 General Plan. See CEQA Guidelines Section 15176 (b) and (d).

The City prepared the attached Initial Study to (a) review the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR to determine their adequacy for the project (see CEQA Guidelines Section 15178(b),(c)) and (b) to identify any potential new or additional project-specific significant environmental effects that were not analyzed in the Master EIR and any mitigation measures or alternatives that may avoid or mitigate the identified effects to a level of insignificance, if any.

As part of the Master EIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the Master EIR (CEQA Guidelines Section 15177(d)). The Master EIR mitigation measures that are identified as appropriate are set forth in the applicable technical sections below.

This analysis incorporates by reference the general discussion portions of Master EIR. (CEQA Guidelines Section 15150(a)). The Master EIR is available for public review at the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, and on the City's website at:

[www.cityofsacramento.org/dsd/planning/environmental-review/eirs/](http://www.cityofsacramento.org/dsd/planning/environmental-review/eirs/)

The City is soliciting views of interested persons and agencies on the content of the environmental information presented in this document. Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than the 30-day review period ending August 31, 2011.

Please send written responses to:

Scott Johnson  
City of Sacramento, Community Development Department  
300 Richards Blvd, 3<sup>rd</sup> Floor  
Sacramento, CA 95811

or

[SRJohnson@cityofsacramento.org](mailto:SRJohnson@cityofsacramento.org)

Direct Line: (916) 808-5842

## Section II - Project Description

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### Introduction

The City of Sacramento, Community Development Department, is the Lead Agency for the preparation of an Initial Study/Mitigated Negative Declaration (IS/MND) for the I-5 Riverfront Reconnection Project (proposed project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), (Public Resources Code Section 21000 et seq.), and the CEQA Guidelines (California Code of Regulations tit. 14, §15000 et seq.). The IS/MND for the proposed project evaluates the potential environmental impacts associated with pedestrian and bicycle improvements to Capitol Mall, N Street, and O Street; a new roadway bridge across I-5 at N Street; the reconfiguration of Front Street from O Street to Capitol Mall and 2nd Street west of I-5; the construction of a new 2nd Street/Capitol Mall/Front Street intersection; and the removal of the slip ramps connecting N Street and L Street with Capitol Mall. These improvements are further described below.

### Project Location

The proposed project is in the City of Sacramento, within the western-most portion of Downtown near the Sacramento River (see Figure 1). The project site is bound approximately by L Street on the north (including the portion of L Street between 3<sup>rd</sup> Street and 4<sup>th</sup> Street), Front Street on the west, O Street on the south, and 3rd Street on the east (see Figure 2). The project includes roadway improvements and extensions to Capitol Mall, Front Street, Neasham Circle, 2nd Street, O Street, and N Street (see Figure 3). The study area is the area adjacent to the project site and includes Capitol Mall and the Riverfront/Old Sacramento areas.

### Project Background

Interstate 5 (I-5) has been a major transportation corridor in the City of Sacramento since the completion of the freeway in 1970, but the alignment (including both elevated and below grade sections) between the Riverfront/Old Sacramento areas and the rest of the Downtown has also had negative impacts on the surrounding areas. The freeway was built through Downtown Sacramento, creating a 200-foot wide barrier between Capitol Mall, the larger eastern portions of Downtown and the Riverfront/Old Sacramento areas. The construction of I-5 also removed many blocks of developed land and virtually cut off the Riverfront and Old Sacramento from the majority of the Downtown area, eliminating the existing connecting streets, and separating the larger, eastern portions of Downtown from its historic origin and the Sacramento River.

A consequence of the construction of I-5 (including the elevated and below-grade roadway sections) through downtown Sacramento was that the larger eastern portion of Downtown, and Capitol Mall became separated by the freeway from Old Sacramento and the Sacramento River riverfront. Limited access was provided via a few overcrossings and undercrossings, but the continuity/connectivity of Downtown Sacramento's original street grid was changed and, in certain instances, eliminated. Local circulation between Downtown Sacramento and the Riverfront, within the study area, is currently limited to the O Street overcrossing, the Capitol Mall overcrossing, the I Street undercrossing, and the pedestrian-only K Street undercrossing. In an effort to enhance connections between Downtown and the Riverfront, the City of Sacramento, in the Fall of 2000, began a detailed study of the technical feasibility and environmental issues associated with bridging (decking over)

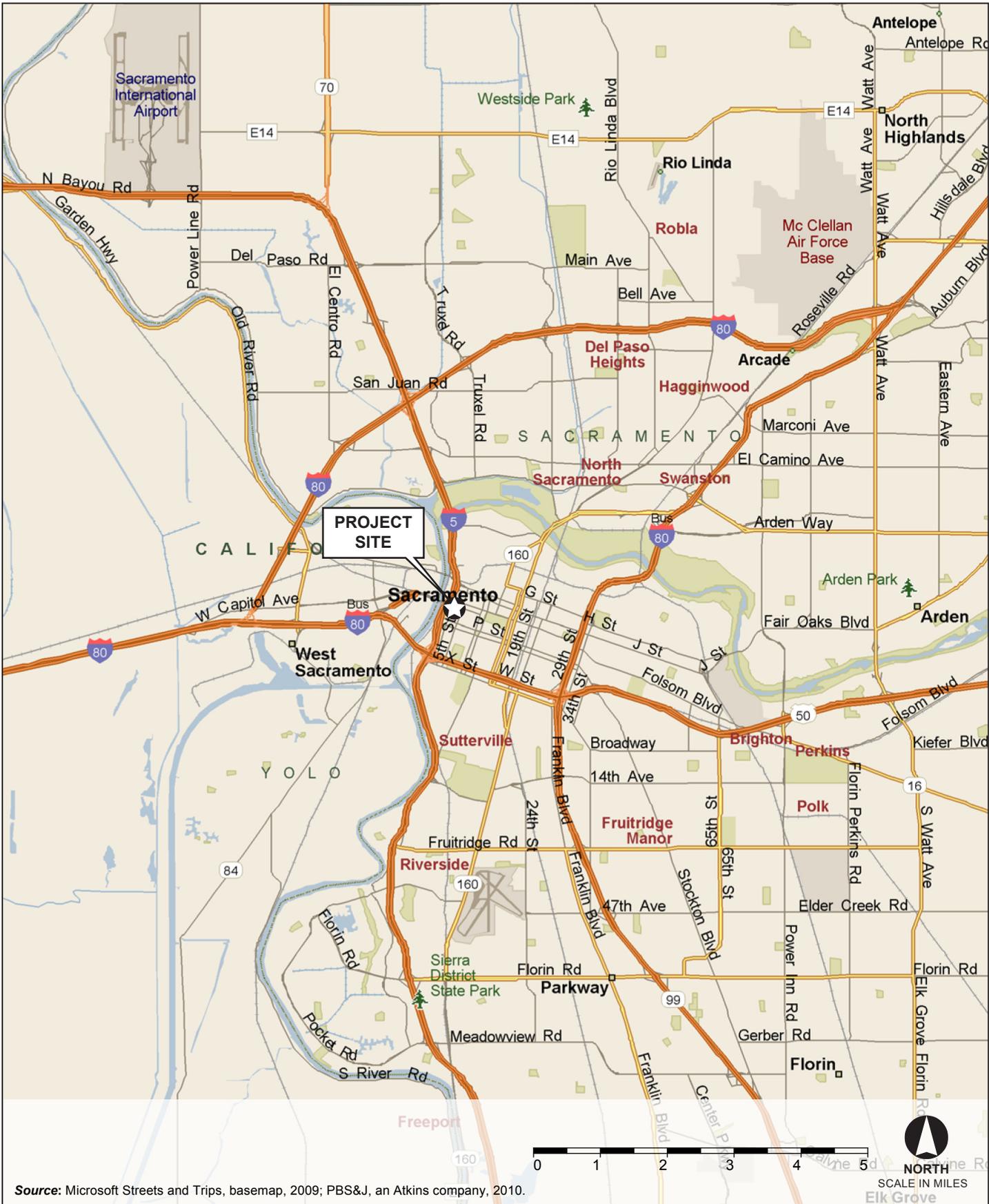
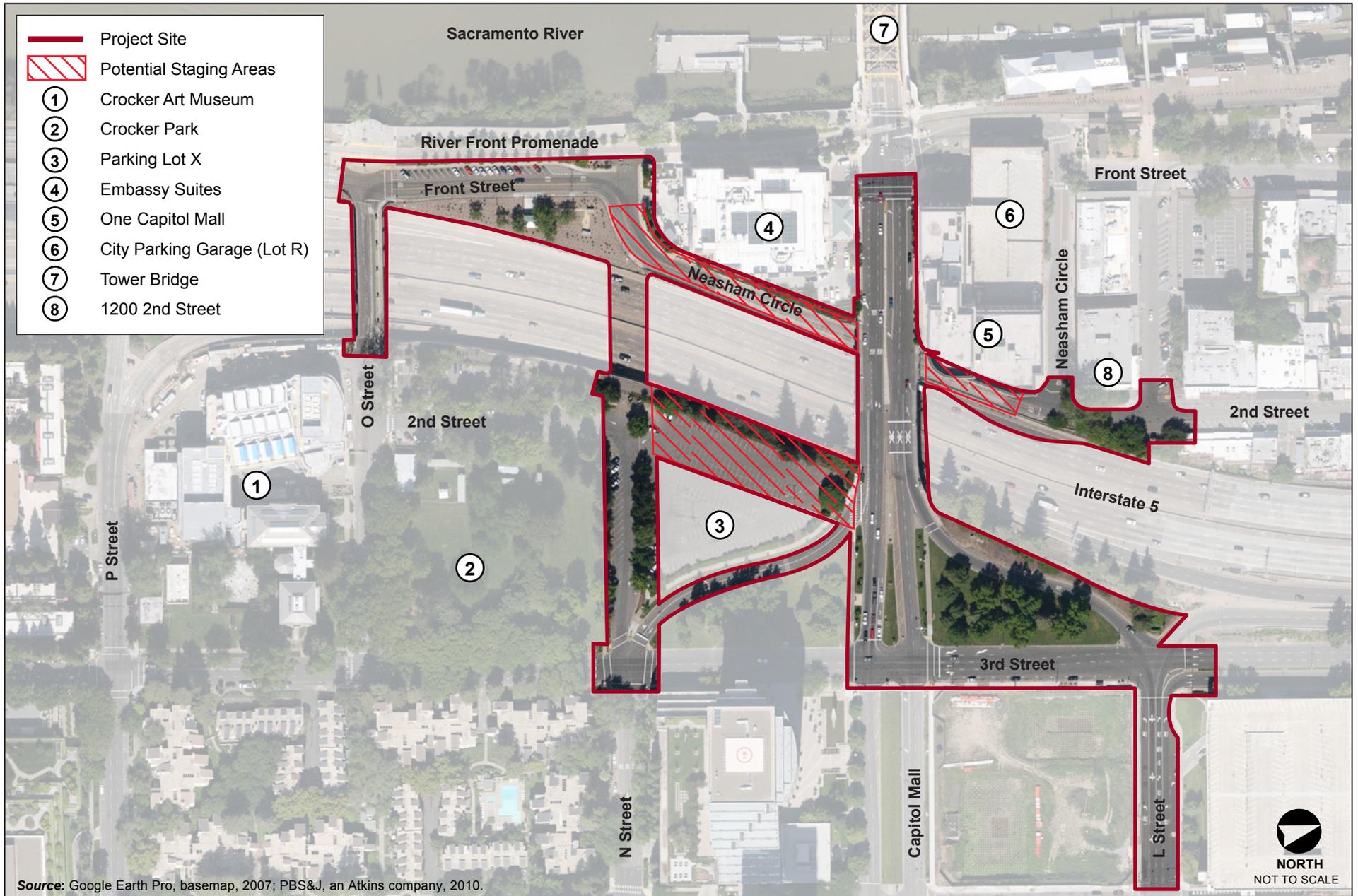


FIGURE 1  
**Project Vicinity Map**



100015514

I-5 Riverfront Reconnection Project



**FIGURE 2**  
**Project Site and Points of Interest**



Source: PB, 2011.

**ATKINS**

**FIGURE 3**  
**Proposed Project Elements and Lane Configurations**

100015514

I-5 Riverfront Reconnection Project

I-5 between just north of Capitol Mall (M Street) south to approximately R Street. The feasibility study concluded that some type of connection over the I-5 freeway was feasible. A planning-level study effort began in 2003, which included significant public involvement and meetings with local stakeholders. This effort resulted in the identification of sixteen potential “bridging” concepts that were subsequently screened down to twelve concepts in the spring of 2004. The twelve concepts were then reviewed at public meetings and screened down to a short list of six concepts that were presented to the Sacramento City Council in September 2004. Following acceptance of the six concepts, more detailed technical analysis was conducted and the concepts were further screened and reduced to three revised alternatives that were presented at a Public Open House on November 15, 2006. Based on comments received, a fourth alternative which did not include any decking structures over I-5 was developed and included for consideration. The proposed project does not include a decking structure over I-5 (see Alternatives Considered but Dismissed below for more information).

The proposed project would augment existing multi-modal connections between the Downtown and Riverfront/Old Sacramento areas including along Capitol Mall, the Crocker Art Museum campus, the Riverfront areas, and between Capitol Mall and the northern part of 2<sup>nd</sup> Street into the Old Sacramento Historic District. This would be accomplished by constructing an additional I-5 overcrossing at N Street, converting a portion of existing Neasham Circle into a bicycle/pedestrian-only facility between Front Street and 2<sup>nd</sup> Street, constructing a viaduct (raised roadway) above the existing Neasham Circle south of Capitol Mall, and creating a 2<sup>nd</sup> Street connector as a new connection into Old Sacramento from Capitol Mall. The interface between the Front Street viaduct/2<sup>nd</sup> Street Connector and Capitol Mall would result in a new intersection. The existing slip ramps connecting N Street and L Street with Capitol Mall will be closed and the street pavement for the ramps may be removed. In addition, the following bicycle and pedestrian improvements are proposed: adding a sidewalk on the south side of the existing O Street overcrossing, adding sidewalk along the south side of existing N Street between I-5 and 3<sup>rd</sup> Street, and adding bicycle lanes and widened sidewalks on the existing Capitol Mall overcrossing (see Figure 3).

### Existing Land Uses and Conditions

In the project area, 2<sup>nd</sup> Street is interrupted by I-5 and currently runs west of I-5 through Old Sacramento to Neasham Circle and then continues again east of I-5 from N Street for two blocks to the south. In addition, the existing configuration of Front Street is interrupted by Capitol Mall and the Embassy Suites hotel. Front Street runs along the waterfront in Old Sacramento from I Street to Capitol Mall and then continues again from N Street southward.

The project site is surrounded by urban development. The Crocker Art Museum is south of O Street. Crocker Park is surrounded by O Street to the south, 3rd Street to the east, N Street to the north, a one-block remnant of 2<sup>nd</sup> Street on the east side of I-5 (separate from the portion of 2<sup>nd</sup> Street in Old Sacramento on the west side of I-5), and a surface parking lot to the west. A City-owned surface parking lot (Lot X) is north of Crocker Park and is bound by N Street to the south, 3rd Street to the east, Capitol Mall to the north, and I-5 to the west (see Figure 2). The parking lot is directly accessible from N Street.

The Sacramento River riverfront and a riverfront promenade are west of existing Front Street. The Embassy Suites hotel is situated along the south side of Capitol Mall just west of I-5. The Embassy Suites delivery docks are accessed via a driveway on existing Front Street, while customer vehicular

access is provided via driveways on Capitol Mall. One Capitol Mall, a commercial and office building, and a City-owned public parking garage (Lot R), are both located along the north side of Capitol Mall just west of I-5. The One Capitol Mall parking garage can be accessed via a driveway on Neasham Circle as well as a driveway on the portion of 2nd Street west of I-5. The City parking garage can be accessed from Capitol Mall and from Neasham Circle (two driveways). An office building located at 1200 2nd Street is at the northwest corner of the intersection of 2nd Street and Neasham Circle in Old Sacramento. The 1200 2nd Street parking garage (private) can be accessed via a driveway on Neasham Circle.

Further to the south and east of the project site are multi-family residential uses and the California Public Employees' Retirement System (CalPERS) building. To the east of the project site are multi-family residential, commercial, and office uses. The California State Capitol Building can be seen from Capitol Mall looking to the east of the project site. Uses to the north include retail, restaurant, commercial, office, railroad, residential, and museum uses within the Old Sacramento Historic District, including the Old Sacramento State Historic Park at the northern end of the District. I-5 bisects the project site at an angle.

The City of Sacramento 2030 General Plan designates the project site as Traditional Center, Central Business District, Public/Quasi-Public, and Parks and Recreation. The project site is zoned as C-3-SPD and C-3 (Central Business District Zone-Special Planning District), and M-1 (Light Industrial Zone).

#### Purpose and Need of the Project

The purpose of the proposed project is to support both the existing and the proposed land uses in the study area by improving local circulation for both motorized and non-motorized traffic.

The need for the proposed project can be drawn from the following characteristics that exist in the study area:

- Pedestrian facilities over I-5 are limited to the newly converted R Street bicycle and pedestrian bridge south of the project area, and to sidewalks on the north side of O Street and along Capitol Mall. The K Street pedestrian tunnel and I Street undercrossing also provide pedestrian connections to Old Sacramento; however riding a bicycle is not allowed in the K Street pedestrian tunnel, and the I Street undercrossing lacks complete sidewalks on both sides of the street.
- There are no dedicated bicycle facilities within the study area, other than the bike path along the east bank of the Sacramento River and, south of the project area, the newly converted R Street bicycle and pedestrian bridge over I-5. Bicyclists must use the same intersections as vehicles and there is a need to provide alternative paths that would allow bicyclists to bypass congested intersections.
- The Downtown and Riverfront/Old Sacramento areas are separated from each other by the existing transportation network, which was designed as part of the construction of I-5. There is a need to reconnect more of the street grid lost during the construction of I-5 in order to increase accessibility between the Riverfront/Old Sacramento west of I-5 and the rest of Downtown east of I-5, and to distribute the traffic more evenly to avoid congestion from future planned growth.

The objectives of the project are to:

- Reconnect, where feasible, missing links created by the construction of I-5 between Downtown, Capitol Mall, the Crocker Art Museum, the Riverfront area, and the Old Sacramento Historic District.
- Improve pedestrian and bicycle facilities by filling in gaps in the existing roadway and sidewalk grid and by upgrading existing pedestrian and bicycle facilities to encourage non-motorized trips.
- Accommodate planned development along the Riverfront in support of the general land use strategy contained in the City's Riverfront Master Plan by providing improved multi-modal circulation options.

### Alternatives Considered but Dismissed

Two alternatives originally considered in the Project Study Report (PSR) completed for the project included decking over I-5 from O Street to Capitol Mall. The deck structures were proposed to provide additional park and office/retail space. Alternative 1 in the 2010 PSR included a two-deck structure spanning over I-5 between O Street and Capitol Mall, a new overcrossing at N Street and a new viaduct connecting Capitol Mall directly to 2<sup>nd</sup> Street in Old Sacramento. Alternative 2 in the PSR would include decking structures similar to Alternative 1, but the main vehicular connection between O Street and Old Sacramento would be on the west side of I-5 via Front Street, Neasham Circle, and 2<sup>nd</sup> Street, which would act as a parallel route to 3<sup>rd</sup> Street and the proposed N Street overcrossing would create an additional crossing over I-5. Alternative 2 is similar to Alternative 3, but has the decking structures and access ramps over I-5. Both Alternative 1 and Alternative 2 would include new land uses on top of the proposed decks. For the PSR, it was assumed that the deck between N Street and O Street would be developed into a City park with low vegetation and planter boxes. The deck between Capitol Mall and O Street was assumed to accommodate a six-story office building with retail space on the bottom story.

Initial cost estimates for the three alternatives varied depending on the type of structures built (steel, precast concrete, or cast-in-place concrete). The structure costs ranged from approximately \$145 million to \$160 million for Alternative 1, \$145 million to \$174 million for Alternative 2, and \$8.3 million to \$19.5 million for Alternative 3. For the two potential decking alternatives, construction options for the deck were restricted due to the configuration of I-5 at this location. The sight distance requirements on the curved I-5 alignment restrict column placement and preclude a continuous pier wall along the median of I-5. Considering this requirement, the potential decking structures under Alternative 1 included either a single span steel structure or a concrete structure that would require columns along the median of I-5 for segments at N Street, the shallow section south of Capitol Mall, and the vehicular access ramps. The potential decking structures under Alternative 2 included only single span structures. The decking structure under Alternative 1 would construct deep foundations in the median area of I-5, reducing the existing sight distance along I-5.

Alternative 1 in the PSR would achieve vehicular connectivity between Downtown Sacramento and the Riverfront, but with some intersections experiencing a poor level of service. The pedestrian and bicycle connectivity from the Riverfront to Downtown would be greatly improved. The overall circulation in the area would be improved, promoting non-vehicular transportation. Similarly, under Alternative 2, the pedestrian and bicycle connectivity from the Riverfront to Downtown and the overall

vehicular circulation in the area would be improved, but several intersections would experience a poor level of service.

As discussed above, the sight distance requirements on the curved I-5 alignment through the project area restricted the construction options for the two proposed decking alternatives. Initial discussions with Caltrans indicated that it would not be permissible to construct foundations on the surface of the “boat section” of I-5, further restricting the constructability of the potential options. In addition, the cost differences between the two decking alternatives and Alternative 3 were substantial, with the two decking alternatives estimated at seven and one half to 21 times the cost of Alternative 3. Therefore, due to constructability and financial constraints, the two decking alternatives have been dismissed at this time. Construction of the proposed project would not preclude the decking option of Alternative 2 in the future, should additional funding become available.

### Proposed Project

The I-5 Riverfront Reconnection Project includes pedestrian and bicycle improvements to Capitol Mall, N Street, and O Street; a new roadway bridge across I-5 at N Street; the reconfiguration of Front Street, Neasham Circle, and 2nd Street west of I-5; and the construction of a new 2nd Street/Capitol Mall/Front Street intersection (see Figure 3).<sup>1</sup> Project improvements would be constructed within existing City of Sacramento or State (Caltrans) rights-of-way. Each of these project components is described below. A Caltrans generator building and up to two dewatering wells located between I-5 and Front Street would be impacted by the project. These facilities would be relocated within the project site and would include an exchange of right-of-way between the City and Caltrans. Because the project would reconfigure existing roadways or construction new roadways over existing roadways, the amount of impervious surface associated with the project would only increase by approximately 1 percent over existing conditions in the project area.

### *Capitol Mall*

Capitol Mall between Neasham Circle and 3rd Street would be reconfigured to provide for wider sidewalks, Class II bicycle facilities (bike lanes), two traffic lanes in each direction, and a center median. For the Capitol Mall bridge section over I-5, these improvements could be accommodated within the current structure and the bridge would not need to be widened. A new signalized intersection with separate left-turn lanes would be constructed at the new Front Street/2nd Street intersection with Capitol Mall. This intersection would provide access north into Old Sacramento via 2nd Street and would provide access south towards N Street via Front Street. East of I-5, the diagonal lanes connecting eastbound Capitol Mall to the N Street/3rd Street intersection and connecting westbound traffic from the L Street/3rd Street intersection to Capitol Mall would be closed. Vehicular access would be restricted to the existing Capitol Mall/3rd Street intersection. Minor widening of the existing Capitol Mall from east of the I-5 overcrossing to 3<sup>rd</sup> Street would be required to accommodate the addition of the Class II bike lanes. This widening would be accommodated within the existing right-of-way.

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1 It should be noted that the street section between Capitol Mall and O Street is labeled “Front Street” on Figure 3 because the proposed roadway would be named Front Street. This differs from the existing label of “Neasham Circle” in Figure 2 from Capitol Mall to N Street, which represents existing conditions.

### *O Street*

The O Street bridge over I-5 would be widened approximately three and a half feet to provide a sidewalk on the south side. This would provide connectivity to the existing sidewalk in front of the Crocker Art Museum. Currently, the O Street bridge has a sidewalk only on the north side of the bridge. The widening of the bridge would not require any additional supporting structures to be placed on the surface of I-5. A minimum of one lane of traffic on O Street would be maintained during construction of the sidewalk, with bicyclists detoured as necessary. Temporary falsework, with supports in the median of I-5, may be required during construction, with a minimum temporary vertical clearance of 15 feet to be maintained along I-5. The Contractor may choose to utilize temporary support brackets as supports for formwork necessary for sidewalk widening, thereby eliminating a need for falsework. Nighttime lane closures of I-5 may be required if the Contractor chooses to use falsework during the widening of O Street structure. Also, nighttime lane closures may be required during the relocation of the overhead signs attached to the O Street structure. Please refer to the traffic management plan below for additional details. When complete, the structure would include one lane of traffic in each direction and pedestrian sidewalks along both sides of the bridge.

### *N Street*

A new bridge would be constructed over I-5 at N Street to reconnect and extend N Street from its current terminus at 2nd Street east of I-5, across I-5 to a "T"-intersection with the realigned Front Street. The existing portion of N Street east of I-5 (and the new bridge) would be converted to two-way traffic, with one lane in each direction. The new bridge is proposed to be a steel arch structure approximately 60 feet wide and 200 feet long, clear spanning I-5 with a minimum vertical clearance of 17 feet. The proposed bridge abutment foundations would be cast-in-drilled hole (CIDH) concrete piles. The CIDH foundations would be approximately six feet in diameter and approximately 90 feet deep. The foundations would be excavated using drilling augers to the required depth and, after placement of reinforcing steel, concrete would be poured in the excavated holes. Teflon coated sheet piles would be hydraulically installed at each abutment face. Temporary supports and falsework may be required along I-5 during construction, for which a minimum 15-foot temporary clearance would be maintained. It is anticipated that nighttime closures of I-5 will be required for the installation of the steel arches and installation and removal of falsework. Please refer to the traffic management plan below for additional details. The new bridge would include one lane of traffic in each direction, Class II bicycle facilities (bike lanes), and pedestrian sidewalks. Class II bicycle facilities and pedestrian sidewalks would also be constructed on N Street between the new Front Street alignment and 3rd Street. The sidewalk to be constructed on the south side of N Street between existing 2nd Street and 3rd Street would be designed to minimize impacts to existing trees along N Street in Crocker Park. Retaining walls may be required near 2nd Street, but they are anticipated to be less than two feet high.

### *Front Street/Neasham Circle*

Front Street would be realigned, beginning at the existing intersection at O Street to the new Capitol Mall intersection, with a new viaduct constructed above the existing portion of Neasham Circle between N Street and Capitol Mall. This new viaduct is proposed to be approximately 40 feet wide

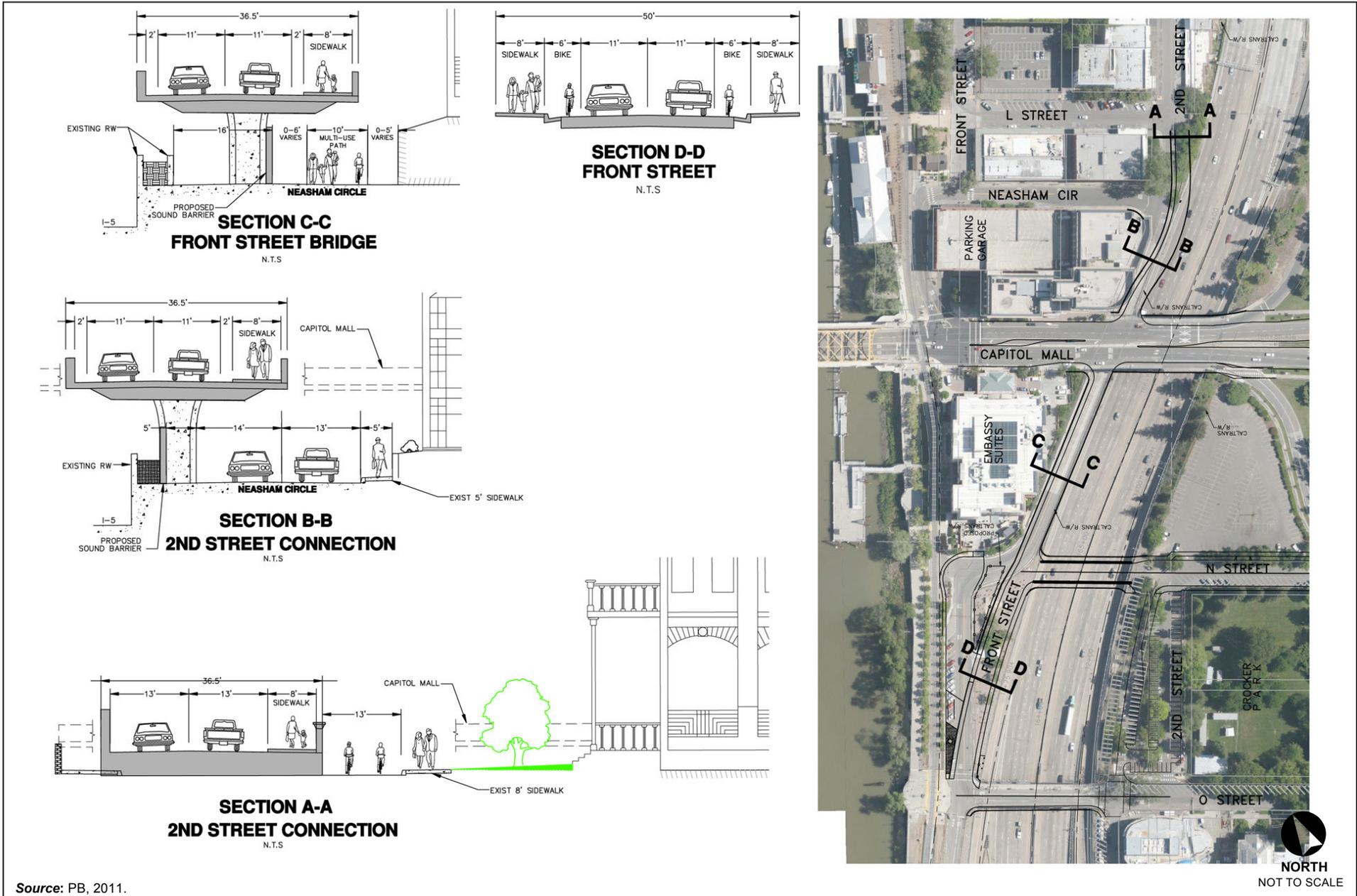


FIGURE 4  
Proposed Project Cross Sections

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and 380 feet long and would include one lane of traffic in each direction and a pedestrian sidewalk along the west side (see cross section on Figure 4). The existing portion of Neasham Circle beneath this new viaduct and would remain for bicycle and pedestrian use. The new Front Street viaduct and the new 2nd Street connector extension to Capitol Mall (described below) would then become the main north/south through street connecting Old Sacramento to areas to the south. Existing Front Street from O Street to the Embassy Suites hotel would remain open for parking and would end in a new cul-de-sac on the south side of the Embassy Suites hotel. This cul-de-sac would provide vehicular access to the hotel delivery docks and pedestrian and bicyclist access to the portion of Neasham Circle beneath Capitol Mall. After completion of the project, vehicles traveling north from O Street could either enter the new cul-de-sac at the Embassy Suite parking area/loading dock or continue to travel north on the new Front Street viaduct to the new Capitol Mall intersection.

The Caltrans facilities including, but not limited to, the generator building and dewatering well(s), located between I-5, N Street, and Front Street, would be relocated along the west side of the new Front Street viaduct between the new N Street bridge and the O Street bridge (see Figure 3). These facilities would be relocated within Caltrans and City right of way just north of their existing location. The relocated dewatering well(s) would be drilled at the new location to a depth of approximately 110 to 130 feet, with the width of the well decreasing from approximately five feet wide for the first one foot of depth below grade down to three feet wide for the next 20 feet of depth, and then narrowed to approximately two feet wide for the remainder of the depth. Retaining walls may be required for a short distance south of N Street along the new Front Street alignment.

The existing portion of Front Street south of Capitol Mall would end in a cul-de-sac

### *2<sup>nd</sup> Street*

The portion of 2<sup>nd</sup> Street west of I-5 in Old Sacramento is proposed to be extended to the south with a new connector structure starting at the 2<sup>nd</sup> Street/L Street intersection up to a new intersection with Capitol Mall. The existing portions of Neasham Circle would remain alongside and underneath this structure for access to the parking garage and loading docks at One Capitol Mall and also for bicycle and pedestrian access underneath Capitol Mall to the new Front Street cul-de-sac at the Embassy Suites hotel loading dock described above. This new 2<sup>nd</sup> Street connector structure is proposed to be approximately 40 feet wide and 300 feet long and would include one lane of traffic in each direction along with a pedestrian sidewalk along the west side (see cross sections A and B on Figure 4). Limited south-bound shoulder closures of I-5 may be required during the construction of portions of the 2nd Street connector. Please refer to the traffic management plan below for additional details. The existing alignment of 2<sup>nd</sup> Street, north of Neasham Circle, would remain at its current grade for pedestrians and bicycle access. 2<sup>nd</sup> Street north of L Street would also have some project surface treatments (asphalt striping and possible ADA ramps) to delineate the vehicle and bike/pedestrian movements at the intersection.

Both the new 2<sup>nd</sup> Street connector and the existing entrance to Old Sacramento from Capitol Mall by the Tower Bridge would include signage to direct motorists to the parking garages in Old Sacramento. The design of the proposed 2<sup>nd</sup> Street connector structure would include architectural features, such as a solid brick front, to reflect the architectural features of Old Sacramento. Although this area of 2<sup>nd</sup> Street exhibits past alterations due to the construction of I-5 (notably a change in grade and alignment), the City of Sacramento would work with Old Sacramento stakeholder

organizations and the City's Old Sacramento Management and Preservation Commission to ensure that the design elements of the new 2<sup>nd</sup> Street connector (such as lighting fixtures, ramp railings, and the retaining wall design, materials, and details) would reflect the architectural style of the Old Sacramento Historic District area and minimize the visual effect of the connector structure.

### *Slip Ramps*

The existing slip ramps that connect N Street and L Street with Capitol Mall west of 3<sup>rd</sup> Street will be closed and the pavement will be removed. The slip ramp that connects Capitol Mall to N Street has already been closed, but the roadway pavement has not been removed. As part of the project, the L Street/3<sup>rd</sup> Street intersection will be restriped and the traffic signal at the intersection of L Street/3<sup>rd</sup> Street will be reconfigured to the closing of the slip ramp.

### **Utilities**

Underground utilities would be relocated, as necessary, in locations where the roadways are being extended and/or realigned. The typical depth for the relocation of utilities would be three to four feet below grade. Utilities would be relocated within existing right-of-way.

### Construction

#### *Traffic Management Plan*

As part of the project, the City would prepare and implement a traffic management plan (TMP) to address short-term disruptions in existing traffic circulation patterns during construction. The TMP would include construction restrictions, requirements, and definitions that would apply to the contractor(s) based on the type of work. The TMP would develop strategies for public and motorist information, incident management, construction, demand management, and alternate routes. At a minimum, the TMP would include the following strategies:

- The maximum length of any lane closure would be limited to 0.5 mile.
- During final design, construction staging and traffic handling plans would be checked to ensure that intersections along any detour route meet Caltrans *Highway Design Manual* (California Department of Transportation 2008) requirements, including truck turning radii and horizontal/vertical clearances.
- Access to driveways and cross streets must be maintained during construction, in accordance with traffic control standard plans or traffic handling plans. Delivery truck access to the existing parking and maintenance garage at One Capitol Mall would be restricted to after regular working hours during construction of the new 2<sup>nd</sup> Street connector and intersection at Capitol Mall. Delivery truck access to Embassy Suites would be maintained during construction. Access into Old Sacramento would be maintained by the use of temporary detours as needed during construction. The timing and establishment of detours would require coordination with the City.
- Pedestrian access must be maintained during construction, with at least one sidewalk open on one side of the roadway at all times for improvements to Capitol Mall and O Street. Additional signs would be required to detour pedestrians when sidewalks are closed for contract work.

- Bicycle traffic must be maintained during construction. Additional signs and striping would be required to direct bicycle traffic when bikeways are closed for contract work.
- Coordination with the City would be required to handle traffic through the work area.
- During the development of plans, specifications, and estimates (PS&E), the anticipated construction schedule(s) of adjacent project(s) would be reviewed to determine if nearby projects should be indicated in the special provisions as requiring cooperation of the contractor during construction. The Caltrans area construction manager for the Sacramento area or the district traffic manager (DTM) may be of assistance in determining active nearby Caltrans projects that may be in conflict. Construction activities would be timed to avoid any potential conflicts with activities associated with adjacent projects.
- Portable changeable message signs (PCMSs) would be required for the approaches to the construction zone. In addition, PCMSs would be used to warn the public 7 calendar days prior to implementation of any closure that will require a detour. Any required detours would require advance coordination with the City to establish timing and duration of detours.

### *Phasing*

The proposed I-5 Riverfront Reconnection Project consists of the elements described above. Construction of each element of the project would begin as funding becomes available. The City of Sacramento currently has funding for the improvements to the existing Capitol Mall bridge and the existing O Street bridge, and therefore these project elements would likely be constructed first. These initial elements would improve the pedestrian and bicycle facilities in the study area between the Capitol Mall area, the Crocker Art Museum area, the Riverfront area, and the Old Sacramento Historic District. If full funding of all project elements is not immediately available, construction of the N Street bridge, the 2<sup>nd</sup> Street connector to Capitol Mall, the Front Street viaduct, and realignment of Front Street, and the new Front Street/Capitol Mall, 2<sup>nd</sup> Street intersection may be part of later phases, dependent on the City's ability to obtain funding. Future implementation of these project elements would be consistent with the objective to accommodate future development along the Riverfront, consistent with the City's 2030 General Plan. The proposed project would not preclude the I-5 decking option in the future should additional funding become available. Implementation of the decking option over I-5 would require additional environmental documentation.

### *Staging*

The project improvements would be constructed within existing City and Caltrans right-of-way. A portion of Lot X (located between I-5, N St, 3rd Street and Capitol Mall), and the portions of Neasham Circle underneath the proposed Front Street viaduct and 2<sup>nd</sup> Street connector would be used for the Contractor's staging areas.

Temporary supports and falsework may be required over I-5 for the construction of the N Street overcrossing and possibly for the widening of the O Street bridge, with a minimum temporary vertical clearance of 15 feet to be provided along I-5. Temporary lane closures may be required during special operations such as falsework erection/removal and overhead construction.

The Contractor would utilize up to 50 employees at any given time on the project construction.

Operation

The project consists of roadway, bicycle, and pedestrian improvements. These improvements do not include land use changes (such as new development) that would generate new trips. Therefore, operation of the project would not result in additional land uses, or the generation of additional traffic in the study area. The project improvements would provide improved vehicle, pedestrian, and bicycle connectivity between the Riverfront/Old Sacramento and Downtown areas.

Permits and Approvals Needed

The following permits, reviews, and approvals by outside agencies may be required prior to construction of the various phases of the I-5 Riverfront Reconnection Project:

<b>Permit/Approval</b>	<b>Agency</b>
Section 106 Consultation on Finding of No Adverse Effect	State Historic Preservation Officer (SHPO)
Encroachment Permit	Caltrans
National Pollutant Discharge Elimination System (NPDES) General Permit	Central Valley Regional Water Quality Control Board (RWQCB)
Construction Dewatering Permit	RWQCB
National Emissions Standards for Hazardous Air Pollutants (NESHAP) notification for structural modification of bridges	Sacramento Metropolitan Air Quality Management District

## Section III – Environmental Checklist and Discussion

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### Introduction

The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. Included in each discussion are project-specific mitigation measures recommended as appropriate as part of the proposed project.

For this checklist, the following designations are used:

**Effect will be studied in the EIR:** An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

**Effect can be mitigated to less than significant:** An impact that requires mitigation to reduce the impact to a less-than significant level.

**No additional significant environmental effect:** Any impact that would not be considered significant under CEQA relative to existing standards or that has not already been evaluated in the City of Sacramento 2030 General Plan Master EIR.

### Land Use Discussion

#### **Environmental Setting**

The project area is in the City of Sacramento in the western portion of Downtown near the Sacramento River. The project area limits are bounded approximately by L Street on the north, Front Street on the west, O Street on the south and 3rd Street on the east. The project site is surrounded by urban development, including the Crocker Art Museum, the Embassy Suites hotel, One Capitol Mall, the Old Sacramento Historic District, and a City public parking garage and surface lots.

The proposed project would be constructed within an urban area of the City of Sacramento. All improvements would be transportation-related in nature (vehicular, pedestrian, and bicycle) and would not result in the loss of any structures. The project would not create a physical barrier or otherwise divide an established community. The proposed project would instead provide greater connectivity within the project site and improve vehicular, pedestrian, and bicycle circulation throughout the area. This would be accomplished primarily by creating an additional overcrossing by extending N Street over I-5. The new structure would include one lane of traffic in each direction, bike lanes, and pedestrian sidewalks. Capitol Mall between Neasham Circle and 3rd Street would be reconfigured to provide for wider sidewalks, bike lanes, two traffic lanes in each direction, and a center median. O Street would be widened approximately 5 feet to provide a sidewalk on the south side of the bridge, in addition to the current sidewalk on the north side. Key areas of the city including Old Sacramento, Capitol Mall, Crocker Park, and the Sacramento Riverfront would be connected via extended roadways, sidewalks, and bike paths.

## **Regulatory Setting**

The City of Sacramento 2030 General Plan designates the project site as Traditional Center, Central Business District, Public/Quasi-Public, and Parks and Recreation. The project site is zoned as C-3-SPD and C-3 (Central Business District Zone-Special Planning District), and M-1 (Light Industrial Zone).

Three City of Sacramento plans include the project site and/or adjacent areas: the Central City Community Plan, R Street Corridor Community Plan, and Sacramento Riverfront Master Plan. The Sacramento Riverfront Master Plan is a study plan that provides a vision for the Sacramento Riverfront in order to capture the riverfront's full potential. Some of the goals and policies of the master plan include minimizing traffic and parking impacts, providing for mixed use/integrated land uses, providing pedestrian and bicycle linkage along the river into adjacent usage, and to provide pedestrian alternate circulation modes with emphasis on non-vehicular transportation.

The R Street Corridor Community Plan encompasses the 54 blocks bounded by Q Street on the north, S Street on the south, the I-5 Freeway on the west, and 29th Street on the east. The plan establishes comprehensive goals and policies to guide future land use decisions and ensure that new development is served by a circulation system that enhances pedestrian and transit access.

The Central City Community Plan area is bounded by the Sacramento River on the west, the American River on the north, Business 80 and Alhambra Boulevard on the east, and Broadway on the south. The policies included in the plan are intended to supplement those found in the Sacramento 2030 General Plan and include land use and urban design, historic and cultural resources, and mobility policies. Community Plan Policy CC.M.1.1 states that the City shall "establish a major street system which will route vehicular traffic to the activity areas of the Central City without directing such traffic through residential neighborhoods." Policy CC.HCR.1.1 states that the City "shall support programs for the preservation of historically and architecturally significant structures which are important to the unique character of the Central City."

The proposed project would not result in new land uses or displace existing land uses, but instead would reconnect the Downtown and Riverfront/Old Sacramento areas including the Capitol Mall c, the Crocker Art Museum, the Riverfront, and the Old Sacramento Historic District. This would be accomplished by creating additional overcrossings that would increase the number of and improve pedestrian and bicycle facilities between these areas. This is compatible with the policies of the Central City Community plan, the R Street Corridor Community Plan, and the Sacramento Riverfront Master Plan.

The proposed project would also be consistent with the Sacramento Bikeway Master Plan's goals to achieve the highest possible level of safety and security for cyclists, to provide adequate design consideration for bicycle facilities in all development plans and programs, and to develop a bikeway system that incorporates aesthetics and the historical characteristics of the Sacramento area.

## **Visual Component**

The proposed project would consist of transportation improvements including street extensions, a new overcrossing of I-5, a new connector, and intersection realignments. All of the proposed improvements

are surrounded by existing urban development. A series of photo simulations<sup>2</sup> have been prepared to illustrate how the project features would be seen from specific viewpoints. These viewpoint locations are depicted in Figure 5. As discussed below, the roadway improvements included in the proposed project would not degrade the existing visual character or quality of the project site and its surroundings. The project area is presently urbanized and contains roadways and streetlights similar to the components of the proposed project.

Figure 6 shows both the existing view east along Capitol Mall and how the view would change with the addition of the proposed improvements, including wider sidewalks, bike lanes, and a new intersection. As shown, the proposed improvements would not alter the existing view along Capitol Mall. The new signalized intersection at Capitol Mall/2<sup>nd</sup> Street would create a new visual element on Capitol Mall; however, the intersection would be similar to existing intersections just one block away (Capitol Mall/Neasham Circle and Capitol Mall/3rd Street) and would not block existing views. In addition, the wider sidewalk and sidewalk improvements, such as planters and pavement treatments, would improve the visual quality down Capitol Mall by extending the landscaped views that are in place on Capitol Mall.

Figure 7 shows both the existing view south along 2<sup>nd</sup> Street and how the view would change with the addition of the new connector structure along 2<sup>nd</sup> Street that would be constructed from L Street in Old Sacramento to the proposed intersection at Capitol Mall. Existing views from this location are limited to the Capitol Mall overcrossing and the I-5 freeway. As shown, the new connector would change the roadway from its current downward slope to an upslope to provide maintain access underneath into the parking garage for One Capitol Mall, and then tying into Capitol Mall. The height of the connector, north of the intersection, would be slightly higher than the existing overcrossing at Capitol Mall, but would tie in to Capitol Mall at the existing structure's current elevation. Views from the southern end of Old Sacramento at the intersection of Neasham and 2<sup>nd</sup> Street would be altered; however the new connector structure would replace the existing view of I-5 with a view of another roadway. Farther north on 2<sup>nd</sup> Street, the connector would be more visible than under existing conditions because the new roadway would slope upward to Capitol Mall. However, as discussed previously, the connector height would only be slightly higher than the existing Capitol Mall overcrossing and would replace the view of one roadway with the view of another roadway.

Figure 8 shows both the existing view from the intersection of Front Street and O Street looking north towards Old Sacramento and how the view would change with the addition of the proposed roadway and connector structure along 2<sup>nd</sup> Street that would be constructed from O Street to the proposed intersection at Capitol Mall, and the construction of a new bridge spanning I-5 at N Street. As shown, the improvements would be constructed at existing street grade. A new wall (or fencing) would also be constructed along the east side of Front Street. This fencing or optional wall would block existing views of traffic on I-5. However, the wall would not block existing mid-range views of Downtown Sacramento. As shown in Figure 8, the proposed project would add street elements and a new intersection that are similar in appearance to the existing streets and signalized intersections. The project elements would be similar in mass and appearance to existing roadways and sidewalks.

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2 A photo simulation is a photograph with an image of the proposed project accurately superimposed over the photograph through the use of computer imaging techniques.

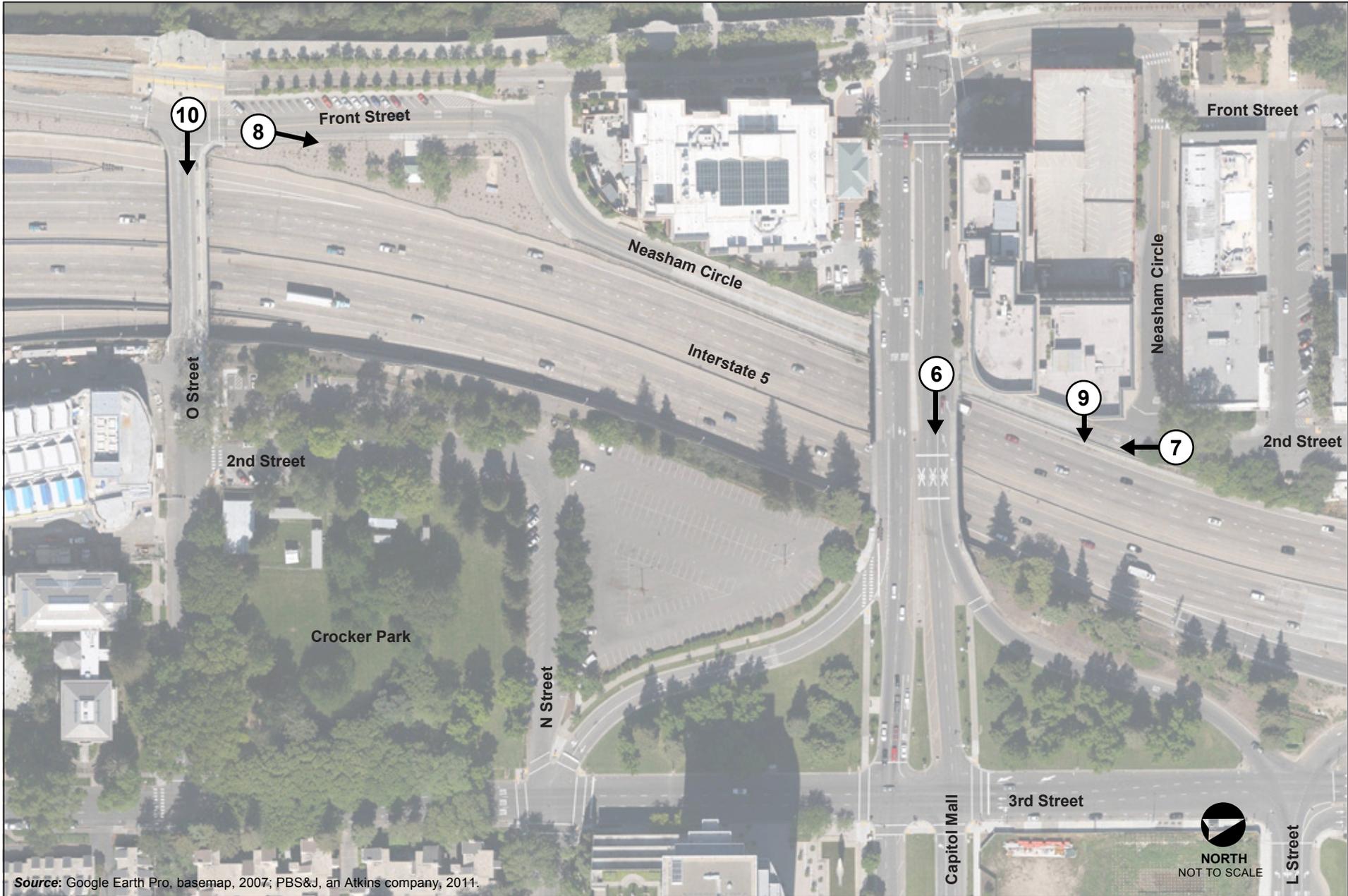
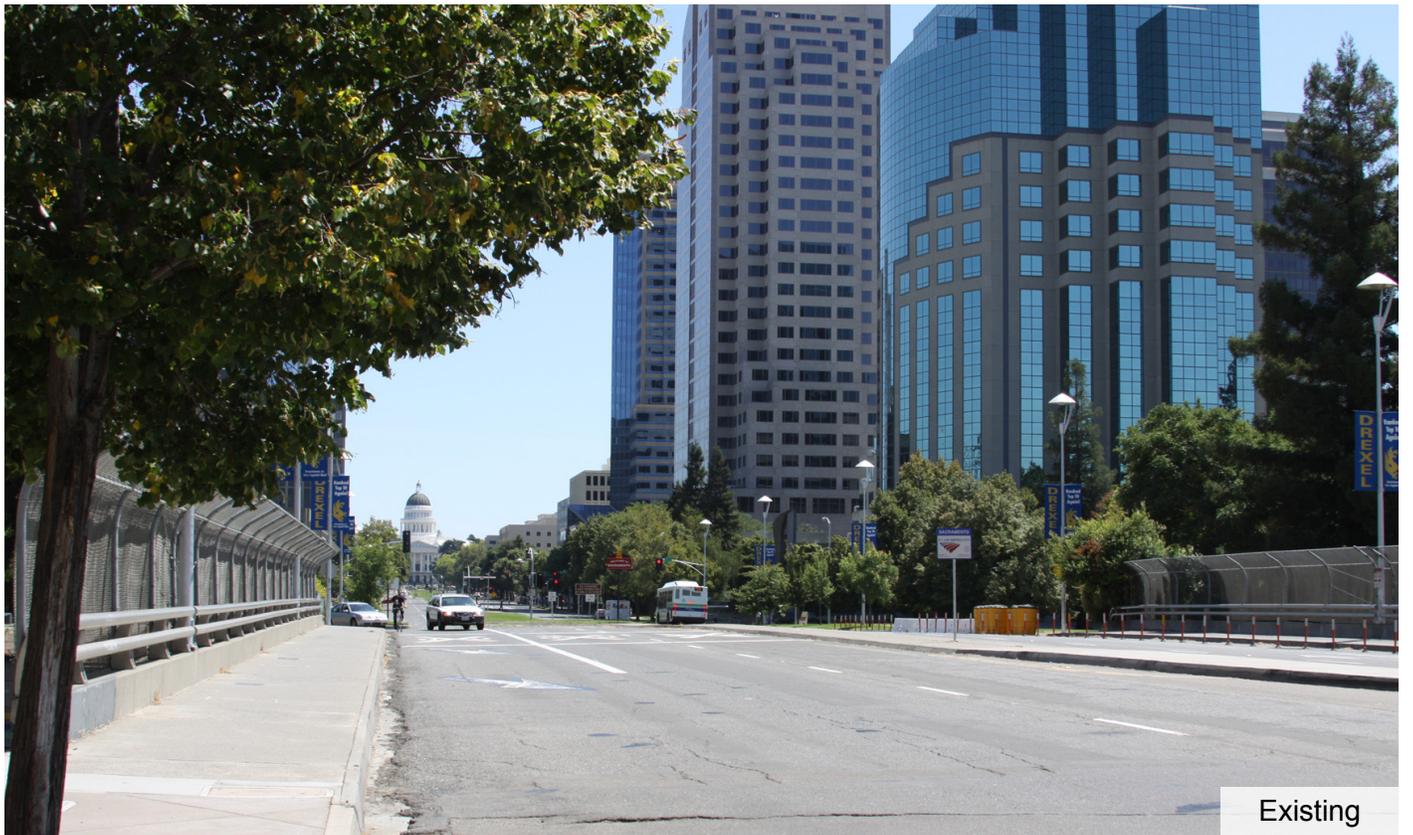


FIGURE 5  
**Viewpoint Locations of Figures 6-10**



Existing



With Project

Source: PB, 2011.

**ATKINS** **FIGURE 6**  
**Looking East down Capitol Mall from the Proposed New Intersection at**  
**Capitol Mall and 2nd Street**

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I-5 Riverfront Reconnection Project



Existing



With Project

Source: PB, 2010.

**ATKINS** **FIGURE 7**  
**2nd Street Connector**

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I-5 Riverfront Reconnection Project



Source: PB, 2011.

NOTE: The photo simulation is an approximation from the existing viewpoint. Viewpoint angles may differ slightly due to photo-stitching differences.

Figure 9 shows both the existing view from the building located at the intersection of 2<sup>nd</sup> Street and L Street looking east towards I-5 and Downtown Sacramento and the change to the view from the addition of the proposed roadway and connector structure along 2<sup>nd</sup> Street that would be constructed from L Street to the proposed intersection at Capitol Mall. As shown in Figure 9, views from the southern end of Old Sacramento along 2<sup>nd</sup> Street and Neasham Circle towards I-5 would change from the existing limited view of low vegetation, the freeway guardrail, and a downward sloping roadway to the new upward sloping roadway connection to the new intersection at Capitol Mall. The façade of the new 2<sup>nd</sup> Street bridge could be designed to blend with the brick buildings found in Old Sacramento.

Figure 10 shows both the existing view from the intersection of Front Street and the O Street bridge looking east towards Crocker Park and how the view would change with the widening of the O Street bridge. As shown in Figure 10, the proposed project would add a sidewalk to the south side of the bridge and add street lights to both sides of the bridge. These components are similar in appearance to existing roadways.



Existing



With Project

Source: PB, 2011.

NOTE: The photo simulation is an approximation from the existing viewpoint. Viewpoint angles may differ slightly due to photo-stitching differences.

**ATKINS**

**FIGURE 9**  
**2nd Street Connector Looking East Towards I-5**

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I-5 Riverfront Reconnection Project



Existing



With Project

Source: PB, 2011.

NOTE: The photo simulation is an approximation from the existing viewpoint. Viewpoint angles may differ slightly due to photo-stitching differences.

**ATKINS**

**FIGURE 10**  
**O Street Bridge Looking East**

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I-5 Riverfront Reconnection Project

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
1. AESTHETICS, LIGHT AND GLARE Would the proposal:			
A) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X

**Environmental Setting**

The project site is in an urban area of the City of Sacramento. The study area is bound approximately by L Street on the north (including the portion of L Street between 3<sup>rd</sup> Street and 4<sup>th</sup> Street), Front Street on the west, O Street on the south, and 3rd Street on the east. The project site is relatively flat and the general visual character is one of urban development. The northwest portion of the study area is primarily built out with commercial and office buildings that range from one-story to eight stories. Building setbacks are limited. As such, views of the surrounding areas from this portion of the study area are also limited. The remainder of the study area is characterized by open spaces with mature landscaping, including trees in Crocker Park and along roadway medians. Crocker Park is mostly unimproved and consists of grassy areas, mature trees, and a picnic area with picnic tables. Within this portion of the study area, the 14- to 30-story high rises of downtown Sacramento are visible to the east and limited views of the Sacramento River and Tower Bridge are visible to the west. The I-5 freeway bisects the study area on a north/south axis. The freeway is below grade and therefore does not restrict views in the study area.

The view east along Capitol Mall from the project site is characterized by the roadway, which includes two lanes each of west- and east-bound traffic, divided in the middle with a broad median strip. The Capitol building is visible starting from approximately the middle of Tower Bridge, driving east. Also visible are the existing skyscrapers on Capitol Mall: the 18-story Westamerica Bank building, the 25-story Capitol Square building, and the 30-story Wells Fargo Center building, all located on the south side of Capitol Mall between 3<sup>rd</sup> and 7<sup>th</sup> Streets. The north side of Capitol Mall is characterized by shorter office buildings, with the tallest at 14 floors at 5<sup>th</sup> and Capitol.

**Standards of Significance**

For purposes of this Initial Study, aesthetics impacts may be considered significant if the proposed project would result in one or more of the following:

- *Glare.* Glare is considered to be significant if it would be cast in such a way as to cause public hazard or annoyance for a sustained period of time.
- *Light.* Light is considered significant if it would be cast onto oncoming traffic or residential uses.

## Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

*Impact 6.13-1: Implementation of the General Plan could cast glare in such a way as to cause a public hazard or annoyance for a sustained period of time. Implement Mitigation Measure 6.13-1.*

*Impact 6.13-2: Implementation of the General Plan could cast light onto oncoming traffic or residential uses.*

*Impact 6.13-3: Implementation of the General Plan, in combination with other projects in the County and West Sacramento, could cast glare in such a way as to cause public hazard or annoyance for a sustained period of time. Implement Mitigation Measure 6.13-1.*

*Impact 6.13-4: Implementation of the General Plan, in combination with other projects in the County and West Sacramento, could cast light onto oncoming traffic or residential uses.*

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment, must be discussed. Aesthetics does not foster economic or population growth and is therefore not related to growth inducing impacts.

The proposed project is consistent with the General Plan's assumptions and conclusions regarding light and glare for the site in the Master EIR. The project does not propose development that would result in more impacts due to light and glare than previously analyzed; and therefore, would not result in an individually minor, but collectively significant project impact.

### Answers to Checklist Questions

- A) The proposed project would consist of transportation improvements including street extensions, a new interstate overcrossing, and intersection realignments, which would include the installation of street lights and a traffic signal at the intersection of Capitol Mall and 2nd Street. As a result, the amount of light that would be generated compared to what currently exists in the project site would increase. In adherence with adopted City standards, all proposed lighting would be limited to the amount required to safely light roadways, sidewalks and pathways. Lighting would be installed at the lowest allowable height and would be screened and directed away from sensitive uses (i.e., adjacent Embassy Suites hotel).

Light reflections from reflective surfaces cause glare. During daylight hours the generation of glare depends upon the intensity and direction of sunlight. Artificial lighting can cause glare at night. The project does not include the installation or construction of elements with reflective surfaces and, therefore, would not result in glare that causes public hazards or annoyance for a sustained period of time. For the reasons listed above, new lighting would not result in substantial increases in light or glare that would affect any light sensitive uses on or near the site. There would be no additional significant environmental effect over those identified in the Master EIR.

### **Mitigation Measures from 2030 General Plan Master EIR**

Mitigation Measure 6.13-1 was identified in the 2030 General Plan Master EIR to address amending the Zoning Code to reduce glare from newly installed reflective surfaces. The proposed project would not result in the construction discussed in this Zoning Code. Therefore, this mitigation measure would not apply to the proposed project.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
2. AIR QUALITY Would the proposal:			
A) Conflict with or obstruct implementation of the applicable air quality plan?			X
B) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?			X
C) Exposure sensitive receptors to substantial pollutant concentrations?			X
D) Interfere with or impede the City's efforts to reduce greenhouse gas emissions?			X

### Environmental Setting

The proposed project is located within the Sacramento Valley Air Basin (SVAB) which is a valley bounded by the North Coast Ranges on the west and the Northern Sierra Nevada Mountains on the east. The SVAB is subject to federal, State, and local air quality regulations under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). The SMAQMD is responsible for implementing emissions standards and other requirements of federal and State laws. Air quality hazards are caused primarily by carbon monoxide (CO), particulate matter (PM), and ozone (O<sub>3</sub>), primarily as a result of motor vehicles.

In December 2006, the Environmental Protection Agency (EPA) revised the national ambient air quality standard for fine particle pollution to provide increased protection of public health and welfare. The revised standard is 35 micrograms per cubic meter (ug/m<sup>3</sup>) for particles less than or equal to 2.5 micrometers in diameter (PM<sub>2.5</sub>), averaged over 24 hours. In December 2008, the EPA Administrator identified nonattainment areas, and, in October 2009, confirmed the designations. Sacramento County is on this list of counties (along with portions of surrounding counties) that contribute to the nonattainment conditions.

### Standards of Significance

For purposes of this Initial Study, air quality impacts may be considered significant if the proposed project would result in one or more of the following:

- Short-term (construction) emissions of NO<sub>x</sub> above 85 pounds per day;
- Long-term (operational) emissions of NO<sub>x</sub> or ROG above 65 pounds per day; or
- Violation of any air quality standard or contribute substantially to an existing or projected air quality violation;
- PM<sub>10</sub> concentrations equal to or greater than five percent of the State ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) in areas where there is evidence of

existing or projected violations of this standard. However, the SMAQMD holds that if project emissions of NO<sub>x</sub> and ROG are below the emission thresholds given above, then the project would not result in violations of the PM<sub>10</sub> ambient air quality standards;

- CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm); or
- Exposure of sensitive receptors to substantial pollutant concentrations.

Ambient air quality standards have not been established for toxic air contaminants (TAC). TAC exposure is deemed to be significant if:

- TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources.

### **Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects**

*Impact 6.1-1: Implementation of the General Plan could conflict with or obstruct implementation of Sacramento area air quality plans. Impact is less than significant.*

*Impact 6.1-2: Implementation of the General Plan could result in construction activities that would increase NO<sub>x</sub> levels above 85 pounds per day.*

*Impact 6.1-3: Implementation of the General Plan would result in operational emissions that would increase either of the ozone precursors, NO<sub>x</sub> or reactive organic gases (ROG), above 65 pounds per day.*

*Impact 6.1-4: Implementation of the General Plan would result in PM<sub>10</sub> concentrations due to the emission of particulate matter associated with construction activities at a level equal to or greater than five percent of the state ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours).*

*Impact 6.1-5: Implementation of the General Plan could result in CO concentrations that exceed the 1-hour state ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour state ambient standard of 9.0 ppm.*

*Impact 6.1-6: Implementation of the General Plan would result in TAC emissions that could adversely affect sensitive receptors.*

*Impact 6.1-7: Implementation of the General Plan, in conjunction with other construction activities in the SVAB, would increase cumulative construction-generated NO<sub>x</sub> levels above 85 pounds per day.*

*Impact 6.1-8: Implementation of the General Plan, in conjunction with other development in the SVAB, would increase cumulative operational levels of either ozone precursors, NO<sub>x</sub> or reactive organic gases (ROG), above 65 pounds per day.*

*Impact 6.1-9: Implementation of the General Plan, in conjunction with other development in the SVAB, would emit particulate pollutants associated with construction activities at a cumulative level equal to, or greater than, five percent of the CAAQS (50 micrograms/cubic meter for 24 hours).*

*Impact 6.1-10: Implementation of the General Plan, in conjunction with other development in the SVAB, could result in CO cumulative concentrations that exceed the 1-hour State ambient air quality standard of 20.0 ppm or the 8-hour State ambient standard of 9.0 ppm.*

*Impact 6.1-11: Implementation of the General Plan, in conjunction with other development in the SVAB, would generate TAC emissions that could adversely affect sensitive receptors.*

Implementation of the General Plan was determined to result in significant and unavoidable impacts due to significant emissions of NO<sub>x</sub> during construction activities, operational emissions of NO<sub>x</sub> and ROG (ozone precursors) during implementation of the Plan, and emissions of particulate matter during construction activities. The City Council adopted a Statement of Overriding Considerations for these impacts. Implementation of the General Plan was determined to have a less than significant impact due to conflicts or obstructions of implementation of regional air quality plans, emissions of CO, and emissions of TAC. Similarly the cumulative effects of development in accordance with the General Plan were determined to result in significant and unavoidable impacts due to the emissions of NO<sub>x</sub>, ROG, and particulate matter, which also were overridden by the City Council. The emissions of CO and TAC were determined to be less than significant at the cumulative level.

The proposed project is consistent with the General Plan's assumptions and conclusions regarding air quality for the site in the Master EIR. The project does not propose construction methods or operations that would result in a greater level of air emissions than previously analyzed; and therefore, would not result in an individually minor, but collectively significant project impacts.

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment, must be discussed. The protection of air quality during construction and implementation of the project would not result in growth inducing impacts.

### **Answers to Checklist Questions**

A) The proposed project includes the extension of N Street across I-5 and the realignment of 2nd Street with Capitol Mall to accommodate planned growth. The roadway improvements would not extend into undeveloped land and would therefore not lead to new growth. The project does not include new land uses or intensification of existing land uses. As such, population and employment are not anticipated to grow beyond existing regional forecasts, and the project would not exceed growth projections used to formulate SMAQMD's Rate of Progress Plan (February 2006) and 2011 Reasonable Further Progress Plan (February 2008). Because the proposed project would not exceed growth projections in these air quality plans, the project would not conflict with the forecasts of relevant air quality plans and, therefore, would not impair implementation of the air quality plans. As a result, no impact would occur, including those identified in the Master EIR. No mitigation is required.

### **B) Construction**

Construction activities associated with the project would emit ozone precursors (ROG and NO<sub>x</sub>) and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) associated with demolition, ground disturbance, and the operation of construction equipment. ROG is controlled through SMAQMD Rule 442, which limits ROG in architectural coatings. The threshold of significance for NO<sub>x</sub> is 85 pounds per day from construction activity.

Demolition and construction information were based on the project’s construction schedule and assumptions provided by the project engineers. The SMAQMD Roadway Construction Emissions Model (Version 6.3.2, July 2009) was used to estimate emissions. The anticipated construction emissions of the project are shown in Table 1.

<b>TABLE 1</b>					
<b>CONSTRUCTION EMISSIONS IN PEAK POUNDS PER DAY</b>					
	<b>ROG</b>	<b>NO<sub>x</sub></b>		<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Demolition/Land Clearing	3.2	17.1		9.0	2.4
Grading/Excavation	5.6	34.8		9.8	3.2
Road/Bridge Construction	3.1	14.9		9.1	2.6
Paving/Painting	3.0	13.1		1.2	1.0
<i>Daily Construction Emissions Thresholds (lbs/day)</i>	N/A	85		N/A*	N/A*
<i>Exceeds Threshold for any phase?</i>		No			
<small>N/A – Not applicable. No lbs/day threshold has been established.                      * - An evaluation of PM<sub>10</sub> and PM<sub>2.5</sub> thresholds is included in the discussion below.                      Calculations provided in Appendix A                      Source: PBS&amp;J, 2010.</small>					

Total ROG and NO<sub>x</sub> construction emissions, as shown in Table 1, would vary by construction phase depending on the equipment being used. Project construction would result in a maximum of 5.6 pounds per day of ROG during the grading/excavation phase. It should be noted that painting associated with the project would be minimal and conducted in compliance with SMAQMD Rule 442. Construction equipment operation would result in maximum NO<sub>x</sub> emissions of 34.8 pounds per day during the grading/excavation phase. This would not exceed the threshold of 85 pounds per day during construction of the project. The project would also generate 10-15 trucks per day for during excavation and backfill. As shown in Table 1, during excavation approximately 17 lbs/day of NO<sub>x</sub>. With the addition of 10 to 15 trucks per day, the project would not exceed the threshold of 85 lbs/day.

The project would also generate PM<sub>10</sub> emissions associated with fugitive dust emissions. As described under Standards of Significance, above, the project would not result in violations of the PM<sub>10</sub> ambient air quality standards if the project emissions of NO<sub>x</sub> and ROG are below the emissions thresholds described above. The project emissions of NO<sub>x</sub> would not exceed the emissions threshold of 85 pounds per day, and would therefore also not result in violations of the PM<sub>10</sub> ambient air quality standards.

Based on the projected construction emissions of the project, impacts would be less than significant, and the project’s contribution to an increase of criteria pollutants would not be considerable. No additional significant environmental effect beyond that already acknowledged in the Master EIR would occur. No mitigation is required.

**Operation**

With respect to operational emissions, the project would involve the extension/realignment of existing roadway segments and the addition of pedestrian and bicycle facilities. No new vehicle trips would be generated as the proposed project would not generate new land uses

and is intended to accommodate existing and planned traffic by extending N Street to create an overcrossing over I-5 and realigning the Capitol Mall intersection with 2<sup>nd</sup> Street. Therefore, it is reasonable to assume that there would be no measurable increase in operational emissions (mobile) as a result of the project. The project would not result in the construction or operation of new stationary sources of emissions. The relocated Caltrans generator building would operate the same as under existing conditions. No impact is anticipated, and no additional significant environmental effect beyond that already acknowledged in the Master EIR would occur, and no mitigation is required.

- C) The project would not locate additional sensitive receptors in proximity to I-5, a TAC emitter that is in the project site. The project could involve a redistribution of existing traffic flows in the area, but because it would not move traffic closer to any residential uses, this would not result in an increase in exposure to TACs.

The potential redistribution of existing traffic flows in the area could contribute to or create a CO hotspot.<sup>3</sup> CO levels at the most-congested local intersections under existing and with project conditions were modeled using the CALINE4 dispersion model. For each intersection analyzed, CALINE4 adds roadway-specific CO emissions calculated from peak-hour turning volumes to the existing ambient CO air concentrations. In general, CO concentration levels are highest near crowded or congested intersections where traffic is slow or idling. The project would redistribute traffic volumes along surrounding roadways, degrading the existing level of service (LOS) and potentially increasing CO concentrations at nearby intersections (3<sup>rd</sup> Street at L Street, 2<sup>nd</sup> Street at Capitol, and 3<sup>rd</sup> Street at Capitol). Normally, barring other environmental considerations, CO concentrations should be carefully analyzed at intersections classified as LOS "E" or worse. Based on the CALINE4 modeling conducted (Appendix A), the project would not create or contribute to CO levels in excess of the 1-hour state ambient air quality standard of 20.0 ppm, or the 8-hour state ambient standard of 9.0 ppm at any local intersections affected by the proposed project. The highest concentration of CO that would be anticipated to occur at local intersections with the proposed project would be 6.3 ppm over an 8-hour period, which is less than the established threshold of 9.0 ppm.<sup>4</sup> Impacts would be less than significant, and no additional significant environmental effect beyond that already acknowledged in the Master EIR would occur. No mitigation is required.

- D) As part of its action in approving the 2030 General Plan, the City Council certified the Master Environmental Impact Report (Master EIR) that evaluated the environmental effects of development that is reasonably anticipated under the new general plan. The Master EIR includes extensive discussion of the potential effects of greenhouse gas emissions. The Master EIR discussions regarding climate change are incorporated here by reference. See Draft EIR: 6.1 Air Quality (Page 6.1-1), Final EIR: City Climate Change Master Response (Page 4-1), Errata No. 2: Climate Change (Page 12).<sup>5</sup>

3 Localized areas where ambient concentrations exceed national and/or state standards for CO.

4 This calculation reflects the highest 8-hour background concentration (5.7 ppm) measured at the nearest ambient air quality standard over the past 3 years. It should be noted that the most recent annual 8-hour maximum measured at the T Street monitoring station was 1.8 ppm.

5 These documents are available at: [www.cityofsacramento.org/dsd/planning/environmental-review/eirs/](http://www.cityofsacramento.org/dsd/planning/environmental-review/eirs/) and at the offices of the Community Development Department at 300 Richards Boulevard, Third Floor, Sacramento, California.

The project-specific analysis of greenhouse gas emissions resulting from this project is tiered from the Master EIR for the General Plan, as provided in Sections 15175 through 15179.5 and 15183.5 of the CEQA Guidelines. The City analyzed and mitigated the significant effects of greenhouse gas emissions at a programmatic level in the Master EIR for the 2030 General Plan.

As determined in the Initial Study, the project anticipated subsequent project identified and described in the Master EIR. The proposed project is consistent with the General Plan designation for the project site (CBD); therefore, the greenhouse gas emission discussion in the General Plan Master EIR addressed the potential emissions from the proposed project site. Because the amount of emitted CO<sub>2</sub> can be calculated for a specific project on the site, the project's greenhouse gases (GHG) emissions (construction and operational emissions from mobile sources) are discussed below.

#### Short-term Construction Emissions

During construction of the proposed project, greenhouse gas emissions would be associated with the operation of construction equipment and from construction worker trips. The total CO<sub>2</sub> emissions generated by construction of the project would be approximately 640 metric tons over the entire construction period (approximately 17 months). These emissions would equate to approximately 0.00013 percent of the estimated greenhouse gas emissions for all sources in California (483 million metric tons).

#### Long-term Operational Emissions

As noted above operation of the proposed project would not result in greenhouse gas emissions, since the proposed project would not result in any new land uses that were not anticipated in the Master EIR, and would not result in any new stationary or mobile source emissions.

#### Ongoing Activities for the Reduction of GHG Emissions in the City

The 2030 General Plan included direction to staff to prepare a Climate Action Plan for the City. Staff has continued work on this plan since adoption of the 2030 General Plan. The Climate Action Plan will provide additional guidance for the City's ongoing efforts to reduce GHG emissions. The tentative completion date for the Climate Action Plan is December 2011. This Plan's purpose is to reduce the City's operational emissions.

Action continues at the State and federal level to combat climate change. In December 2009, the Environmental Protection Agency listed greenhouse gases as harmful emissions under the Clean Air Act. The EPA action could eventually result in regulations that would have as their purpose the reduction of such emissions.

The Master EIR concluded that GHG emissions that could be emitted by all development within the City that is consistent with the 2030 General Plan would be

cumulatively considerable and unavoidable (Errata No. 2, Page 12). The Master EIR includes a full analysis of GHG emissions and climate change, and adequately analyzes this impact.

Attachment 1 to the Mitigation Monitoring Plan lists the 2030 General Plan Policies and Implementation Measures that Mitigate Climate Change. The proposed project is compliant with the following policies from the list:

- The project would work to close gaps in the roadway, bikeway, and pedestrian networks (M 1.3.3).
- The project would improve pedestrian pathways in an existing neighborhood (M 2.1.4 and M 2.1.5).
- The project would provide adequate right-of-way for all users, including bicyclists, pedestrians, and motorists (M 4.2.1 and M 4.2.2).
- The project would improve existing and new bridges to add pedestrian and bicycle facilities (M 4.2.4).
- The project would provide bikeway facilities that are appropriate to the street classifications and type and reduce conflicts between bicyclists and motor vehicles (M 5.1.2, M 5.1.3, and M 5.1.4)
- The project would not hinder the City's efforts to meet Statewide greenhouse reduction goals (ER 6.1.3).

The project is consistent with the City's goals as set forth in the 2030 General Plan and Master EIR relating to reduction of GHG emissions. The proposed project would not result in any new land uses that could result in higher emissions of greenhouse gases than envisioned in the General Plan. The project would not impede the City's efforts to comply with AB 32 requirements. The project would not have any significant additional environmental effects relating to GHG emissions or climate change.

### **Mitigation Measures from 2030 General Plan Master EIR**

No mitigation measures were identified in the 2030 General Plan Master EIR for air quality.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
3. BIOLOGICAL RESOURCES Would the proposal:			
A) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X	
B) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X
C) Have substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X
D) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X	
E) Conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance?		X	
F) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community conservation Plan, or other approved local, regional, or state habitat conservation plan?			X

**Environmental Setting**

The study area is in the City of Sacramento, west of Downtown near the Sacramento River. The study area limits are bounded approximately by L Street on the north, Front Street on the west, O Street on the south and 3rd Street on the east. The study area is entirely developed and biological resources are limited. The vegetation community in the study area is classified as “urban” as defined in *A Guide*

to *Wildlife Habitats of California*,<sup>6</sup> which includes buildings and associated roads and other infrastructure. Vegetation in the project area is limited to landscaping that includes a variety of ornamental native and non-native trees, such as coast redwood (*Sequoia sempervirens*), coast live oak (*Quercus agrifolia*), linden (*Tilia cordata*), elm (*Ulmus* sp.), white alder (*Alnus rhombifolia*), London plane tree (*Platanus x acerifolia*), tree-of-heaven (*Ailanthus altissima*), Chinese pistache (*Pistacia chinensis*), and pine (*Pinus* sp.), along with a variety of shrubs and ground cover consisting of lawn grasses, rosemary, or other shrubs.

The Sacramento River is outside of the study area but is a prominent feature immediately adjacent to the site, forming the western boundary of the study area. In the vicinity of the study area, the Sacramento River is confined to a relatively narrow corridor (i.e., slightly wider than the river channel) between levees that does not allow for any meandering of the channel over time. Riparian vegetation is present in the narrow bank between the water's edge and the top of levee. This vegetation includes a mix of Fremont cottonwood (*Populus fremontii*), willows (*Salix* sp.), and California sycamore (*Platanus racemosa*) with sparse understory vegetation including button willow (*Cephalanthus occidentalis*), California grape (*Vitis californicus*), mugwort (*Artemisia douglasii*) wild oat (*Avena fatua*) and ripgut brome (*Bromus diandrus*).

### Standards of Significance

For the purposes of this Initial Study, an impact is considered significant if construction and/or implementation of the project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the Master EIR:

- create a potential health hazard, or involve the use, production, or disposal of materials that pose a hazard to plant or animal populations in the affected area;
- result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of threatened or endangered species of plants or animals; or
- affect other species of special concern to agencies or natural resource organizations (such as regulatory waters or wetlands).

“Special-status” has been defined as species that are:

- Listed as endangered or threatened under the federal Endangered Species Act (or formally proposed for, or candidates for, listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code (Section 1901);
- Designated as fully protected, pursuant to California Fish and Game Code (Section 3511, 4700, or 5050);

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6 A Guide to Wildlife Habitats of California. 1988. Edited by Kenneth E. Mayer and William F. Laudenslayer, Jr. State of California, Resources Agency, Department of Fish and Game, Sacramento, CA. 166 pp

- Designated as species of concern by U.S. Fish and Wildlife Service (USFWS), or as species of special concern to California Department of Fish and Game (CDFG);
- Plants or animals that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA).

### **Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects**

*Impact 6.3-1: Implementation of the proposed 2030 General Plan could create a potential health hazard, or involve the use, production or disposal of materials that pose a potential hazard to plant or animal populations in the affected area.*

*Impact 6.3-2: Implementation of the proposed 2030 General Plan could adversely affect special-status plant species due to the substantial degradation of the quality of the environment or reduction of population or habitat below self-sustaining levels.*

*Impact 6.3-3: Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status invertebrates.*

*Impact 6.3-4: Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.*

*Impact 6.3-5: Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status amphibians and reptiles.*

*Impact 6.3-6: Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status mammals.*

*Impact 6.3-7: Implementation of the proposed 2030 General Plan could result in substantial degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status fish.*

*Impact 6.3-8: Implementation of the proposed 2030 General Plan could result in the loss or modification of riparian habitat, resulting in a substantial adverse effect.*

*Impact 6.3-9: Implementation of the proposed 2030 General Plan could result in a substantial adverse effect on state or federally protected wetlands and/or waters of the United States through direct removal, filling, or hydrological interruption.*

*Impact 6.3-10: Implementation of the 2030 General Plan could result in the loss of CDFG defined sensitive natural communities such as elderberry savanna, northern claypan vernal pool and northern hardpan vernal pool resulting in a substantial adverse effect.*

*Impact 6.3-11: Implementation of the 2030 General Plan could violate the City's Heritage Tree Ordinance.*

*Impact 6.3-12: Implementation of the City's 2030 General Plan combined with buildout assumed in the greater Sacramento Valley could result in a regional potential health hazard, or involve the use, production or disposal of materials that pose a hazard to plant or animal populations in the affected area.*

*Impact 6.3-13: Implementation of the City's 2030 General Plan and regional buildout assumed in the Sacramento Valley could result in a regional loss of special-status plant or wildlife species or their habitat.*

*Impact 6.3-14: Implementation of the City's 2030 General Plan and regional buildout assumed in the Central Valley could contribute to the cumulative loss of sensitive natural communities including wetlands and riparian habitat in the region.*

Implementation of the General Plan was determined to result in significant and unavoidable impacts due to the creation of potential hazards to plants and animals, reduction of the quality of habitat or reduction of population below self-sustaining levels of special status species, loss of riparian habitat, loss of wetlands or other waters of the United States, and the loss of sensitive natural communities. The City Council adopted a Statement of Overriding Considerations for these impacts. Implementation of the General Plan was determined to have a less than significant impact due to potential violations of the City Code related to the protection of trees, in particular Heritage trees. The cumulative effects of development in accordance with the General Plan were determined to result in less-than-significant impacts to biological resources.

The proposed project is consistent with the General Plan's assumptions and conclusions regarding biological resources for the site in the Master EIR. The project does not propose construction methods or operations that would result in greater impacts to biological resources than previously analyzed; and therefore, would not result in an individually minor, but collectively significant project impacts.

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment, must be discussed. The protection of biological resources would not result in growth inducing impacts.

### **Answers to Checklist Questions**

- A) Although urban in nature, the study area does provide potential nesting/roosting habitat for a few special-status species known from the region, including hoary bat, purple martin, and Swainson's hawk. Implementation of the proposed project could result in impacts to these species through nest/roost abandonment and subsequent loss of young. Additional species-specific details are provided below.

### Swainson's Hawk

Swainson's hawk typically nests in large riparian trees such as Fremont cottonwood, California sycamore, and valley oak. However, they are also known to occasionally nest in a variety of non-native trees such as eucalyptus, redwoods, and other large ornamental species, and occasionally within urban areas where foraging habitat is nearby. Although there are currently no known nest trees within the project area, they are known to nest nearby in West Sacramento. It is possible that Swainson's hawks could establish a nest in suitable trees in the project area. If this occurs, and project construction is to occur in the vicinity of an active nest, disturbances related to construction could cause nest abandonment and the loss of young. This would be considered a significant impact. Implementation of Mitigation Measure 1 would reduce this impact to a less-than-significant level by protecting active Swainson's hawk nests and preventing loss of eggs or young.

### Purple Martin.

Purple Martin nests in a wide variety of natural and artificial cavities in trees and, buildings, bridges and overpasses, etc. Although purple martin was not observed in the project area, potential habitat is present, and this species could potentially establish nests in the study area prior to the beginning of construction, particularly in cavities under existing bridges and overpasses. If modifications to these structures occur during the nesting season (May 1 to September 1), this disturbance could cause nest abandonment and loss of young. Additionally, parking construction vehicles under a nest site could result in additional disturbance from exhaust flowing into the nest cavities. These would be considered significant impacts. Implementation of Mitigation Measure 2 would reduce these impacts to less-than-significant levels by first identifying the presence or absence of active purple martin nest cavities, and if present, preventing the loss of eggs or young.

### Hoary Bat

Hoary bat is a solitary foliage rooster. The behavior of the hoary bat makes surveys to determine presence or absence of this species in a given study area exceedingly difficult in comparison to other bat species that roost in colonies. Hoary bat has not been documented to occur in the project area to date, however, trees in the study area could provide roosting habitat for this species. Adult hoary bats are likely to be able to escape during the removal of roost trees, if tree removal is to occur during the maternity season, such removal could result in the loss of young. This would be considered a significant impact. Implementation of Mitigation Measure 3 would reduce this impact to a less-than-significant level by protecting active maternity roost sites and preventing the loss of young.

- B) No riparian habitat or other sensitive natural communities are present in the project site. Therefore, no additional significant environmental effects, over those identified in the Master EIR, on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFG or USFWS would occur as a result of the proposed project.

- C) No wetlands or other waters of the United States are present in the study area, and no impacts on the adjacent Sacramento River are anticipated to occur as a result of implementation of the proposed project because no structural changes are planned along, or adjacent to the river wall. Therefore, no additional significant environmental effects, over those identified in the Master EIR, on wetlands or other waters of the United States would occur as a result of the proposed project.
- D) The study area contains a number of trees and shrubs in the landscaping beds along area streets and buildings. These trees and shrubs could provide valuable shelter, and nesting habitat for a variety of resident, and migratory bird species occurring in the region (e.g., scrub jay, white-crowned sparrow, Brewer's blackbird, etc.). Given the highly urbanized nature of the surrounding area, it is likely that any such landscape features are of value to these species as little other cover is available in urban environments. Although the species likely to use these trees and shrubs are considered common and widespread, their active nests are afforded protection from removal by a variety of state and federal laws including Sections 3503, 3503.5, and 3513 of the California Fish and Game Code, and the Migratory Bird Treaty Act.

If construction occurs within the nesting season, potential loss of nesting birds protected under Sections 3503, 3503.5, and 3513 of the California Fish and Game Code, and the Migratory Bird Treaty Act could occur as a result of the removal of trees and shrubs in the study area in preparation for project construction. This would be considered a significant impact. Implementation of Mitigation Measure 4 would reduce this impact to a less-than-significant level by first identifying the presence or absence of active migratory bird nests, and if present, preventing the loss of eggs or young.

- E) Implementation of the proposed project is likely to require trimming of at least one protected tree in the study area during clearing for project construction activities. This tree is a large London Plane tree located at the intersection of 2<sup>nd</sup> Avenue and Neasham Circle and would be considered a Heritage Tree under Section 12.64 of the Sacramento City Code. Section 12.64 of the Sacramento City Code prohibits removal or alteration of any trees in its jurisdiction without prior authorization from the City's arborist. Project compliance with Section 12.64 of the Sacramento City Code (which would protect the tree through avoidance, or City approved compensation as described in the Code) is mandatory and no further mitigation would be required.
- F) The study area is entirely urban in nature and does not occur within the boundaries of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no conflicts with any such plan would occur as a result of implementation of the proposed project.

### **Mitigation Measures from 2030 General Plan Master EIR**

Per the 2030 General Plan Master EIR, Mitigation Measure 6.3-2 states that the City shall require preconstruction surveys and/or habitat assessments for sensitive plant and wildlife species for any project requiring discretionary approval.

In addition, Mitigation Measure 6.3-8 and 6.3-9 of the 2030 General Plan Master EIR addressed riparian habitat integrity and wetland protection, respectively. The Proposed Project site does not include riparian habitat or wetlands, and these mitigation measures would not apply.

### **Additional Project-Specific Mitigation Measures**

#### Mitigation Measure 1

*If construction occurs during the breeding season (February 1-August 31), the project applicant shall conduct CDFG-recommended protocol-level surveys prior to construction as required by the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley or as required by the CDFG in the future. If active nests are found in or adjacent to the construction area, mitigation measures consistent with the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California shall be incorporated in the following manner or as directed by CDFG:*

- a. If an active nest is found no intensive new disturbances (e.g., demolition, heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities) or other project-related activities that may cause nest abandonment or forced fledging, can be initiated within 200 yards (buffer zone) of an active nest between March 1 and September 15. The size of the buffer area may be adjusted if a qualified biologist and CDFG determine such an adjustment would not be likely to have adverse effects on the hawks. No project activity shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active.*
- b. Nest trees shall not be removed unless there is no feasible way of avoiding removal of the tree. If a nest tree must be removed, it may only be removed outside the nesting season. Prior to removal of a nest tree, a Management Authorization (including conditions to offset the loss of the nest tree) shall be obtained from CDFG with the tree removal period specified in the Management Authorization, generally between October 1 and February 1.*
- c. If construction or other project-related activities that may cause nest abandonment or forced fledging are necessary within the buffer zone, monitoring of the nest site (funded by the project proponent) by a qualified biologist will be required to determine if the nest is abandoned. If the nest is abandoned and if the nestlings are still alive, the project proponent shall fund the recovery and hacking (controlled release of captive reared young) of the nestling(s).*

#### Mitigation Measure 2

- 1) Prior to the start of construction activities, the project applicant shall prevent purple martin nest establishment in tree cavities, or under bridges and overpasses that would be directly affected during project construction. Nest prevention methods shall 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. 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.*
- 2) *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 nest hole closest to the construction activity) during the purple martin breeding season from April 15 to August 1. The buffer area shall be avoided to prevent destruction or disturbance to the nest(s) until the nest is no longer active. The size of the buffer area may be adjusted if a qualified biologist and CDFG determine such an adjustment would not be likely to have adverse effects on the martins. The site characteristics used to determine the size of the modified buffer shall 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 nests are no longer active.*
  - 3) *Exclusionary devices shall be placed in bridge structure cavities during the non-breeding season to avoid over-wintering of migratory birds and/or early nesting by Purple Martins.*

### Mitigation Measure 3

*In order to protect hoary bats during their maternity season, removal of trees shall be avoided between May 1 and September 1. If work is to occur in the vicinity of the tree during the maternity season, a 25-foot non-disturbance buffer around the base of trees within or adjacent to construction areas shall be established and delineated with orange exclusion fencing to ensure no damage to those trees occurs.*

### Mitigation Measure 4

- 1) *Vegetation removal and construction shall only occur between September 1 and January 31 whenever feasible.*
- 2) *Prior to any construction or vegetation removal between February 1 and August 31, a nesting survey for migratory birds shall be conducted by a qualified biologist of all habitat within 500 feet of the construction area. Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities and shall be conducted in accordance with CDFG protocol as applicable. If no active nests are identified on or within 500 feet of the construction site, no further mitigation is necessary. This survey can be carried out concurrently with surveys for other species provided this survey does not conflict with any established survey protocols. A copy of the pre-construction survey shall be submitted to the CDFG. If an active nest of a sensitive species is identified onsite, specific mitigation measures shall be developed in consultation with CDFG and/or USFWS. At a minimum, these measures shall include a 500-foot no-work buffer that shall be maintained between the nest and construction activity until CDFG and/or USFWS approves of any other mitigation measures.*

- 3) *Completion of the nesting cycle shall be determined by qualified ornithologist or biologist, after which construction can resume.*

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
4. CULTURAL RESOURCES <i>Would the project</i>			
A) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?			X
B) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X	
C) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X	

**Environmental Setting**

The study area is in a region of extensive urban development that also contains multiple historic properties possessing several layers of national, state, and local significance. The northern portion of the study area is within the National Historic Landmark Old Sacramento Historic District, an historic district possessing national, state, and local significance. The Old Sacramento State Historic Park, which encompasses most of the northern portion of the National Historic Landmark Old Sacramento Historic District, is maintained by the California State Parks system. A survey of Sacramento’s 1860s/1870s raised streets and hollow sidewalks was completed in December 2010. The survey area includes the right-of-way in the northwestern-most part of the area along 2<sup>nd</sup> Street within the Old Sacramento Historic District. The City has made the preliminary determination that certain of the hollow sidewalk/raised streets elements are eligible as historical resources pursuant to CEQA. The SHPO has not made a determination as to the resource’s eligibility for listing on the National Register of Historic Places (NRHP).

Sacramento’s Crocker Park is a 6.10-acre park along the southeast edge of the study area. This park is maintained by the City of Sacramento Department of Parks and Recreation and contains the Crocker Art Museum (a State Historic Landmark and a NRHP and California Register of Historical Resources [CRHR] property), grassy areas, landscaping, and mature trees. The new extension of the Crocker Museum is adjacent to the study area east terminus at O Street. Sacramento’s Buried Urban Landscape, also known as Sacramento’s 3-D Historic District, a locally significant district that is recommended as eligible for the NRHP, is composed of multiple archaeological deposits located beneath the surface of the northern portion of the study area. The Sacramento River and waterfront lie directly to the west and the State Capital is less than a mile to the east. Interstate 5 (I-5) bisects the study area. Archival research has revealed that the study area is sensitive for prehistoric resources and highly sensitive for historical era resources, both as extant structures and subsurface archaeological deposits.

Historical Overview

Sacramento is located in California’s Central Valley at the junction of the Sacramento and the American rivers. First sited in 1808 by Ensign Gabriel Moraga, naming the Sacrament River, on an

expedition to locate suitable mission sites, the area consisted of low-lying marshes and ox bow lakes prior to the flood control fill projects in the mid nineteenth century.<sup>7</sup>

In 1822, California gained independence from Spain and fell under Mexican rule. The power change brought about a new policy of land ownership. The Mexican Government issued land grants to settlers who established grazing areas for livestock including cattle and sheep. Swiss immigrant, John Sutter obtained a land grant in 1839 from the Mexican Government to establish a frontier east of the Sacramento River. This first settlement deemed “New Helvetia” consisted of an adobe fort, ranch, and farmland. The settlement was successful and eventually became a stopping point and trading post for travelers to northern California and Oregon.<sup>8</sup> Today, known as Sutter’s Fort, the remains of this early settlement are located approximately two miles east of the project site.

The discovery of gold in the Sierra foothills in 1848 significantly influenced the growth and development of Sacramento and the decline of Sutter’s settlement. Workers abandoned settlement, caught in the fever of the gold rush. By this time, Sutter was heavily in debt and turned his land holdings over to his son John A. Sutter Jr. His son, along with attorney Peter Burnett, decided to focus their attention on laying out a new city next to the Sacramento River. This location was better suited to profit from the mining trade due to its proximity to the river and the embarcadero. In early 1849 Sutter Jr., Captain William A. Warner, and others, platted the city of Sacramento. Incorporated in 1850, after California became a state, the City of Sacramento’s population had reached approximately 7,000 residents.<sup>9</sup>

Sacramento continued to grow and profit from the gold rush. The heart of the business district developed around the riverfront at 3rd, H, and N streets with the main commercial arteries at J and K streets; much of this district, between 2<sup>nd</sup> and 3<sup>rd</sup> streets, was destroyed by the construction of I-5 in the 1960s.

Growth was hindered by floods that inundated downtown Sacramento in 1852, 1853, and 1861. Fires also ravaged the area in 1852. In response to the floods, the city constructed levees to surround and protect the area from seasonal floodwater. Building codes were passed requiring stone and brick construction in an effort to prevent further devastation from fires. After the flood of 1861, the streets within the downtown commercial district, from the Sacramento River/Front Street to approximately 12<sup>th</sup> Street and from H Street to L Street, were raised up a story to prevent further flood damage.<sup>10</sup>

Old Sacramento, once inhabited by busy restaurants, banks, a pony express office, and hotels was considered a slum and in serious decline by the 1960s. The construction of I-5 freeway brought attention back to the area as historians sought to protect the pioneer era buildings from destruction

<sup>7</sup> Ziesing, G.H. 1999. *Archaeological Research Design and Treatment Plan for the Embassy Suites Hotel Site, Sacramento, California*, Anthropological Studies Center, Rohnert Park, California, prepared for City of Sacramento.

<sup>8</sup> Hoover, M.B., D.E. Kyle, and H. Rensch, editors. 2002. *Historic Spots in California*. Stanford University Press, Stanford.

<sup>9</sup> Hoover, M.B., D.E. Kyle, and H. Rensch, editors. 2002. *Historic Spots in California*. Stanford University Press, Stanford.

<sup>10</sup> Tremaine, K.J. and G. Farris, 2009, *Rediscovering a Legacy: Report of Archaeological Monitoring in Downtown Sacramento for the Sacramento Regional Transit District Light Rail Extension Project*, Tremaine & Associates, Inc. West Sacramento, California, prepared for Sacramento Regional Transit District.

by the freeway. An inventory and assessment was taken of the buildings and a compromise was reached to provide for preservation while allowing for the construction of the freeway. The freeway alignment through Downtown from I Street south, lies just east of 2<sup>nd</sup> Street and then cuts into 2<sup>nd</sup> Street at what is now the southeast corner of the Old Sacramento Historic District. This construction resulted in the demolition of some buildings along the east side of 2<sup>nd</sup> Street and a change in 2<sup>nd</sup> Street's grade from approximately L Street south, to provide access south under the Capitol Mall bridge that was built over I-5. The I-5 construction project sparked the local old Sacramento preservation movement and led to the restoration of the commercial center.<sup>11</sup> The Sacramento Historic District was nominated as a National Historic Landmark District in 1965 and listed in the NRHP in 1966 (also giving the district automatic listing in the California Register of Historic Resources) and is locally recognized as the Old Sacramento Historic District.

### Standards of Significance

For purposes of this Initial Study, cultural resource impacts may be considered significant if the proposed project would result in one or more of the following:

- Cause a substantial change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5 or
- Directly or indirectly destroy a unique paleontological resource

### Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

*Impact 6.4-1: Implementation of the General Plan could cause a substantial change in the significance of historical resources as defined in CEQA Guidelines section 15064.5. Impact is significant and unavoidable because no mitigation is available to reduce the impact to a less-than-significant level.*

*Impact 6.4-2: Implementation of the General Plan could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines section 15064.5.*

*Impact 6.4-3: Implementation of the General Plan, in conjunction with other development within the county, could cause a substantial change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5.*

*Impact 6.4-4: Implementation of the General Plan, in conjunction with other development within the Central Valley, could cause a substantial change in the significance of an archaeological resource as defined in CEQA Guidelines section 15064.5.*

The proposed project is consistent with the General Plan's assumptions and conclusions regarding cultural resources for the site in the Master EIR. The project does not propose construction methods or operations that would result in a greater level of disturbance to cultural resources than previously

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<sup>11</sup> Hoover, M.B., D.E. Kyle, and H. Rensch, editors. 2002. *Historic Spots in California*. Stanford University Press, Stanford.

analyzed; and therefore, would not result in an individually minor, but collectively significant project impacts.

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment, must be discussed. Cultural resources do not foster economic or population growth and are therefore not related to growth inducing impacts. The proposed project facilitates transportation in an urbanized portion of the community, and would improve access to destinations within and near the project area, e.g., Old Sacramento and the riverfront, Crocker Museum. The project would not encourage new growth or development that would be inconsistent with the 2030 general Plan, and would result in no growth-inducing impacts that have not been identified and considered in the Master EIR.

### **Cultural Resources Investigation**

The cultural resources investigation conducted for the proposed project included a records search of the North Central Information Center (NCIC); background and archival research; Native American consultation; historical society, Old Sacramento stake holders, and State Parks consultation; pedestrian surveys of the project site by cultural resources professionals who meet the Secretary of the Interior's professional qualifications standards for archaeology, history, and architectural history; and preparation of an Historic Property Survey Report (HPSR) and an Archaeological Survey Report (ASR).<sup>12</sup> The following analysis of potential project impacts on historical and archaeological resources is based on the aforementioned technical reports.

### **Answers to Checklist Questions**

- A) The northwestern portion of the project site is within the Old Sacramento Historic District (District), which is a national historic landmark district, listed on the NRHP, and the CRHR. Bordered on the west by the Sacramento River and on the east by I-5, the District comprises 28 acres with 53 historic buildings that were once a part of early Sacramento's waterfront commercial center. The project site extends into the southeastern portion of the District in an area that contains no historic-age buildings; all structures in this part of the project site on the eastern side of 2<sup>nd</sup> Street were demolished due to Right-of-Way changes resulting from the construction of I-5. As described above, the City of Sacramento has made a preliminary determination that certain of the hollow sidewalk/raised street elements near the proposed project are eligible historic resources. The 1860/1870 raising of downtown's streets extended east from Front Street to approximately 12<sup>th</sup> Street, and from approximately H Street on the north to approximately L Street on the south. The proposed project construction would be limited to areas where the raised streets and hollow sidewalks have already been significantly impacted by the construction of I-5; therefore the proposed project would have no impact on this potential resource. The proposed project would involve construction on a portion of the 2<sup>nd</sup> Street roadbed south of K Street within the Historic District and would involve an alteration to the setting and to the 2<sup>nd</sup> Street streetscape with the change from a lowered roadway to a split street to allow the eastern portion of the street to ramp up with two lanes of traffic to connect

<sup>12</sup> Atkins, *Historic Property Survey Report for the Proposed I-5 Riverfront Reconnection Project, City of Sacramento, Sacramento County, California* (includes attached *Archaeological Survey Report and Historical Resources Evaluation Report*). Prepared for Caltrans District 3, 2011.

with Capitol Mall. Although this split-street configuration would be an alteration to the existing setting of the streetscape, this streetscape has been significantly previously altered from its original 19<sup>th</sup> and early 20<sup>th</sup> century configuration due to the construction of I-5. Previous changes to the streetscape include the grade of 2<sup>nd</sup> Street which dips down to Neasham Circle for access south under the Capitol Mall bridge that had to be constructed over I-5; this bridge, as well as the space above I-5, immediately to the east of the area where 2<sup>nd</sup> Street starts to dip, are visible from 2<sup>nd</sup> Street in Old Sacramento. No historically significant buildings are located within the project site or would be affected by construction or operation of the proposed project. In addition, the brick retaining wall for the portion of the split street that would ramp up to Capitol Mall is designed to blend with the historic district's architecture and to serve as a wall or visual edge to the corner of the district that was opened onto I-5, and to serve as both a sound and visual barrier to I-5. Consequently, there would not be additional impacts on above-ground historical resources beyond those identified in the Master EIR.

- B) The cultural resources investigation conducted for the proposed project determined that no prehistoric archaeological resources have been recorded within the project site. No evidence of prehistoric archaeological resources was encountered during the pedestrian survey conducted for the proposed project. However, given the intensity of prehistoric activity in the project site and the project site's close proximity to the Sacramento and American rivers, previously undocumented prehistoric archaeological resources could be present within the project site in native soil buried under layers of construction fill associated with the early development of Sacramento.

The NCIC records search revealed that an historic-era archaeological resource identified as CA-SAC-575H, which was previously recommended for inclusion in the CRHR for its ability to address questions regarding ethnicity and urban geography, is located within the western edge of the project site. Because this resource is located beneath a paved surface of the project site, verification of its CRHR-eligibility was not possible during the cultural resource investigation conducted for the proposed project. Though unlikely, it is possible that features and artifacts associated with CA-SAC-575H could be inadvertently damaged or destroyed during project-related earth-disturbing activities such as excavation and utilities trenching.

The northwestern corner of the project site also extends into the site boundaries of the previously recorded NRHP-eligible site P-34-2358, which includes historic-era structural remnants, refuse deposits, and a prehistoric component. Construction activities in the vicinity of P-34-2358 would be limited to minimal ground disturbance within an area of previous disturbance related to the construction and maintenance of 2<sup>nd</sup> Street. In addition, no recorded elements that contribute to the NRHP eligibility of the resource are located within or adjacent to the overlapping portion of the project site. Consequently, it is unlikely that construction or operation of the proposed project would cause a substantial adverse change in the significance of this resource.

The cultural resources investigation concluded that, given the intensity of prehistoric and historic-era activity that occurred within the project site and surrounding area, the project site is sensitive for archaeological resources. While the majority of the project would be constructed in areas of previous disturbance related to the construction of I-5 and other recent urban development, though unlikely, the potential remains for project-related earth-disturbing

activities to inadvertently damage or destroy known (i.e., CA-SAC-575H) and previously undocumented subsurface historic-era and prehistoric archaeological resources. Implementation of Mitigation Measure 5, consultation with a qualified archaeologist, would ensure through appropriate evaluation, documentation, and/or recovery that potentially significant impacts on known and previously undocumented archaeological resources would be reduced to a less-than-significant level

- C) According to the Master EIR, the City of Sacramento and surrounding area is not highly sensitive for paleontological resources, although some discoveries have been made in the past. Earth-disturbing activities in fossil-bearing soils and rock formations have the potential to damage or destroy paleontological resources that may be present below the ground surface. Therefore, any earth-disturbing activities resulting from implementation of the proposed project could damage or destroy fossils in these rock units. While the project site is not considered sensitive for paleontological resources and the likelihood of encountering paleontological resources is very low, project-related earth-disturbing activities such as excavation and utilities trenching could affect the integrity of a paleontological site, thereby causing a substantial change in the significance of the resource. Project impacts on paleontological resources are therefore considered potentially significant. Implementation of Mitigation Measure 6 would require the performance of professionally accepted and legally compliant procedures for the discovery of paleontological resources and would, therefore, reduce this impact to a less-than-significant level.

### **Mitigation Measures from 2030 General Plan Master EIR**

No mitigation measures were identified in the 2030 General Plan Master EIR for cultural resources.

### **Additional Project-Specific Mitigation Measures**

#### Mitigation Measure 5

- a) *In the event that any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil (“midden”), that could conceal cultural deposits, are discovered during construction-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and Caltrans shall be notified. Caltrans shall consult with a qualified archeologist retained at the Caltrans’s expense to assess the significance of the find. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), representatives of Caltrans and the qualified archaeologist shall meet to determine the appropriate course of action, with Caltrans making the final decision. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report shall be prepared by the qualified archaeologist according to current professional standards.*

*If the archaeologist determines that some or all of the affected property qualifies as a Native American Cultural Place, including a Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (Public Resources Code §5097.9) or a Native American historic, cultural, or sacred site, that is listed or may be*

*eligible for listing in the California Register of Historical Resources pursuant to Public Resources Code §5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (Public Resources Code §5097.993), the archaeologist shall recommend to Caltrans potentially feasible mitigation measures that would preserve the integrity of the site or minimize impacts on it, including any or a combination of the following:*

- 1. Avoidance, preservation, and/or enhancement of all or a portion of the Native American Cultural Place as open space or habitat, with a conservation easement dedicated to the most interested and appropriate tribal organization. If such an organization is willing to accept and maintain such an easement, or alternatively, a cultural resource organization that holds conservation easements;*
- 2. An agreement with any such tribal or cultural resource organization to maintain the confidentiality of the location of the site so as to minimize the danger of vandalism to the site or other damage to its integrity; or*
- 3. Other measures, short of full or partial avoidance or preservation, intended to minimize impacts on the Native American Cultural Place consistent with land use assumptions and the proposed design and footprint of the development project for which the requested grading permit has been approved.*

*After receiving such recommendations, Caltrans shall assess the feasibility of the recommendations and impose the most protective mitigation feasible in light of land use assumptions and the proposed design and footprint of the development project. Caltrans shall, in reaching conclusions with respect to these recommendations, consult with both the project applicant and the most appropriate and interested tribal organization.*

- b) If human remains are discovered at any project construction sites during any phase of construction, all ground-disturbing activity within 50 feet of the remains shall be halted immediately, and Caltrans and the County coroner shall be notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project applicant shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. Caltrans shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of state law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The project applicant shall implement approved mitigation, to be verified by Caltrans, before the resumption of ground-disturbing activities within 50 feet of where the remains were discovered.*

Mitigation Measure 6

*Should paleontological resources be identified at any project construction sites during any phase of construction, the construction manager shall cease operation at the site of the discovery and immediately notify Caltrans. The project proponent shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. In considering any suggested mitigation proposed by the consulting paleontologist, Caltrans shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.*

<b>Issues:</b>	<b>Effect will be studied in the EIR</b>	<b>Effect can be mitigated to less than significant</b>	<b>No additional significant environmental effect</b>
5.GEOLOGY AND SOILS Would the project:			
A) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> <li>I. Rupture of a known earthquake fault, as delineated on the most recent Alquist - Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.</li> <li>II. Strong seismic ground shaking?</li> <li>III. Seismic-related ground failure, including liquefaction?</li> <li>IV. Landslides?</li> </ul>			X
B) Result in substantial soil erosion or the loss of topsoil?			X
C) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X
D) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X

## Environmental Setting

Sacramento is in the Great Valley province. The Great Valley is an alluvial plain about 50 miles wide and 400 miles long in the central part of California. Its northern part is the Sacramento Valley, drained by the Sacramento River; and its southern part is the San Joaquin Valley, drained by the San Joaquin River. The Great Valley is a trough in which sediments have been deposited almost continuously since the Jurassic (about 160 million years ago). The project site is located in the central portion of the Sacramento Valley. Materials underlying the site consist of Quaternary levee and channel deposits associated with the Sacramento River basin fluvial deposits, a few hundred meters in thickness, that are underlain by older alluvium, consisting of alternating layers of clay, silt, sand, and gravel up to a few kilometers in depth.

The closest fault system, the Foothill Fault System, is approximately 23 miles east of the site and is considered potentially active. The Dunnigan Hills Fault is located about 24 miles northwest of the site and is not considered active.<sup>13</sup>

### Standards of Significance

For purposes of this Initial Study, geologic impacts may be considered significant if the proposed project would result in the following:

- allows a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards.

### Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

*Impact 6.5-1: Implementation of the General Plan may allow development in areas that could be affected by seismic hazards, such as ground rupture, groundshaking, and liquefaction, potentially exposing people to risk from these hazards.*

*Impact 6.5-2: Implementation of the General Plan may allow development in areas that could be affected by geologic hazards associated with unstable soil conditions, including expansive soils and subsidence, potentially exposing people to risk from these hazards.*

*Impact 6.5-3: Implementation of the General Plan may allow development that could result in substantial soil erosion.*

*Impact 6.5-5: Implementation of the General Plan could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.*

*Impact 6.5-7: Implementation of the General Plan, in conjunction with other development within the Central Valley, could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.*

Implementation of the General Plan was determined to result in less-than-significant impacts due to seismic hazards, unstable soil conditions, and soil erosion, for both the project level and cumulative conditions. No mitigation was required.

The proposed project is consistent with the General Plan's assumptions and conclusions regarding geology for the site in the Master EIR. The project does not propose construction methods or operations that would result in impacts due to geologic or soil hazards than previously analyzed; and therefore, would not result in an individually minor, but collectively significant project impact.

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or

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13 Kleinfelder, Engineering Geologic and Seismic Hazards Evaluation Proposed Bridging Interstate 5 Project, January 11, 2005.

indirectly, in the surrounding environment, must be discussed. A discussion of growth inducement is not necessary for the analysis of potential impacts due to geologic and seismic conditions.

### Answers to Checklist Questions

A i-iv) The closest fault system, the Foothill Fault System, is approximately 23 miles east of the site and is considered potentially active. The Dunnigan Hills Fault is located about 24 miles northwest of the site.<sup>14</sup>

The City of Sacramento, including the project site is not within an Alquist-Priolo Earthquake Fault Zone.<sup>15</sup> Therefore, the chance of fault rupture and landslides within the project site would be highly unlikely.<sup>16</sup> Consequently, implementation of the proposed project would not expose people or structures to the possibility of fault rupture or landslides.

Despite its relatively distant location from known faults and fault zones, people and structures within the city and on the project site could be subject to the effects of groundshaking caused by a seismic event located miles away. The resulting vibration could cause damage to buildings, roads, and infrastructure (primary effects), and could cause ground failures such as liquefaction or settlement in loose alluvium and/or poorly compacted fill (secondary effects). The highest intensity of groundshaking experienced in the city (MMI VI to VII) would be caused by a Mw 7.9 earthquake on the San Andreas Fault or a Mw 6.6 earthquake on the Dunnigan Hills Fault, which are the closest active faults to the City of Sacramento.<sup>17</sup> The Foothills Fault System is only considered potentially active. Soils on the project site consist of Holocene alluvium that typically contain pockets of loose to slightly dense sands that may be susceptible to liquefaction and due to the topography on and adjacent to the site, may also be susceptible to lateral spreading.<sup>18</sup>

The design of roads and bridges (vehicular and pedestrian overcrossings) would be required to comply with Caltrans design criteria for any Caltrans facilities, City Department of Transportation design standards, and/or other accepted non-building structure standards to reduce the primary and secondary risks associated with seismically induced groundshaking.

Based on an existing regulatory framework that addresses earthquake safety issues and requires adherence to City and Caltrans construction requirements and various design standards, seismically induced groundshaking and secondary effects would not be a substantial hazard on the project site. In view of the above, the proposed project would have no additional significant environmental effects, over those identified in the Master EIR,

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14 Kleinfelder, Engineering Geologic and Seismic Hazards Evaluation Proposed Bridging Interstate 5 Project, January 11, 2005.

15 City of Sacramento, City of Sacramento 2030 General Plan Environmental Impact Report, Certified March 3, 2009, page 6.5-20.

16 City of Sacramento, City of Sacramento 2030 General Plan Environmental Impact Report, Certified March 3, 2009, page 6.5-6.

17 City of Sacramento, City of Sacramento 2030 General Plan Environmental Impact Report, Certified March 3, 2009, pages 6.5-20 and 6.5-21.

18 Kleinfelder, Engineering Geologic and Seismic Hazards Evaluation Proposed Bridging Interstate 5 Project, January 11, 2005, page 13.

regarding exposing people or structures to damage resulting from strong seismic groundshaking.

- B) Construction of the proposed project would disturb land that is currently largely paved with asphalt and concrete. Only a small area adjacent to the Caltrans generator building and monitoring well is not covered by an impervious surface. The areas surrounding the project site are also largely paved, with the exception of Crocker Park, which is covered with grass and trees. Construction of the proposed project would disturb approximately two acres of land. Approximately 7,000 cubic yards (cy) of soil would be excavated from the project site, with approximately 4,000 cubic yards (cy) of embankment needed for the project. Some of the excavated material is anticipated to be used on site for the embankment, depending on suitability, therefore reducing the overall amount of material required to be brought in and removed from the project. Construction activities would include demolition of the existing Caltrans generator building and monitoring well, grading, and trenching. These construction activities could temporarily expose soil to erosion. There would be no long-term effects because the site would be covered with impervious surfaces with no exposed soil.

Compliance with Chapter 15.88 of the Sacramento Municipal Code, also known as the Land Grading and Erosion Control Ordinance, requires that an Erosion and Sediment Control Plan be prepared for any project where 350 cubic yards or more of soil is excavated and/or disposed. It also requires best management practices (BMPs) that must be approved by the City. The ordinance would apply because more than 350 cubic yards of soil would be disturbed. An erosion control professional, landscape architect, or civil engineer specializing in erosion control must design the Erosion and Sediment Control Plan and be on the project site during the installation of erosion and sediment control measures, and supervise implementation of the installation and maintenance of such facilities throughout the site clearing, grading and construction periods. In addition, Policy ER 1.1.7 of the City of Sacramento 2030 General Plan reinforces these requirements by directing that construction contractors comply with the City's erosion and sediment control ordinance. Further, as explained below in Item 8 Hydrology, construction would also be required to comply with the state General Construction Activity Stormwater Permit. With implementation of these requirements, there would be no additional significant environmental effects over those identified in the Master EIR.

- C, D) Development of the proposed project would result in the construction of vehicular roadways, pedestrian walkways, and bicycle lanes to connect Downtown Sacramento to the Sacramento riverfront and Old Sacramento. These structures and facilities could potentially be exposed to the effects of geological hazards associated with unstable soil conditions such as expansive soils and subsidence, if appropriate design and monitoring is not implemented.

#### Expansive Soils

The project site is classified as Urban Land by the California Department of Conservation. The Urban Land unit is described as large areas covered by impervious surfaces or structures. The majority of the project site is covered by impervious surfaces, therefore soil engineering properties are not provided. This unit is also indicated to be similar at depth to adjacent soil units. The adjacent unit, at the southeastern portion of the project site, is the Sailboat-Urban

land complex. This unit is described as consisting of clays, silts, and silt-clays with a low to moderate expansion potential.<sup>19</sup> If expansive soils are not properly engineered to support the overlying structure, they can cause damage to pavement, foundations, or other solid surfaces.

### Subsidence

Natural or human-caused activities can cause subsidence, which is a gradual sinking of land, usually over broad areas. However, localized subsidence can occur and can cause damage to pavement, foundation, and infrastructure. Sacramento has experienced subsidence in the past; a notable example is the “boat section” of I-5, where the withdrawal of water to prevent seepage and flooding caused alluvial soils to compress.<sup>20</sup>

There are no impacts associated with the relocation of the active dewatering wells as the wells would be relocated within the project site and are only being relocated due to accommodate the proposed project with the proposed construction. As noted above, Holocene alluvium underlying the site typically contains pockets of loose to slightly dense sands. Increases in hydraulic gradient, in particular, would generally be expected to increase the rate of groundwater flow and direction, both laterally and vertically. This could affect the pore space in the alluvial materials. A loss of pore water could cause compaction of the alluvial soils, which could cause subsidence that could, in turn, cause damage to existing structures.

To avoid these conditions, Policy EC 1.1.2 of the City of Sacramento 2030 General Plan requires that each project within the city prepare a site-specific geotechnical investigation that addresses a range of geologic and soils considerations, with specific reference to expansive soils and subsidence, among others. Soil samples must be collected from the project site and analyzed for specific chemical and physical characteristics. The City requires that the site-specific geotechnical report be conducted by registered soil professionals, and measures to eliminate inappropriate soil conditions must be applied, depending on the soil conditions. The results of soil sampling and laboratory analysis prepared as part of the geotechnical investigation required to ensure conformance with Policy EC 1.1.2 would be used to provide the design parameters of foundation and excavation-wall support to ensure conformance with to criteria set forth in the 2010 California Building Code (CBC), Chapters 16, 18, 33, and the appendix to Chapter 33. Adherence to the CBC requirements and City policies contained in the 2030 General Plan would ensure expansive soil hazards are properly mitigated.

In addition, the geotechnical investigation would also address the temporary relocation of the dewatering well because of the potential for subsidence. For example, a plan would be developed for temporarily managing the potential change in hydraulic gradient to reduce potential subsidence hazards. Such a plan would include evaluating the effect on underlying alluvial materials, designing a temporary groundwater management procedure, monitoring, and taking corrective action, if necessary. With implementation of adopted City policy and existing CBC regulations, expansive soils and subsidence impacts would be less than significant, and no additional mitigation is required.

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19 Kleinfelder, Engineering Geologic and Seismic Hazards Evaluation Proposed Bridging Interstate 5 Project, January 11, 2005, page 4.

20 City of Sacramento, City of Sacramento 2030 General Plan Environmental Impact Report, Certified March 3, 2009, page 6.5-8.

**Mitigation Measures from 2030 General Plan Master EIR**

No mitigation measures were identified in the 2030 General Plan Master EIR for geology and soils.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
6. HAZARDS Would the project:			
A) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X
B) Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X	
C) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X
D) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X
E) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport, or public use airport, would the project result in a safety hazard for people residing or working in the study area?			X

**Environmental Setting**

The project site is bounded approximately by L Street on the north (including the portion of L Street between 3<sup>rd</sup> Street and 4<sup>th</sup> Street), Front Street on the west, O Street on the south and 3<sup>rd</sup> Street on the east. The project site is entirely developed, and there are no manufacturing facilities or other hazardous materials producers in the study area. A Caltrans generator building, which provides power to a dewatering system in the “boat section” of I-5 is the only structure in the project site.

**Standards of Significance**

For purposes of this Initial Study, hazards may be considered significant if the proposed project would result in one or more of the following:

- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials; or

- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

### **Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects**

*Impact 6.6-1: Implementation of the General Plan may result in the exposure of people to hazards and hazardous materials during construction activities.*

*Impact 6.6-2: Implementation of the General Plan may result in the exposure of people to hazards and hazardous materials during the life of the General Plan.*

*Impact 6.6-3: Implementation of the 2030 General Plan combined with each airport's ALUCP within and adjacent to the Policy Area may result in the exposure of people to hazards associated with interference to emergency response and airport hazards during the life of the General Plan.*

Implementation of the General Plan was determined to result in less-than-significant impacts due to exposure of people to hazards and hazardous materials during construction and operation of the project, for both the project level and cumulative conditions. No mitigation was required.

The proposed project is consistent with the General Plan's assumptions and conclusions regarding hazards and hazardous materials for the site in the Master EIR. The project does not propose demolition or construction methods that would result in greater releases/ exposure of hazards and hazardous materials than previously analyzed; and therefore, would not result in an individually minor, but collectively significant project impacts.

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment, must be discussed. A discussion of growth inducement is not necessary for the analysis of potential impacts due to hazards and hazardous materials.

### **Answers to Checklist Questions**

- A) Construction of the project would involve the routine use of hazardous materials, which would involve such products as cements and additives (e.g., for cast-in-place concrete), glues and adhesives, paints, solvents, fuel, and asphalt mixtures. Exposure of the public or the environment to hazardous materials during construction could occur in the following ways: improper handling or use of hazardous products at the construction site, particularly by untrained personnel; accident involving transportation of materials to the construction site; environmentally unsound disposal methods; or fire, explosion or other emergencies. The types and amounts of hazardous materials would vary according to the nature of the construction activity. Of those products, fuel for heavy equipment and concrete products would be the primary hazardous materials-containing substances.

The City would require that the construction contractor comply with existing hazardous materials regulations, which are codified in CCR Titles 8, 22, and 26, and their enabling

legislation set forth in Chapter 6.95 of the California Health and Safety Code. This requirement would be stated in contract specifications and documents.

Construction would result in an increase in diesel emissions from construction equipment and truck deliveries to the project site. Please see the air quality discussion in this Mitigated Negative Declaration for effects resulting from construction diesel emissions.

Operation of the project would not involve the use of hazardous materials.

For these reasons, hazardous materials impacts would be less than significant because they would not create a significant hazard to the public through routine transport, use, or disposal of hazardous materials.

- B) Construction and operation of the project would not involve the use of chemicals or compounds that could release hazardous materials to the environment as result of upset or accident conditions (e.g., a large chemical spill or release of compressed gas). However, based on a review of site characteristics in 2005<sup>21</sup> and in 2010, there are environmental conditions that may impact the project, and, if not properly managed, could pose an inadvertent risk to people and the environment, which would be a potentially significant impact. These conditions are the result of historic land uses outside the boundary of the project site that have affected groundwater quality. There are four sites (summarized below) that have the potential for the project to affect, or be affected by, environmental conditions at those sites.<sup>22</sup> There are no known sources of contaminants related to historic uses within the project boundary that have been reported to regulatory agencies or that are being monitored by regulatory agencies.<sup>23</sup>
- 301 Capitol Mall. This site is listed as “open-inactive” as of 2004. The open-inactive status indicates no regulatory oversight activities are being conducted. The database record states potential contaminants of concern are diesel, waste oil/motor/hydraulic/lubricating oil, but whether groundwater has been affected is unknown.
  - Front and T Street Sites and Caltrans I-5 Q Street Off Ramp. The Caltrans Q Street site is within the I-5 right-of-way near the former intersection of Front and T Streets in Sacramento and adjacent to Sacramento Municipal Utility District property. The site was discovered during the groundwater investigation for the PG&E-Sacramento/SMUD sites (collectively the Front and T Street sites). Contaminated groundwater beneath the sites is being treated as a single unit under an operation and maintenance (O&M) agreement for this site (Enforceable Agreement Docket Number HAS-O&M 07/08-074) for the continued operation, maintenance and monitoring of the remedial systems. Groundwater flow is generally to the east, away from Front Street and I-5.
  - 401 I Street (Union Pacific Railyards). A significant dissolved phase chlorinated volatile organic compounds (VOC) plume (“South Plume”) extends southward under

21 Kleinfelder, Initial Site Assessment for the Proposed Bridging I-5 Project, February 17, 2005.

22 Two locations (1516 9th Street and 725 7th Street) were included in the 2005 Initial Site Assessment; however, these sites are no longer included on any regulatory database. See PBS&J, Hazardous Materials Technical Memorandum (September 2010) for additional information.

23 PBS&J. Hazardous Materials Technical Memorandum. September 2010.

downtown Sacramento beneath L Street, Capitol Mall, O Street, and P Street, to just north of R Street. The western boundary of the South Plume generally coincides with 5th Street. Impacted groundwater is being actively pumped and treated both at the Railyards and near the southern terminus of the plume (near P and R Streets), at a rate of approximately 400,000 gallons a day. There are numerous water production wells in the South Plume. Water production wells are categorized into the following general types: water supply wells (mostly for cooling and heating systems); Caltrans intermittent dewatering wells; and construction dewatering projects that were active for periods of approximately 15 months or less. None of the active wells in the South Plume are used for human consumption.<sup>24</sup>

Of these three sites, there is at least one site with known groundwater contamination that is close enough to the project site to be of concern: the South Plume associated with the former Railyards. Although the groundwater treatment system at the Front and T Street area is south of the project site and the South Plume is east, those sites should not be eliminated as a potential concern because seasonal changes in flow direction and/or depth could occur. Environmental conditions at the 301 Capitol Mall site remain unknown.

#### Caltrans Dewatering Well Relocation

Installation of deep foundations to support bridge structures and relocation of existing permanent dewatering wells for the I-5 “boat section” have the potential to affect groundwater conditions associated with the South Plume. In particular, active water supply wells located within and along the margin of the South Plume boundaries can have a dramatic effect on the plume migration. Based on a scenario comparable to the assumptions developed for cleanup of the South Plume, the generally anticipated impacts of relocating an active dewatering well adjacent to the margins of the plume, such as could be necessary to construct the project, could include increases in the vertical and horizontal hydraulic gradient in the sand and gravel aquifer in which the plume is located. Increases in hydraulic gradient would generally be expected to increase the rate of groundwater flow and transport of the contaminants, both laterally and vertically, and potentially as far as the Sacramento River. In addition, installation of deep footings could inadvertently create horizontal or vertical conduits for contaminant migration if they encounter the plume. While there would be no direct pathway for human exposure, this would be considered a potentially significant impact because changing South Plume characteristics could change the subsurface environmental conditions in a manner that could pose an inadvertent environmental risk if not properly managed. This effect can be reduced to a less-than-significant level through implementation of Mitigation Measure 7.

#### Traffic Striping Paint

Yellow traffic markings (consisting of thermoplastic and paint) potentially contain hazardous levels of lead chromate.<sup>25</sup> If yellow traffic markings would be removed separately from the adjacent pavement during the construction of the proposed project, and are not properly assessed, this could inadvertently expose people to adverse health effects. The primary

24 ERM, Final Feasibility Study Report Central Shops Study Area – Soil and South Plume Study Area – Ground Water, The Railyards Sacramento, California. July 2010. Figure 1-2 and p. 1-8.

25 Kleinfelder, Initial Site Assessment for the Proposed Bridging I-5 Project, February 17, 2005.

exposure pathway by which receptors could be exposed to lead-based paints could inhalation of airborne dust released from dried paint if it is removed separately from the pavement. Construction workers would be at greatest risk because they would be working directly with the removal equipment within the construction zone. The public would be at less risk because they would be prohibited from entering the work zone. Various federal and state regulations and guidelines pertaining to abatement of, and protection from, exposure to lead have been adopted for the workplace. Because these requirements would protect construction workers, they would also protect the public. Any activity that could result in the release of lead must be conducted according to Cal-OSHA standards and regulations (Construction Safety Orders 1532.1). If the yellow traffic markings are removed concurrently with the adjacent asphalt, this would not pose a risk to people or the environment. However, the levels of lead or chromate may need to be managed as hazardous waste if the lead and/or chromium levels exceed state criteria.<sup>26</sup> Improper disposal could violate hazardous waste regulations.

The removal of pavement with yellow traffic markings could result in a potentially significant impact because it could expose people to hazardous materials (lead chromate). This impact could be reduced to less-than-significant levels through implementation of Mitigation Measure 8.

#### Electrical Transformers

Electrical transformers observed during a field survey performed in 2005 by Kleinfelder included pole-mounted transformers and pad-mounted transformers along existing roadways and on adjacent properties. Transformers in the study area are operated by Sacramento Municipal Utility District (SMUD). Some transformers may have been manufactured prior to 1980 and may contain polychlorinated biphenyls (PCBs) depending on the date they were manufactured.<sup>27</sup> The observed transformers were not labeled for PCB content. Transformers containing PCBs must be managed as hazardous waste. If they are not properly identified, removed, and disposed in accordance with existing regulations, the removal of transformers could result in a potentially significant impact because it could expose people to hazardous materials (PCBs). However, this effect can be reduced to a less-than-significant level through implementation of Mitigation Measure 9.

#### Caltrans Generator and Minor Underground Utility Relocation

The proposed project would result in the relocation of a Caltrans generator building and other minor underground utility relocations such as slight relocation of electrical and natural gas lines may be necessary to accommodate roadway realignments. These facilities would be relocated within the project site and would include an exchange of right-of-way between the City and Caltrans. This minor rerouting of underground utilities infrastructure would not result in construction workers or residents being exposed to hazardous materials.<sup>28</sup> There would be no impact.

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26 Kleinfelder, Initial Site Assessment for the Proposed Bridging I-5 Project, February 17, 2005.

27 Kleinfelder, Initial Site Assessment for the Proposed Bridging I-5 Project, February 17, 2005.

28 Kleinfelder, Initial Site Assessment for the Proposed Bridging I-5 Project, February 17, 2005.

- C) There are no existing or proposed schools within one-quarter mile of the project site. Therefore there would be no potential for persons, including those at the nearby schools, to be exposed to hazardous materials. There would be no impact related to acutely hazardous materials, substances, or wastes, or hazardous emissions on schools.
- D) There are no specific locations within the boundaries of the project site that are included on the list of hazardous materials sites compiled pursuant to Government Code section 65962.5. There would be no impact. There are contaminated groundwater plumes in the vicinity of the project, however. See Item b.
- E) The closest airport to the project site is the Executive Airport, located approximately five miles southeast of the site. The proposed project does not include the construction of any tall buildings that would interfere with air traffic and would not introduce new land uses that would be affected by air traffic. Because of the distance between the proposed project and the closest airport and the nature of the project, air traffic would not be affected by the project and people residing or working in the project site would not be exposed to safety hazards due to aircraft operations. The project is not located within a public or private airport land use plan. Therefore, the proposed project would not expose people residing or working in the project site to excessive noise levels. There would be no impact.

### **Mitigation Measures from 2030 General Plan Master EIR**

No mitigation measures were identified in the 2030 General Plan Master EIR for hazards.

### **Additional Project-Specific Mitigation Measures**

#### Mitigation Measure 7

*In conjunction with final design and prior to construction, the City shall ensure a groundwater quality management plan is prepared by a registered environmental professional with expertise in groundwater contamination fate and transport to identify the extent to which the installation of subsurface project features or relocation of the Caltrans dewatering well could affect groundwater flow and constituents. The plan shall identify procedures that would be implemented before, during, and after construction to ensure project features do not adversely affect flow directions or rates of known contaminant plumes. The groundwater quality management plan shall also include protocols for construction-period and long-term monitoring of groundwater quality and a mechanism for corrective action should monitoring data indicate construction or operation of the project is affecting groundwater characteristics to a level that could adversely affect contaminant plume characteristics. For efficiency and comprehensiveness, the elements of this plan can be combined with a groundwater management plan that would be prepared to address geotechnical issues including seepage and settlement.*

#### Mitigation Measure 8

*The City shall require the construction contractor to assess the traffic striping paint metals concentration levels during construction. This is a common practice, but sampling and*

*analysis shall be performed by a qualified vendor licensed by the state to perform such testing. If levels of lead and/or chromate exceed regulatory thresholds, the contractor shall ensure removal and disposal of the material complies with applicable laws and regulations. This requirement shall be specified in contract specifications. OR*

*Prior to construction, the City shall ensure a Preliminary Site Investigation (PSI) to assess the concentration of lead chromate is performed by a qualified vendor. If levels of lead and/or chromate exceed regulatory thresholds, the contractor shall ensure removal and disposal of the material complies with applicable laws and regulations. This requirement shall be specified in contract specifications.*

Mitigation Measure 9

*The construction contractor shall contact SMUD prior to construction activity to determine whether to determine if removal or relocation of transformers is required for the proposed project. If removal or relocation is required, the City shall ensure these activities comply with applicable regulations.*

<b>Issues:</b>	<b>Effect will be studied in the EIR</b>	<b>Effect can be mitigated to less than significant</b>	<b>No additional significant environmental effect</b>
7. HYDROLOGY AND WATER QUALITY Would the project:			
A) Violate any water quality standards or waste or discharge requirements?			X
B) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X
C) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X
D) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X
E) Otherwise substantially degrade water quality?			X
F) Place within a 100-year floodplain structures which would impede or redirect flood flows?			X
G) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X

## Environmental Setting

The project site is currently developed and is predominantly covered with structures and impervious surfaces. The project site is in an area of Sacramento served by the City's Combined Sewer System (CSS). The CSS is a wastewater collection system designed to convey domestic sewage, commercial and industrial wastewater, and surface stormwater runoff in a single pipeline. Drainage from the majority of the site currently flows to the CSS, which flows to the Pioneer Reservoir, northwest of the project site, for primary treatment (removal of floatables and grit).

The existing section of I-5 within the project site is called the "boat section." The "boat section" is a portion of the freeway that is constructed below the existing water table. Therefore, natural drainage must be mitigated in this portion. Caltrans has mitigated drainage with a storm water collection

system that drains to a detention reservoir and pump station. Storm water runoff is then pumped out of the “boat section” into the nearby Sacramento River.

### Standards of Significance

For purposes of this Initial Study, hydrology and water quality impacts may be considered significant if the proposed project would result in one or more of the following:

- substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the Specific Plan; or
- substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

### Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

*Impact 6.7-1: Implementation of the General Plan could result in construction activities that could degrade water quality and violate state water quality objectives by increasing sedimentation and other contaminants entering streams and rivers.*

*Impact 6.7-2: Implementation of the General Plan could generate new sources of polluted runoff that could violate water quality standards.*

*Impact 6.7-3: Implementation of the General Plan could increase exposure of people and/or property to risk of injury and damage from a localized 100-year flood.*

*Impact 6.7-4: Implementation of the General Plan could increase exposure of people and/or property to risk of injury and damage from a regional 100-year flood.*

*Impact 6.7-5: Implementation of the General Plan, in addition to other projects in the watershed, could result in the generation of polluted runoff that could violate water quality standards or waste discharge requirements for receiving waters.*

*Impact 6.7-6: Implementation of the General Plan, in addition to other projects in the watershed, could result in increased numbers of residents and structures exposed to a localized 100-year flood event.*

*Impact 6.7-7: Implementation of the General Plan, in addition to other projects in the watershed, could result in increased numbers of residents and structures exposed to a regional 100-year flood event.*

Implementation of the General Plan was determined to result in less than significant impacts due to potential degradation of water quality during construction and implementation of individual projects within the City. The General Plan also determined that the cumulative impacts related to development were also less than significant. The potential impacts due to exposure of people and

property to local and regional 100-year floods were determined to be less than significant. No mitigation was adopted for this issue area.

The proposed project is consistent with the General Plan's assumptions and conclusions regarding hydrology and water quality assumed for the site in the Master EIR. The project does not propose construction methods or operations that would result in a greater level of impacts to hydrology and water quality than previously analyzed; and therefore, would not result in an individually minor, but collectively significant project impacts.

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment, must be discussed. A discussion of growth inducement is not necessary for the analysis of potential impacts to hydrology and water quality.

### Answers to Checklist Questions

A, E) Construction activities (e.g., grading and trenching) could expose soil to increased rates of erosion, which could result in increased deposition of sediments, potentially degrading receiving water quality. Another potential source of water quality degradation during project construction is the inadvertent release of petroleum-based fluids and/or heavy metals used in heavy equipment. Construction projects are required to comply with the City's Erosion and Sediment Control, and with the City's National Pollutant Discharge Elimination System (NPDES) permit. Both of these regulations require that the City employ Best Management Practices (BMPs) before, during and after construction. Temporary construction BMPs could include concrete washouts, silt fences, inlet protection, stabilized construction entrance/exits, and fiber rolls. It is anticipated that no permanent BMPs would be required.<sup>29</sup> Compliance with BMP provisions would assure that development and use of the site would result in a less-than-significant impact to surface waters and would not result in the alteration of surface water quality.

Dewatering will be required during the construction of the project for the construction of the structures. Most likely this work will occur during the summer months, when the water table is lower. Per permitting requirements, water pumped from the site during construction will be required to be routed into a sedimentation tank/holding facility on the project site. The clear water will then be allowed to be disposed. Based on the quantity of discharge, the contractor may use the City's storm drain system or directly discharge the clean water to the river. There would be adequate capacity within the existing storm drain system to handle the flows. The settled solids will be required to be disposed of at an appropriate off-site location. A separate dewatering permit from the RWCQB would be required for this work.

Additionally, improvements in the project site would be required to comply with regulations involving the control of pollution in stormwater discharges under the City's Stormwater Management and Discharge Control Code (Title 13, Chapter 13.16). This code requires all development to prevent pollutants from entering the stormwater conveyance system and the preparation of a stormwater pollution prevention plan (SWPPP). The SWPPP includes

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29 City of Sacramento, Project Study Report on I-5 from Capitol Mall (M Street) to O Street, prepared by Parsons Brinckerhoff, January 2010, pg. 182.

pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills), demonstration of compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, a detailed construction timeline, and BMPs monitoring and maintenance schedule to determine quantities of pollutants leaving the site. SWPPP BMPs are recognized as effective methods to prevent or minimize the potential releases of pollutants into drainages, surface waters, or groundwater. Strict SWPPP compliance coupled with using the appropriate BMPs would reduce potential water quality impacts. Therefore, the project would not degrade water quality and there would be no additional significant environmental effects over those identified in the Master EIR.

- B) The proposed project includes roadway improvements and extensions to Capitol Mall, Front Street, Neasham Circle, 2nd Street, O Street, and N Street. Construction of bridge foundations will be partially below the water table. The drilled foundations would be constructed using standard methods for working in wet holes. The drilling and soil excavations would be done in temporary cased holes, water in the hole would be pumped to settlement tanks and upon treatment in the tanks would be discharged into the existing storm drain outfalls to the river. Similar treatment tanks would be used for waters in open excavations, if necessary. There would be no additional significant environmental effects over those identified in the Master EIR.
- C, D) As stated above, the proposed project would add a bridge over an existing freeway and a connector and viaduct over existing streets. This project would not significantly increase storm-water run-off, as the structures would cover the same surface area as the existing paved sections of I-5, 2<sup>nd</sup> Street and Neasham Circle that they will span. Any storm runoff from the structures would be handled by the existing drainage structures and the existing pump station. In addition, any change in drainage patterns from local road realignment would be mitigated by the use of existing drainage structures, or relocated drainage structures, as necessary.

Although the drainage systems for the structures have not been designed, it is envisioned the storm drainage for the new structures would be diverted to existing drainage inlets and therefore the overall change in the amount of storm water run-off would be negligible. As discussed previously, although temporary construction BMPs will be deployed, permanent BMPs are not expected to be necessary.

There would be minor relocation of some drainage inlets due to impacts with construction. These would be relocated within the project site and the existing storm drain outfalls would not be impacted. No new storm water outfalls would be required. During construction, fiber rolls or other type of inlet protection would be used to prevent sediments from entering the storm drainage system.

The overall increase in impervious surface as a result of the project would be less than less than 0.5 acres. As such, there would not be a significant increase in runoff due to the proposed project and there would be no additional significant environmental effect to the current drainage pattern over those identified in the Master EIR.

- F, G) The project is located within a Shaded Zone X according to the most recently updated (2/18/05) Flood Insurance Rate Map (FIRM). A "Shaded" Zone X is designated as an area

within a 500 year flood zone and outside of the 100 year flood zone but protected by levees. The two permanent structures that would be built are a bridge that would span the freeway and a road extension. The new foundations for the bridge and the pilings for the road extension would not impede flood flow. In addition the proposed project does not include housing. Therefore, there are no additional significant environmental effects over those identified in the Master EIR.

**Mitigation Measures from 2030 General Plan Master EIR**

Per the 2030 General Plan Master EIR, Mitigation Measure 6.7-3 states that the City shall require all new development to contribute to a no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
8. NOISE Would the project result in:			
A) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X
B) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X
C) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X
D) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X

**Environmental Setting**

Fundamentals of Environmental Sound and Noise

Sound can be described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the intensity of the pressure vibrations that make up a sound. The pitch of the sound is correlated to the frequency of the sound’s pressure vibration. Because humans are not equally sensitive to a given sound level at all frequencies, a scale, the A-weighted decibel scale (dBA), has been devised to specifically relate noise to human sensitivity. The A-weighted decibel scale does this by placing more importance on frequencies that are more noticeable to the human ear.<sup>30</sup>

Noise is typically defined as unwanted sound. Typically, noise in any environment consists of a base of steady “background” noise made up of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. Several rating scales have been developed to analyze the adverse effect of noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the volume of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:<sup>31</sup>

- Leq, the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

30 California Department of Transportation, *Technical Noise Supplement, A Technical Supplement to the Traffic Noise Analysis Protocol*. October 1998, pp. 40-41.

31 California Department of Transportation, *Technical Noise Supplement, A Technical Supplement to the Traffic Noise Analysis Protocol*. October 1998, p. 45.

- Ldn, the Day Night Average Level, is a 24-hour average Leq with a 10 dBA “weighting” added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in the nighttime.
- Lmin, the minimum instantaneous noise level experienced during a given period of time.
- Lmax, the maximum instantaneous noise level experienced during a given period of time.

Fundamentals of Ground-borne Noise and Vibration

Ground-borne vibration is sound radiated through the ground and is measured in the U.S. as vibration decibels (VdB). It should also be noted that accurate estimates of ground-borne vibration are complicated, primarily due to the types of building materials used during construction, local geology (soil conditions), and the type of receptor, all of which influence how vibration levels are perceived at potential receptors. In addition, the human response to different levels of ground-borne noise and vibration is described in Table 2. The first column lists vibration velocity levels, and the subsequent two columns list the corresponding noise levels assuming that the vibration spectrum peaks at either 30 hertz or 60 hertz. A hertz (Hz) is a measurement for the frequency of any periodic (repeating) event meaning “one per second.” Generally, the A-weighted noise level will be approximately 40 dB less than the vibration velocity level if the spectrum peak is around 30 Hz, and 25 dB lower if the spectrum peak is around 60 Hz.

<b>TABLE 2</b>			
<b>HUMAN RESPONSE TO DIFFERENT LEVELS OF GROUND-BORNE NOISE AND VIBRATION</b>			
<b>Vibration Level</b>	<b>Noise Level</b>		<b>Human Response</b>
	<b>Low-Frequency<sup>1</sup></b>	<b>Mid-Frequency<sup>2</sup></b>	
65 VdB	25 dBA	40 dBA	Approximate threshold of perception for many humans. Low-frequency sound usually inaudible, mid-frequency sound excessive for quiet sleeping areas.
75 VdB	35 dBA	50 dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find vibration at this level unacceptable. Low-frequency noise acceptable for sleeping areas, mid-frequency noise annoying in most quiet occupied areas.
85 VdB	45 dBA	60 dBA	Vibration acceptable only if there are an infrequent number of events per day. Low-frequency noise unacceptable for sleeping areas, mid-frequency noise unacceptable even for infrequent events with institutional land uses such as schools and churches.
Notes: 1. Approximate noise level when vibration spectrum peak is near 30 Hz. 2. Approximate noise level when vibration spectrum peak is near 60 Hz. Source: U.S. Department of Transportation, Federal Railroad Administration, <i>High-Speed Ground Transportation Noise and Vibration Impact Assessment</i> , October 2005, p. 6-8.			

Existing Conditions

The study area is located in the City of Sacramento, west of Downtown near the Sacramento River. The project footprint is bounded by L Street on the north, Front Street on the west, O Street on the south and 3rd Street on the east. The noise environment in the study area is dominated by traffic and on-street activity. Vehicles traveling on I-5 have the largest influence on noise levels in the area between the Sacramento River and Third Street. East of Third Street, motor vehicle traffic on local

streets is the major noise source. Short-term sound level measurements were conducted on and around the project site with the results shown in Table 3.

<b>TABLE 3</b>								
<b>DAYTIME SOUND LEVEL MEASUREMENTS AT SELECTED LOCATIONS AROUND/ON THE PROJECT SITE</b>								
Noise Measurement Location/Time			Influential Sound Sources			<b>Sound Level Statistics</b>		
						<b>L<sub>eq</sub></b>	<b>L<sub>min</sub></b>	<b>L<sub>max</sub></b>
#1	In front of 1200 Second Street, Old Sacramento; Start time: 1:35 pm.	Vehicular traffic on I-5. Traffic moving at speed limit; no obstructions block direct propagation.	77.7	72.3	82.5			
#2	Picnic area near the center of Crocker Park; Start time: 3:05 pm.	Vehicular traffic on I-5. Traffic moving at speed limit. I-5 is in a cut below grade; cut walls block direct propagation.	65.4	62.5	73.2			
#3	In front of multiple-family residence 1431 3rd Street facing Crocker Park, Start time: 3:24 pm.	Vehicular traffic on 3rd Street is primary, but noise from I-5 is audible; freeway traffic moving at speed limit.	64.2	56.2	77.6			
#4	Sacramento River esplanade, west of I-5 and Crocker Park; Start time: 4:35 pm	Vehicular traffic on I-5. Traffic flow congested, moving considerably below speed limit. I-5 is in a cut below grade; cut walls block direct propagation.	62.5	57.6	77.7			
<p>All measurements were made on the afternoon of March 15, 2007. Each measurement was 15 minutes in duration. L<sub>eq</sub> is the average sound level measured during the measurement period. L<sub>min</sub> is the minimum instantaneous noise level measured during the measurement period, while L<sub>max</sub> is the maximum instantaneous noise level measured during the 10-minute period. Source: PBS&amp;J, 2007.</p>								

### Sensitive Receptors

Some land uses are more sensitive to noise than others (“sensitive receptors”), and normally include residences, hospitals, churches, libraries, schools, and retirement homes. These uses are considered sensitive because they either depend on a quiet environment to serve their intended purpose, serve as a living space for people, or are institutional facilities with daytime and evening use. The proposed project would be located above and adjacent to the I-5 freeway from N Street to L Street. Noise sensitive uses in the vicinity of the project site include residential uses that begin adjacent to and east of 3rd Street. Other sensitive uses include Crocker Park, which is bounded by N Street, O Street, 2nd Street, and 3rd Street; a hotel, located west of the freeway, between O Street and Capitol Mall; Old Sacramento, located west of the freeway, north of Capitol Mall; the Sacramento River Waterfront; and the Crocker Art Museum, just south of Crocker Park. The approximate distance between the currently anticipated limits of construction and the nearest sensitive structure is approximately 50 feet.

Land uses in the project area that would be sensitive to vibration include buildings where vibration would interfere with interior operations, such as theaters and auditoriums; residences and buildings where people normally sleep, such as residences and hotels; and institutional land uses with primarily daytime uses, such as offices. Building structures would also be sensitive to vibration at levels high enough that could cause damage. Damage to structures is typically associated with construction activities, such as pile driving, and in general would not be associated with operational activities. Historic structures are also considered vibration sensitive, in that their structure could be

more fragile than other structures, and could have a greater potential for damage from vibration sources.

### Standards of Significance

For purposes of this Initial Study noise impacts may be considered significant if the proposed project would result in one or more of the following:

- result in exterior noise levels in the project site that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases;
- result in residential interior noise levels of 45 dBA Ldn or greater caused by noise level increases due to the project;
- result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance;
- permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction;
- permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; or permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic.

### Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

*Impact 6.8-1: Implementation of the General Plan could result in exterior noise levels in the Policy Area that are above the upper value of the normally acceptable category for various land uses (per Table EC-1) due to an increase in noise levels.*

*Impact 6.8-2: Implementation of the General Plan would result in residential interior noise levels of  $L_{dn}$  45 dB or greater caused by an increase in noise levels.*

*Impact 6.8-3: Implementation of the General Plan could result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance.*

*Impact 6.8-4: Implementation of the General Plan could permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction.*

*Impact 6.8-5: Implementation of the General Plan could permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.*

*Impact 6.8-6: Implementation of the General Plan could permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.25 inches per second due to project construction, highway traffic, and rail operations.*

*Impact 6.8-7: Implementation of the General Plan along with other development in the region could result in an increase in interior and exterior noise levels in the Policy Area that are above acceptable levels.*

*Impact 6.8-8: Implementation of the General Plan could result in cumulative construction noise and vibration levels that exceed the standards in the City of Sacramento Noise Ordinance as well as vibration-peak-particle velocities greater than 0.5 inches per second.*

*Impact 6.8-9: Implementation of the General Plan could result in cumulative construction vibration levels that exceed the vibration-peak-particle velocities greater than 0.5 inches per second.*

*Impact 6.8-10: Implementation of the General Plan could result in cumulative impacts on adjacent residential and commercial areas exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations.*

The proposed project is consistent with the General Plan's assumptions and conclusions regarding noise for the site in the Master EIR. The project would include construction methods, building designs, and operational methods that would reduce the potential noise and vibration impacts to less-than-significant project levels.

The proposed project is consistent with the General Plan's assumptions and conclusions regarding noise for the site in the Master EIR. The project would not result in greater levels of noise or vibration than previously analyzed in the Master EIR; and therefore, would not result in an individually minor, but collectively significant, project impacts.

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment, must be discussed. A discussion of growth inducement is not necessary for the analysis of potential impacts due to increased noise and vibration.

## **Answers to Checklist Questions**

### **A) Construction**

Construction of the project would require the use of heavy equipment for demolition of the Caltrans generator building and monitoring well, land clearing, grading, trenching, and construction. The project would also require the use of pile drivers for temporary shoring during construction of the N Street bridge. As required by Section 8.68.080(E) of the City Code, construction activities associated with the proposed project would be limited to the hours between 7:00 a.m. and 6:00 p.m., Monday through Saturday, and 9:00 a.m. and 6:00 p.m. on Sundays and public holidays. Section 8.68.080(E) also requires the use of exhaust and intake silencers for internal combustion engines used during construction to reduce noise levels associated with construction activities. The City exempts noise associated with construction that occurs between the hours of 7:00 a.m. and 6:00 p.m. Monday through Saturday and between 9:00 a.m. and 6:00 p.m. on Sundays because these hours are outside of the recognized sleep hours for residents and outside of evening and early morning hours and time periods where residents are most sensitive to exterior noise. Since the proposed project would adhere to the construction time limitations of the City of Sacramento Noise Ordinance, impacts associated with construction noise would be less than significant. There would be no additional significant environmental effect over those identified in the Master EIR and no mitigation is required.

The proposed project consists of the extension and realignment of existing roadways and bicycle and pedestrian facilities. The project would not create new land uses in the City of Sacramento and would therefore not generate new trips. Potential traffic noise impacts would occur from the reconfiguration of existing roadways, construction of a new N Street bridge, and the associated redistribution of trips in the project area. These project components could result in an increase in ambient noise levels at the existing sensitive receptors. Per the City of Sacramento 2030 General Plan noise impact criteria (Table EC-2), project-related increases of more than 2.0 dBA (if noise levels are between 60 and 65 dBA  $L_{dn}$ ) or 1.0 dBA (if noise levels are between 65 and 70 dBA  $L_{dn}$ ) would constitute a significant noise increase. Two roadway segments (Front Street, between O Street and Neasham Circle; and 3rd Street, between N Street and O Street) that are adjacent to potential noise sensitive uses were evaluated according to existing and with-project traffic conditions.<sup>32</sup> Other roadway segments located in the project site would either not experience an increase in trips as a result of traffic redistribution or are not located proximate to existing sensitive uses. As shown in Table 4, the redistribution of trips associated with the proposed project would result in a maximum 0.4 dBA  $L_{dn}$  increase (along the proposed Front Street viaduct, adjacent to the Embassy Suites) in local roadway noise at sensitive receptors due to the traffic increase in this area. The roadway profile of the proposed Front Street viaduct would also be raised with implementation of the proposed project. This would also contribute to the noise level increase to the nearby hotel receptors.

The proposed construction of the N Street bridge would also redirect traffic closer to sensitive receptors in the area surrounding the proposed bridge, including the Embassy Suites; however, the N Street bridge would be farther from the hotel than the reconfigured Front Street. However, it should be noted that the hotel is also in the vicinity of I-5, which contributes significantly to the ambient noise levels in the area. As shown in Table 3, above, ambient noise levels in the vicinity of I-5 can be as high as 77 dBA, which is much higher than the predicted noise level along the proposed Front Street viaduct of approximately 61 dBA. Since no other roadway segments in proximity to sensitive receptors would result in traffic increase greater than those predicted for Front Street, the noise level increase for other sensitive receptors in the area would be less than 0.4 dBA. As such, the proposed project would not exceed City of Sacramento thresholds and impacts would be less than significant. No mitigation is required.

<b>TRAFFIC NOISE LEVELS WITH AND WITHOUT THE PROPOSED PROJECT<sup>a,b</sup></b>			
<b>Roadway Segment</b>	<b>Existing Noise Levels (<math>L_{dn}</math>)</b>	<b>With Project Noise Levels (<math>L_{dn}</math>)</b>	<b>Increase over Existing</b>
3 <sup>rd</sup> Street (between N Street and O Street)	67.9	67.9	0.0
Front Street (between O Street and Neasham Circle)	60.2	60.6	0.4
Note: a. Noise levels are expressed as A-weighted decibels (dBA) and were calculated based on peak-hour traffic volumes provided by Fehr & Peers. Source: PBS&J, 2010. b. Noise levels shown in the table are attributable to traffic along the identified roadways and do not account for background noise levels from adjacent streets, including I-5.			

32 Fehr & Peers, 2010. I-5 Reconnection Traffic Impact Analysis. July 21, 2010.

**B) Construction**

Groundborne vibration levels associated with construction equipment that would likely be used within the vicinity of the project site are shown in Table 5. The most substantial vibration levels typically experienced during construction activities are attributable to pile-driving activities. However, pile driving would only occur during construction of temporary shoring on the west side of the N Street bridge. As shown in the table, only vibration levels from pile driving equipment operating within approximately 50 feet of a sensitive receptor (described above) could exceed the 0.5 inches per second that the City uses as a threshold for structural damage. However, the nearest structure that could be considered sensitive to construction vibration would be the Embassy Suites hotel located approximately 58 feet from the limits of construction. This would be outside the screening distance of 50 feet for potentially significant impacts from pile driving. The closest historic buildings to the construction area would be the Crocker Art Museum and buildings in Old Sacramento. As noted, the most substantial vibration levels would be associated with the pile driving, which would occur only for shoring on the west side of the N Street bridge. The Crocker Art Museum is on the east side of I-5, and would be more than 50 feet from the pile driving area. The buildings in Old Sacramento are more than 50 feet north of the proposed N Street bridge, and as such, vibration levels are not anticipated to exceed City standards. There would be no additional significant environmental effect over those identified in the Master EIR, and no mitigation is required.

<b>TABLE 5</b>	
<b>VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT</b>	
<b>Construction Equipment</b>	<b>PPV at 50 feet (in/sec)</b>
Pile driver (impact)	0.537
Pile driver (sonic)	0.260
Vibratory Roller	0.074
Hoe Ram	0.031
Large Bulldozer	0.031
Caisson drilling	0.031
Loaded Trucks	0.027
Jackhammer	0.012
Small Bulldozer	0.001
Source: FTA, Transit Noise and Vibration Impact Assessment, May 2006, p. 12-12; PBS&J, 2010.	

**Operation**

The proposed project would not introduce new roadways adjacent to potentially vibration-sensitive uses, including residences and hotels. Neasham Circle adjacent to the Embassy Suites Hotel would be reconfigured with a new Front Street viaduct constructed above the existing Neasham Circle between N Street and Capitol Mall. The reconfiguration would move traffic closer to the hotel. The Master EIR identifies that significant operational vibration impacts would be related to the placement of sensitive uses near a rail line or major freeway, not local roadways. As such, there would be no additional significant environmental effect over those identified in the Master EIR, and no mitigation is required.

- C) As discussed in Item A) above, noise levels along local roadway segments would not increase by more than 0.4 dBA with implementation of the proposed project, and as such, noise impacts

from project-related traffic along local roadways would be less than significant. No mitigation is required.

- D) As discussed under Item A) above, construction of the project would require the use of heavy equipment for demolition of the Caltrans generator building and monitoring well, land clearing, grading, trenching, and construction. The project would also require the use of pile drivers for temporary shoring during construction of the N Street bridge. Noise generated during demolition and construction of the proposed project would be required to comply with the City of Sacramento Noise Ordinance. As required by Section 8.68.080(E) of the City Code, construction activities would be limited to occur only between the hours of 7:00 a.m. and 6:00 p.m., Monday through Saturday, and 9:00 a.m. and 6:00 p.m. on Sundays and public holidays. Section 8.68.080(E) also requires the use of exhaust and intake silencers for internal combustion engines used during construction to reduce noise levels associated with construction activities. As such, the proposed project would not create significant temporary or periodic increases in ambient noise levels. There would be no additional significant environmental effect over those identified in the Master EIR, and no mitigation is required.

### **Mitigation Measures from 2030 General Plan Master EIR**

**Interior Vibration Standards.** The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or FTA criteria.

**Vibration.** In addition, Mitigation Measure 6.8-6 states that the City shall require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archeological sites and require all feasible mitigation measures be implemented to ensure no damage would occur.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
<b>9. PUBLIC SERVICES</b> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:			
A) Fire protection?			X
B) Police protection?			X
C) Schools?			X

**Environmental Setting**

The project site is in a developed portion of the City of Sacramento. The Sacramento Police Department and Sacramento Fire Department provide law enforcement services and fire protection and emergency services for the project site, respectively. The project site is located within the Sacramento City Unified School District. The nearest library is the Sacramento Public Library, at 828 I Street.

**Standards of Significance**

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, or school facilities beyond what was anticipated in the 2030 General Plan.

**Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects**

*Impact 6.10-1: Implementation of the General Plan could result in the construction of new, or the expansion of existing, facilities related to the provision of police protection.*

*Impact 6.10-2: Implementation of the General Plan could result in the construction of new, or the expansion of existing facilities related to the provision of fire protection.*

*Impact 6.10-3: Implementation of the General Plan would generate additional elementary, middle, and high school students in the Policy Area.*

*Impact 6.10-4: Implementation of the General Plan would generate additional higher education students in the Policy Area.*

*Impact 6.10-5: Implementation of the General Plan combined with other development within the seven school districts that extend outside the Policy Area would generate additional elementary, middle, and high school students.*

*Impact 6.10-6: Implementation of the General Plan combined with other development outside of the Policy Area would generate additional higher education students.*

*Impact 6.10-7: Implementation of the General Plan could result in the construction of new, or the expansion of existing facilities related to the provision of library services.*

*Impact 6.10-8: Implementation of the General Plan combined with other development within the Sacramento Public Library Authority service area could result in the construction of new, or the expansion of existing facilities related to the provision of library services.*

*Impact 6.10-9: Implementation of the General Plan could result in the construction of new, or the expansion of existing emergency response facilities related to the provision of emergency services.*

*Impact 6.10-10: Implementation of the General Plan combined with other development served by emergency services in the region could result in the construction of new, or the expansion of existing emergency response facilities related to the provision of emergency services.*

Implementation of the General Plan was determined to result in less-than-significant impacts to the provision of police and fire protection, as well as schools. Although full buildout of the General Plan would result in the need for expanded and new facilities for all three public services, it was determined that compliance with General Plan policies regarding the provision of police and fire protection, and payment of the developer impact fees would ensure that adequate protection would be provided to serve the anticipated increase in demand. Payment of the fees per Senate Bill 50 is considered complete mitigation for the purposes of CEQA. Similarly, the cumulative effects of development in accordance with the General Plan were determined to result in less than significant impacts to the provision of police and fire protection and the provision of schools for the above reasons.

The proposed project is consistent with the General Plan's assumptions and conclusions regarding public services for the site in the Master EIR. The project does not propose development that would result in more significant impacts to public services than previously analyzed; and therefore, would not result in an individually minor, but collectively significant project impacts.

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment, must be discussed. The proposed project would not construct new or expanded facilities for the City's Police and Fire Departments, nor would it dedicate a new site for such facilities. Therefore, the project is not considered growth inducing.

## Answers to Checklist Questions

A-C) The proposed project consists of roadway improvements to accommodate planned growth and would not extend into undeveloped land, causing unanticipated growth. The project does not include new land uses or intensification of existing land uses. As such, population and employment are not anticipated to grow beyond existing regional forecasts as a result of implementation of the project.

The proposed project would not remove or alter existing schools, or result in the need for new school facilities. In addition, the widening of Capitol Mall with a new intersection and dedicated left turn lanes, a new bridge over I-5 at N Street, and a new connector structure along 2nd Street from L Street in Old Sacramento to Capitol Mall could improve emergency access to Old Sacramento and the riverfront.

The proposed project would not generate new population that would require additional public services. It would not create additional land uses or population and would not increase the Sacramento police department patrol area. Therefore, there would be no impact on fire protection services, schools, or other public facilities.

## Mitigation Measures from 2030 General Plan Master EIR

No mitigation measures were identified in the 2030 General Plan Master EIR for public services.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
10. RECREATION			
A) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X
B) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X

**Environmental Setting**

The City of Sacramento Department of Parks and Recreation (Parks Department) maintains more than 2,000 acres of developed parkland; manages more than 210 parks; 81 miles of on- and off-road bikeways and trails; 17 lakes, ponds, or beaches; over 20 aquatic facilities; 18 community centers; and provides park and recreation services at city-owned facilities within the City of Sacramento. 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 City Sacramento Department of Parks and Recreation maintains one park in the study area. Crocker Park is a 6.10-acre park adjacent to the Crocker Art Museum and is bounded by Second Street to the west, N Street to the north, 3rd Street to the east, and O Street to the south. The park is mostly unimproved and consists of grassy areas, mature trees, and a picnic area with picnic tables. Public parking is available on each of the streets around the park and at Lot “X” located on N Street.

The City of Sacramento adopted the Sacramento River Parkway Plan in 1997 to guide development along the Sacramento River within the city limits. The Sacramento River is a popular fishing and boating area. A paved bicycle and pedestrian path extends along the east bank of Sacramento River along the edge of the study area and extends well north and south of the project site. Landscaping, hardscape, and seating areas are located along the bicycle and pedestrian path. Currently, access to the river from the study area is from Front Street, between Capitol Mall and O Street. The Sacramento River Parkway Plan recognizes the portion of the Sacramento River Parkway situated near the study area as a high use area, suitable for developed parkland uses. The R Street bike trail that extends from the Sacramento River across I-5 and connects to downtown is south of the project site. The Sacramento River is outside of the study area and is not designated as a Wild and Scenic River. There are no other rivers or waterways within the vicinity of the project site.

## Standards of Significance

For purposes of this Initial Study, impacts to recreational resources are considered significant if the proposed project would do either of the following:

- cause or accelerate substantial physical deterioration of existing area parks or recreational facilities; or
- create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2030 General Plan.

## Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

*Impact 6.9-1: Implementation of the General Plan could result in increased use of existing parks or recreational facilities such that substantial physical deterioration of these facilities could occur.*

*Impact 6.9-2: Implementation of the General Plan could create a need for construction or expansion of recreational facilities beyond what was anticipated in the General and/or Community Plans.*

Implementation of the General Plan was determined to result in less than significant impacts related to increased use of existing parks or recreational facilities and the need for construction or expansion of recreational facilities, beyond that anticipated in the General Plan.

The proposed project is consistent with the General Plan's assumptions and conclusions regarding recreation for the site in the Master EIR. The project does not propose development that would result in a greater level of impacts to park and recreational facilities than previously analyzed; and therefore, would not result in an individually minor, but collectively significant project impact.

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment, must be discussed. The provision of park and recreational facilities are not considered growth inducing.

## Answers to Checklist Questions

A-B) The City Sacramento Department of Parks and Recreation maintains one park in the project area. Crocker Park is a 6.10-acre park that is mostly unimproved and consists of grassy areas, mature trees, and a picnic area with picnic tables. The improvements to O Street and construction of the new O Street Bridge would occur near the park but would not extend east of 2<sup>nd</sup> Street. The addition of a sidewalk along the south side of N Street adjacent to Crocker Park would occur within existing City right-of-way and would not change the purpose of or access to the park. The existing picnic facilities, trees, and grassy areas would not be affected or removed and the park would not be impaired by project construction or operation.

A portion of the Sacramento River Parkway is situated near the study area. A paved bicycle and pedestrian path extends along the east bank of Sacramento River along the edge of the study area and extends well north and south of the project site. Landscaping, hardscape, and

seating areas are located along the bicycle and pedestrian path. The proposed project includes the extension of N Street across I-5 and the realignment of Front Street with Capitol Mall to accommodate planned growth. The roadway improvements would not affect access to the Sacramento River or the bicycle and pedestrian path that extends along its east bank.

The proposed project consists of roadway improvements to accommodate planned growth and would not extend into undeveloped land, causing unanticipated growth. The project does not include new land uses or intensification of existing land uses. As such, population and employment are not anticipated to grow beyond existing regional forecasts and would not increase demand for recreation and park space. Because the proposed project would not increase demand, no new recreation facilities or expansion of existing recreation facilities would be necessary as a result of the proposed project. No public parklands or recreational facilities would be removed, deteriorated, or altered and would not be directly or indirectly impacted by the project. There would be no impact on recreational resources.

### **Mitigation Measures from 2030 General Plan Master EIR**

No mitigation measures were identified in the 2030 General Plan Master EIR for recreation.

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
11. PUBLIC UTILITIES Would the project:			
A) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X
B) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X
C) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X
D) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X
E) Result in a determination by the wastewater treatment provider which serves or may serve the project's projected demand in addition to the provider's existing commitments?			X

**Environmental Setting**

The City of Sacramento is primarily supplied with surface water from the Sacramento and American Rivers. The City diverts water pursuant to riparian and pre-1914 rights to divert 75 cubic feet per second (cfs) from the Sacramento River and secured five additional appropriative water rights with various priorities from October 1947 to September 1954. Sacramento River permit 00992 and American River permits 011358 and 011361 authorize the taking of water from the respective sources by direct diversion. The other two permits, 011359 and 011360, authorize re-diversion and consumptive uses of stored water and releases from the Upper American River Project. In addition, the City maintains 32 groundwater wells for potable and non-potable use; 23 wells are actively used to supply drinking water. The current system can supply 24 million gallons per day (mgd) and produce up to 26,800 AFA.

Wastewater treatment within the City of Sacramento is provided by the Sacramento Regional County Sanitation District (SRCSD). SRCSD operates all regional interceptors and wastewater treatment plants serving the City except for the combined sewer and storm drain treatment facilities which are operated by the City of Sacramento. The City provides wastewater collection to about two-thirds of the area within the city limits, which is comprised of two distinct areas; the area served by the CSS and the areas served by a separated sewer system. The City provides sewer service to the following

community plan areas: Central City, Land Park, Pocket, North Sacramento, and portions of Arden-Arcade, South Sacramento, East Sacramento, East Broadway, and Airport Meadowview. The proposed project would be served by the City.

The Sacramento Regional Wastewater Treatment Plant (SRWTP) is owned and operated by SRCSD and provides sewage treatment for the entire City. Sewage is routed to the wastewater treatment plant by collections systems owned by CSD-1 and the cities of Sacramento and Folsom. SRWTP is high-purity oxygen activated sludge facility, and is permitted to treat an average dry weather flow (ADWF) of 181 million gallons per day (mgd) and a daily peak wet weather flow of 392 mgd. The facility's ADWF is approximately 150 mgd. The majority of the treated wastewater is dechlorinated and discharged into the Sacramento River. The SRCSD maintains the regional interceptors that convey sewage to the treatment plant.

Commercial waste collection in the City is performed by both City and permitted private haulers; the City collects all residential solid waste. Residential and commercial solid waste collected by the City is transported to the Sacramento Recycling and Transfer Station (8491 Fruitridge Road) and is then transported to Lockwood Landfill, near Sparks, Nevada. Commercial waste collected by private companies is disposed of at a variety of facilities including the Sacramento County Keifer Landfill, the Yolo County Landfill, Forward Landfill, L and D Landfill, Florin Perkins Landfill, and several privately run transfer stations. Private haulers can deliver waste to the landfill of their choice; they typically select the most cost-efficient option.

### **Standards of Significance**

For purposes of this Initial Study, impacts to public utilities may be considered significant if the proposed project would result in one or more of the following:

- Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments or
- Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

### **Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects**

*Impact 6.11-1: Implementation of the General Plan would increase demand for potable water.*

*Impact 6.11-2: Implementation of the General Plan would result in an increase in demand for potable water in excess of the City's existing diversion and treatment capacity, and could require the construction of new water supply facilities.*

*Impact 6.11-3: Implementation of the General Plan would generate additional wastewater and stormwater that could require the expansion of existing conveyance and treatment facilities.*

*Impact 6.11-4: Implementation of the General Plan would require the need for expansion of wastewater treatment facilities, which could cause significant environmental effects.*

*Impact 6.11-5: Implementation of the General Plan, in combination with future development in the SRCSD Service Area, would require expansion of wastewater conveyance and treatment capacity to serve the project's sewer needs in addition to existing commitments.*

*Impact 6.11-6: Implementation of the General Plan, in combination with future development in the lower Sacramento River watershed, would increase the demand for storm drainage infrastructure.*

*Impact 6.11-7: Implementation of the General Plan could result in the construction of new solid waste facilities or expansion of existing facilities.*

*Impact 6.11-8: Implementation of the General Plan, along with other future development in the SRCSWA service area could result in the need for construction of new solid waste facilities or expansion of existing facilities.*

*Impact 6.11-9: Implementation of the General Plan would not require or result in the construction of new energy production or transmission facilities.*

*Impact 6.11-10: Implementation of the City of Sacramento 2030 General Plan combined with other development within the areas serviced by SMUD and PG&E would result in permanent and continued use of electricity and natural gas resources.*

*Impact 6.11-11: Implementation of the 2030 General Plan could require the construction of new or expansion of existing telecommunication facilities.*

*Impact 6.11-12: Implementation of the City of Sacramento 2030 General Plan would result in permanent and continued need for telecommunication services.*

Implementation of the General Plan was determined to result in less than significant impacts, both at the project and cumulative levels, to facilities for solid waste, energy, and telecommunications. The increased demand for potable water was determined to be in excess of the City's existing diversion and treatment capacity and; therefore, could require the construction of new water supply facilities. This impact was determined to be significant and unavoidable and was overridden by the City Council. Similarly, the increased demand for wastewater treatment would require new treatment facilities, construction of which would result in a significant and unavoidable impact. The City Council adopted a Statement of Overriding Considerations for this impact. The cumulative impacts related to water treatment and wastewater treatment were determined to be significant and unavoidable. Again, the City Council adopted Statements of Overriding Considerations.

The proposed project is consistent with the General Plan's assumptions and conclusions regarding public utilities for the site in the Master EIR. The project does not propose development that would result in more significant impacts to public services than previously analyzed; and therefore, would not result in an individually minor, but collectively significant project impact.

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment, must be discussed. The proposed project would not

upsized pipe sizes, extend pipes to previously unserved areas or make other improvements to utility systems that could induce new growth. Therefore, the project is not considered growth inducing.

### Answers to Checklist Questions

A, B,

D-E) The proposed project includes vehicular, pedestrian, and bicycle access and connectivity improvements. No land uses would be changed or added as a result of the proposed project. No population would be added to the project site. The proposed project would consist of hardscape improvements with only limited amount of irrigated landscaping for plant establishment. As a result, there would be no demand for water, wastewater, or solid waste services. Therefore, there would be no impact.

C) The proposed project includes vehicular, pedestrian, and bicycle facilities to the project site. Specifically, the existing O Street overcrossing would be widened by approximately five feet to accommodate a new sidewalk along the south side of the bridge, a new N Street overcrossing with sidewalks would be constructed across I-5 from 2nd Street on the east to Front Street on the west side of I-5, a new sidewalk would be added to the south side of N Street from 2nd Street to 3rd Street, and a new connector structure along 2nd Street would be constructed from L Street in Old Sacramento to a new intersection at Capitol Mall and extend south to connect with a realigned Front Street. Capitol Mall between Neasham Circle and 3rd Street would be reconfigured to provide for wider sidewalks, Class II bicycle facilities (bike lanes), two traffic lanes in each direction, and a center median. Although the total increase of runoff flow due to impervious surface area being added would be minimal, these improvements would change the pattern of stormwater runoff created in the project site. Any storm runoff from the new bridge would be handled by the existing drainage structures and the existing pump station. In addition, any change in drainage patterns from local road realignment would be mitigated by the use of existing drainage structures, and the relocation of drainage structures, as necessary. Therefore, there would be no additional significant environmental effect over those identified in the Master EIR.

### Mitigation Measures from 2030 General Plan Master EIR

Mitigation Measure 6.11-2 was identified in the 2030 General Plan Master EIR to address the possible construction of new water treatment facilities. The proposed project would not increase the demand for potable water in excess of the City's existing diversion and treatment capacity. Therefore, this mitigation measure would not apply to the proposed project.

<b>Issues:</b>	<b>Effect will be studied in the EIR</b>	<b>Effect can be mitigated to less than significant</b>	<b>No additional significant environmental effect</b>
12. TRANSPORTATION AND CIRCULATION Would the project:			
A) Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X
B) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X
C) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X
D) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X
E) Result in inadequate emergency access?			X
F) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X
G) Result in inadequate parking capacity?			X

A Traffic Impact Analysis for the project and PSR alternatives was completed by Fehr & Peers. The proposed project is addressed in the Traffic Impact Analysis as Alternative 3. The purpose of this analysis was to identify potential environmental impacts to transportation facilities. For more details about the traffic study, see Appendix B.

## Environmental Setting

### *Roadway Network*

The study area includes intersections along Front Street, 2nd Street, and 3rd Street in the area of Sacramento south of I Street, west of 5th Street, north of R Street, and east of the Sacramento River. The area selected for the study is most likely to experience traffic effects from the proposed project. The following discusses the roadways in the study area.

I-5 is a major regional freeway extending from Mexico through the Sacramento metropolitan area to Canada through the states of Oregon and Washington. In the study area, I-5 is an eight-lane freeway with partial interchanges at J Street, I Street, L Street, P Street, and Q Street.

Capitol Mall connects the study area to downtown Sacramento and provides access to the City of West Sacramento via the Tower Bridge. Two mixed-flow lanes are provided in each direction.

3rd Street is an arterial that extends from I Street to Broadway. South of L Street, 3<sup>rd</sup> Street is a one-way (southbound) three-lane street.

P Street is an arterial that extends from I-5 to Alhambra Boulevard. From I-5 to 16th Street, P Street is a one-way (westbound) three-lane street.

Q Street is an arterial that extends from I-5 to Alhambra. From I-5 to 16th Street Q Street is a one-way (eastbound) three-lane street.

Front Street is a two-lane north-south roadway that extends from I Street to Broadway with a break south of Capitol Mall.

2nd Street is a two-lane north-south roadway that extends from I Street to S Street with breaks at Capitol Mall and between P Street and Q Street.

Neasham Circle is a two-lane north-south roadway that connects 2nd Street to Front Street.

### *Bicycle and Pedestrian Facilities*

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals, if present. Most of the streets in the project vicinity have sidewalks and most intersections controlled by a traffic signal have crosswalks. The exception is Front Street, which does not have sidewalks south of O Street.

Bicycle facilities include bike paths, lanes, and routes. Bike paths (Class I facilities) are paved trails that are physically separated from roadways. Bike lanes (Class II facilities) are lanes on roadways designated for bicycle use by striping, pavement legends, and signs. Bike routes (Class III facilities) are roadways designated for bicycle/motor vehicle shared use and include signs, but no special pavement markings. Figure 11 shows the location of bicycle facilities. According to the City's Bicycle Master Plan major bicycle facilities in the downtown area include:

- Front Street from Broadway to 2nd Street
- 11th Street from Broadway to N Street and from J Street to E Street
- 13th Street from L Street to E Street
- Sacramento River Levee Bike Path from Front Street to Broadway (Miller Park)
- O Street from Front Street to 2nd Street
- Capitol Mall from the Sacramento River (Tower Bridge) to 3rd Street
- Capitol Avenue from 15th Street to 30th Street
- N Street from 3rd Street to 13th Street
- Sacramento River Levee Bike Path from I Street to Jibboom Street (American River Trail)



Source: Fehr & Peers, 2010.

**ATKINS**

**FIGURE 11**  
**Existing Bicycle Facility Map**

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I-5 Riverfront Reconnection Project

### *Transit Facilities*

The Sacramento Regional Transit District (RT) provides the majority of the public transit service (light rail and bus) within the project site, as shown in Figure 12. However, bus transit service is also provided by Yolobus, Folsom Stage Lines, Yuba-Sutter Transit, Solano Transit, Roseville Transit, El Dorado Transit, Elk Grove Transit (e-trans), and San Joaquin Regional Transit District. Train service is provided by Amtrak and the Capitol Corridor train service. Train service is provided at the Sacramento Valley Train Station at 4th Street and I Street. The closest RT light rail stations are at 7th Street and Capitol Mall, 8th Street and Capitol Mall, and on O Street between 7th Street and 9th Street. Light rail service extends from the City of Folsom to the Sacramento Valley Train Station and from Meadowview Road to Watt Avenue/I-80 (South Line). There is an extension of service under construction that would extend service to Richards Boulevard. Planning is underway to extend the South Line to Cosumnes River College and to construct a new line from downtown to the Sacramento International Airport by way of South and North Natomas.

### *Study Area*

The following eighteen study intersections were selected in consultation with the City of Sacramento staff as the intersections most likely to be affected by this project:

1. Front Street/O Street
2. Front Street/Neasham Circle (future N Street)
3. Front Street/Capitol Mall
4. Front Street/L Street
5. 2nd Street/ R Street
6. 2nd Street/Q Street
7. 2nd Street/P Street
8. 2nd Street/Neasham Circle
9. 2nd Street/L Street
10. 2nd Street/ O Street
11. 3rd Street/R Street
12. 3rd Street/Q Street
13. 3rd Street/P Street
14. 3rd Street/O Street
15. 3rd Street/N Street
16. 3rd Street/Capitol Mall
17. 3rd Street/L Street
18. 2nd Street/Capitol Mall (future)

**LEGEND**

- +++++ Sacramento LRT
- Roseville Transit
- El Dorado Transit
- San Joaquin RTD
- Yuba-Sutter Transit
- YoloBus Route
- e-Trans Route
- Sacramento RT Route



Source: Fehr & Peers, 2010.



**ATKINS**

**FIGURE 12**  
**Existing Transit Map**

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I-5 Riverfront Reconnection Project

### *Traffic Counts*

Turning movement counts were conducted at the study intersections in late September and early October 2004 and during the last week of January 2005 during the morning (7:00 to 9:00 a.m.) peak period and evening (4:00 to 6:00 p.m.) peak period. For each intersection count period, the hour with the highest traffic volume was identified as the peak hour. The AM peak hour generally occurred from 7:30 to 8:30 a.m. The PM peak hour generally occurred from 4:30 to 5:30 p.m. Existing peak hour turning movement volumes, lane configuration, and traffic control are shown on Figure 13. When the traffic counts were taken 2<sup>nd</sup> Street between O Street and P Street was a two-way street. The expansion of the Crocker Art Galley has converted 2nd Street to one-way (northbound) operation.

Although conditions have changed since 2004, traffic volumes in the study area have not significantly changed. This is due to limited new development in the downtown area and the economic downturn that has since occurred. Recent AM peak hour traffic counts conducted in February 2011 at four of the study intersections show an overall -0.4 percent decrease in traffic volume along the 3<sup>rd</sup> Street corridor when compared to the 2004 counts. At three of the four locations available for comparison, total AM peak hour intersection volume is lower than the 2004 traffic volumes. Therefore, for the purposes of this analysis, the use of 2004 counts is appropriate.

### **Standards of Significance**

In accordance with CEQA, the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. For the purposes of this analysis, an impact is considered significant if implementation of the project would have any of the effects described below.

The standards of significance in this analysis are based upon the current practice of the appropriate regulatory agencies. For most areas related to transportation and circulation, policies from the City of Sacramento 2030 General Plan have been used. For the freeway system, Caltrans' standards were used.

### Roadway Segments

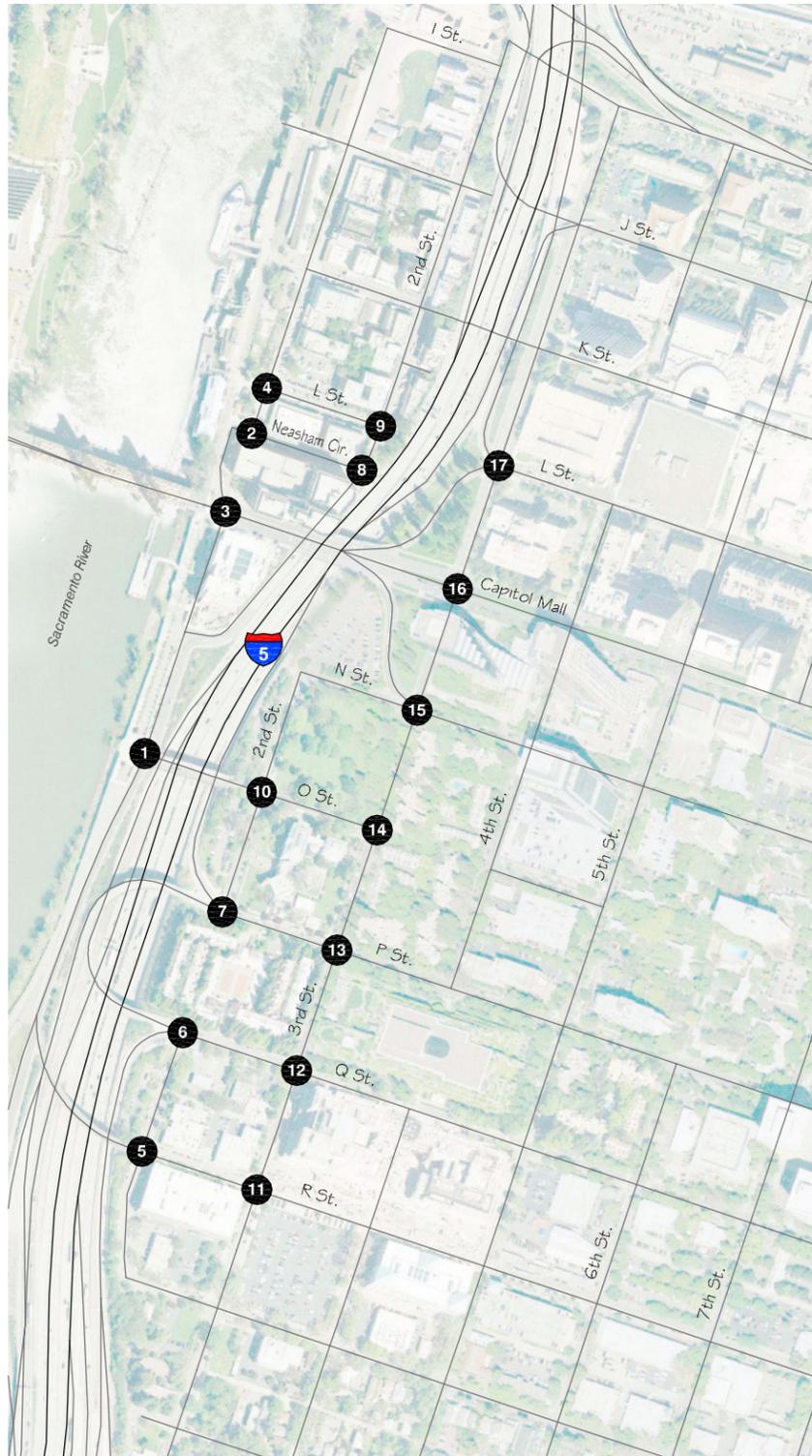
A significant traffic impact occurs for roadway segments when:

- The traffic generated by a project degrades peak period Level of Service (LOS) from acceptable LOS (without the project) to unacceptable LOS (with project); or
- The LOS (without project) is unacceptable, and project generated traffic increases the Volume-to-Capacity Ratio (V/C ratio) by 0.02 or more.

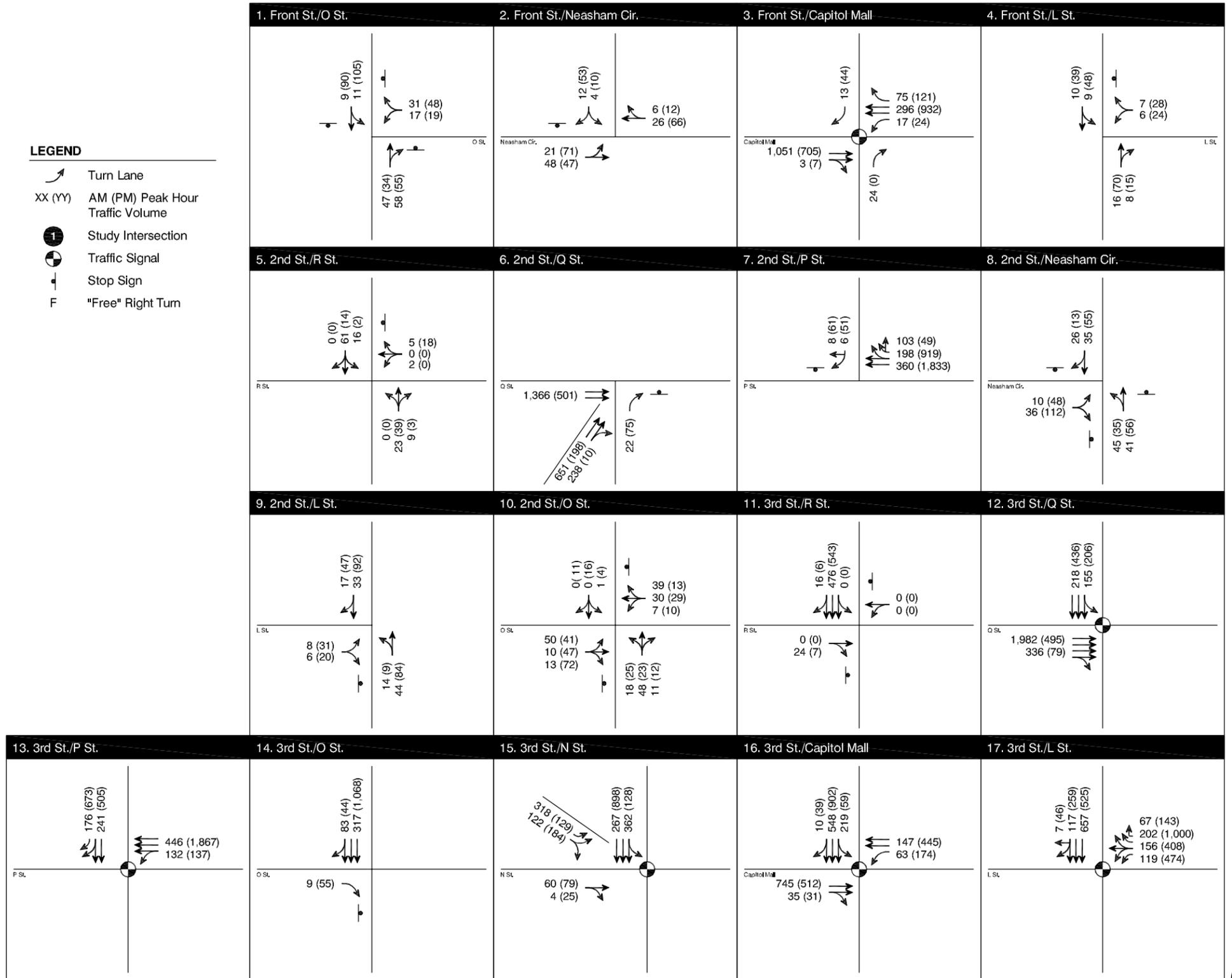
### Intersections

A significant traffic impact occurs when:

- The traffic generated by the project degrades level of service (LOS) from an acceptable LOS (without the project) to an unacceptable LOS (with the project);



- LEGEND**
- Turn Lane
  - XX (YY) AM (PM) Peak Hour Traffic Volume
  - Study Intersection
  - Traffic Signal
  - Stop Sign
  - F "Free" Right Turn



Source: Fehr & Peers, 2010.



**FIGURE 13**  
**Peak Hour Traffic Volumes and Lane Configuration – Existing Conditions**

100015514



- The level of service (without project) is unacceptable and project generated traffic increases the average vehicle delay by 5 seconds or more.

General Plan Mobility Element Policy M 1.2.2 sets definitions for what is considered an acceptable level of service. All eighteen study intersections are located within the Core Area (Downtown Sacramento) are governed by M 1.2.2 (a). LOS F is acceptable during peak hours, provided that the project provides improvements to other parts of the citywide transportation system within the project site vicinity (or within the area affected by the project's vehicular traffic impacts) to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. Road widening or other improvements to road segments are not required.

### Freeway Facilities

Caltrans considers the following to be significant impacts:

- Off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway;
- Project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service;
- Project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility; or
- The expected ramp queue is greater than the storage capacity.

### Transit

Impacts to the transit system are considered significant if the proposed project would:

- Adversely affect public transit operations or
- Fail to adequately provide for access to public transit.

### Bicycle Facilities

Impacts to bicycle facilities are considered significant if the proposed project would:

- Adversely affect bicycle travel, bicycle paths or
- Fail to adequately provide for access by bicycle.

### Pedestrian Circulation

Impacts to pedestrian circulation are considered significant if the proposed project would:

- Adversely affect pedestrian travel, pedestrian paths or
- Fail to adequately provide for access by pedestrians.

## Summary of Analysis under the 2030 General Plan Master EIR, Including Cumulative Impacts, Growth Inducing Impacts, and Irreversible Significant Effects

*Impact 6.12-1: Implementation of the General Plan could result in roadway segments located within the Policy Area that do not meet the City's current LOS C standard or the proposed LOS D-E goal.*

*Impact 6.12-2: Implementation of the General Plan could result in roadway segments located in adjacent jurisdictions that do not meet the jurisdiction's minimum acceptable level of service threshold.*

*Impact 6.12-3: Implementation of the General Plan could result in freeway segments that do not meet the jurisdiction's minimum acceptable level of service threshold.*

*Impact 6.12-4: Implementation of the General Plan could adversely affect transit facilities. .*

*Impact 6.12-5: Implementation of the General Plan could result in an impact on pedestrian facilities.*

*Impact 6.12-6: Implementation of the General Plan would adversely affect bicycle facilities.*

*Impact 6.12-7: Implementation of the General Plan could adversely affect parking facilities.*

*Impact 6.12-8: Implementation of the General Plan could result in a cumulative increase in traffic that would adversely impact the existing LOS for city roadways.*

*Impact 6.12-9: Implementation of the General Plan could result in a cumulative increase in traffic on roadway segments located in adjacent jurisdictions that do not meet the jurisdiction's minimum acceptable level of service threshold.*

The proposed project is consistent with the General Plan's assumptions and conclusions regarding transportation facilities for the site in the Master EIR. The project does not propose development that would result in more significant impacts to transportation than previously analyzed; and therefore, would not result in an individually minor, but collectively significant project impact.

As required by section 15126.2(d) of the CEQA Guidelines, ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment, must be discussed. The proposed project would not increase roadway capacity, extend transportation facilities to previously unserved areas or make other improvements to the transportation system that could induce new growth. Therefore, the project is not considered growth inducing.

### Answers to Checklist Questions

- A) As mentioned above, a Traffic Impact Analysis for the project and PSR alternatives was completed by Fehr & Peers (in Appendix B). The proposed project is addressed in the Traffic Impact Analysis as Alternative 3. . The proposed project would not include new land uses and

would therefore not generate additional trips in the project vicinity. However, the project would result in the redistribution of traffic due to the new roadway and intersection configurations.

## **Existing plus Project Conditions**

### Intersection Operations

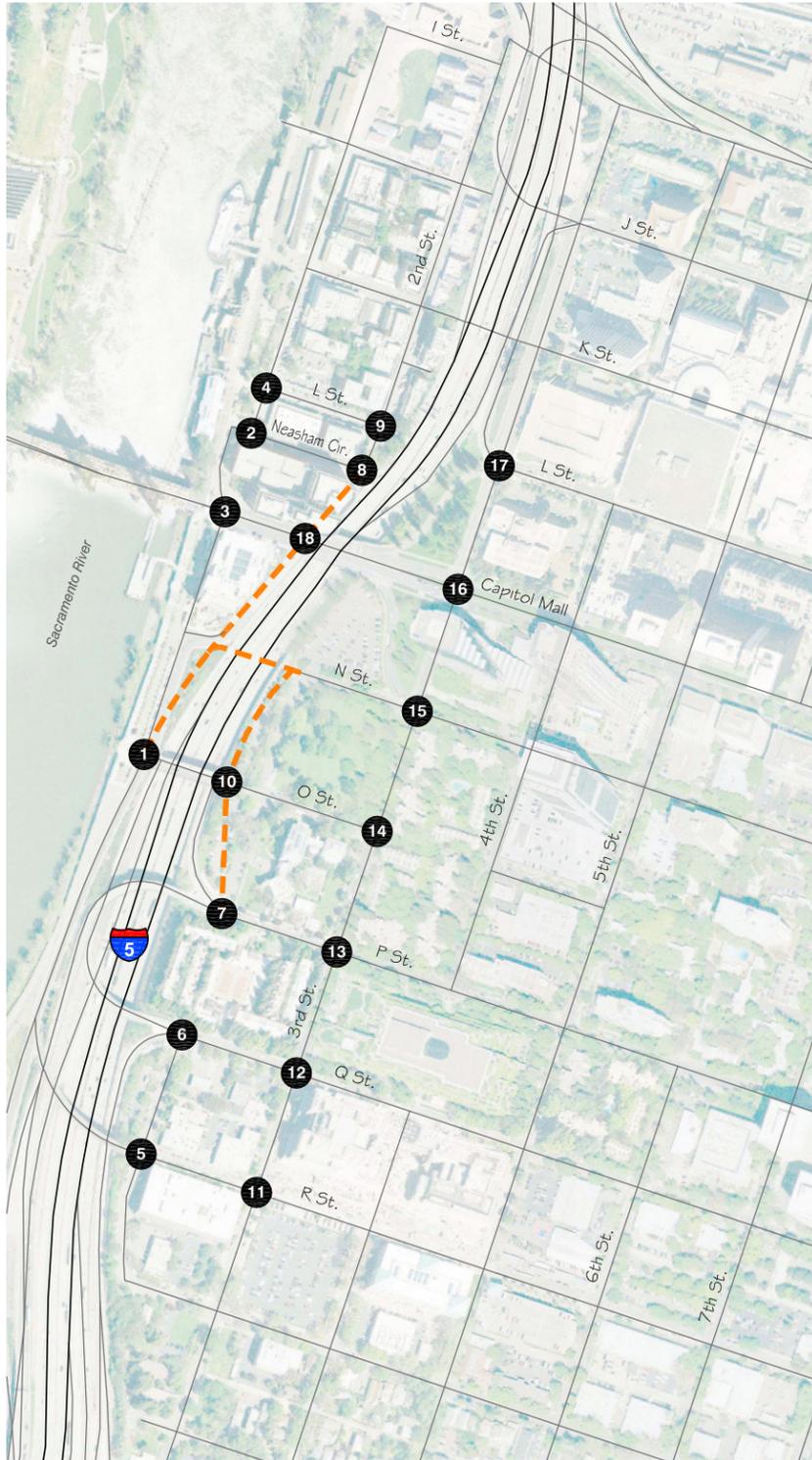
Existing plus Project Conditions traffic volumes at the study intersections are presented on Figure 14. The figures show the lane configurations, peak hour traffic volumes, and traffic control for the with-project conditions. Figure 15 presents the daily traffic volumes, assumed number of lanes, and assumed on-street parking types on the study area roadways.

### *Level of Service*

The AM and PM peak hour operations were evaluated at each study intersection. The detailed peak hour intersection LOS calculations are presented in Appendix B. Table 6 presents the results of the Existing plus Project Conditions. 3rd Street/L Street intersection is projected to operate at LOS F in the PM peak hour.

General Plan Policy M 1.2.2 applies to the study area roadway facilities, therefore, LOS F is acceptable in the Core Area (Area bounded by C Street, the Sacramento River, 30<sup>th</sup> Street and X Street), if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The proposed project would enhance the city grid roadway system, the bicycle network, and pedestrian connectivity; therefore, the proposed project meets the General Plan goals and project-related traffic impacts would not result in an additional impact beyond those identified in the Master EIR.





- LEGEND**
- Turn Lane
  - XX (YY) AM (PM) Peak Hour Traffic Volume
  - Study Intersection
  - Traffic Signal
  - Stop Sign
  - F "Free" Right Turn
  - Alternate Roadway Alignment

<p><b>1. Front St./O St.</b></p>	<p><b>2. Front St./Neasham Cir.</b></p>	<p><b>3. Front St./Capitol Mall</b></p>	<p><b>4. Front St./L St.</b></p>	
<p><b>5. 2nd St./R St.</b></p>	<p><b>6. 2nd St./Q St.</b></p>	<p><b>7. 2nd St./P St.</b></p>	<p><b>8. 2nd St./Neasham Cir.</b></p>	
<p><b>9. 2nd St./L St.</b></p>	<p><b>10. 2nd St./O St.</b></p>	<p><b>11. 3rd St./R St.</b></p>	<p><b>12. 3rd St./Q St.</b></p>	<p><b>13. 3rd St./P St.</b></p>
<p><b>14. 3rd St./O St.</b></p>	<p><b>15. 3rd St./N St.</b></p>	<p><b>16. 3rd St./Capitol Mall</b></p>	<p><b>17. 3rd St./L St.</b></p>	<p><b>18. Capitol Mall/2nd St.</b></p>

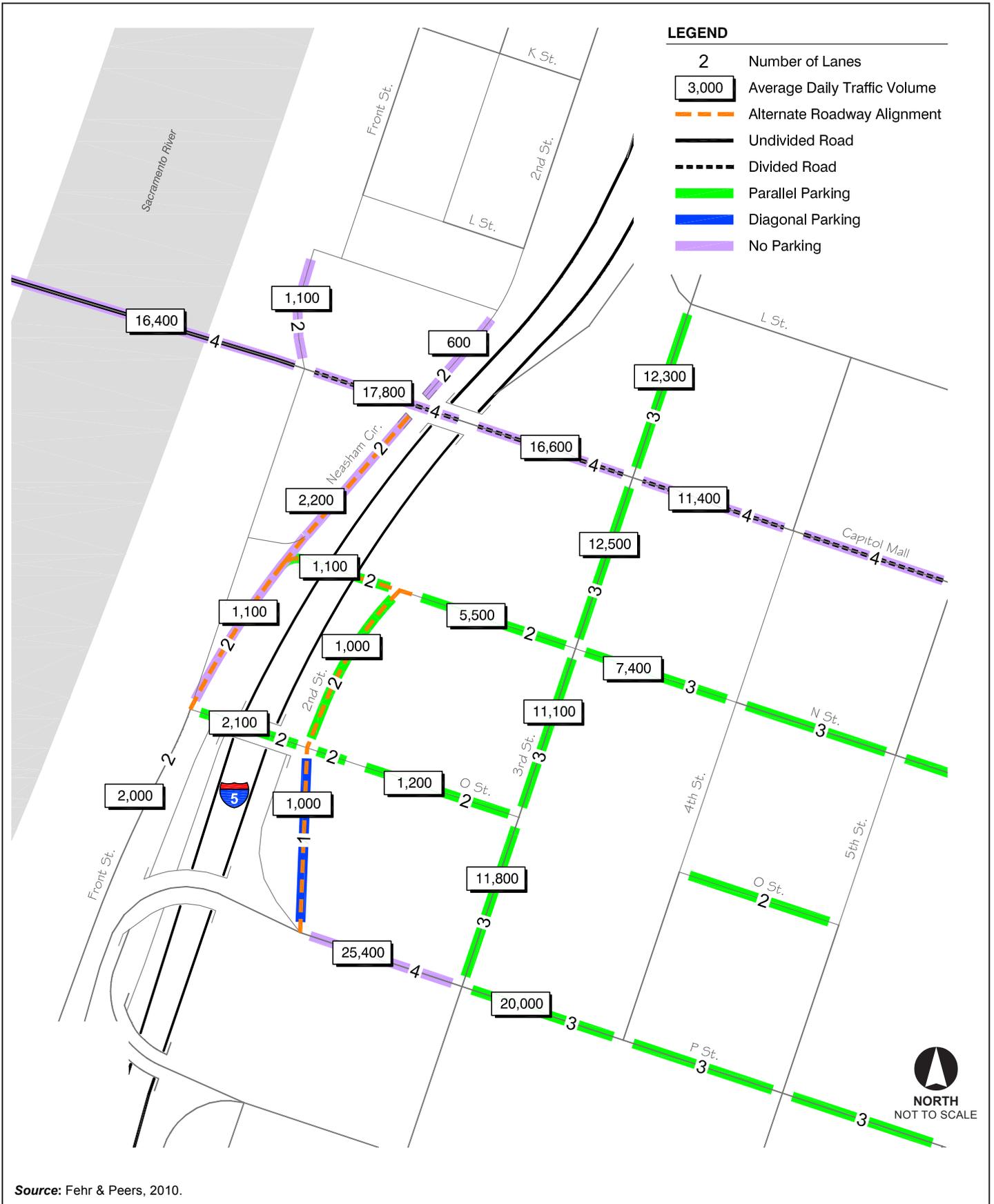
Source: Fehr & Peers, 2010.



**FIGURE 14**  
**Peak Hour Traffic Volumes and Lane Configuration – Existing Conditions with Project**

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Source: Fehr & Peers, 2010.

**ATKINS** **FIGURE 15**  
**Number of Lanes, Parking, and Daily Traffic Volumes - Existing Conditions with Project**  
 100015514 I-5 Riverfront Reconnection Project

TABLE 6						
PEAK HOUR INTERSECTION LEVEL OF SERVICE EXISTING WITH AND WITHOUT PROJECT CONDITIONS						
Intersection	Traffic Control	Peak Hour	Existing		Proposed Project	
			Delay (Sec)	LOS	Delay (Sec)	LOS
1. Front Street/O Street	AWSC <sup>2</sup>	AM	<10	A	<10	A
		PM	<10	A	<10	A
2. Front Street/Neasham Circle (future N Street)	SSSC <sup>3</sup>	AM	<10	A	<10	A
		PM	<10	A	<10	A
3. Front Street/Capitol Mall	Signal <sup>1</sup>	AM	13	B	13	B
		PM	11	B	11	B
4. Front Street/L Street	SSSC	AM	<10	A	<10	A
		PM	<10	A	<10	A
5. 2nd Street/ R Street	SSSC	AM	<10	A	<10	A
		PM	<10	A	<10	A
6. 2nd Street/Q Street	SSSC	AM	14	B	14	B
		PM	10	A	10	A
7. 2nd Street/P Street	SSSC	AM	10	A	<10	A
		PM	22	C	<10	A
8. 2nd Street/Neasham Circle	AWSC	AM	<10	A	<10	A
		PM	<10	A	<10	A
9. 2nd Street/L Street	SSSC	AM	<10	A	<10	A
		PM	10	A	11	B
10. 2nd Street/ O Street	SSSC	AM	10	A	10	B
		PM	10	A	15	B
11. 3rd Street/R Street	SSSC	AM	<10	A	<10	A
		PM	<10	A	<10	A
12. 3rd Street/Q Street	Signal	AM	10	A	10	A
		PM	22	C	22	C
13. 3rd Street/P Street	Signal	AM	<10	A	<10	A
		PM	23	C	23	C
14. 3rd Street/O Street	SSSC	AM	<10	A	<10	A
		PM	11	B	12	B
15. 3rd Street/N Street	Signal	AM	13	B	11	B
		PM	14	B	17	B
16. 3rd Street/Capitol Mall	Signal	AM	31	C	59	E
		PM	22	C	20	B
17. 3rd Street/L Street	Signal	AM	14	B	14	B
		PM	64	E	>80	F
18. 2nd Street/Capitol Mall (future)	Signal	AM	--	--	26	C
		PM	--	--	52	D

Notes: V/C = volume-to-capacity ratio.  
1. Signalized intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000).  
2. AWSC = All Way Stop Control. All-way stop controlled intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000). The overall intersection delays are presented.  
3. SSSC = Side Street Stop Control. Side-street stop-controlled intersection level of service is based on worst-case approach average delay per vehicle (in seconds).  
Source: Fehr & Peers, 2010.

Freeway Operations

Freeway ramp operations are summarized in Table 7.

The Existing Plus Project conditions would be similar to existing conditions without the proposed project. The project would not create additional land uses and would not generate additional traffic trips that would use the freeways or freeway ramps. As shown in Table 7, the proposed project would not increase the volume or density of traffic on the freeway or freeway ramps and the project would not result in an impact on freeway operations.

TABLE 7							
RAMP AND FREEWAY FACILITY LEVEL OF SERVICE EXISTING PLUS PROJECT CONDITIONS							
	Peak Hour	Existing Condition			Proposed Project		
		Volume	Density <sup>1</sup>	LOS <sup>2</sup>	Volume	Density <sup>1</sup>	LOS <sup>2</sup>
1. I-5 southbound Off-ramp to J St. (ramp)	AM	1,810	--	B	1,810	--	B
	PM	1,210	--	B	1,210	--	B
2. I-5 southbound on-ramp from P St. (merge)	AM	366	33.2	D	366	33.2	D
	PM	1,884	--	<b>F</b>	1,884	--	<b>F</b>
3. I-5 northbound on-ramp from P St. (weave <sup>3</sup> )	AM	206	--	<b>F</b>	206	--	<b>F</b>
	PM	980	--	<b>F</b>	980	--	<b>F</b>
Notes: 1 Density reported as passenger cars per mile per lane (pc/mi/ln) in the peak hour. 2 Level of service. 3 Leisch Method for Weaving Analysis used. 4 Demand exceeds capacity. <b>Bold = Unacceptable LOS based on significance criteria defined on page 8 of the 2010 Traffic Impact Analysis.</b>							

**Cumulative Conditions**

Intersection Operations

The analysis of Future Conditions intersection operations was performed using HCM 2000 methods. The analysis was completed using the Synchro software package. The AM and PM peak hour operations were evaluated at each study intersection.

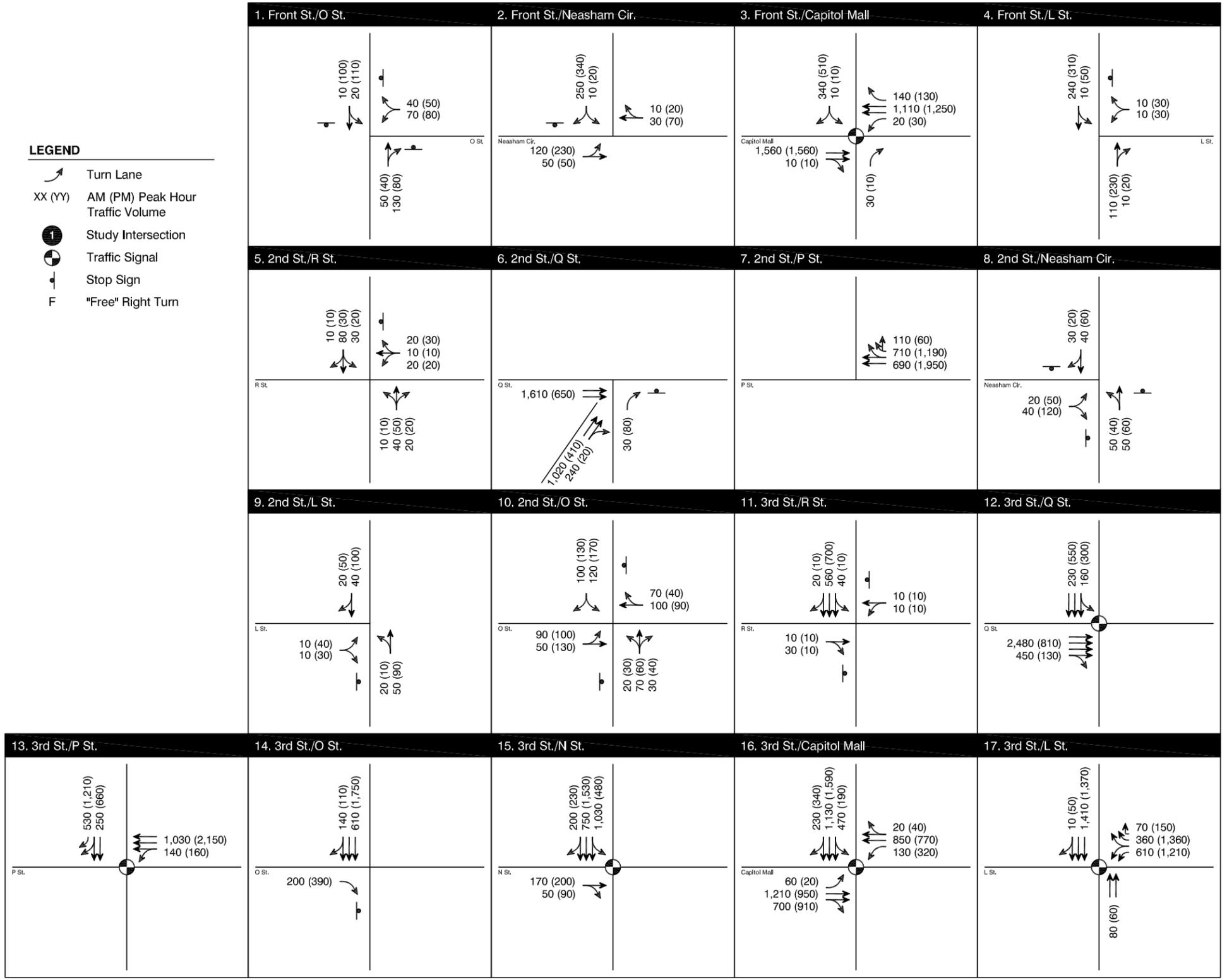
*Future No Project*

Figure 16 displays the anticipated year 2035 AM and PM peak hour turning movements and lane configurations at the study intersections for the Design Year No Project Condition. As shown in Table 8, the following four intersections are projected to operate at LOS F under future cumulative, no project, conditions:





- LEGEND**
- Turn Lane
  - XX (YY) AM (PM) Peak Hour Traffic Volume
  - Study Intersection
  - Traffic Signal
  - Stop Sign
  - F "Free" Right Turn



Source: Fehr & Peers, 2010.



**FIGURE 16**  
**Peak Hour Traffic Volumes and Lane Configuration – Year 2035 No Project**

100015514



- 3rd Street/L Street (LOS F - PM peak hour)
- 3rd Street/Capitol Mall (LOS F - AM and PM peak hours)
- 3rd Street/P Street (LOS F - PM peak hour)
- 3rd Street/N Street (LOS F - PM peak hour)

#### *Future Plus Project*

Figure 17 presents the Design (Year 2035) No Project Condition daily traffic volumes, assumed number of lanes, and assumed on-street parking type for study area roadways.

Project traffic was added to the City of Sacramento roadway network to form the basis of the Design Year Plus Project analysis. Figure 18 shows the Design Year Plus Project traffic volumes. Figure 19 presents the Design (Year 2035) plus Project Condition daily traffic volumes, assumed number of lanes, and assumed on-street parking type for study area roadways.

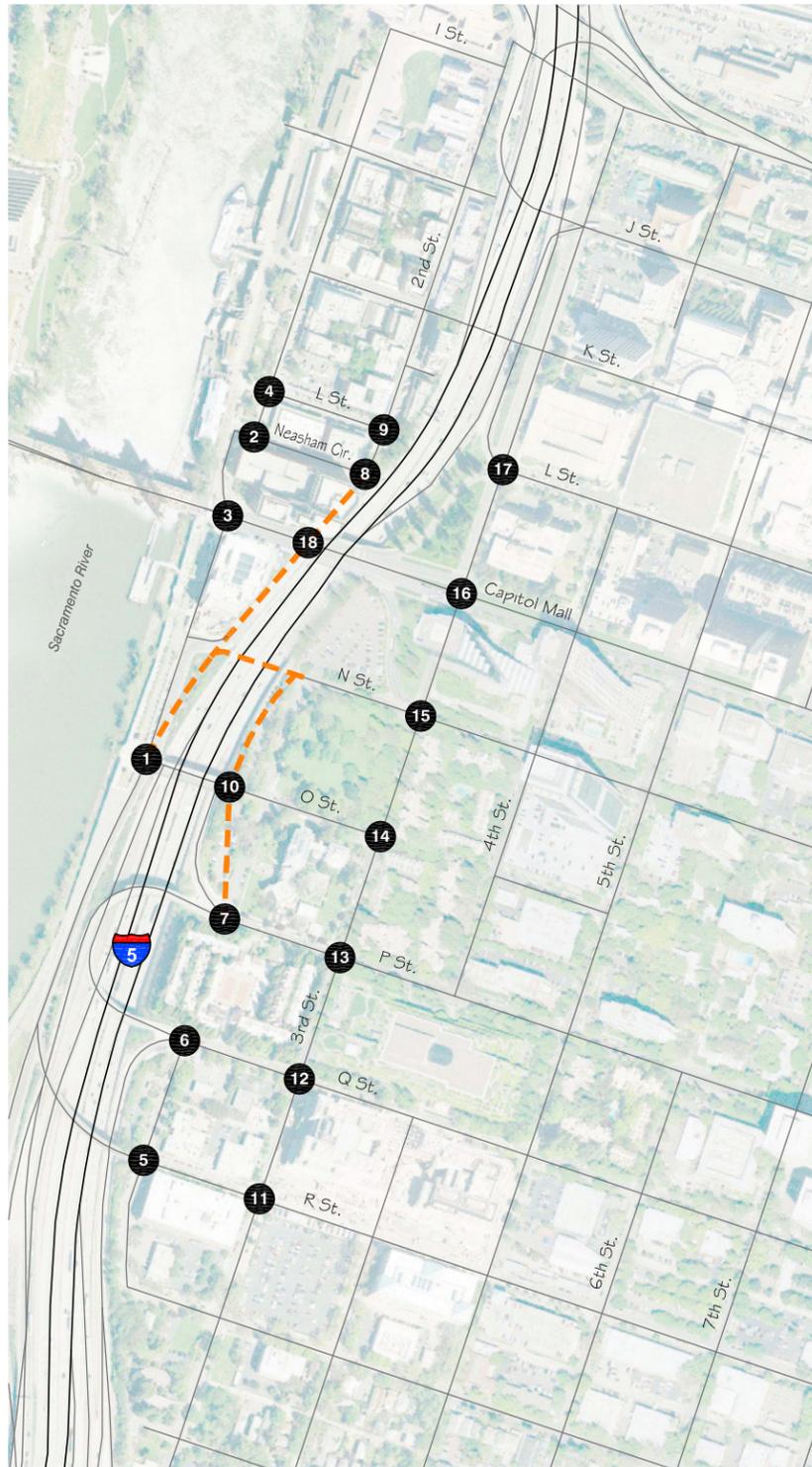
For the proposed project, the following six intersections are projected to operate at LOS F (see Table 8):

- 3rd Street/L Street (LOS F - PM peak hour)
- 3rd Street/Capitol Mall (LOS F - AM and PM peak hours)
- 3rd Street/N Street (LOS F - AM and PM peak hours)
- 2nd Street/Capitol Mall (LOS F - AM and PM peak hours)
- 2nd Street/O Street (LOS F – AM and PM peak hours)
- 3rd Street/O Street (LOS F - PM peak hour)

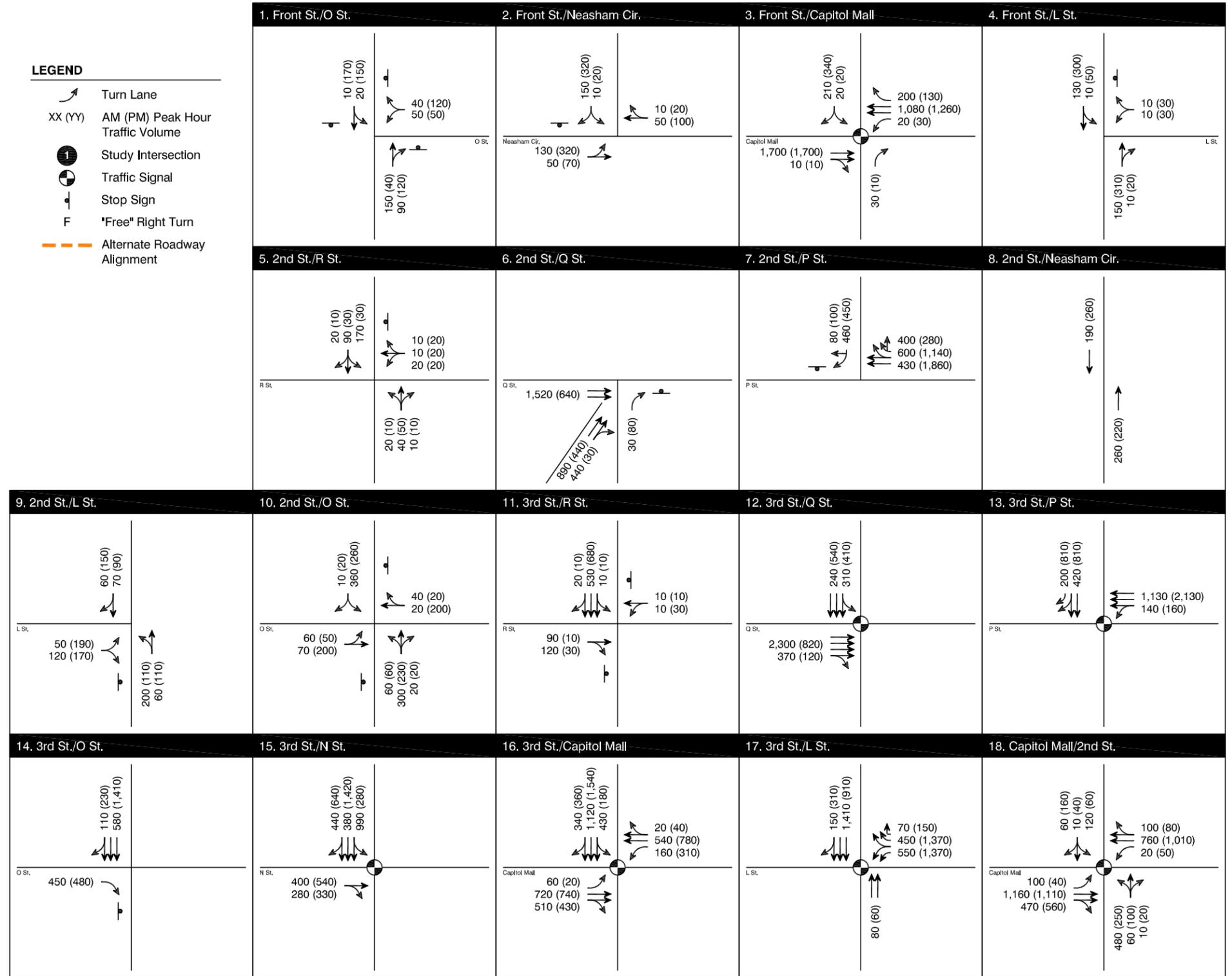
As discussed above, General Plan Policy M 1.2.2, LOS F conditions are acceptable in the downtown Core Area if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. As the proposed project enhances the city grid roadway system, the bicycle network, and pedestrian connectivity, the proposed project meets the General Plan goals and project-related traffic impacts are not significant.

- C) The Sacramento Executive Airport is approximately 5 miles from the project site. The project consists of roadway improvements and therefore does not include any features that would affect airport facilities (e.g., future development, air traffic patterns, etc.) Therefore, no impact would occur.





- LEGEND**
- Turn Lane
  - XX (YY)** AM (PM) Peak Hour Traffic Volume
  - Study Intersection
  - Traffic Signal
  - Stop Sign
  - "Free" Right Turn
  - Alternate Roadway Alignment



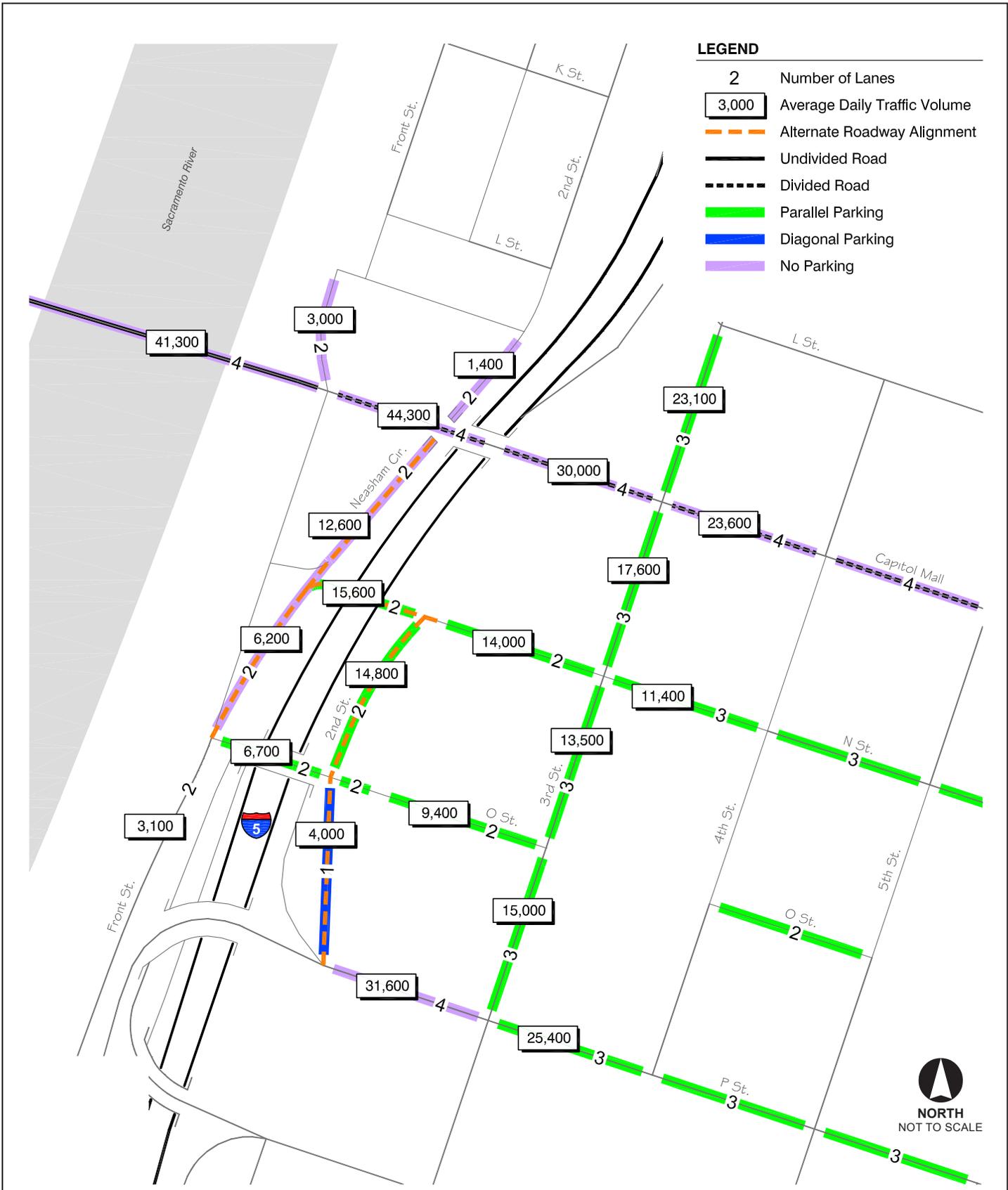
Source: Fehr & Peers, 2010.



**FIGURE 18**  
**Peak Hour Traffic Volumes and Lane Configuration – Year 2035 With Project**

100015514





Source: Fehr & Peers, 2010.

**FIGURE 19**  
**Number of Lanes, Parking, and Daily Traffic Volumes - Year 2035 With Project**



100015514

I-5 Riverfront Reconnection Project

TABLE 8						
PEAK HOUR INTERSECTION LEVEL OF SERVICE DESIGN YEAR WITH AND WITHOUT PROJECT CONDITIONS						
Intersection	Traffic Control	Peak Hour	Existing		Proposed Project	
			Delay (Sec)	LOS	Delay (Sec)	LOS
1. Front Street/O Street	AWSC <sup>2</sup>	AM	<10	A	<10	A
		PM	<10	A	10	A
2. Front Street/Neasham Circle (future N Street)	SSSC <sup>3</sup>	AM	10	A	10	A
		PM	12	B	12	B
3. Front Street/Capitol Mall	Signal <sup>1</sup>	AM	15	B	14	B
		PM	54	D	24	B
4. Front Street/L Street	SSSC	AM	10	A	10	A
		PM	12	B	13	B
5. 2nd Street/ R Street	SSSC	AM	10	A	13	B
		PM	<10	A	10	A
6. 2nd Street/Q Street	SSSC	AM	17	C	18	C
		PM	11	B	11	B
7. 2nd Street/P Street	SSSC	AM	<10	A	<10	A
		PM	<10	A	<10	A
8. 2nd Street/Neasham Circle	AWSC	AM	<10	A	<10	A
		PM	<10	A	<10	A
9. 2nd Street/L Street	SSSC	AM	<10	A	12	B
		PM	10	A	18	C
10. 2nd Street/ O Street	SSSC	AM	20	C	>50	F
		PM	40	E	>50	F
11. 3rd Street/R Street	SSSC	AM	13	B	14	B
		PM	13	B	12	B
12. 3rd Street/Q Street	Signal	AM	11	B	12	B
		PM	18	B	19	B
13. 3rd Street/P Street	Signal	AM	12	B	11	B
		PM	>80	F	76	E
14. 3rd Street/O Street	SSSC	AM	11	B	15	C
		PM	39	E	>50	F
15. 3rd Street/N Street	Signal	AM	21	C	>80	F
		PM	>80	F	>80	F
16. 3rd Street/Capitol Mall	Signal	AM	>80	F	>80	F
		PM	>80	F	>80	F
17. 3rd Street/L Street	Signal	AM	17	B	22	C
		PM	>80	F	>80	F
18. 2nd Street/Capitol Mall (future)	Signal	AM	--	--	>80	F
		PM	--	--	>80	F

Notes: V/C = volume-to-capacity ratio.  
1. Signalized intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000).  
2. AWSC = All Way Stop Control. All-way stop controlled intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000). The overall intersection delays are presented.  
3. SSSC = Side Street Stop Control. Side-street stop-controlled intersection level of service is based on worst-case approach average delay per vehicle (in seconds).  
Source: Fehr & Peers, 2010.

- D) The proposed project includes the reconfiguration of existing Front Street into a cul-de-sac at Embassy Suites service entrance, and the construction of a new roadway bridge across I-5 at N Street. There would be no changes to roadways resulting in sharp curves or incompatible uses. All new roadways would comply with applicable construction standards to the satisfaction of the City of Sacramento, Caltrans, and the Sacramento Fire Department. There

would be no additional significant environmental effects to emergency access over those identified in the Master EIR.

- E) The proposed project consists of a new roadway bridge across I-5 at N Street, the reconfiguration of Front Street, Neasham Circle, and 2nd Street west of I-5, and the construction of a new 2nd Street/Capitol Mall/Neasham Circle intersection. This would increase access to and from the Sacramento riverfront and Old Sacramento and would therefore not result in inadequate emergency access
- F) Class II bicycle lanes would be provided on N Street between the proposed Front Street viaduct and 3rd Street, and on Capitol Mall between the proposed Front Street viaduct and 3rd Street. The proposed project would also provide bike lanes on the reconfigured segment of Front Street between O Street and N Street. Neasham Circle would be converted to a pedestrian/bicycle facility south of the access to the One Capitol Mall Building garage.

Sidewalks would be provided on the new segments of N Street and a sidewalk would be added to the south side of the O Street bridge over I-5. Design constraints allow a sidewalk only on the west side of the new 2nd Street structure, but pedestrian and bicycle access would continue to be available adjacent to, and underneath the new structure. The project would improve pedestrian facilities on Capitol Mall.

Except during construction, when temporary disruption of existing bicycle and pedestrian facilities could occur, the project would not affect existing or planned bicycle or pedestrian facilities. The proposed project would provide improved connections for bicycles from the Sacramento River bicycle facilities and existing and planned bicycle facilities to the downtown area. As discussed above, the sidewalks on the new segments of N street and on the south side of the O Street bridge would also improve the ability for pedestrians to access the Sacramento River waterfront and Old Sacramento. The proposed project does not include new land uses and thus would not result in increases or decreases in transit ridership.

The proposed project would provide improved connections for bicycles from the Sacramento River bicycle facilities and existing and planned bicycle facilities to the downtown area. It would improve the ability for pedestrians to access the Sacramento River waterfront and Old Sacramento. For the above reasons, there would be no conflicts with adopted policies, plans, or programs supporting alternative transportation and there would be no additional significant environmental effects over those identified in the Master EIR.

- G) The proposed project includes roadway improvements and extensions to Capitol Mall, Front Street, Neasham Circle, 2nd Street, O Street, and N Street. The existing parking on Front Street south of the Embassy Suites hotel would be reconfigured to accommodate service access to Embassy Suites while maintaining safe access for the bicycles and pedestrians to the multi-use path along Neasham Circle. This reconfiguration would result in a reduction in the number of parking spaces along this section of Front Street. However, ample parking is located in close proximity to the spaces that would be lost. A portion of Parking Lot X (located between I-5, N St, 3rd Street, and Capitol Mall) would be used temporarily for the contractor's staging areas. This reduction in the number of parking spaces is not a substantial portion of

available parking, and there would be no additional significant environmental effects over those identified in the Master EIR.

**Mitigation Measures from 2030 General Plan Master EIR**

Mitigation Measures 6.12-1 and 6.12-3 were identified in the 2030 General Plan Master EIR to eliminating the identified inconsistencies with applicable LOS policies by revising those policies to match LOS projections. The proposed project would be consistent with the General Plan policies. Therefore, these mitigation measures would not apply to the proposed project.

**Mandatory Findings of Significance**

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
<p>13. MANDATORY FINDINGS OF SIGNIFICANCE</p> <p>A) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</p>		X	
<p>B) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)</p>			X
<p>C) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>		X	

A) As discussed in this Initial Study, the proposed project has the potential for impacts to biological resources and to subsurface cultural resources. Mitigation measures contained in this Initial Study would reduce these potential impacts to less-than-significant levels.

B) As discussed in this Initial Study, the proposed project has the potential for impacts to biological resources, subsurface cultural resources, and hazards. The Master EIR identified that implementation of the 2030 General Plan would contribute to the 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. However, terrestrial plant and wildlife habitat in Sacramento has been highly modified and is of relatively low quality due to its urban nature. Implementation of Master EIR Mitigation Measures and the project specific mitigation measures described above would assure that impacts to biological resource would be minimized resulting in a less-than-considerable contribution to the region-wide loss of these species.

For cultural resources, the Master EIR stated that future development in Sacramento under the 2030 General Plan as well as within the larger region could include excavation and grading that could potentially impact the archaeological resources and human remains that may be present. However, the mitigation measures described above would minimize these impacts and preserve any potential archaeological resources through excavation and preservation resulting in a less-than-considerable contribution to the region-wide loss of these resources.

Compliance with all applicable federal, state, and local regulations related to hazards and hazardous materials on a project-by-project basis would be required for all projects within the region, including the Policy Area. Additionally, site-specific investigations would be conducted at all future development sites within the Policy Area to determine impacts and need for mitigation.

The proposed project would not contribute to cumulative biological, cultural resource, or hazards impacts above those identified in the Master EIR. All other impacts are considered less than significant and would not be cumulatively considerable. Therefore, this impact would be less than significant.

- C) As stated above, the proposed project has the potential for impacts to biological resources and to subsurface cultural resources. These impacts are not of a nature that could adversely affect humans; therefore, this impact is less than significant. However, the proposed project also has the potential for hazardous materials impacts. There are environmental conditions that may impact the project, and, if not properly managed, could pose an inadvertent risk to people and the environment, which would be a potentially significant impact. These conditions are the result of historic land uses outside the boundary of the project site that have affected groundwater quality. Mitigation measures contained in this Initial Study would reduce these potential impacts to less-than-significant levels.

### Section IV - Environmental Factors Potentially Affected

---

The environmental factors checked below would potentially be affected by this project.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture Resources	<input type="checkbox"/> Air Quality
<input type="checkbox"/> Biological Resources	<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Geology/Soils
<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Hazards & Hazardous Materials	<input type="checkbox"/> Hydrology/Water Quality
<input type="checkbox"/> Land Use/Planning	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Noise
<input type="checkbox"/> Population/Housing	<input type="checkbox"/> Public Services	<input type="checkbox"/> Recreation
<input type="checkbox"/> Transportation/Traffic	<input type="checkbox"/> Utilities/Service Systems	<input checked="" type="checkbox"/> None Identified

## Section V - Determination

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### On the basis of the initial study:

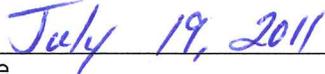
I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed project is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; and (c) the proposed project **will not** have any project-specific additional significant environmental effects not previously examined in the Master EIR, and no new mitigation measures or alternatives will be required. Mitigation measures from the Master EIR will be applied to the proposed project as appropriate. Notice shall be provided pursuant to CEQA Guidelines Section 15087. (CEQA Guidelines Section 15177(b))

- I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed project is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are adequate for the proposed project; and (d) the proposed project **will** have additional significant environmental effects not previously examined in the Master EIR. A Mitigated Negative Declaration will be prepared. Mitigation measures from the Master EIR will be applied to the project as appropriate, and additional feasible mitigation measures and alternatives will be incorporated to revise the proposed project before the negative declaration is circulated for public review, to avoid or mitigate the identified effects to a level of insignificance. (CEQA Guidelines Section 15178(b))

I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are adequate for the proposed project; and (d) the proposed project **will** have additional significant environmental effects not previously examined in the Master EIR. A focused EIR shall be prepared which shall incorporate by reference the Master EIR and analyze only the project-specific significant environmental effects and any new or additional mitigation measures or alternatives that were not identified and analyzed in the Master EIR. Mitigation measures from the Master EIR will be applied to the project as appropriate. (CEQA Guidelines Section 15178(c))

I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed project is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR **are not** adequate for the proposed project; and (d) the proposed project **will** have additional significant environmental effects not previously examined in the Master EIR. An EIR shall be prepared, which shall tier off of the Master EIR to the extent feasible. (CEQA Guidelines Section 15178(e))

  
\_\_\_\_\_  
Signature

  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Printed Name



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***APPENDICES***

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***Appendix A***

***Air Quality Modeling Results***

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**SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS**

Project Number: D50833.02  
Project Title: I-5

**Background Information**

Nearest Air Monitoring Station measuring CO: T Street  
Background 1-hour CO Concentration (ppm): 0.0  
Background 8-hour CO Concentration (ppm): 5.6  
Persistence Factor: 0.7  
Analysis Year: 2010

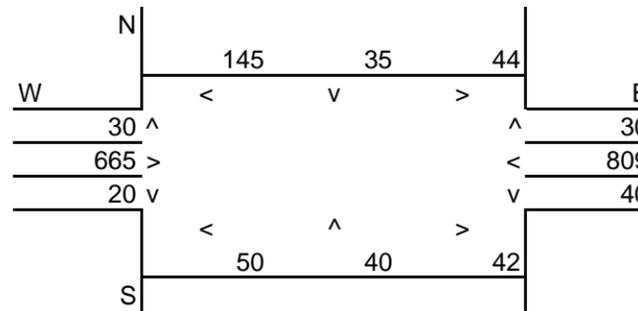
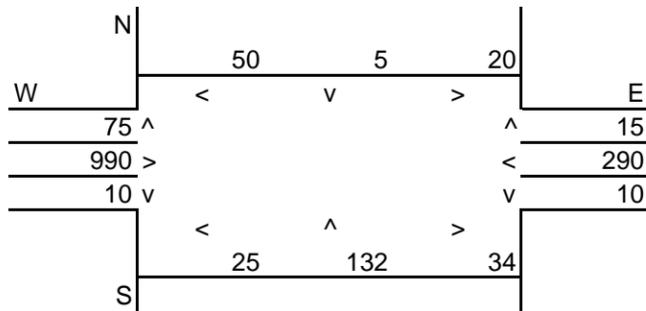
**Roadway Data**

Intersection: Capitol and 2nd  
Analysis Condition: With Project

	Roadway Type	No. of Lanes	Average Speed		
			A.M.	P.M.	
North-South Roadway:	2nd Street	At Grade	2	25	25
East-West Roadway:	Capitol	At Grade	4	25	25

**A.M. Peak Hour Traffic Volumes**

**P.M. Peak Hour Traffic Volumes**



**Highest Traffic Volumes (Vehicles per Hour)**

N-S Road: 297  
E-W Road: 1,440

N-S Road: 324  
E-W Road: 1,719

**Roadway CO Contributions and Concentrations**

Emissions = (A x B x C) / 100,000<sup>1</sup>

Roadway	Reference CO Concentrations				Traffic Volume	Emission Factors <sup>2</sup>	Estimated CO Concentrations			
	Edge	25 Feet	50 Feet	100 Feet			Edge	25 Feet	50 Feet	100 Feet
<b>A.M. Peak Traffic Hour</b>										
North-South Road	3.7	2.7	2.2	1.7	297	3.99	0.04	0.03	0.03	0.02
East-West Road	11.9	7.0	5.4	3.8	1,440	3.99	0.68	0.40	0.31	0.22
<b>P.M. Peak Traffic Hour</b>										
North-South Road	3.7	2.7	2.2	1.7	324	3.99	0.05	0.03	0.03	0.02
East-West Road	11.9	7.0	5.4	3.8	1,719	3.99	0.82	0.48	0.37	0.26

<sup>1</sup> Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

<sup>2</sup> Emission factors from EMFAC2007 (2008).

**Total Roadway CO Concentrations**

Peak Hour Emissions = North-South Concentration + East-West Concentration + Background 1-hour Concentration<sup>2</sup>

8-Hour Emissions = ((Highest Peak Hour Concentration - Background 1-hour Concentration) x Persistence Factor) + Background 8-hour Concentration<sup>2</sup>

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	0.7	0.9	6.2
25 Feet from Roadway Edge	0.4	0.5	6.0
50 Feet from Roadway Edge	0.3	0.4	5.9

<sup>2</sup> Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS									
<b>DATA ENTRY</b>									
Project Number:		D50833.02							
Project Title:		I-5							
<b>Background Information</b>									
Nearest Air Monitoring Station measuring CO:		T Street							
Background 1-hour CO Concentration (ppm):									
Background 8-hour CO Concentration (ppm):		5.6							
Persistence Factor:		0.7	▼	0.6 Rural or Suburban					
				0.7 Urban Locations					
				0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion					
Analysis Year:		.....	▼	Choices: 2004-2030					
<b>Roadway Data</b>									
Intersection:		Capitol and 3rd							
Analysis Condition:		Existing							
North-South Roadway:									
Name:		3rd Street							
Roadway Type:		.....	▼						
Number of Lanes:			▼						
Average Cruise Speed:									
A.M. Peak:			▼						
P.M. Peak:			▼						

Data Page

East-West Roadway:									
Name:	Capitol								
Roadway Type:	At Grade <input type="button" value="▼"/>								
Number of Lanes:	<input type="button" value="▼"/>								
Average Cruise Speed:	<input type="button" value="▼"/>								
A.M. Peak:	<input type="button" value="▼"/>								
P.M. Peak:	<input type="button" value="▼"/>								
A.M. Peak Hour Traffic Volumes					P.M. Peak Hour Traffic Volumes				
N	10 548 219				N	39 902 59			
W	<	v	>	E	W	<	v	>	E
	^		^			^		^	
	745	>		<	147			<	445
	35	v		v	63			v	174
	<	^	>			<	^	>	
S					S				
Vehicles per Hour per Lane									
N:	777				N:	1,000			
S:	646				S:	1,107			
E:	1,174				E:	1,190			
W:	937				W:	1,027			
N-S Road:	777				N-S Road:	1,107			
E-W Road:	1,174				E-W Road:	1,190			

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS											
<b>DATA ENTRY</b>											
Project Number:		D50833.02									
Project Title:		I-5									
<b>Background Information</b>											
Nearest Air Monitoring Station measuring CO:		T Street									
Background 1-hour CO Concentration (ppm):		5.6									
Background 8-hour CO Concentration (ppm):		5.6									
Persistence Factor:		0.7	▼								
		0.6 Rural or Suburban									
		0.7 Urban Locations									
		0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion									
Analysis Year:		.....	▼								
		Choices: 2004-2030									
<b>Roadway Data</b>											
Intersection:		Capitol and 3rd									
Analysis Condition:		With Project									
North-South Roadway:											
Name:		3rd Street									
Roadway Type:		.....	▼								
Number of Lanes:		.....	▼								
Average Cruise Speed:											
A.M. Peak:		.....	▼								
P.M. Peak:		.....	▼								

Data Page

East-West Roadway:										
Name:	Capitol									
Roadway Type:	At Grade <input type="button" value="▼"/>									
Number of Lanes:	<input type="button" value="▼"/>									
Average Cruise Speed:	<input type="button" value="▼"/>									
A.M. Peak:	<input type="button" value="▼"/>									
P.M. Peak:	<input type="button" value="▼"/>									
A.M. Peak Hour Traffic Volumes					P.M. Peak Hour Traffic Volumes					
N	90 548 219				N	230 902 59				
W	<	v	>	E	W	<	v	>	E	
	^			^		^			^	
745	>			<	225	>			<	649
299	v			v	63	v			v	174
	<	^	>			<	^	>		
S					S					
Vehicles per Hour per Lane										
N:	857				N:	1,191				
S:	910				S:	1,315				
E:	1,252				E:	1,394				
W:	1,359				W:	1,630				
N-S Road:	910				N-S Road:	1,315				
E-W Road:	1,359				E-W Road:	1,630				

# SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Number: D50833.02  
Project Title: I-5

## Background Information

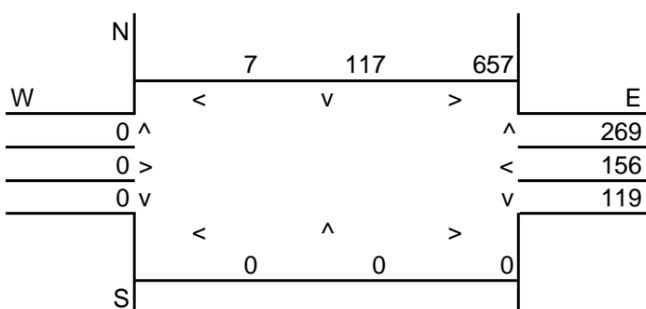
Nearest Air Monitoring Station measuring CO: T Street  
Background 1-hour CO Concentration (ppm): 0.0  
Background 8-hour CO Concentration (ppm): 5.6  
Persistence Factor: 0.7  
Analysis Year: 2010

## Roadway Data

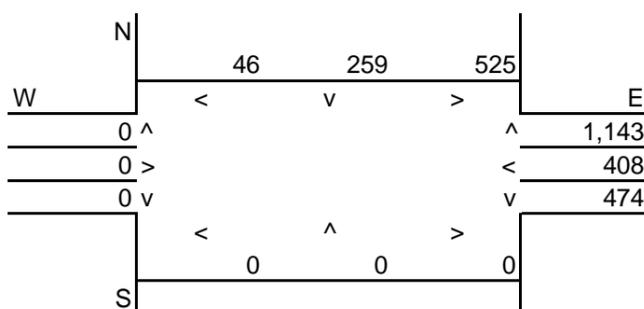
Intersection: 3rd and L  
Analysis Condition: Existing

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway: 3rd Street	At Grade	4	25	25
East-West Roadway: L Street	At Grade	4	25	25

### A.M. Peak Hour Traffic Volumes



### P.M. Peak Hour Traffic Volumes



Note: As only roadway segment volumes were available, a 25% upward adjustment to the 50% roadway volume was made to account for turning movements from the perpendicular roadway

### Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	1,050	N-S Road:	1,973
E-W Road:	1,201	E-W Road:	2,550

## Roadway CO Contributions and Concentrations

$$\text{Emissions} = (A \times B \times C) / 100,000^1$$

Roadway	Reference CO Concentrations				Traffic Volume	Emission Factors <sup>2</sup>	Estimated CO Concentrations			
	Edge	25 Feet	50 Feet	100 Feet			Edge	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	3.3	2.6	2.2	1.7	1,050	3.99	0.14	0.11	0.09	0.07
East-West Road	11.9	7.0	5.4	3.8	1,201	3.99	0.57	0.34	0.26	0.18
P.M. Peak Traffic Hour										
North-South Road	3.3	2.6	2.2	1.7	1,973	3.99	0.26	0.20	0.17	0.13
East-West Road	11.9	7.0	5.4	3.8	2,550	3.99	1.21	0.71	0.55	0.39

<sup>1</sup> Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

<sup>2</sup> Emission factors from EMFAC2007 (2008).

## Total Roadway CO Concentrations

$$\text{Peak Hour Emissions} = \text{North-South Concentration} + \text{East-West Concentration} + \text{Background 1-hour Concentration}^2$$

$$\text{8-Hour Emissions} = ((\text{Highest Peak Hour Concentration} - \text{Background 1-hour Concentration}) \times \text{Persistence Factor}) + \text{Background 8-hour Concentration}^2$$

	A.M. Peak Hour	P.M. Peak Hour	8-Hour
Roadway Edge	0.7	1.5	6.6
25 Feet from Roadway Edge	0.4	0.9	6.2
50 Feet from Roadway Edge	0.4	0.7	6.1

<sup>2</sup> Methodology from Bay Area Air Quality Management District *BAAQMD CEQA Guidelines* (1996).

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS									
<b>DATA ENTRY</b>									
Project Number:		D50833.02							
Project Title:		I-5							
<b>Background Information</b>									
Nearest Air Monitoring Station measuring CO:		T Street							
Background 1-hour CO Concentration (ppm):		5.6							
Background 8-hour CO Concentration (ppm):		5.6							
Persistence Factor:		0.7	<input type="button" value="▼"/> 0.6 Rural or Suburban 0.7 Urban Locations 0.8 Urban sites with a recognized tendency for persistent stagnant meteorological condition and/or persistent traffic congestion						
Analysis Year:		.....	<input type="button" value="▼"/> Choices: 2004-2030						
<b>Roadway Data</b>									
Intersection:		3rd and L							
Analysis Condition:		With Project							
North-South Roadway:									
Name:		3rd Street							
Roadway Type:		.....	<input type="button" value="▼"/>						
Number of Lanes:		.....	<input type="button" value="▼"/>						
Average Cruise Speed:		.....							
A.M. Peak:		.....	<input type="button" value="▼"/>						
P.M. Peak:		.....	<input type="button" value="▼"/>						

Data Page

East-West Roadway:											
Name:		L Street									
Roadway Type:		At Grade <input type="button" value="▼"/>									
Number of Lanes:		<input type="button" value="▼"/>									
Average Cruise Speed:		<input type="button" value="▼"/>									
A.M. Peak:		<input type="button" value="▼"/>									
P.M. Peak:		<input type="button" value="▼"/>									
A.M. Peak Hour Traffic Volumes						P.M. Peak Hour Traffic Volumes					
N		124 657				N		305 525			
W	<	v	>	E	W	<	v	>	E		
	^			^		^			^		
				67					143		
	>			<		>			<		
				202					1,000		
	v			v		v			v		
				197					678		
	<	^	>			<	^	>			
S						S					
Vehicles per Hour per Lane											
N:		848				N:		973			
S:		854				S:		1,203			
E:		466				E:		1,821			
W:		326				W:		1,305			
N-S Road:		854				N-S Road:		1,203			
E-W Road:		466				E-W Road:		1,821			

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***Appendix B***

***I-5 Reconnection Traffic Impact Analysis***

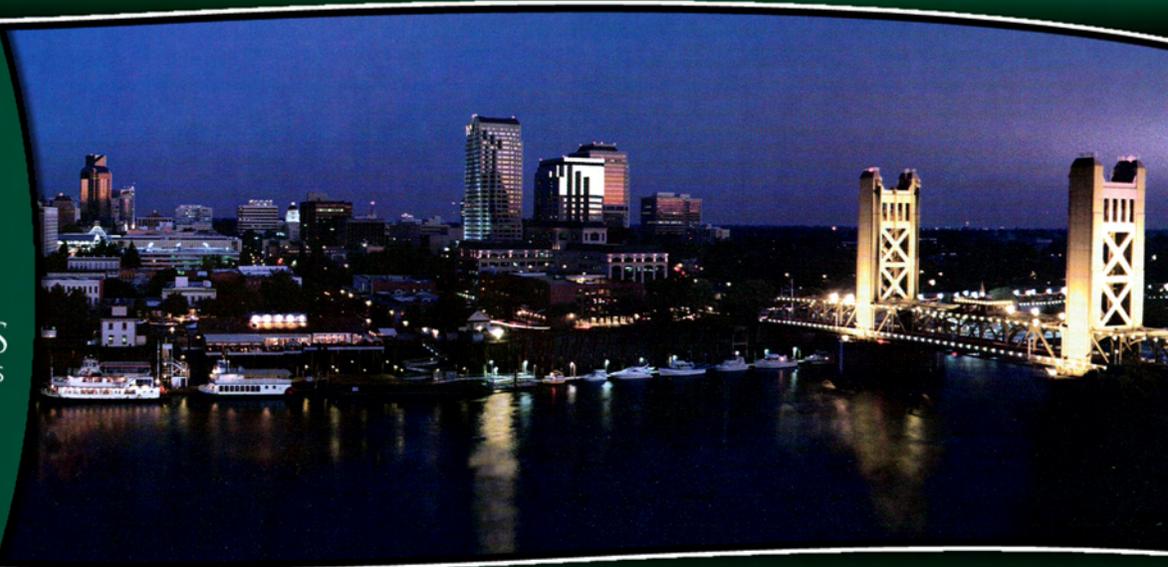
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# I-5 RECONNECTION TRAFFIC IMPACT ANALYSIS

*July 21, 2010*

*Prepared for:  
PB Americas*



**1012-1402**

## EXECUTIVE SUMMARY

This report presents the results of the traffic impact analysis for proposed decking of I-5 between O Street and Capitol Mall.

### PROJECT DESCRIPTION

The project evaluated in the report consists of the placing of a deck on the section of I-5 between O Street and Capitol Mall to reconnect downtown Sacramento with the Sacramento River waterfront. The project also includes circulation network alternatives that connect streets between Front Street, O Street, L Street, and 3<sup>rd</sup> Street and the development of the block that is bounded by Neasham Circle, Capitol Mall, 2<sup>nd</sup> Street, and N Street. There are three project alternatives.

### STUDY AREA

The following eighteen study intersections were selected in consultation with the City of Sacramento staff as the intersections most likely to be impacted by this project.

1. Front Street/O Street
2. Front Street/Neasham Circle (future N Street)
3. Front Street/Capitol Mall
4. Front Street/L Street
5. 2<sup>nd</sup> Street/ R Street
6. 2<sup>nd</sup> Street/Q Street
7. 2<sup>nd</sup> Street/P Street
8. 2<sup>nd</sup> Street/Neasham Circle
9. 2<sup>nd</sup> Street/L Street
10. 2<sup>nd</sup> Street/ O Street
11. 3<sup>rd</sup> Street/R Street
12. 3<sup>rd</sup> Street/Q Street
13. 3<sup>rd</sup> Street/P Street
14. 3<sup>rd</sup> Street/O Street
15. 3<sup>rd</sup> Street/N Street
16. 3<sup>rd</sup> Street/Capitol Mall
17. 3<sup>rd</sup> Street/L Street
18. 2<sup>nd</sup> Street/Capitol Mall (future)

### SCENARIOS

The scenarios defined below were evaluated. The construction year is defined, as the year that the project is open to traffic and the design year represents a condition twenty years after the project is open to traffic. Caltrans generally requires a twenty-year design life for a project. For this study the construction year is the year 2015 and the design year is 2035.

- **Existing (Year 2006) Conditions** – represents existing (2006) conditions from recent traffic counts.
- **Existing (Year 2006) Plus Project Conditions** – represents near-term conditions (2006) based on existing traffic volumes plus construction of the proposed project (three alternatives).

- **Construction Year (2015) Conditions** – presents construction year (2015) conditions with and without construction of the proposed project alternatives.
- **Design Year (2035) Conditions** – presents design year (2035) conditions with and without construction of the proposed project alternatives.

## PLANNED TRANSPORTATION IMPROVEMENTS

The following roadway improvements within the study area are planned by the City of Sacramento and were assumed in place for the Construction Year and Design Year conditions analysis.

- Conversion of 3<sup>rd</sup> Street to two-way operation between Capitol Mall and L Street
- Extension of two-way operation of 3<sup>rd</sup> Street to I Street
- 2<sup>nd</sup> Street between O Street and P Street is a northbound one-way street.

The Cities of West Sacramento and Sacramento are currently investigating the feasibility of installing streetcar service between the two cities by way of the Tower Bridge and Capitol Mall. Timing of installation of this service is not currently defined. However, if streetcar service were to be installed it would affect all of the project alternatives equally.

## TRAFFIC FORECASTS

The City of Sacramento eleven downtown towers version (Dowling Associates) of the SACOG SACMET Travel Demand Model was used to develop AM and PM peak hour intersection volumes and daily (24-hour) traffic volumes for both Construction Year (2015) and Design Year (2035) conditions. This model contains buildout of proposed projects in the downtown area of the City of Sacramento. This includes the proposed Railyards Plan, Docks Plan, development of eleven residential towers, a mixed use office/retail building on Lot X, and development in The Triangle area (including Raley's Landing) in the City of West Sacramento.

## FINDINGS

The construction of a deck and new roadways meets the transportation purpose and needs for the project by providing better pedestrian, bicycle, and vehicle connections between downtown Sacramento and the Sacramento River waterfront. Walking, biking, and auto are the predominant forms of travel and all are improved by degrees with the construction of the project.

### **Roadway Network**

The differences between the alternatives are minimal. Both alternatives 1 and 3 operate slightly better than Alternative 2.

In all alternatives the traffic signals on Capitol Mall between the Tower Bridge and 4<sup>th</sup> Street would need to be interconnected. This is because of the high projected traffic volumes and close intersection spacing.

An unintended consequent of the project is the diversion of traffic from Capitol Mall and 3<sup>rd</sup> Street onto project roadways, 2<sup>nd</sup> Street and O Street. Traffic volumes on these roadways would be approaching capacity for the planned two-lane cross-sections.

### ***Bicycle and Pedestrian Operations***

Class II bicycle lanes would be provided on N Street between Front Street and 3<sup>rd</sup> Street and on Capitol Mall between Front Street and 3<sup>rd</sup> Street in all alternatives. They are provided on the new segments of 2<sup>nd</sup> Street in Alternative 1. They would not be provided in Alternative 2. In Alternative 3, bike lanes would be provided on the segment of Front Street between O Street and N Street. In all of the alternatives Neasham Circle will be converted to a pedestrian/bicycle facility south of the access to the One Capitol Mall Building garage.

Sidewalks would be provided on the new segments of N Street and a sidewalk would be added to the south side of the O Street bridge over I-5 for all alternatives. Alternative 1 would provide for sidewalks on 2<sup>nd</sup> Street, but design constraints allow a sidewalk only on the west side of the street for Alternatives 2 and 3.

The project would not affect the access or usage of other bicycle and pedestrian facilities. As such, the project would have a less than significant impact on bicycle operations.

## 1. INTRODUCTION

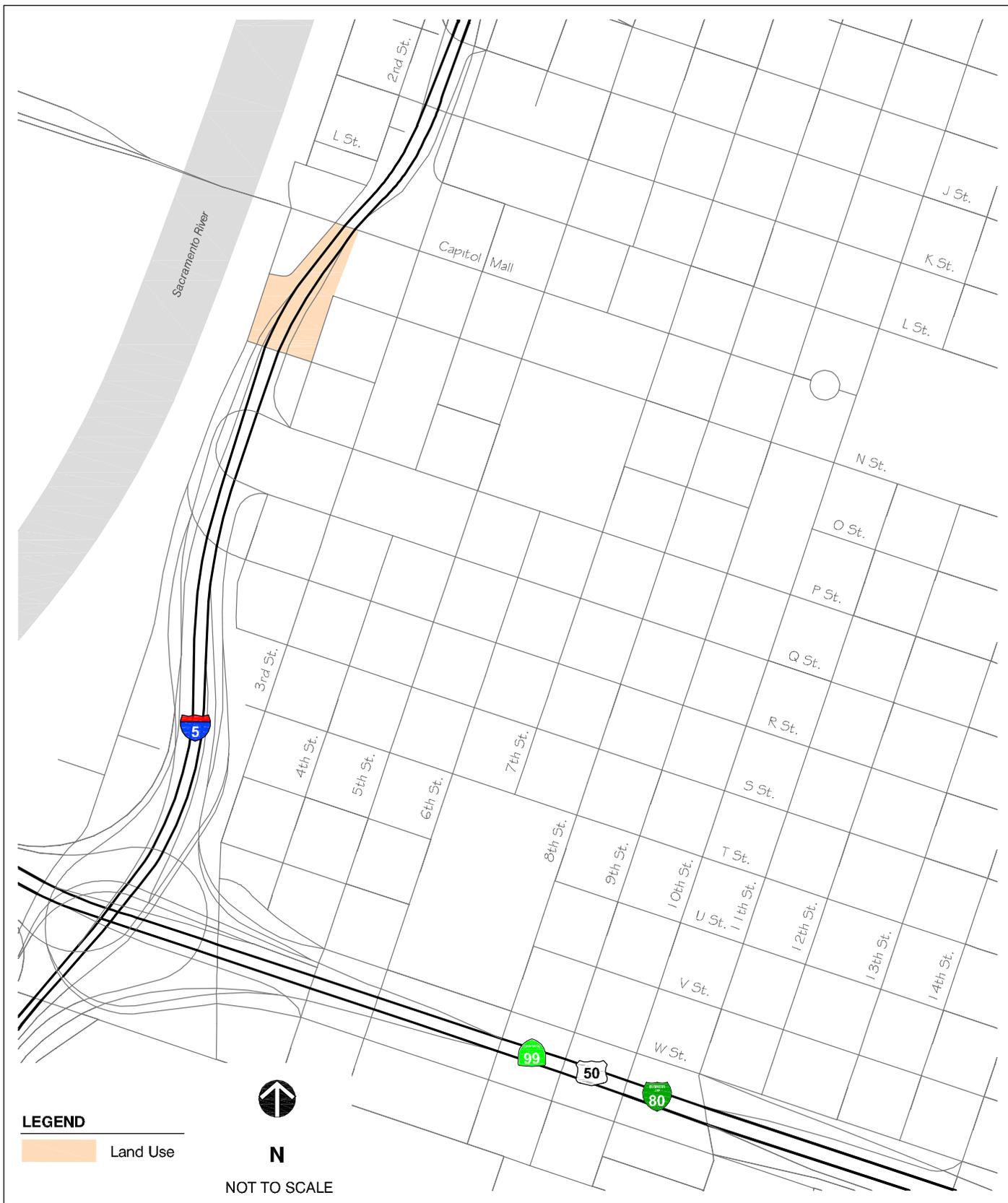
This chapter discusses the project description, the purpose and organization of this report, and the method used in the report preparation.

### PROJECT DESCRIPTION

The project evaluated in the report consists of placing of a deck on the section of I-5 between O Street and Capitol Mall to reconnect downtown Sacramento with the Sacramento River waterfront. The project also includes circulation network alternatives that connect streets between Front Street, O Street, L Street, and 3<sup>rd</sup> Street and the development of the block bounded by Neasham Circle, Capitol Mall, 2<sup>nd</sup> Street, and N Street. There are three project alternatives. Alternative 3 does not include any land uses.

### STUDY PURPOSE

The purpose of this study is to identify the transportation impacts associated with the construction of the proposed project.



## REPORT ORGANIZATION

This report is divided into five chapters as described below.

- **Chapter 1 – Introduction** discusses the purpose and organization of this report.
- **Chapter 2 – Existing (Year 2006) Conditions** describes the project vicinity, including surrounding roadway network, morning (AM) and evening (PM) peak-hour and daily vehicle traffic volumes, and intersection levels of service.
- **Chapter 3 – Existing Plus Project (Year 2006) Conditions** discusses the existing with project conditions. Vehicular impacts as well as impacts to the transit, bicycle, and pedestrian system are evaluated. Although the project will not be constructed in this period analysis is required by CEQA.
- **Chapter 4 – Construction Year Conditions** discusses construction year (2015) conditions, with and without the proposed project. Impacts to the vehicle, transit, bicycle, and pedestrian systems at the time of completion of construction of the proposed project are presented.
- **Chapter 5 – Design Year Conditions** discusses design year (2035) conditions, both with and without the proposed project. Impacts to the vehicle, transit, bicycle, and pedestrian systems are presented.

## STUDY INTERSECTIONS AND FORECAST SCENARIOS

The following eighteen study intersections were selected as the intersections most likely to be impacted by this project.

1. Front Street/O Street
2. Front Street/Neasham Circle (future N Street)
3. Front Street/Capitol Mall
4. Front Street/L Street
5. 2<sup>nd</sup> Street/ R Street
6. 2<sup>nd</sup> Street/Q Street
7. 2<sup>nd</sup> Street/P Street
8. 2<sup>nd</sup> Street/Neasham Circle
9. 2<sup>nd</sup> Street/L Street
10. 2<sup>nd</sup> Street/ O Street
11. 3<sup>rd</sup> Street/R Street
12. 3<sup>rd</sup> Street/Q Street
13. 3<sup>rd</sup> Street/P Street
14. 3<sup>rd</sup> Street/O Street
15. 3<sup>rd</sup> Street/N Street
16. 3<sup>rd</sup> Street/Capitol Mall
17. 3<sup>rd</sup> Street/L Street
18. 2<sup>nd</sup> Street/Capitol Mall (future)

The scenarios defined below were evaluated. The construction year is defined as the year that the project is open to traffic and the design year represent a condition twenty years after the project is open to traffic. Caltrans generally requires a twenty-year design life for a project. For this study the construction year is the year 2015 and the design year is 2035.

- **Existing (Year 2006) Conditions** – represents existing (2006) conditions from recent traffic counts.
- **Existing (Year 2006) Plus Project (Circulation Only) Conditions** – represents near-term conditions (2006) based on existing traffic volumes plus construction of the proposed project (three alternatives).
- **Construction Year Conditions** – presents construction year (2015) conditions with and without construction of the proposed project alternatives.
- **Design Year Conditions** – presents design year (2035) conditions with and without construction of the proposed project alternatives.

## ANALYSIS METHOD

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported qualitatively on a scale from A to F, with A representing the best performance and F the worst. Table 1 relates the operational characteristics associated with each level of service category for signalized and unsignalized intersections, respectively.

The analysis methods presented in the Transportation Research Board's *Highway Capacity Manual* (HCM, 2000) will be utilized for level of service calculations for signalized and unsignalized intersections.

### **Signalized intersections**

As required by the City of Sacramento, *Revised Guidelines for the Preparation of Traffic Impact Analysis Studies*, July 2002, methodology presented in the *Highway Capacity Manual (2000 HCM)*, Transportation Research Board, 2000 was used to evaluate conditions at signalized intersections. This methodology determines the LOS at signalized intersections by comparing the average control delay per vehicle at the intersection to the thresholds shown in Table 1. Per the *Revised Guidelines for the Preparation of Traffic Impact Analysis Studies*, July 2002, a peak hour factor of 1.00 was assumed for all conditions. The analysis was completed using the Synchro software package.

### **Unsignalized Intersections**

For unsignalized (all-way stop-controlled and side-street stop-controlled) intersections, the 2000 HCM method was utilized. With this method, operations are defined by average control delay per vehicle (measured in seconds) for each stop-controlled movement. This incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. For side-street stop-controlled intersections, delay for the worst movement is reported. Table 1 summarizes the relationship between delay and LOS for unsignalized intersections. Per the *Revised Guidelines for the Preparation of Traffic Impact Analysis Studies*, July 2002, a peak hour factor of 1.00 was assumed for all conditions. The analysis was completed using the Synchro software package.

**TABLE 1  
 INTERSECTION LOS CRITERIA**

Level of Service	Description	Average Control Delay per Vehicle (seconds)	
		Signalized	Unsignalized
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 – 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 – 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 – 55.0	> 25.0 to 35.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences. This is considered the limit of acceptable delay.	55.1 – 80.0	> 35.0 to 50.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80.0	> 50.0

Source: *Highway Capacity manual (HCM 2000)*, Transportation Research Board, 2000.

## FREEWAY OPERATIONS

### *Freeway Ramp Merge/Diverge*

A merge/diverge analysis was conducted at area interchanges using the 2000 Highway Capacity Software (HCS) package. The software is consistent with the methodologies contained in Chapters 24 and 25 of the *Highway Capacity Manual* (Transportation Research Board, 2000). This methodology correlates the LOS to the expected density of vehicles in passenger cars per mile per lane. Table 2 summarizes the relationship between density and LOS for freeway ramps.

Consistent with the impact guidelines, acceptable freeway ramp operating levels are those defined by Caltrans in the route concept report. Caltrans, within the study area, has identified LOS E as the minimum acceptable thresholds for I-5 for freeway ramps and mainline operations.

**TABLE 2  
 FREEWAY RAMP MERGE/DIVERGE LEVEL OF SERVICE DEFINITIONS**

Level of Service	Density (pc/mi/ln)
A	$\leq 10.0$
B	$> 10.0$ and $\leq 20.0$
C	$> 20.0$ and $\leq 28.0$
D	$> 28.0$ and $\leq 35.0$
E	$> 35.0$
F	Demand Exceeds Capacity

Source: *Highway Capacity Manual*, Transportation Research Board, 2000. Density in passenger cars per mile per lane.

## LEVEL OF SERVICE POLICY AND SIGNIFICANCE CRITERIA

Impact significance criteria are summarized below for study area intersections, bicycle and pedestrian facilities, and transit facilities.

### Intersections

According to the City of Sacramento General Plan, a significant traffic impact at an intersection would occur when:

- The traffic generated by a project degrades peak period LOS from A, B, C or D (without project) to E or F (with project); or
- The LOS (without project) is E or F, and project-generated traffic increases the peak period average vehicle delay by five seconds or more.

In the downtown Core Area, the General Plan (Policy M 1.2.2) allows for flexible Level of Service (LOS) standards, which will permit increased densities and a mix of uses to increase transit ridership, biking, and walking, which decreases auto travel, thereby reducing air pollution, energy consumption, and greenhouse gas emissions.:

- Core Area Level of Service Exemption – LOS F conditions are acceptable during peak hours in the Core Area bounded by C Street, the Sacramento River, 30<sup>th</sup> Street, and X Street. If a traffic study is prepared and identifies a LOS impact that would otherwise be considered significant to a roadway or intersection that is in the Core Area as described above, the project would not be required in that particular instance to widen roadway in order for the City to find project conformance with the General Plan. Instead, General Plan conformance could still be found if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project's site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not be required to provide any mitigation for vehicular traffic impacts to road segments in order to conform to the General Plan. This exemption does not affect the implementation of previously approved roadway and intersection improvements identified for the Railyards or River District planning areas.

### **Bicycle Facilities**

A significant bikeway impact would occur if:

- Implementation of the project will disrupt or interfere with existing or planned (Bicycle Master Plan) facilities.

### **Pedestrian Facilities**

A significant pedestrian circulation impact would occur if:

- Implementation of the project will disrupt or interfere with existing or planned (Pedestrian Master Plan) facilities.

### **Transit Facilities**

A significant impact to the transit system would occur if:

- The project-generated ridership, when added to existing or future ridership, exceeds available or planned system capacity. Capacity is defined as the total number of passengers the system of busses and light rail vehicles can carry during the peak hours of operation.

### **Freeway Facilities**

In the Route Concept Report of I-5, Caltrans has established a goal level of service standard for I-5 of LOS E. A significant traffic impact occurs under the following conditions:

- The addition of project-generated traffic causes a facility to change from LOS A, B, C, D, or E to LOS F
- The addition of project adds traffic to a freeway facility already operating worse than LOS E

## 2. EXISTING CONDITIONS

This chapter describes the transportation characteristics of the project study area, including the surrounding roadway network and transit, pedestrian, and bicycle facilities.

### EXISTING TRANSPORTATION SYSTEM

#### **Roadway Network**

The study area includes intersections along Front Street, 2<sup>nd</sup> Street, and 3<sup>rd</sup> Street in the area of Sacramento south of I Street, west of 5<sup>th</sup> Street, north of R Street, and east of the Sacramento River (see Figure 1). The area selected for the study is most likely to experience traffic impacts from the proposed project. The following discusses the roadways in the study area.

**I-5** is a major regional freeway extending from Mexico through the Sacramento metropolitan area to Canada through the states of Oregon and Washington. In the study area, I-5 is a eight-lane freeway with partial interchanges at J Street, I Street, L Street, P Street, and Q Street.

**Capitol Mall** connects the study area to downtown Sacramento and provides access to the City of West Sacramento via the Tower Bridge. Two mix-flow lanes are provided in each direction.

**3<sup>rd</sup> Street** is an arterial that extends from I Street to Broadway. South of L Street, it is a one-way (southbound) three-lane street.

**P Street** is an arterial that extends from I-5 to Alhambra Boulevard. From I-5 to 16<sup>th</sup> Street, it is a one-way (westbound) three-lane street.

**Q Street** is an arterial that extends from I-5 to Alhambra. From I-5 to 16<sup>th</sup> Street is a one-way (eastbound) three-lane street.

**Front Street** is a two-lane north-south street that extends from I Street to Broadway with a break south of Capitol Mall.

**2nd Street** is a two-lane north-south street that extends from I Street to S Street with breaks at Capitol Mall and between P Street and Q Street.

**Neasham Circle** is a two-lane north-south street that connects 2<sup>nd</sup> Street to Front Street.

#### **Bicycle and Pedestrian Facilities**

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals, if present. Most of the streets in the project vicinity have sidewalks and most intersections controlled by a traffic signal have crosswalks. The exception would be Front Street, which does not have sidewalks south of O Street.

Bicycle facilities include bike paths, lanes, and routes. Bike paths (Class I facilities) are paved trails that are physically separated from roadways. Bike lanes (Class II facilities) are lanes on roadways designated for bicycle use by striping, pavement legends, and signs. Bike routes (Class III facilities) are roadways designated for bicycle/motor vehicle shared use and include signs, but no special pavement markings. Figure 2 shows the location of bicycle facilities. According to the City's Bicycle Master Plan major bicycle facilities in the project area include:



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**EXISTING BICYCLE FACILITIES**

**FIGURE 2**

- Front Street from Broadway to Neasham Circle
- Neasham Circle from Front Street to 2<sup>nd</sup> Street
- 2<sup>nd</sup> Street from Neasham Circle to I Street
- 7<sup>th</sup> Street from G Street to Richards Boulevard
- 9<sup>th</sup> Street from I Street to E Street
- 10<sup>th</sup> Street from H Street to E Street
- 11<sup>th</sup> Street from Broadway to N Street and from J Street to E Street
- 13<sup>th</sup> Street from Broadway to N Street and L Street to E Street
- Sacramento River Levee Bike Path from Front Street to Broadway (Miller Park)
- R Street overcrossing of I-5
- K Street from 2<sup>nd</sup> Street to 4<sup>th</sup> Street and from 7<sup>th</sup> Street to 13<sup>th</sup> Street
- O Street from Front Street to 2<sup>nd</sup> Street
- Capitol Mall from the Sacramento River (Tower Bridge) to Front Street
- Capitol Avenue from 15<sup>th</sup> Street to Alhambra Boulevard
- N Street from 15<sup>th</sup> Street to 30<sup>th</sup> Street
- L Street from 15<sup>th</sup> Street to 28<sup>th</sup> Street
- Sacramento River Levee Bike Path from I Street to Jibboom Street (American River Trail)

### **Transit Facilities**

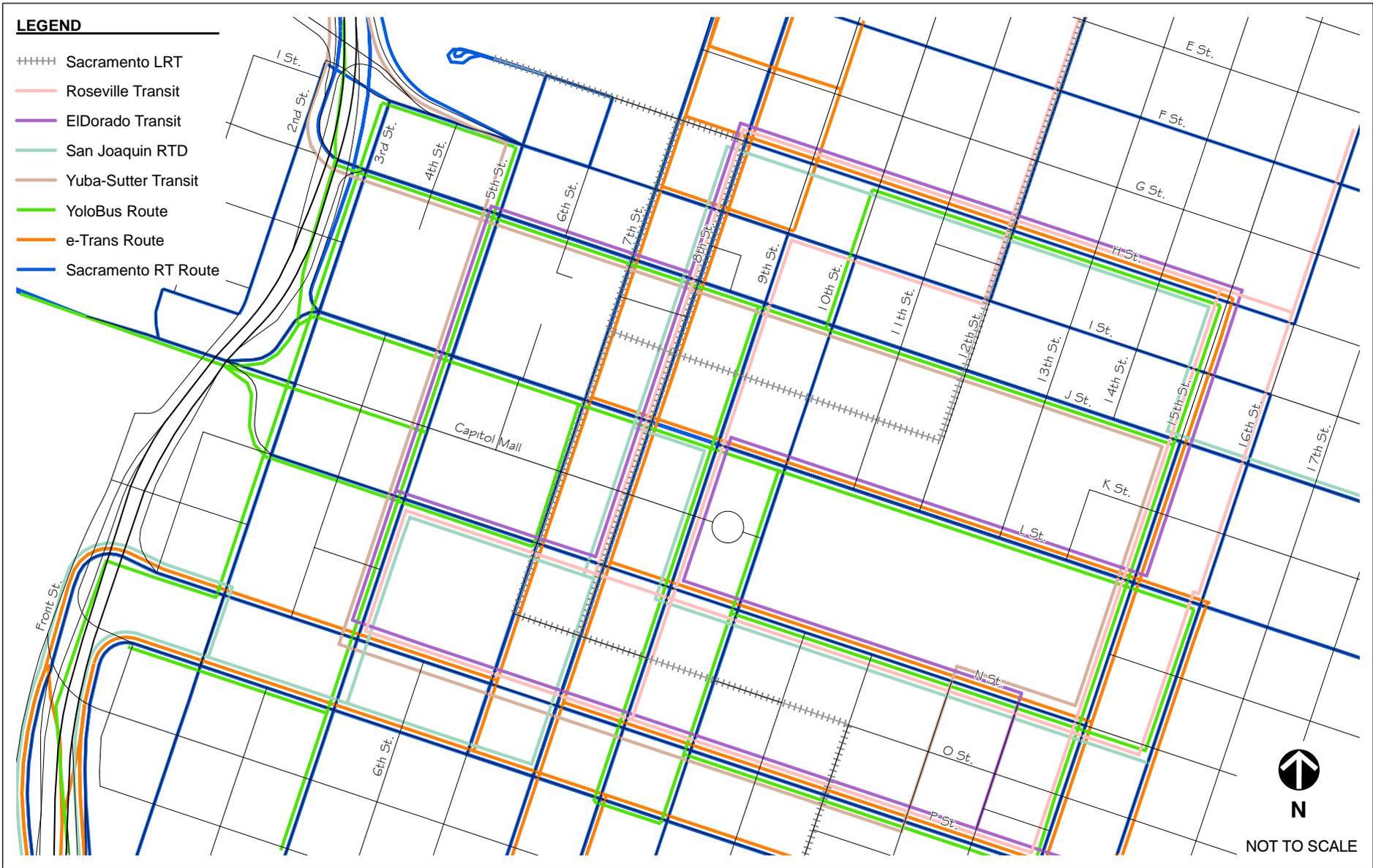
The Sacramento Regional Transit District (RT) provides a majority of the public transit service (light rail and bus) within the project area, as shown in Figure 3. However, bus transit service is also provided by YoloBus, Yuba-Sutter Transit, Solano Transit, Roseville Transit, El Dorado Transit, Elk Grove Transit (e-trans), and San Joaquin Regional Transit District. Train service is provided by Amtrak and the Capitol Corridor train service. Train service is provided at the Sacramento Valley Train Station at 4<sup>th</sup> Street and I Street. The closest RT light rail stations are at 7<sup>th</sup> Street and Capitol Mall, 8<sup>th</sup> Street and Capitol Mall, and on O Street between 7<sup>th</sup> Street and 9<sup>th</sup> Street. Light rail service currently extends from the City of Folsom to downtown and from Meadowview Road to Watt Avenue/I-80 (South Line). There is an extension of service under construction that would extend service to Richards Boulevard. Planning is underway to extend the South Line to Cosumnes River College and to construct a new line from downtown to the Sacramento International Airport by way of South and North Natomas.

### **TRAFFIC COUNTS**

Turning movement counts were conducted at the study intersections in late September and early October 2004 and during the last week of January 2005 during the morning (7:00 to 9:00 a.m.) peak period and evening (4:00 to 6:00 p.m.) peak period. For each intersection count period, the hour with the highest traffic volume was identified as the peak hour. The AM peak hour generally occurred from 7:30 to 8:30 a.m. The PM peak hour generally occurred from 4:30 to 5:30 p.m. Existing peak hour turning movement volumes, lane configuration, and traffic control are shown on Figure 4. When the traffic counts were taken 2<sup>nd</sup> Street between O Street and P Street was a two-way street. The expansion of the Crocker Art Gallery has converted the road to one-way (northbound) operation.

### **INTERSECTION OPERATIONS**

The HCM 2000 methods were applied to determine the study intersection operations. The analysis was completed using the Synchro software package.



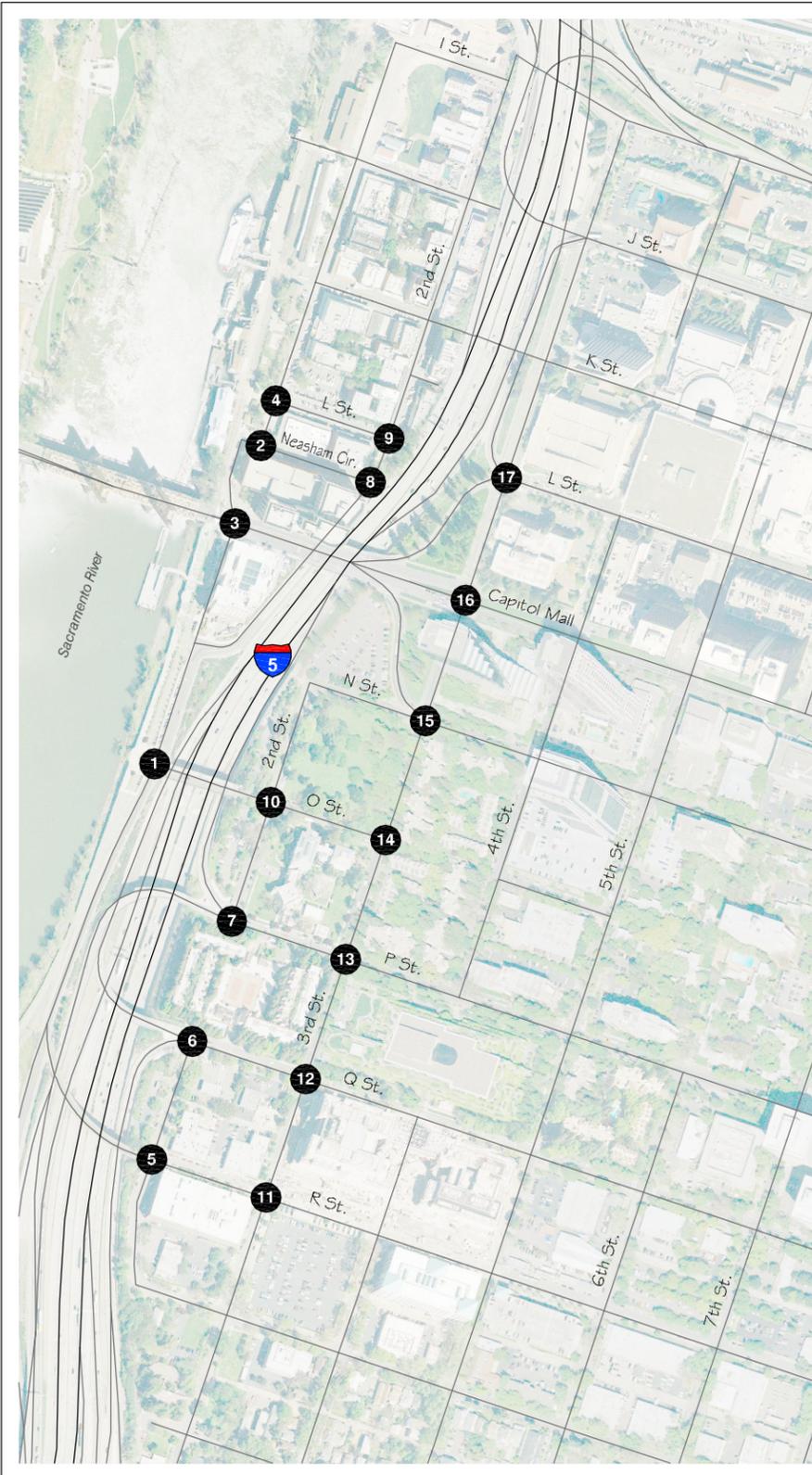
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**EXISTING TRANSIT MAP**

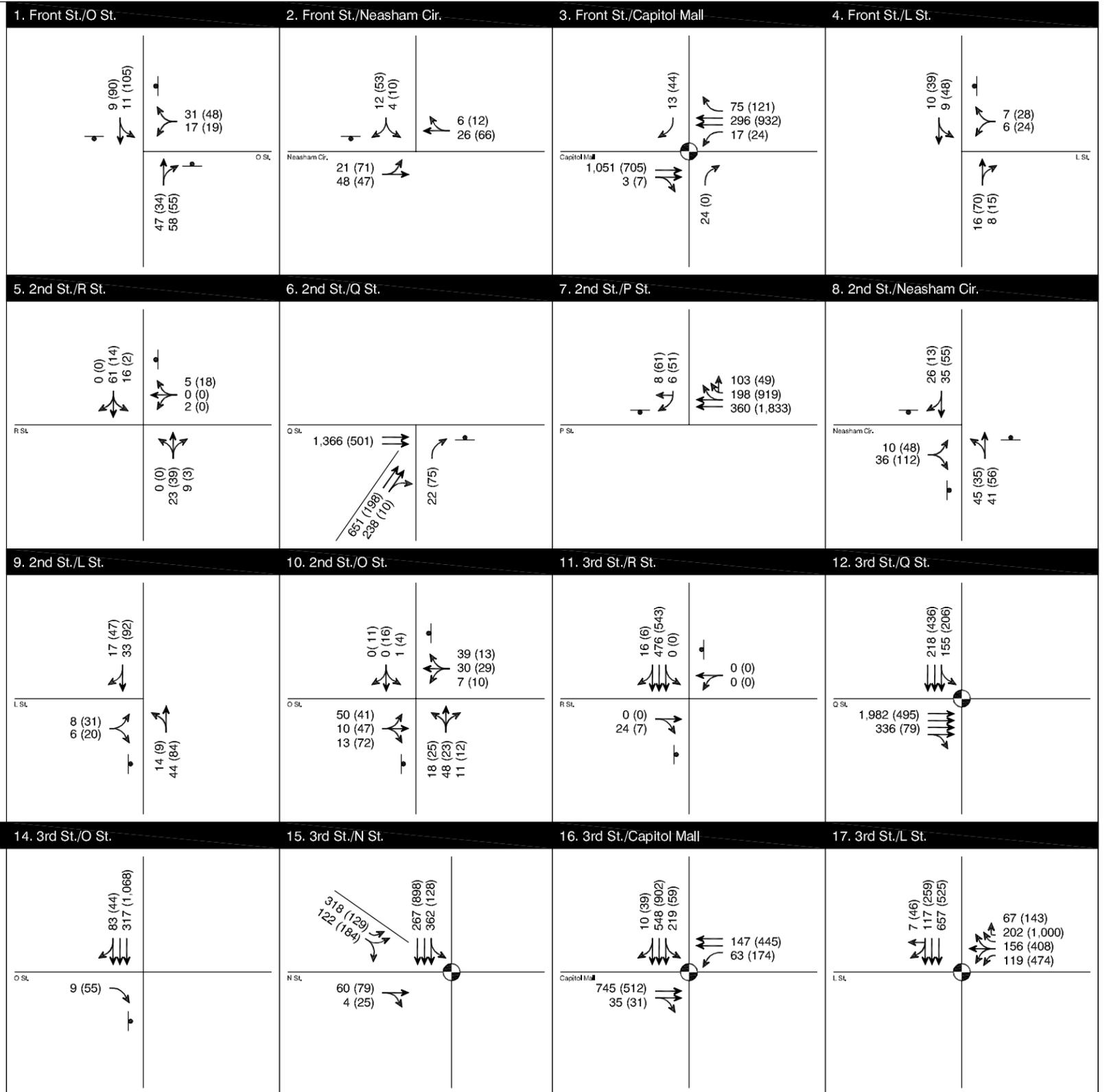
**FIGURE 3**





- LEGEND**
- Turn Lane
  - XX (YY) AM (PM) Peak Hour Traffic Volume
  - Study Intersection
  - Traffic Signal
  - Stop Sign
  - F "Free" Right Turn

**N**  
 NOT TO SCALE





### Level of Service

Existing intersection operations were evaluated for the weekday AM and PM peak hours. Table 3 summarizes the intersection analysis results, and detailed LOS calculation worksheets are presented in Appendix A. All study intersections operate at acceptable levels during both the AM and PM peak hours.

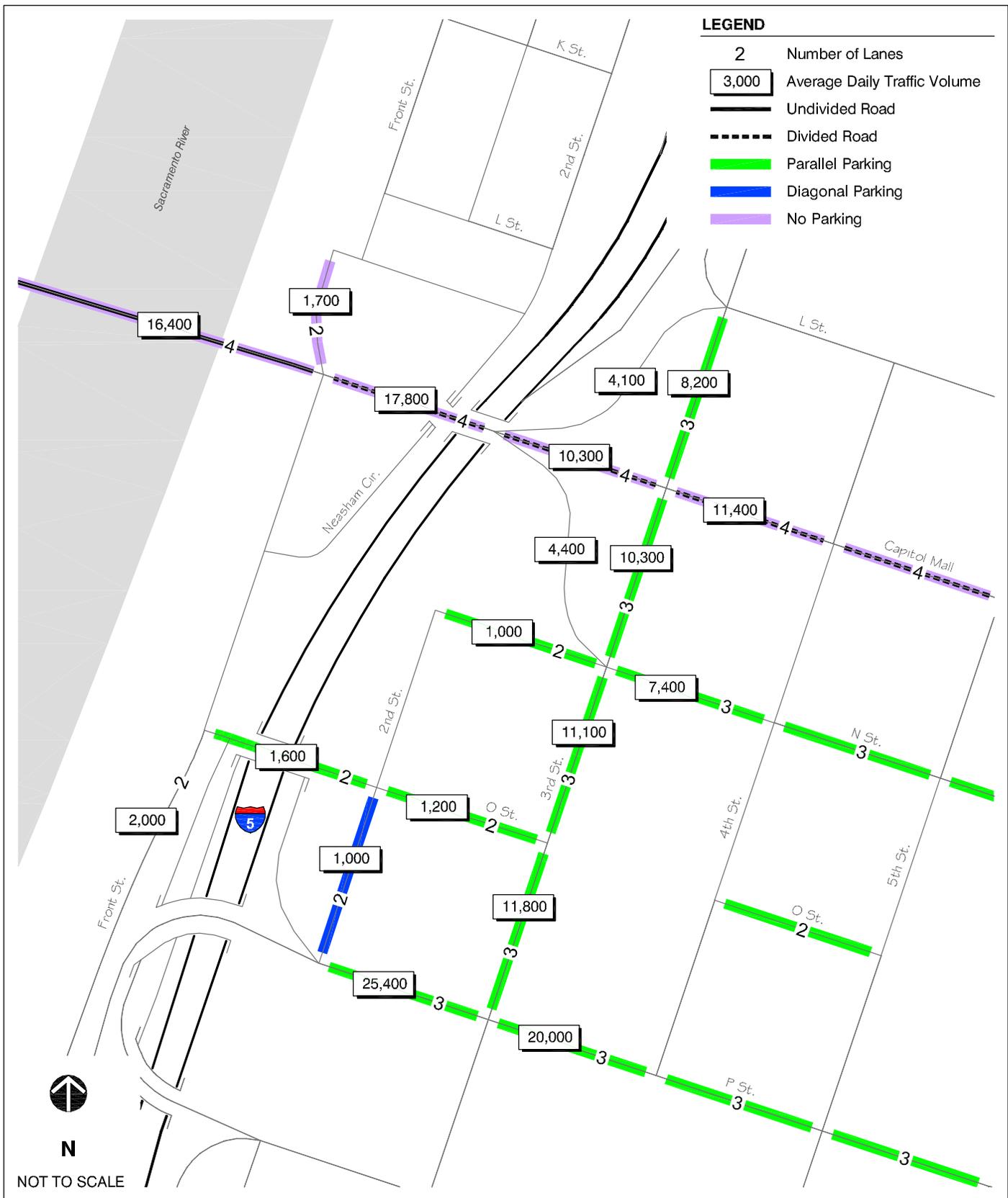
TABLE 3 EXISTING CONDITIONS PEAK HOUR INTERSECTION LEVEL OF SERVICE					
Intersections	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
1. Front St./O St.	AWSC <sup>2</sup>	< 10	A	< 10	A
2. Front St./Neasham Cir.	SSSC <sup>3</sup>	< 10	A	< 10	A
3. Front St./Capitol Mall	Signal <sup>1</sup>	13	B	11	B
4. Front St./L St.	SSSC	< 10	A	< 10	A
5. 2 <sup>nd</sup> St./R St.	SSSC	< 10	A	< 10	A
6. 2 <sup>nd</sup> St./Q St.	SSSC	14	B	10	A
7. 2 <sup>nd</sup> St./P St.	SSSC	10	A	22	C
8. 2 <sup>nd</sup> St./Neasham Cir.	AWSC	< 10	A	< 10	A
9. 2 <sup>nd</sup> St./L St.	SSSC	< 10	A	10	A
10. 2 <sup>nd</sup> St./O St.	SSSC	10	A	10	A
11. 3 <sup>rd</sup> St./R St.	SSSC	< 10	A	< 10	A
12. 3 <sup>rd</sup> St./Q St.	Signal	10	A	22	C
13. 3 <sup>rd</sup> St./P St.	Signal	<10	A	23	C
14. 3 <sup>rd</sup> St./O St.	SSSC	< 10	A	11	B
15. 3 <sup>rd</sup> St./N St.	Signal	13	B	14	B
16. 3 <sup>rd</sup> St./Capitol Mall	Signal	31	C	22	C
17. 3 <sup>rd</sup> St./L St.	Signal	14	B	64	E

Notes: Delay is shown in seconds per vehicle.

1. Signalized intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000).
2. AWSC = All Way Stop Control. All-way stop controlled intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000). The overall intersection delays are presented.
3. SSSC = Side Street Stop Control. Side-street stop-controlled intersection level of service is based on worst-case approach average delay per vehicle (in seconds).

**Bold** = LOS F operating condition. Potential significant impact base on thresholds defined on page 6 of this report.  
Source: Fehr & Peers, 2006.

Figure 5 presents the existing daily traffic volumes, number of lanes, and on-street parking types on the study area roadways.



### Traffic Signal Warrant Analysis

A peak hour volume traffic signal warrant analysis was conducted for the unsignalized intersections using the criteria described in the Federal Highway Administration's *Manual of Uniform Traffic Control Devices* (MUTCD). MUTCD contains eight warrants. The peak-hour volume warrant analysis was conducted due to the available data. The results of the peak hour volume warrant analysis indicate that the intersections do not meet the signal warrant criteria.

The analysis of unsignalized intersections is intended to examine the general correlation between existing conditions and the need to install new traffic signals. The existing traffic conditions are compared against a sub-set of the standard traffic signal warrants recommended in the MUTCD and associated Caltrans guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. In addition, factors such as congestion, approach conditions, and driver confusion should be considered since the installation of signals can lead to certain types of collisions. Regular monitoring of actual traffic conditions and accident data as well as a timely re-evaluation of the full set of warrants should be conducted in order to prioritize and program intersections for signalization.

### FREEWAY OPERATIONS

On southbound I-5, the J Street off-ramp has an exclusive off-ramp lane (auxiliary lane) and a shared off-ramp/through lane. The northbound on-ramp from P Street enters I-5 in a weave section with the northbound J Street off-ramp. The southbound P Street on-ramp is a merge within the I-5 to US 50 freeway-to-freeway southbound connector. Freeway ramp operations are summarized in Table 4. Currently the weave between the northbound P Street on-ramp and J Street off-ramp operates at LOS F during the AM and PM peak hours and the I-5 southbound merge from the P Street operates at LOS F during the PM peak hour. The other freeway ramp facility does not experience an unacceptable level of service under Existing Conditions.

**TABLE 4  
 RAMP AND FREEWAY FACILITY LEVEL OF SERVICE – EXISTING CONDITIONS**

Intersections	AM Peak Hour			PM Peak Hour		
	Volume	Density <sup>1</sup>	LOS <sup>2</sup>	Volume	Density <sup>1</sup>	LOS <sup>2</sup>
1. I-5 southbound Off-ramp to J St (ramp)	1,810	--	B	1210	--	B
2. I-5 southbound on-ramp from P St. (merge)	366	33.2	D	1,884	--	<b>F</b>
3. I-5 northbound on-ramp from P St. (weave <sup>3</sup> )	206	-- <sup>4</sup>	<b>F</b>	980	--	<b>F</b>

Notes:  
<sup>1</sup> Density reported as passenger cars per mile per lane (pc/mi/ln) in the peak hour.  
<sup>2</sup> Level of service.  
<sup>3</sup> Leisch Method for Weaving Analysis used.  
<sup>4</sup> Demand exceeds capacity.  
**Bold** = Unacceptable LOS based on significance criteria defined on page 8 of this report.

### 3. EXISTING PLUS PROJECT CONDITIONS

This chapter discusses existing conditions with the proposed project and recommends mitigations for intersections impacted by the project.

Three alternatives were evaluated. They are:

1. **Alternative 1** – Connection of 2<sup>nd</sup> Street between L Street and N Street. Extension of N Street from 2<sup>nd</sup> Street to Front Street. Closure of Neasham Circle to motor vehicles between the One Capitol Mall Building parking garage and Front Street. Mixed use (office and retail) would be constructed on the block bounded by N Street, Capitol Mall, Neasham Circle, and 2<sup>nd</sup> Street. A park would be constructed on the block bounded by N Street, Front Street, O Street, and 2<sup>nd</sup> Street.
2. **Alternative 2** – Extension of 2<sup>nd</sup> Street/Front Street between L Street and O Street connecting to existing Front Street. Extension of N Street from 2<sup>nd</sup> Street to Front Street. Closure of Neasham Circle to motor vehicles between the parking garage and Front Street. Mixed use (office and retail) would be constructed on the block bounded by N Street, Capitol Mall, Neasham Circle, and 2<sup>nd</sup> Street. A park would be constructed on the block bounded by N Street, Front Street, O Street, and 2<sup>nd</sup> Street.
3. **Alternative 3** – Connection of 2<sup>nd</sup> Street/Front Street between L Street and N Street. Extension of N Street to Front Street. A deck would not be constructed, only overcrossings of I-5 for the two street connections. This alternative is the same roadway network as Alternative 2.

#### TRIP GENERATION

With completion of Alternatives 1 and 2, land uses would be placed on the block bounded by N Street, Capitol Mall, Neasham Circle, and 2<sup>nd</sup> Street.

Table 5 summarizes the land uses, trip generation rates, and number of daily and peak hour trips generated by development in the project area. Trips generated by the projects were estimated using trip rates published in *Trip Generation*, 7th Edition, Institute of Transportation Engineers (ITE), 2003.

**TABLE 5  
 TRIP GENERATION ESTIMATES**

Land Use	Quantity	Units	Trip Generation Source	Daily Rate	Daily Trips	AM Peak Hour Rate	AM Peak Hour Trips			PM Peak Hour Rate	PM Peak Hour Trips		
							In	Out	Total		In	Out	Total
Office	600 <sup>3</sup>	Emp	ITE 710	3.32	1,992	0.48	253	35	288	0.46	46	229	275
Retail	68 <sup>3</sup>	KSF	ITE 820	42.94	2,920	1.03	43	27	70	3.75	122	133	255
<b>Total</b>					4,912		296	62	358		168	362	530

Notes: <sup>1</sup> Emp = Employee

<sup>2</sup> KSF=1,000 square feet.

<sup>3</sup> Land use information provided by the City of Sacramento and PB staff.

Source: *Trip Generation, 7<sup>th</sup> Edition* (Institute of Transportation Engineers, 2003) and *Trip Generation Handbook* (Institute of Transportation Engineers, March 2001).

## TRIP DISTRIBUTION

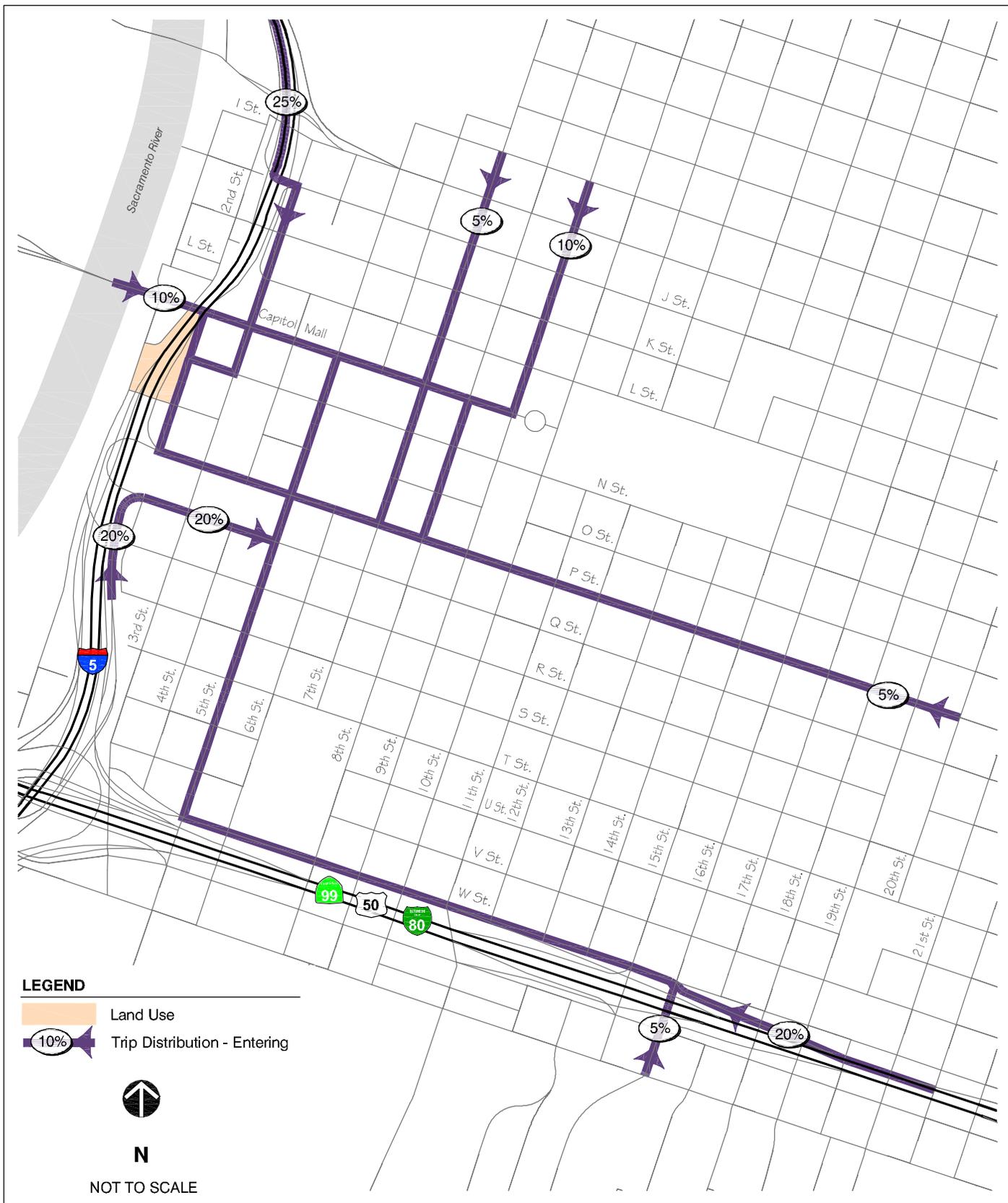
Figures 6 and 7 present the trip distribution patterns used to distribute traffic generated by the land use option to the existing roadway network for the Existing plus Project Condition. The citywide travel demand-forecasting model was used to distribute traffic on the City of Sacramento roadway network to the roadway network with the proposed project for the Construction Year (2015) and Design Year (2035) Conditions.

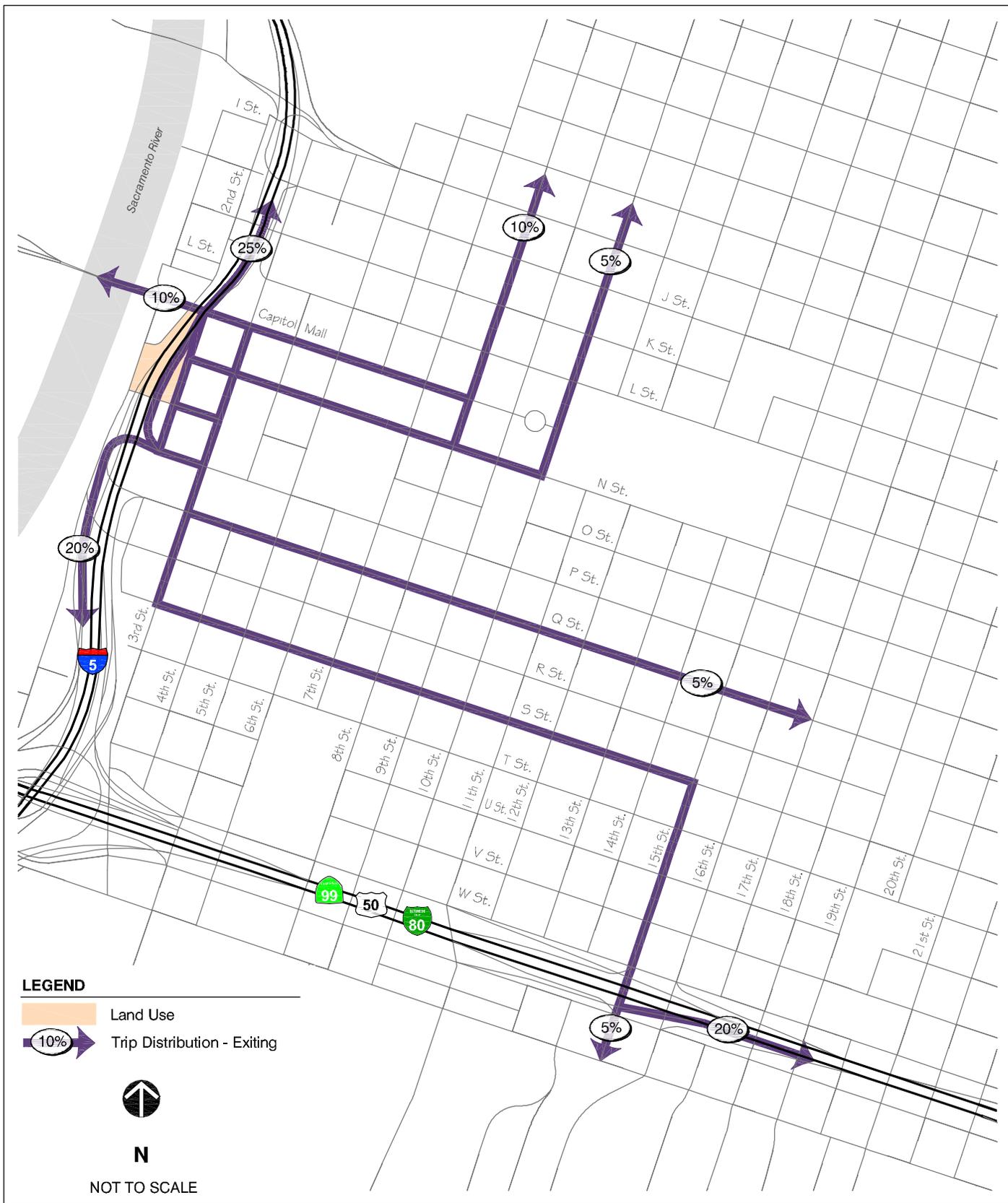
## INTERSECTION OPERATIONS

Existing plus Project Conditions traffic volumes at the study intersections for each of the project alternatives are presented on Figures 8 through 10. The figures show the lane configurations, peak hour traffic volumes, and traffic control for the with project conditions. Figures 11 through 13 present the daily traffic volumes, assumed number of lanes, and assumed on-street parking types on the study area roadways for each of the project alternatives.

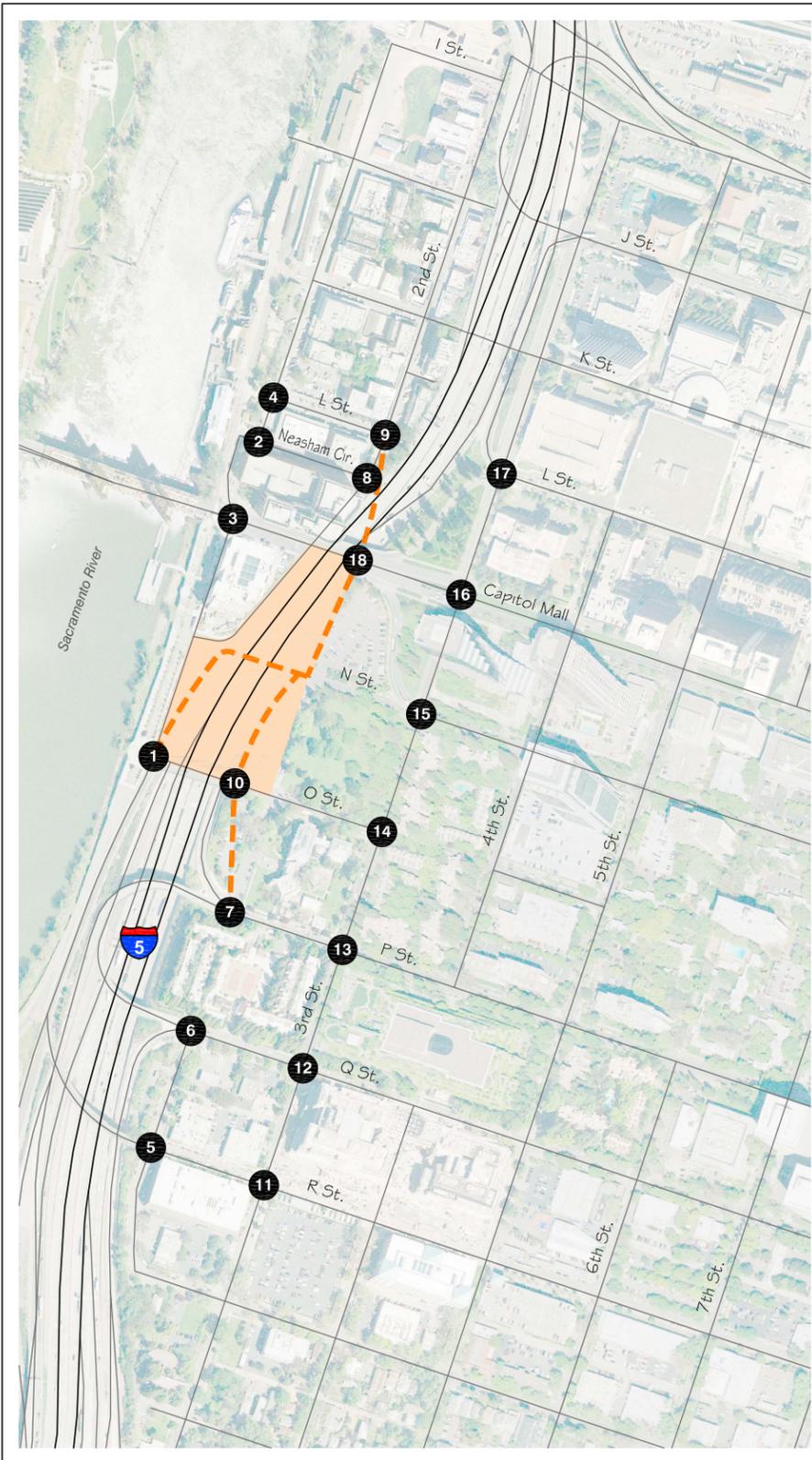
### **Level of Service**

The AM and PM peak hour operations were evaluated at each study intersection. The detailed peak hour intersection LOS calculations are presented in Appendix B. Table 6 presents the results of the Existing plus Project Conditions.





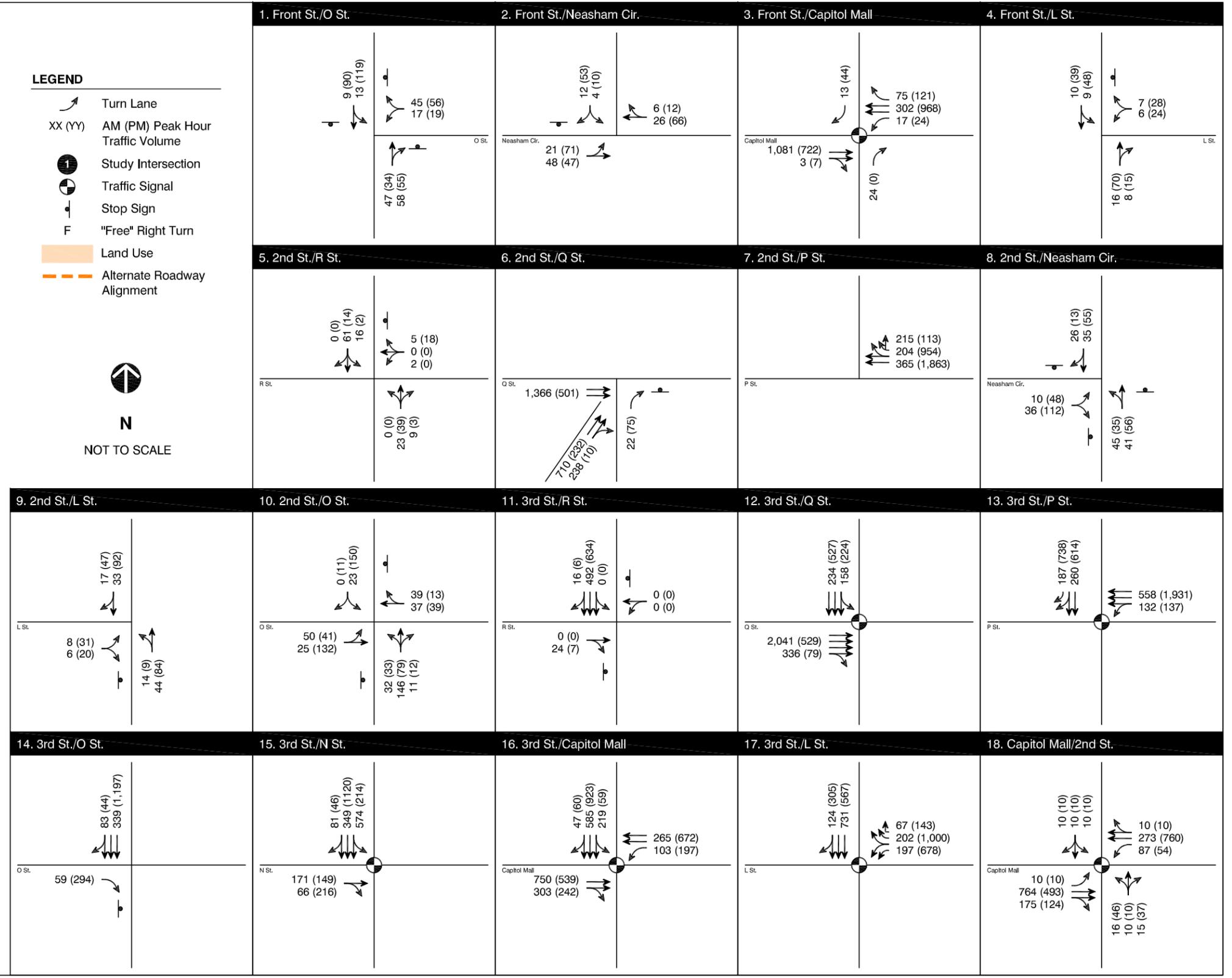




**LEGEND**

- Turn Lane
- XX (YY) AM (PM) Peak Hour Traffic Volume
- Study Intersection
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- Land Use
- Alternate Roadway Alignment

**N**  
 NOT TO SCALE



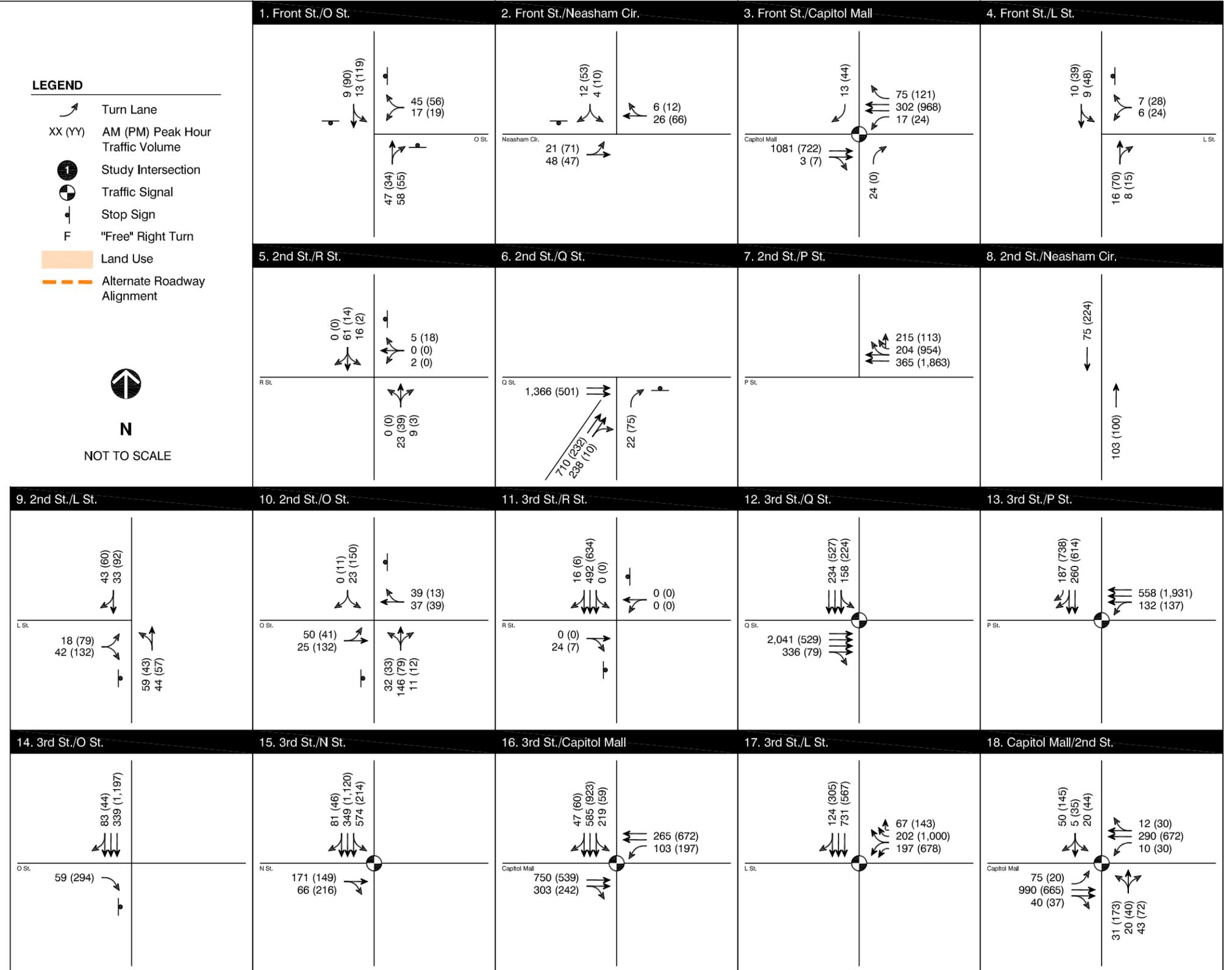




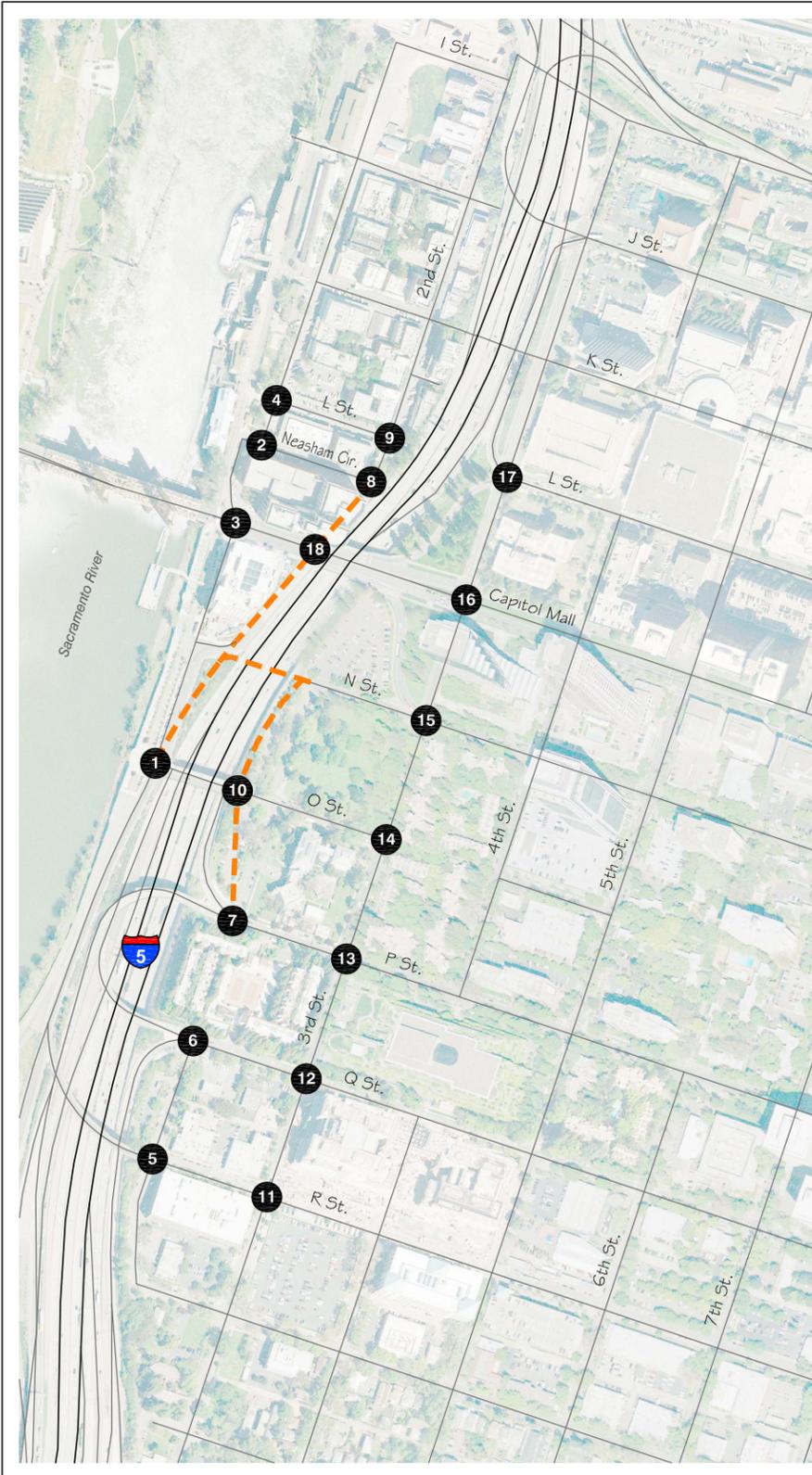
**LEGEND**

- Turn Lane
- XX (YY) AM (PM) Peak Hour Traffic Volume
- Study Intersection
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- Land Use
- Alternate Roadway Alignment

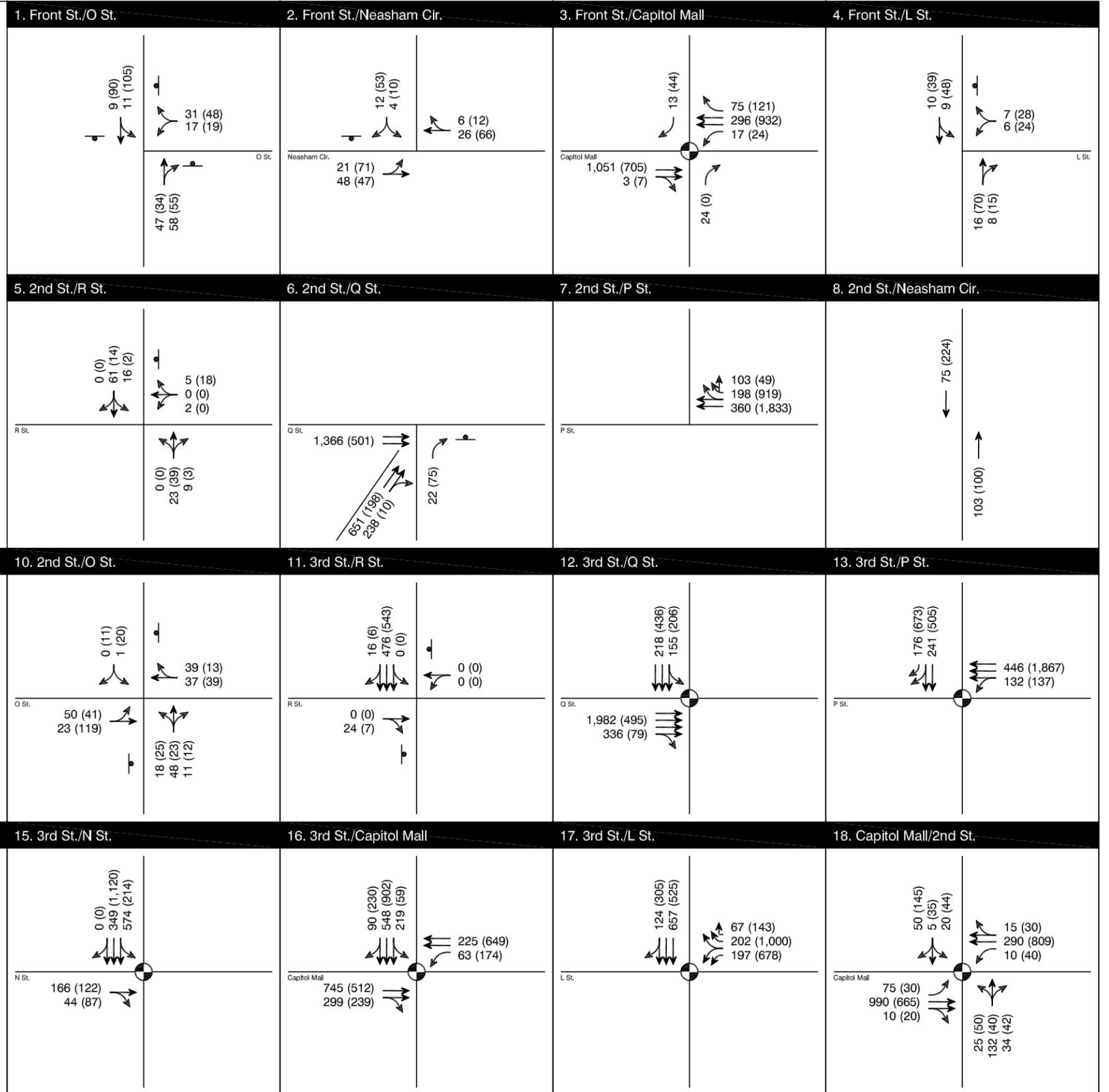
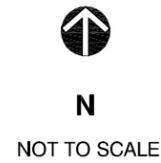
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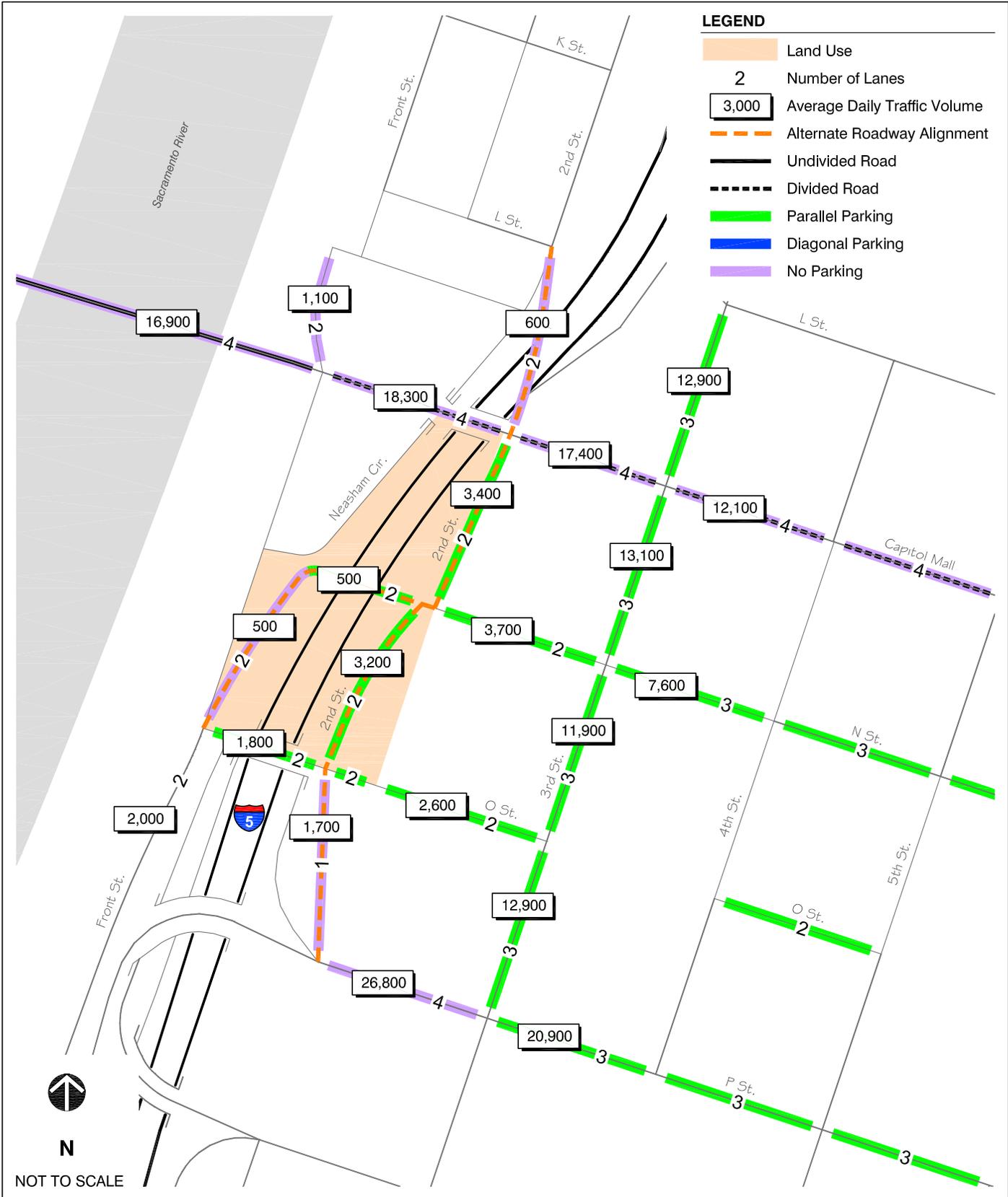


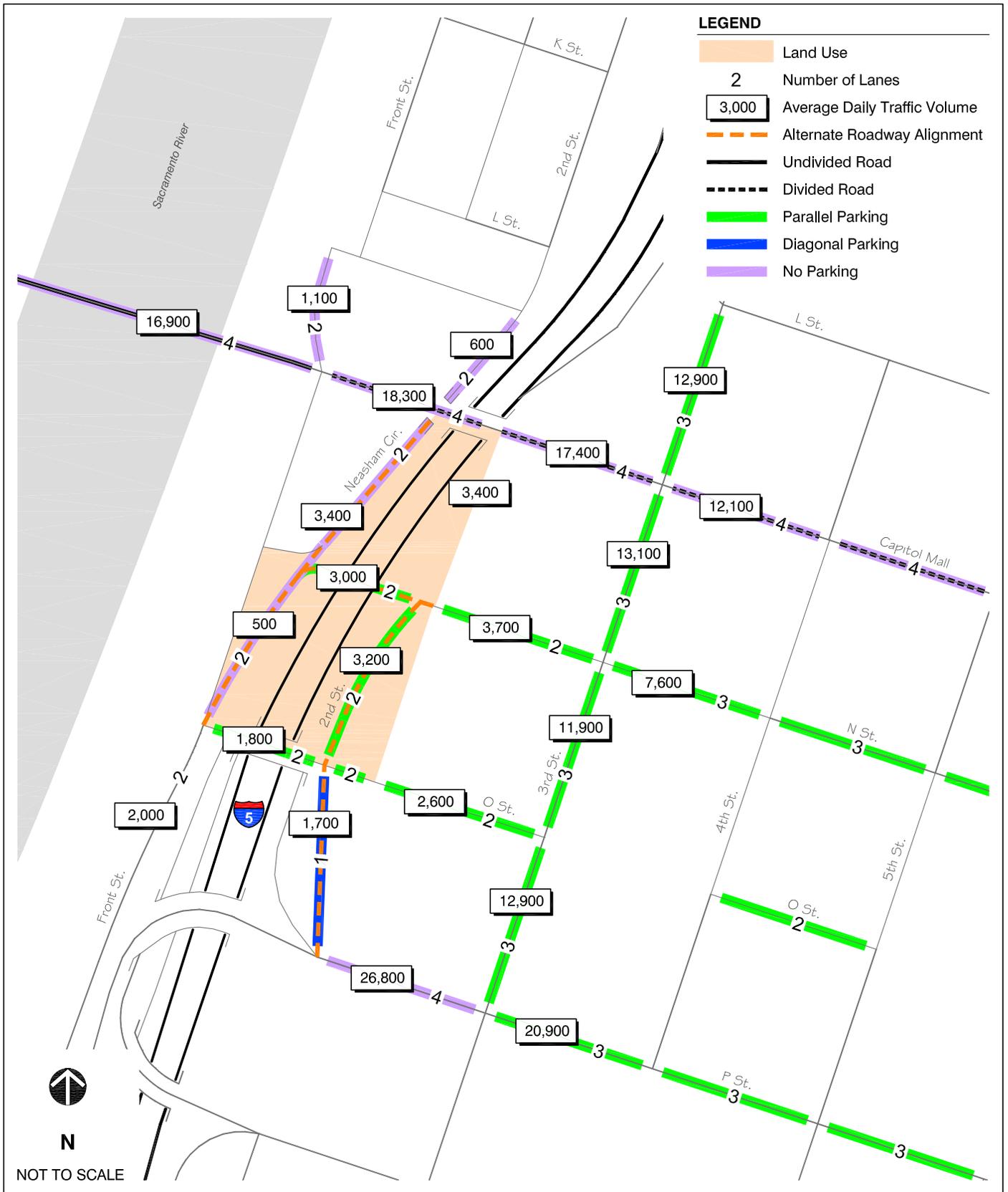


- LEGEND**
- Turn Lane
  - XX (YY) AM (PM) Peak Hour Traffic Volume
  - Study Intersection
  - Traffic Signal
  - Stop Sign
  - F "Free" Right Turn
  - Alternate Roadway Alignment











**TABLE 6  
PEAK HOUR INTERSECTION LEVEL OF SERVICE  
EXISTING WITH AND WITHOUT PROJECT CONDITIONS**

Intersection	Traffic Control	Peak Hour	Existing		Alternative 1		Alternative 2		Alternative 3	
			Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1. Front St./O St.	AWSC <sup>2</sup>	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	<10	A	<10	A
2. Front St./ Neasham Cir.	SSSC <sup>3</sup>	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	<10	A	<10	A
3. Front St./ Capitol Mall	Signal <sup>1</sup>	AM	13	B	13	B	13	B	13	B
		PM	11	B	11	B	11	B	11	B
4. Front St./L St.	SSSC	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	<10	A	<10	A
5. 2 <sup>nd</sup> St./R St.	SSSC	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	<10	A	<10	A
6. 2 <sup>nd</sup> St./Q St.	SSSC	AM	14	B	14	B	14	B	14	B
		PM	10	A	10	A	10	A	10	A
7. 2 <sup>nd</sup> St./P St.	SSSC	AM	10	A	<10	A	<10	A	<10	A
		PM	22	C	<10	A	<10	A	<10	A
8. 2 <sup>nd</sup> St/ Neasham Cir.	AWSC	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	<10	A	<10	A
9. 2 <sup>nd</sup> St./L St.	SSSC	AM	<10	A	<10	A	<10	A	<10	A
		PM	10	A	10	A	11	B	11	B
10. 2 <sup>nd</sup> St./O St.	SSSC	AM	10	A	12	B	12	B	10	B
		PM	10	A	19	C	19	C	15	B
11. 3 <sup>rd</sup> St./R St.	SSSC	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	<10	A	<10	A
12. 3 <sup>rd</sup> St./Q St.	Signal	AM	10	A	11	B	11	B	10	A
		PM	22	C	20	C	20	C	22	C
13. 3 <sup>rd</sup> St./P St.	Signal	AM	<10	A	<10	B	<10	B	<10	A
		PM	23	C	38	D	38	D	23	C
14. 3 <sup>rd</sup> St./O St.	SSSC	AM	<10	A	<10	A	<10	A	<10	A
		PM	11	B	16	C	16	C	12	B
15. 3 <sup>rd</sup> St./N St.	Signal	AM	13	B	11	B	11	B	11	B
		PM	14	B	34	C	34	C	17	B
16. 3 <sup>rd</sup> St./ Capitol Mall	Signal	AM	31	C	59	E	59	E	59	E
		PM	22	C	21	C	21	C	20	B
17. 3 <sup>rd</sup> St./L St.	Signal	AM	14	B	14	B	14	B	14	B
		PM	64	E	>80	F	>80	F	>80	F
18. 2 <sup>nd</sup> St./ Capitol Mall	Signal	AM	--	--	24	C	27	C	26	C
		PM	--	--	18	B	56	E	52	D

Notes: V/C = volume-to-capacity ratio.

1. Signalized intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000).
2. AWSC = All Way Stop Control. All-way stop controlled intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000). The overall intersection delays are presented.
3. SSSC = Side Street Stop Control. Side-street stop-controlled intersection level of service is based on worst-case approach average delay per vehicle (in seconds).

**Bold** = LOS F operating condition. Potential significant impact base on thresholds defined on page 6 of this report.

Source: Fehr & Peers, 2005.

The following intersection operates at LOS F for all project alternatives. All other intersections are projected to operate at an acceptable LOS.

- 3<sup>rd</sup> Street/L Street (LOS F - PM peak hour)

General Plan Policy M 1.2.2 allows LOS F in the downtown Core Area, if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. As all of the project alternatives enhance the city grid roadway system, the bicycle network, and pedestrian connectivity the project alternatives meet the General Plan goals and project related traffic impacts are not significant.

### Traffic Signal Warrant Analysis

A peak hour volume traffic signal warrant analysis was conducted for the unsignalized study intersections. The results of the peak hour volume warrant analysis indicate that the intersections do not meet this signal warrant's criteria. It was assumed that the traffic control at the intersections would remain as they are currently controlled.

### FREEWAY OPERATIONS

Freeway ramp operations are summarized in Table 7. The following freeway ramp facilities experience unacceptable LOS under Existing Plus Project Conditions for all project alternatives:

- I-5 southbound on-ramp from P Street merge (PM peak hour)
- I-5 northbound weave between the P Street on-ramp and J Street off-ramp (AM and PM Peak hours)

Intersections	Peak Hour	Existing Condition			Alternative 1			Alternative 2			Alternative 3		
		Vol	Density <sup>1</sup>	LOS <sup>2</sup>	Vol	Density	LOS	Vol	Density <sup>1</sup>	LOS <sup>2</sup>	Vol	Density <sup>1</sup>	LOS <sup>2</sup>
1. I-5 southbound Off-ramp to J St. (ramp)	AM	1,810	--	B	1,884	--	B	1,884	--	B	1,810	--	B
	PM	1,210	--	B	1,252	--	B	1,252	--	B	1,210	--	B
2. I-5 southbound on-ramp from P St. (merge)	AM	366	33.2	D	378	33.3	D	378	33.3	D	366	33.2	D
	PM	1,884	--	<b>F</b>	1,956	--	<b>F</b>	1,956	--	<b>F</b>	1,884	--	<b>F</b>
3. I-5 northbound on-ramp from P St. (weave <sup>3</sup> )	AM	206	--	<b>F</b>	227	--	<b>F</b>	227	--	<b>F</b>	206	--	<b>F</b>
	PM	980	--	<b>F</b>	1,071	--	<b>F</b>	1,071	--	<b>F</b>	980	--	<b>F</b>

Notes: <sup>1</sup> Density reported as passenger cars per mile per lane (pc/mi/ln) in the peak hour.  
<sup>2</sup> Level of service.  
<sup>3</sup> Leisch Method for Weaving Analysis used.  
<sup>4</sup> Demand exceeds capacity.

**Bold = Unacceptable LOS based on significance criteria defined on page 8 of this report.**

## **BICYCLE AND PEDESTRIAN OPERATIONS**

Class II bicycle lanes would be provided on N Street between Front Street and 3<sup>rd</sup> Street and on Capitol Mall between Front Street and 3<sup>rd</sup> Street in all alternatives. They are provided on the new segments of 2<sup>nd</sup> Street in Alternative 1. They would not be provided in Alternative 2. In Alternative 3, bike lanes would be provided on the segment of Front Street between O Street and N Street. In all of the alternatives Neasham Circle will be converted to a pedestrian/bicycle facility south of the access to the One Capitol Mall Building garage.

Sidewalks would be provided on the new segments of N Street and a sidewalk would be added to the south side of the O Street bridge over I-5 for all alternatives. Alternative 1 would provide for sidewalks on 2<sup>nd</sup> Street, but design constraints allow a sidewalk only on the west side of the street for Alternatives 2 and 3. None of the alternatives will result in additional safety problems for pedestrians

Except for during construction, where temporary disruption of existing bicycle and pedestrian facilities could occur, the project would not affect existing or planned bicycle or pedestrian facilities. The project alternatives would provide improved connections for bicycles from the Sacramento River bicycle facilities and existing and planned bicycle facilities to the downtown area. All of the project alternatives would improve the ability for pedestrians to access the Sacramento River waterfront and Old Sacramento, but Alternative 1 would provide the best pedestrian connections. As such, the project would have a less than significant impact on bicycle operations.

## **TRANSIT OPERATIONS**

Alternatives 1 and 2 would increase the number of transit riders to the RT transit system. However, the increase does not overload any transit routes.

Alternative 3 does not include any land use, thus does not result in increases or decreases in transit ridership.

The impacts to the transit system are less than significant.

## 4. CONSTRUCTION YEAR (YEAR 2015) CONDITIONS

This section discusses traffic conditions at the Construction Year (2015) with and without the project. The Construction Year was assumed to be the year for the project is open to traffic. The analysis of future traffic conditions considered short-term development within the City of Sacramento. Assumed land uses include The Docks project, Crocker Museum expansion, 6<sup>th</sup> Street and Capitol Mall building, and Towers on Capitol Mall would be complete.

### PLANNED TRANSPORTATION IMPROVEMENTS

For the Construction Year Condition the following roadway project were assumed to be in-place.

- Conversion of 3<sup>rd</sup> Street to two-way operation between Capitol Mall and L Street
- Extension of two-way operation of 3<sup>rd</sup> Street to I Street
- Removal of the slip ramps to/from Capitol Mall at 3<sup>rd</sup> Street
- Addition of southbound left-turn move at the Capitol Mall/Front Street intersection
- 2<sup>nd</sup> Street between O Street and P Street is a northbound one-way street.

The Cities of West Sacramento and Sacramento are currently investigating the feasibility of installing streetcar service between the two cities by way of the Tower Bridge and Capitol Mall. Timing of installation of this service is not currently defined. However, if streetcar service was installed it would install all of the project alternatives equally.

### PLANNED PROJECTS

The development of Lot X is a reasonably foreseeable project and is thus included as a background project in the citywide travel demand-forecasting model used. Lot X is the block bounded by Capitol Mall, 3<sup>rd</sup> Street, 2<sup>nd</sup> Street, and N Street. A multi-level retail building was assumed for the site.

### TRIP DISTRIBUTION

The citywide travel demand-forecasting model was used to redistribute traffic on the base construction year roadway network to the roadway network with the proposed project.

### INTERSECTION OPERATIONS

Construction Year No Project Condition peak hour traffic at the fifteen study intersections is presented on Figure 14. Figure 15 presents the Construction Year No Project Condition daily traffic volumes, assumed number of lanes, and assumed on-street parking types for the study area roadways.

Construction Year with Project Condition peak hour traffic at the study intersections is presented on Figures 16 through 18. The figures show the lane configurations, peak hour traffic volumes, and traffic control for the project alternatives. Figures 19 through 21 present daily traffic volumes, assumed number of lanes, and assumed on-street parking types for study area roadways for the project alternatives.

### **Level of Service**

The AM and PM peak hour operations were evaluated at each study intersection. The analysis was completed using the Synchro software package. Table 8 presents the intersection level of service analysis results. The detailed peak hour intersection LOS calculations are presented in Appendix C. Addition of the project to the City of Sacramento circulation network (no project) causes the delay at the following intersections to reach LOS F for the no project alternative. All other intersections are projected to operate at an acceptable LOS.

- 3<sup>rd</sup> Street/Capitol Mall (LOS F - AM and PM peak hours).

The following intersections operate at LOS F for project Alternative 1. All other intersections are projected to operate at an acceptable LOS.

- 3<sup>rd</sup> Street/L Street (LOS F - PM peak hour)
- 3<sup>rd</sup> Street/Capitol Mall (LOS F- AM peak hour)
- 2<sup>nd</sup> Street/O Street (LOS F - PM peak hour)

The following intersections operate at LOS F for project Alternative 2. All other intersections are projected to operate at an acceptable LOS.

- 3<sup>rd</sup> Street/L Street (LOS F - PM peak hour)
- 3<sup>rd</sup> Street/Capitol Mall (LOS F- AM peak hour)
- 3<sup>rd</sup> Street/N Street (LOS F –PM peak hour)
- 3<sup>rd</sup> Street/P Street (LOS F - PM peak hour)
- 2<sup>nd</sup> Street/O Street (LOS F – PM peak hour)
- 3<sup>rd</sup> Street/O Street (LOS F - PM peak hour)

The following intersections operate at LOS F for Alternative 3. All other intersections are projected to operate at an acceptable LOS.

- 3<sup>rd</sup> Street/L Street (LOS F - PM peak hour)
- 2<sup>nd</sup> Street/O Street (LOS F – PM peak hour)

General Plan Policy M 1.2.2 allows LOS F in the downtown Core Area, if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. As all of the project alternatives enhance the city grid roadway system, the bicycle network, and pedestrian connectivity the project alternatives meet the General Plan goals and project related traffic impacts are not significant.

**TABLE 8  
PEAK HOUR INTERSECTION LEVEL OF SERVICE  
CONSTRUCTION YEAR WITH AND WITHOUT PROJECT CONDITIONS**

Intersection	Traffic Control	Peak Hour	No Project		Alternative 1		Alternative 2		Alternative 3	
			Delay (Sec)	LOS						
1. Front St./O St.	AWSC <sup>2</sup>	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	<10	A	<10	A
2. Front St./ Neasham Cir.	SSSC <sup>3</sup>	AM	<10	A	<10	A	<10	A	<10	A
		PM	10	A	10	A	10	A	10	A
3. Front St./ Capitol Mall	Signal <sup>1</sup>	AM	14	B	15	B	14	B	14	B
		PM	12	B	12	B	14	B	13	B
4. Front St./L St.	SSSC	AM	<10	A	<10	A	<10	A	<10	A
		PM	10	A	10	A	10	A	10	A
5. 2 <sup>nd</sup> St./R St.	SSSC	AM	10	A	10	A	10	A	10	A
		PM	<10	A	<10	A	<10	A	<10	A
6. 2 <sup>nd</sup> St./Q St.	SSSC	AM	16	C	16	C	16	C	15	C
		PM	10	A	10	A	10	A	10	A
7. 2 <sup>nd</sup> St./P St.	SSSC	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	<10	A	<10	A
8. 2 <sup>nd</sup> St/ Neasham Cir.	AWSC	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	<10	A	<10	A
9. 2 <sup>nd</sup> St./L St.	SSSC	AM	<10	A	10	A	12	B	12	B
		PM	10	A	12	B	15	B	13	B
10. 2 <sup>nd</sup> St./O St.	SSSC	AM	16	C	16	C	17	C	14	B
		PM	22	C	<b>&gt;50</b>	<b>F</b>	<b>&gt;50</b>	<b>F</b>	<b>&gt;50</b>	<b>F</b>
11. 3 <sup>rd</sup> St./R St.	SSSC	AM	12	B	12	B	12	B	12	B
		PM	12	B	12	B	14	B	13	B
12. 3 <sup>rd</sup> St./Q St.	Signal	AM	10	A	10	A	11	B	11	B
		PM	21	C	20	B	25	C	19	B
13. 3 <sup>rd</sup> St./P St.	Signal	AM	<10	A	<10	A	10	A	10	A
		PM	32	C	36	D	<b>&gt;80</b>	<b>F</b>	64	E
14. 3 <sup>rd</sup> St./O St.	SSSC	AM	10	B	<10	A	10	B	<10	A
		PM	17	C	23	C	<b>&gt;50</b>	<b>F</b>	29	D
15. 3 <sup>rd</sup> St./N St.	Signal	AM	14	B	15	B	65	E	60	E
		PM	67	E	40	D	<b>&gt;80</b>	<b>F</b>	80	E
16. 3 <sup>rd</sup> St./ Capitol Mall	Signal	AM	<b>&gt;80</b>	<b>F</b>	<b>&gt;80</b>	<b>F</b>	<b>&gt;80</b>	<b>F</b>	65	E
		PM	<b>&gt;80</b>	<b>F</b>	39	D	32	C	28	C
17. 3 <sup>rd</sup> St./L St.	Signal	AM	15	B	16	B	16	B	16	B
		PM	63	E	<b>&gt;80</b>	<b>F</b>	<b>&gt;80</b>	<b>F</b>	<b>&gt;80</b>	<b>F</b>
18. 2 <sup>nd</sup> St./ Capitol Mall	Signal	AM	--	--	35	C	70	E	73	E
		PM	--	--	26	C	63	E	59	E

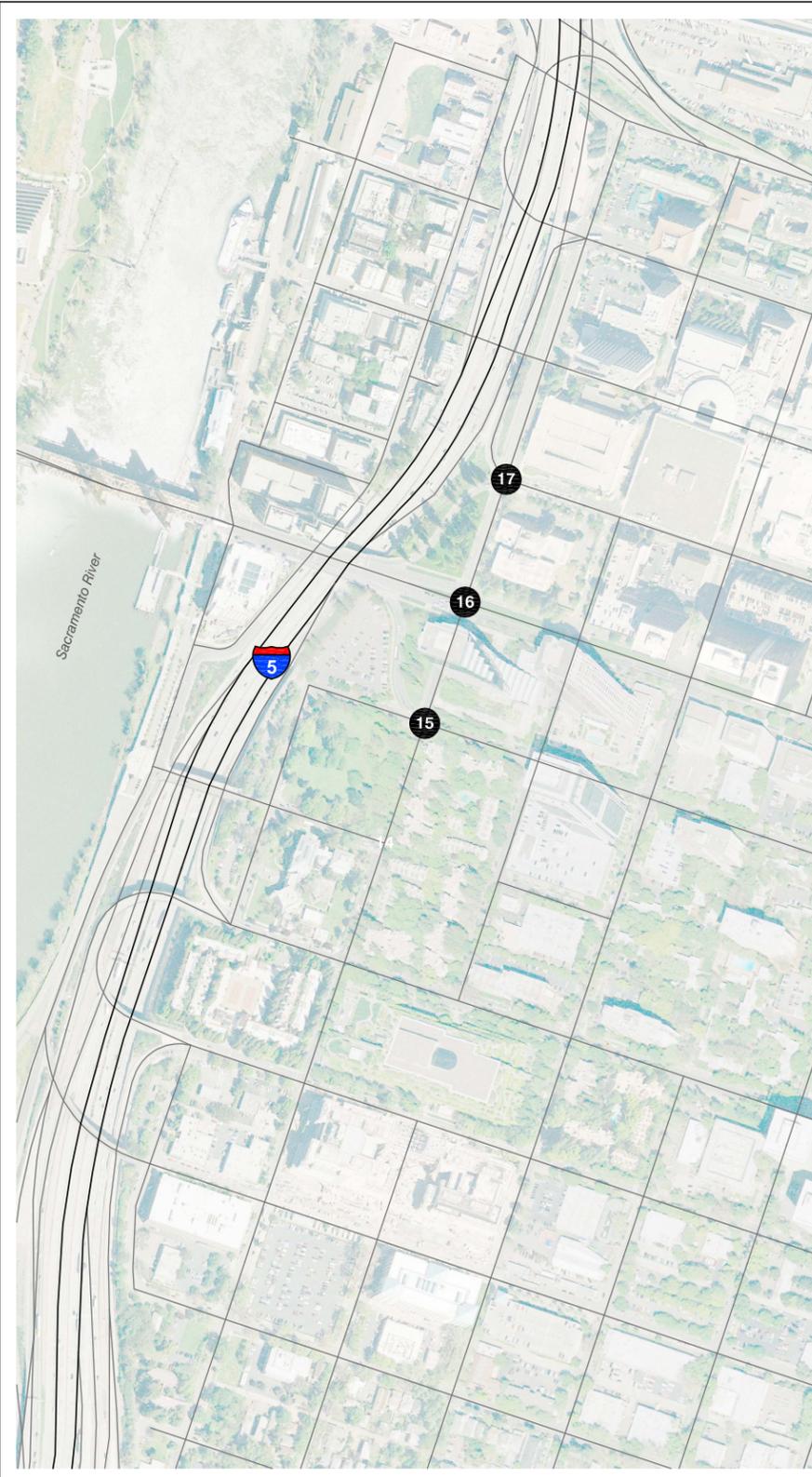
Notes: V/C = volume-to-capacity ratio.

1. Signalized intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000).
2. AWSC = All Way Stop Control. All-way stop controlled intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000). The overall intersection delays are presented.
3. SSSC = Side Street Stop Control. Side-street stop-controlled intersection level of service is based on worst-case approach average delay per vehicle (in seconds).

**Bold** = LOS F operating condition. Potential significant impact base on thresholds defined on page 6 of this report.

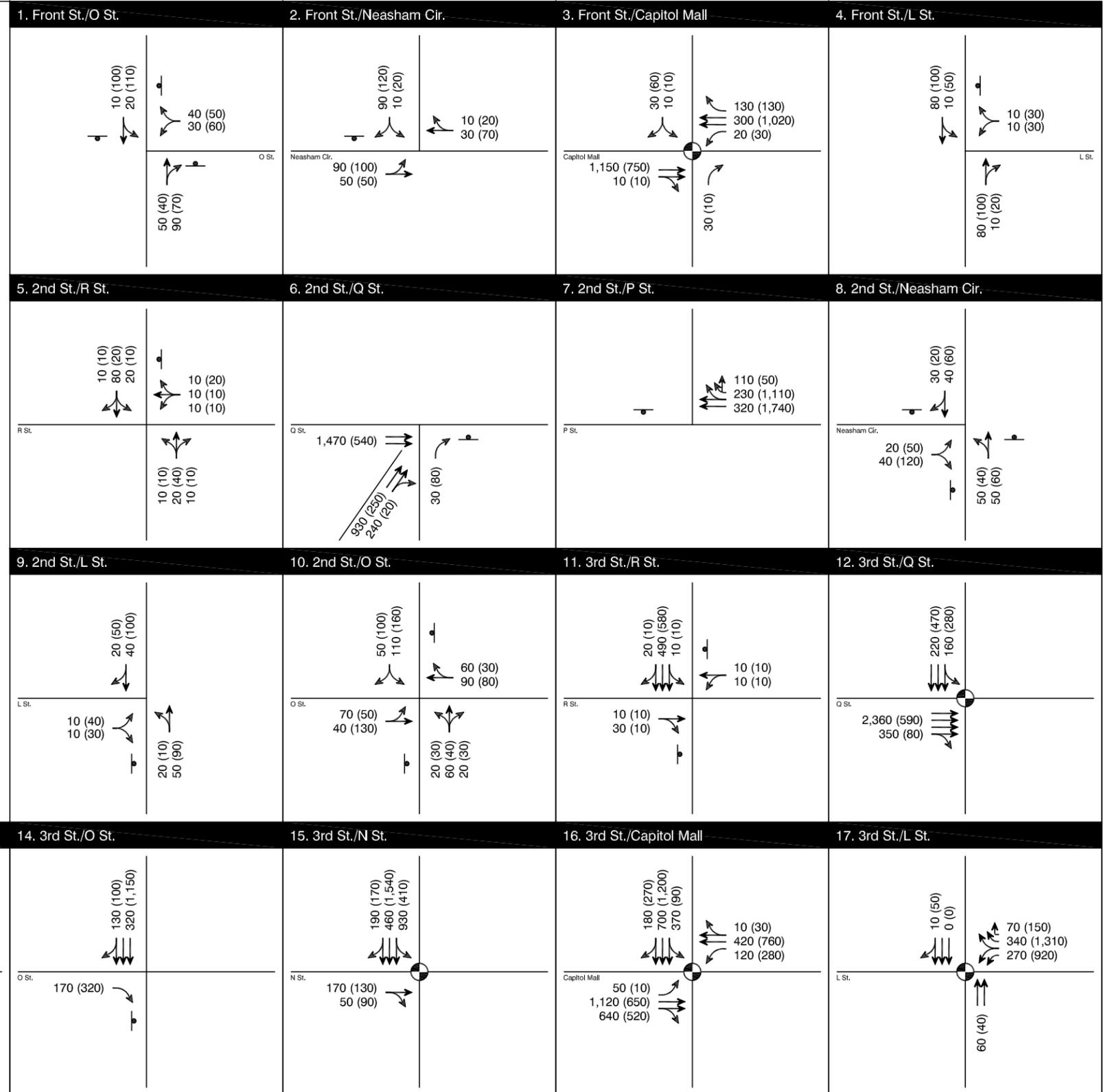
Source: Fehr & Peers, 2005.



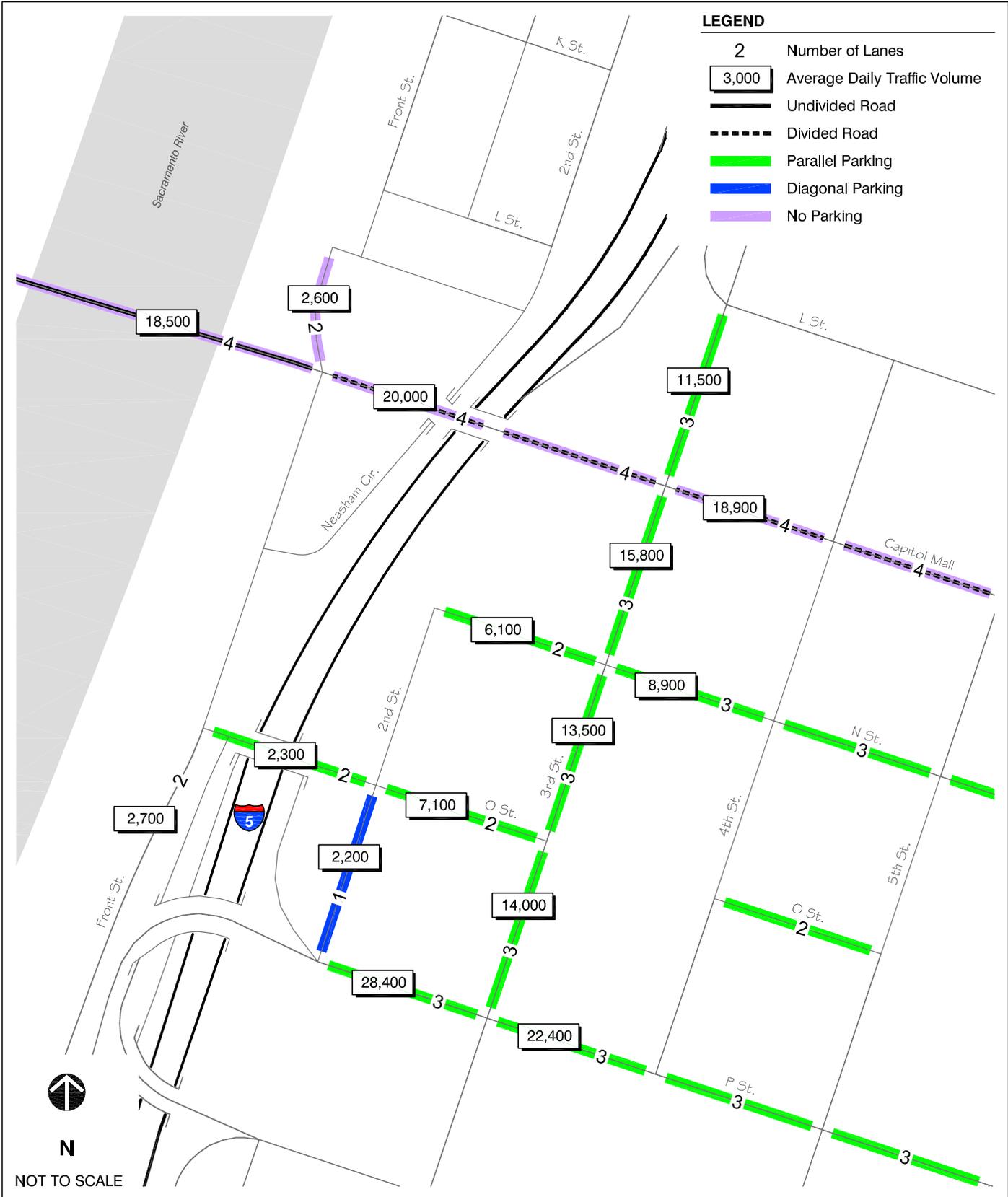


- Turn Lane
- XX (YY)
- Study Intersection
- Traffic Signal
- Stop Sign
- "Free" Right Turn

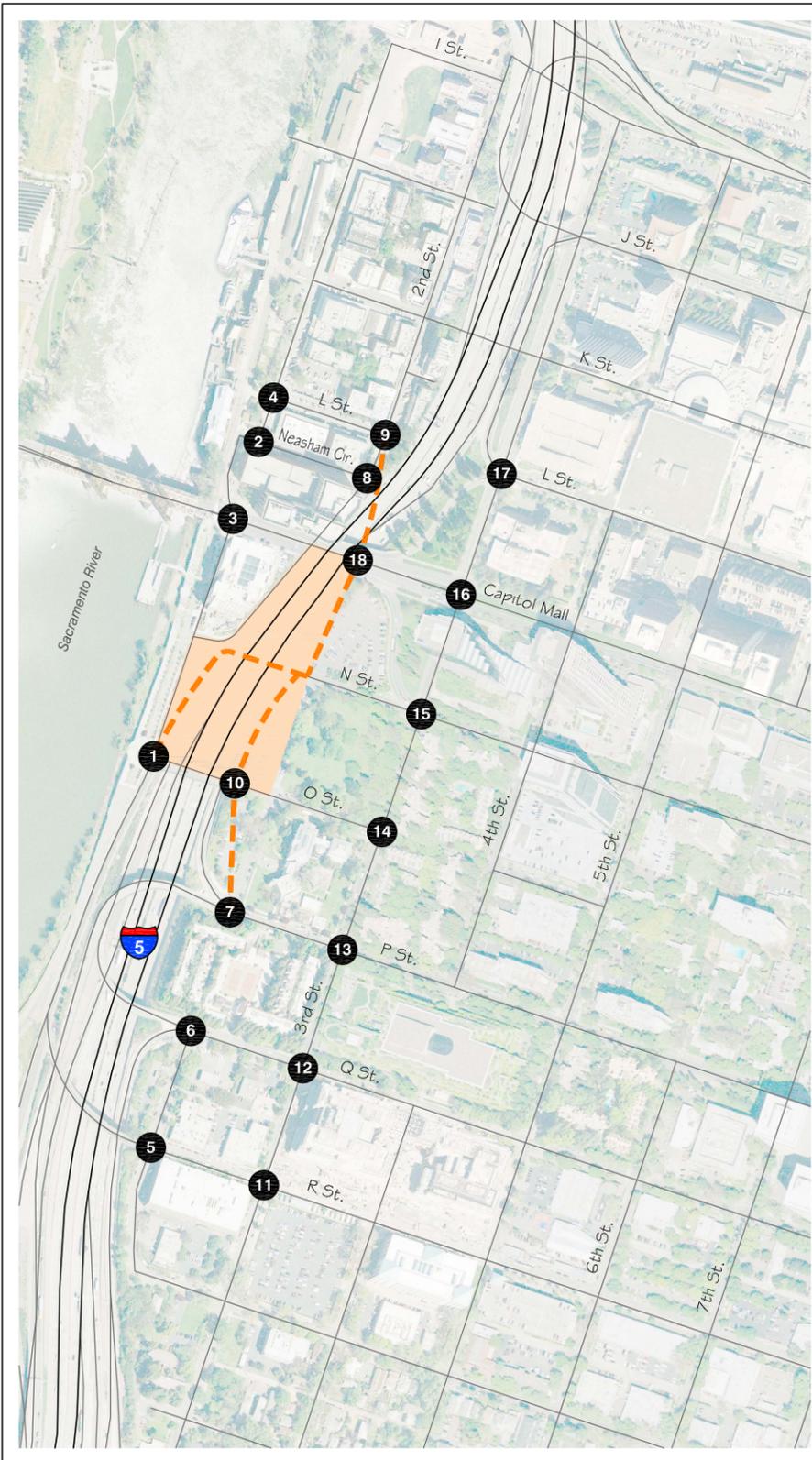
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 NOT TO SCALE







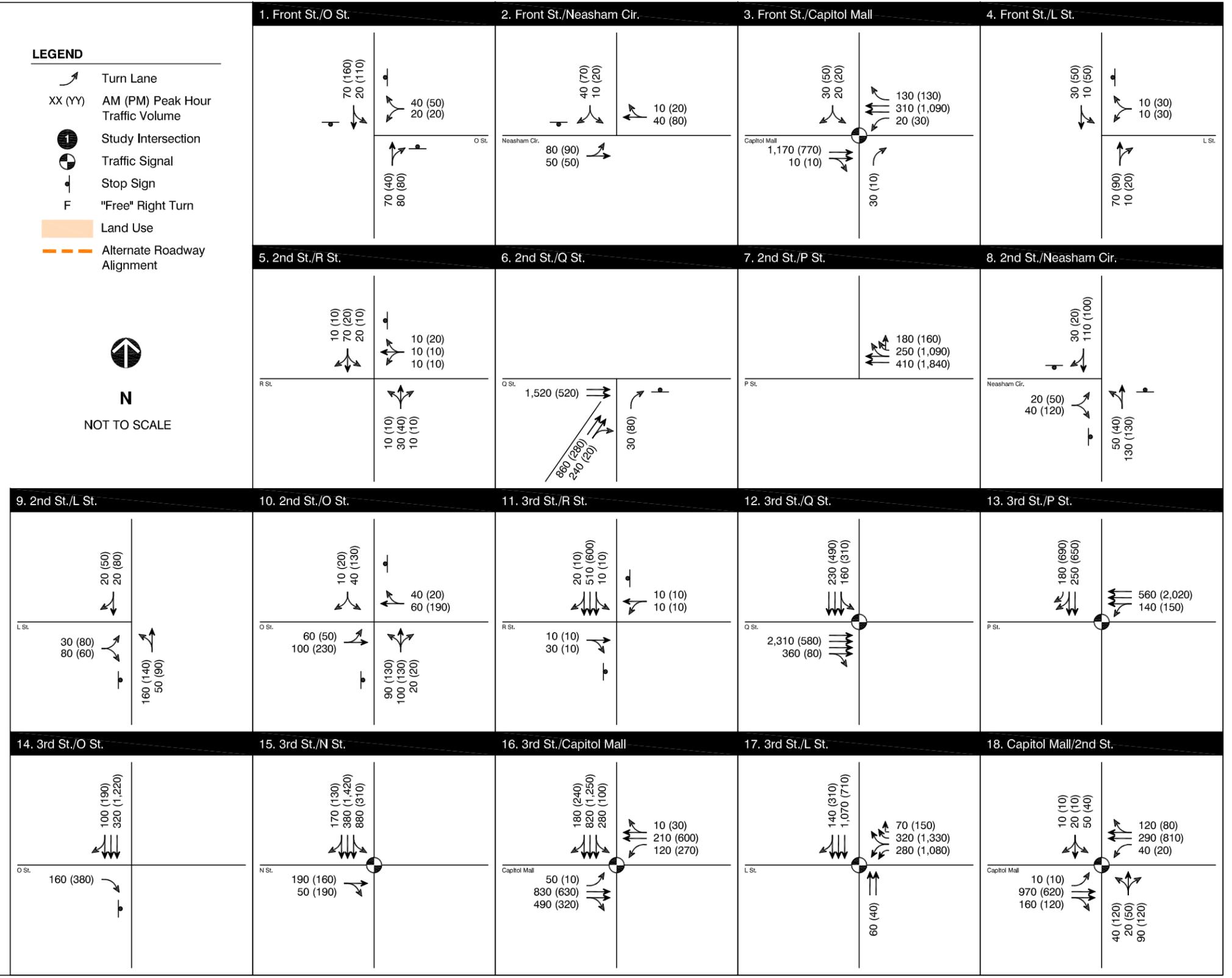




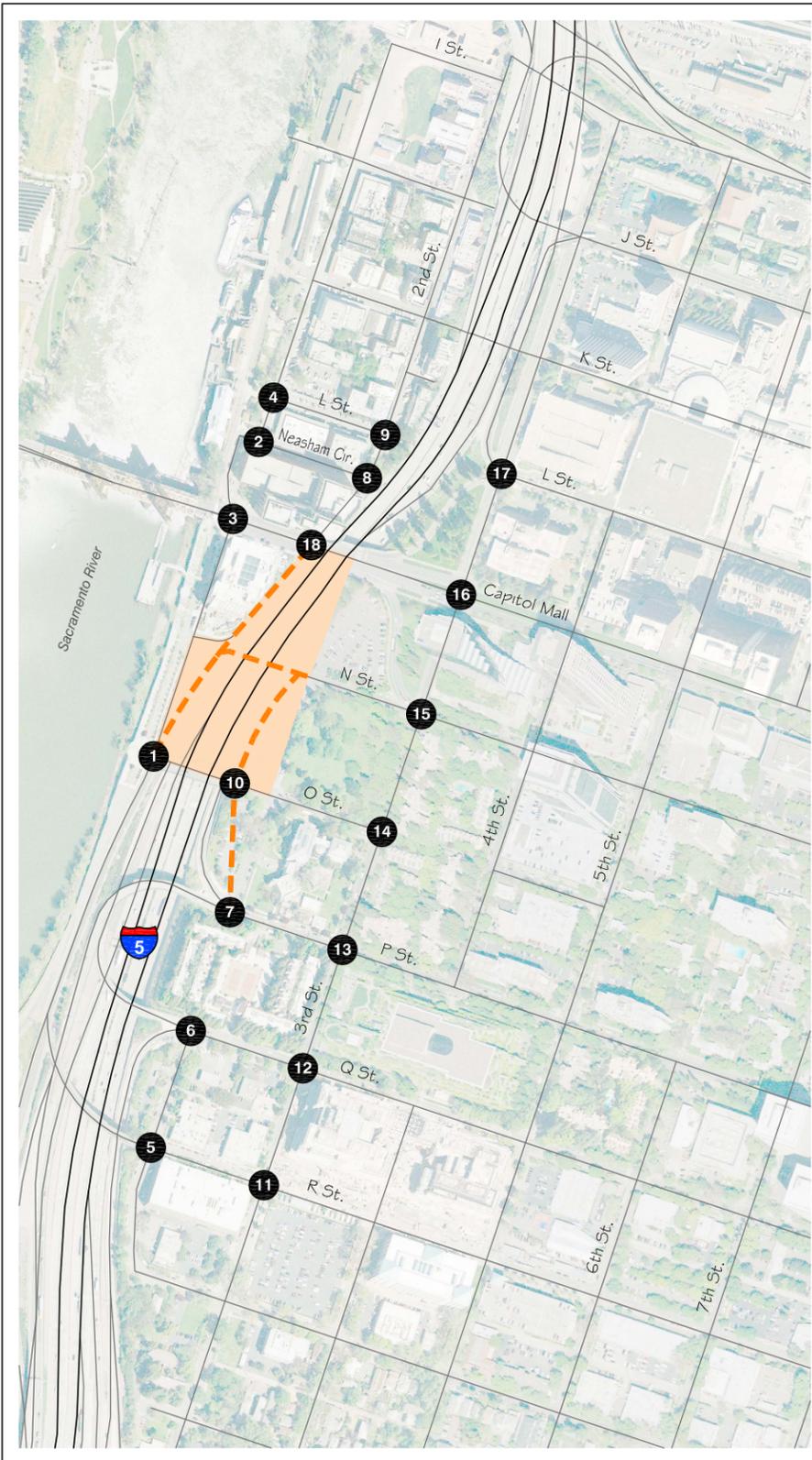
**LEGEND**

- Turn Lane
- XX (YY) AM (PM) Peak Hour Traffic Volume
- Study Intersection
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- Land Use
- Alternate Roadway Alignment

**N**  
 NOT TO SCALE



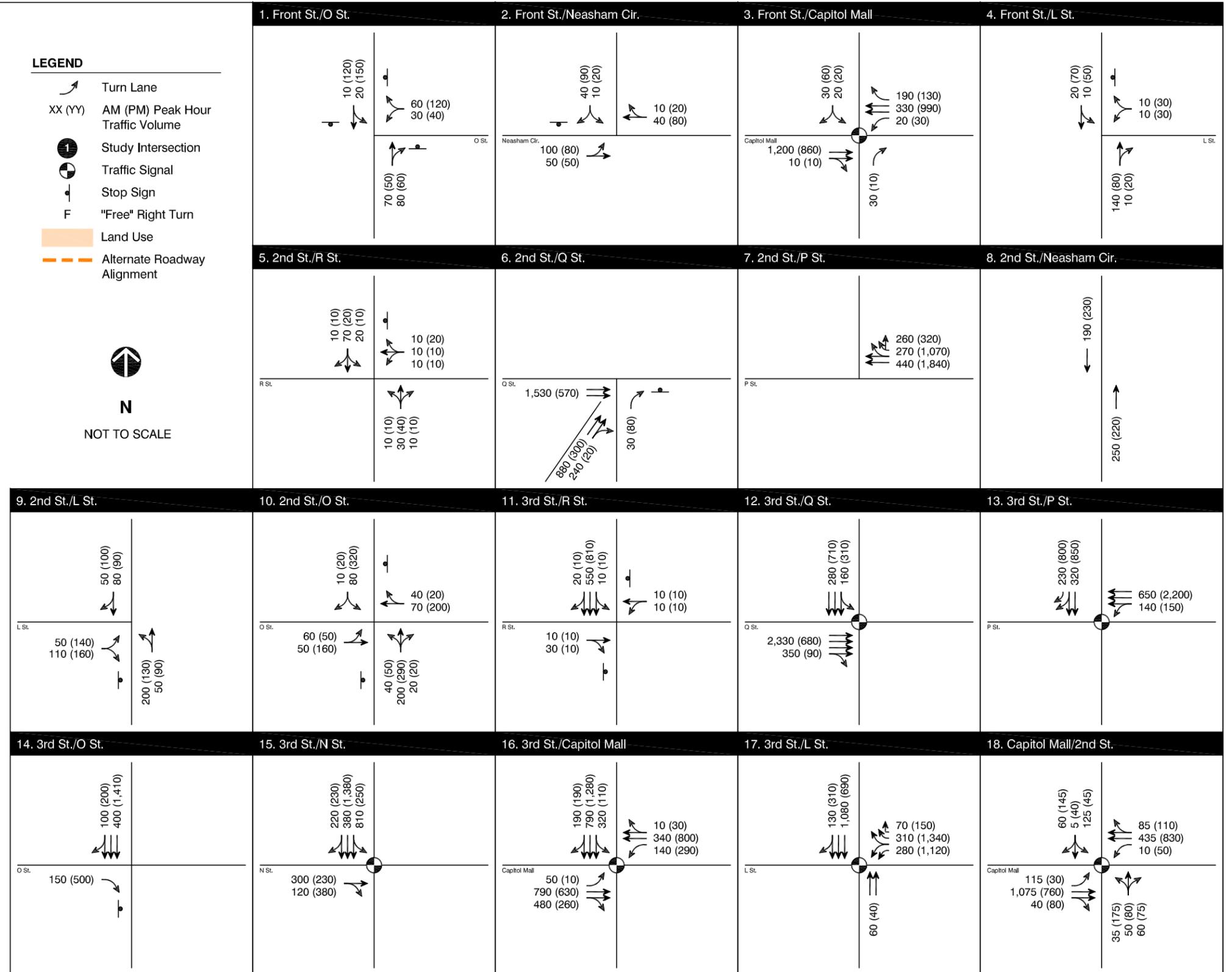




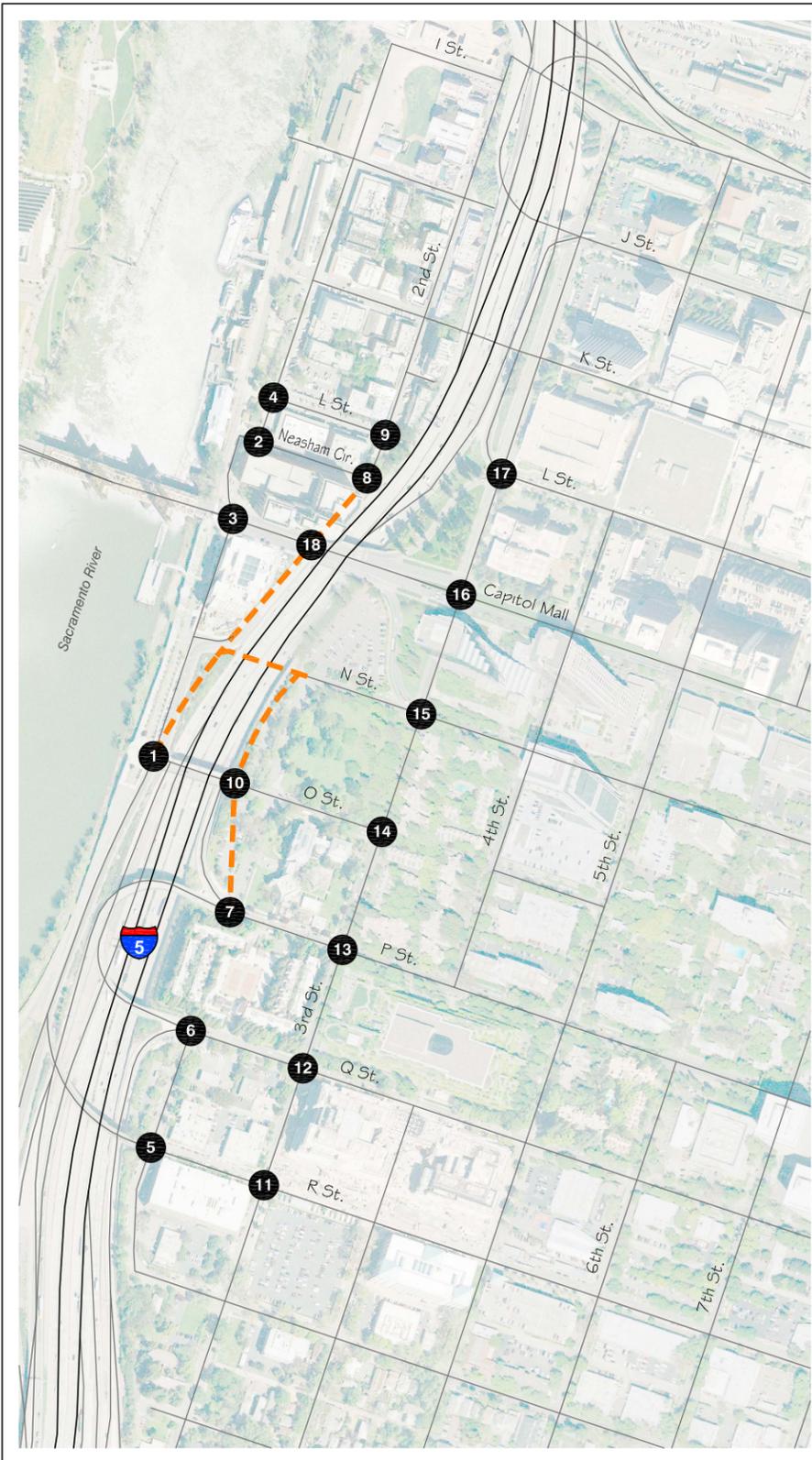
**LEGEND**

- Turn Lane
- XX (YY) AM (PM) Peak Hour Traffic Volume
- Study Intersection
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- Land Use
- Alternate Roadway Alignment

N  
NOT TO SCALE



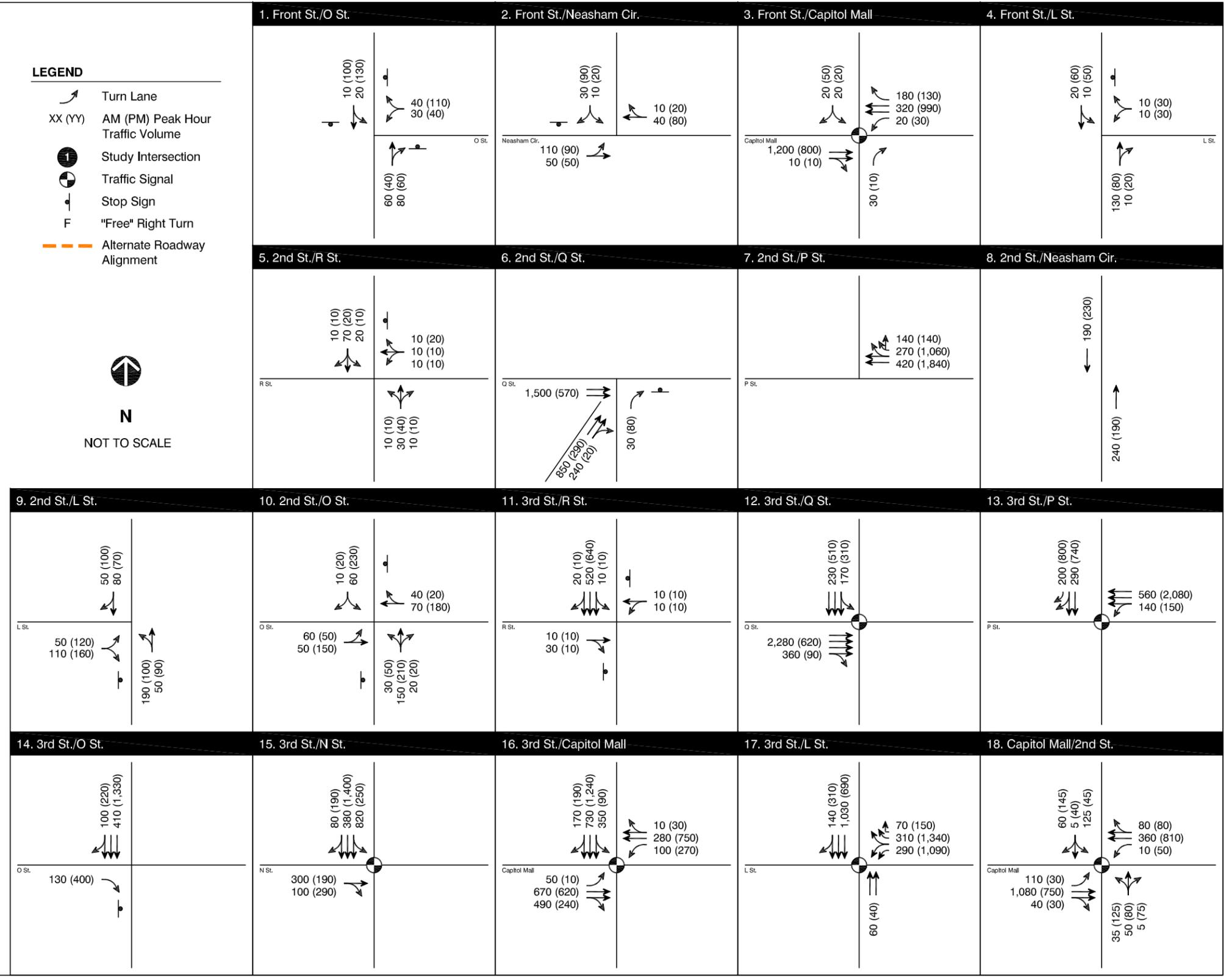




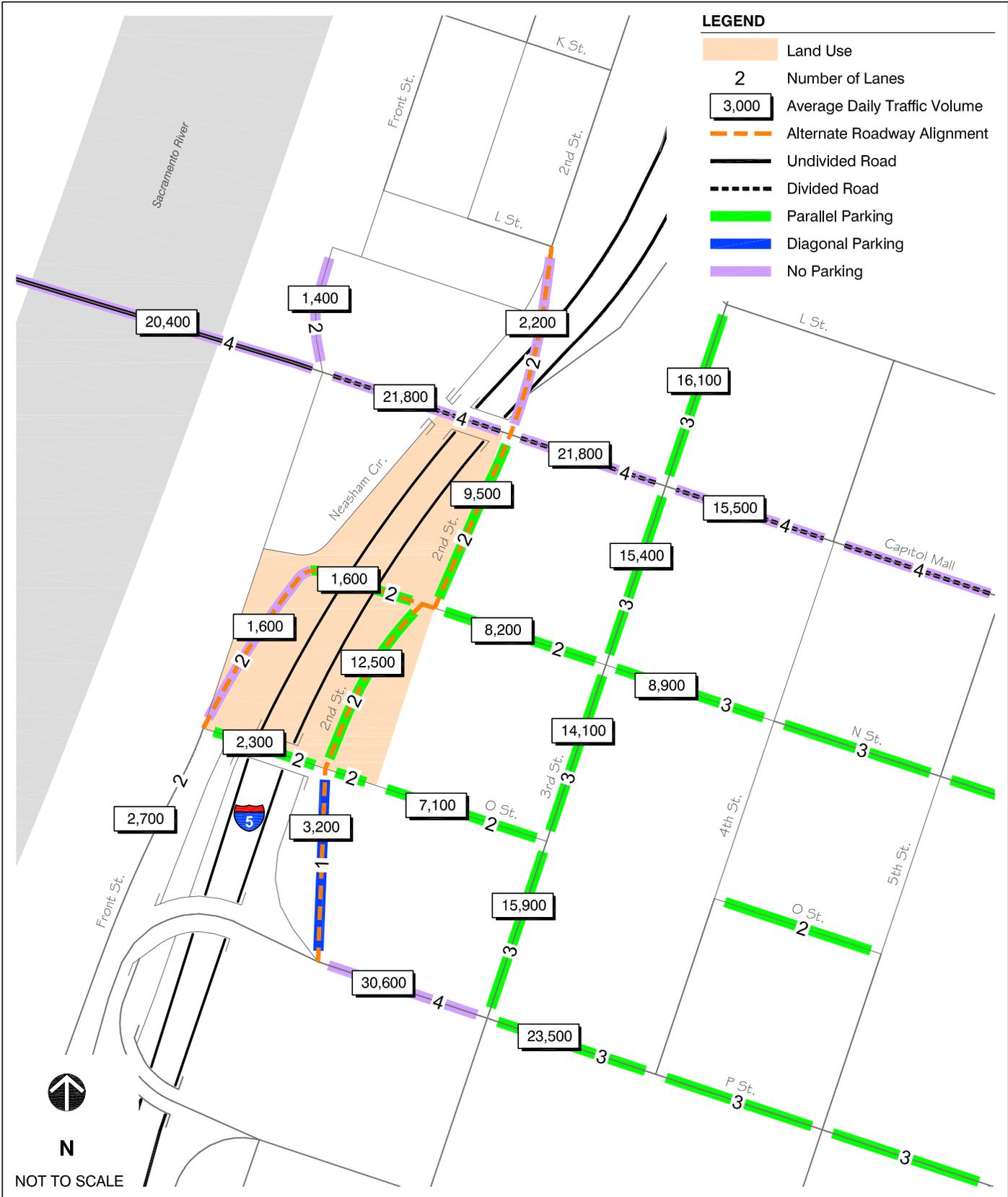
**LEGEND**

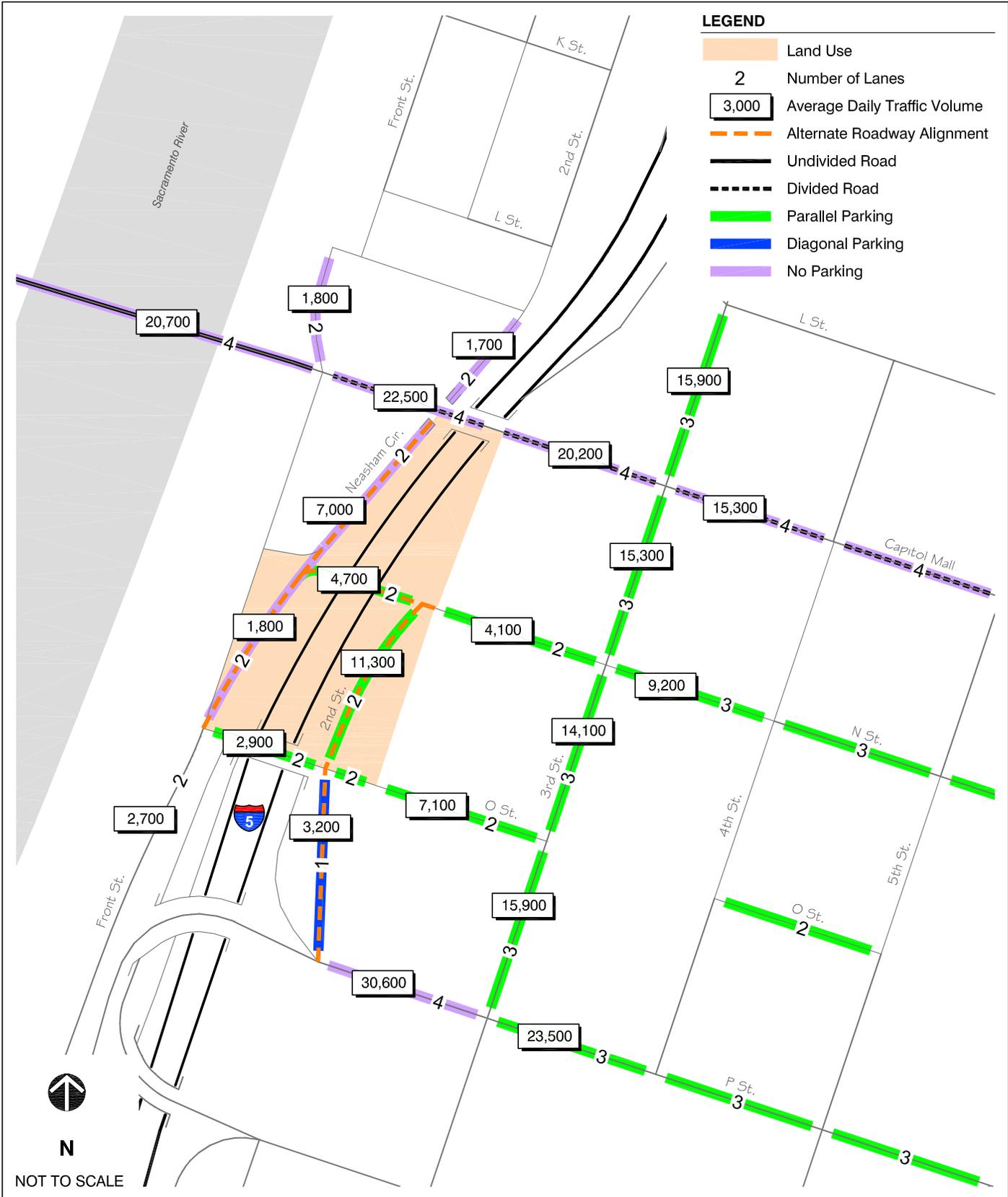
- Turn Lane
- XX (YY) AM (PM) Peak Hour Traffic Volume
- Study Intersection
- Traffic Signal
- Stop Sign
- "Free" Right Turn
- Alternate Roadway Alignment

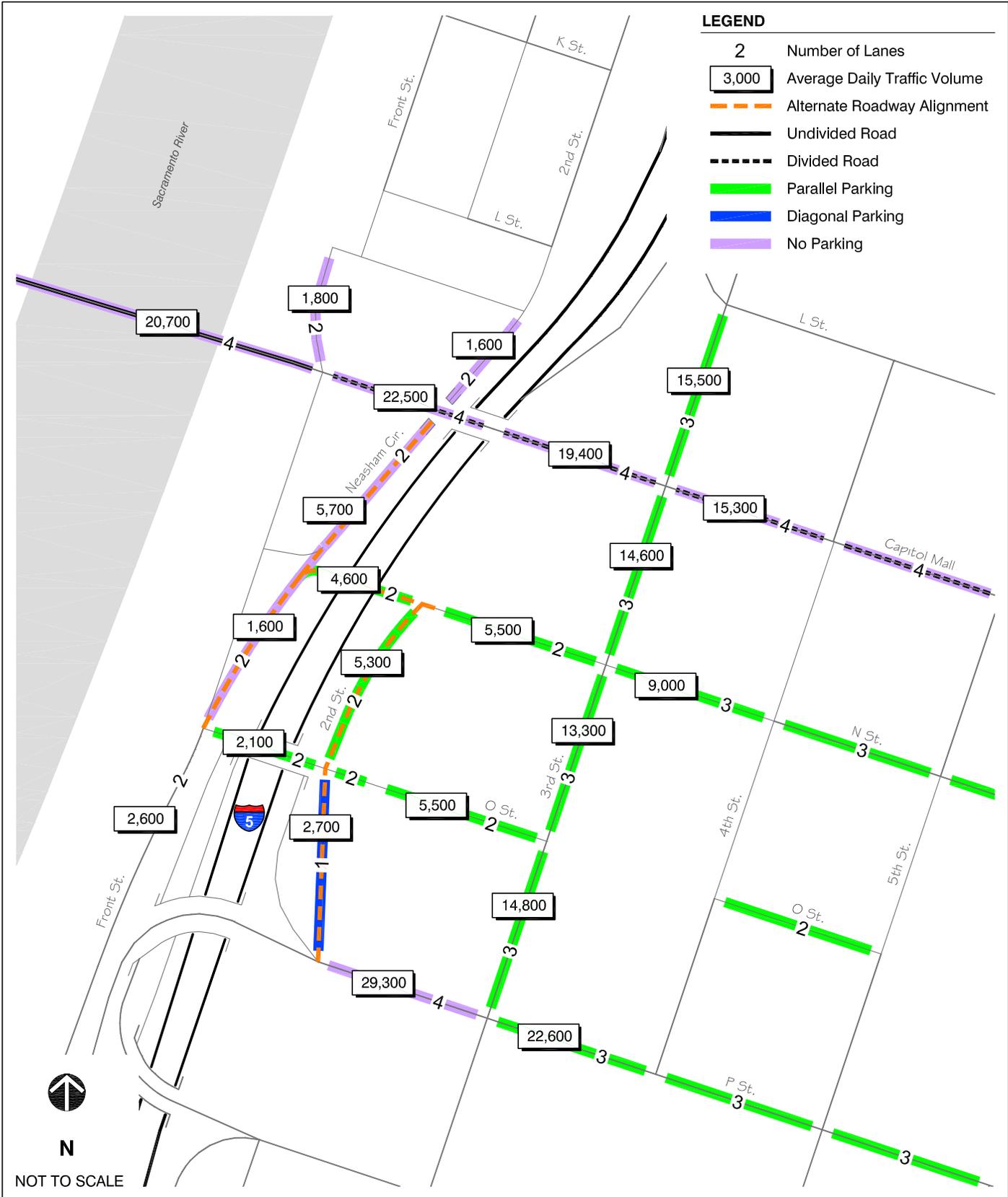
**N**  
 NOT TO SCALE











### Traffic Signal Warrant Analysis

A peak hour volume traffic signal warrant analysis was conducted for the unsignalized intersections. The results of the peak hour volume warrant analysis indicate that the intersections do not meet the peak hour signal warrant criteria for both the without and with project conditions. It was assumed that the traffic control at the intersection would remain as it is currently controlled.

### FREEWAY OPERATIONS

Freeway ramp operations are summarized in Table 9. The increase in traffic from new development in the City of Sacramento and within the region causes and without construction of the proposed project alternatives results in the following freeway ramp facilities to operate at an unacceptable LOS:

- I-5 southbound on-ramp from P Street merge (AM and PM peak hours)
- I-5 northbound weave between the P Street on-ramp and J Street off-ramp (AM Peak hour)

Intersections	Peak Hour	No Project			Alternative 1			Alternative 2			Alternative 3		
		Vol	Density <sup>1</sup>	LOS <sup>2</sup>	Vol	Density	LOS	Vol	Density <sup>1</sup>	LOS <sup>2</sup>	Vol	Density <sup>1</sup>	LOS <sup>2</sup>
1. I-5 southbound Off-ramp to J St. (ramp)	AM	2,160	--	B	2,380	--	C	2,330	--	C	2,260	--	C
	PM	1,320	--	B	1,580	--	B	1,530	--	B	1,450	--	B
2. I-5 southbound on-ramp from P St. (merge)	AM	430	--	<b>F</b>	470	--	<b>F</b>	500	--	<b>F</b>	470	--	<b>F</b>
	PM	2,040	-- <sup>4</sup>	<b>F</b>	2,090	--	<b>F</b>	2,080	--	<b>F</b>	2,050	--	<b>F</b>
3. I-5 northbound on-ramp from P St. (weave <sup>3</sup> )	AM	240	--	<b>F</b>	280	--	<b>F</b>	320	--	<b>F</b>	330	--	<b>F</b>
	PM	1,180	--	<b>F</b>	1,210	--	<b>F</b>	1,180	--	<b>F</b>	1,140	--	<b>F</b>

Notes: <sup>1</sup> Density reported as passenger cars per mile per lane (pc/mi/ln) in the peak hour.  
<sup>2</sup> Level of service.  
<sup>3</sup> Leisch Method for Weaving Analysis used.  
<sup>4</sup> Demand exceeds capacity.

**Bold = Unacceptable LOS based on significance criteria defined on page 8 of this report.**

With construction of any of the project alternatives the following freeway facilities operate at an unacceptable LOS:

- I-5 southbound merge from the P Street on-ramp (AM and PM peak hours)
- I-5 northbound weave between the P Street on-ramp and J Street off-ramp (AM Peak hour)

### BICYCLE AND PEDESTRIAN OPERATIONS

Class II bicycle lanes would be provided on N Street between Front Street and 3<sup>rd</sup> Street and on Capitol Mall between Front Street and 3<sup>rd</sup> Street in all alternatives. They are provided on the new segments of 2<sup>nd</sup> Street in Alternative 1. They would not be provided in Alternative 2. In Alternative 3, bike lanes would be provided on

the segment of Front Street between O Street and N Street. In all of the alternatives Neasham Circle will be converted to a pedestrian/bicycle facility south of the access to the One Capitol Mall Building garage.

Sidewalks would be provided on the new segments of N Street and a sidewalk would be added to the south side of the O Street bridge over I-5 for all alternatives. Alternative 1 would provide for sidewalks on 2<sup>nd</sup> Street, but design constraints allow a sidewalk only on the west side of the street for Alternatives 2 and 3. None of the alternatives will result in additional safety problems for pedestrians.

Except for during construction, where temporary disruption of existing bicycle and pedestrian facilities could occur, the project would not affect existing or planned bicycle or pedestrian facilities. The project alternatives would provide improved connections for bicycles from the Sacramento River bicycle facilities and existing and planned bicycle facilities to the downtown area. All of the project alternatives would improve the ability for pedestrians to access the Sacramento River waterfront and Old Sacramento, but Alternative 1 would provide the best pedestrian connections. As such, the project would have a less than significant impact on bicycle operations.

### **TRANSIT OPERATIONS**

Alternatives 1 and 2 would increase the number of transit riders to the RT transit system. However, the increase will not overload any transit routes.

Alternative 3 does not include any land use, thus does not result in increases or decreases in transit ridership.

The impacts to the transit system are less than significant.

## 5. DESIGN (YEAR 2035) CONDITIONS

This chapter discusses Design Year (2035) traffic conditions, both without and with the project. The analysis of future traffic conditions considered future development within the City of Sacramento.

### PLANNED TRANSPORTATION IMPROVEMENTS

The following roadway improvements within the study area are planned by the City of Sacramento and were assumed in place for the Design Year conditions analysis.

- Conversion of 3<sup>rd</sup> Street to two-way operation between Capitol Mall and L Street
- Extension of two-way operation of 3<sup>rd</sup> Street to I Street
- Closure of the slip ramps to/from Capitol Mall at 3<sup>rd</sup> Street
- 2<sup>nd</sup> Street between O Street and P Street is a northbound one-way street.

The Cities of West Sacramento and Sacramento are currently investigating the feasibility of installing streetcar service between the two cities by way of the Tower Bridge and Capitol Mall. Timing of installation of this service is not currently defined. However, if streetcar service was installed it would install all of the project alternatives equally.

### TRAFFIC FORECASTS

The City of Sacramento version of the SACOG SACMET Travel Demand Model was used to develop AM and PM peak hour intersection volumes and daily (24-hour) traffic volumes for both Construction Year (Year 2015) and Design (Year 2035) conditions. This model contains buildout of proposed projects in the downtown area of the City of Sacramento. This includes the proposed Railyards Plan, Docks Plan, development of eleven residential towers, development of commercial uses on Lot X, and development in The Triangle area (including Raley's Landing) in the City of West Sacramento.

Using the existing traffic volumes and knowledge of the future roadway improvements, the raw model forecast volumes were compared to the existing traffic volumes to determine if existing and future travel patterns are reflected in the traffic model. Where needed, adjustment to the raw model outputs were made by adding growth in traffic between the base year and future year models to the existing traffic volumes.

Figure 22 displays the anticipated year 2035 AM and PM peak hour turning movements and lane configurations at the study intersections for the Design Year No Project Condition. Figure 23 presents the Design (Year 2035) No Project Condition daily traffic volumes, assumed number of lanes, and assumed on-street parking type for study area roadways.

The project traffic was added to the City of Sacramento roadway network to form the basis of the Design Year Plus Project analysis. Figures 24 through 26 show the Design Year Plus Project traffic volumes. Figures 27 through 29 present the Design (Year 2035) plus Project Condition daily traffic volumes, assumed number of lanes, and assumed on-street parking type for study area roadways.

## INTERSECTION OPERATIONS

The analysis of Design Conditions intersection operations was performed using HCM 2000 methods. The analysis was completed using the Synchro software package.

### **Level of Service**

The AM and PM peak hour operations were evaluated at each study intersection. Table 10 presents the results. The detailed peak hour intersection LOS calculations are presented in Appendix D.

### **Build Year No Project**

The AM and PM peak hour operations were evaluated at each study intersection. The following four intersections operate at LOS F for the no project alternative. All other intersections are projected to operate at an acceptable LOS.

- 3<sup>rd</sup> Street/L Street (LOS F - PM peak hour)
- 3<sup>rd</sup> Street/Capitol Mall (LOS F – AM and PM peak hours)
- 3<sup>rd</sup> Street/P Street (LOS F - PM peak hour)
- 3<sup>rd</sup> Street/N Street (LOS F - PM peak hour)

### **Build Year Plus Project**

The AM and PM peak hour operations were evaluated at each study intersection. The following seven intersections operate at LOS F for project Alternative 1. All other intersections are projected to operate at an acceptable LOS.

- 3<sup>rd</sup> Street/L Street (LOS F - PM peak hour)
- 3<sup>rd</sup> Street/Capitol Mall (LOS F - AM and PM peak hours)
- 3<sup>rd</sup> Street/N Street (LOS F - PM peak hour)
- 3<sup>rd</sup> Street/P Street (LOS F - PM peak hour)
- 2<sup>nd</sup> Street/Capitol Mall (LOS F - AM and PM peak hours)
- 2<sup>nd</sup> Street/O Street (LOS F – AM and PM peak hours)
- 3<sup>rd</sup> Street/O Street (LOS F - PM peak hour)

**TABLE 10  
DESIGN YEAR WITH AND WITHOUT PROJECT CONDITIONS  
PEAK HOUR INTERSECTION LEVEL OF SERVICE**

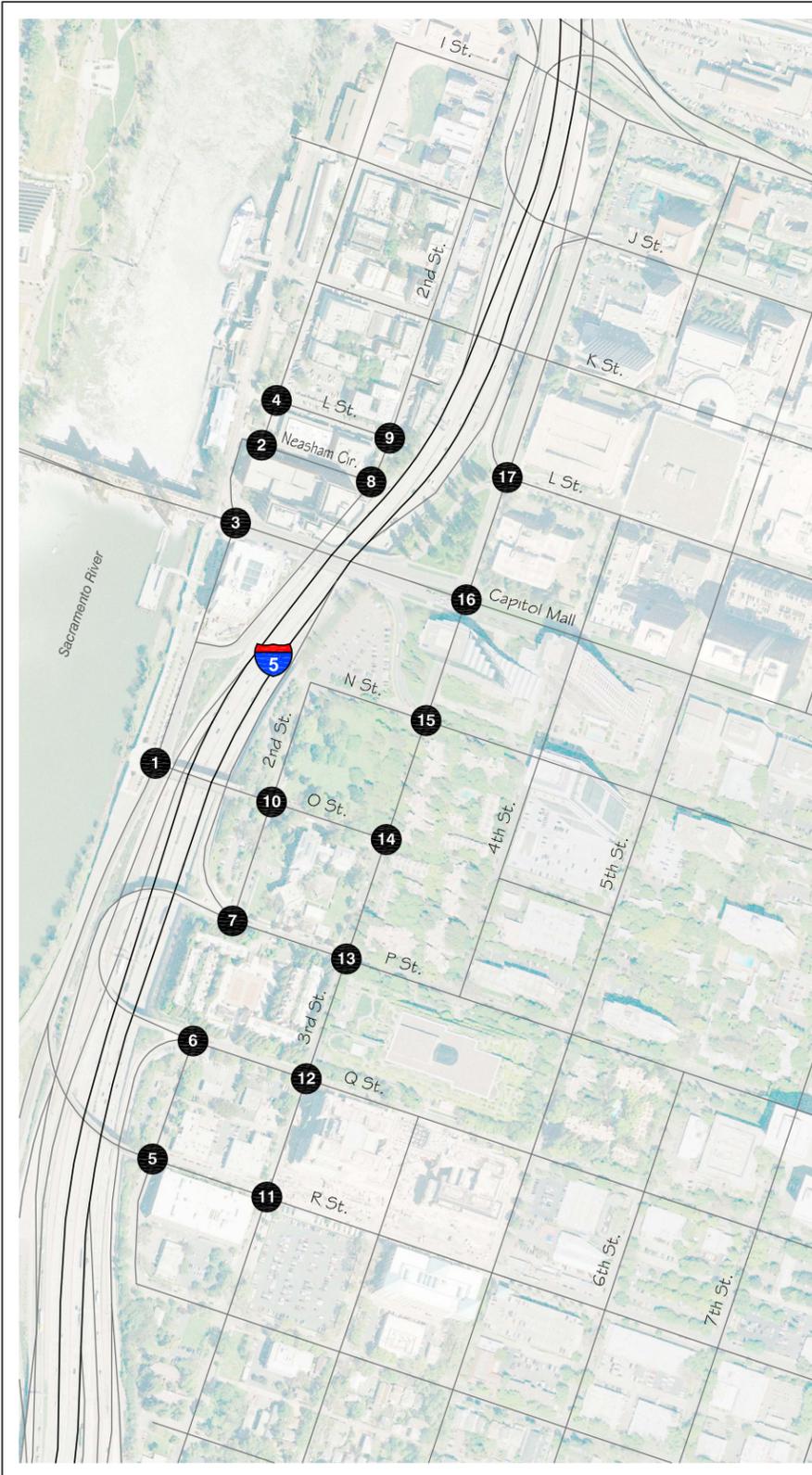
Intersection	Traffic Control	Peak Hour	No Project		Alternative 1		Alternative 2		Alternative 3	
			Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1. Front St./O St.	AWSC <sup>2</sup>	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	10	A	10	A
2. Front St./Neasham Cir.	SSSC <sup>3</sup>	AM	10	A	10	A	10	A	10	A
		PM	12	B	11	B	12	B	12	B
3. Front St./Capitol Mall	Signal <sup>1</sup>	AM	15	B	13	B	15	B	14	B
		PM	54	D	16	B	25	C	24	B
4. Front St./L St.	SSSC	AM	10	A	10	A	10	A	10	A
		PM	12	B	11	B	13	B	13	B
5. 2 <sup>nd</sup> St./R St.	SSSC	AM	10	A	13	B	13	B	13	B
		PM	<10	A	10	A	10	A	10	A
6. 2 <sup>nd</sup> St./Q St.	SSSC	AM	17	C	17	C	19	C	18	C
		PM	11	B	11	B	11	B	11	B
7. 2 <sup>nd</sup> St./P St.	SSSC	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	<10	A	<10	A
8. 2 <sup>nd</sup> St./Neasham Cir.	AWSC	AM	<10	A	<10	A	<10	A	<10	A
		PM	<10	A	<10	A	<10	A	<10	A
9. 2 <sup>nd</sup> St./L St.	SSSC	AM	<10	A	11	B	15	B	12	B
		PM	10	A	13	B	19	C	18	C
10. 2 <sup>nd</sup> St./O St.	SSSC	AM	20	C	>50	F	>50	F	>50	F
		PM	40	E	>50	F	>50	F	>50	F
11. 3 <sup>rd</sup> St./R St.	SSSC	AM	13	B	15	B	21	C	14	B
		PM	13	B	13	B	13	B	12	B
12. 3 <sup>rd</sup> St./Q St.	Signal	AM	11	B	12	B	13	B	12	B
		PM	18	B	52	D	65	E	19	B
13. 3 <sup>rd</sup> St./P St.	Signal	AM	12	B	11	B	12	B	11	B
		PM	>80	F	>80	F	>80	F	76	E
14. 3 <sup>rd</sup> St./O St.	SSSC	AM	11	B	15	B	17	C	15	C
		PM	39	E	>50	F	>50	F	>50	F
15. 3 <sup>rd</sup> St./N St.	Signal	AM	21	C	61	E	>80	F	>80	F
		PM	>80	F	>80	F	>80	F	>80	F
16. 3 <sup>rd</sup> St./Capitol Mall	Signal	AM	>80	F	>80	F	>80	F	>80	F
		PM	>80	F	>80	F	>80	F	>80	F
17. 3 <sup>rd</sup> St./L St.	Signal	AM	17	B	19	B	22	C	22	C
		PM	>80	F	>80	F	>80	F	>80	F
18. 2 <sup>nd</sup> St./Capitol Mall	Signal	AM	--	--	>80	F	>80	F	>80	F
		PM	--	--	>80	F	>80	F	>80	F

Notes: V/C = volume-to-capacity ratio.

1. Signalized intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000).
2. AWSC = All Way Stop Control. All-way stop controlled intersection level of service is based on average delay per vehicle (in seconds) to the *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000). The overall intersection delays are presented.
3. SSSC = Side Street Stop Control. Side-street stop-controlled intersection level of service is based on worst-case approach average delay per vehicle (in seconds).

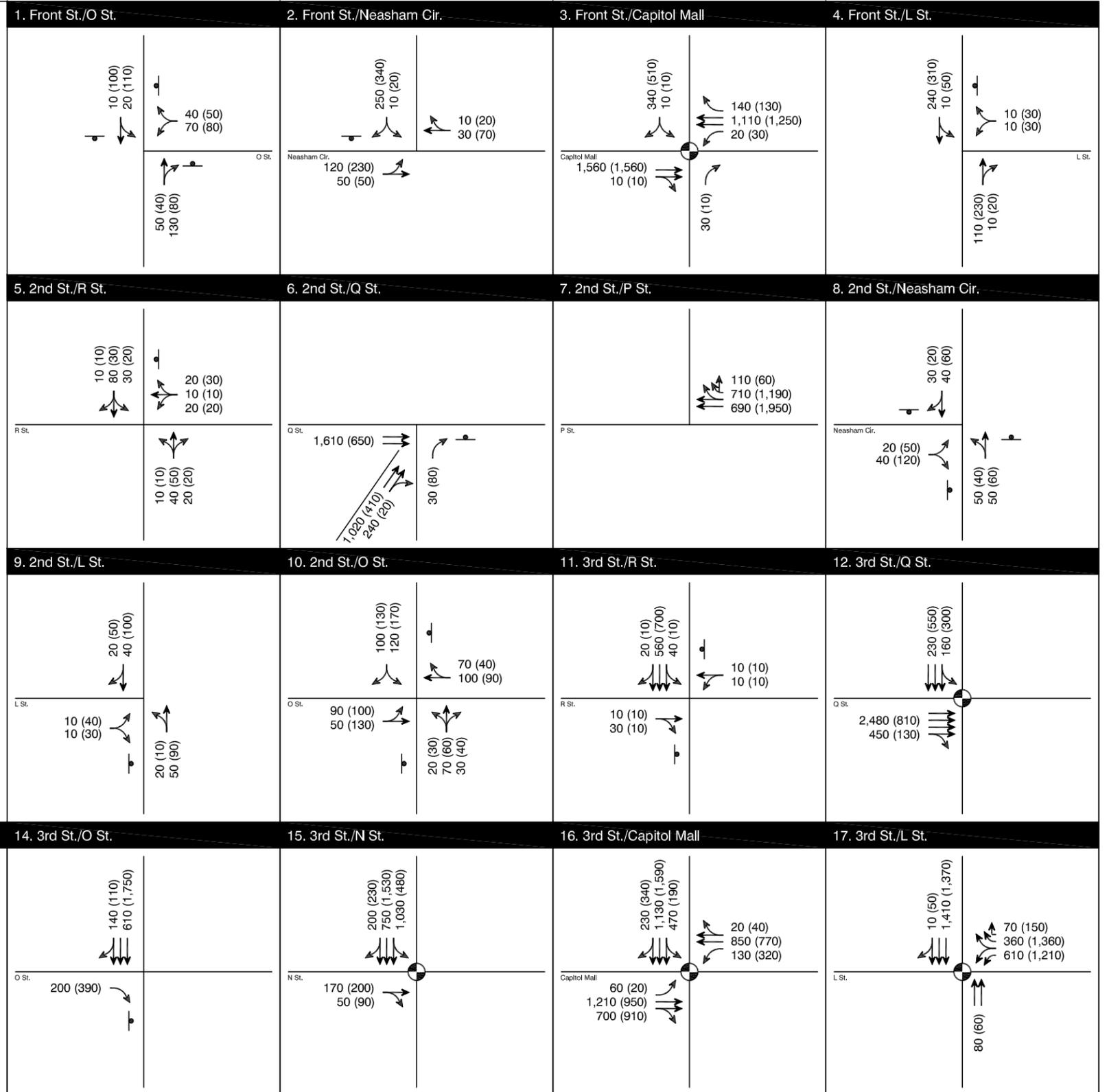
**Bold = LOS F operating condition. Potential significant impact base on thresholds defined on page 6 of this report.**

Source: Fehr & Peers, 2007.

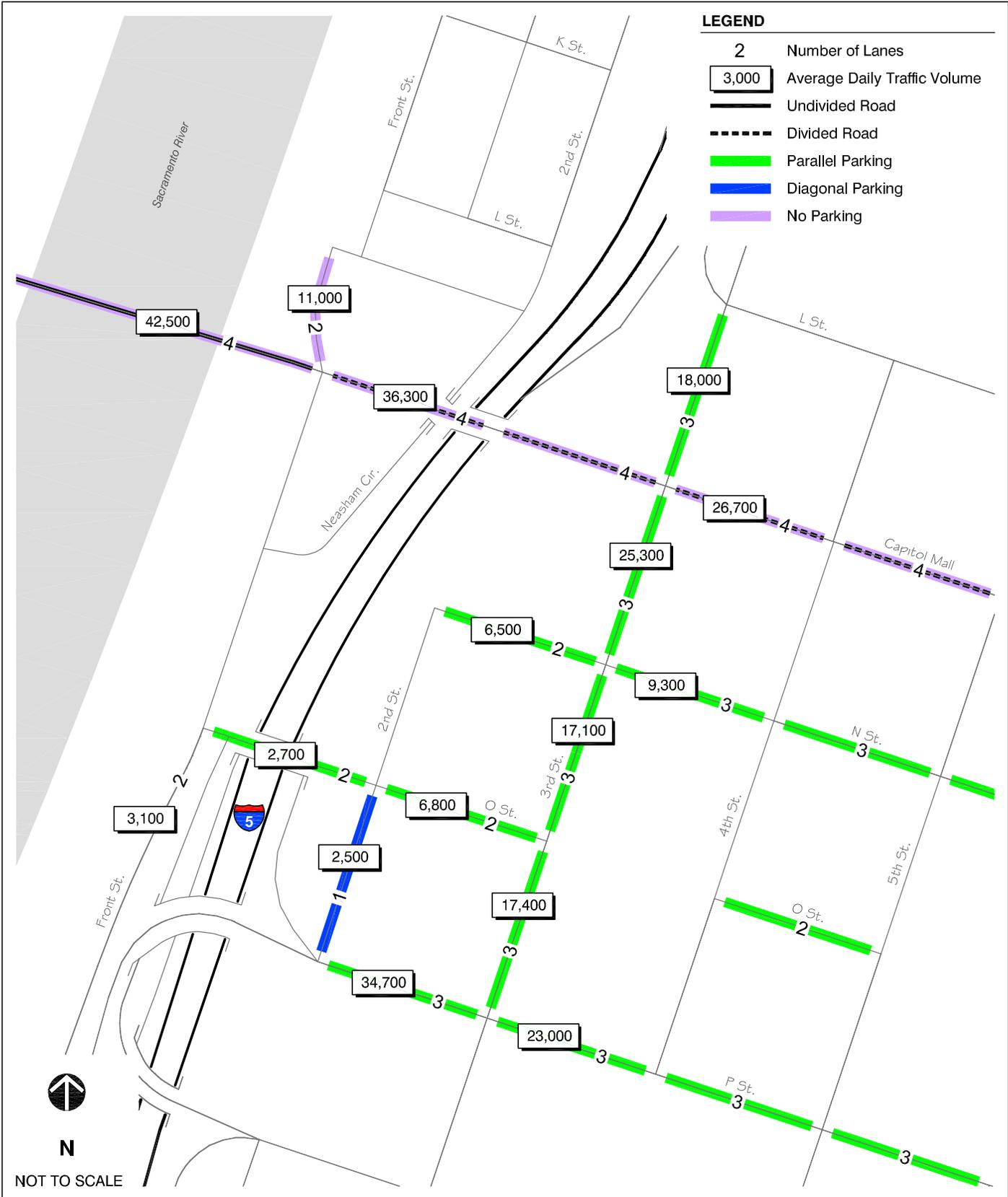


- LEGEND**
- Turn Lane
  - XX (YY) AM (PM) Peak Hour Traffic Volume
  - Study Intersection
  - Traffic Signal
  - Stop Sign
  - F "Free" Right Turn

**N**  
 NOT TO SCALE

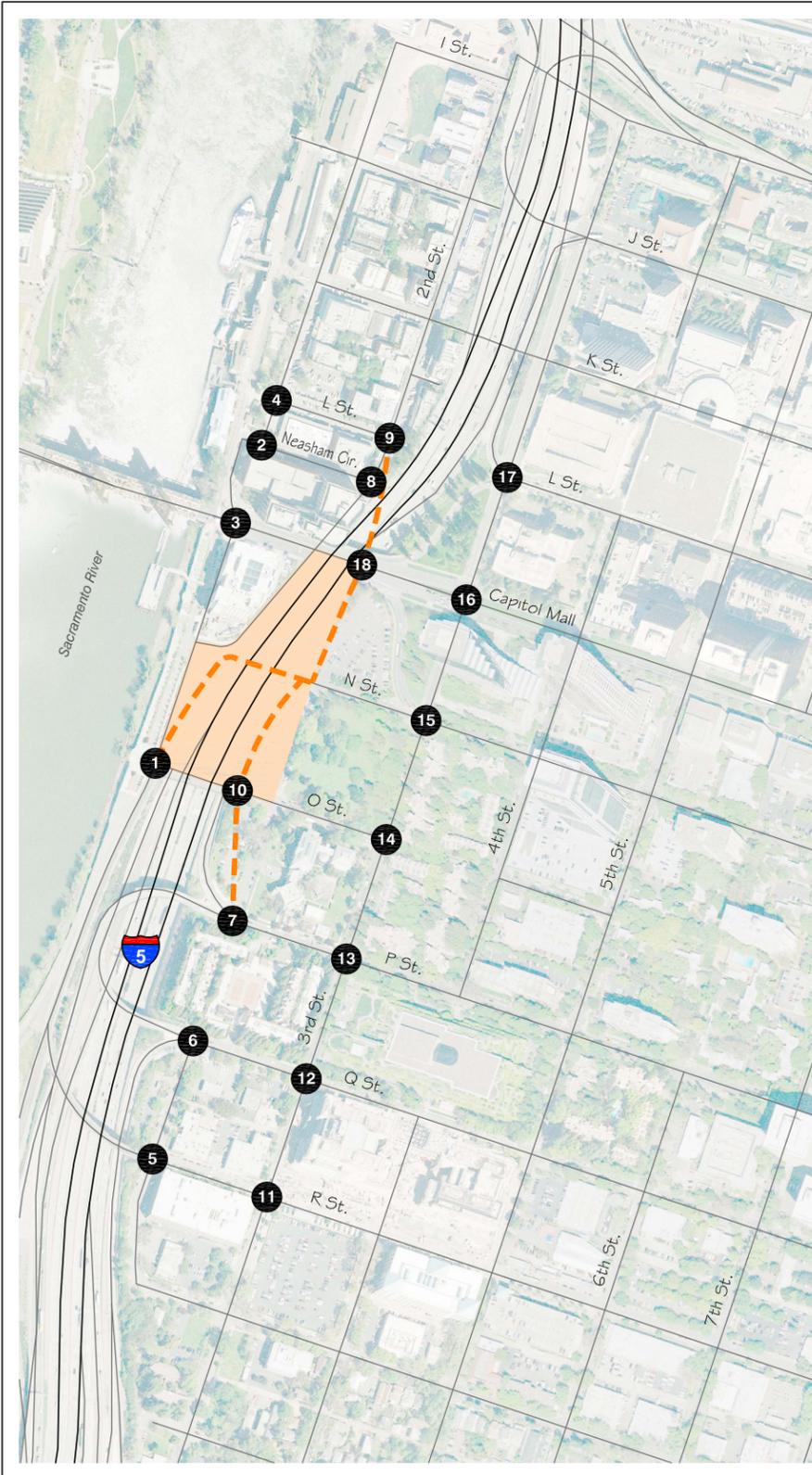






**NUMBER OF LANES, PARKING,  
 AND DAILY TRAFFIC VOLUMES -  
 YEAR 2035: NO PROJECT**



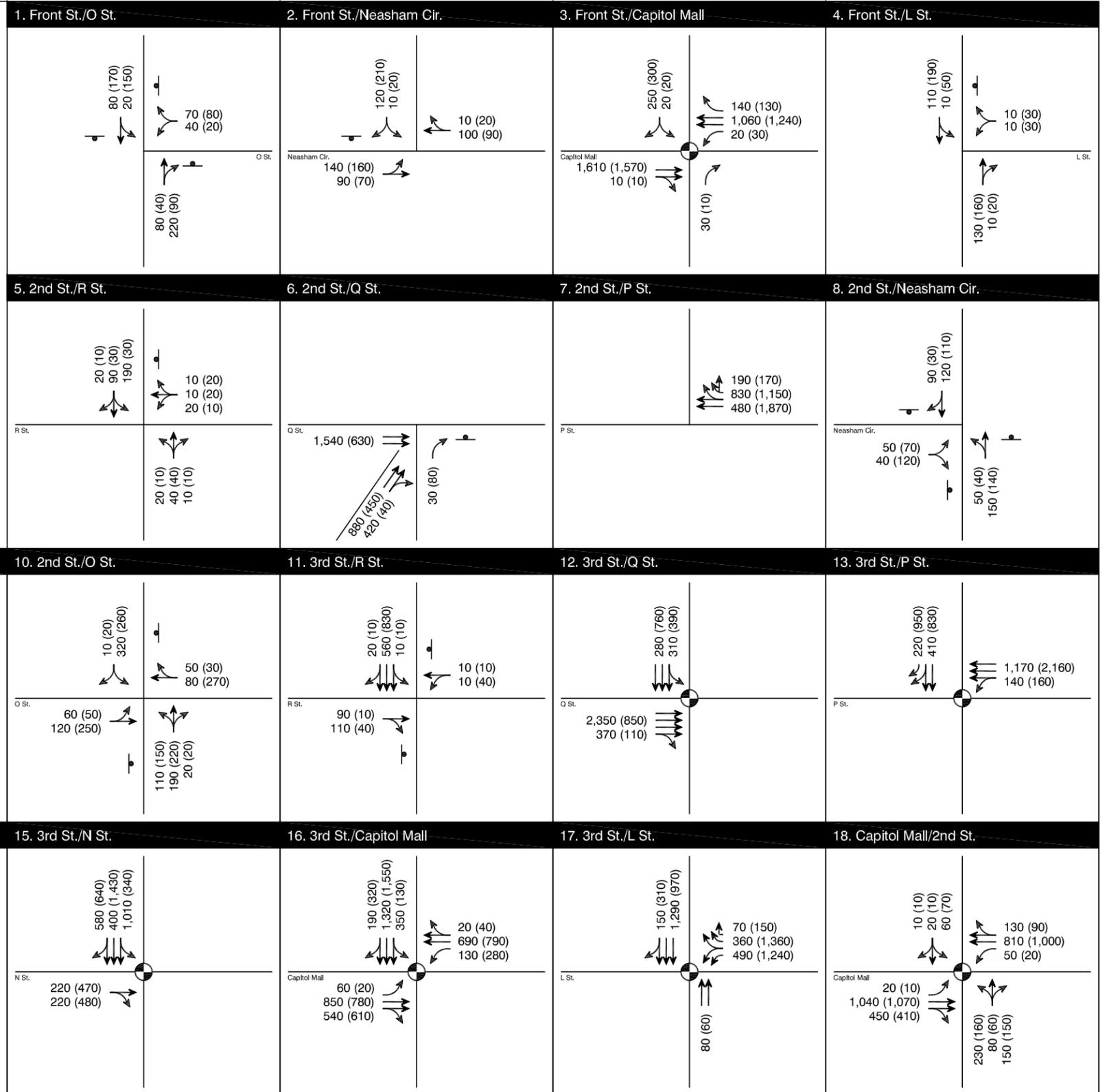


**LEGEND**

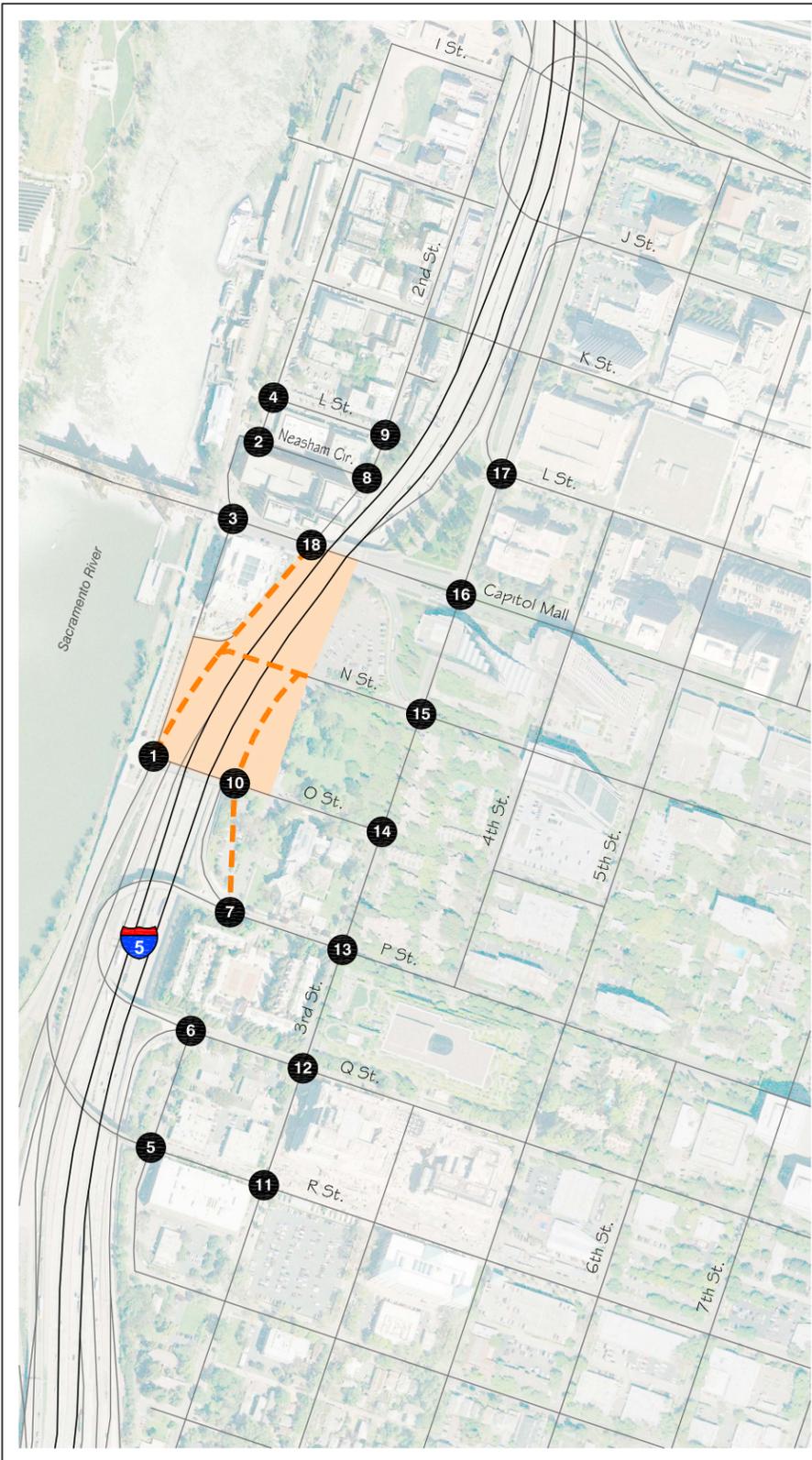
- Turn Lane
- XX (YY) AM (PM) Peak Hour Traffic Volume
- Study Intersection
- Traffic Signal
- Stop Sign
- F "Free" Right Turn
- Land Use
- Alternate Roadway Alignment



**N**  
NOT TO SCALE



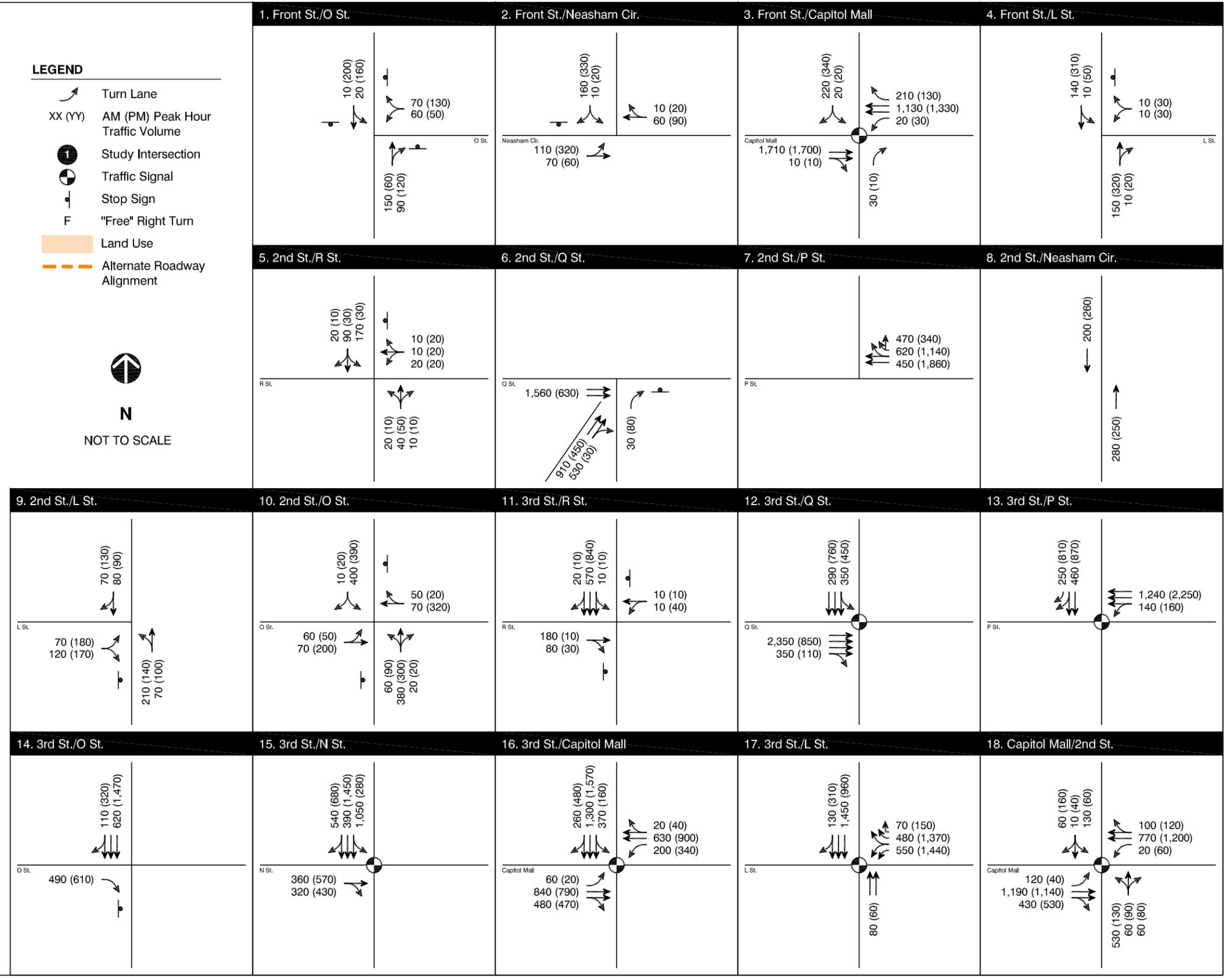




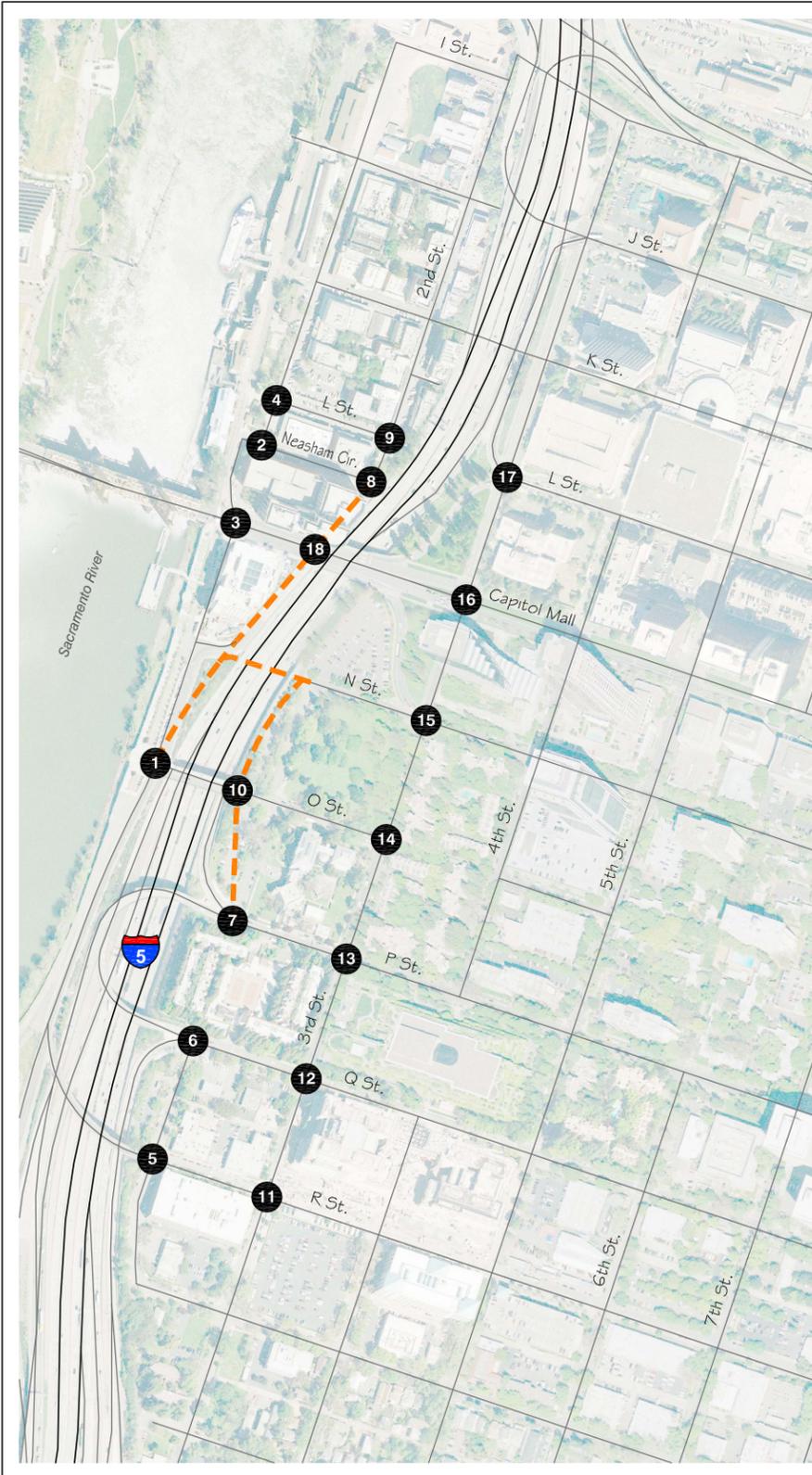
**LEGEND**

- Turn Lane
- XX (YY) AM (PM) Peak Hour Traffic Volume
- Study Intersection
- Traffic Signal
- Stop Sign
- "Free" Right Turn
- Land Use
- Alternate Roadway Alignment

**N**  
 NOT TO SCALE



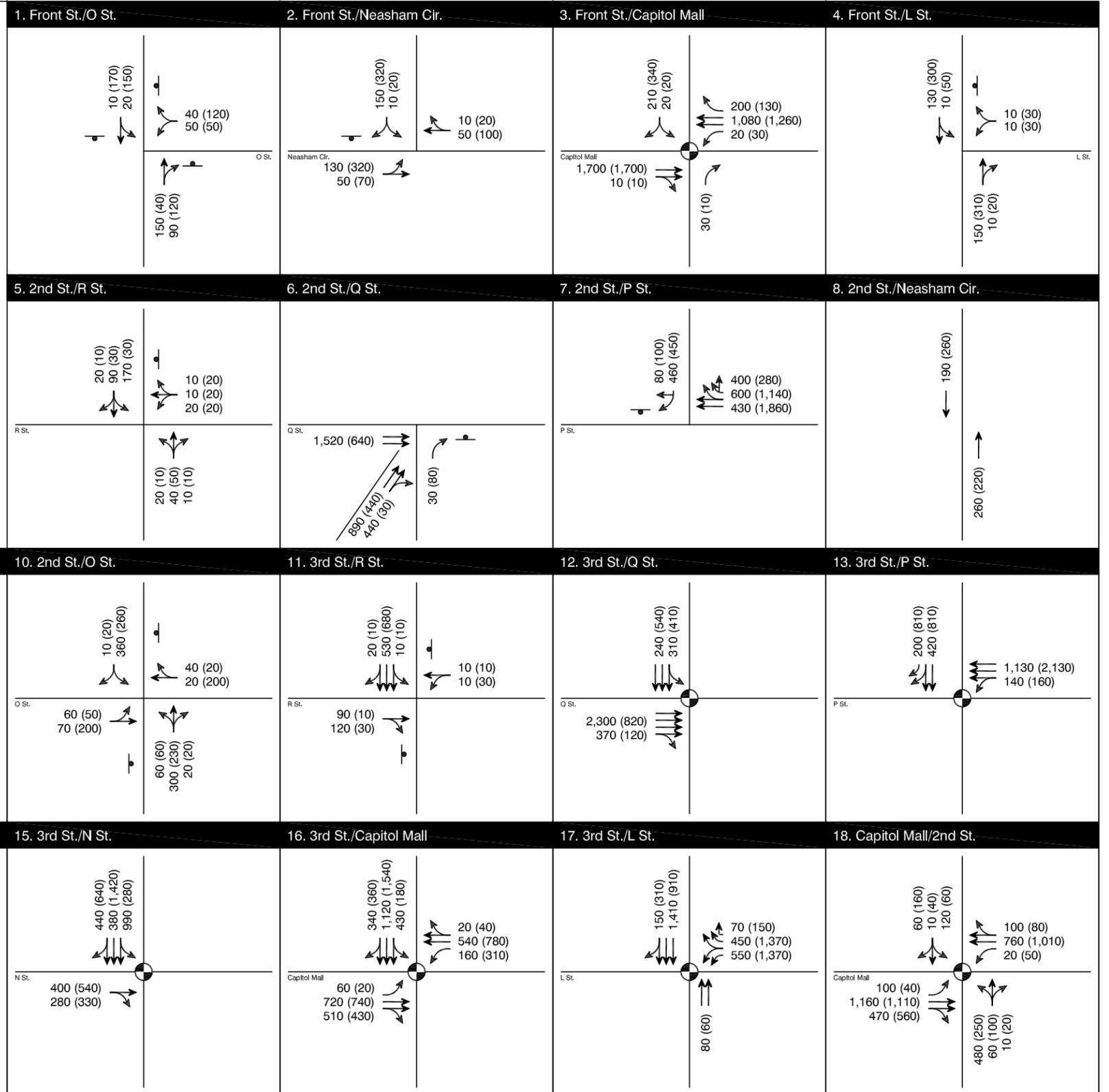




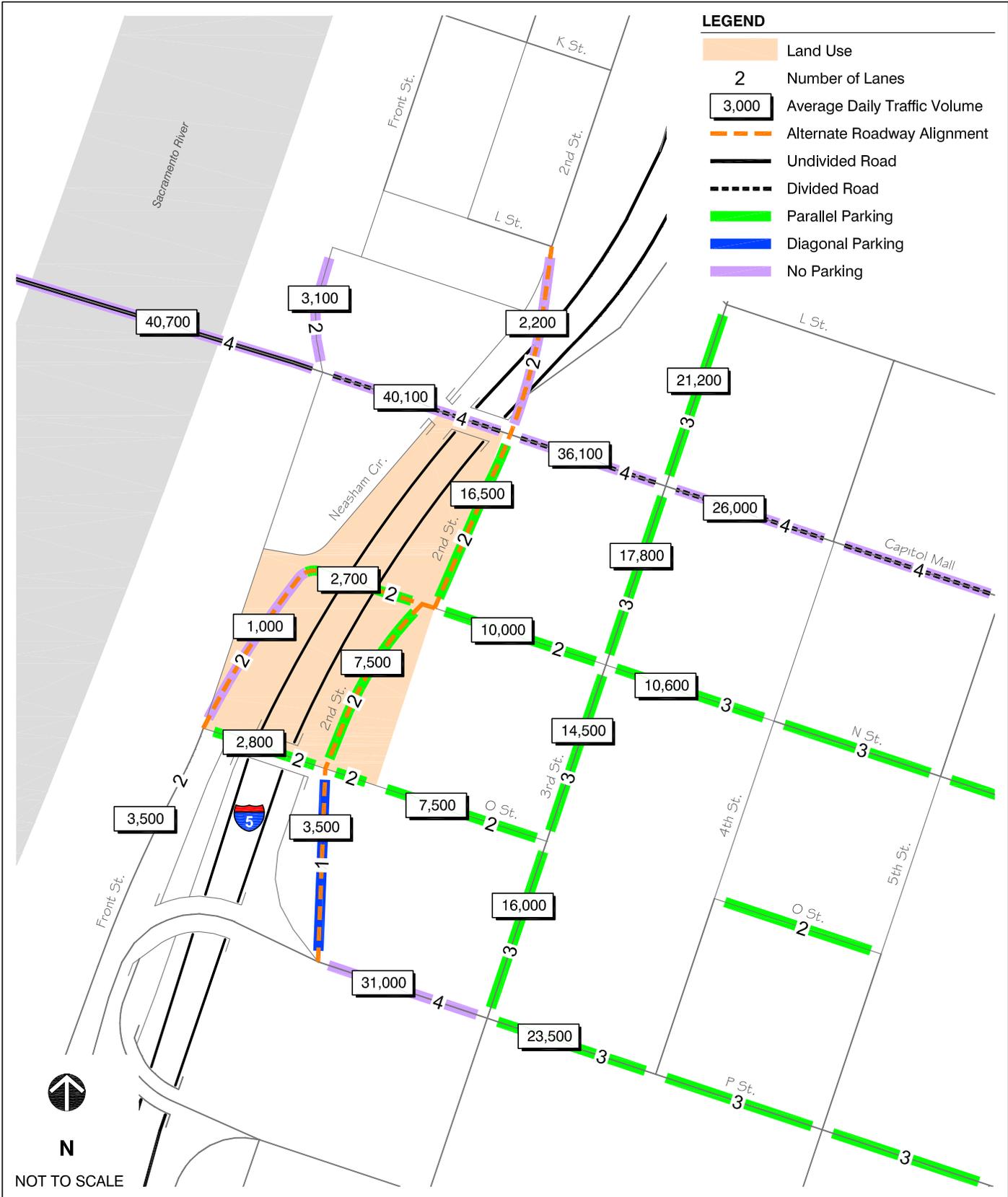
- LEGEND**
- Turn Lane
  - XX (YY) AM (PM) Peak Hour Traffic Volume
  - Study Intersection
  - Traffic Signal
  - Stop Sign
  - "Free" Right Turn
  - Alternate Roadway Alignment

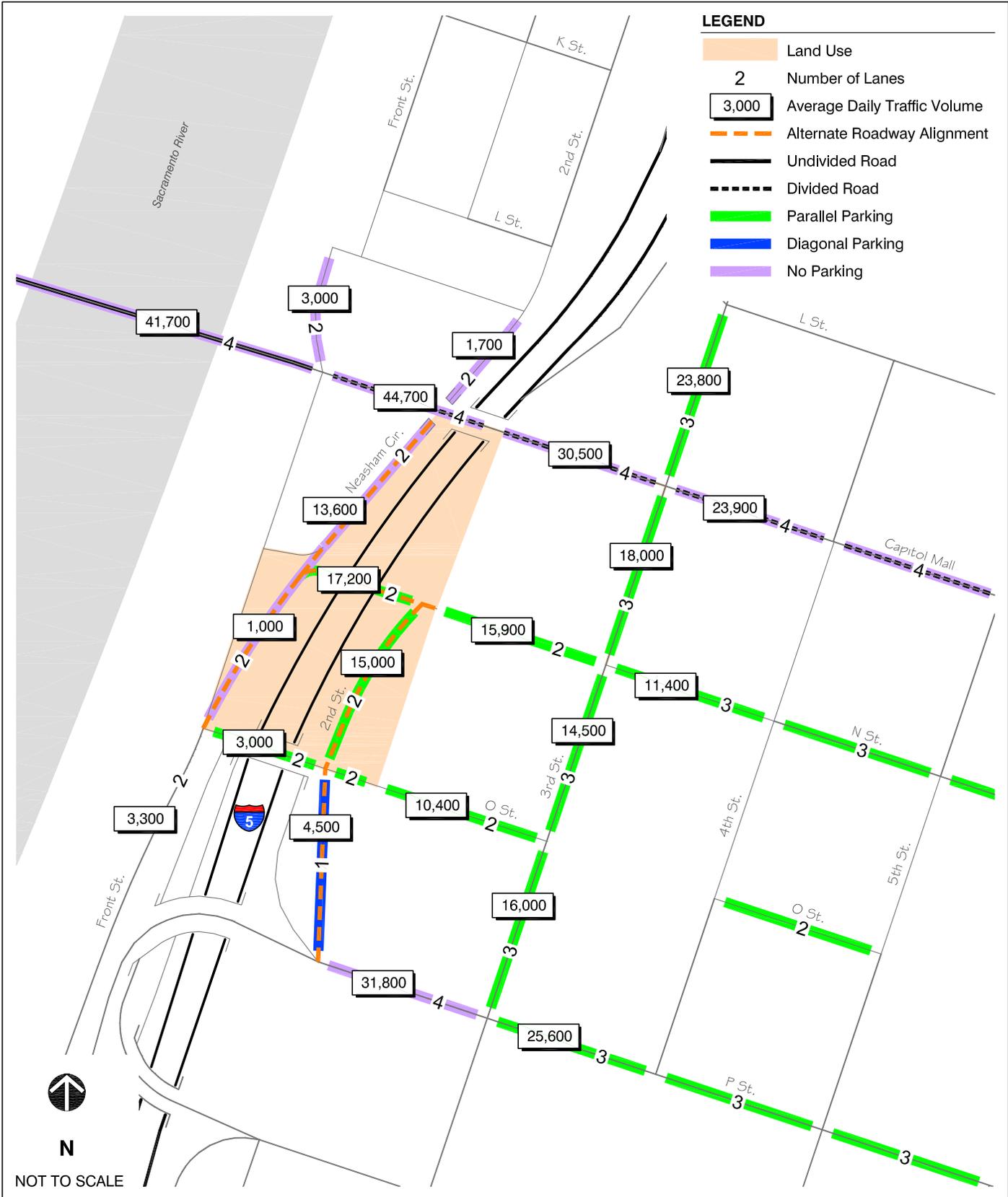


N  
NOT TO SCALE











For project Alternative 2 the following seven intersections are projected to operate at LOS F. All other intersections are projected to operate at an acceptable LOS.

- 3<sup>rd</sup> Street/L Street (LOS F - PM peak hour)
- 3<sup>rd</sup> Street/Capitol Mall (LOS F - AM and PM peak hours)
- 3<sup>rd</sup> Street/N Street (LOS F – AM and PM peak hours)
- 3<sup>rd</sup> Street/P Street (LOS F – AM and PM peak hours)
- 2<sup>nd</sup> Street/Capitol Mall (LOS F - AM and PM peak hours)
- 2<sup>nd</sup> Street/O Street (LOS F – AM and PM peak hours)
- 3<sup>rd</sup> Street/O Street (LOS F - PM peak hour)

For Alternative 3 the following six intersections are projected to operate at LOS F. All other intersections are projected to operate at an acceptable LOS.

- 3<sup>rd</sup> Street/L Street (LOS F - PM peak hour)
- 3<sup>rd</sup> Street/Capitol Mall (LOS F - AM and PM peak hours)
- 3<sup>rd</sup> Street/N Street (LOS F - AM and PM peak hours)
- 2<sup>nd</sup> Street/Capitol Mall (LOS F - AM and PM peak hours)
- 2<sup>nd</sup> Street/O Street (LOS F – AM and PM peak hours)
- 3<sup>rd</sup> Street/O Street (LOS F - PM peak hour)

General Plan Policy M 1.2.2 allows LOS F in the downtown Core Area, if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. As all of the project alternatives enhance the city grid roadway system, the bicycle network, and pedestrian connectivity the project alternatives meet the General Plan goals and project related traffic impacts are not significant.

### ***Traffic Signal Warrant Analysis***

A peak hour volume traffic signal warrant analysis was conducted at the unsignalized intersections for both with and without project conditions. The results of the peak hour volume warrant analysis indicate that the intersections do not meet the peak hour signal warrant criteria. It was assumed that the traffic control at the intersection would remain as it is currently controlled.

## **FREEWAY OPERATIONS**

The analysis of Design Year Conditions and Design Year Plus Project Conditions freeway ramp operations was performed using HCM 2000 methods. Freeway ramp operations are summarized in Table 11.

Without construction of the project the following freeway facilities operate at an unacceptable LOS:

- I-5 southbound merge from the P Street on-ramp (AM and PM peak hours)
- I-5 northbound weave between the P Street on-ramp and J Street off-ramp (AM and PM Peak hours)

With construction of any of the project alternatives the following freeway facilities operate at an unacceptable LOS:

- I-5 southbound merge from the P Street on-ramp (AM and PM peak hours)
- I-5 northbound weave between the P Street on-ramp and J Street off-ramp (AM and PM Peak hours)

**TABLE 11  
RAMP AND FREEWAY FACILITY LEVEL OF SERVICE  
DESIGN YEAR PLUS PROJECT CONDITIONS – NO LAND USE OPTION**

Intersections	Peak Hour	No Project			Alternative 1			Alternative 2			Alternative 3		
		Vol	Density <sup>1</sup>	LOS <sup>2</sup>	Vol	Density	LOS	Vol	Density <sup>1</sup>	LOS <sup>2</sup>	Vol	Density <sup>1</sup>	LOS <sup>2</sup>
1. I-5 southbound Off-ramp to J St. (ramp)	AM	2,930	--	C	2,260	--	C	2,250	--	B	2,220	--	B
	PM	1,520	--	B	1,740	--	B	1,720	--	B	1,680	--	B
2. I-5 southbound on-ramp from P St. (merge)	AM	860	-- <sup>4</sup>	<b>F</b>	790	--	<b>F</b>	900	--	<b>F</b>	890	--	<b>F</b>
	PM	2,260	--	<b>F</b>	2,210	--	<b>F</b>	2,310	--	<b>F</b>	2,310	--	<b>F</b>
3. I-5 northbound on-ramp from P St. (weave <sup>3</sup> )	AM	720	--	<b>F</b>	860	--	<b>F</b>	710	--	<b>F</b>	680	--	<b>F</b>
	PM	1,260	--	<b>F</b>	1,300	--	<b>F</b>	1,300	--	<b>F</b>	1,240	--	<b>F</b>

Notes: <sup>1</sup> Density reported as passenger cars per mile per lane (pc/mi/ln) in the peak hour.  
<sup>2</sup> Level of service.  
<sup>3</sup> Leisch Method for Weaving Analysis used.  
<sup>4</sup> Demand exceeds capacity.  
**Bold** = Unacceptable LOS based on significance criteria defined on page 8 of this report.

## BICYCLE AND PEDESTRIAN OPERATIONS

Class II bicycle lanes would be provided on N Street between Front Street and 3<sup>rd</sup> Street and on Capitol Mall between Front Street and 3<sup>rd</sup> Street in all alternatives. They are provided on the new segments of 2<sup>nd</sup> Street in Alternative 1. They would not be provided in Alternative 2. In Alternative 3, bike lanes would be provided on the segment of Front Street between O Street and N Street. In all of the alternatives Neasham Circle will be converted to a pedestrian/bicycle facility south of the access to the One Capitol Mall Building garage.

Sidewalks would be provided on the new segments of N Street and a sidewalk would be added to the south side of the O Street bridge over I-5 for all alternatives. Alternative 1 would provide for sidewalks on 2<sup>nd</sup> Street, but design constraints allow a sidewalk only on the west side of the street for Alternatives 2 and 3. None of the alternatives will result in additional safety problems for pedestrians.

The project alternatives would provide improved connections for bicycles from the Sacramento River bicycle facilities and existing and planned bicycle facilities to the downtown area. All of the project alternatives would improve the ability for pedestrians to access the Sacramento River waterfront and Old Sacramento, but Alternative 1 would provide the best pedestrian connections. As such, the project would have a less than significant impact on bicycle and pedestrian operations.

## TRANSIT OPERATIONS

Alternatives 1 and 2 would increase the number of transit riders to the RT transit system. However, the increase does not overload any transit routes.

Alternative 3 does not include any land use, thus does not result in increases or decreases in transit ridership.

The impacts to the transit system are less than significant.



DEPARTMENT OF  
TRANSPORTATION  
  
ENGINEERING SERVICES DIVISION

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January 3, 2012

Ken Lastufka  
Associate Environmental Planner  
Caltrans, District 3  
2379 Gateway Oaks Drive, Suite 150  
Sacramento, CA 95833

Dear Mr. Lastufka,

The City of Sacramento, Community Development Department, was the Lead Agency for the preparation of an Initial Study/Mitigated Negative Declaration (IS/MND) for the I-5 Riverfront Reconnection Project (proposed project). The IS/MND for the project was approved by the City of Sacramento Environmental Services Manager on July 19, 2011 and adopted by the City Council on November 8, 2011.

Subsequent to the adoption of the MND, the California Department of Transportation (Caltrans) requested minor changes to the text of Mitigation Measure 5. These changes would shift the financial burden of the mitigation measure from Caltrans to the City of Sacramento. No other changes to Mitigation Measure 5 are proposed. The City of Sacramento has agreed to the text changes requested by Caltrans. We will include the attached errata in the project file, a copy is provided for your records.

Sincerely,

Jesse Gothan  
Associate Engineer

Included: I-5 Riverfront Reconnection Project, Project Initial Study/Mitigated Negative Declaration Errata

CC: Scott Johnson, Associate Planner, Community Development, City of Sacramento  
Ali Seyedmadani, Project Manager, Parsons Brinckerhoff  
Project File (T15998100)

## **I-5 Riverfront Reconnection Project Project Initial Study/Mitigated Negative Declaration Errata**

The City of Sacramento, Community Development Department, was the Lead Agency for the preparation of an Initial Study/Mitigated Negative Declaration (IS/MND) for the I-5 Riverfront Reconnection Project (proposed project). The IS/MND for the proposed project evaluated the potential environmental impacts associated with pedestrian and bicycle improvements to Capitol Mall, N Street, and O Street; a new roadway bridge across I-5 at N Street; the reconfiguration of Front Street from O Street to Capitol Mall and 2nd Street west of I-5; the construction of a new 2nd Street/Capitol Mall/Front Street intersection; and the removal of the slip ramps connecting N Street and L Street with Capitol Mall. An IS/MND for the project was approved by the City of Sacramento Environmental Services Manager on July 19, 2011 and adopted by Resolution of the City Council on November 8, 2011 (Resolution 2011-610).

The IS/MND included mitigation measures to avoid and minimize project impacts to biological resources, cultural resources, and hazards. Mitigation measures applicable to cultural resources included the following:

### *Mitigation Measure 5*

*a) In the event that any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, are discovered during construction-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and Caltrans shall be notified. Caltrans shall consult with a qualified archeologist retained at the Caltrans's expense to assess the significance of the find. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), representatives of Caltrans and the qualified archaeologist shall meet to determine the appropriate course of action, with Caltrans making the final decision. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report shall be prepared by the qualified archaeologist according to current professional standards. If the archaeologist determines that some or all of the affected property qualifies as a Native American Cultural Place, including a Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (Public Resources Code §5097.9) or a Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historical Resources pursuant to Public Resources Code §5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (Public Resources Code §5097.993), the archaeologist shall recommend to Caltrans potentially feasible s that would preserve the integrity of the site or minimize impacts on it, including any or a combination of the following:*

*1. Avoidance, preservation, and/or enhancement of all or a portion of the Native American Cultural Place as open space or habitat, with a conservation easement dedicated to the most interested and appropriate tribal organization. If such an organization is willing to accept and maintain such an easement, or alternatively, a cultural resource organization that holds conservation easements;*

2. *An agreement with any such tribal or cultural resource organization to maintain the confidentiality of the location of the site so as to minimize the danger of vandalism to the site or other damage to its integrity; or*

3. *Other measures, short of full or partial avoidance or preservation, intended to minimize impacts on the Native American Cultural Place consistent with land use assumptions and the proposed design and footprint of the development project for which the requested grading permit has been approved. After receiving such recommendations, Caltrans shall assess the feasibility of the recommendations and impose the most protective mitigation feasible in light of land use assumptions and the proposed design and footprint of the development project. Caltrans shall, in reaching conclusions with respect to these recommendations, consult with both the project applicant and the most appropriate and interested tribal organization.*

b) *If human remains are discovered at any project construction sites during any phase of construction, all ground-disturbing activity within 50 feet of the remains shall be halted immediately, and Caltrans and the County coroner shall be notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project applicant shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. Caltrans shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of state law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The project applicant shall implement approved mitigation, to be verified by Caltrans, before the resumption of ground-disturbing activities within 50 feet of where the remains were discovered.*

Subsequent to the adoption of the MND, the California Department of Transportation (Caltrans) requested minor changes to the text of Mitigation Measure 5. These changes would shift the financial burden of the mitigation measure from Caltrans to the City of Sacramento and are made by way of this Errata to the I-5 Riverfront Reconnection Project Mitigated Negative Declaration. No other changes to Mitigation Measure 5 are proposed. The City of Sacramento has agreed to the text changes requested by Caltrans. As such, Mitigation Measure 5 has been revised to read:

#### *Mitigation Measure 5*

a) *In the event that any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, are discovered during construction-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and Caltrans shall be notified. Caltrans shall consult with a qualified archeologist provided by the City of Sacramento ~~retained at the Caltrans's expense~~ to assess the significance of the find. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), representatives of Caltrans and the qualified archaeologist shall meet to determine the appropriate course of action, with Caltrans making the final decision. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report shall be prepared by the qualified archaeologist according to current professional standards.*

*If the archaeologist determines that some or all of the affected property qualifies as a Native American Cultural Place, including a Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (Public Resources Code §5097.9) or a Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historical Resources pursuant to Public Resources Code §5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (Public Resources Code §5097.993), the archaeologist shall recommend to Caltrans potentially feasible s that would preserve the integrity of the site or minimize impacts on it, including any or a combination of the following:*

*1. Avoidance, preservation, and/or enhancement of all or a portion of the Native American Cultural Place as open space or habitat, with a conservation easement dedicated to the most interested and appropriate tribal organization. If such an organization is willing to accept and maintain such an easement, or alternatively, a cultural resource organization that holds conservation easements;*

*2. An agreement with any such tribal or cultural resource organization to maintain the confidentiality of the location of the site so as to minimize the danger of vandalism to the site or other damage to its integrity; or*

*3. Other measures, short of full or partial avoidance or preservation, intended to minimize impacts on the Native American Cultural Place consistent with land use assumptions and the proposed design and footprint of the development project for which the requested grading permit has been approved. After receiving such recommendations, Caltrans shall assess the feasibility of the recommendations and impose the most protective mitigation feasible in light of land use assumptions and the proposed design and footprint of the development project. Caltrans shall, in reaching conclusions with respect to these recommendations, consult with both the project applicant and the most appropriate and interested tribal organization.*

*b) If human remains are discovered at any project construction sites during any phase of construction, all ground-disturbing activity within 50 feet of the remains shall be halted immediately, and Caltrans and the County coroner shall be notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project applicant shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. Caltrans shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of state law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The project applicant shall implement approved mitigation, to be verified by Caltrans, before the resumption of ground-disturbing activities within 50 feet of where the remains were discovered.*

No other changes to the IS/MND are proposed.