

Project Report for the SR 65 Capacity and Operational Improvements

On Route 65
Between Galleria Boulevard/Stanford Ranch Road (PM 6.5)
And Lincoln Boulevard (PM 12.8)


I have reviewed the right of way information contained in this report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:


JOHN BALLANTYNE, DISTRICT DIVISION CHIEF, RIGHT OF WAY

APPROVAL RECOMMENDED:

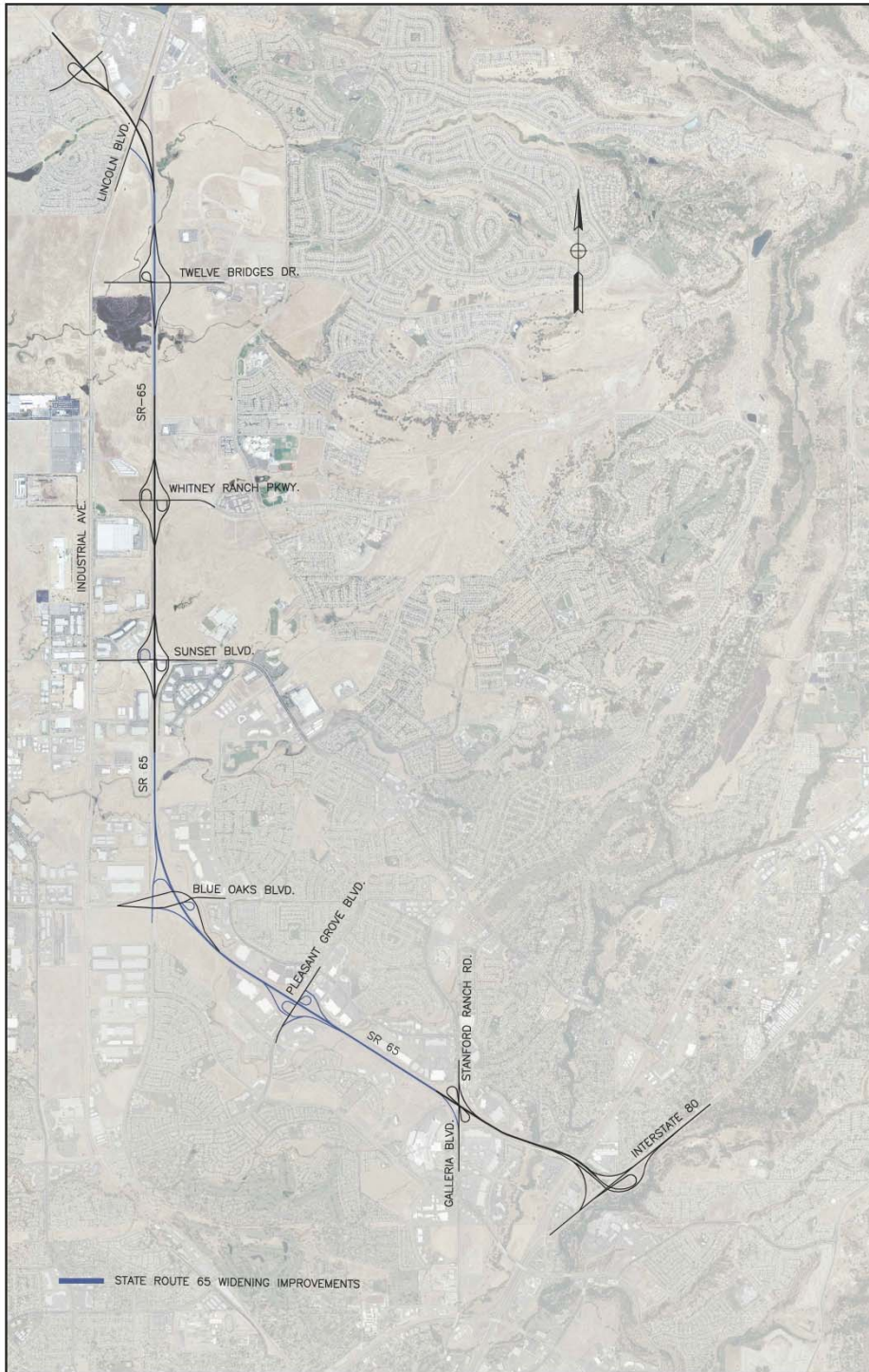

RODNEY MURPHY, PROJECT MANAGER

APPROVED:


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3-6-2018
DATE

Vicinity Map



This project report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.



ZACHARY JAMES SIVIGLIA, REGISTERED CIVIL ENGINEER

2/21/18

DATE



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ACRONYMS AND ABBREVIATIONS

ADL	aerially deposited lead
ASAS	Traffic Accident Surveillance and Analysis System
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol
COZEEP	Construction Zone Enhanced Enforcement Program
CSMP	<i>State Route 65 Corridor System Management Plan</i>
dB(A) Leq(h)	A-weighted equivalent sound level
DPR	Draft Project Report
FHWA	Federal Highway Administration
GP	General Purpose
HOV	High Occupancy Vehicle
I-80	Interstate 80
ICF	ICF International
IS/MND	Draft Initial Study/Mitigated Negative Declaration
ISA	initial site assessment
LOS	level of service
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MTIP	2015/2018 Metropolitan Transportation Improvement Program
MTP/SCS	2016 Metropolitan Transportation Plan/Sustainable Communities Strategy
NEPA	National Environmental Policy Act
OD	origin–destination
PA&ED	Project Approval and Environmental Document
PCTPA	Placer County Transportation Planning Agency
PDT	Project Development Team
PM ₁₀	particles of 10 micrometers or smaller
PM _{2.5}	particles of 2.5 micrometers and smaller
PS&E	Plans, Specifications, and Estimate
PSR-PDS	Project Study Report – Project Development Support

RCB	reinforced concrete box
RTP	regional transportation plan
SACOG	Sacramento Area Council of Government
SPRTA	South Placer Regional Transportation Authority
SR	State Route
TMP	Transportation Management Plan
UCL	Upper Confidence Limit
VA	Value Analysis

1. INTRODUCTION

Project Description:

The California Department of Transportation (Caltrans), in cooperation with the Placer County Transportation Planning Agency (PCTPA), Placer County, and the Cities of Roseville, Rocklin, and Lincoln, proposes to widen State Route (SR) 65 from north of Galleria Boulevard/Stanford Ranch Road to Lincoln Boulevard. This project has been assigned the Project Development Processing Category 4A for widening the existing freeway without requiring a revised freeway agreement. The project is subject to federal and state environmental review requirements. Caltrans is the lead agency under the National Environmental Policy Act and under the California Environmental Quality Act.

The project is needed to relieve traffic operation and safety issues stemming from recurring morning and evening peak-period demand that exceeds the current design capacity along SR 65. The additional mainline capacity will accommodate future growth along the corridor.

The project proposes to relieve existing mainline congestion by adding capacity to improve traffic operations and safety. The additional capacity would help planned and anticipated growth along the corridor and would help achieve the mobility and economic development goals of PCTPA. The construction cost is estimated at \$51.5M, with \$50,000 for utility relocations. Two viable alternatives are being considered and include the following features:

1. Alternative 1 (Carpool Lane) – This alternative would add a 12-foot-wide carpool/high occupancy vehicle (HOV) lane in the southbound direction of SR 65 in the median from the Blue Oaks Boulevard interchange to north of the Galleria Boulevard/Stanford Ranch Road interchange. The carpool/HOV lane would connect to the carpool/HOV lane proposed as part of the I-80/SR 65 Interchange Project.

The separate I-80/SR 65 Interchange Improvements project will add a third lane in each direction of SR 65 from I-80 to Pleasant Grove Boulevard. This SR 65 project alternative would also add one 12-foot general purpose lane through the Pleasant Grove Boulevard interchange, to create a third lane on SR 65 in both directions from I-80 to Blue Oaks Boulevard. This project would also add an auxiliary lane in each direction of SR 65 from the Galleria Boulevard Road interchange to the Pleasant Grove Boulevard interchange, from the Blue Oaks Boulevard Interchange to the Sunset Boulevard interchange, and from the Whitney Ranch Parkway Interchange to the Twelve Bridges Drive interchange.

Following the recommendation from the Value Analysis (VA) Study, this project would also include ramp metering modifications for the slip on-ramps to a 2+1 configuration (2 metered lanes plus 1 carpool preferential lane) and a 1+1 (1-metered lane plus 1 carpool preferential lane) for the loop on-ramps along SR 65 from the Galleria Boulevard interchange to Lincoln Boulevard. The southbound Pleasant Grove Boulevard slip and loop on-ramps, Blue Oaks

Boulevard slip and loop on-ramps, and Lincoln Boulevard slip on-ramp would be modified to include these ramp metering changes.

2. Alternative 2 (General Purpose Lane) – This alternative would add a 12-foot general purpose lane in the southbound direction of SR 65 from the Blue Oaks Boulevard interchange to the Galleria Boulevard/Stanford Ranch Road off-ramp. The separate I-80/SR 65 Interchange Improvements project will add a third lane in each direction of SR 65 from I-80 to Pleasant Grove Boulevard. For added capacity on southbound SR 65, as recommended by the VA study, this alternative also includes an additional general purpose lane from the Blue Oaks Boulevard slip on-ramp to the Pleasant Grove Boulevard loop on-ramp. On northbound SR 65, a 12-foot general purpose lane would be added through the Pleasant Grove Boulevard interchange. These improvements would result in a third lane in both directions of SR 65 from I-80 to Blue Oaks Boulevard.

This alternative would also add an auxiliary lane on northbound SR 65 from the Galleria Boulevard interchange to the Pleasant Grove Boulevard interchange; and in both directions of SR 65 from the Blue Oaks Boulevard interchange to the Sunset Boulevard interchange, and from the Whitney Ranch Parkway interchange to the Twelve Bridges Drive interchange.

Alternative 2 would include the same ramp metering features as described in Alternative 1.

Alternative 1 (Carpool Lane) was found to meet all aspects of the need and purpose as well as air quality conformity due to the addition of carpool lanes. The project is listed in the Sacramento Area Council of Governments (SACOG) 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). The project is programmed in the SACOG 2015/2018 Metropolitan Transportation Improvement Program (MTIP) for preliminary engineering.

The project design and construction will be locally funded by the South Placer Regional Transportation Authority (SPRTA) Regional Transportation and Air Quality Mitigation Fee Program, which includes Placer County and the Cities of Roseville, Rocklin, and Lincoln. Exhibits showing the proposed improvements are contained in Attachment A.

Project Limits	03-Pla-65 PM 6.5/12.8
Number of Alternatives	Three: 1. Carpool/High Occupancy Vehicle [HOV] Lane 2. General Purpose Lane 3. No Build Alternative
Current Capital Outlay Construction Estimate	Carpool/HOV Lane: \$51.5M (2015 dollars) General Purpose Lane: \$50.4M (2015 dollars)
Current Capital Outlay Right-of-Way and Utility Estimate	Carpool/HOV Lane: \$50,000 (2015 dollars) General Purpose Lane: \$50,000 (2015 dollars)
Funding Source	Local Agency
Funding Year	2016
Type of Facility	Freeway
Number of Structures	2
Environmental Determination or Document	Draft Initial Study/Mitigated Negative Declaration (IS/MND) – California Environmental Quality Act (CEQA) Categorical Exclusion – National Environmental Policy Act (NEPA)
Legal Description	In Placer County in the Cities of Rocklin, Roseville, and Lincoln. Construct high-occupancy vehicle lanes or general purpose lanes and operational improvements.
Project Development Category	4A

2. RECOMMENDATION

It is recommended that the project be approved and advance to the PS&E phase of project development using the preferred alternative, which is Alternative 1 (Carpool Lane)

The affected local agencies have been consulted with respect to the recommended plan, their views have been consulted, and are in general accord with the plan as presented.

3. BACKGROUND

SR 65 was part of the first State Highway System authorized by the State Highway Act of 1909. The original construction from Roseville to Lincoln took place between 1912 and 1914. This section of highway was adopted as freeway by the California Highway Commission on May 20, 1964.

SR 65 begins at the Interstate 80 (I-80) junction and is an important interregional route that serves local and regional traffic. SR 65 generally runs north/south and serves as a major connector for automobile and truck traffic originating from the I-80 corridor in the Roseville/Rocklin area to the SR 70/99 corridor in the Marysville/

Yuba City area. SR 65 is a vital economic link from residential areas to shopping and employment centers in southern Placer County. It is also an important route for transporting aggregate, lumber, and other commodities that is shaped by a significant growth of industrial, commercial, and residential development. The southern Placer County region is one of the fastest growing areas in California, both in terms of housing and economic development.

SR 65 was constructed as a two-lane expressway in 1971. The Roseville Bypass from I-80 to Blue Oaks Boulevard was constructed in 1985. SR 65 from Blue Oaks Boulevard to Twelve Bridges Drive was widened to a four-lane facility in 1999. The SR 65 Corridor System Management Plan (Caltrans, 2009) identified major mobility challenges including highway and roadway traffic congestion, lack of roadway capacity, and inadequate transit funding. A supplemental traffic report (Caltrans, 2012) indicated that the segment of SR 65 from Galleria Boulevard/Stanford Ranch Road to Lincoln Boulevard was experiencing operational problems caused by high peak-period traffic volumes, vehicles hours of delay, average speeds, travel time, and other traffic performance measures that were deteriorating by the increasing growth in the surrounding areas.

PCTPA identified the proposed project as a high-priority regional network project in the 2036 Placer County Regional Transportation Plan (RTP) (PCTPA, 2010). This project is included in the SPRTA Regional Traffic Congestion and Air Quality Mitigation Fee Program.

The Project Study Report – Project Development Support (PSR-PDS) for Capital Support was completed and approved on January 1, 2013 (EA-2F920K). The PSR-PDS identified and estimated the necessary project scope, schedule, and support cost to complete the studies and work needed for the Project Approval and Environmental Document (PA&ED) phase. Several alternatives were also developed for adding one vehicle lane in each direction in the median of SR 65 from 0.5 mile north of Galleria Boulevard/Stanford Ranch Road to Lincoln Boulevard.

Other Related Projects

Rocklin Road Interchange Improvements

The City of Rocklin is proposing to improve Rocklin Road and the on- and off-ramps at the I-80 Interchange. The PSR-PDS has been completed and PA&ED is in progress.

Galleria Boulevard/Stanford Ranch Road/SR 65 Northbound Ramps

The Highway 65 Joint Powers Authority, including the PCTPA and the cities of Rocklin and Roseville, completed the PA&ED phase of this project, which proposes to reconfigure the northbound ramps of the Galleria Boulevard/Stanford Ranch Road interchange to improve operations and add capacity. Caltrans completed the PS&E phase in summer 2017 and construction is planned to begin in December 2017.

I-80/SR 65 Interchange Improvements

The PA&ED phase of this project was completed in 2016, led by the PCTPA, to improve the I-80/SR 65 interchange with high-speed connector ramps, add one

additional lane to each connector ramp, add an HOV direct connector between I-80 and SR 65, and local interchange ramp improvements and street widening to accommodate these improvements. Caltrans prepared the PS&E portion for phase 1 of the project.

Phase 1 of the I-80/SR 65 Interchange Improvements Project is scheduled to commence in December 2017. The Phase 1 improvements were selected based on their ability to address the highest priority congestion and safety issues in the I-80 and SR 65 corridors. Phase 1 will widen the East Roseville Viaduct to accommodate the addition of a third northbound lane along SR 65 from I-80 to just north of the Galleria Boulevard/Stanford Ranch Road interchange. Phase 1 will include the proposed Galleria Boulevard/Stanford Ranch Road/SR 65 Northbound Ramps project improvements and improvements to the southbound Galleria Boulevard/Stanford Ranch Road slip on-ramp.

The proposed geometrics have been coordinated with the SR 65 Capacity and Operational Improvements Project to provide the appropriate and contiguous improvements along the SR 65 corridor.

Placer Parkway Phase 1

Placer County led the PA&ED phase of this project to provide access and improve circulation between and across SR 65 to support current and planned urban development within the county and the city of Rocklin. The interchange and associated improvements are needed to improve traffic capacity and enhance traffic operations and mobility that will accommodate future traffic demands in the region. The project is currently in the Plans, Specifications, and Estimate (PS&E) phase.

Whitney Ranch Interim Interchange

Construction was recently completed for an interim interchange to connect to the existing Whitney Ranch Parkway/University Avenue. The interim improvements represent the most cost effective solution for providing adequate access to the city while maintaining an acceptable level of service on SR 65 and adjacent interchanges within the proposed project limits.

Community Interaction

The following public outreach efforts were conducted through August 2016:

- PCTPA Board Public Meeting on May 5, 2014
- Community open house on July 24, 2014
- Community meeting flyers
- Web site updates
- PCTPA e-newsletter updates
- Press releases to various publications
- PCTPA Board Public Meeting on March 25, 2015

Project stakeholders consisting of business owners, tenants, residents, and other interested organizations and individuals that may be directly affected by the proposed project were contacted including the following:

- Adventure Christian Church
- Best Step Transportation Collaborative
- Bureau of Indian Affairs
- California Trucking Association
- Cattlemen’s Restaurant
- Cinemark Century Theater
- Cirby Hills Town Homes
- Courtyard Marriott Residence Inn
- Creekside Town Center
- Cresthaven
- Dry Creek Conservancy
- Golfland Sunsplash
- Hearthstone Condos
- Kaiser Permanente
- Larkspur Landing
- Lincoln Chamber of Commerce
- Lincoln Crossing Community Association
- Lincoln Transit
- Maidu Neighborhood Association
- Meadow Oaks
- Placer County Transit
- Roseville Coalition of Neighborhood Associations
- Renesus/Telfunken
- Rocklin Chamber of Commerce
- Roseville Unified School District
- Roseville Galleria
- Roseville Transit
- Stoneridge Village 1 Owners Association
- Sun City Lincoln Hills Community Association
- Sunset Plaza
- Sutter Roseville
- The Fountains
- The Preserve at Creekside
- Thunder Valley Casino Resort
- Western Placer Unified School District
- Whitney Oaks Community Association
- William Jessup University

Support and Opposition

To date, feedback regarding the proposed project, particularly during the Community Open House, has been generally supportive. Comments were received during circulation of the environmental document. Responses to all comments received are documented in the IS/MND (AttachmentJ)

Existing Facility

In the northbound direction, SR 65 begins at I-80 as a three-lane facility consisting of the two eastbound I-80 to northbound SR 65 connector ramp lanes joined with the one-lane westbound I-80 to northbound SR 65 connector ramp. The outside lane immediately ends along the East Roseville Viaduct, and SR 65 continues north with two lanes through the Galleria Boulevard/Stanford Ranch Road interchange. A partial auxiliary lane begins prior to the Pleasant Grove Boulevard interchange and ends at the northbound off-ramp, with an overall length of approximately 1,300 feet. Past the Pleasant Grove Boulevard, northbound SR 65 continues toward the city of Lincoln as a two-lane facility with an auxiliary lane between the Pleasant Grove Boulevard and Blue Oaks Boulevard interchanges, a partial auxiliary lane for the northbound Sunset Boulevard off-ramp, and an auxiliary lane between the Twelve Bridge Drive interchange and the Lincoln Boulevard interchange.

In the southbound direction from the city of Lincoln, SR 65 has two lanes with an auxiliary lane between the Lincoln Boulevard and the Twelve Bridges Drive interchanges, a partial auxiliary lane at the southbound Sunset Boulevard off-ramp,

and an auxiliary lane between the Blue Oaks Boulevard and Pleasant Grove Boulevard interchanges. A third mainline lane develops under the Galleria Boulevard/Stanford Ranch Road interchange prior to the southbound Galleria Boulevard/Stanford Ranch Road slip on-ramp. The three lanes continue across the East Roseville Viaduct and split into four lanes, two serving the southbound SR 65 to westbound I-80 connector ramp and two serving the SR 65 to eastbound I-80 connector ramp.

4. PURPOSE AND NEED

Purpose:

The primary purpose of the proposed project is to relieve existing mainline congestion by adding additional mainline capacity. Adding additional capacity would help planned and anticipated growth along the corridor and would help achieve the mobility and economic development goals of the PCTPA.

The project will improve traffic operations and safety in this segment of the highway.

Need:

Recurring morning and evening peak-period demand exceeds the current design capacity along SR 65, creating traffic operations and safety issues. These issues result in high delays and wasted fuel, all of which will be exacerbated by traffic from future population and employment growth.

Projected growth along the SR 65 corridor in Roseville, Lincoln, Rocklin, and South Placer County will result in additional mainline congestion. SR 65 connects major regional routes and must operate efficiently in order to serve commuter traffic, goods movement, and regional traffic in south Placer County.

4A. Problem, Deficiencies, Justification

Prior to the recent downturn in the economy, the SR 65 corridor included some of the fastest growing communities in the Sacramento region – Roseville, Rocklin, and Lincoln. The SACOG 2016 MTP/SCS estimates that these communities will continue to grow toward build-out conditions by the year 2036. Although growth in these areas will continue at a slower pace than originally estimated, the continued growth will place additional travel demands on the SR 65 and I-80 corridors and the regional roadway network. Congestion delay currently exists in the southbound and northbound directions all day, from 7 AM to 7 PM.

Because of planned development, the 2040 projected traffic volumes anticipate significantly increased congestion along SR 65.

4B. Regional and System Planning

A. State Planning

SR 65 is the principal north/south freeway connecting Placer County and Yuba County. In Caltrans District 3, the SR 65 corridor extends from the I-80/SR 65 junction north to the SR 70/SR 65 junction in Yuba County. SR 65 is important as a major lifeline route for industrial, commercial and agricultural purposes and serves as a major commuter route within and between cities located along its length.

The *State Route 65 Corridor System Management Plan (CSMP)* (Caltrans, 2009) is the State's plan for the SR 65 corridor and covers the segment between I-80 and SR 70 in Yuba County. The CSMP reviewed existing traffic data and projected it to a Design Year 2027. In addition, the plan determined that the freeway currently operates at Level of Service (LOS) D and that, without expanding the freeway, it will operate at LOS F.

SR 65 is identified as a principal arterial route on the National Highway System and is a Terminal Access (Surface Transportation Assistance Act) route.

The State's concept facility is a six-lane freeway plus two HOV lanes and two auxiliary lanes; the ultimate facility is an eight-lane freeway plus two HOV lanes and two auxiliary lanes.

B. Regional Planning

The proposed project is included in the 2036 Placer County RTP, with SPRTA as the lead agency.

C. Local Planning

The proposed project design and construction will be locally funded by the SPRTA Regional Transportation and Air Quality Mitigation Fee Program, which includes the county and the cities of Roseville, Rocklin, and Lincoln.

4C. Traffic

The transportation analysis used an integrated modeling approach that has three levels of detail (or modeling platforms): (1) macro, (2) meso, and (3) micro. At the macro level, the regional travel forecasting model (i.e., SACMET) was used to forecast peak period origin–destination (OD) traffic volume flows between traffic analysis zones internal and external to the study area. At the meso level, the peak period OD flows were divided into four 1-hour trip tables and disaggregated into three modes—single occupant vehicle (SOV), HOV, and truck—and then assigned to the sub-area roadway network by using Visum software. The assignment process was based on congested travel times that reflect roadway link speeds and capacity. At the micro level, the traffic volumes were converted to individual vehicles that were assigned to the operational study area using the Vissim software, which contains detailed inputs governing traffic controls (signal timings), geometrics (lane configurations), and driver behavior.

The traffic forecasts were developed using the first two modeling platforms (macro and meso). The first platform uses a modified version of the regional SACMET model developed by the SACOG for the MTP/SCS. The second modeling platform uses the Visum sub-area trip assignment model, which was used to assign the trips generated from the SACMET model to a detailed roadway network within the study area.

The SACMET and Visum models were calibrated and validated according to the 2010 California Regional Transportation Guidelines (California Transportation Commission, 2010) and criteria approved by the Project Development Team (PDT). Both models passed applicable static and dynamic validation tests. The detailed

validation results are contained in Chapter 4 of the *I-80/SR 65 Interchange Improvements Transportation Analysis Report* (Fehr and Peers, 2014).

Traffic volume forecasts are derived from future socioeconomic projections that started with regional socioeconomic projections developed by SACOG for the regional MTP/SCS. These were reviewed by the I-80/SR 65 Interchange Improvements Project Development Team and modified to better reflect local plans. Socioeconomic projections have the greatest influence on volume forecasts and will affect volume projections to a greater extent than roadway network changes or other modeling components. If these forecasts vary in reality, it will have a direct effect on future traffic volumes.

The traffic volume forecasts (and operations analysis) are also influenced by modifications to the existing transportation network caused by improvement projects anticipated to be implemented by the Construction Year and Design Year. This includes projects identified in the financially constrained project list in the MTP/SCS and projects the I-80/SR 65 Interchange Improvements Project Development Team believes would likely be constructed by the Design Year. The rationale for adding projects to the MTP/SCS list was that the Design Year is 5 years beyond the 2035 horizon of the MTP/SCS. This creates a longer timeframe for revenue to accumulate. Furthermore, the additional socioeconomic growth added to the model would also contribute to transportation revenue to help pay for these improvements.

A Transportation Analysis Report (Fehr and Peers, 2015) for the SR 65 Capacity and Operational Improvements Project; a copy of the report can be found in Attachment B. The base year used is 2012, the Construction Year used is 2020, and the Design Year is 2040. The report identified needed improvements along SR 65 to support population and economic growth through the year 2040.

Existing (2012) Conditions

Traffic operations were analyzed for baseline conditions under AM and PM peak hour conditions. Table 1 shows the LOS and average delay at the studied ramps along SR 65 under the baseline conditions. Congestion occurs at the I-80 on-ramp and along southbound SR 65 between the Pleasant Grove Boulevard and Blue Oaks Boulevard interchanges because of the high demand along the mainline combined with the Pleasant Grove on-ramp volume.

Table 1. Baseline (2012) Conditions Freeway Operations Results				
Freeway	Location	Type	LOS/Average Density	
			AM Peak Hour	PM Peak Hour
NB SR 65	I-80 WB on-ramp	Merge	<u>F/53</u>	<u>F/95</u>
	I-80 to Stanford Ranch Rd	Basic	D/32	<u>F/77</u>
	Stanford Ranch Rd Off-ramp	Diverge	D/33	<u>F/62</u>
SB SR 65	Blue Oaks Blvd WB On-ramp	Merge	<u>F/60</u>	B/20
	Blue Oaks Blvd to Pleasant Grove Blvd	Weave	<u>F/75</u>	C/21
	Pleasant Grove Blvd Off- to On-ramp	Basic	<u>F/89</u>	C/25
	Pleasant Grove Blvd WB On-ramp	Merge	<u>F/72</u>	D/31
	Pleasant Grove Blvd EB On-ramp	Merge	<u>F/53</u>	E/39
	Pleasant Grove Blvd to Galleria Blvd	Basic	E/36	D/32
	Galleria Blvd Off-ramp	Diverge	E/35	D/32
EB I-80	Eureka Rd Off-ramp	Diverge	C/26	<u>F/46</u>
	Eureka Rd Off to On-ramp	Basic	C/21	C/23
	Eureka Rd EB On-ramp	Merge	B/19	B/20
	Eureka Rd to Taylor Rd	Weave	C/23	E/42
	Taylor Rd. to SR 65	Basic	D/28	E/42
	SR 65 Off-ramp	Diverge	C/28	<u>F/52</u>
WB I-80	SR 65 Off-ramp	Diverge	B/18	E/35
	Douglas Blvd Off-ramp	Diverge	D/32	C/26
	Douglas Blvd WB On-ramp	Merge	E/36	D/34
	Douglas Blvd EB On-ramp	Merge	E/42	E/37
	Douglas Blvd to Riverside Ave	Basic	D/33	D/31
	Riverside Ave Off-ramp	Diverge	E/40	E/36
Source: Fehr & Peers, 2015				
Notes:				
Bold and underline font indicate LOS F conditions.				
The LOS and average density for the study segment are reported.				

In the baseline year existing conditions, the traffic analysis shows that the intersections within the proposed project area operate at an acceptable LOS, except for at two locations. The intersection at Blue Oaks Boulevard/Washington Boulevard/SR 65 southbound ramps in the AM peak hour operates at LOS D because it serves inbound (employees) and outbound (residents) commuters for west Roseville. The Rocklin Road/Granite Drive intersection, in the PM peak hour, operates at LOS D. Table 2 shows the LOS and average delay at the study intersections under baseline conditions.

Table 2. Baseline (2012) Intersection Operations Results			
Intersection	Minimum Acceptable LOS	AM Peak Hour (LOS/delay)	PM Peak Hour (LOS/delay)
6. Blue Oaks Blvd/Washington Blvd/SR 65 SB Ramps	C	<u>D/43</u>	C/33
10. Stanford Ranch Rd/Five Star Blvd	C	B/19	C/32
11. Stanford Ranch Rd/SR 65 NB Ramps	D	A/9	B/15
12. Galleria Blvd/SR 65 SB Ramps	D	B/13	B/19
13. Galleria Blvd/Antelope Creek Drive	C	B/10	C/24
14. Galleria Blvd/Roseville Pkwy	E	C/30	D/36
15. Roseville Pkwy/Creekside Ridge Drive	C	A/6	B/17
16. Roseville Pkwy/Taylor Rd	D	C/30	C/28
17. Roseville Pkwy/Sunrise Avenue	E	D/37	D/37
18. Atlantic Street/Wills Rd	C	B/10	B/12
19. Atlantic Street/I-80 WB Ramps	C	A/7	B/11
20. Eureka Rd/Taylor Rd/I-80 EB Ramps	E	C/26	E/61
21. Eureka Rd/Sunrise Avenue	C	C/24	C/30
26. Douglas Blvd/Sunrise Avenue	D	C/26	D/35
28. Pacific Street/Sunset Blvd	C	B/18	C/29
29. Rocklin Rd/Granite Drive	C	B/15	<u>D/37</u>
30. Rocklin Rd/I-80 WB Ramps	C	C/21	B/17
31. Rocklin Rd/I-80 EB Ramps	C	B/17	B/20
32. Rocklin Rd/Aguilar Rd	C	A/8	B/13
Source: Fehr & Peers, 2015			
Notes:			
Bold and underline font indicate unacceptable operations.			
The LOS and average delay in seconds per vehicle are reported.			

Construction Year (2020)

In the Construction Year (2020), during the AM peak hour, the Build alternatives operate unacceptably at the Sunset Boulevard westbound off-ramp to on-ramp segment and at the Sunset Boulevard westbound on-ramp; potential mitigation includes more restrictive ramp metering at the upstream on-ramps. Alternative 1 (Carpool Lane) would have an impact at the Galleria Boulevard on-ramp to southbound SR 65 during the AM peak hour. A potential mitigation could include more restrictive ramp metering at the upstream on-ramps or construction of the ultimate phase of the planned I-80/SR 65 Interchange Improvements Project.

All three alternatives would operate at LOS D or better during the PM peak hour. Table 3 shows the LOS and delay for the freeway operations under Construction Year No Build and Build conditions.

Table 3. Construction Year (2020) Conditions Freeway Operations Results								
Freeway	Location	Type ^a	Alternative 1 Carpool Lane (LOS/density)		Alternative 2 GP Lane (LOS/density)		Alternative 3 No Build (LOS/density)	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
NB SR 65	I-80 Eastbound Connector Ramp	Basic	<u>F/45</u>	<u>F/61</u>	<u>F/47</u>	<u>F/63</u>	<u>E/44</u>	<u>F/61</u>
	Stanford Ranch Rd to Pleasant Grove Blvd	Weave	C/24	C/26	C/24	C/26	D/31	D/32
							E/36	E/36
	Pleasant Grove Blvd On-ramp	Merge	D/33	D/39	D/33	D/40	C/27	D/29
	Blue Oaks Blvd Off-ramp	Diverge	C/27	D/32	C/27	D/32		
	Blue Oaks Blvd to Sunset Blvd	Basic	C/19	D/26	C/19	D/27	C/25	D/29
Whitney Ranch Pkwy to Twelve Bridges Drive	Weave	B/13	C/23	B/13	C/23	B/16	D/29	
						B/17	D/30	
SB SR 65	Twelve Bridges Drive to Placer Pkwy	Weave	C/28	B/16	D/28	B/16	D/33	B/19
	D/31						B/19	
	Sunset Blvd WB On-ramp	Merge	<u>F/68</u>	C/25	<u>F/75</u>	C/25	D/29	C/21
	Blue Oaks Blvd WB On-ramp	Merge	D/30	C/26	C/24	C/21	<u>F/56</u>	C/26
	Pleasant Grove Blvd to Galleria Blvd	Basic	D/29	C/25	C/27	C/24	D/31	D/27
	Galleria Blvd On-ramp	Merge	<u>F/54</u>	D/34	E/42	D/33	E/39	D/33
I-80 WB Connector Ramp	Basic	E/41	D/32	E/40	D/32	E/38	D/32	
EB I-80	Auburn Blvd to Douglas Blvd	Basic	D/34	<u>F/108</u>	E/35	<u>D/34</u>	E/39	<u>F/81</u>
	Eureka Rd Off- ramp	Diverge	D/30	<u>F/118</u>	D/30	<u>F/110</u>	D/39	<u>F/106</u>
	SR 65 Off-ramp	Diverge	D/33	<u>F/91</u>	D/32	<u>F/95</u>	D/31	<u>F/92</u>
	SR 65 to Rocklin Rd	Basic	C/22	C/22	C/22	C/23	C/21	C/23
WB I-80	Rocklin Rd to Carpool Lane Start	Basic	D/29	C/24	D/28	C/24	D/29	C24
	Atlantic Street On-ramp	Merge	E/37	D/30	E/37	D/30	E/38	D/30
	Douglas Blvd Off-ramp	Diverge	D/33	C/27	D/33	C/28	D/33	C/27
	Douglas Blvd EB On-ramp	Merge	E/35	D/33	E/37	D/30	E/39	D/31
	Riverside Avenue Off-ramp	Diverge	D/34	D/31	D/33	D/31	D/33	D/31

Table 3. Construction Year (2020) Conditions Freeway Operations Results								
Freeway	Location	Type ^a	Alternative 1 Carpool Lane (LOS/density)		Alternative 2 GP Lane (LOS/density)		Alternative 3 No Build (LOS/density)	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Antelope Rd Off-ramp	Diverge	<u>F/53</u>	<u>D/29</u>	<u>F/53</u>	D/29	<u>F/61</u>	D/29
	Truck Scales On- ramp	Merge	<u>F/92</u>	C/26	<u>F/94</u>	C/26	<u>F/95</u>	C/27
	Elkhorn Blvd EB On-ramp	Merge	<u>F/77</u>	<u>D/28</u>	<u>F/77</u>	D/28	<u>F/77</u>	D/28

Source: Fehr & Peers, 2015

^a The facility type reported is for Alternative 1. The other results are contained in the Technical Appendix in the Transportation Analysis Report (Fehr and Peers, 2015).

Notes:
 Bold and underline font indicate LOS F conditions.
 Shaded cells indicate a project impact.
 The LOS and average density for the study segment are reported.
 EB = eastbound
 GP = General Purpose
 NB = northbound
 SB = southbound
 WB = westbound

As shown in Table 4, the following intersections operate at an unacceptable level under the Construction Year No Build and Build conditions:

- Blue Oaks Boulevard/Washington Boulevard/SR 65 Southbound Ramps (PM peak hour only)
- Stanford Ranch Road/Five Star Avenue (PM peak only)
- Rocklin Road/Granite Drive (PM peak only)
- Rocklin Road/I-80 Eastbound Ramps (AM peak only)

During the PM peak, the proposed project would have impacts at the following study intersections:

- Stanford Ranch Road/Five Star Boulevard
- Atlantic Street/Willis Road
- Douglas Boulevard/Harding Boulevard (Alternative 2 only)
- Douglas Boulevard/I-80 Eastbound Ramps
- Douglas Boulevard/Sunrise Avenue (Alternative 2 only)
- Rocklin Road/Granite Drive
- Rocklin Road/Aguilar Road

Signal timing adjustments are a potential mitigation for the Stanford Ranch Road, Atlantic Street, and Douglas Boulevard intersections. The impacts at the Rocklin Road intersections can be mitigated by the planned improvements to the I-80/Rocklin

Road interchange. These intersections would need capacity enhancements with and without the proposed project to operate at acceptable levels.

Table 4 shows the LOS and delay for the study intersections under Construction Year No Build and Build conditions.

Table 4. Construction Year (2020) Conditions Intersection Operations Results							
Intersection	Threshold	Alternative 1 Carpool Lane (LOS/delay)		Alternative 2 GP Lane (LOS/delay)		Alternative 3 No Build (LOS/delay)	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
6. Blue Oaks Blvd/ Washington Blvd/SR 65 SB Ramps	C	C/31	<u>D/47</u>	C/35	<u>D/44</u>	<u>D/53</u>	<u>F/126</u>
10. Stanford Ranch Rd/ Five Star Blvd	C	C/27	<u>F/92</u>	C/27	<u>E/76</u>	C/29	<u>D/48</u>
11. Stanford Ranch Rd/ SR 65 NB Ramps	D	B/15	C/23	B/20	C/25	B/18	B/12
12. Galleria Blvd/SR 65 SB Ramps	D	B/17	B/16	B/17	B/17	B/17	B/16
16. Roseville Pkwy/ Taylor Rd	D	D/49	D/51	D/46	D/53	<u>F/133</u>	D/42
18. Atlantic Street/Wills Rd	C	C/24	<u>D/39</u>	C/24	<u>D/36</u>	B/19	C/22
20. Eureka Rd/Taylor Rd/ I-80 EB Ramps	E	C/25	D/52	C/25	E/72	C/22	D/41
21. Eureka Rd/Sunrise Avenue	C	C/32	<u>D/44</u>	C/33	<u>D/44</u>	C/26	<u>E/62</u>
23. Douglas Blvd/Harding Blvd	E	D/51	E/77	C/30	<u>F/128</u>	D/36	<u>F/92</u>
24. Douglas Blvd/I-80 WB Ramps	C	C/23	C/35	C/24	C/31	B/20	C/31
25. Douglas Blvd/I-80 EB Ramps	C	B/20	<u>D/41</u>	A/10	<u>D/35</u>	B/12	C/29
26. Douglas Blvd/Sunrise Avenue	D	C/33	D/54	C/33	<u>F/86</u>	C/28	D/39
28. Pacific Street/Sunset Blvd	C	C/24	C/30	C/24	C/29	C/27	<u>F/86</u>
29. Rocklin Rd/Granite Drive	C	B/17	<u>F/130</u>	B/18	<u>F/130</u>	B/19	<u>F/127</u>
30. Rocklin Rd/I-80 WB Ramps	C	C/23	C/27	C/29	C/25	C/21	<u>D/38</u>
31. Rocklin Rd/I-80 EB Ramps	C	<u>D/42</u>	<u>E/57</u>	<u>D/49</u>	<u>D/46</u>	<u>D/37</u>	C/33

Source: Fehr & Peers, 2015
Notes:
Bold and underline font indicate unacceptable operations.
Shaded cells indicate a project impact.
The LOS and average delay in seconds per vehicle are reported.

Phase 1

A Phase 1 analysis was conducted to determine what additional benefits would improve the AM peak period during the Construction Year (2020). Phase 1 would widen SR 65 to provide an additional lane between the Pleasant Grove Boulevard off-ramp and loop on-ramp, resulting in three lanes in each direction from I-80 to the Blue Oaks Boulevard interchange. Auxiliary lanes would also be added in both directions between the Galleria Boulevard/Stanford Ranch Road and Pleasant Grove Boulevard interchanges. Table 5 compares the Phase 1 improvements to the baseline conditions, which assumes that Phase 1 of the I-80/SR 65 Interchange Improvements Project would also be in place to reduce the majority of congestion that currently occurs along mainline SR 65.

Construction of Phase 1 would improve conditions at the Blue Oaks Boulevard ramps but would deliver more volume to the Galleria Boulevard interchange, causing a minor bottleneck until the future phases of the I-80/SR 65 Interchange Improvements Project are constructed. The Traffic Analysis Memorandum – Phase 1 (Fehr & Peers, 2016) is included in Attachment C.

Table 5. Construction Year AM Peak Hour – Phase 1 and Baseline Alternative Freeway Operations					
Freeway	Location	Baseline Alternative		Phase 1 Alternative	
		Type	LOS/ Density	Type	LOS/ Density
NB SR 65	I-80 to Stanford Ranch Rd	Basic	D/27	Basic	D/26
	Stanford Ranch Rd Off-ramp	Diverge	C/24	Diverge	C/24
	Stanford Ranch Rd On-ramp	Merge	D/31	-	-
	Pleasant Grove Blvd Off-Ramp	Diverge	E/36	-	-
	Stanford Ranch Rd to Pleasant Grove Blvd	-	-	Weave	C/23
	Pleasant Grove Blvd Off-ramp to On-ramp	Basic	E/36	Basic	C/23
	Pleasant Grove Blvd to Blue Oaks Blvd	Weave	C/27	-	-
	Pleasant Grove Blvd On-ramp	-	-	Merge	D/31
	Blue Oaks Blvd Off-ramp	-	-	Diverge	C/25
SB SR 65	Blue Oaks Blvd WB On-ramp	Merge	<u>F/78</u>	Merge	E/40
	Blue Oaks Blvd to Pleasant Grove Blvd	Weave	<u>F/54</u>	--	
	Blue Oaks Blvd EB On-Ramp	-	-	Merge	D/32
	Pleasant Grove Blvd Off-ramp	-	-	Diverge	C/27
	Pleasant Grove Blvd Off-ramp to On-ramp	Basic	E/36	Basic	C/24
	Pleasant Grove Blvd WB On-ramp	Merge	D/30	Merge	C/22
	Pleasant Grove Blvd EB On-ramp	Merge	D/29	Merge	C/24
	Pleasant Grove Blvd to Galleria Blvd	Basic	D/31	Basic	D/28
	Galleria Blvd Off-ramp	Diverge	D/32	Diverge	C/27
	Galleria Blvd On-ramp	Merge	E/37	Merge	F/46
	I-80 Off-ramp	Diverge	D/33	Diverge	D/33
Source: Fehr & Peers, 2015					
Note:					
Bold and underline font indicate unacceptable operations.					

Design Year (2040)

Table 6 compares the daily forecast volumes for mainline SR 65 in the Design Year with the existing conditions for all vehicles and trucks in the proposed project area.

Segment	Existing Conditions ^a		Design Year Conditions					
			Alternative 1 Carpool Lane		Alternative 2 General Purpose Lane		Alternative 3 No Build	
	Total	Trucks	Total	Trucks	Total	Trucks	Total	Trucks
I-80 to Galleria Blvd/Stanford Ranch Rd	106,100	3,500	168,100	6,300	169,000	6,400	158,000	6,200
Stanford Ranch Rd/Galleria Blvd to Pleasant Grove Blvd	104,400	3,500	169,200	6,600	170,900	6,700	152,400	6,300
Pleasant Grove Blvd to Blue Oaks Blvd	83,400	3,100	159,800	6,300	162,300	6,400	140,800	6,000
Blue Oaks Blvd to Sunset Blvd	65,300	2,400	134,600	4,900	135,700	4,900	112,100	4,600
Sunset Blvd to Whitney Ranch Pkwy/Placer Pkwy	54,000	1,900	114,000	3,700	114,600	3,700	96,900	3,300
Whitney Ranch Pkwy/Placer Pkwy to Twelve Bridges Dr			126,500	3,500	127,000	3,500	112,700	3,400
Twelve Bridges Drive to Lincoln Blvd ^b	48,800	1,900	104,300	3,200	104,500	3,200	93,600	3,000
Lincoln Blvd to Ferrari Ranch Rd	-	-	61,100	2,700	61,400	2,700	56,300	2,600
Source: Fehr & Peers, 2015								
^a The existing conditions total volume data is from 2009 as reported in the PeMS database. The existing truck volumes are estimated from the base year SACMET model.								

Freeway operations improve under Build conditions, except for one location for each alternative:

- Alternative 1 (Carpool Lane) – Westbound I-80 at Elkhorn Boulevard eastbound On-ramp (Carpool Lane alternative) (AM peak)
- Alternative 2 (General Purpose Lane) – Westbound I-80 at Truck Scales On-ramp (AM peak)

Freeway	Location	Type ^a	Alternative 1 Carpool Lane (LOS/density)		Alternative 2 General Purpose Lane (LOS/density)		Alternative 3 No Build (LOS/density)	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
			NB SR 65	I-80 to Stanford Ranch Rd	Weave	C/28	D/33	C/28
	Stanford Ranch Rd to Pleasant Grove Blvd	Weave	D/30	D/33	D/30	D/34	E/40	<u>F/67</u>
							E/40	E/40
	Pleasant Grove Blvd On-ramp	Merge	D/31	D/33	D/31	D/35	C23	C/22
	Blue Oaks Blvd Off-ramp	Diverge	C/27	D/31	C/28	D/32		
	Blue Oaks Blvd to Sunset Blvd	Basic	C/19	C/26	C/19	C/26		
	Whitney Ranch Pkwy to Twelve Bridges Drive	Weave	B/15	C/24	B/16	C/24	C/19	C/24
SB SR 65	Lincoln Blvd to Twelve Bridges Drive	Weave	D/34	B/17	D/33	B/17	D/28	B/17
	Twelve Bridges Drive to Placer Pkwy	Weave	D/30	B/17	D/29	C/22	D/30	C/19
	Sunset Blvd to Blue Oaks Blvd	Weave	D/34	C/24	D/34	C/24	<u>F/102</u>	D/29
	Blue Oaks Blvd WB On-ramp	Merge	D/32	C/27	D/32	C/27	<u>F/107</u>	<u>F/48</u>
	Blue Oaks Blvd to Pleasant Grove Blvd	Weave	D/33	C/28	D/32	D/28	<u>F/79</u>	<u>F/48</u>
					D/32	D/29		
	Pleasant Grove Blvd EB On-ramp	Merge	D/33	D/30	<u>F/46</u>	D/34	<u>F/82</u>	<u>F/89</u>
	Pleasant Grove Blvd to Galleria Blvd	Basic	E/35	D/34	E/36	D/33	E/37	E/37
EB I-80	Auburn Blvd to Douglas Blvd	Basic	E/39	D/32	D/32	E/36	E/42	E/35
	Douglas Blvd to Eureka Rd	Weave	C/27	C/27	C/23	C/27	C/27	E/41
	SR 65 Off-ramp	Diverge	C/24	C/24	C/22	C/25	C/24	<u>F/58</u>
	SR 65 to Rocklin Rd	Basic	C/26	C/26	C/24	D/27	C/24	D/26
WB I-80	Rocklin Rd to Carpool Lane Start	Basic	D/31	D/30	D/27	D/33	D/30	D/30
	SR 65 to Atlantic Street	Weave	C/27	C/23	C/24	C/24	C/25	C/24

Table 7. Design Year (2040) Conditions Freeway Operations Results								
Freeway	Location	Type ^a	Alternative 1 Carpool Lane (LOS/density)		Alternative 2 General Purpose Lane (LOS/density)		Alternative 3 No Build (LOS/density)	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
			Atlantic Street On-ramp	Merge	E/41	E/37	E/36	E/38
Douglas Blvd Off- ramp	Diverge	E/36	D/34	D/32	D/32	D/34	D/32	
Douglas Blvd EB On-ramp	Merge	E/39	D/33	D/31	E/35	E/35	E/36	
Riverside Avenue Off-ramp	Diverge	D/35	D/33	D/33	D/34	<u>D/34</u>	D/35	
Antelope Rd to Truck Scales	Weave	<u>F/48</u>	C/26	<u>F/59</u>	C/26	<u>F/70</u>	C/28	
Truck Scales On-ramp	Merge	<u>F/79</u>	C/27	<u>F/88</u>	D/29	<u>F/87</u>	D/29	
Elkhorn Blvd EB On-ramp	Merge	<u>F/91</u>	C/27	<u>F/54</u>	C/28	<u>F/61</u>	C/28	

Source: Fehr & Peers, 2015
^aThe facility type reported is for Alternative 1. The other results are contained in the Technical Appendix in the Transportation and Analysis Report (Fehr and Peers, 2015)
 Notes:
 Bold and underline font indicate LOS F conditions.
 Shaded cells indicate a project impact.
 The LOS and average density for the study segment are reported.

Table 8 shows the LOS and delay for the study intersections under Design Year, No Build and Build conditions. Fourteen study intersections are projected to operate at an unacceptable level under No Build conditions.

The project would eliminate unacceptable operations at 2 or 3 out of 11 intersections, depending on the Build alternative (Roseville Parkway/Sunrise Avenue and Rocklin Road/I-80 Eastbound Ramps for both alternatives and Eureka Road/Taylor Road/I-80 Eastbound Ramps for Alternative 1 Carpool Lane. Compared to the No Build scenario, the Build alternatives would increase delays at the following locations:

- Roseville Parkway/Taylor Road (AM peak)
- Douglas Boulevard/Harding Boulevard (PM peak)
- Douglas Boulevard/Sunrise Avenue (PM peak)
- Rocklin Road/I-80 Westbound Ramps (PM peak)

Signal timing may be adjusted to mitigate delays at the Roseville Parkway/Taylor Road intersection.

Table 8 shows the LOS and delay for the freeway operations under Design Year No Build and Build conditions.

Table 8. Design Year (2040) Conditions Intersection Operations Results							
Intersection	Minimum Acceptable LOS	Alternative 1 Carpool Lane (LOS/delay)		Alternative 2 General Purpose Lane (LOS/delay)		Alternative 3 No Build (LOS/delay)	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
6. Blue Oaks Blvd/Washington Blvd/SR 65 SB Ramps	C	<u>E/57</u>	<u>F/140</u>	<u>E/59</u>	<u>F/153</u>	<u>F/90</u>	<u>F/214</u>
7. Blue Oaks Blvd/SR 65 NB Ramps	C	B/17	<u>D/45</u>	B/16	<u>D/49</u>	B/17	<u>F/94</u>
10. Stanford Ranch Rd/Five Star Blvd	C	C/27	<u>F/82</u>	C/26	<u>E/57</u>	C/26	<u>F/85</u>
11. Stanford Ranch Rd/SR 65 NB Ramps	D	B/11	D/36	B/12	B/19	B/19	C/21
12. Galleria Blvd/SR 65 SB Ramps	D	B/19	C/25	B/17	B/19	D/55	C/27
13. Galleria Blvd/Antelope Creek Rd	C	A/10	C/28	A/10	C/29	A/8	C/28
14. Galleria Blvd/Roseville Pkwy	E	D/47	<u>F/93</u>	D/45	<u>F/82</u>	D/41	<u>F/93</u>
15. Roseville Pkwy/Creekside Ridge Drive	C	A/8	<u>D/50</u>	A/8	<u>D/47</u>	A/8	<u>D/50</u>
16. Roseville Pkwy/Taylor Rd	D	<u>E/70</u>	D/52	<u>E/66</u>	D/52	<u>E/60</u>	<u>E/55</u>
17. Roseville Pkwy/Sunrise Avenue	E	C/33	E/70	C/35	E/57	C/33	<u>F/89</u>
20. Eureka Rd/Taylor Rd/I-80 EB Ramps	E	C/30	E/75	C/30	<u>F/81</u>	C/30	<u>F/99</u>
21. Eureka Rd/Sunrise Avenue	C	<u>D/41</u>	<u>F/94</u>	<u>D/41</u>	<u>F/103</u>	<u>D/41</u>	<u>F/104</u>
23. Douglas Blvd/Harding Blvd	E	C/26	<u>F/91</u>	C/28	<u>F/96</u>	<u>C/26</u>	E/69
24. Douglas Blvd/I-80 WB Ramps	C	C/21	C/28	B/19	C/33	C/22	C/20
25. Douglas Blvd/I-80 EB Ramps	C	C/28	<u>D/37</u>	C/24	<u>D/37</u>	C/29	<u>D/39</u>
26. Douglas Blvd/Sunrise Avenue	D	D/54	<u>F/254</u>	D/44	<u>F/241</u>	D/43	<u>F/239</u>
29. Rocklin Rd/Granite Drive	C	C/29	<u>F/95</u>	C/28	<u>F/84</u>	C/26	<u>F/101</u>
30. Rocklin Rd/I-80 WB Ramps	C	C/23	<u>E/68</u>	C/24	<u>E/63</u>	C/22	<u>D/54</u>
31. Rocklin Rd/I-80 EB Ramps	C	C/30	C/21	C/26	B/20	<u>D/41</u>	C/21

Source: Fehr & Peers, 2015

Notes:
 Bold and underline font indicate unacceptable operations.
 Shaded cells indicate a project impact.
 The LOS and average delay in seconds per vehicle are reported.

Collision Analysis

Caltrans Traffic Accident Surveillance and Analysis System (TASAS) traffic collision data for mainline SR 65 and the ramp connections were compiled for the 3-year period between October 1, 2009 and September 30, 2012.

A total of 247 collisions were reported on the freeway sections in both directions of SR 65, including 3 fatalities. As shown in Table 9, the actual accident rate on SR 65 is lower than the statewide average for a similar type facility. The accident rates for fatal accidents are higher than the statewide average, but the incidents occurred at different locations along the freeway segment. Actual fatal and injury accidents are lower than the statewide average.

During the 3-year period, the following types of accidents occurred on SR 65:

- 124 rear-ends (50 percent)
- 57 hit objects (23 percent)
- 37 sideswipes (15 percent)
- 13 overturns (5 percent)
- 8 broadsides (3 percent)
- 5 auto-pedestrian (2 percent)
- 2 other factors (1 percent)
- 1 head on (0.4 percent)

The most frequent collision type (50 percent) is a rear end collision, which is typical of congested conditions. The next most frequent collision types are hit objects and sideswipes. The remaining types of collisions make up less than 12 percent of all collisions. Implementation of the proposed improvements are anticipated to reduce the accident potential by reducing congestion conditions that contribute to the accident types experienced.

Table 9. Actual and Average Accident Rates from 10/1/2009 to 9/30/2012								
<u>Direction</u>	<u>Total Accidents</u>	<u>Total Fatalities</u>	<u>Actual Collision Rate</u>			<u>Average Collision Rate</u>		
			<u>F</u>	<u>F&I</u>	<u>Total</u>	<u>F</u>	<u>F&I</u>	<u>Total</u>
Northbound	116	0	<u>F</u>	<u>F&I</u>	<u>Total</u>	<u>F</u>	<u>F&I</u>	<u>Total</u>
Southbound	131	3	<u>0.008</u>	0.14	0.38	0.007	0.23	0.66
Total	247	3	0.004	0.14	0.37	0.007	0.23	0.66

Source: Caltrans District 3 TASAS Table B, October 1, 2009 to September 30, 2012

Notes:
 Bold and underline font indicate unacceptable conditions.
 F = Fatalities
 F&I = Fatalities and Injuries

5. ALTERNATIVES

5A. Viable Alternatives

Build Alternatives

There are two Build alternatives being considered in this project: Alternative 1 (Carpool Lane) and Alternative 2 (General Purpose Lane). These alternatives are

shown on the Geometric Approval Drawings in Attachment A. This section summarizes the features that are common to both Build alternatives. Unique features of each alternative are described in their respective sections. Both Build alternatives described below would:

- Allow for inside highway widening as a future project along SR 65 from north of the Blue Oaks Boulevard interchange to Lincoln Boulevard
- Accommodate the I-80/SR 65 interchange project improvements
- Take into consideration the carpool/HOV lane restrictions and weaving volumes from the carpool/HOV lanes proposed by the I-80/SR 65 interchange project

Structures

The northbound and southbound bridges over Pleasant Grove Creek (Br. No. 19-0136R and 19-0136L respectively) would need to be widened to accommodate the median widening and auxiliary lanes. Widened bridge structures would be similar to the existing reinforced concrete slab bridges with piles.

A ground anchor wall would be needed at the Pleasant Grove Boulevard Overcrossing structure abutment fill to accommodate the highway and ramp widening (see Advanced Planning Studies in Attachment D).

Existing box culverts would need to be extended to accommodate the proposed auxiliary lanes along the corridor. The following culverts would need to be extended:

- Double 72-inch reinforced concrete pipe between Galleria Boulevard and Pleasant Grove Boulevard
- Double 10- by 5-foot RCB between Blue Oaks Boulevard and Sunset Boulevard
- 7- by 5-foot RCB between Whitney Ranch Parkway and Twelve Bridges Drive

Enforcement Areas

California Highway Patrol (CHP) pull-out areas would be provided on each on-ramp adjacent to HOV lanes and ramp metering points. These pull-out areas would be intended to enforce the ramp-meter area of the interchange.

HOV (Bus and Carpool) Lanes

All of the on-ramps for both Build alternatives include a preferential 12-foot-wide HOV lane, except for the Pleasant Grove Boulevard Northbound loop on-ramp, the Blue Oaks Boulevard Northbound Loop On-ramp, and the Sunset Boulevard southbound loop on-ramp.

Ramp Metering

Accepting the recommendation from the Value Analysis (VA) study (CH2M, 2015), both Build alternatives would include ramp metering modifications for the slip on-ramps to a 2+1 configuration (two metered lanes plus one carpool preferential lane) and a 1+1 configuration (one metered general purpose lane plus one carpool preferential lane) for the loop on-ramps. These modifications, which would be constructed along SR 65 from the Galleria Boulevard interchange to Lincoln

Boulevard, have been included in the project where not already planned by another project.

The southbound Pleasant Grove Boulevard slip and loop on-ramps, Blue Oaks Boulevard slip and loop on-ramps, and Lincoln Boulevard slip on-ramp would be modified to include these ramp metering changes. Table 10 summarizes ramp metering modification locations, by project.

Park-and-Ride Facilities

There are several existing park-and-ride facilities near the proposed project area that are enroute to the SR 65 corridor, including the following:

- Foothills Boulevard and Junction Boulevard (California Family Fitness) – 25 parking spaces available
- 1000 Pleasant Grove Boulevard (Highland Crossing Shopping Center) – 25 parking spaces available
- Pleasant Grove Boulevard and Michener Drive (Mahany Park) – 42 parking spaces available
- Galleria Circle and West Drive (Galleria Transfer Point) – 50 parking spaces available
- Stanford Ranch Road and Five Star Boulevard – 35 parking spaces available
- Industrial Avenue at State Route 65 – 150 parking spaces available

Table 10. SR 65 Ramp Configuration					
Ramp		Existing		Proposed (Alternatives 1 and 2)	
		Lanes	HOV	Lanes	HOV
Northbound	Stanford Ranch Rd ^a	1	No	3	Yes
	Pleasant Grove Blvd	2	No	2	No
	Blue Oaks Blvd	1	No	2	No
	Sunset Blvd EB	2	Yes	2	Yes
	Sunset Blvd WB	2	Yes	2	Yes
	Whitney Ranch Pkwy EB ^b	Not Applicable		2	Yes
	Whitney Ranch Pkwy WB ^c	Not Applicable		2	Yes
	Twelve Bridges Dr ^d	2	No	3	Yes
Southbound	Lincoln Blvd	2	No	3	Yes
	Twelve Bridges Dr	2	No	2	No
	Placer Pkwy WB ^c	Not Applicable		2	Yes
	Placer Pkwy EB ^b	Not Applicable		2	Yes
	Sunset Blvd WB	2	Yes	2	No
	Sunset Blvd EB	3	Yes	3	Yes
	Blue Oaks Blvd WB	1	No	2	Yes
	Blue Oaks Blvd EB	2	Yes	3	Yes
	Pleasant Grove Blvd WB	2	Yes	2	Yes
	Pleasant Grove Blvd EB	2	No	3	Yes
Galleria Blvd ^e	1	No	3	Yes	

Source: Fehr & Peers, 2015

Notes:
 Shading indicates a change from the existing configuration.
^a To be constructed under the Galleria Boulevard/Stanford Ranch Road/SR 65 Northbound Ramps Project
^b To be constructed under the Placer Parkway project
^c To be constructed under the SR 65/Whitney Ranch Parkway Interchange Project
^d To be constructed under the SR 65/Twelve Bridges Drive Interchange Project
^e To be constructed under the I-80/SR 65 Interchange Phase 1 Project

Right-of-way

All proposed project improvements are anticipated to remain within the existing State right-of-way. Approximately \$100,000 has been estimated for right-of-way for the utility relocations described in the following section. Per the Master Agreement between State and PG&E, the liability will be split 50-50 and local agency's share will be \$50,000 and owner's share will be \$50,000. Right-of-Way Data Sheets for each Build alternative are included in Attachment E.

Utility and Other Owner Involvement

Existing utilities have been approximately located, based on available as-built plans obtained from Caltrans and the local utility companies. Utility A letters were sent out to the following utility owners:

- AT&T
- Comcast
- Consolidated Communications
- Frontier Communications
- PG&E
- Sprint
- Verizon
- Wave Broadband
- Kinder Morgan
- Placer County Water Agency
- City of Roseville
- Electric Lightwave

The following existing utilities have been identified as being within the proposed project limits and are described in the Right-of-Way Data Sheets (see Attachment E).

- PG&E owns utility poles east and west of SR 65 at the Pleasant Grove Creek Bridge. PG&E overhead lines between the poles are anticipated to be protected in place or be temporarily relocated to address potential conflicts with pile-driving activities associated with the bridge widening for both Build alternatives.
- City of Roseville Sewer owns a 50-inch-diameter sewer line that runs beneath the Pleasant Grove Creek Bridge. Based on preliminary utility alignment and the existing bridge piers, it is anticipated that the bridge widening will avoid conflicts with the sewer line.

Erosion Control

The Storm Water Data Report (Mark Thomas and Company, 2016) was prepared for this project (see Attachment F). Best management practices will be implemented during the construction to meet the water quality discharge requirements under the Storm Water Pollution Prevention Plan. Proposed embankment slopes will be primarily at 4:1 (horizontal:vertical) with the exception of the design exceptions described in the Nonstandard Design Features section below. All graded areas will be vegetated and erosion control measures will be implemented, such as slope rounding, seeding, and planting. Approximately 55 acres of disturbed soil are anticipated for this project. Proposed permanent best management practices include biofiltration strips and swales to treat water quality flow and carry storm runoff.

Noise Barriers

The project area consists of residential subdivisions, a place of worship, schools, a jail, a hospital, a hotel, several commercial uses that do not include apparent outdoor areas of frequent human use, and undeveloped land as identified in the Noise Study Report (ICF International [ICF], 2016a). The residential subdivisions in the study area are generally set back from SR 65 and buffered by commercial use and undeveloped land. Existing traffic noise levels range from 47 to 73 A-weighted equivalent sound level (dBA Leq[h]) at modeled receiver locations. Predicted worst-case traffic noise levels range from 51 to 76 dBA Leq (h) for Design Year No Build conditions and 52 to 77 dBA Leq(h) for Design Year Build conditions.

Traffic noise levels under Design Year conditions are predicted to approach or exceed the noise abatement criteria for six land uses adjacent to SR 65 including: The Placer County Jail (institutional use), Placer Center for Health, the Western Sierra Collegiate Academy, Rocklin Academy Gateway, and Creekside Church. However, there are no areas of frequent outdoor human use associated with these locations. In accordance with 23 Code of Federal Regulations (CFR) 772, noise abatement is considered only for areas of frequent human use that would benefit from a lower noise level. Therefore, noise abatement was not considered.

Interim Improvements

Because of funding constraints, the proposed project considers implementing phased improvements. The proposed interim phase for both Build alternatives would construct northbound and southbound auxiliary lanes from Galleria Boulevard/Stanford Ranch Road to Pleasant Grove Boulevard on SR 65. In addition, the proposed project would widen SR 65 from four to six lanes with one general purpose lane southbound and northbound from north of Galleria Boulevard/Stanford Ranch Road to Blue Oaks Boulevard.

Any potential phased improvements are being considered/sequenced in coordination with the planned phased improvements for the I-80/SR 65 Interchange Improvements Project. The I-80/SR 65 Interchange Improvements Project is currently in the design phase and is being completed by the PCTPA. The proposed geometrics have been coordinated with the SR 65 Capacity and Operational Improvements Project to provide appropriate and contiguous improvements along the SR 65 corridor.

Cost Estimate

The roadway, structure, and utility costs for the Alternatives 1, Carpool Lane and Alternative 2, General Purpose Lane are summarized in Table 11.

Table 11. Preliminary Project Costs for Ultimate Condition		
Item	Alternative 1 Carpool Lane	Alternative 2 General Purpose Lane
Roadway	\$49,418,400	\$48,248,600
Structure	\$2,063,000	\$2,063,000
Utilities	\$50,000	\$50,000
Total	\$51,532,000	\$50,362,000

Attachment G provides a full preliminary cost estimate for each alternative.

Alternative 1: Carpool Lane

In addition to the features that are common to both Build alternatives, this alternative adds a 12-foot carpool/HOV lane in the southbound direction of SR 65 in the median from the Blue Oaks Boulevard interchange to north of Galleria Boulevard/Stanford Ranch Road. The carpool/HOV lane would connect to the carpool/HOV lanes proposed as part of the I-80/SR 65 Interchange Improvements project.

The separate I-80/SR 65 Interchange Improvements project will add a third lane in each direction of SR 65 from I-80 to Pleasant Grove Boulevard. This SR 65 project alternative would add one 12-foot general purpose lane through the Pleasant Grove Boulevard interchange, to create a third lane on SR 65 in both directions from I-80 to

Blue Oaks Boulevard. This alternative would also add an auxiliary lane in each direction of SR 65 from the Galleria Boulevard interchange to the Pleasant Grove Boulevard interchange, from the Blue Oaks Boulevard interchange to the Sunset Boulevard interchange, and from the Whitney Ranch Parkway interchange to the Twelve Bridge Drive interchange.

Alternative 2: General Purpose Lane

In addition to the features that are common to both Build alternatives, this alternative would add a 12-foot-wide general purpose lane in the southbound direction of SR 65 from the Blue Oaks Boulevard interchange to the Galleria Boulevard/Stanford Ranch Road off-ramp. The separate I-80/SR 65 Interchange Improvements project will add a third lane in each direction of SR 65 from I-80 to Pleasant Grove Boulevard. For added capacity on southbound SR 65, as recommended by the VA study, this alternative also includes an additional general purpose lane from the Blue Oaks Boulevard slip on-ramp to the Pleasant Grove Boulevard loop on-ramp. On northbound SR 65, a 12-foot general purpose lane would be added through the Pleasant Grove Boulevard interchange. These improvements would result in a third lane in both directions of SR 65 from I-80 to Blue Oaks Boulevard.

This alternative would also add an auxiliary lane on SR 65 from the Galleria Boulevard/Standard Ranch Road interchange to the Pleasant Grove Boulevard interchange; and in both directions of SR 65 from the Blue Oaks Boulevard interchange to the Sunset Boulevard interchange, and from Whitney Ranch Parkway interchange to the Twelve Bridges Drive interchange.

Alternative 3 (No Build Alternative)

The No Build Alternative is the basis for comparison of the Build Alternatives. It satisfies the statutory requirements under CEQA and NEPA for an alternative that does not include any new action or project beyond what is already committed. The No Build Alternative represents the state and local transportation system in its current condition. It includes implementation of programs or projects projected in RTPs that have identified funds for implementation and that are expected to be in place by 2040; it also reflects major planned land use changes.

The No Build Alternative includes programs and projects identified in the SACOG financially constrained project list in the 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy (SACOG 2012) and input from the I-80/SR 65 PDT regarding projects that would be built by the Design Year.

Under the No Build Alternative, the proposed project would not be implemented. The I-80/SR 65 Interchange Improvement project would be constructed starting in December 2017. The I-80/SR 65 Interchange Improvement project would be in place with added HOV direct connectors in each direction between I-80 and SR 65, eastbound I-80 to northbound SR 65 flyover connector, southbound SR 65 to eastbound I-80 flyover connector, widening the East Roseville Viaduct, replacing the Taylor Road overcrossing, and widening southbound SR 65 to westbound I-80 and westbound I-80 to northbound SR 65 connectors with added capacity and associated auxiliary lanes and ramp realignment.

5B. Preferred Alternative

Through collaboration with the Caltrans and the Project Development Team and feedback from the public, PCTPA and Caltrans have identified Alternative 1 (Carpool Lane) as the preferred alternative. Evaluation criteria including traffic operations, potential environmental impacts, utility conflicts, and project cost show that the two Build alternatives are not substantially different. Because Alternative 1 (Carpool Lane) meets air quality conformity standards, the PDT agreed to move forward with this alternative.

Alternative 1 (Carpool Alternative) was found to meet all aspects of the need and purpose.

Nonstandard Design Features

Caltrans design standards were used to develop the preliminary geometrics within State right-of-way. A summary of exceptions to mandatory and advisory design standards is included in Attachment H. Four design standards (at the locations listed below) will need an exception.

The exceptions to Caltrans advisory design standards are as follows:

A. Advisory Design Exception Feature 1

Non-standard Feature: Superelevation Runoff Length

Location 1: Blue Oaks Boulevard northbound loop on-ramp (B1) will have a runoff length of 167 feet.

The standard runoff length for a 10 percent superelevation rate along a two-lane ramp is 240 feet.

Location 2: Pleasant Grove Boulevard southbound off-ramp (P3) will have a runoff length of 223 feet

The standard runoff length for a 12 percent superelevation rate along a two-lane ramp is 300 feet

Location 3: Pleasant Grove Boulevard southbound off-ramp (P3) will have a runoff length of 186 feet

The standard runoff length for a 10 percent superelevation rate along a two-lane ramp is 210 feet

A standard design would require substantial reconstruction of the ramp intersection at all three locations, including both ramp structures and the northbound exit lane, resulting in right of way impacts and added cost.

B. Advisory Design Exception Feature 2

Non-standard Feature: Side Slope Standards

Location 1: Southbound Galleria Boulevard off-ramp from STA 164+00 to 171+50 will have a side slope as steep as 2:1 or flatter.

For new construction, widening, or where slopes are otherwise being modified, embankment (fill) slopes should be 4:1 or flatter.

Location 2: SR 65 – southbound direction from STA 191+00 to 202+00 will have a side slope as steep as 2:1 or flatter.

Location 2: SR 65 – NB direction from STA 191+00 to 200+00 will have a side slope as steep as 2:1 or flatter.

For new construction, widening, or where slopes are otherwise being modified, embankment (fill) slopes should be 4:1 or flatter.

Location 3: SR 65 – southbound direction from STA 241+50 to 248+00 will have a side slope as steep as 2:1 or flatter.

For new construction, widening, or where slopes are otherwise being modified, embankment (fill) slopes should be 4:1 or flatter.

Each nonstandard location is steeper than a standard 4:1 to avoid right-of-way and environmental impacts, similar to existing conditions. The current design improvements remain within existing State right-of-way throughout the entire project limits.

The Advisory Design Exception addressing traffic /maintenance safety needs related to ramp meters and the clear recovery zone will be deferred to PS&E, if needed.

The exceptions to Caltrans mandatory design standards are as follows:

A. Mandatory Design Exception Feature 1

Non-standard Feature: Shoulder Standards

Location 1: The proposed shoulder width of the inside shoulder along southbound SR 65 at the Pleasant Grove overcrossing from STA 218+50 to 219+50 will be ±.9 feet

Left paved shoulder width should be 10 feet for six or more lanes

Location 2: The proposed shoulder width of the inside shoulder along southbound SR 65, at the Blue Oaks Boulevard Overcrossing from STA 269+30 to 270+30 will be 9 feet ±.

Left paved shoulder width should be 10 feet for six or more lanes

Location 3: The proposed shoulder width of the inside shoulder along the Blue Oaks southbound off-ramp Overcrossing from STA 273+90 to 274+40 will be 9 feet ±.

Left paved shoulder width should be 10 feet for six or more lanes

The three locations mentioned above are physically constrained by the existing bridge column. Providing a standard design would require outside widening, impacting the SB on ramps of the Pleasant Grove Boulevard and Blue Oaks Boulevard interchanges. The required ramp reconstruction and ground anchor walls would be cost prohibitive.

B. Mandatory Design Exception Feature 2

Nonstandard Feature: Superelevation Rate

Curve C24 along the Blue Oaks Boulevard northbound loop on-ramp (“B1” Line) has a radius of 159 ft. with a non-standard superelevation rate of 10%.

The standard superelevation rate for a 159' curve radius is 12%.

A standard design would require increasing the tangent runoff length on either side of the curve to provide adequate runoff for a 12% superelevation transition. Providing this length would impact the Blue Oaks Boulevard overcrossing and negatively impact operations and safety of the freeway and interchange.

C. Mandatory Design Exception Feature 3

Nonstandard Feature: Existing Superelevation Rate

The existing superelevation rate on SR65 Curve C24 near the Blue Oaks Boulevard has a radius of 6500 ft. with a non-standard superelevation rate of 2%.

The standard superelevation rate for a 6500' curve radius is 4.2%.

A superelevation rate of 2% was standard superelevation was the standard rate when the freeway was constructed and through preliminary design. Reconstruct the freeway in order to achieve a 4.2% superelevation is beyond the scope of this project.

Ramp Metering

The proposed ramp metering is common to both Build alternatives. Table 12 shows the existing and proposed ramp configuration. The table includes number of ramp lanes and HOV lane restrictions.

Ramp meter installations will be provided under separate projects for the Stanford Ranch Road/Galleria Boulevard, Whitney Ranch Parkway/Placer Parkway, and Twelve Bridges Drive interchanges.

In the northbound direction, the Blue Oaks Boulevard on-ramp would be widened to provide an additional lane for storage. In the southbound direction, widening for an HOV preferential lane would also be provided at Lincoln Boulevard, Blue Oaks Boulevard westbound, and Pleasant Grove Boulevard eastbound on-ramps.

At the Sunset Boulevard westbound on-ramp, design year demand volume would increase such that a second lane of storage would be needed to prevent ramp meter queues from extending onto the local street. As a result, the existing HOV preferential lane would be converted to a general purpose lane.

At Blue Oaks Boulevard, widening for a third lane to maintain the HOV preferential lane is not feasible due to the geometry of the loop ramp. At the Blue Oaks Boulevard eastbound on-ramp, the ramp would be widened to provide a second general purpose lane for storage.

Table 12 SR 65 Ramp Configuration					
Ramp		Existing		Proposed	
		Lanes	HOV	Lanes	HOV
Northbound	Stanford Ranch Rd	1	No	3	Yes
	Pleasant Grove Blvd	2	No	2	No
	Blue Oaks Blvd	1	No	2	No
	Sunset Blvd Eastbound	2	Yes	2	Yes
	Sunset Blvd Westbound	2	Yes	2	Yes
	Whitney Ranch Pkwy Eastbound ²	n/a		2	Yes
	Whitney Ranch Pkwy Westbound ³	n/a		2	Yes
	Twelve Bridges Dr ⁴	2	No	3	Yes
Southbound	Lincoln Blvd	2	No	3	Yes
	Twelve Bridges Dr	2	No	2	No
	Placer Pkwy Westbound ³	n/a		2	Yes
	Placer Blvd Eastbound ²	n/a		2	Yes
	Sunset Blvd Westbound	2	Yes	2	No
	Sunset Blvd Eastbound	3	Yes	3	Yes
	Blue Oaks Blvd Westbound	1	No	2	Yes
	Blue Oaks Blvd Eastbound	2	Yes	3	Yes
	Pleasant Grove Blvd Westbound	2	Yes	2	Yes
	Pleasant Grove Blvd Eastbound	2	No	3	Yes
	Galleria Blvd ⁵	1	No	3	Yes
Notes:					
1. To be constructed under the Stanford Ranch Road/SR 65 NB Ramp Project					
2. To be constructed under the Placer Parkway Project					
3. To be constructed under the SR 65/Whitney Ranch Interim Interchange project					
4. To be constructed under the SR 65/Twelve Bridges Drive Interchange project					
5. To be constructed under the I-80/SR 65 Interchange Phase 1 project					
Source: Fehr & Peers, 2015					

5B. Rejected Alternatives

Alternative 2: General Purpose Lane would reduce vehicle hours of delay and reduce peak hour travel time but is unacceptable based on air quality conformity. The alternative would increase capacity without implementing carpool lanes.

Alternative 3 (No Build Alternative) would result in higher levels of delay and

increased travel times compared to the other Build alternatives

The following alternatives were initially considered and rejected by the PDT:

- **Build Alternative with Full Carpool Lane** – This alternative would add a 12-foot-wide carpool/HOV lane in the median and an auxiliary lane in each direction of SR 65 from Galleria Boulevard/Stanford Ranch Rd interchange to Lincoln Boulevard. The PDT reviewed and rejected the alternative because of the low demand for HOV lanes north of Blue Oaks Boulevard interchange.
- **Build Alternative with Mix Flow to Bus/Carpool Conversion** – This alternative would convert an existing mixed-flow lane for carpool/HOV use within the proposed project limits. The alternative was reviewed and rejected by the PDT as infeasible because the highway is a four-lane facility (two lanes in each direction) and the low demand for HOV lanes north of Blue Oaks Boulevard.
- **Reversible Lanes** – This alternative would add one or two reversible lanes in the median of SR 65, generally between the Blue Oaks Boulevard and Galleria Boulevard/Stanford Ranch Road interchanges. The motivation for reversible lanes, in general, is to minimize the pavement required by allowing vehicles in both directions to use the reversible median lanes, by reversing the direction of flow twice a day (at least) for the peak direction. Operations of reversible lanes are generally controlled with a series of gates, moveable and static barriers, and/or delineators. Reversible lanes are relatively uncommon, although they are used regularly on the Golden Gate (San Francisco) and Coronado (San Diego) bridges, and at times on the I-15 Express Lanes in San Diego. Assembly Bill (AB) 2542 requires consideration of reversible lanes.

A reversible lanes alternative was evaluated for SR 65, but determined to be infeasible for several reasons. First, reversible lanes work best when volumes are unbalanced in the peak period (much higher in one direction). For SR 65, 2040 peak hour volumes are only 50 to 55 percent in the peak direction (nearly balanced). Adding reversible lanes would only help traffic in one direction. Second, reversible lanes are typically implemented on extended segments of freeway, especially where there is limited access (at bridges or express lanes). The SR 65 corridor is a relatively short segment with closely-spaced interchanges, including the system interchange at I-80. Finally, construction and maintenance costs would be high with reversible lanes. Some type of barrier infrastructure would be needed in both directions. The wide median would necessitate long access connections between the mainline traffic on both sides. After construction, the maintenance costs and safety risks associated with the twice-daily direction switches would be substantial.

6. CONSIDERATIONS REQUIRING DISCUSSION

6A. Hazardous Waste

The Phase I Initial Site Assessment (ISA) (Blackburn Consulting, Inc., 2014) identified recognized environmental conditions at the site. The ISA was performed in general

conformance with ASTM E1527-13 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process." The investigations included a review of aerial photographs and topographic maps for historical uses of the property, and a database search for records of known storage tank sites and known sites of hazardous materials generation, storage, or contamination. The ISA also included a visual inspection of the proposed project site to evaluate the potential for existing sources of contamination on or nearby the site. The ISA report is included in Attachment I.

Based on the information obtained as part of the ISA, the following conclusions were made:

- No site was identified with known or potential hazardous material issues within or adjacent to the proposed project site that is likely to have an impact on the proposed project.
- The project is not within a rock formation that is likely to include naturally occurring asbestos.
- An aerielly deposited lead (ADL) investigation was conducted along SR 65. A total of 66 samples were collected along the northbound shoulders within the top 6 inches and southbound shoulders and median within the top 24 inches of soil. No trace of lead was detected along the northbound lanes and the concentration of total lead vary from 52 to 160 milligrams per kilogram (mg/kg) along the southbound lanes. This is probably because the southbound lanes were the original SR 65, and the northbound lanes were built after leaded gasoline was discontinued. All of results are less than the 1,000 mg/kg concentration at which the soil would be considered contaminated. The Waste Extraction Test was performed on the six samples with the highest total lead concentrations to determine if they exceed the 5 milligrams per liter (mg/L) hazardous waste threshold. The tests results ranged from 3.8 to 15 mg/L; three of the six samples analyzed exhibit soluble lead levels above the 5 mg/L threshold. Of those three samples, two were obtained from one sampling location; the surrounding sampling locations detected lead concentrations below the 50 mg/kg criteria. The sampling location was deemed not representative of the proposed project site. In addition, the regression analysis to predict soluble lead levels indicates the 95 percent UCL for soluble lead levels is below the threshold of 5 mg/L. Therefore, based on the concentrations of total lead and soluble lead and the depth of the proposed improvements, specialized soil management is not warranted. The ADL assessment report is included in Attachment I.

Yellow Traffic Stripe

Yellow traffic stripes may contain heavy metals, such as lead and chromium, at concentrations that exceed the hazardous waste thresholds established by the California Code of Regulations; the stripes may produce toxic fumes when heated. Consequently, removal or disturbance of any yellow traffic striping within the proposed project area will require development of an appropriate lead compliance plan.

Asbestos-containing Material (ACM) and Lead Based Paint (LBP)

The *Hazardous Materials Survey Report* (Entek Consulting, 2014) evaluated the presence of ACM and LBP at the Pleasant Grove Creek bridges. The report concluded that ACM is not present in the concrete that comprises the bridge deck and supporting columns beneath the bridges. Entek Consulting did not observe existing paints or coatings associated with the bridges that would require sampling for LBP. Although asbestos was not found during the survey, written notification to the California Air Resources Board may be required.

Metal Beam Guardrail Wood Post

If metal beam guardrail wood posts are removed as part of the proposed project, the contractor shall prepare and submit a safety and health work practices plan for handling treated wood waste by an American Board of Industrial Hygiene, Certified Industrial Hygienist. Treated wood waste must be disposed of in an approved treated wood waste facility.

6B. Value Analysis

The estimated project cost is above \$50 million; therefore, a VA study is required if federal funding will be used for the proposed project (including right-of-way, construction, and support). A VA study was held at Caltrans District 3 Field Office in Rocklin February 9–12, 2015. Findings from the final VA study (CH2M, 2015) were issued in May 2015. The VA team consisted of representatives from Caltrans, Placer County, and the City of Roseville from multiple disciplines and independent from the project team.

Three VA alternatives were accepted (two with modifications):

1. The first alternative concept for both Build alternatives would modify all slip on-ramps to southbound and northbound SR 65 to a 2+1 configuration (two metered lanes plus one carpool preferential lane). All southbound and northbound loop on-ramps would be modified to a 1+1 configuration (one metered lane plus one carpool preferential lane) from Galleria Boulevard to Twelve Bridges Drive. Metering improvements would only be added within the proposed project limits along SR 65 and on-ramps where metering is not already proposed as part of another project.
2. The second alternative concept would build upon the General Purpose Lane alternative by adding an additional general purpose lane in the southbound direction from Blue Oaks Boulevard to Galleria Boulevard/Stanford Ranch Road.

After the implementation meeting, the design team modified the second alternative to provide additional capacity. The modified alternative connects the auxiliary lanes on either side of Pleasant Grove Boulevard so that a fourth lane is provided between Blue Oaks Boulevard and Galleria Boulevard. This modification would allow the Galleria Boulevard off-ramp traffic to use two mainline lanes at the Pleasant Grove Boulevard off-ramp rather than be concentrated in just one lane.

3. The third alternative concept would build on the General Purpose Lane alternative by adding an additional general purpose lane in the southbound direction from Blue Oaks Boulevard to Galleria Boulevard/Stanford Ranch Road. In the northbound direction, the proposed general purpose lane would be eliminated north of Galleria Boulevard.

After the implementation meeting, the design team modified this alternative to add an auxiliary lane between each of the interchanges along SR 65 from Galleria Boulevard to Ferrari Ranch Rd, with the following outside widening for the General Purpose Lane alternative:

- Galleria Boulevard to Pleasant Grove Boulevard Northbound – four lanes (three general purpose lanes and one auxiliary lane)
- Pleasant Grove Boulevard to Blue Oaks Boulevard Northbound – three general purpose lanes
- Blue Oaks Boulevard to Galleria Boulevard Southbound – four general purpose lanes

6C. Resource Conservation

Features to reduce wasteful, inefficient, and unnecessary consumption of energy and nonrenewable resources in construction, operations and maintenance of the proposed project will be included wherever possible, including recycling the existing structural sections and concrete structures, such as aggregate base, through provisions in the contract documents. Other measures include recycling structural steel and other steel materials within the proposed project limits, using concrete washout materials on the job site, not idling construction equipment, and adding HOV lanes and HOV bypass lanes to encourage carpooling.

6D. Right-of-way Issues

Right-of-way acquisitions are not anticipated to be necessary to construct the proposed project. A Right of-Way Data Sheet for each alternative can be found in Attachment E.

The utility impacts described in Section 5 will require the permanent relocation of utilities.

6E. Environmental Issues

Caltrans is the lead agency under CEQA, and Caltrans, under authority delegated by Federal Highway Administration (FHWA), and is also the lead agency under NEPA. The project is Categorical Excluded under NEPA. The Mitigated Negative Declaration has been prepared in accordance with Caltrans environmental procedures, as well as State and federal environmental regulations. The attached IS/MND is the appropriate document for the proposal. An IS/MND was prepared for this project by the PCTPA, pursuant to CEQA, and is included in Attachment J.

Waters of the United States

The wetland delineation (ICF, 2016b) was performed in accordance with the *Corps of Engineers Wetlands Delineation Manual* (U.S. Army Corps of Engineers [USACE],

1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE, 2008) and the *Minimum Standards for Acceptance of Preliminary Wetlands Delineations* (USACE, 2001). The USACE regulations in 33 CFR 328 were used to determine the presence of waters of the United States other than wetlands. The *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (USACE, 2007) was consulted in evaluating the jurisdictional status of the various waterbodies existing within the study area. The *National Wetland Plant List* (USACE, 2016) was used to determine the wetland indicator status of species observed in the study area.

Of the approximately 589 acres of study area, 19.359 acres of water features were mapped, including the following:

- 2.786 acres of vernal pools
- 4.101 acres of depressed seasonal wetlands
- 8.807 acres of emergent wetlands
- 0.517 acre of riparian scrub wetlands
- 1.198 acres of perennial streams
- 0.683 acre of ephemeral streams
- 1.267 acres of drainage ditches

Table 13 summarizes the mitigation agreements that will be implemented during the project to ensure that the proposed project minimizes effects on wetlands and other waters of the United States within and adjacent to the construction area.

Table 13. Avoidance and Minimization Efforts and Compensatory Mitigation	
Avoidance and Minimization Efforts	
Measure	Description of Measure
Measure 1:	Install Fencing and/or Flagging to Protect Biological Resources
Measure 2:	Conduct Mandatory Environmental Awareness Training for Construction Personnel
Measure 3:	Retain a Qualified Biologist to Conduct Periodic Monitoring during Construction in Sensitive Habitat
Measure 4:	Protect Water Quality and Minimize Sedimentation Runoff in Wetlands and Other Waters
Measure 7:	Avoid and Minimize Potential Indirect Impacts on Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp Habitat
Measure 9:	Provide Escape Ramps for Wildlife and Inspect Pits and Trenches Daily
Measure 10:	Conduct a Pre-Construction Survey for Northern Western Pond Turtle and Exclude Turtles from the Work Area
Measure 11:	Conduct Pre-Construction Surveys for Burrowing Owl and Establish Exclusion Zones, if Necessary
Measure 12:	Conduct Pre-Construction Surveys for Swainson’s Hawk and Establish Exclusion Zones, if Necessary
Measure 13:	Conduct Vegetation Removal during the Non-Breeding Season and Conduct Pre-Construction Surveys for Nesting Migratory Birds and Raptors
Measure 14:	Conduct Occupancy Surveys for California Black Rail and Implement Avoidance Measures, if Necessary
Measure 15:	Modify Existing Structures during the Non-Breeding Season for Purple Martin and Other Structure-Nesting Migratory Birds or Implement Exclusion Measures to Deter Nesting
Measure 16:	Conduct Pre-Construction Surveys for Roosting Bats and Implement Protection Measures
Measure 17:	Avoid and Minimize the Spread of Invasive Plant Species during Project Construction
Compensatory Mitigation	
Measure 5:	Compensate for the Placement of Permanent Fill into Wetlands
Measure 6:	Compensate for the Placement of Permanent Fill into Waters of the United States/Waters of the State
Measure 8:	Compensate for Direct and Indirect Impacts on Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp Habitat
Source: ICF International	

Floodplains

Encroachment on existing FEMA Floodplains have been evaluated and documented in the project Preliminary Drainage Report (PDR). The project crosses FEMA defined 100-year floodplain for:

- Pleasant Grove Creek Tributary 1
- Pleasant Grove Creek
- Orchard Creek Tributary 2
- Orchard Creek Tributary 2-1
- Orchard Creek North Branch

Orchard Creek

The hydrologic and hydraulic analysis of the cross culverts involved demonstrated that they are capable of passing the 50-year or 100-year event without overtopping of the adjacent roadway.

Endangered Species

The proposed project has the potential to affect two federally listed wildlife species, vernal pool fairy shrimp and vernal pool tadpole shrimp. Because the project is likely to result in direct modification of vernal pool fairy shrimp and vernal pool tadpole shrimp habitat i.e. permanent and/or temporary fill and/or excavation, the project may affect, and is likely to adversely affect vernal pool fairy shrimp and vernal pool tadpole shrimp. The minimization and avoidance measure described in Table 12 above are intended to mitigate some of these impacts.

Air Quality Conformity

The Air Quality Study Report (ICF, 2016c) identifies several impacts that could result from implementing the proposed. Each project alternative is fully compatible with the design concept and scope described in the current 2036 Placer County RTP (PCTPA, 2016). Table 14 summarizes the impacts, mitigation measures, and significance conclusions discussed in the Air Quality Study Report.

Table 14. Air Quality Study Report Summary		
Build Alternatives	Impacts	Avoidance, Minimization and Mitigation Measures
AQ-1: Conformity with the RTP with the State Implementation Plan	The complete project is included in the regional emissions and conformity analysis for the 2036 MTP/SCS and 2015–2018 MTIP.	None required
AQ-2: Potential Violations of Carbon Monoxide NAAQS or CAAQS	The Build Alternatives are not anticipated to exceed 1- or 8-hour NAAQS or CAAQS for CO.	None required
AQ-3: Potential Violations of PM _{2.5} NAAQS or CAAQS	Placer County is currently classified as a nonattainment area for the federal PM _{2.5} NAAQS. However, due to minimal change in AADT between the No Build and Build Alternatives, the proposed project is determined not be a Project of Air Quality Concern. SACOG’s PLCG issued concurrence that the proposed project is not a Project of Air Quality Concern August 9, 2016.	None required
AQ-4: Potential for Generation of MSAT Emissions	The project is not anticipated to have meaningful impacts on traffic volumes, thus based on FHWA’s 2012 MSAT guidance, this project is considered to have No Meaningful Potential MSAT Effects, and a quantitative analysis of MSAT emissions is not required.	None required

Table 14. Air Quality Study Report Summary		
Build Alternatives	Impacts	Avoidance, Minimization and Mitigation Measures
AQ-5: Generation of Operation-related Emissions of O ₃ Precursors, Carbon Monoxide, and Particulate Matter	The project would result in decreases in ROG, NO _x , and CO but minor increases in PM ₁₀ and PM _{2.5} between existing (2012) and design year (2040) conditions. The project would also result in increases in ROG, NO _x , CO, PM ₁₀ , and PM _{2.5} emissions between the No Build and Build alternatives.	None required
AQ-6: Potential Temporary Increase in O ₃ Precursors (ROG and NO _x), CO, and Particulate Matter Emissions during Grading and Construction Activities	The project would result in temporary increases in O ₃ precursors, CO, PM ₁₀ , and PM _{2.5} during construction.	Addressed by construction-related PM ₁₀ emission minimization measures in Caltrans Standard Specifications Section 14
AQ-7: Potential for Generation of GHG Contaminant Emissions	The project would result in minor increases in GHG emissions during construction and long-term operation. Operational emissions increases are a result of background growth in VMT between the existing (2012) and design (2040) years and increased VMT between the No Build and Build alternatives.	GHG reduction strategies identified in Chapter 3 of the Air Quality Conformity Report contained in the draft IS/MND (ICF, 2016d)
Notes: CAAQS = California Ambient Air Quality Standards CO = carbon monoxide GHG = greenhouse gas MSAT = mobile source air toxics MTIP = Metropolitan Transportation Improvement Program MTP = Metropolitan Transportation Plan NAAQS = National ambient air quality standards NO _x = nitrogen oxides O ₃ = ozone PLCG = Project Level Conformity Group PM ₁₀ = particles of 10 micrometers or smaller PM _{2.5} = particles of 2.5 micrometers and smaller ROG = reactive organic compounds RTP = 2035 Placer County Regional Transportation Plan SACOG = Sacramento Area Council of Governments SCS = Sustainable Communities Strategy VMT = vehicle miles travelled		

Cultural Resources

The Historical Property Survey Report (HPSR) and Archaeological Survey Report (ASR) concluded that there are no cultural resources that are listed or are eligible for listing in the National Register of Historic Places (NRHP) within the Area of Potential Effect (APE). Also there are no previously unevaluated cultural resources present within the APE. All previously recorded resources within the APE have since

been destroyed or displaced by modern development and original highway construction and therefore no longer exist within the project limits.

6G. Title VI Considerations

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have been included in this project. Caltrans' commitment to upholding the mandates of Title VI is evidenced by its Title VI Policy Statement, signed by the Director.

6H. Noise Abatement Decision Report

This section represents the Noise Abatement Decision Report, which:

- Is an evaluation of the reasonableness and feasibility of incorporating noise abatement measures into this project;
- Constitutes the preliminary decision on noise abatement measures to be incorporated into the Draft Environmental Document; and
- Is required for Caltrans to meet the conditions of Title 23 Code of Federal Regulations, Part 772 in accordance with the Federal Highway Administration noise standards.

The Noise Study Report (ICF, 2016a) was approved by Kendall Schinke, Chief Environmental Management M1 Branch on February 22, 2016.

The project area consists of residential subdivisions, a church, schools, a jail, a hospital, a hotel, several commercial uses that include no apparent outdoor areas of frequent human use, and undeveloped land. The residential subdivisions in the study area are generally set back from SR 65 and buffered by commercial use and undeveloped land. In accordance to 23 CFR 772, noise abatement is considered only for areas of frequent human use that would benefit from a lower noise level. Because the traffic noise impacts are not predicted to occur in areas where there is frequent human use, noise abatement was not considered for this project.

6I. Fish Passage

The SR 65 corridor includes numerous crossings over permanent and seasonal waterways. Those crossings are generally classified as either bridges or culverts. Typical culvert design of the crossing extension due to highway widening would take passage of aquatic organisms into consideration. The crossing design would be in conformance with California Department of Fish and Wildlife and NOAA Fisheries requirements.

7. OTHER CONSIDERATIONS AS APPROPRIATE

7A. Public Hearing Process

A public workshop was conducted on July 24, 2014, to review the project need preliminary goals, preliminary alternative concepts, and schedule.

The draft IS/MND and the DPR were circulated for public review and comment For a 30-day period starting May 12, 2017, and ending June 14, 2017. A public hearing was held to present the project and solicit comments on the initial study and proposed mitigated negative declaration. The hearing was on Wednesday, May 24, 2017 at

9:00 a.m. at the Placer County Board of Supervisors Chambers located at 175 Fulweiler Avenue, Auburn, CA 95603. A total of 18 comment letters/emails regarding the IS/MND were received. All comments received during the public review period were responded and incorporated into the Final IS/MND.

7B. Route Matters

An updated Freeway Agreement is not required for SR 65 within the proposed project limits.

7C. Permits

Table 15 lists the permits that are anticipated to be required prior to construction of the proposed improvements project:

Table 15. Anticipated Approvals, Permits, and Coordination		
Agency	Permit/Approval	Status
U.S. Fish and Wildlife Service	Section 7 consultation for threatened and endangered species.	Formal consultation for impacts on vernal pool branchiopod species will need to be completed before the PA&ED milestone can be met.
USACE Sacramento District	Section 404 Nationwide Permit for filling or dredging waters of the United States.	Pending completion of the PS&E phase of the process.
Federal Highways Administration	Executive Order 11990: Protection of Wetlands	Pending completion in the PS&E phase of the process
Federal Highways Administration	Executive Order 13112: Prevention and Control of Invasive Species	Pending completion in the PS&E phase of the process
Central Valley Regional Water Quality Control Board	Section 401 Water Quality Certification. Waste Discharge Permit Review and approval of storm water discharge treatments.	Pending completion in the PS&E phase of the process.
Central Valley Regional Water Quality Control Board	Section 402 National Pollutant Discharge Elimination System.	Pending completion of the PS&E phase of the process.
California Department of Fish and Wildlife	Section 1602 Lake or Streambed Alteration Agreement may be needed for crossing the tributaries of Orchard Creek	Pending completion in the PS&E phase of the process.
California Department of Fish and Wildlife	California Fish and Game Code Sections 3503 and 3503.5: protection of birds and raptors	Pending completion in the PS&E phase of the process
California Department of Fish and Wildlife	California Fish and Game Code Sections 3511, 3513, 4700 and 5050: fully protected species	Pending completion in the PS&E phase of the process
Caltrans	Encroachment permit for construction of improvements within State right-of-way.	Pending completion of the PS&E phase of the process.

7D. Cooperative Agreements

The project is a PCTPA lead effort. The existing cooperative agreement between the PCTPA and the State of California was executed on April 16, 2013, and it covers all

work including the PA&ED. A separate design and construction cooperative agreement will be executed prior to construction.

Any additional required cooperative agreements will be in place as needed prior to construction.

7E. Other Agreements

Other agreements are not anticipated to be required.

7F. Transportation Management Plan for Use during Construction

The Transportation Management Plan (TMP) Datasheet (Mark Thomas and Company, 2016) is included as Attachment K. Consistent with Caltrans District 3 policy and procedures, it is expected that construction of the proposed project, especially staging and traffic control systems, would be coordinated closely with the district TMP coordinator. These traffic control systems would include appropriate work zone measures, including ground mounted and changeable message signs. It is also anticipated that there will be a Construction Zone Enhanced Enforcement Program (COZEEP) in place as part of traffic management during construction, including setting and removal of K-rails with reduced speed zones. It is expected that no work will be allowed on holiday weekends or the Friday preceding holiday weekends. Lane closures will not be allowed during holidays and most daytime hours.

A public information effort including press releases, telephone hotlines, and stakeholder's websites will be used to communicate upcoming construction activities.

The alternatives considered in this report cannot be constructed without traffic impacts, primarily due to driver curiosity, construction area signs and controls. These impacts can be reduced by implementing a well-planned stage construction/traffic management plan and aggressive public awareness education during construction. It is anticipated that a project this large will require the following traffic control features:

- Temporary striping to shift traffic away from construction zones
- Temporary railing (Type K) to separate construction zones from traffic
- Work-period lane closures (e.g., during pavement removal, pavement delineations, and setting K-rails and pavement conforms)

7G. Staged Construction

Temporary striping will be necessary to shift traffic away from construction zones, with continuous temporary railing (Type K) to separate construction zones from traffic. Work-period lane closures (e.g., while removing delineations and setting K-rails and pavement conforms) would be performed during non-peak traffic hours.

7H. Phased Construction

Recommended Project Phasing:

The SR 65 Capacity and Operational Improvements Project will consider implementing phased improvements to coincide with the approved planning document and phased improvements for the I-80/SR 65 Interchange Improvements Project. The phased improvements would construct auxiliary lanes on SR 65 from

Stanford Ranch Road/Galleria Boulevard to Pleasant Grove Boulevard (northbound and southbound). SR 65 will be widened from four to six lanes, with one general purpose lane southbound and northbound from north of Galleria Boulevard/Stanford Ranch Road to Blue Oaks Boulevard.

The PCTPA conducted a sequencing study (T.Y. Lin International, 2015) to determine when and what phases of planned transportation infrastructure projects, using limited funding, should be constructed in the next 10 years to provide the best value. The first phase of the SR 65 Capacity and Operational Improvements Project was identified as the highest ranking Tier 2 project of the freeway improvement projects when considering travel time, traffic congestion, economic development, goods movement, cost effectiveness, traffic safety, and other criteria. Subsequent phases of the proposed project were ranked in the middle of Tier 3, with lower priority than the I-80/SR 65 Interchange Improvements Project Phases 3A, 3B, and 4, and higher priority than the eastbound I-80 auxiliary lane.

7I. Landscape Assessment

A Landscape Assessment Sheet was prepared taking into account the SR 65 Aesthetic Corridor Master Plan (Caltrans District 3, 2012). The landscape architecture approach is to include enhanced native plantings as outlined in the approved Visual Impact Assessment (VIA). Where retaining walls are visible to adjacent properties, side streets or highway users, enhanced or focused aesthetic treatments of the walls should be considered consistent with adjacent treatments along the highway and connecting side streets.

7J. Accommodation of Oversize Loads

The segment of SR 65 within the proposed project limits will maintain the required minimum height capabilities during freeway operating hours during the proposed project.

7K. Graffiti Control

Placer County is not considered a graffiti-prone area, and no special measures are necessary for this project.

8. FUNDING, PROGRAMMING, AND ESTIMATE

8A. Programming

Project design and construction will be locally funded by the SPRTA Regional Transportation and Air Quality Mitigation Fee Program, which includes the county and the cities of Roseville, Rocklin, and Lincoln. However, it has been determined that this project is eligible for federal funding.

Table 16 indicates the proposed capital and support cost for the proposed project; the construction capital cost for the two Build alternatives is included.

Table 16 – Capital and Support Cost									
Fund Source	Fiscal Year Estimate								
20.10.400.610	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Total
Component	(in thousands of dollars)								
PA&ED Support	300	300	750	400					1,750
PS&E Support				1,150	1,150				2,300
Right-of-way Support				75	75				150
Construction Support						1,500	1,500	500	3,500
Right-of-way Capital						50			50
Construction Capital						5,000	15,000	31,500	51,500
Total	300	300	750	1,625	1,225	6,550	16,500	32,000	59,250

The support cost ratio is 16.8 percent.

8B. Funding

Funding for the proposed project (preferred alternative) can be summarized as follows:

PA&ED	1,750,000
PS&E	2,300,000
Right of Way Support	150,000
Construction Support	3,500,000
Right of Way Capital	50,000
<u>Construction Capital</u>	<u>51,500,000</u>
Total	\$59,250,000

8C. Preliminary Cost Estimate

A preliminary cost estimate was prepared for each Build alternative (see Attachment G). Both Build alternatives include \$2.06M for structures and \$50,000 for utility relocation costs.

9. SCHEDULE

Table 17 summarizes the schedule of project milestones.

Project Milestones		Scheduled Delivery Date
Program Project	M015	December 2012
Begin Environmental	M020	February 2015
Notice of Intent (NOI)	M035	May 2016
Circulate DPR and DED Externally	M120	May 2017
PA&ED	M200	December 2017
Project PS&E	M380	2019
Right-of-way Certification	M410	2019
Ready to List	M460	2020
Award	M495	2020
Approve Contract	M500	2020
Contract Acceptance	M600	2022
End Project	M800	2022
Notes: DPR = draft project report DED = draft environmental document		

10. RISKS

Twenty risks are involved with the proposed project. Seven of the risks are in the design category, 12 are in the environmental category, and 1 is in the right-of-way category. The right-of-way risk is categorized as high because the design exception for nonstandard side slopes has not been approved. These risks would delay the project, add cost to the project, or both, and could result in a funding issue. The risk register is provided in Attachment L.

11. PROJECT REVIEWS

In accordance with the stewardship agreement, the project does not require FHWA approval. The PCTPA and Caltrans Headquarters Design will review this project report, and all comments will be addressed or incorporated. Constructability and safety reviews will also be required and addressed for this project report.

District Maintenance	Mike Gunn	Date: _____
Headquarters Design Coordinator	Tim Sobelman	Date: _____
Project Manager	Rodney Murphy	Date: _____
District 3 TMP, Signing, and Striping	Joyce Loftus	Date: _____
District Landscape Architect	Jeff Pietrzak	Date: _____
District 3 Design	Scott Mann	Date: _____
District 3 Right of Way	Steve Mattos	Date: _____
District 3 Right of Way Utilities	Brian Goldman	Date: _____

12. PROJECT PERSONNEL

Celia McAdam	PCTPA	(530) 823-4030
Luke McNeel-Caird	PCTPA	(530) 823-4033
Matt Brogan	Project Manager Mark Thomas & Company	(916) 381-9100
Zach Siviglia	Project Manager Mark Thomas & Company	(916) 381-9100
Rodney Murphy	Caltrans Special Funded Project Management	(530) 701-1305
Thaleena Bhattal	Caltrans Office of Environmental Management	(530) 741-4597
Brent Massey	Caltrans Structures	(916) 227-8868
Christine Zdunkiewicz	Caltrans District 3 Traffic Operations	
Jennifer Elwood	CH2M HILL, Inc. – Structures Design	(916) 286-0267
Lauren Reinking	CH2M HILL Inc. – Project Report Support	(916) 286-0332
Ron Milam	Fehr & Peers – Traffic Analysis	(916) 773-1900
Claire Bromund	ICF International –Environmental Coordinator	(916) 737-3000
Dave Palmer	City of Rocklin	(916) 625-5118
Scott Gandler	City of Roseville	(916) 746-5339
Rhon Herndon	City of Roseville	(916) 746-1300
Richard Moorehead	Senior Civil Engineer Placer County	(530) 745-7533
Ray Leftwich	City of Lincoln	(916) 434-2457
Gladys Cornell	Public Outreach AIM Consulting	(916) 442-1168

13. LIST OF ATTACHMENTS

- A. Attachment A. Geometric Approval Drawings - Preferred Alternative
- B. Attachment B. Transportation Analysis Report
- C. Attachment C. Traffic Analysis Memorandum – Phase 1
- D. Attachment D. Advanced Planning Studies
- E. Attachment E. Right-of-Way Data Sheets
- F. Attachment F. Storm Water Data Report
- G. Attachment G. Preliminary Cost Estimate
- H. Attachment H. Exceptions to Design Standards
- I. Attachment I. Initial Site Assessment and Aerially Deposited Lead Assessment
- J. Attachment J. Environmental Document
- K. Attachment K. Transportation Management Plan Checklist and Data Sheet
- L. Attachment L. Risk Register

14. WORKS CITED

- Blackburn Consulting, Inc. 2014. Phase I Initial Site Assessment (ISA).
- Blackburn Consulting, Inc. 2015. Aerially Deposited Lead (ADL).
- California Department of Transportation (Caltrans). 2012. Supplemental Traffic Report. District 3 Office of Freeway Operations.
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- California Department of Transportation (Caltrans). 2012. SR 65 Aesthetic Corridor Master Plan. District 3.
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- ICF International (ICF). 2016a. Noise Study Report. January 22.
- ICF International (ICF). 2016b. Wetland Delineation Report.
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- T.Y. Lin International, 2015. Sequencing Study. Prepared for Placer County Transportation Planning Agency.
- U.S. Army Corps of Engineers (USACE). 1987. *Corps of Engineers Wetlands Delineation Manual*.
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