CAPITAL REGION FREIGHT IMPROVEMENT PROJECT

Efficient and Reliable Freight for a Robust Economy

Application for the Trade Corridor Enhancement Program

Caltrans®

Placer County Transportation Planning Agency

SACOG

Capital Region Freight Improvement Project

A. COVER LETTER

August 3, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS-52
Sacramento, CA 95814

Dear Mr. Weiss:

The California Department of Transportation (Caltrans), Placer County Transportation Planning Agency (PCTPA), and the Sacramento Area Council of Governments (SACOG) take seriously their role in preserving the viability of Interstate 5 and Interstate 80 as California's primary east-west and north-south freight corridors. These three agencies have come together in an unprecedented partnership to address critical pinch points on I-5 and I-80 that restrict the flow of goods through the Sacramento Region. Our solution, ***the Capital Region Freight Improvement Project, makes strategic improvements on I-5 near Sacramento International Airport and Metro Air Park; and on I-80 near the J.R. Davis Railyard and McClellan Business Park*** that have widespread safety and operation benefits for Northern California's entire freight system.

The Capital Region Freight Improvement Project prioritizes safety, throughput, and innovation. Today, limited space to merge and unmetered interchanges have created operational inefficiencies and significant safety concerns on I-5 and I-80. This project's three locations have seen 923 collisions over the past five years, including 12 fatalities. ***By providing more space for safe merging and metering ramps, this project will reduce the fatality rate on these corridors by 20 percent.*** Consistent congestion restricts interregional goods movement that relies on I-5 and I-80 to reach the Oakland and Stockton ports and regional movement that relies on adjacent intermodal facilities. The Capital Region Freight Improvement Project also employs ITS technology, smart land use planning, and transit infrastructure investment, to accomplish State goals beyond the freight system.

Benefit/Cost Analysis Results

Benefits = $302 million
Cost = $86 million

Net Benefits = $216 million

BCA Ratio: 3.52

Caltrans, PCTPA, SACOG, and their regional partners have leveraged $23 million of locally-controlled funds and private investment for a 36.5% match on this project. This application's TCEP request of $63 million—$37.8 million from the regional share and $25.2 million from the state share—is the last dollar needed to sustain these critical interregional freight corridors. ***The Capital Region Freight Improvement Project will provide more than $302 million of benefits for a cost-benefit ratio of 3.52, making it a smart use of competitive state dollars.*** This project is the Sacramento Region's #1 priority and the nominating and implementing agencies are committed to delivering the project on-time and on-budget, including absorbing any cost overruns.

The Capital Region Freight Improvement Project provides a unique opportunity for the State to make a strategic investment that will improve the freight system of an entire region, ***including increasing truck throughput by more than 1 million trucks annually with this project.*** We greatly appreciate the California Transportation Commission's consideration of this application and look forward to partnering with the Commission to build a safer and more efficient freight system in the Sacramento Region.

As regional partners, we are ready to start construction with a final Ready To List date of April 6, 2022. The signatures below confirm support from the nominating agencies—Caltrans Headquarters, SACOG, and PCTPA—and the implementing agencies—Caltrans District 3 and Sacramento County—that all of the information within the application and the Project Programming Request forms are accurate, including the Project description, funding profile, and the completion dates.

Sincerely,

Toks Omishakin
Director
California Department of Transportation

Amarjeet S. Benipal
District 3 Director
California Department of Transportation

Michael W. Luken
Executive Director
Placer County Transportation Planning Agency

James Corless
Executive Director
Sacramento Area Council of Governments

Steven L. Hartwig
Deputy County Executive, Public Works & Infrastructure
Sacramento County

Caltrans

Placer County Transportation Planning Agency

SACOG

SACRAMENTO COUNTY

TABLE OF CONTENTS

B. Capital Region Freight Improvement

TCEP Cycle 2 Project Fact Sheet

ABOUT THE PROJECT

Over 400 million tons of freight worth more than $1 trillion moves through the Northern California Megaregion. With trucking accounting for most of this freight movement, Interstate 5 and Interstate 80 are essential to California's economy. The Sacramento Region is the crossroads of these strategic interregional corridors and is a key link in interstate connections to Oakland and Stockton's ports. Growing congestion at two freight bottlenecks on I-5 and I-80 threatens the long-term viability of these interregional connections. By making three strategic improvements, the Capital Region Freight Improvement Project will improve travel time reliability, promote intermodal connections, and reduce congestion. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

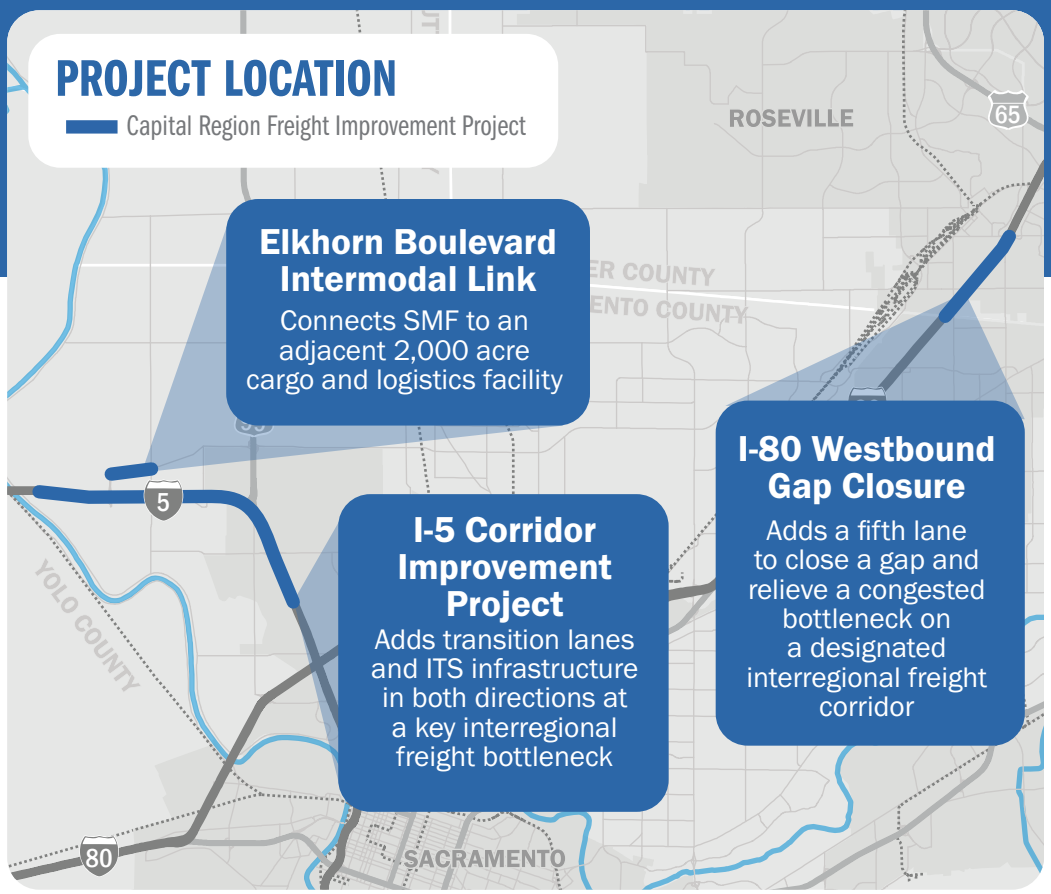
Nominating Agencies

Caltrans District 3
Sacramento Area Council of Governments
Placer County Transportation Planning Agency

Funding
Total Cost: $86 million
TCEP Regional: $37.8 million
TCEP State: $25.2 million
Local Match: $23.0 million (36.5%)

Schedule

Environmental (PAED): Complete April 2021
Final Design (PS&E): Complete April 2022
Right of Way (ROW): Complete March 2022
Construction (CON): Complete December 2024



EXISTING CONDITIONS

THROUGHPUT

Interstate 5 and Interstate 80 are the Sacramento Region's busiest freight corridors and are home to two of FHWA's top US Highway Bottlenecks.

TIME RELIABILITY

Speeds on I-5 and I-80 drop below 30 mph, making it impossible for port-bound freight to predict travel through the Sacramento Region.

SAFETY

The bottlenecks on I-5 and I-80 contributed to 923 collisions, 483 of which involved injuries or fatalities in the past 5 years.

PROJECT BENEFITS

The project's improvements allow I-80 and I-5 to accommodate 1 million more trucks every year.

The project will cut the difference between peak and off-peak travel times by 40 percent.

The project's safety improvements will reduce the rate of fatalities per 100 million VMT by 20 percent.

C. GENERAL INFORMATION

Project Overview

The Sacramento Region is a crossroads for freight moving into, through, and from California. Our region is the southern part of Caltrans District 3, which includes the interior coastal range to the west, flat agricultural land across the valley, the foothills and river canyons, the Sierra Nevada Mountains, and the Lake Tahoe Basin. The Capital Region Freight Improvement Project represents an unprecedented opportunity for the State to make a strategic investment that will benefit the freight system in a region that is essential to California's economy.

The project is made up of three improvements: 1) transition lanes and ITS infrastructure on I-5 near the airport, 2) a fifth lane on westbound I-80 in Roseville, and 3) the extension of Elkhorn Boulevard to the airport. These sections of I-5 and I-80 act as gateways to the local and interregional freight networks that flow through the Sacramento region. The Capital Region Freight Improvement Project will reduce roadway congestion on this key corridor and allow for more efficient intermodal transfers at Sacramento International Airport. The total cost for this project is $86 million, including a request for $37.8 million of regional Trade Corridors Enhancement Program (TCEP) funds, $25.2 million of state TCEP, and a 36.5% local match.

$1 trillion

Value of goods movement through the Northern California Megaregion

923

Total collisions in the project area over the past five years, including 12 fatalities

64,900

Goods producing jobs in Sacramento and Placer Counties, 59% of all such jobs in Caltrans District 3

Background, Purpose, and Need

Project Background

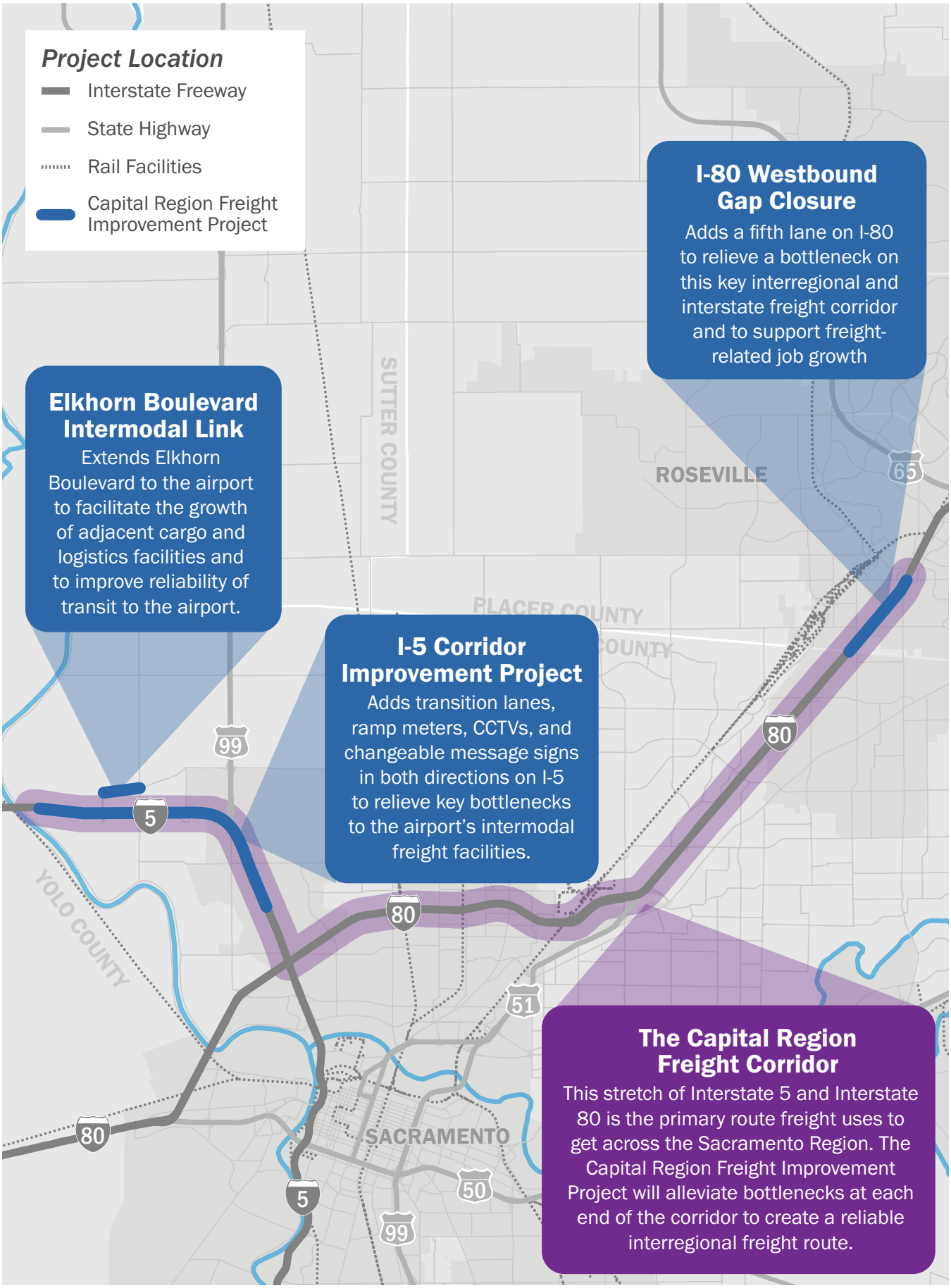
In addition to carrying the highest daily truck volumes in the region (18,000 trucks per day), I-5 between the Airport and downtown Sacramento and I-80 between State Route (SR) 65 and the Business 80 split experience some of the worst congestion in the Sacramento region. Caltrans District 3, Sacramento Area Council of Governments (SACOG), Sacramento County, and Placer County Transportation Planning Agency (PCTPA) worked together to develop this project to relieve these choke points in the freight network.

Project Purpose and Need

The Capital Region Freight Improvement Project increases truck throughput, improves travel times, and reduces congestion at a key juncture in California's freight system. ***Trucks haul 68 percent of goods traveling through the region and 95 percent of goods traveling to and from the region.*** This project also improves safety on a high-injury corridor.

Project Eligibility

The Capital Region Freight Improvement Project relieves congestion on Caltrans-designated Goods Movement Priority Corridors, implements technology and innovation, and reduces community and environmental impacts of the freight system. This is not only an eligible project for the Trade Corridor Enhancement Program, but a project of critical statewide importance.

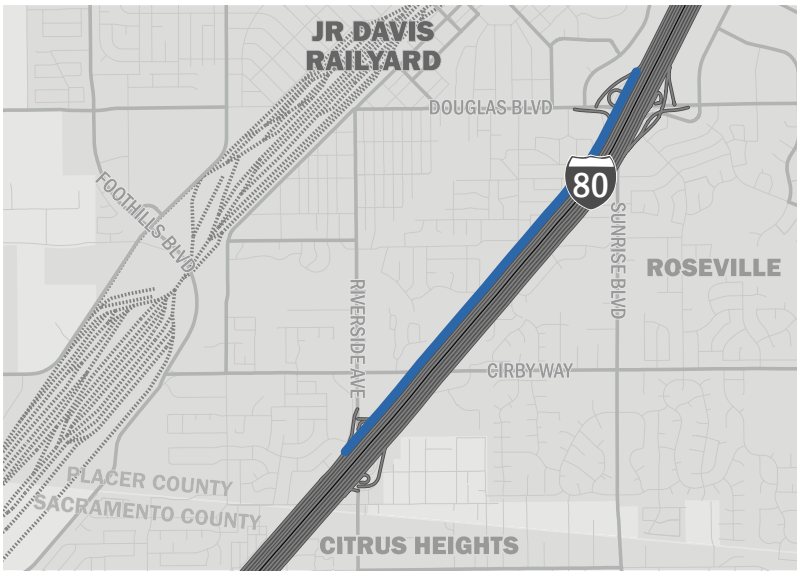

Project Location
Interstate Freeway
State Highway
Rail Facilities
Capital Region Freight Improvement Project
I-80 Westbound Gap Closure
Adds a fifth lane on I-80 to relieve a bottleneck on this key interregional and interstate freight corridor and to support freight-related job growth
Elkhorn Boulevard Intermodal Link
Extends Elkhorn Boulevard to the airport to facilitate the growth of adjacent cargo and logistics facilities and to improve reliability of transit to the airport.
I-5 Corridor Improvement Project
Adds transition lanes, ramp meters, CCTVs, and changeable message signs in both directions on I-5 to relieve key bottlenecks to the airport's intermodal freight facilities.
The Capital Region Freight Corridor
This stretch of Interstate 5 and Interstate 80 is the primary route freight uses to get across the Sacramento Region. The Capital Region Freight Improvement Project will alleviate bottlenecks at each end of the corridor to create a reliable interregional freight route.
SUTTER COUNTY
ROSEVILLE
PLACER COUNTY
YOLO COUNTY
SACRAMENTO
65
99
5
80
51
50

C. GENERAL INFORMATION

Project Scope

I-80 Westbound Gap Closure

This component of the Capital Region Freight Improvement project adds an outside lane to westbound I-80 between the Douglas Boulevard and Riverside Avenue interchanges. ***Currently, this 1.9 mile segment is the only four-lane section of I-80 between SR 65 and the Business 80 split, forcing trucks to quickly merge and creating freight backups for over three miles.*** By closing this gap, this project will reduce travel times on I-80 by 60% facilitating faster and more reliable goods movement between the eastern United States, Reno, and the Bay Area.



I-5 Corridor Improvement Project

This 10 mile component of the project adds acceleration lanes and ITS infrastructure to both directions of I-5 between Arena Boulevard and the Sacramento River. Today, short transition lanes at each interchange require drivers to quickly accelerate and decelerate. ***This area experiences non-recurring congestion and, in severe cases, traffic can back up on southbound I-5 for 8 miles into Woodland.*** As the only route to the Sacramento Airport and adjacent distribution facilities, these conditions significantly affect interregional freight traffic on I-5. By adding transition lanes and metering vehicles at interchanges, this project will reduce delay by 19% and improve safety for trucks making intermodal connections at the airport.

Elkhorn Intermodal Link

This component of the project extends Elkhorn Boulevard from Powerline Road to Crossfield Drive, including extending on-street bike facilities and landscape-separated sidewalks. ***This extension will connect the airport's cargo facilities to the rapidly developing Metro Air Park, an industrial and commercial development that includes Amazon's distribution facility for the region.*** By creating this direct connection, this project will ensure the continued competitiveness of the region's logistics and distribution sector.

Project Benefits

Freight Benefits

Today, I-5 and I-80 carry hundreds of millions of dollars of freight every year. ***By improving safety, reliability, and velocity, this project means the I-80/I-5 interregional freight corridor can accommodate 1.08 million more trucks per year.*** The Sacramento region's agricultural and manufacturing sectors rely on I-80 and I-5 to make interstate and interregional connections. Without the project, bottlenecks will delay freight in the region.

Transportation System Benefits

By alleviating two of the region's worst bottlenecks, the Capital Region Freight Improvement Project will create a safe and reliable roadway system to efficiently carry the region's exports. ***The project will improve the peak/non-peak truck travel time reliability index from 2.05 to 1.23.*** Currently, truck drivers have to plan for twice the travel time versus free-flow conditions. This project will improve travel time reliability by 40 percent. By reducing conflicts between freight and other vehicles, these improvements reduce the fatality rate by 20 percent.

Community Benefits

Placer and Sacramento Counties' communities will experience a host of benefits from the Capital Region Freight Improvement Project. Thoughtful planning of this project will grow the region's freight capacity in geographic locations that limit the impact of emissions and noise on surrounding communities, including reducing CO_2 emissions by 4,724 tons. ***Improving the efficiency of designated freight routes like I-5 and I-80 will limit truck diversions, which disproportionately affect Sacramento's disadvantaged communities.***

Economic Benefits

These infrastructure investments improve the trade value of the Sacramento Region's intermodal freight facilities and the facilities in the Bay Area and Central Valley that rely on I-80 and I-5 to make interstate and interregional connections. ***The project's components are adjacent to two of the regions biggest distribution employment hubs: the Sacramento International Airport and the J. R. Davis Railyard. Both have seen a dramatic increase in demand over the past decade, including a 71% increase in cargo tonnage at the airport.*** Investing near these economic activity centers means not only creating construction jobs to build the projects, but promoting continued private sector investment to ensure long-term job creation.

Project Priority

Caltrans Priority 20 of 26

The Capital Region Freight Improvement Project Will

Increase Annual Throughput by
1 million trucks

Reduce cargo transport time by
17 percent

Improve travel time reliability by
40 percent

Reduce daily hours of travel by
11 percent

Reduce the rate of fatalities by
20 percent

Lower CO_2 emissions by
4,724 tons

Facilitate the creation of
38,700 jobs

C. GENERAL INFORMATION

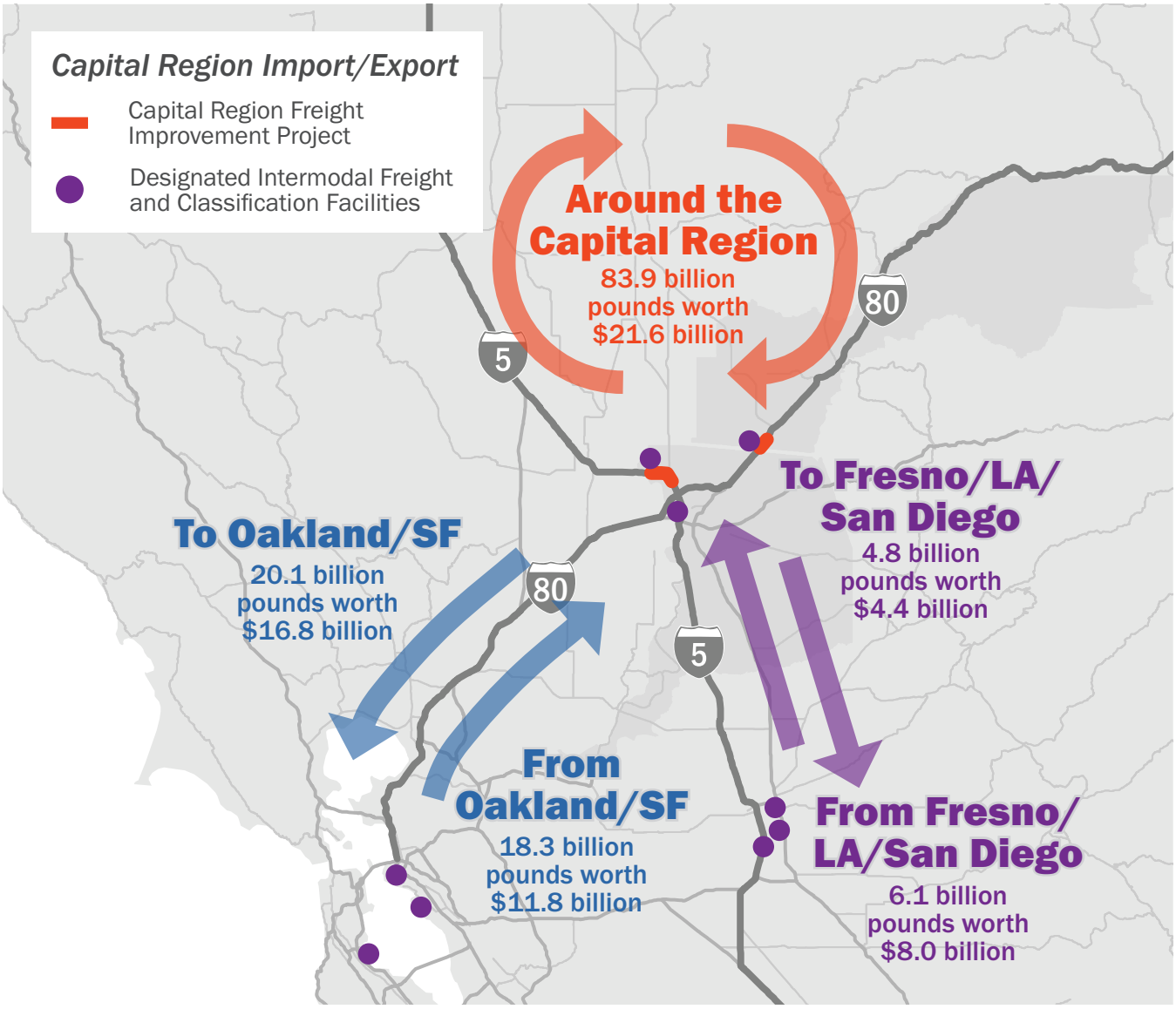
Project Corridors and Goods Regional Movement

Northern California's Freight Crossroads

According to a study by the Bay Area Council Economic Institute, over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. With trucking accounting for roughly three-quarters of that movement, I-80 and I-5 are the transportation backbones of northern California's economy. The Sacramento Region exports 125 billion pounds of freight worth $51.9 billion every year. The I-5/I-80 corridor is critical to maintaining intrastate freight flows. Caltrans District 3, SACOG, and PCTPA have prioritized this corridor for investment because of the outsized impact these bottlenecks have on freight travel. This project will not only improve travel times for existing demand, but will also ensure that as the region's rapid economic and population growth continues, the efficiency of these important freight corridors is maintained.

Growth at SMF Airport

The I-5 corridor connecting downtown to the Sacramento International Airport (SMF) is the gateway to the region for travelers and critical to goods movement. Air freight at SMF is increasing as communities along the I-5 corridor experience significant growth in homes and commercial activity. Without the Capital Region Freight Improvement Project, access to SMF will be limited by congestion. ***Air cargo at SMF has grown 71% over the past decade and is expected to continue to grow as Amazon and FedEx locate regional facilities near the airport.***



Coordinated Approach

Corridor Planning

Caltrans District 3 develops and maintains corridor plans for the I-80 and I-5 corridors. In particular, the I-5 Corridor System Management Plan and the Transportation Concept Report prioritize the integration of corridor transportation systems to enhance safety, efficiency, and reliability on the corridor for all modes. Its goals include enhancing social equity, minimizing transportation-related impacts to the environment, and supporting a robust and resilient economy. In addition to these documents, Caltrans and stakeholders are beginning the process to produce a Comprehensive Multimodal Corridor Plan (CMCP). The process involves extensive stakeholder participation and community outreach for the I-5 corridor in the Sacramento region. The I-5 CMCP will be completed in 2021.

Caltrans District 3, PCTPA, and SACOG also recently published the Placer-Sacramento Gateway Plan, a multimodal corridor plan for the I-80 corridor. This innovative plan identifies more than 150 projects to improve travel choices along this corridor. While the Gateway Plan focuses on alternative modes and passenger trips, it supports the local, state, and national importance of I-80 as a freight corridor. ***Furthermore, the successful execution of this plan as a partnership illustrates Caltrans District 3, SACOG, and PCTPA's commitment to collaborative regional planning.***

Cooperation with Caltrans

The project is inter-jurisdictional by nature and as a result, agencies have coordinated extensively throughout the project development process. Caltrans will construct the I-80 Westbound Gap Closure and the I-5 Corridor Improvement Project. Sacramento County Department of Transportation will construct the Elkhorn Intermodal Link.

The Capital Region Freight Improvement project is a true partnership between Caltrans District 3, SACOG, and PCTPA. While this project includes shared roles of planning, design, and construction, Caltrans District 3, SACOG, and PCTPA have a long record of working together to successfully deliver projects on-time and on-budget. An example of this successful partnership is Phase 1 of the Interstate 80/SR 65 Interchange, a $50 million project. PCTPA, Caltrans, and SACOG worked together to secure Trade Corridor Improvement Funds from the CTC and the project was delivered four months ahead of schedule and on-budget. This project received awards from the California Transportation Foundation and the American Society of Civil Engineers, Sacramento Chapter.

CFMP

The California Freight Mobility Plan (CFMP) 2020 prioritizes bottleneck relief and investment in designated interregional corridors, both of which this project addresses. The proposed improvements to I-5 and I-80 were included in the draft CFMP Project List.

District 3 Goods Movement

These I-80 and I-5 sections were identified as high priority bottlenecks in the District 3 Goods Movement Study based on high mobility deficiencies both today and 20 years from now in a no-build scenario.

MTP SCS

This project is included in SACOG's MTP/SCS and PCTPA's RTP and accomplishes the goals of these plans by supporting the region's logistics and distribution centers.

C. GENERAL INFORMATION

Advanced, Clean, Innovative

Project's Use of Technology

The Capital Region Freight Improvement Project makes use of innovative technology by adding ramp meters at 8 locations on I-5: 3 ramps at Airport Boulevard, 2 ramps at Del Paso Road, and 3 ramps at Arena Boulevard. These ramp meters will reduce congestion on this freight corridor by preventing platoons of vehicles from attempting to merge together. Because of the high volume of trucks entering and exiting I-5 to reach Metro Air Park's distribution centers and the airport's cargo facilities, ramp meters are critical to the safety and efficiency of this corridor. Furthermore, as ramp meters are implemented more consistently in the Sacramento Region, this ITS network can be leveraged to make more efficient use of existing infrastructure.

"Enhancing the lives of all Californians – particularly people of color and disadvantaged communities – by connecting individuals to jobs, healthcare, education and other opportunities lies at the heart of what we do and why."

- Secretary David Kim
CalSTA

Deliverability

Environmental Impacts

The Capital Region Freight Improvement Project is anticipated to have limited environmental impacts and as a result, there will be no delivery delays associated with completing environmental documents. The I-80 Westbound Gap Closure received state and federal environmental approval in 2016.

Consideration for Reversible Lanes

Due to the proximity to rail and air freight facilities, reversible lanes were determined to not be effective in accomplishing this project's goal of reducing merging and weaving to alleviate congestion. Reversible lanes are not being considered in the future for the I-5 corridor because a lack of directional splits. However, reversible lanes on I-80 are still being considered through future comprehensive corridor planning efforts.

Project Consistency with MTP/SCS

All components of this project are programmed in the recently adopted SACOG MTP/SCS and PCTPA RTP. To view the plans:
sacog.org/post/adopted-2020-mtpscs
pctpa.net/rtp2040

Impact of SAFE Rule on Project

With the implementation of SAFE Rule Part 2 in June, SACOG will be able to make formal MTIP amendments. All three components of this project are in SACOG and PCTPA's adopted MTP and RTP and should not have any delivery issues from the SAFE rule.

Project Delivery Method

The project will be constructed via design-bid-build.

Scope of Work

I-5 Corridor Improvement Project

This component will construct 3.6 miles of transition lanes on southbound I-5 between the Elkhorn Safety Roadside Rest Area and Arena Boulevard and on northbound I-5 between Metro Air Parkway and Airport Boulevard. This component also installs ramp meters at 8 locations: 3 ramps at Airport Boulevard, 2 ramps at Del Paso Road, and 3 ramps at Arena Boulevard.

I-80 Westbound Gap Closure

This component will construct a 1.9 mile fifth lane on westbound I-80 between Douglas Boulevard and Riverside Avenue. This component also includes interchange improvements to accommodate the additional lane and better facilitate throughput.

Elkhorn Intermodal Link

This component will extend Elkhorn Boulevard one mile to Crossfield Drive. It will be a four-lane facility with Class 2 bicycle facilities and landscape-separated sidewalks. ***This project also reroutes Sacramento Regional Transit's airport bus routes off I-5 onto Elkhorn Boulevard to improve transit reliability.***

Delivery and Funding Plan

Funding Plan

As shown in the funding table below, Caltrans District 3, SACOG, and PCTPA have leveraged local funds to maximize the benefits of each TCEP dollar. Of the $63 million total TCEP request for the Capital Region Freight Improvement Project, 60% will be funded from the regional share of TCEP funds and 40% from the State's share of TCEP Cycle 2. Local agencies and the airlines contributed local airport fees and RSTBGP funds to provide a 36.5% local match for this regional project. The agencies are committed to delivering TCEP funds on-time and absorbing any cost overruns.

Delivery Schedule

The Capital Region Freight Improvement Project is ready to be constructed with preliminary engineering complete and environmental completed or started for each project component. All three project components will be Ready to List (RTL) for construction by April 6, 2022.

Construction Ready to List Dates

Elkhorn Intermodal Link
December 31, 2020

I-80 Westbound Gap Closure
March 26, 2021

I-5 Corridor Improvement
April 6, 2022

	Total Cost	Total TCEP	Regional TCEP	State TCEP	Locally Controlled Funding
I-80 Gap Closure	$22.3 million	$16.3 million	$7.6 million	$8.7 million	$6.0 million
I-5 Corridor Improvement	$37.7 million	$35.7 million	$19.2 million	$16.5 million	$2.0 million
Elkhorn Intermodal Link	$26.0 million	$11.0 million	$11.0 million	-	$15.0 million
Total	**$86.0 million**	**$63.0 million**	**$37.8 million**	**$25.2 million**	**$23.0 million**

D. SCREENING CRITERIA

CFMP Objective MM-1

Identify causes and solutions to freight roadway bottlenecks

CFMP Goal: Multimodal Mobility

The Region's Worst Freight Bottlenecks

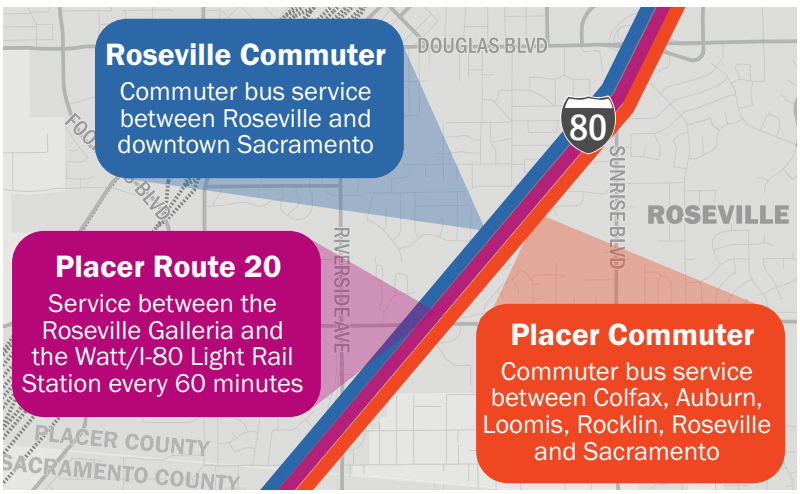
The 2020 California Freight Mobility Plan lists "Identify causes and solutions to freight roadway bottlenecks" as the first objective of Multimodal Mobility. I-80 between SR 65 and the Business 80 split and I-5 between Downtown Sacramento and the airport experience some of the worst congestion in the Sacramento Region. These bottlenecks back up traffic for miles and the congestion persists up to six hours per day. The span of congested conditions means trucks cannot avoid these bottlenecks by traveling at off-peak hours and are often delayed in making intermodal connections at Sacramento International Airport.

This project will improve the bottlenecks on I-5 and I-80 by reducing travel times by 38.5% and raising peak period speeds from 26 to 52 miles per hour. Improvements to these bottlenecks will allow trucks to make more timely connections to the Sacramento International Airport and South Placer's industrial facilities, as well as interregional connections to Northern California's land and sea ports.

Investing for All Modes

While the Capital Region Freight Improvement Project focuses on regional roadway freight facilities, this project's improvements ensure timely intermodal connections to the regional airport facilities. The Sacramento Region's largest industrial job centers: Metro Air Park, J.R. Davis Railyard, Sunset Industrial Area, Foothill Industrial Area, and McClellan Business park all use these intermodal facilities.

In addition, in keeping with the State's goals, the Elkhorn Boulevard Intermodal Link includes Class II bicycle facilities and landscape-buffered sidewalks. This segment will also become the primary access point for bus routes to the airport, providing an alternative to I-5 and improving transit travel-time reliability. ***There are 210 bus trips traveling through the project areas every day, and these bottlenecks significantly impact their on-time performance.*** This project also supports the region's long term plans to add a light rail connection between downtown Sacramento and the airport.



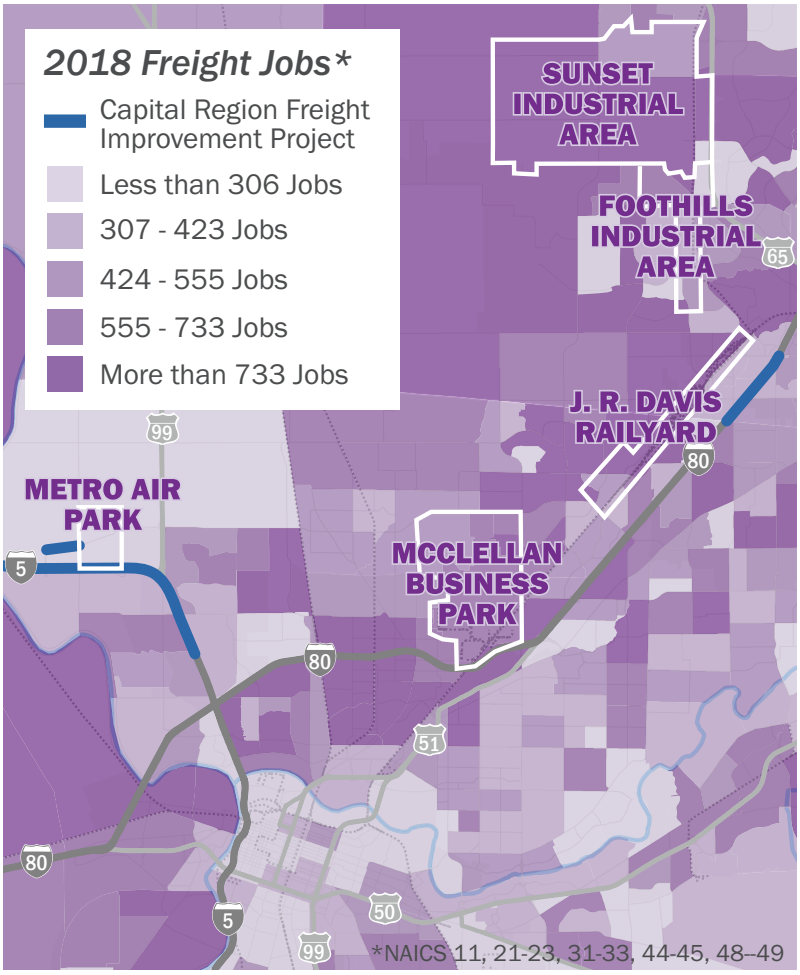
CFMP Goal: Economic Prosperity

Freight Throughput

The Capital Region Freight Improvement Project will grow the economic competitiveness of California's freight sector primarily by improving freight throughput. Today, I-5 and I-80 carry hundreds million of dollars of freight every day. ***Fixing this project area's freight bottlenecks means these sections of I-80 and I-5 can accommodate 1.08 million more trucks.*** Northern California's agricultural and manufacturing sectors rely on I-80 and I-5 to make critical interstate and interregional connections. Without this project, these bottlenecks will limit economic growth far beyond the Sacramento Region.

Supporting Air Cargo Growth

Sacramento International Airport is one of the top 10 cargo airports in California, carrying more than 200 million pounds of freight each year. With nearby Amazon and Walmart distribution centers, demand for air cargo facilities is only growing in Sacramento. Air cargo at Sacramento International Airport is expected to grow 1.9% annually, adding another 100 million pounds of freight by 2040.



"Our tenants rely on I-80 to transport their goods, particularly out of the Port of Oakland. To keep McClellan's 6 million square feet of industrial space active, we need a more efficient roadway freight system in the Sacramento Region."

-Ken Giannotti
McClellan Business Park

Freight Workforce

The project's improvements to I-80 and I-5 support several freight job centers in the region including the growing Metro Air Park, the Sunset and Foothills Industrial Areas, McClellan Business Park, the J.R. Davis Railyard, and the Sacramento International Airport. These facilities depend on I-80 and I-5 to remain competitive and the project's reliability improvements are particularly critical to the long term success of these employment centers. ***Nearly 60 percent of all the goods-producing jobs in Caltrans District 3 are in Placer and Sacramento Counties.*** The continued growth of high-wage low-education jobs like those in logistics and distribution are critical to the equitable growth of Sacramento's economy.

CFMP Objective EP-2

Promote freight projects that enhance economic activity, freight mobility, reliability, and global competitiveness

D. SCREENING CRITERIA

CFMP: Environmental Stewardship

Reducing Pollution and Emissions

The Capital Region Freight Improvement Project will reduce the impacts of nearly all freight-related pollutants on adjacent communities. As the Sacramento Valley is a designated non-attainment area for Ozone and PM 10, reducing the freight system's contribution to air pollution is critical. While this project improves air quality primarily by reducing the congestion on I-5 and I-80 that causes stop-and-go conditions, both projects also improve the viability of transit. Sacramento Regional Transit recently implemented 30-minute headway bus service to and from the Sacramento Airport, but those routes are stuck in congestion making them an unreliable alternative. Near I-80, Placer County and Roseville Transit serve nearby activity centers, but are forced to use local roads to avoid congestion on the highway. ***This project's improved travel times will make these existing transit routes more appealing, encouraging mode shift and creating a secondary air quality benefit.***

Land Use Partnership

The Capital Region Freight Improvement Project was strategically designed to promote land uses that protect the environment while supporting freight operations. Sacramento and Placer Counties have long planned for a logistics and distribution job center near Sacramento International Airport and the J. R. Davis Railyard, where impacts on residential uses are minimal. By increasing throughput and allowing for safer merging on I-5 and I-80, this project supports this effective land use planning. Placer County recently updated the Sunset Area Plan in October 2019, which will add 5,700 jobs. Sacramento County adopted the Metro Air Park Master Plan in 2007, which will add 32,000 jobs.

Vehicle Innovation Corridor

There are several private companies that focus on clean and autonomous vehicle technologies and have facilities along Interstate 80 between the Bay Area and Reno, like Tesla who has written a letter of support for this project. A limited number of electric semis have been reported on I-80 near Truckee, all part of Tesla's fleet. The Caltrans District 3 Zero Emissions Vehicle (ZEV) Action Plan Framework supports providing "shore power" connections at truck parking locations to reduce idling requirements for refrigeration and air conditioning. District 3 is in ongoing discussions with public and private entities regarding charging facilities at the Elkhorn Safety Roadside Rest Area just west of Sacramento International Airport. ZEV charging has been constructed at other rest areas along I-5 and I-80 (Maxwell, Willows, Donner Pass), demonstrating our commitment to advancing this technology. Further, the ongoing comprehensive corridor management on these corridors will continue to identify and implement opportunities to advance clean vehicles, fuels, and technologies that reduce transportation-related greenhouse gases.

CFMP Goal: Healthy Communities

Mitigating Impacts to Existing Communities

The Capital Region Freight Improvement Project is located in parts of the North Natomas and Roseville communities. While half of the project's 7 miles of investment are not near any residential community, mitigating the current and future impacts of the freight system on these communities remains a key concern. All three components of the project are in existing public right-of-way, except for a few slivers of private property. By maximizing use of existing public land, this project lessens impact on the adjacent land owners. Furthermore, improving the efficiency of existing highways keeps freight traffic on existing infrastructure, eliminating need to construct alternate routes and reducing the extent that trucks divert into neighborhoods to avoid traffic. Lastly, this project was developed in partnership with multiple public agencies, stakeholders, and community members. The project's components have been included in local General Plans, Airport Master Plans, Airport Land Use Compatibility Plans, Regional Transportation Plans, and Caltrans Corridor Plans. These projects reflect the communities' consistent desire for relief from these bottlenecks and support for logistics and distribution job growth.

Noise Abatement

The Capital Region Freight Improvement Project also limits the impacts of noise on the Sacramento Region's communities. ***Along I-80, a 14-foot tall sound wall currently protects nearby disadvantaged communities from much of the noise of this freight corridor***. This project was designed specifically to fit inside the existing sound wall, limiting the impacts of construction on those communities. Along I-5, most of the project work is within the airport's designated noise contours. Therefore, while the increased throughput this project provides is likely to increase noise from truck travel on this segment of I-5, this noise is focused in an area where land use regulations already require noise-abatement measures.

D. SCREENING CRITERIA

CFMP Goal: Safety and Resilience

Investing in the High Injury Network

By reducing congestion and providing more space for safe merging, the Capital Region Freight Improvement Project is designed to improve safety on these two critical freight corridors. Today, during the peak hour, traffic through the project components slows to 25 miles per hour on westbound I-80 and 26 miles per hour on southbound I-5. A few miles ahead of these bottlenecks, traffic is traveling at more than double those speeds, even during the peak. In addition short transition lanes at each interchange forces drivers to quickly integrate into highway traffic. Sharp changes in speed and sudden merging are difficult for any driver, but these conditions are especially difficult to navigate with trucks which explains the high frequency of collisions at the start of each project area and near each interchange. Between 2015 and 2019 there were 923 total collisions in the Capital Region Improvement Project's components, 133 of these collisions involved trucks. By eliminating the bottlenecks that cause sudden drops in speed and adding auxiliary lanes to allow drivers more room to safely merge, this project reduces fatalities by 20 percent at key locations on the region's high injury corridors.

Returning to Truck Routes

With consistent severe congestion on I-80 and I-5, some trucks utilize local roads to avoid the highways. This diverted truck traffic creates significant safety concerns and degrades local roads. Because many of the region's low-income and disadvantaged communities are often adjacent to this infrastructure, truck diversion affects them more acutely. ***By increasing the reliability and efficiency of I-5 and I-80, the Capital Region Freight Improvement Project reduces the need to divert from designated trucking routes.***

Resilient Freight Routes

I-5 is currently the only access point to the Sacramento International Airport. In the event of a closure or emergency, the movement of people or goods would be limited. The extension of Elkhorn Boulevard that the Capital Region Freight Improvement Project provides would create a viable alternate access route, making the airport more resilient to disruptions.

As Northern California's only all-weather crossing of the Sierra Nevada Mountain Range, I-80 is critical to sustaining year-round interstate supply-chains, particularly as Climate Change increases the frequency and severity of winter weather. By removing a significant bottleneck from this essential route, this project promotes a resilient state freight system.

CFMP Strategy SR-1-D

Prioritize projects that address high-crash, truck-involved locations.

In the Project Areas from 2015 - 2019 there were...

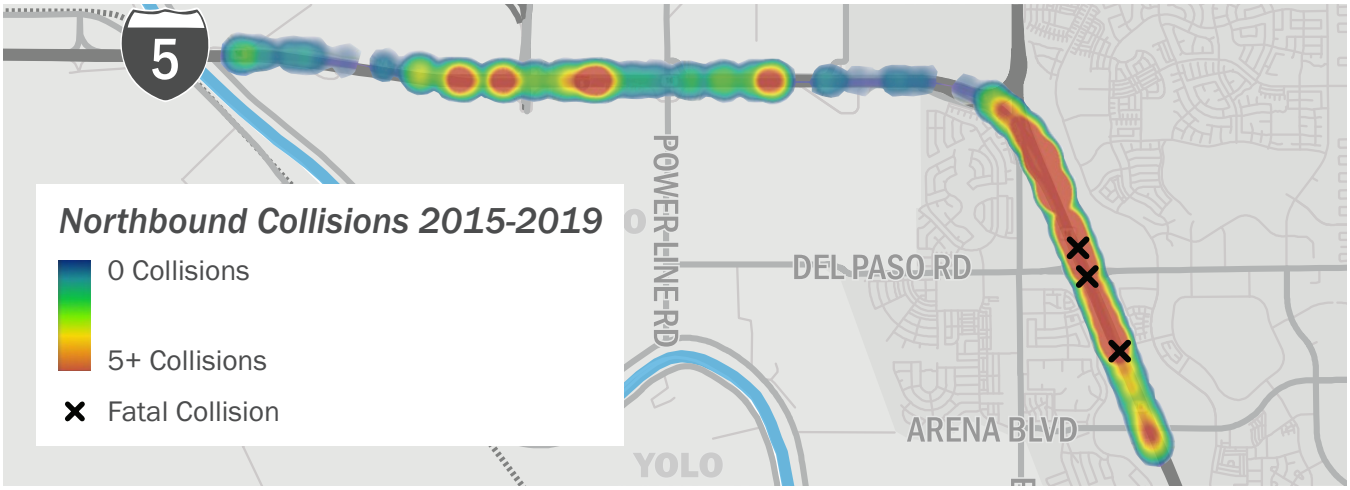
923
Total Collisions

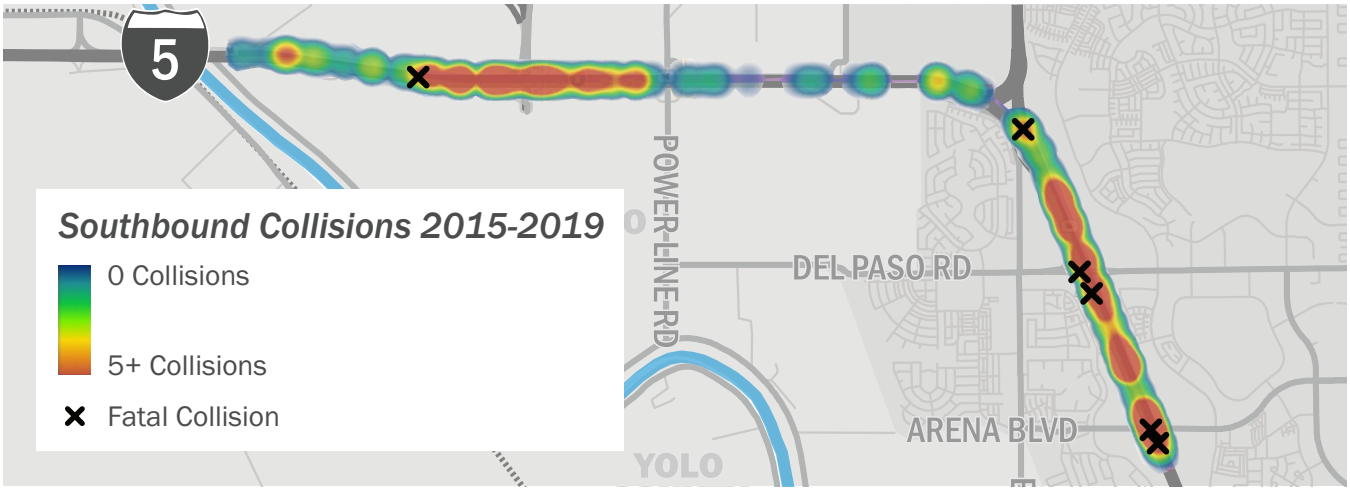
133
Collisions Involving Trucks

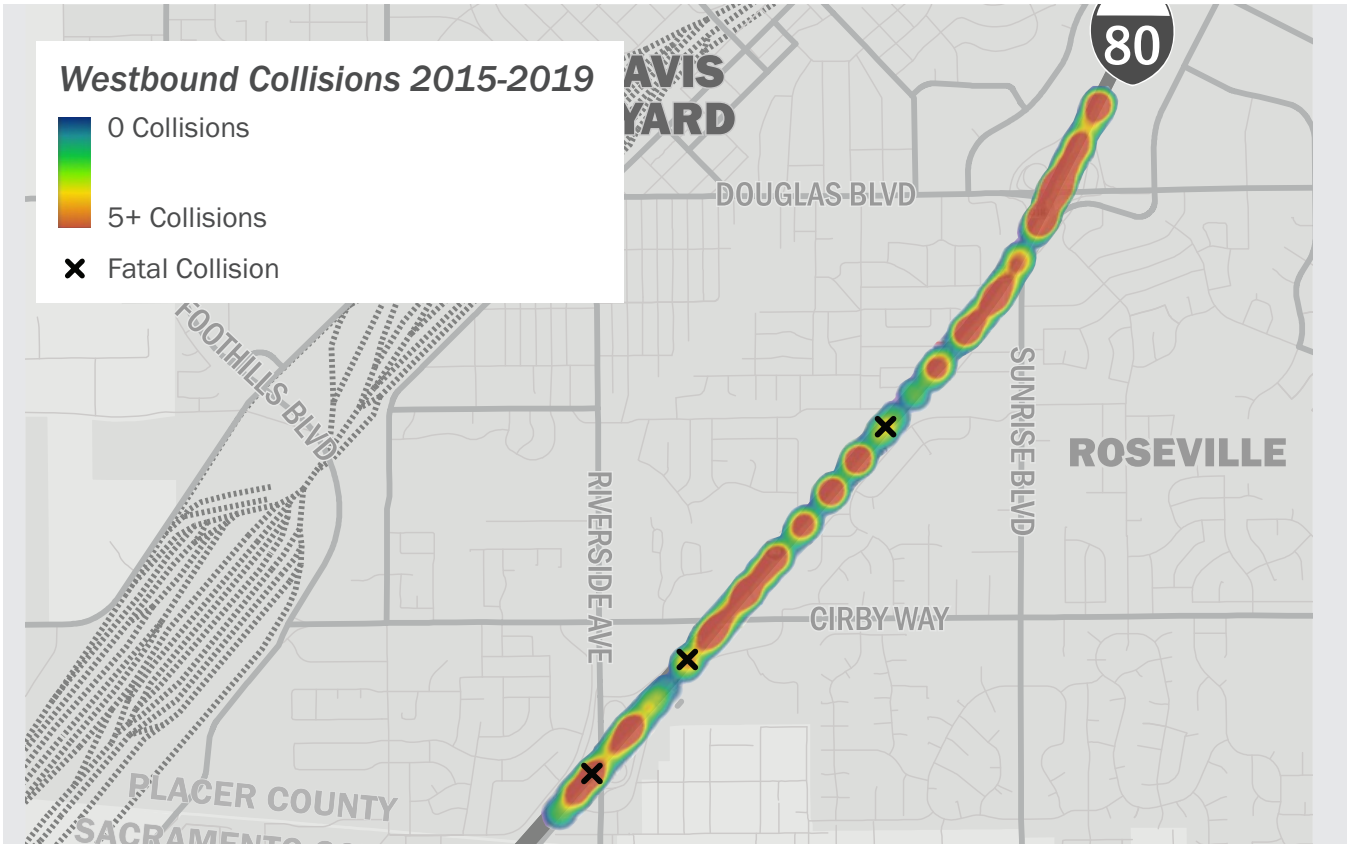
471
Injuries

12
Total Fatalities

3
Pedestrian or Cyclist Fatalities


5
POWER LINE RD
DEL PASO RD
ARENA BLVD
YOLO
Northbound Collisions 2015-2019
0 Collisions
5+ Collisions
Fatal Collision


5
POWER LINE RD
DEL PASO RD
ARENA BLVD
YOLO
Southbound Collisions 2015-2019
0 Collisions
5+ Collisions
Fatal Collision


80
DOUGLAS BLVD
FOOTHILLS BLVD
RIVERSIDE AVE
SUNRISE BLVD
ROSEVILLE
CIRBY WAY
PLACER COUNTY
Westbound Collisions 2015-2019
0 Collisions
5+ Collisions
Fatal Collision

D. SCREENING CRITERIA

CFMP Goal: Asset Management

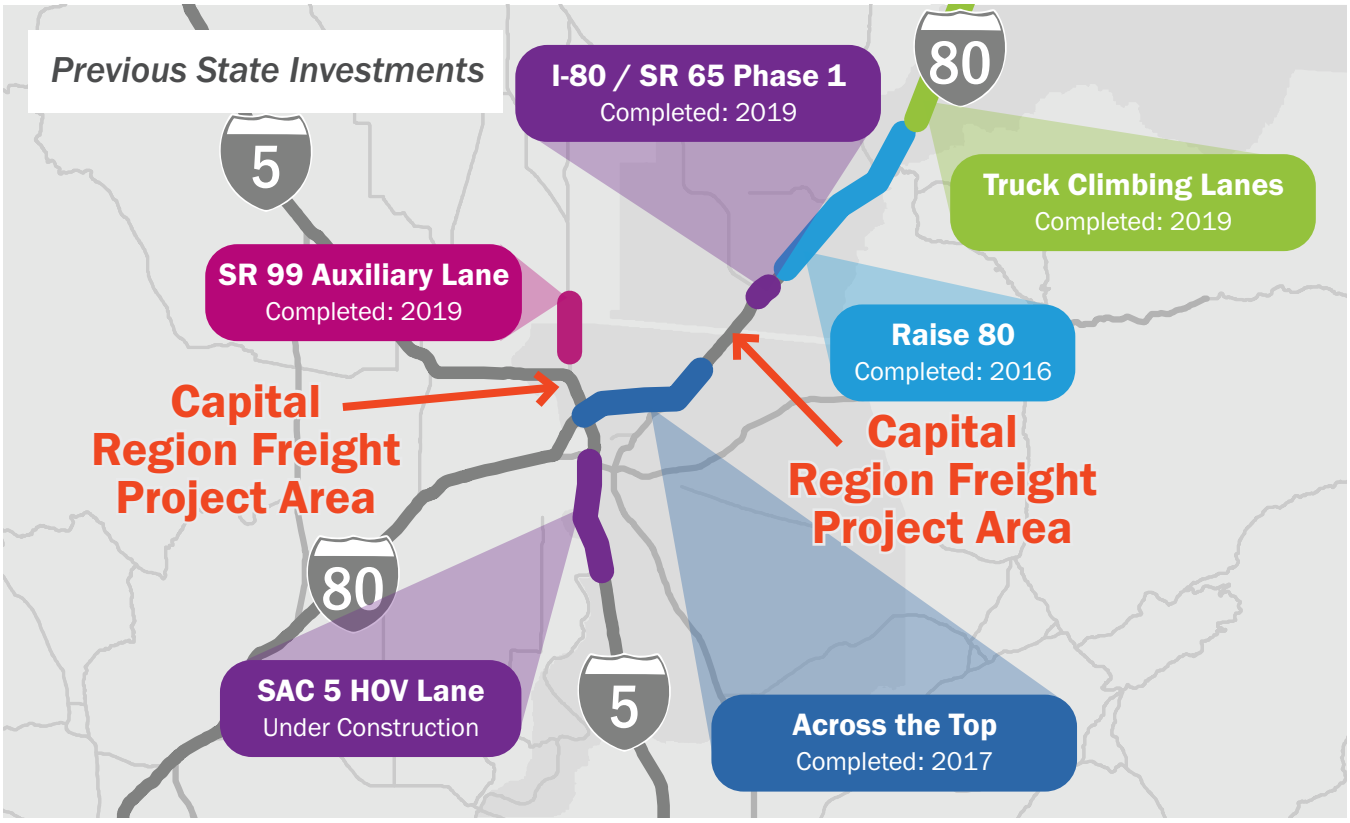
Implementing Best Practices

Asset Management provides increasingly effective methodologies for applying sustainable best practices to maintenance and rehabilitation strategies. Best practices are provided by FHWA's Office of Asset Management, the Caltrans Asset Management Plan, and its implementing document, the CTC-approved State Highway System Management Plan. These guidance sources apply to National Highway System facilities including Interstate facilities such as I-80 and I-5, where Caltrans is the responsible agency.

The Caltrans Asset Management Plan provides for performance metrics across asset categories and activities, with targets in its State Highway System Management Plan. Asset Management helps ensure that maintenance is conducted strategically, tied to an array of performance standards to ensure minimum operating standards or asset conditions. Asset Management goes beyond reactive maintenance, by incorporating risk-based approaches toward managing asset performance and life cycle costs. The risk-based approach also considers extreme weather such as what is estimated through our Climate Change adaptation efforts. In these and other ways, Asset Management lends to system resiliency while taking a strategic approach to maintaining our transportation investments. As major freight facilities, system resiliency contributes to a robust economy throughout the region.

Maximizing Previous Investments

Caltrans has made significant investment in I-5 and I-80's freight system over the past decade, including the Across The Top Project, I-80 Truck Climbing Lanes Project, and Phase 1 of the I-80/SR 65 Interchange Project. However, the persistent bottlenecks on this corridor compromise these previous investments by backing up congestion into those project areas. This project serves to maximize the benefits of those new investments. Furthermore, the Sacramento Airport has received significant private investment, particularly as cargo operations have expanded. Improving I-5 and Elkhorn Boulevard is essential to continuing to secure this private investment.



CFMP: Connectivity and Accessibility

Facilitating Multimodal Freight

While the Capital Region Freight Improvement Project focuses on improving the efficiency and reliability of freight trucking on I-5 and I-80, it provides significant benefit to adjacent air and rail freight facilities. The Sacramento International Airport serves 3.3 million passengers in seven counties and carries 100,000 tons of cargo each year. Because West Sacramento is a non-container port, Sacramento International Airport is the Sacramento Region's most significant intermodal freight facility. ***In 2020, the airport added a new 40,500 square-foot cargo facility to accommodate a dramatic increase in airside-to-landside cargo operations.*** However, recurring congestion and limited access points to the airport constrict goods movement, reducing the effectiveness of this investment. By eliminating the bottleneck on I-5 at the airport and providing a direct connection between the airport and the 2,000 acre Metro Air Park development, this project greatly improves intermodal freight connections in the Sacramento region. The 950-acre 52-track J. R. Davis Railyard is one of only two rail-classification facilities in California. At the railyard, cargo trains are unloaded and reassembled to prepare for cross-country hauling. As the largest railyard west of the Mississippi River, it is a major job center. Improving access and reliability on I-80 near this facility is essential to preserving multimodal freight in the Sacramento Region.

Coordinated Transportation and Land Planning

The Sacramento Region's population is growing rapidly, adding pressure to existing transportation infrastructure and expanding its development footprint. Because the freight system is often incompatible with many residential and commercial uses, the Sacramento Region's leaders have worked strategically to sustain freight and logistics systems as the population grows.

Metro Air Park along I-5 and the Sunset Area near the I-80 / SR 65 Interchange, are two of those facilities. These rapidly developing industrial and warehousing areas provide ample space for logistics and distribution operations, with direct access to designated strategic interregional freight corridors. The Capital Region Freight Improvement Project will allow the Sacramento Region gateways on I-80 and I-5 to support a robust economy and remain operational as freight demand grows and land uses intensify in the project areas and region. Without sufficient infrastructure, these facilities could be sited farther from region's urban core. More rural freight facilities would increase the distance that goods from those facilities must travel and limit the effectiveness of the local freight system.

"Sacramento's central location and rail and air cargo facilities made it an easy location choice for us. We're a global company and good infrastructure is key to the success of our business."

- Ken Broadway
United Parcel Service (UPS)

Supplying California's Natural Resources

In addition to facilitating freight between other regions, Sacramento creates and exports much of California's agricultural and natural goods, all of which rely on the region's roadway freight system to reach their destinations. The Sacramento Region annually exports:

27.2
Billion Pounds of Gravel

11.3
Billion Pounds of Foodstuffs

9.3
Billion Pounds of Sand

7.6
Billion Pounds of Feed and Grains

D. SCREENING CRITERIA

CFMP Critical Investment Themes

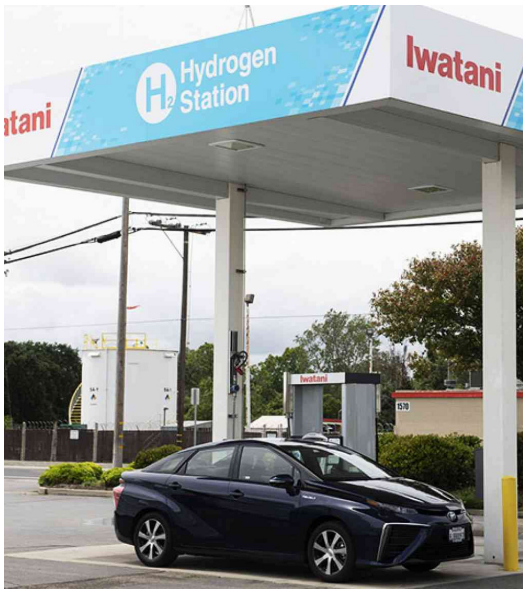
Interregional Freight Movement and Resiliency

The description for this CFMP investment theme lists five critical freight corridors that increase California's economic competitiveness. The Capital Region Freight Improvement Project makes strategic investment in three of those critical freight corridors: I-5, SR 99 and I-80. The bottlenecks that this project will alleviate threaten the viability of Northern California's interregional freight system because they are located so close to the interchange of these critical freight corridors. Trucks making connections at the Bay Area and Central Valley ports are affected by the consistent congestion, delay, and safety concerns along I-5 and I-80 through the Sacramento Region.

The Sacramento Region takes seriously its role as a link in the interstate and interregional freight system, and this project reflects Caltrans District 3, SACOG, and PCTPA's commitment to protecting and enhancing these statewide assets, including $23 million in local discretionary funding. By relieving congestion, increasing travel reliability, and enabling more volume and value of goods on I-5 and I-80, the Capital Region Freight Improvement Project is aligned perfectly with the California Freight Mobility Plan's Interregional Freight Movement and Resiliency.

Sustainability and Innovation

The Capital Region Freight Improvement Project supports Triple Bottom Line Sustainability by benefiting People, Planet and Prosperity. People benefit through improved safety and social equity through our extensive outreach. Planet benefits through the reduction of key greenhouse gases associated with Climate Change, and the Prosperity benefit is derived from the regional improvement in freight performance resulting from the project. This project also represents a comprehensive approach to corridor planning that emphasizes partnerships. By emphasizing partnerships, the Capital Region Freight Improvement Project supports modal and jurisdictional integration appropriate to each corridor, that increases system resiliency in terms of both operation and design life of assets, resulting in emergent value for the corridor, that exceeds the sum of its parts and its investments.



The groundwork toward innovation begins with the ITS elements included in the project, but also extends into innovative partnerships that lead to the integration described above, as jurisdictions work together to manage the transportation network as a single asset. As industry standards and deployment of zero emissions freight trucks emerge, stakeholders participating in comprehensive corridor management will identify appropriate times, technologies and locations to support the transition to cleaner freight systems.

Consistency with MTP SCS

Freight in the 2040 MTP

All three project components--the I-80 Westbound Gap Closure, the I-5 Corridor Improvement Project, and the Elkhorn Boulevard Intermodal Link--are currently programmed in the 2020 SACOG Metropolitan Transportation Plan / Sustainable Communities Strategy, which has been adopted and is anticipated to have CARB approval before the CTC awards in December. The Capital Region Freight Improvement Project was designed specifically to accomplish the MTP/SCS's goal to "Build and maintain a safe, reliable, and multimodal transportation system." By alleviating the bottlenecks that most severely impact the freight network, the project accomplishes the MTP/SCS's policy of "system expansion investments that are not directly paid for by new development should be focused on fixing major bottlenecks that exist today." In addition, by designing improvements for future planned investment in managed lanes infrastructure, the project also accomplishes the MTP/SCS's policy to "take steps to implement tolling or pricing of specific lanes on major facilities."

Link to 2020 SACOG MTP / SCS

sacog.org/post/adopted-2020-mtpscs

Link to 2040 PCTPA RTP

pctpa.net/rtp2040

> **"The region's interstate system is critical for supporting freight movement whether it's moving through or starting or ending its journey in the region. This plan invests more than $8 billion in highway and interchange projects to improve the movement of goods. Additionally, as the region looks to grow its multi-billion dollar agricultural economy, we recognize that growth depends on maintaining and investing in our rural roads and highways"**
>
> ***- 2020 SACOG MTP SCS***

Environmental and Community Impacts

The Capital Region Freight Improvement Project is close to receiving full state and federal environmental approval. The I-80 Westbound Gap Closure received approval in 2016. The I-5 Corridor Improvement Project environmental documents are underway and anticipated to be a Categorical Exclusion/Categorical Exemption. Environmental Documents are also underway for the Elkhorn Intermodal Link, which are anticipated to have limited mitigatable impacts.

Link to I-80 Westbound Gap Closure Documents

pctpa.net/projects/i-80-auxiliary-lanes-project-documents/

Link to I-5 Corridor Improvement Documents

dot.ca.gov/caltrans-near-me/district-3/d3-projects/d3-sac-5-corridor-enhance-0h10u

Link to Elkhorn Intermodal Link Documents

sacramento.aero/scas/about/planning_design

SACOG Region in 2040

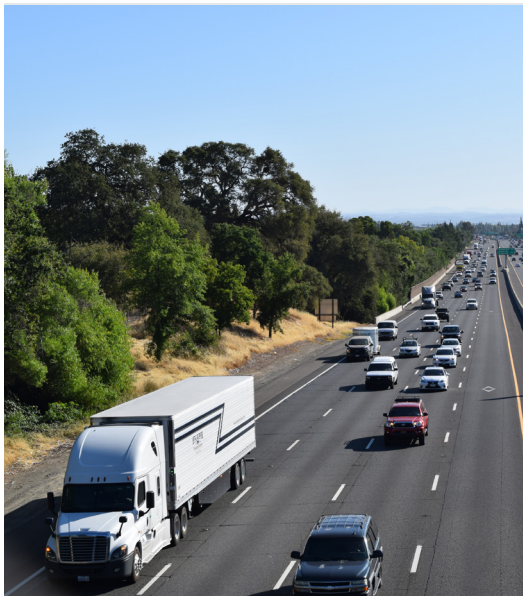
- ↑ **26%** *Total Population*
- ↑ **25%** *Total Jobs*
- ↓ **10%** *Commute Length*
- ↑ **29%** *People Living Less than 30 minutes from their Job*
- ↑ **166%** *People Living Near a High Frequency Transit Route*

E. EVALUATION CRITERIA

Freight System Factors

Reliability

Travel times on both I-5 and I-80 are unpredictable during the peak hours because of heavy congestion. ***The truck travel time reliability index is 3.0 on SB I-5, 2.0 on NB I-5, and 2.5 on WB I-80 during their respective peak periods. This means it takes between twice and three times as long to travel during the peak hours than it does when traffic is flowing freely.*** Modeling analysis shows that with this project, the truck travel time reliability index drops from 2.05 in the 'no-build' scenario to 1.23 in the 'build' scenario. With 18,000 trucks passing through the project areas each day, that improvement in reliability will directly benefit interregional freight flows.



Velocity

Due to the lack of transition lanes and ramp metering, freight traffic experiences reduction in speed on I-5 and I-80. For example, on NB I-5 at the NB 99 connector, vehicles experience delays where speeds drop to 30 mph during the peak hour as platoons of trucks and other vehicles attempt to merge at the same time. I-80 through the project area experiences heavy congestion in the PM peak hour, with speeds dropping below 30 mph and queues extending 3 miles to SR 65. Adding the lane between Douglas Blvd and Riverside Blvd would alleviate the bottleneck by closing the lane reduction gap. ***Project level modeling analysis determined that future turck travel speeds would increase to 56 mph on I-5, and 54 mph on I-80.*** Expanding the use of transition lanes and ramp metering at these location swill help increase speeds and break up bottlenecks, resulting in a 'build' scenario truck travel time 19.14 minutes compared to 22.92 minutes in the 'no-build' scenario.

Throughput

Adding transition lanes and ramp meters will help increase mainline freight throughput at multiple locations throughout the project area. For example, congestion related to high on-ramp volume trying to weave on to the mainline have caused the peak hour throughput on SB I-5 to reduce to 2,300 vph, significantly below capacity. ***Adding transition lanes and ramp meters at this location would help to increase throughput to the operational capacity of 3,600 vph.*** Throughput is also reduced on WB 80 where a lane-drop at Douglas Blvd results in queueing and delays for freight and commuters. Adding a transition lane from Douglas to Riverside would improve the throughput and reduce delay that freight truckers experience. ***The Capital Region Freight Improvement Project will increase truck throughput capacity by more than 1.08 million trucks annually.*** The project will sustain both the Sacramento International Airport and the J. R. Davis Railyard, the region's key freight facilities.

Average Annual Daily Traffic

	Total AADT	Truck AADT	Truck % of Total
I-5 at Airport Boulevard	59,900	9,506	15.87%
I-80 at Riverside Avenue	192,100	8,875	4.62%
Total	**252,000**	**18,381**	**7.29%**

Community Impact Factors

Air Quality Impact

The Capital Region Freight Improvement Project improves air quality by reducing Carbon Dioxide, Volatile Organic Compound, Sulfur Dioxides, Carbon Monoxide, and Nitrogen Oxide emissions. While the project increases particulate matter emissions by 4% overall, the improvements to I-80 reduce PM 2.5 and 10 emissions in Roseville, where particulate matter pollution is the worst in the region.

Community Impact Mitigation

The Capital Region Freight Improvement Project improves localized congestion issues, particularly for Roseville and Natomas residents who experience local road congestion as traffic waiting to enter I-80 and I-5 backs up from the interchanges. The project was also developed within existing sound walls on I-80 and within the Sacramento Airport's noise contours to limit further impacts of the transportation system on neighboring communities.

Economic Impacts and Jobs Growth

Based on the most recent official estimate of the impacts of infrastructure investment on employment that was generated by Council of Economic Advisers (CEA) within the Executive Office of the President, the $86 million Capital Region Freight Improvement Project would create 1,100 construction-related jobs. Furthermore, rapidly developing adjacent job centers at Metro Air Park and the Sunset Plan Area require the project's improvements to be feasible. ***These freight-related developments would bring an additional 37,700 permanent commercial and industrial jobs to these two corridors.*** This project was developed in partnership with these private sector partners with the understanding of the key role freight infrastructure plays in supporting the Sacramento Region's growing economy.

Emissions Performance Metrics

	Build *(tons)*	**No Build** *(Tons)*	**Change** *(Tons)*
Particulate Matter 2.5	0.69	0.64	0.05
Particulate Matter 10	0.82	0.81	0.01
Carbon Dioxide	106,206	110,930	**(4,724)**
Volatile Organic Compound	38.8	40.2	**(1.40)**
Sulfur Dioxides	1.03	1.08	**(0.05)**
Carbon Monoxide	656	679	**(23)**
Nitrogen Oxides	139	148	**(9)**

"The California Trucking Association (CTA) is dedicated to protecting the long term sustainability of motor carriers and suppliers in California's trucking industry. CTA's members rely on a safe and efficient highway infrastructure to keep California's economy moving. Longtime bottlenecks on I-5 and I-80 challenge the viability of our members' businesses, so we are in full support of the safety and operations improvements included in this project."

- Eric Sauer, Senior Vice President, California Trucking Association

E. EVALUATION CRITERIA

Transportation System Factors

Congestion Mitigation

As critical interregional freight corridors and key regional commuting routes, these segments of I-5 and I-80 experience significant congestion, as illustrated by the INRIX data on the right. On I-5 the Airport Boulevard interchange and SR 99 connector create choke points that back up traffic during the peak. Likewise, the narrow section of westbound I-80 between Douglas and Riverside queues traffic to the SR 65 interchange during the peak. Modeling analysis shows this project will save more than 2,000 Daily Vehicle Hours of Travel Time (DVHTT); from 20,048 in the 'no-build' scenario to 17,858 in the 'build'.

Safety

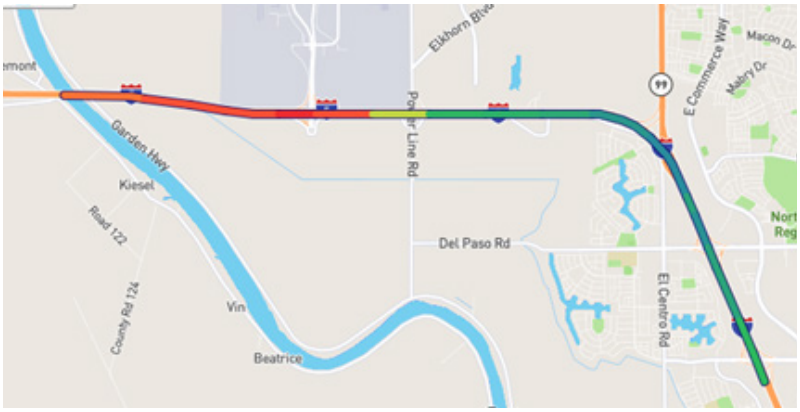
High merging volumes in short acceleration lanes led to 923 collisions, including 12 fatalities, on I-5 and I-80 in the project areas. The project will add transition lanes on both I-5 and I-80, extending the distance that vehicles have to merge with mainline traffic. The project will also add ramp meters on I-5, which will break up vehicles creating safer and easier merging. All of this results in less stop and go traffic and safer and faster movement of goods through the region. Modeling analysis shows a future 'no-build' fatality rate of 2.98 deaths per 100 million vehicle miles traveled. The project will reduce this rate by 20% to 2.39 in the 'build' scenario.

Bottleneck Relief

Recent projects in the district have shown that bottleneck relief can be expected with the addition of ramp meters and transition lanes. ***Three bottleneck locations exist within the project area: SB I-5 at Airport Blvd, NB I-5 at the SR 99 connector, and WB 80 downstream of the Douglas Slip on-ramp.*** These bottlenecks can all be attributed to high weave and merge areas. By relieving these bottlenecks, the integrity of the entire interregional freight system is protected.

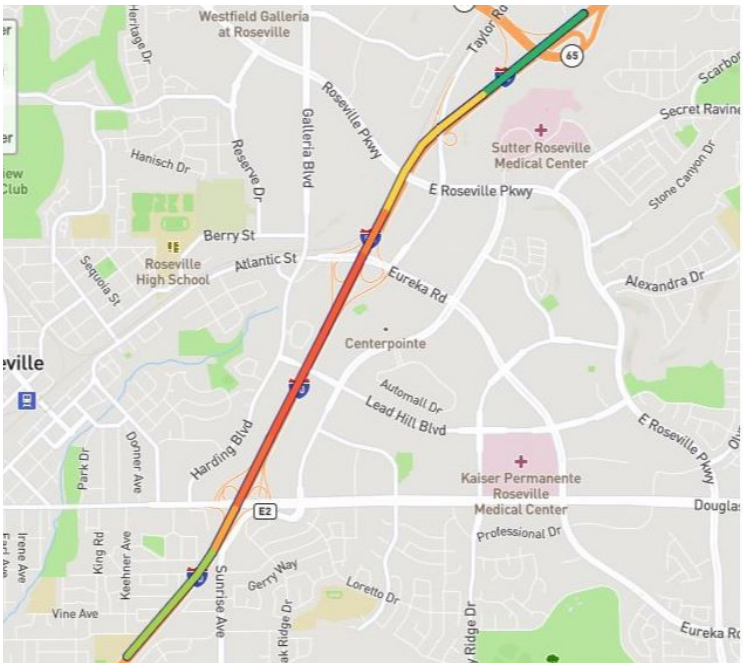
2019 INRIX Congestion Data

Southbound Interstate 5 - Afternoon Peak



Northbound Interstate 5 - Morning Peak

Westbound Interstate 80 - Afternoon Peak



Multimodal Strategy

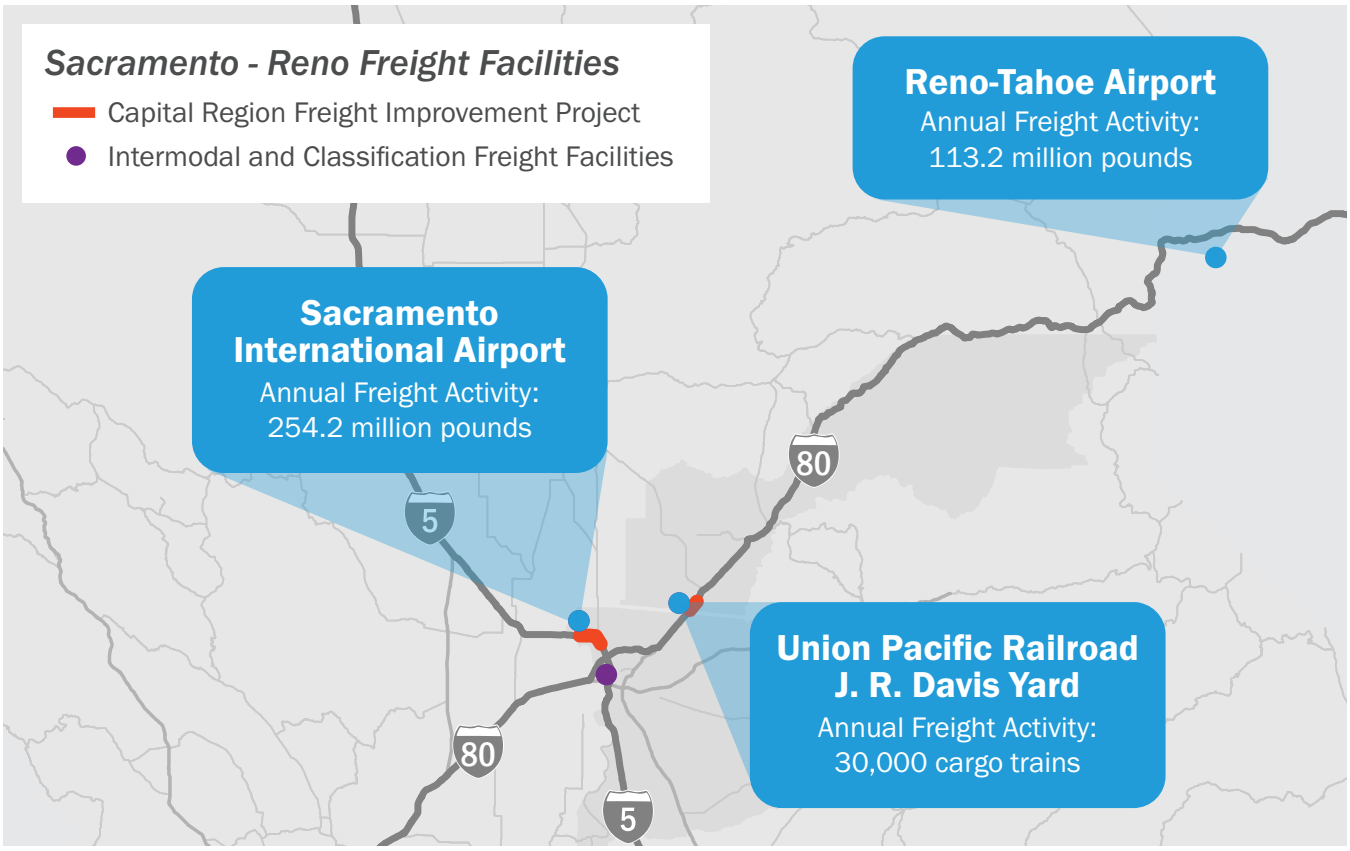
I-5 and I-80 are important multimodal corridors that fill a critical role in California's economy by supporting high volume freight, commuter, transit, and local traffic. Although a freight project, the Capital Region Freight Improvement Project plans for all road users by adding bicycle and pedestrian facilities on Elkhorn Boulevard, and by planning for increased transit volumes on Roseville's commuter routes and Sacramento's airport routes.

Interregional Benefits

As the home of the intersection of three critical freight corridors, the Sacramento Region is a vital link in California's freight network. Industrial job centers, like McClellan Business Park and Metro Air Park rely on I-5 and I-80 to get to the port of Oakland. The owners of the two centers, LDK Ventures and Metro Air Park LLC, wrote in their letters of support about the immportance of this project to the continued growth of interregional commerce.

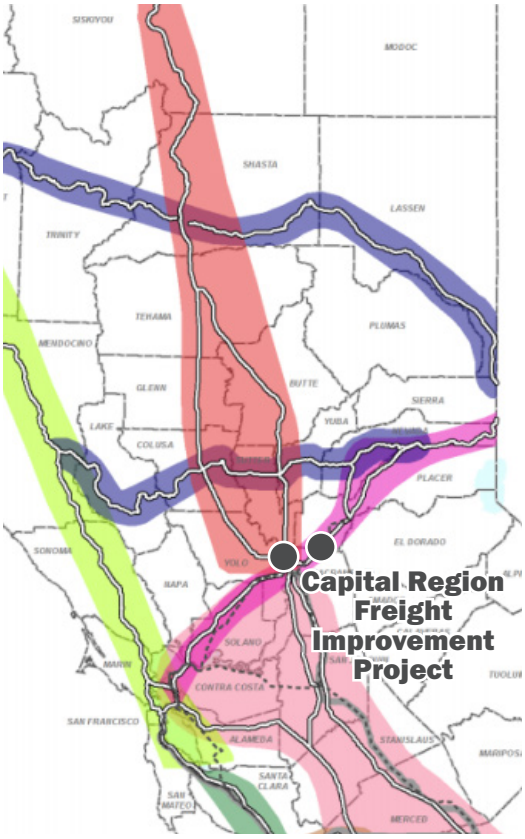
Advanced Technology

This project expands ITS infrastructure to better manage the movement of goods through these critical interregional freight corridors. Eight ramp meters, three Changeable Message Signs, and three Closed Circuit Television cameras, will give travelers the information they need to travel safely and efficiently. Additionally, the CCTVs will produce data that can be supplied to freight partners to continue to improve the region.



E. EVALUATION CRITERIA

Project Contribution to Advancing State and Regional Plans



California Freight Mobility Plan

As detailed in Section D of this application, the Capital Region Freight Improvement Project advances the 2020 California Freight Mobility Plan (CFMP) by achieving each of its seven goals. The project addresses two collision-prone bottlenecks on critical interregional corridors, promotes economic investment in the Sacramento Region's rail, air, and roadway freight systems, and maximizes freight benefit while minimizing impacts on the environment and adjacent communities.

California Sustainable Freight Action Plan

The Capital Region Freight Improvement Project aligns with the goals and priorities of the California Sustainable Freight Action Plan. The project maximizes use of state dollars by leveraging federal and local funding, it represents close partnership between Caltrans and regional, local, and private partners, and builds on existing improvements to support the competitiveness of California's economy.

More specifically, the project advances several of the plan's guiding principles. As a bottleneck improvement project, it addresses the plan's goal to ***"invest strategically to improve travel time reliability and to achieve sustainable congestion reduction on key bottlenecks on primary trade corridors."*** Furthermore, by supporting the efficiency of existing freight facilities and encouraging the growth of Metro Air Park, McClellan Business Park, and the Sunset Plan Area adjacent to these facilities, the project supports the plan's goal to ***"site freight projects to avoid greenfield development by enhancing existing freight infrastructure or targeting infill development near compatible land uses."***

Interregional Transportation Specific Plan

This project makes improvements to two of the strategic interregional corridors identified in the Interregional Transportation Specific Plan (ITSP): the San Jose/San Francisco Bay Area - Sacramento - Northern Nevada Corridor along Interstate 80, and the Sacramento - Oregon Corridor along Interstate 5 and SR 99.

For the I-80 corridor, the ITSP prioritizes "a fix-it-first approach with additional highway capacity added only where specifically needed, particularly serving the movement of freight." By closing the fifth-lane gap directly adjacent to a rail classification facility, the Capital Region Freight Improvement project is aligned with this priority. For the I-5 corridor, connections to intermodal facilities are identified as a long-term priority. By making improvements to Sacramento International Airport, the only major air cargo facility on the Sacramento-Oregon Corridor, this project is aligned with this priority as well.

Cost Effectiveness

Cost/Benefit Analysis

Michael Baker, an international engineering firm was directly involved in developing the benefit-cost analysis to create a realistic and sound result.

Leveraging & Coordinating Funds

As a priority project for Caltrans District 3, SACOG, and PCTPA, the agencies have made significant financial commitments to the success of the Capital Region Freight Improvement Project. All pre-construction phases are fully funded and nearly complete. The agencies have worked together to leverage discretionary funds and private airport funds to provide a 36.5% match for the total TCEP funding ask of $63 million. This partnership of agencies is committed to delivering the project, including absorbing unforeseen expenses.

Other Factors

Project Readiness

All three components of the Capital Region Freight Improvement Project are on schedule and will be delivered well within the CTC's schedule for this cycle of TCEP funds. The I-80 Westbound Gap Closure is in 95% design with environmental approval. The Elkhorn Intermodal Link and I-5 Corridor Improvement project are finishing environmental documents and beginning final design.

Commitment of Partners

Caltrans District 3, SACOG, and PCTPA work collaboratively on plans and projects. All three are fully committed to successfully delivering this project and have a track record of successfully delivering projects as regional partners. ***PCTPA and SACOG's Boards of Directors both ranked this project as their first priority investment for the TCEP program.***

Level of Support

Because the bottlenecks on I-5 and I-80 affect all travel, congestion improvements at these locations have long been a request from the community and freight-related private industry. With the design of the Capital Region Freight Improvement Project keeping improvements mostly within existing public right-of-way, support for the project is expected to grow.

F. FUNDING & DELIVERABILITY

Project Cost Estimate

With the I-80 project component in Final Design and the I-5 and Elkhorn components in preliminary engineering (PAED), SACOG, PCTPA, and Caltrans District 3 are confident that they will be able to deliver the Capital Region Freight Improvement Project within the TCEP funding budget outlined in the table below. The Directors of each agency have reviewed and approved these cost estimates. The three nominating agencies are committed to delivering these projects, including absorbing any unexpected cost increases with local funds. Nearly all pre-construction components are locally funded, and the project has a 36.5 percent local match for the requested regional TCEP funds. The majority of those matching funds come from locally-controlled discretionary funds and airport capital improvement fees from the airlines. In both cases, local agencies and airlines agreed to sacrifice funds that could be used for local projects in order to provide a match for this regional effort. All non-TCEP funds included in the table below are fully committed to this project.

Funding Summary

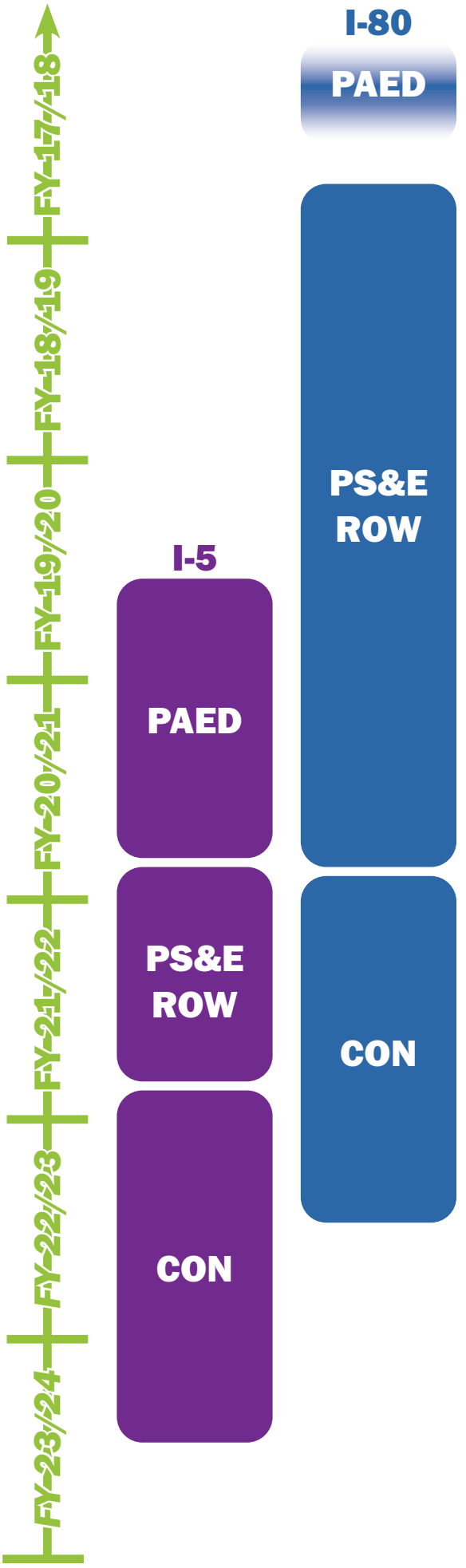
Total Cost
$86.0 million

State TCEP Request
$25.2 million

Regional TCEP Request
$37.8 million

TCEP Local Match
$23.0 million

		Local Funds	Local Fund Source	Regional TCEP	State TCEP	Total TCEP
I-5	PAED	$2,000,000	SACOG Regional	-	-	-
	PS&E	-	-	$1,140,000	$760,000	$1,900,000
	ROW	-	-	$120,000	$80,000	$200,000
	CON	-	-	$17,960,000	$15,640,000	$33,600,000
	Subtotal	***$2,000,000***	**-**	***$19,220,000***	***$16,480,000***	***$35,700,000***
I-80	PAED	$405,000	PCTPA Federal	-	-	-
	PS&E	$2,034,000	PCTPA Federal & Local	-	-	-
	ROW	$486,000	PCTPA Federal & Local	-	-	-
	CON	$3,075,000	PCTPA Regional	$7,580,000	$8,720,000	$16,300,000
	Subtotal	***$6,000,000***	**-**	***$7,580,000***	***$8,720,000***	***$16,300,000***
Elkhorn	PAED	$1,000,000	Airport Fees	-	-	-
	PS&E	$1,000,000	Airport Fees	-	-	-
	CON	$13,000,000	Airport Fees	$11,000,000	-	$11,000,000
	Subtotal	***$15,000,000***	**-**	***$11,000,000***	**-**	***$11,000,000***
	Total	**$23,000,000**	**-**	**$37,800,000**	**$25,200,000**	**$63,000,000**



Deliverability

Project Delivery Plan

The improvements included in the Capital Region Freight Improvement Project have long been requested by Placer and Sacramento Counties' communities. As such, community involvement is not expected to affect delivery. Due to the importance of both corridors to local and interregional travel, ensuring sufficient travel capacity during construction is a concern. Caltrans, PCTPA, and SACOG experience managing and keeping the public informed on large highway construction projects so impacts on residents is expected to be minimal. All three project components have been designed and developed in partnership with the relevant regional agencies to ensure that any necessary permits and reviews are completed within the proposed project schedule. Given this delivery plan, PCTPA, SACOG, and Caltrans District 3 are confident they will deliver all three project components by December 2024.

Potential Cost Overruns

The project cost estimates included in the table on the previous page were developed with a five percent contingency to account for any construction cost overruns. Project expenditures will be monitored regularly throughout the development and construction of the project. As such, the nominating agencies do not anticipate any cost overruns that will impact the deliverability of the project. Should an unforeseen risk arise, PCTPA, SACOG, and Caltrans District 3 will work together to deliver the project as scoped.

For their on-budget ahead-of-schedule delivery of the I-80/SR 65 Interchange, PCTPA, District 3, and SACOG received the following awards:

California Transportation Foundation 2019 Conventional State Highway Project of the Year

American Society of Civil Engineers 2019 Outstanding Highway Project of the Year

G. COMMUNITY IMPACTS

Community and Stakeholder Engagement

Community Engagement to Date

PCTPA, SACOG, Caltrans District 3, and the Sacramento County Department of Airports utilized well-established relationships with their local communities to develop and refine the Capital Region Freight Improvement Project. The final project reflects three multi-year outreach processes undertaken by these nominating agencies: the Placer-Sacramento Gateway Plan along the I-80 corridor, the I-5 Managed Lanes, and the Sacramento Airport Master Plan update. The results of surveys, community meetings, and public presentations completed as part of this outreach are aligned with the fundamental goals of this project: to alleviate the worst freight bottlenecks in the region and to promote investment in the region's private manufacturing and logistics companies.

Active Public Stakeholder List

Due to the regional and inter-jurisdictional nature of this project, stakeholders played a big role in sharing information between the nominating agencies and the local community. They include:

Sac Metro Chamber of Commerce
Local Chambers of Commerce
Downtown Sac Partnership
River District
Walk Sacramento
North State Building Association
Area 4 Agency on Aging
Placer Air Pollution Control
Sacramento Air Quality District
Placer Association of Realtors
Seniors First
Citrus Heights Collaborative
Sacramento Regional Transit
Sacramento Bicycle Advocates
Department of Regional Parks
Sacramento International Airport
Each City Along the Corridors
Each Elected Official's Office

Private Sector Partnership

The Capital Region Freight Improvement Project was also developed collaboratively with relevant private sector partners, who will continue to be engaged as broader corridor management activities continue. ***This project has received letters of support from Tesla, Metro Air Park, McClellan Business Park, and the California Trucking Association.*** These letters of support, and others from the project's public stakeholder agencies, are included in the appendix.

Future Public Engagement

SACOG, PCTPA, and Caltrans District 3 are committed to continuing this robust public outreach as these projects near construction. Until then, stakeholders and members of the community will be regularly consulted throughout the environmental and final design phases. The Comprehensive Multimodal Corridor Plan is currently underway for I-5 will involve significant stakeholder participation and public outreach as part of this new planning paradigm.

Addressing Community Needs

"What about the traffic [on I-5]? You can tell when a flight has landed because southbound I-5 is backed up to Woodland."

- Natomas Resident, May 2020 SMF Survey

Airport-Bound Traffic on Interstate 5

While the Capital Region Freight Improvement Project prioritizes freight improvements, it will improve travel times and reliability for all travelers to the airport. As the principal airport for 3.3 million Californians across seven counties, relieving congestion at the airport has been a consistent community need. In particular, the neighboring Natomas neighborhood is stuck in regional airport traffic throughout the day. The ramp meters and transition lanes this project adds on I-5 will help to mitigate this community-identified issue.

"I've seen many close calls and accidents on that ramp. I feel like I'm going to be in an accident every time I try to get on 5 from the airport."

- Citrus Heights Resident, Joint Survey, January 2020

Safety Improvements to Interstate 5

With its current configuration, the loop entrance from Airport Boulevard to southbound I-5 forces drivers to accelerate from the 25 miles per hour on the ramp to 65 miles per hour on the highway in 1,200 feet. With platoons of trucks in the outside lane and no metering at the ramp, most residents of the Sacramento Region have safety concerns about this ramp. By extending the transition lane and metering the ramp, the Capital Region Freight Improvement Project has prioritized a safety issue for the community.

"My commute is only 2 miles, but it takes forever to go across I-80 on the way home. Freeway improvements at Douglas would be helpful."

- Roseville Resident, June 2019 PCTPA Survey

Interchange Improvements at Douglas Boulevard

The bottleneck on westbound I-80 between Douglas Boulevard and Riverside Avenue backs up traffic past the ramps and onto the Douglas Boulevard overcrossing. Even though these ramps are metered, stop-and-go conditions mean drivers often wait through multiple ramp meter cycles. This congestion impacts travel for miles on Douglas Boulevard, a key east-west arterial in southern Placer County. The Capital Region Freight Improvement project addresses this community-identified need by eliminating the bottleneck so that local travel is not impacted by highway traffic.

"Sacramento International Airport bus service schedules need to be adjusted to take congestion into account and increase service reliability."

- Sacramento Resident, December 2019 SACOG Survey

Enabling Better Transit to the Airport

Sacramento Regional Transit District added bus service from downtown to the airport every 20 minutes. More reliable service to the airport has been a consistent request of most of the Sacramento Region's communities. However, because I-5 is the only way to access the airport, these buses are stuck in the same traffic, causing bus bunching and reducing transit reliability. ***By extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement project will provide transit a viable alternative.*** With this investment, the community will start to see the frequent and reliable transit service they have long requested.

G. COMMUNITY IMPACTS

DAC and LIC Communities

Freight and Environmental Justice

The I-80 Westbound Gap Closure component of this project runs directly parallel to the J. R. Davis Railyard, the largest railyard in the Western United States and Northern California's only freight classification yard. More than 45,000 locomotives stop at the railyard every year, releasing more than 25 tons of diesel particulate matter. This pollution is particularly toxic; Roseville residents living near the railyard are three times as likely to develop cancer as other residents of the Sacramento Region. These adjacent neighborhoods are home to low-income and immigrant communities.

Given the tremendous health burden that these communities have to bear, reducing any further impacts of freight in this area is an environmental justice priority for the region. By reducing truck delay and breaking along I-80, the Capital Region Freight Improvement Project will reduce particulate matter emissions from exhaust and road surface wear. Without the roadway system improvements provided by this project, Roseville residents, who already bear significant diesel emissions from the railyard, will continue to endure greater health concern from this roadway bottleneck.

Safely Expanding Freight

While the Capital Region Freight Improvement Project's efficiency improvement will reduce the impacts of freight on I-80, the addition of transition lanes will increase truck throughput on I-5. As the Metro Air Park commercial and industrial development is built-out, these manufacturing and logistics businesses will further add trucks along Elkhorn Boulevard and I-5. As shown in the aerial image on the right, most of this project's investments in I-5 and the Sacramento International Airport are surrounded by rural agricultural land. While parts of Yolo County are designated disadvantaged communities, the areas adjacent to the I-5 and Elkhorn project improvements are not.

The rural surrounding ensures truck and air cargo noise and emissions have limited impact on residential communities, balancing growing demand for freight with regional health goals. By improving freight throughput at these two planned industrial job centers, this project also ensures that trucking-intensive land uses can develop near designated interregional freight facilities, liming the distances trucks travel to get to the highway and reducing future freight VMT. The Capital Region Freight Improvement Project builds on the region's smart land use planning by expanding trucking capacity where the impacts of freight will affect the fewest residents and will avoid impacts to low-income and disadvantaged communities.

25 tons

Annual diesel emissions from locomotive activity at the J. R. Davis Railyard

1,000

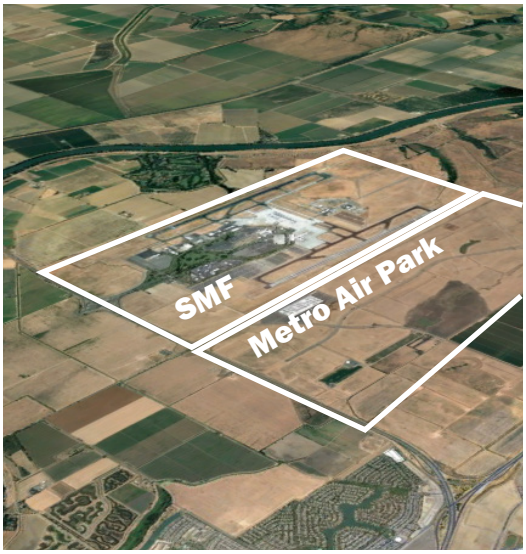
Cancer risk per million residents near the railyard; the regional average is 345 per million

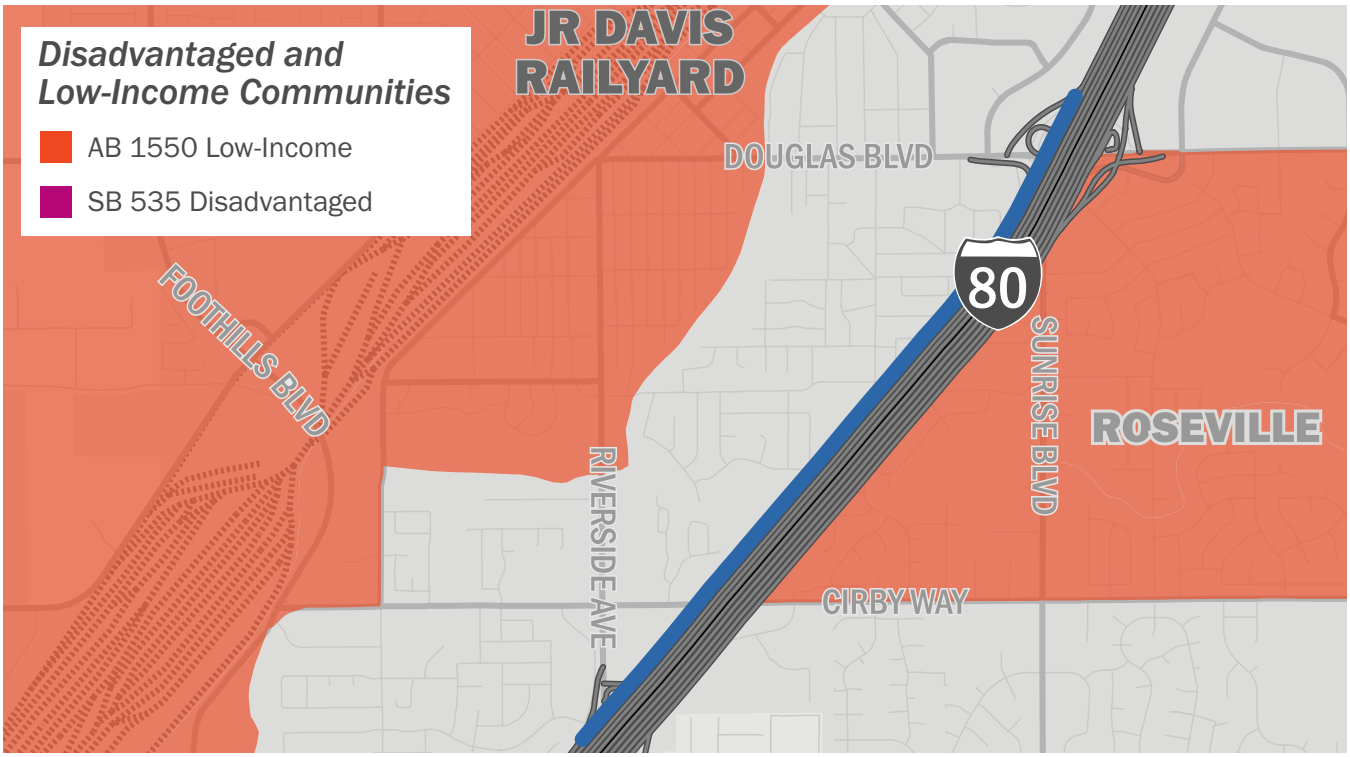
40 acres

Size of the J. R. Davis Railyard's emissions impact area

CFMP Strategy ES-3-C

Promote land uses that are conducive to protecting the environment while supporting freight operations.





H. Other

Private Infrastructure

The Capital Region Freight Improvement Project does not propose any improvements to private infrastructure.

Rail Investments

The Capital Region Freight Improvement Project does not include any rail investments.

I. APPENDICES

1. Project Programming Requests
2. Performance Metric Form
3. State Highway System Project Impact Assessment Instructions and Form
4. ADA Compliant Version of Fact Sheet
5. Letters of Support
6. Supplemental Performance Metric Tables
7. Supplemental I-5 Traffic Operations Report
8. Supplemental I-80 Traffic Operations Report
9. Supplemental Elkhorn Traffic Operations Report

Appendix 1: Project Programming Requests

Note: Each project component is outlined in a separate Project Programming Request. All project programming requests are online on CalSMART

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-D03-2020-0001 v3

Amendment (Existing Project) ☐ YES ☒ NO					Date	07/27/2020 09:21:06
Programs ☐ LPP-C ☐ LPP-F ☐ SCCP ☒ TCEP ☐ STIP ☐ Other						
District	EA	Project ID	PPNO	Nominating Agency		
03	4H581	0320000240	5876	Caltrans HQ		
County	Route	PM Back	PM Ahead	Co-Nominating Agency		
Sacramento	5	27.700	34.300	Placer County Transportation Planning Agency		
				MPO	Element	
				SACOG	Capital Outlay	
Project Manager/Contact			Phone	Email Address		
Jess Avila			530-741-4533	jess.avila@dot.ca.gov		

Project Title

Capital Region Freight - I-5

Location (Project Limits), Description (Scope of Work)

On Interstate 5 (I-5) in Sacramento County from 0.1 mile south of Arena Blvd Interchange Interchange to 0.4 mile south of Yolo County line construct acceleration and deceleration merge lanes and Intelligent transportation system (ITS) infrastructure.

Component	Implementing Agency
PA&ED	Caltrans District 3
PS&E	Caltrans District 3
Right of Way	Caltrans District 3
Construction	Caltrans District 3

Legislative Districts

Assembly:	9	Senate:	6	Congressional:	6

Project Milestone	Existing	Proposed
Project Study Report Approved	09/28/2019	
Begin Environmental (PA&ED) Phase		01/07/2020
Circulate Draft Environmental Document — Document Type CE/CE		
Draft Project Report		02/28/2021
End Environmental Phase (PA&ED Milestone)		04/30/2021
Begin Design (PS&E) Phase		05/01/2021
End Design Phase (Ready to List for Advertisement Milestone)		04/06/2022
Begin Right of Way Phase		05/01/2021
End Right of Way Phase (Right of Way Certification Milestone)		03/22/2022
Begin Construction Phase (Contract Award Milestone)		09/28/2022
End Construction Phase (Construction Contract Acceptance Milestone)		12/01/2024
Begin Closeout Phase		12/02/2024
End Closeout Phase (Closeout Report)		12/01/2025

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-D03-2020-0001 v3

Date 07/27/2020 09:21:06

Purpose and Need

The purpose of the proposed project is to increase freight throughput capacity to meet existing and forecasted freight truck volumes by addressing congestion that impacts freight capacity and improving freight travel time reliability and speeds through the project corridor. The section of I-5 within the proposed project limits experiences high travel demand especially during peak commute periods. As a result, the project area is subject to recurring congestion that impedes the movement of freight through the corridor and impairs mobility for vehicles and trucks further resulting in bottlenecks, increased emissions, increased travel costs, and reduced travel time reliability. The proposed project will be Phase 1 of the Sac-5 Corridor Improvement Project that will address freight mobility throughout the corridor.

NHS Improvements ☒ YES ☐ NO	Roadway Class 1	Reversible Lane Analysis ☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals ☒ YES ☐ NO Reduce Greenhouse Gas Emissions ☒ YES ☐ NO

Project Outputs

Category	Outputs	Unit	Total
Operational Improvement	Auxiliary lanes	Miles	3.6
TMS (Traffic Management Systems)	Freeway ramp meters	EA	8
TMS (Traffic Management Systems)	Closed circuit television cameras	EA	2
TMS (Traffic Management Systems)	Changeable message signs	EA	2

Date 07/27/2020 09:21:06

Additional Information

Project Benefits: This project facilitates the movement of goods through the central hub of Sacramento with interregional connections to California's northern and southern counties and seaports, including the ports of West Sacramento and Stockton – the Port of Stockton being the largest bulk shipping port on the West Coast. In addition, the I-5 corridor is northern California's main conduit for goods movement between Mexico and Canada and intersects the I-80 corridor which serves as California's main highway for goods movement from eastern California and the northeastern United States to the San Francisco Bay Area.

Performance Indicators and Measures						
Measure	**Required For**	**Indicator/Measure**	**Unit**	**Build**	**Future No Build**	**Change**
Congestion Reduction	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	17,858	20,048	-2,190
	TCEP	Daily Truck Trips	# of Trips	0	0	0
	TCEP	Daily Truck Miles Traveled	Miles	0	0	0
Throughput	TCEP	Change in Truck Volume That Can Be Accommodated	# of Trucks	57,312,099	56,227,414	1,084,685
	TCEP	Change in Rail Volume That Can Be Accommodated	# of Trailers	0	0	0
			# of Containers	0	0	0
	TCEP	Change in Cargo Volume That Can Be Accommodated	# of Tons	0	0	0
			# of Containers	0	0	0
System Reliability	TCEP	Truck Travel Time Reliability Index	Index	1.23	2.05	-0.82
	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	17,858	20,048	-2,190
Velocity	TCEP	Travel Time or Total Cargo Transport Time	Hours	19.14	22.92	-3.78
	Optional	Average Peak Period Weekday Speed for Road Facility	Miles per Hour	50	35	15
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	0.69	0.64	0.05
			PM 10 Tons	0.82	0.81	0.01
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	106,206	110,930	-4,724
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	38.8	40.2	-1.4
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1.03	1.08	-0.05
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	656	679	-23
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	139	148	-9
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	0	0	0
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9	11	-2
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	2.39	2.98	-0.59
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	218	324	-106
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	53.06	82.9	-29.84
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	38,700	0	38,700
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	3.52	0	3.52

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-D03-2020-0001 v3

District	County	Route	EA	Project ID	PPNO
03	Sacramento	05	4H581	0320000240	5876

Project Title

Capital Region Freight - I-5

Existing Total Project Cost ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Implementing Agency
E&P (PA&ED)									Caltrans District 3
PS&E									Caltrans District 3
R/W SUP (CT)									Caltrans District 3
CON SUP (CT)									Caltrans District 3
R/W									Caltrans District 3
CON									Caltrans District 3
TOTAL									
Proposed Total Project Cost ($1,000s)									Notes
E&P (PA&ED)	2,000							2,000	
PS&E		1,900						1,900	
R/W SUP (CT)		150						150	
CON SUP (CT)				3,500				3,500	
R/W		50						50	
CON				30,100				30,100	
TOTAL	2,000	2,100		33,600				37,700	

Fund #1:	CMAQ - Congestion Mitigation (Committed)								Program Code
Existing Funding ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)	2,000							2,000	Total funding is $4.35M - use $2M for Phase 1 Freight Proj.
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL	2,000							2,000	

Fund #2:	State SB1 TCEP - Trade Corridors Enhancement Account (Uncommitted)								Program Code
Existing Funding ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Caltrans District 3
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)									TCEP Regional Funds (PS&E and R/W)
PS&E		1,140						1,140	
R/W SUP (CT)		90						90	
CON SUP (CT)									
R/W		30						30	
CON									
TOTAL		1,260						1,260	

Fund #3:	State SB1 TCEP - Trade Corridors Enhancement Account (Uncommitted)								Program Code
Existing Funding ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Caltrans District 3
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)									TCEP State Funds (PS&E and R/W)
PS&E		760						760	
R/W SUP (CT)		60						60	
CON SUP (CT)									
R/W		20						20	
CON									
TOTAL		840						840	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-D03-2020-0001 v3

Fund #4:	State SB1 TCEP - Trade Corridors Enhancement Account (Uncommitted)								Program Code
Existing Funding ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Caltrans District 3
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)									TCEP Regional Funds (Construction)
PS&E									
R/W SUP (CT)									
CON SUP (CT)				1,871				1,871	
R/W									
CON				16,089				16,089	
TOTAL				17,960				17,960	

Fund #5:	State SB1 TCEP - Trade Corridors Enhancement Account (Uncommitted)								Program Code
Existing Funding ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Caltrans District 3
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)									TCEP State Funds (Construction)
PS&E									
R/W SUP (CT)									
CON SUP (CT)				1,629				1,629	
R/W									
CON				14,011				14,011	
TOTAL				15,640				15,640	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-6158-2020-0003 v1

Amendment (Existing Project) ☐ YES ☒ NO				Date	07/16/2020 10:25:48
Programs ☐ LPP-C ☐ LPP-F ☐ SCCP ☒ TCEP ☐ STIP ☐ Other					
District	EA	Project ID	PPNO	Nominating Agency	
03	3F320	0312000106	5101	Caltrans HQ	
County	Route	PM Back	PM Ahead	Co-Nominating Agency	
Placer	80	0.100	2.200	Placer County Transportation Planning Agency,Sacramento	
				MPO	Element
				SACOG	Capital Outlay
Project Manager/Contact			Phone	Email Address	
Mohan V. Bonala, P.E., G.E			530-788-3259	mohan.bonala@dot.ca.gov	

Project Title

Capital Region Freight - I-80

Location (Project Limits), Description (Scope of Work)

In Placer County, the project limits are westbound I-80 from Douglas Boulevard to Riverside Avenue. In the westbound direction, the project adds a 5th through lane on I-80 from east of Douglas Boulevard to west of Riverside Avenue in Roseville where four through lanes currently exist. This improvement also includes reducing the existing I-80 westbound two-lane off-ramp at Douglas Boulevard to one-lane, and modifying the Douglas Boulevard on-ramps, Riverside Avenue off-ramp and northbound on-ramp to accommodate the new lane.

Component	Implementing Agency
PA&ED	Placer County Transportation Planning Agency
PS&E	Placer County Transportation Planning Agency
Right of Way	Placer County Transportation Planning Agency
Construction	Caltrans District 3

Legislative Districts

Assembly:	6	Senate:	4	Congressional:	4

Project Milestone	Existing	Proposed
Project Study Report Approved	12/04/2000	
Begin Environmental (PA&ED) Phase		03/03/2014
Circulate Draft Environmental Document Document Type (ND/MND)/CE		01/11/2016
Draft Project Report		10/14/2016
End Environmental Phase (PA&ED Milestone)		10/14/2016
Begin Design (PS&E) Phase		03/12/2018
End Design Phase (Ready to List for Advertisement Milestone)		05/28/2021
Begin Right of Way Phase		12/09/2019
End Right of Way Phase (Right of Way Certification Milestone)		04/02/2021
Begin Construction Phase (Contract Award Milestone)		10/08/2021
End Construction Phase (Construction Contract Acceptance Milestone)		12/29/2023
Begin Closeout Phase		01/02/2024
End Closeout Phase (Closeout Report)		01/31/2025

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-6158-2020-0003 v1

Date 07/16/2020 10:25:48

Purpose and Need

The purpose of this project is to provide a 5th through lane, which will reduce vehicle delay, improve travel time reliability of goods movement, and facilitate smoother traffic flow and substantially increase freight throughput along this segment. The project is needed because the existing 4th mixed-flow lane on westbound I-80 ends at the Douglas Boulevard off-ramp and begins again at the Riverside Avenue on-ramp, resulting in reduced lanes along this section of I-80. I-80 is one of the primary east-west transcontinental interstate highways, serving as an important freight transportation corridor for the United States. It is estimated that I-80 through Placer County carries $4.7 million dollars an hour in goods movement. The reliability of goods movement along the I-80 corridor depends on continued investment in priority projects such as the Capital Region Freight Improvement Project: Interstate 80 Westbound Gap Closure Project. The Interstate 80 Westbound Gap Closure Project is needed because I-80 between Douglas Boulevard to Riverside Avenue is experiencing operational problems caused by high peak period traffic volumes along with an existing freeway configuration that currently impedes the smooth flow of traffic.

NHS Improvements ☒ YES ☐ NO	Roadway Class 1	Reversible Lane Analysis ☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals ☒ YES ☐ NO Reduce Greenhouse Gas Emissions ☒ YES ☐ NO

Project Outputs

Category	Outputs	Unit	Total
Pavement (lane-miles)	Mixed flow mainline constructed	Miles	2.1
Operational Improvement	Ramp modifications	EA	2

PPR ID
ePPR-6158-2020-0003 v1

Date 07/16/2020 10:25:48

Additional Information

Project Benefits: The project will add a 5th lane on westbound I-80 between Douglas Boulevard and Riverside Avenue, which will deliver congestion relief and safety benefits, and reduce delay thereby improving travel time reliability of goods movement; as well as substantially increase freight throughput along this segment of the corridor.

PPR ID
ePPR-6158-2020-0003 v1

Performance Indicators and Measures						
Measure	**Required For**	**Indicator/Measure**	**Unit**	**Build**	**Future No Build**	**Change**
Congestion Reduction	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	17,858	20,048	-2,190
	TCEP	Daily Truck Trips	# of Trips	0	0	0
	TCEP	Daily Truck Miles Traveled	Miles	0	0	0
Throughput	TCEP	Change in Truck Volume That Can Be Accommodated	# of Trucks	57,312,099	56,227,414	1,084,685
	TCEP	Change in Rail Volume That Can Be Accommodated	# of Trailers	0	0	0
			# of Containers	0	0	0
	TCEP	Change in Cargo Volume That Can Be Accommodated	# of Tons	0	0	0
			# of Containers	0	0	0
System Reliability	TCEP	Truck Travel Time Reliability Index	Index	1.23	2.05	-0.82
	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	17,858	20,048	-2,190
Velocity	TCEP	Travel Time or Total Cargo Transport Time	Hours	19.14	22.92	-3.78
	Optional	Average Peak Period Weekday Speed for Road Facility	Miles per Hour	50	35	15
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	0.69	0.64	0.05
			PM 10 Tons	0.82	0.81	0.01
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	106,206	110,930	-4,724
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	38.8	40.2	-1.4
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1.03	1.08	-0.05
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	656	679	-23
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	139	148	-9
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	0	0	0
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9	11	-2
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	2.39	2.98	-0.59
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	218	324	-106
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	53.06	82.9	-29.84
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	38,700	0	38,700
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	3.52	0	3.52

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-6158-2020-0003 v1

District	County	Route	EA	Project ID	PPNO
03	Placer	80	3F320	0312000106	5101

Project Title

Capital Region Freight - I-80

Existing Total Project Cost ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Implementing Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									Placer County Transportation Plannin
R/W SUP (CT)									Placer County Transportation Plannin
CON SUP (CT)									Caltrans District 3
R/W									Placer County Transportation Plannin
CON									Caltrans District 3
TOTAL									
Proposed Total Project Cost ($1,000s)									Notes
E&P (PA&ED)	405							405	
PS&E	925	639						1,564	
R/W SUP (CT)									
CON SUP (CT)			2,118					2,118	
R/W	286	200						486	
CON			17,727					17,727	
TOTAL	1,616	839	19,845					22,300	

Fund #1:	Other Fed - NATIONAL CORRIDOR INFRASTRUCTURE IMPROVEMENT PROGRA (Co							Program Code
Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)	405							405	
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL	405							405	

PPR ID
ePPR-6158-2020-0003 v1

Fund #2:	Federal Disc. - Earmark Repurposing (Committed)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									
PS&E	158							158	
R/W SUP (CT)									
CON SUP (CT)									
R/W	20							20	
CON									
TOTAL	178							178	

Fund #3:	Demo - High Priority Projects Program (Committed)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									
PS&E	381	150						531	
R/W SUP (CT)									
CON SUP (CT)									
R/W	106							106	
CON									
TOTAL	487	150						637	

PPR ID
ePPR-6158-2020-0003 v1

Fund #4:	Other Fed - Highway Infrastructure Program (HIP) (Committed)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									
PS&E	386	289						675	
R/W SUP (CT)									
CON SUP (CT)									
R/W	160							160	
CON			75					75	
TOTAL	546	289	75					910	

Fund #5:	RSTP - STP Local (Committed)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			3,000					3,000	
TOTAL			3,000					3,000	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-6158-2020-0003 v1

Fund #6:	Local Funds - Traffic Impact Fees (Committed)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									South Placer Regional Transportation Authority (SPRTA) funding allocation to PCTPA.
PS&E		200						200	
R/W SUP (CT)									
CON SUP (CT)									
R/W		200						200	
CON									
TOTAL		400						400	

Fund #7:	Local Funds - Local Transportation Funds (Committed)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			470					470	
TOTAL			470					470	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-6158-2020-0003 v1

Fund #8:	State SB1 TCEP - Trade Corridors Enhancement Account (Uncommitted)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									TCEP State Allocation
PS&E									
R/W SUP (CT)									
CON SUP (CT)			2,118					2,118	
R/W									
CON			4,402					4,402	
TOTAL			6,520					6,520	

Fund #9:	State SB1 TCEP - Trade Corridors Enhancement Account (Uncommitted)								Program Code
	Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Placer County Transportation Plannin
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
	Proposed Funding ($1,000s)								Notes
E&P (PA&ED)									TCEP Regional Allocation
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			9,780					9,780	
TOTAL			9,780					9,780	

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-5924-2020-0007 v1

Amendment (Existing Project) ☐ YES ☒ NO					Date	07/27/2020 13:18:03
Programs ☐ LPP-C ☐ LPP-F ☐ SCCP ☒ TCEP ☐ STIP ☐ Other						
District	EA	Project ID	PPNO	Nominating Agency		
03			1812	Caltrans District 3		
County	Route	PM Back	PM Ahead	Co-Nominating Agency		
Sacramento				Sacramento Area Council of Governments,Placer County Tr		
				MPO	Element	
				SACOG	Capital Outlay	
Project Manager/Contact			Phone	Email Address		
Frieden McLean			916-534-9416	mcleanf@saccounty.net		

Project Title

Capital Region Freight - Elkhorn

Location (Project Limits), Description (Scope of Work)

In Sacramento County, from West Elkhorn BLVD to Crossfield Dr. at Sacramento International Airport, construct an approximately 1 mile long 4 lane-lane roadway. Project also includes the extension of utility corridor along roadway and two roundabouts on Crossfield Dr.

Component	Implementing Agency
PA&ED	Sacramento County
PS&E	Sacramento County
Right of Way	Sacramento County
Construction	Sacramento County

Legislative Districts

Assembly:	7	Senate:	6	Congressional:	6

Project Milestone	Existing	Proposed
Project Study Report Approved		
Begin Environmental (PA&ED) Phase		02/01/2020
Circulate Draft Environmental Document Document Type CE		03/01/2020
Draft Project Report		06/01/2020
End Environmental Phase (PA&ED Milestone)		09/01/2020
Begin Design (PS&E) Phase		09/01/2020
End Design Phase (Ready to List for Advertisement Milestone)		12/31/2020
Begin Right of Way Phase		01/01/2021
End Right of Way Phase (Right of Way Certification Milestone)		01/02/2021
Begin Construction Phase (Contract Award Milestone)		06/01/2021
End Construction Phase (Construction Contract Acceptance Milestone)		12/31/2021
Begin Closeout Phase		01/01/2022
End Closeout Phase (Closeout Report)		02/02/2022

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-5924-2020-0007 v1

Date 07/27/2020 13:18:03

Purpose and Need

The purpose of the proposed project is to increase freight throughput capacity to meet existing and forecasted freight truck volumes by addressing congestion that impacts freight capacity and improving freight travel time reliability and speeds through the project corridor. The section of I-5 within the proposed project limits experiences high travel demand especially during peak commute periods. As a result, the project area is subject to recurring congestion that impedes the movement of freight through the corridor and impairs mobility for vehicles and trucks further resulting in bottlenecks, increased emissions, increased travel costs, and reduced travel time reliability. The proposed project will be Phase 1 of the Sac-5 Corridor Improvement Project that will address freight mobility throughout the corridor.

NHS Improvements ☐ YES ☒ NO	Roadway Class 2	Reversible Lane Analysis ☐ YES ☒ NO

Inc. Sustainable Communities Strategy Goals ☐ YES ☒ NO Reduce Greenhouse Gas Emissions ☒ YES ☐ NO

Project Outputs

Category	Outputs	Unit	Total
Pavement (lane-miles)	Local road - new	Miles	1

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-5924-2020-0007 v1

Date 07/27/2020 13:18:03

Additional Information

PPR ID
ePPR-5924-2020-0007 v1

Performance Indicators and Measures						
Measure	**Required For**	**Indicator/Measure**	**Unit**	**Build**	**Future No Build**	**Change**
Congestion Reduction	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	17,858	20,048	-2,190
	TCEP	Daily Truck Trips	# of Trips	0	0	0
	TCEP	Daily Truck Miles Traveled	Miles	0	0	0
Throughput	TCEP	Change in Truck Volume That Can Be Accommodated	# of Trucks	57,312,099	56,227,414	1,084,685
	TCEP	Change in Rail Volume That Can Be Accommodated	# of Trailers	0	0	0
			# of Containers	0	0	0
	TCEP	Change in Cargo Volume That Can Be Accommodated	# of Tons	0	0	0
			# of Containers	0	0	0
System Reliability	TCEP	Truck Travel Time Reliability Index	Index	1.23	2.05	-0.82
	TCEP	Daily Vehicle Hours of Travel Time Reduction	Hours	17,858	20,048	-2,190
Velocity	TCEP	Travel Time or Total Cargo Transport Time	Hours	19.14	22.92	-3.78
	Optional	Average Peak Period Weekday Speed for Road Facility	Miles per Hour	50	35	15
Air Quality & GHG	LPPF, LPPC, SCCP, TCEP	Particulate Matter	PM 2.5 Tons	0.69	0.64	0.05
			PM 10 Tons	0.82	0.81	0.01
	LPPF, LPPC, SCCP, TCEP	Carbon Dioxide (CO2)	Tons	106,206	110,930	-4,724
	LPPF, LPPC, SCCP, TCEP	Volatile Organic Compounds (VOC)	Tons	38.8	40.2	-1.4
	LPPF, LPPC, SCCP, TCEP	Sulphur Dioxides (SOx)	Tons	1.03	1.08	-0.05
	LPPF, LPPC, SCCP, TCEP	Carbon Monoxide (CO)	Tons	656	679	-23
	LPPF, LPPC, SCCP, TCEP	Nitrogen Oxides (NOx)	Tons	139	148	-9
Safety	LPPF, LPPC, SCCP, TCEP	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	Number	0	0	0
	LPPF, LPPC, SCCP, TCEP	Number of Fatalities	Number	9	11	-2
	LPPF, LPPC, SCCP, TCEP	Fatalities per 100 Million VMT	Number	2.39	2.98	-0.59
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries	Number	218	324	-106
	LPPF, LPPC, SCCP, TCEP	Number of Serious Injuries per 100 Million VMT	Number	53.06	82.9	-29.84
Economic Development	LPPF, LPPC, SCCP, TCEP	Jobs Created (Direct and Indirect)	Number	38,700	0	38,700
Cost Effectiveness	LPPF, LPPC, SCCP, TCEP	Cost Benefit Ratio	Ratio	3.52	0	3.52

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-5924-2020-0007 v1

District	County	Route	EA	Project ID	PPNO
03	Sacramento				1812

Project Title

Capital Region Freight - Elkhorn

Existing Total Project Cost ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total
E&P (PA&ED)								
PS&E								
R/W SUP (CT)								
CON SUP (CT)								
R/W								
CON								
TOTAL								

Proposed Total Project Cost ($1,000s)								
E&P (PA&ED)	1,000							1,000
PS&E		1,000						1,000
R/W SUP (CT)								
CON SUP (CT)								
R/W								
CON			24,000					24,000
TOTAL	1,000	1,000	24,000					26,000

Implementing Agency
Sacramento County
Sacramento County
Sacramento County
Sacramento County
Sacramento County
Sacramento County

Notes

Fund #1:	Local Funds - Agency (Committed)							
Existing Funding ($1,000s)								
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total
E&P (PA&ED)								
PS&E								
R/W SUP (CT)								
CON SUP (CT)								
R/W								
CON								
TOTAL								

Program Code
Funding Agency
Sacramento County

Proposed Funding ($1,000s)								
E&P (PA&ED)	1,000							1,000
PS&E		1,000						1,000
R/W SUP (CT)								
CON SUP (CT)								
R/W								
CON			13,000					13,000
TOTAL	1,000	1,000	13,000					15,000

Notes

Local funding provided by the Sacramento County Department of Airports Enterprise Fund

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST (PPR)

PRG-0010 (REV 06/2020)

PPR ID
ePPR-5924-2020-0007 v1

Fund #2:	State SB1 TCEP - Trade Corridors Enhancement Account (Uncommitted)								Program Code
Existing Funding ($1,000s)									
Component	Prior	20-21	21-22	22-23	23-24	24-25	25-26+	Total	Funding Agency
E&P (PA&ED)									Sacramento Area Council of Governm
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									Notes
E&P (PA&ED)									Regional TCEP
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON			11,000					11,000	
TOTAL			11,000					11,000	

Appendix 2: Performance Metric Form

Note: This form summarizes the benefits of the entire project. Additional performance metric information for each component is available in Appendix 6.

Capital Region Freight Improvement Project Performance Metric Form

Measure	Metric	Project Type	Build	Future No Build	Change	Methodology	Data/Assumptions
Congestion Reduction	Daily vehicle hours of travel time reduction	Road, sea port, land port	17,858	20,048	(2,190)	Sum of Travel Time outputs from Cal-BC sketch models for each project component	Inputs for Cal-BC sketch models came from preliminary and final environmental analysis for each project component.
	Daily truck trips	Rail, sea port					
	Daily truck miles traveled	Rail, sea port					
	(Optional) other possible information for narrative discussion	All					
Throughput	Change in **annual** truck volume that can be accommodated due to improvement	Road, land port, airport	57,312,099	56,227,414	1,084,685	Sum of Truck Volume outputs from Cal-BC sketch models for each project component	Inputs for Cal-BC sketch models came from preliminary and final environmental analysis for each project component.
	Change in **annual** rail volume that can be accommodated due to improvement	Rail, sea port					
	Change in **annual** cargo volume that can be accommodated due to improvement	Sea port, airport					
	(Optional) other possible information for narrative discussion	All					
System Reliability	Truck travel time reliability index	National and State Highway System only (subcategory that falls under "Road" project type)	1.23	2.05	(0.82)	Average of Peak-Period vs. Non Peak truck travel-times ratio outputs from Cal-BC_sketch models	Inputs for Cal-BC sketch models came from preliminary and final environmental analysis traffic studies for each project component.
	Daily vehicle hours of travel time reduction	Road, sea port, land port	17,858	20,048	(2,190)	Aggregate Travel time reduction from output of Cal-BC_sketch models	Inputs for Cal-BC sketch models came from preliminary and final environmental analysis traffic studies for each project component.
	(Optional) other possible information for narrative discussion	All					
Velocity	Travel time or total cargo transport time (including dwell time in logistics facility- port, railyard etc.) if applicable for project	All	19.14	22.92	(3.78)	Aggregate average peak period truck travel time in minutes from output of Cal-BC_sketch models	Inputs for Cal-BC sketch models came from preliminary and final environmental analysis traffic studies for each project component.
	(Optional) Change in average peak period weekday speed for road facility	Road	50	35	15	Average PM peak truck speeds (mph) from output of Cal-BC_sketch models	Inputs for Cal-BC sketch models came from preliminary and final environmental analysis traffic studies for each project component.
	(Optional) Average peak period weekday speed for rail facility	Rail					
	(Optional) other possible information for narrative discussion	All					

Measure	Metric	Project Type	Build	Future No Build	Change	Methodology	Data/Assumptions
Air Quality	Particulate Matter (PM 2.5)	All	0.69	0.64	0.05	Aggregate emissions outputs from Cal-B/C_Sketch models	Inputs for Cal-BC sketch models came from preliminary and final environmental analysis traffic studies for each project component.
	Particulate Matter (PM 10)		0.82	0.81	0.01		
	Carbon Dioxide (CO2)		106206	110930	(4724)		
	Volatile Organic Compounds (VOC)		38.8	40.2	(1.40)		
	Sulphur Dioxides (SOx)		1.03	1.08	(0.05)		
	Carbon Monoxide (CO)		656	679	(23)		
	Nitrogen Oxides (NOx)		139	148	(9.00)		
Safety	Number of Fatalities (including actual reported injury and fatality collisions for the last 5 full years)	Road, land port	9	11	(2)	Aggregate from Cal-BC_sketch models	Inputs for Cal-BC sketch models came from actual accident records from: TSAS OTM22130 1/1/2015 to 12/31/2019
	Rate of Fatalities per 100 Million VMT		2.39	2.98	(0.59)		
	Number of Serious Injuries		218	324	(106)	Aggregate from Cal-BC_sketch models	The number of injuries is the sum of the injuries in each project area, due to an inconsistency with ramp meter injury rates and Cal-BC injury rate for the combined projects.
	Number of Serious Injuries per 100 Million VMT		53.06	82.90	(29.84)		
	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries		0	0	0	Aggregate from Cal-BC_sketch models	Cal-BC sketch model did not show non-motorized fatalities or serious injuries, actual counts for the last full five years are included below
	(Optional) Actual Reported Non-Motorized Fatalities and Serious Injuries for the last full 5 years	All	3	N/A	N/A	Actual accident records from: TSAS OTM22130 1/1/2015 - 12/31/2019	
Cost Effectiveness	Cost Benefit Ratio	All	3.52	N/A	N/A	Totaled costs and benefits from each project component's BCA to determine an aggregate BCA	Inputs for Cal-BC sketch models came from preliminary and final environmental analysis traffic studies for each project component.
	(Optional) other possible information for narrative discussion	All					
Economic Development	Jobs Created (Direct and Indirect)	All	38,700	N/A	N/A	Totaled direct job construction-related job counts based on total cost and indirect job counts from adjacent industrial job centers that depend on this project to develop	Direct jobs calculated based on estimate of the impacts of infrastructure investment on employment that was generated by Council of Economic Advisers (CEA) within the Executive Office of the President. Indirect job counts from adopted master plans for Metro Air Park and the Sunset Area.
	(Optional) other possible information for narrative discussion	All					

Appendix 3: SHSPIA Forms

SHSPIA Forms are included for the I-80 and I-5 project components. The Elkhorn Intermodal Link is not on a state highway facility.

STATE HIGHWAY SYSTEM PROJECT IMPACT ASSESSMENT

APPENDIX III

CTC-0002 (NEW 9/2019)

I. APPLICANT INFORMATION

1. NOMINATING AGENCY

Caltrans

2. NAME OF PERSON SUBMITTING THE NOMINATION	3. TITLE
Sukhvinder Takhar	Deputy District Director
4. PHONE	**5. EMAIL**
530-741-4564	Sukhvinder.Takhar@dot.ca.gov

II. PROJECT INFORMATION

6. PROJECT TITLE

Sac-5 Corridor Improvement Project - Phase 1 Freight

7. PERCENT OF PROJECT AREA WITHIN STATE R/W	8. TOTAL CONSTRUCTION COST WITHIN STATE R/W
100%	$37,700,000

9. ANTICIPATED ENVIRONMENTAL DOCUMENT FOR:

CEQA: CE NEPA: CE

10. CHECK ALL OF THE FOLLOWING THAT APPLY:

- ☑ PROJECT IS NOT IN AND WILL NOT DISCHARGE INTO AN ENVIRONMENTALLY SENSITIVE AREA AND IS NOT EXPECTED TO NEED AN EIR/EIS
- ☑ PROJECT DOES NOT REQUIRE FHWA COORDINATION OR APPROVAL
- ☑ PROJECT DOES NOT REQUIRE RIGHT OF WAY DEDICATION FROM CALTRANS
- ☑ PROJECT DOES NOT REQUIRE CALTRANS STRUCTURE DESIGN APPROVAL FOR MODIFICATION TO A CALTRANS BRIDGE OR STRUCTURE.
- ☑ PROJECT DOES NOT REQUIRE DESIGN EXCEPTIONS TO MANDATORY DESIGN STANDARDS *(REF. HIGHWAY DESIGN MANUAL, DESIGN INFORMATION BULLETIN 78)*
- ☑ PROJECT DOES NOT REQUIRE ENCHROACHMENT EXCEPTIONS APPROVAL *(REF. ENCHROACHMENT PERMIT MANUAL, CH. 300)*

11. DESCRIBE THE SCOPE OF WORK TO BE DONE WITHIN STATE HIGHWAY RIGHT-OF-WAY

On Interstate 5 (I-5) in Sacramento County from 0.1 mile south of Arena Blvd Interchange Interchange to 0.4 mile south of Yolo County line construct acceleration and deceleration merge lanes and Intelligent transportation system (ITS) infrastructure.

12. EXPECTED LEVEL OF CALTRANS INVOLVEMENT:

☐ **Cooperative Agreement Oversight Process:** *Cooperative Agreement oversight process reviews are generally used for projects with a construction cost within the State Right of Way greater than $1 Million.*

☐ **Encroachment Permits Oversight Process:** *Office of Encroachment Permits oversight process reviews are generally used for projects with a construction cost within the State Right of Way of $1 Million or less.*

III. CALTRANS PROJECT SUPPORT

SIGNATURE:  DATE: 7/6/2020

PRINT NAME: Nadarajah Suthahar

Deputy District Director Program Project Management

The above signature indicates, based on available information:

1. Caltrans supports the project;
2. The project is consistent with Caltrans's standards;
3. Durations and start and end dates to achieve the major milestones are reasonable;
4. The funding plan is reasonable.

IV. ATTACHMENTS

The Project Programming Request must be provided to Caltrans with this form. Additional information may be required by Caltrans, including, but, not limited to: (1) project level documents and (2) draft funding application(s).

STATE HIGHWAY SYSTEM PROJECT IMPACT ASSESSMENT

APPENDIX III

CTC-0002 (NEW 9/2019)

I. APPLICANT INFORMATION

1. NOMINATING AGENCY

Placer Co Transportation Planning Agency

2. NAME OF PERSON SUBMITTING THE NOMINATION	3. TITLE
Michael Luken	Executive Director
4. PHONE	**5. EMAIL**
530.823.4030	mluken@pctpa.net

II. PROJECT INFORMATION

6. PROJECT TITLE

Capital Region Freight Improvement Project - I-80 WB Gap Closure

7. PERCENT OF PROJECT AREA WITHIN STATE R/W	8. TOTAL CONSTRUCTION COST WITHIN STATE R/W
100%	$19,375,000

9. ANTICIPATED ENVIRONMENTAL DOCUMENT FOR:

CEQA: Mitigated Negative Declaration 10/14/16 NEPA: Categorical Exclusion 8/22/15

10. CHECK ALL OF THE FOLLOWING THAT APPLY:

- ☑ PROJECT IS NOT IN AND WILL NOT DISCHARGE INTO AN ENVIRONMENTALLY SENSITIVE AREA AND IS NOT EXPECTED TO NEED AN EIR/EIS
- ☑ PROJECT DOES NOT REQUIRE FHWA COORDINATION OR APPROVAL
- ☑ PROJECT DOES NOT REQUIRE RIGHT OF WAY DEDICATION FROM CALTRANS
- ☐ PROJECT DOES NOT REQUIRE CALTRANS STRUCTURE DESIGN APPROVAL FOR MODIFICATION TO A CALTRANS BRIDGE OR STRUCTURE.
- ☐ PROJECT DOES NOT REQUIRE DESIGN EXCEPTIONS TO MANDATORY DESIGN STANDARDS *(REF. HIGHWAY DESIGN MANUAL, DESIGN INFORMATION BULLETIN 78)*
- ☑ PROJECT DOES NOT REQUIRE ENCHROACHMENT EXCEPTIONS APPROVAL *(REF. ENCHROACHMENT PERMIT MANUAL, CH. 300)*

11. DESCRIBE THE SCOPE OF WORK TO BE DONE WITHIN STATE HIGHWAY RIGHT-OF-WAY

In Placer County, the project limits are westbound I-80 from Douglas Boulevard to Riverside Avenue. In the westbound direction, the project adds a 5th through lane on I-80 from east of Douglas Boulevard to west of Riverside Avenue in Roseville where four through lanes currently exist. This improvement also includes reducing the existing I-80 westbound two-lane off-ramp at Douglas Boulevard to one-lane, and modifying the Douglas Boulevard on-ramps, Riverside Avenue off-ramp and northbound on-ramp to accommodate the new lane.

12. EXPECTED LEVEL OF CALTRANS INVOLVEMENT:

☑ **Cooperative Agreement Oversight Process:** *Cooperative Agreement oversight process reviews are generally used for projects with a construction cost within the State Right of Way greater than $1 Million.*

☐ **Encroachment Permits Oversight Process:** *Office of Encroachment Permits oversight process reviews are generally used for projects with a construction cost within the State Right of Way of $1 Million or less.*

III. CALTRANS PROJECT SUPPORT

SIGNATURE:  DATE: 6/15/2020

PRINT NAME: Nadarajah Suthahar

Deputy District Director Program Project Management

The above signature indicates, based on available information:

1. Caltrans supports the project;
2. The project is consistent with Caltrans's standards;
3. Durations and start and end dates to achieve the major milestones are reasonable;
4. The funding plan is reasonable.

IV. ATTACHMENTS

The Project Programming Request must be provided to Caltrans with this form. Additional information may be required by Caltrans, including, but, not limited to: (1) project level documents and (2) draft funding application(s).

Appendix 4: ADA Compliant Fact Sheet

Note: An identical copy of this fact sheet was included in the body of the application for review. This version is ADA compliant and free of the applications formatting, for easier use by the CTC.

Capital Region Freight Improvement

TCEP Cycle 2 Project Fact Sheet

ABOUT THE PROJECT

Over 400 million tons of freight worth more than $1 trillion moves through the Northern California Megaregion. With trucking accounting for most of this freight movement, Interstate 5 and Interstate 80 are essential to California's economy. The Sacramento Region is the crossroads of these strategic interregional corridors and is a key link in interstate connections to Oakland and Stockton's ports. Growing congestion at two freight bottlenecks on I-5 and I-80 threatens the long-term viability of these interregional connections. By making three strategic improvements, the Capital Region Freight Improvement Project will improve travel time reliability, promote intermodal connections, and reduce congestion. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

Nominating Agencies

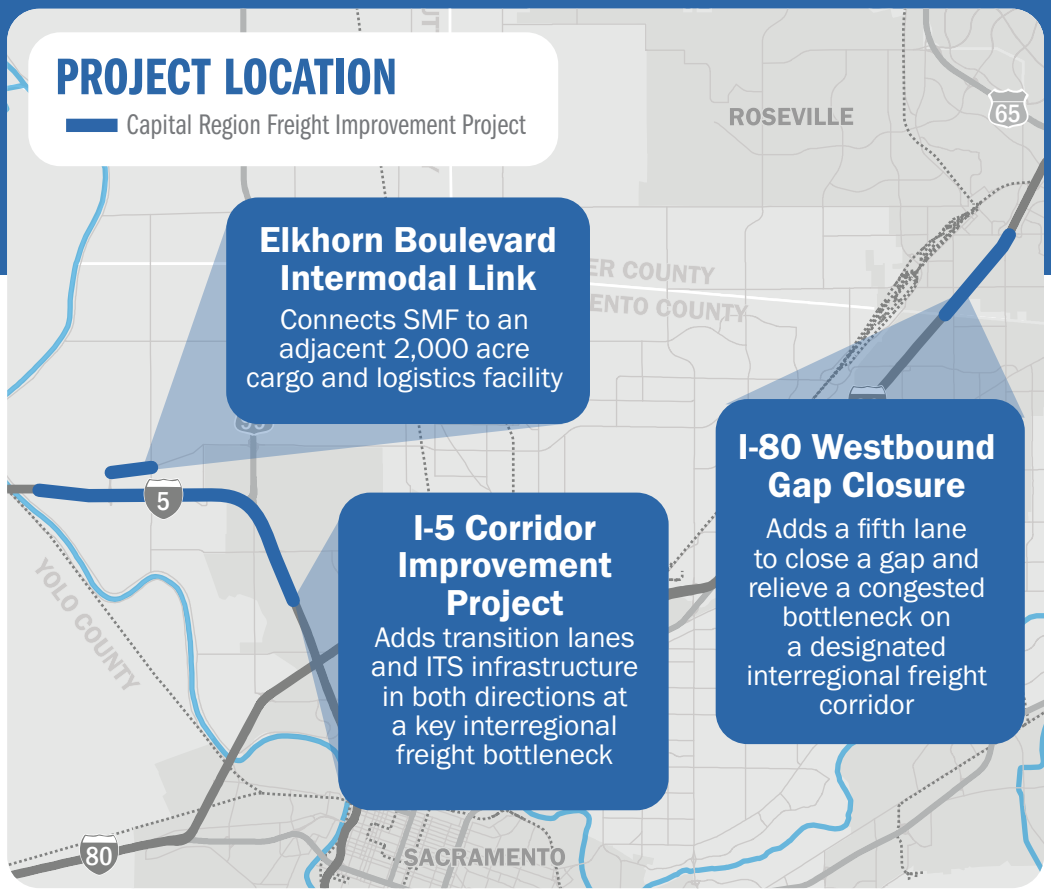
Caltrans District 3
Sacramento Area Council of Governments
Placer County Transportation Planning Agency

Funding

Total Cost: $86 million
TCEP Regional: $37.8 million
TCEP State: $25.2 million
Local Match: $23.0 million (36.5%)

Schedule

Environmental (PAED): Complete April 2021
Final Design (PS&E): Complete April 2022
Right of Way (ROW): Complete March 2022
Construction (CON): Complete December 2024



EXISTING CONDITIONS

THROUGHPUT

Interstate 5 and Interstate 80 are the Sacramento Region's busiest freight corridors and are home to two of FHWA's top US Highway Bottlenecks.

TIME RELIABILITY

Speeds on I-5 and I-80 drop below 30 mph, making it impossible for port-bound freight to predict travel through the Sacramento Region.

SAFETY

The bottlenecks on I-5 and I-80 contributed to 923 collisions, 483 of which involved injuries or fatalities in the past 5 years.

PROJECT BENEFITS

The project's improvements allow I-80 and I-5 to accommodate 1 million more trucks every year.

The project will cut the difference between peak and off-peak travel times by 40 percent.

The project's safety improvements will reduce the rate of fatalities per 100 million VMT by 20 percent.

Appendix 5: Letters of Support

STATE CAPITOL
ROOM 4070
SACRAMENTO, CA 95814
TEL (916) 651-4006
FAX (916) 651-4906

DISTRICT OFFICE
1020 N STREET
ROOM 576
SACRAMENTO, CA 95814
TEL (916) 651-1529
FAX (916) 914-2179

California State Senate

SENATOR
DR. RICHARD PAN
SIXTH SENATE DISTRICT

CHAIR
PUBLIC EMPLOYMENT & RETIREMENT

COMMITTEES:
AGRICULTURE
BUDGET & FISCAL REVIEW
EDUCATION
HEALTH

SUBCOMMITTEE:
BUDGET SUBCOMMITTEE 4

July 27, 2020

California Transportation Commission
1120 N Street
MS-52 P.O. Box 942873
Sacramento, CA 95814
Attn: Mitch Weiss, Executive Director

Subject: Trade Corridor Enhancement Program - Grant Request For Capitol Region Improvement Project

Dear Director Weiss,

As the State Senator representing Sacramento, West Sacramento, Elk Grove, and unincorporated areas of Sacramento County in the State Senate, I am writing to support the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, I ask you to give full consideration of the Capitol Region Improvement Project grant application to the California Transportation Commission and I look forward to construction of these key transportation improvements.

Sincerely,

Dr. Richard Pan
Senator, 6th District

STATE CAPITOL
P.O. BOX 942849
SACRAMENTO, CA 94249-0007
(916) 319-2007
FAX (916) 319-2107

WEBSITE
Assembly.ca.gov/McCarty

Assembly
California Legislature

KEVIN McCARTY
CHAIR: BUDGET SUBCOMMITTEE NO. 2 ON EDUCATION FINANCE
ASSEMBLYMEMBER, SEVENTH DISTRICT

DISTRICT OFFICE
915 L STREET, SUITE 110
SACRAMENTO, CA 95814
(916) 324-4676
FAX (916) 327-3338

SOCIAL MEDIA
@AsmKevinMcCarty

June 18, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52
Sacramento, CA 95814

RE: Trade Corridor Enhancement Program - Grant Request for Capitol Region Improvement Project

Dear Director Weiss:

As the Assemblymember representing California's Seventh Assembly District, I am writing in support of the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

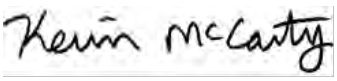
The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections. These two sections of highway are two of the Federal Highway Authority's (FHWA) most congested bottlenecks in the nation.

The Capital Region Freight Improvement Project proposes to add merge lanes and install ITS infrastructure on I-5 near the airport, add a fifth lane on westbound I-80 in Roseville, and extend Elkhorn Boulevard to the airport. The project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through the Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region. The project improves travel efficiency, reduces the rate of travel fatalities by 32%, and supports the economic growth of California

For these reasons, I respectfully ask you to give full consideration of the Capitol Region Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements. Thank you for your consideration.

Sincerely,



Kevin McCarty
Assemblymember, 7th District

STATE CAPITOL
P.O. BOX 942849
SACRAMENTO, CA 94249-0006
(916) 319-2006
FAX (916) 319-2106

Assembly
California Legislature

KEVIN KILEY
ASSEMBLYMEMBER, SIXTH DISTRICT

June 19, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52
Sacramento, CA 95814

RE: Trade Corridor Enhancement Program - Grant Request For Capitol Region Improvement Project

Dear Director Weiss:

I am writing to inform you of my support for the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

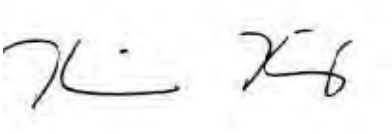
The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, I ask you to give full consideration of the Capitol Region Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements.

Sincerely,



KEVIN KILEY
Assemblyman, 6th District

June 25, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52
Sacramento, CA 95814

Subject: Trade Corridor Enhancement Program - Capitol Region Improvement Project

Dear Director Weiss:

On behalf of Tesla, I am writing to express our strong support for the Capitol Region Improvement Project (Project) grant application and respectfully request that the California Transportation Commission include the Project in the SB1 Trade Corridor Enhancement Program.

The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to the northern California ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections, and the economic and public health of the state and its citizens, especially for disadvantaged communities. As congestion increases, so too do fuel consumption and vehicle emissions.

I-80 and I-5 are critical corridors connecting our Fremont, Lathrop and Giga factories, the latter supplying battery packs and drivetrains for vehicle assembly in Fremont. As the state's only auto manufacturer, we have successfully scaled production of battery-electric vehicles (BEVs). Last quarter, the Model 3 was the state's top selling passenger car in all categories and BEVs were the state's number one export by value last year.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and other measures the Project will reduce congestion and improve freight throughput and the efficiency of our vehicle and energy logistics operations. As a result, the Project will enhance our ability to scale production cost-effectively and more broadly, given the statewide importance of these corridors, improve the state's ability to retain and attract manufacturers to the state.

For these reasons, we ask you to give full consideration of the Project's grant application and look forward to construction of these key transportation improvements.

Please contact me at dchia@tesla.com or 510-299-0210 for any questions.

Sincerely,

Dan Chia
Senior Manager
Public Policy & Business Development

Tesla, Inc.
3500 Deer Creek Road, Palo Alto, CA 94304
p +650 681 5100 f +650 681 5101

June 15, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52
Sacramento, CA 95814

Subject: Trade Corridor Enhancement Program - Grant Request for Capitol Region Improvement Project

Dear Director Weiss:

On behalf of the California Trucking Association, I am writing to confirm our support for the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, we ask you to give full consideration of the Capitol Region Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements.

Sincerely,

Eric Sauer
Senior Vice President
California Trucking Association
esauer@caltrux.org

LDK
Ventures

June 24, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52
Sacramento, CA 95814

Subject: Trade Corridor Enhancement Program - Grant Request For Capitol Region Improvement Project

Dear Director Weiss:

On behalf of **LDK Ventures**, I am writing to confirm our support for the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, we ask you to give full consideration of the Capitol Region Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements.

Sincerely,

Alan Hersh
Prinicpal

3140 Peacekeeper Way
McClellan, CA 95652

Phone: 916-965-7100
Fax: 916-568-2764

METRO AIR PARK, LLC

1450 Harbor Blvd – Suite B, West Sacramento CA 95691

(916) 372-6170

June 24, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52
Sacramento, CA 95814

Subject: Trade Corridor Enhancement Program - Grant Request For Capitol Region Improvement Project

Dear Director Weiss:

On behalf of Metro Air Park (MAP), I am writing to confirm our support for the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, we ask you to give full consideration of the Capitol Region Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements.

Sincerely,

Tom Ramos
President

NORTH STATE
BUILDING INDUSTRY
ASSOCIATION

July 24, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52
Sacramento, CA 95814

Subject: Trade Corridor Enhancement Program - Grant Request For Capitol Region Improvement Project

Dear Director Weiss:

On behalf of the North State Building Industry Association, I am writing to confirm our support for the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

The Sacramento Region is at two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, we ask you to give full consideration of the Capitol Region Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements.

Sincerely,

Chris Norem
Director of Governmental Affairs
North State Building Industry Association

1536 Eureka Road o: 916 677 5717
Roseville, CA 95661 **northstatebia.org**

Department of Airports
Cynthia A. Nichol

Director of Airports

County Executive
Navdeep S. Gill

County of Sacramento

7/2/20

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52
Sacramento, CA 95814

Subject: Trade Corridor Enhancement Program - Grant Request for Capitol Region Improvement Project

Dear Director Weiss:

On behalf of the Sacramento County Department of Airports, I am writing to confirm our support for the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, we ask you to give full consideration of the Capitol Region Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements.

Sincerely,

Cynthia A. Nichol
Director of Airports

Placer County
AIR POLLUTION CONTROL DISTRICT

110 Maple Street, Auburn, CA 95603 • (530) 745-2330 • Fax (530) 745-2373 • www.placerair.org

Erik C. White, Air Pollution Control Officer

June 29, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52
Sacramento, CA 95814

Subject: Trade Corridor Enhancement Program - Grant Request For Capitol Region Improvement Project

Dear Director Weiss:

On behalf of Placer County Air Pollution Control District, I am writing to confirm our support for the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, we ask you to give full consideration of the Capitol Region Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements.

Sincerely,

Erik C. White
Air Pollution Control Officer

Regional Transit

Sacramento Regional Transit District
A Public Transit Agency
and Equal Opportunity Employer

Administrative Offices
1400 29th Street
Sacramento, CA 95816
916-321-2800

Mailing Address
P.O. Box 2110
Sacramento, CA 95812-2110

Human Resources
2810 O Street
Sacramento, CA 95816
916-556-0299

Customer Service &
Sales Center
1225 R Street
Sacramento, CA 95811

Route, Schedule & Fare
Information
916-321-BUSS (2877)
TDD 916-483-HEAR (4327)
sacrt.com

Public Transit Since 1973

July 23, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS 52
Sacramento, CA 95814

RE: Trade Corridor Enhancement Program - Grant Request
For Capitol Region Improvement Project

Dear Mr. Weiss:

On behalf of Sacramento Regional Transit District, I am writing to confirm our support for the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, we ask you to give full consideration of the Capitol Region Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements.

Sincerely,

Henry Li
General Manager/CEO
Sacramento Regional Transit District

Yolobus
Yolo County Transportation District

City of Davis – City of West Sacramento – City of Winters
City of Woodland – County of Yolo
EX Officio – Caltrans District 3 – University of California, Davis

Yolo County Transportation District
350 Industrial Way
Woodland, CA 95776
530.661.0816 FAX: 530.661.1732
www.yolobus.com

July 23, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52 Sacramento, CA 95814

Re: Trade Corridor Enhancement Program - Grant Request For Capitol Region Improvement Project

Dear Director Weiss:

On behalf of the Yolo County Transportation District, I am writing to confirm our support for the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities directly improving mobility by the District's fixed-route transit network on I-5, I-80 and through Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project improves our customer's experience and commute by reducing congestion, promoting intermodal connections, and improving travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, we fully support, and ask you to give full consideration of, the Capitol Region Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements.

Sincerely,

Terry V. Bassett
Executive Director
Yolo County Transportation District
tbassett@yctd.org
530-402-2819

CAPITOL CORRIDOR
JOINT POWERS AUTHORITY
300 LAKESIDE DRIVE
14TH FLOOR EAST
OAKLAND, CA 94612
(V) 510.464.6995
(F) 510.464.6901
www.capitolcorridor.org

MEMO

DATE: July 16, 2020

TO: CCJPA Staff

FROM: Robert Padgette, Managing Director

SUBJECT: Delegation of Authority

I will be away from District offices from July 16 – August 2, 2020, returning August 3, 2020.

Leo Sanchez will act on my behalf during this time. Leo can be reached at (415) 385-2911.

Thank you.

CAPITOL CORRIDOR JOINT POWERS AUTHORITY
300 LAKESIDE DRIVE
14TH FLOOR EAST
OAKLAND, CA 94612
(V) 510.464.6995
(F) 510.464.6901
www.capitolcorridor.org

July 24, 2020

Mr. Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52
Sacramento, California 95814

Subject: Trade Corridor Enhancement Program - Grant Request for Capitol Region Improvement Project

Dear Director Weiss:

On behalf of the Capitol Corridor Joint Powers Authority (CCJPA), I am writing to confirm our support for the Capitol Region Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through Sacramento International Airport. While these improvements do not directly impact Capitol Corridor service, they will improve the reliability of the Amtrak Thruway Motorcoaches and northern serving local/regional transit that connect with the Sacramento Valley Station (SVS).

This project will enable new transit and active transportation connections to both Sacramento International Airport and Sacramento Metro Air Park, an emerging employment center – also connected by transit to SVS.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, we ask you to give full consideration of the Capitol Region Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements.

Sincerely,

Leo Sarly on behalf of

Rob Padgette
CCJPA Managing Director

San Joaquin
Joint Powers Authority

June 16, 2020

Mitch Weiss
Executive Director
California Transportation Commission
1120 N Street, MS52
Sacramento, CA 95814

Subject: Trade Corridor Enhancement Program - Grant Request For Capitol Region Freight Improvement Project

Dear Director Weiss:

On behalf of San Joaquin Joint Powers Authority, I am writing to confirm our support for the Capitol Region Freight Improvement Project grant application for inclusion in the California Transportation Commission's SB1 Trade Corridor Enhancement Program.

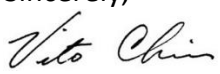
The Sacramento Region is the crossroads of two strategic interregional corridors, I-5 and I-80, and is a key link in interstate connections to Oakland and Stockton's ports. Over 400 million tons of freight worth over $1 trillion moves annually to, from, and within the Northern California Megaregion. Growing congestion at two freight bottlenecks on these corridors threatens the long-term viability of these interregional connections.

By adding merge lanes and installing ITS infrastructure on I-5 near the airport, adding a fifth lane on westbound I-80 in Roseville, and extending Elkhorn Boulevard to the airport, the Capital Region Freight Improvement Project reduces roadway congestion around rail and air freight facilities and improves freight throughput on I-5, I-80 and through Sacramento International Airport.

By making three strategic improvements, the Capital Region Freight Improvement Project will reduce congestion, promote intermodal connections, and improve travel time reliability. Developed as a regional partnership, this project is an unprecedented opportunity for the State to improve the freight system of an entire region.

For these reasons, we ask you to give full consideration of the Capitol Region Freight Improvement Project grant application to the California Transportation Commission and look forward to construction of these key transportation improvements.

Sincerely,



Vito Chiesa
SJJPA Chair

Appendix 6: Supplement Performance Metrics

Note: These tables provide backup documentation for Appendix 2, including Cal BCA tables and individual performance metric information for each project component.

Final Summary Table Place I80, Elkhorn-SMF Link, and I5

ITEMIZED BENEFITS (mil. $)	Total Over 20 Years All Projects
Travel Time Savings	$136.026299
Veh. Op. Cost Savings	-$39.963032
Accident Cost Savings	$207.788469
Emission Cost Savings	-$1.397305
Transit Travel Time Savings	$0.188081
Bicycle Commute Benefits	$0.121359
Emergency Vehicle Travel Time Savings @SMF	$0.030000
Increased Capacity Evacuation Savings @SMF	$0.170562
TOTAL BENEFITS	$302.964433
TOTAL COSTS	$86.000000
BENEFIT/COST RATIO	3.52

Placer County I-80

ITEMIZED BENEFITS (mil. $)	Total Over 20 Years
Travel Time Savings	$67.711566
Veh. Op. Cost Savings	-$20.762079
Accident Cost Savings	-$10.749628
Emission Cost Savings	-$0.995852
TOTAL BENEFITS	$35.204006

Final Summary Table Elkhorn-SMF Link

ITEMIZED BENEFITS (mil. $)	Total Over 20 Years Elkhorn-SMF Link Project
Travel Time Savings	$18.883709
Veh. Op. Cost Savings	-$4.706546
Accident Cost Savings	$0.959932
Emission Cost Savings	$0.214851
Transit Travel Time Savings	$0.188081
Bicycle Commute Benefits	$0.121359
Emergency Vehicle Travel Time Savings	$0.030000
Increased Capacity Evacuation Savings	$0.170562
TOTAL BENEFITS	$15.861948

From: "Elkhorn Link Summary"

Total I5 Benefits Auxillary Lanes, Meters and Ramps

ITEMIZED BENEFITS (mil. $)	Total Over 20 Years
Travel Time Savings	$49.431025
Veh. Op. Cost Savings	-$14.494407
Accident Cost Savings	$217.578165
Emission Cost Savings	-$0.616303
TOTAL BENEFITS	$251.898479

From: "I5 Summary"

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Congestion Reduction	Daily vehicle hours of travel time reduction	Road, sea port, land port	11,659	11,726	(67)	Build: Travel time for projected 2040 traffic on Elkhorn Extension, during entire day, plus 2040 travel time on SR-99 to Airport Blvd. via I-5; Future No-Build: projected 2040 volume without extension, with travel time on SR-99 route from Elkhorn interchange via I-5 to Airport Blvd.; I-5 TT savings is I-5 NB off-ramp to Airport Blvd. Data from BCA's	
	Daily truck trips	Rail, sea port					
	Daily truck miles traveled	Rail, sea port					
	(Optional) other possible information for narrative discussion	All					
Throughput	Change in **annual** truck volume that can be accommodated due to improvement	Road, land port, airport	369,496	119,048	250,448	Change in truck volume on Elkhorn Boulevard only, truck trips on I-5 and SR-99 are reduced and shifted to Elkhorn Blvd.	
	Change in **annual** rail volume that can be accommodated due to improvement	Rail, sea port					
	Change in **annual** cargo volume that can be accommodated due to improvement	Sea port, airport					
	(Optional) other possible information for narrative discussion	All				Report "top bottleneck" listing for District 3 corridors	Caltrans PeMS

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
System Reliability	Truck travel time reliability index	National and State Highway System only (subcategory that falls under "Road" project type)	1.82	2.26	0.44	Ratio of free flow to PM peak period travel time on SR-99 to Airport Blvd. via I-5 NB; SMF_BC_Analysis_5.14.2020	
	Daily vehicle hours of travel time reduction	Road, sea port, land port	see above in Congestion Reduction				
	(Optional) other possible information for narrative discussion	All					
Velocity	Travel time or total cargo transport time (including dwell time in logistics facility- port, railyard etc.) if applicable for project		7.61	9.40	(1.79)	Build: Elkhorn Blvd Extension -- SR 99 Interchange to SMF - PM Peak - WB (travel time in minutes); Future No-Build: SR-99 Elkhorn Blvd Interchange to SMF via I-5 - PM Peak; SMF_BC_Analysis_5.14.2020	
	(Optional) Change in average peak period weekday speed for road facility	Road	36.4	31.7	4.7	Average of PM peak-period speeds (mph) SR-99 to Airport Blvd. via I-5 NB. SMF_BC_Analysis_5.14.2020	
	(Optional) Average peak period weekday speed for rail facility	Rail					
	(Optional) other possible information for narrative discussion	All					

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Air Quality	Particulate Matter (PM 2.5)	All	0.20	0.19	0.01	Aggregate emissions outputs from Cal-B/C Sketch Model version 7.2 for three segments	
	Particulate Matter (PM 10)		0.21	0.23	(0.02)		
	Carbon Dioxide (CO_2)		46,236	49,199	(2963)		
	Volatile Organic Compounds (VOC)		3.97	4.84	(0.87)		
	Sulphur Dioxides (SO_x)		0.45	0.48	(0.03)		
	Carbon Monoxide (CO)		70.10	86.12	(16.02)		
	Nitrogen Oxides (NO_x)		38.54	40.30	(1.76)		
Safety	Number of Fatalities (including actual reported injury and fatality collisions for the last 5 full years)	Total Accidents: 341 Injury Accidents: 15 Fatalities: 3	3	4	(1.00)	Three segments: Elkhorn Blvd., SR-99 and I-5	TSAS OTM22130 1/1/2014 to 12/31/2018
	Rate of Fatalities per 100 Million VMT		1.37	1.72	(0.35)		Annual rate
	Number of Serious Injuries	Road, land port	12	18	6		
	Number of Serious Injuries per 100 Million VMT		5	8	(3.00)		Annual rate
	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries		N/A	N/A			
	(Optional) other possible information for narrative discussion	All					

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Cost Effectiveness	Cost Benefit Ratio	All	1.02	N/A	N/A	Resultant output from Cal-B/C Sketch Model version 7.2	
	(Optional) other possible information for narrative discussion	All					
Economic Development	Jobs Created (Direct and Indirect)	All					
	(Optional) other possible information for narrative discussion	All					

Attachment 4. Appendix 3: Performance Metrics Form

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Congestion Reduction	Daily vehicle hours of travel time reduction	Road, sea port, land port	241	416	(175)	Calculated from output of Cal-BC-72-sketch models	
	Daily truck trips	Rail, sea port					
	Daily truck miles traveled	Rail, sea port					
	(Optional) other possible information for narrative discussion	All					
Throughput	Change in **annual** truck volume that can be accommodated due to improvement	Road, land port, airport	22,792,286	22,328,554	463,732	Aggregate change in truck volume on I-5 auxiliary lanes from output of Cal-BC-72 Sketch models	
	Change in **annual** rail volume that can be accommodated due to improvement	Rail, sea port					
	Change in **annual** cargo volume that can be accommodated due to improvement	Sea port, airport					
	(Optional) other possible information for narrative discussion	All					Caltrans PeMS

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
System Reliability	Truck travel time reliability index	National and State Highway System only (subcategory that falls under "Road" project type)	1.00	2.30	(1.30)	Ratio of average free flow to average peak period travel time on auxiliary lanes from output of Cal BC_Sketch models	
	Daily vehicle hours of travel time reduction	Road, sea port, land port	see above in Congestion Reduction				
	(Optional) other possible information for narrative discussion	All					
Velocity	Travel time or total cargo transport time (including dwell time in logistics facility- port, railyard etc.) if applicable for project	Road	1.00	2.30	(1.30)	Aggregate average peak period truck travel time in minutes from output of Cal-BC_sketch models	
	(Optional) Change in average peak period weekday speed for road facility		56.8	30.9	25.9	Peak-period truck speeds (mph) average output from Cal-BC_Sketch model	
	(Optional) Average peak period weekday speed for rail facility	Rail					
	(Optional) other possible information for narrative discussion	All					

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Air Quality	Particulate Matter (PM 2.5)	All	0.163	0.137	0.026	Aggregated emissions outputs from Cal-BC_Sketch models	
	Particulate Matter (PM 10)		0.21	0.19	0.02		
	Carbon Dioxide (CO_2)		17,045	18,561	(1516)		
	Volatile Organic Compounds (VOC)		12.91	13.06	(0.15)		
	Sulphur Dioxides (SO_x)		0.17	0.18	(0.01)		
	Carbon Monoxide (CO)		213	215	(2)		
	Nitrogen Oxides (NO_x)		41.08	45.62	(4.54)		
Safety	Number of Fatalities (including actual reported injury and fatality collisions for the last 5 full years)	Total Accidents: 175 Injury Accidents: 67 Fatalities: 4	2	2	0		TSAS OTM22130 1/1/2014 to 12/31/2018
	Rate of Fatalities per 100 Million VMT		4.2	5.2	(1.00)		Annual rate
	Number of Serious Injuries	Road, land port	51	79	(28)		
	Number of Serious Injuries per 100 Million VMT		76.7	119.9	(43.20)		Annual rate
	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries		N/A	N/A			
	(Optional) other possible information for narrative discussion	All					

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Cost Effectiveness	Cost Benefit Ratio	All	4.94	N/A	N/A	Resultant output from Cal-BC_Sketch models is the same calculation of benefit/cost for the ramp meters, no breakdown of costs is given for the ramp meters and auxiliary lanes--$46 million total.	
	(Optional) other possible information for narrative discussion	All					
Economic Development	Jobs Created (Direct and Indirect)	All					
	(Optional) other possible information for narrative discussion	All					

Attachment 4. Appendix 3: Performance Metrics Form

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Congestion Reduction	Daily vehicle hours of travel time reduction	Road, sea port, land port	1,417	1,203	214	Calculated from output of Cal-BC-72-sketch models	
	Daily truck trips	Rail, sea port					
	Daily truck miles traveled	Rail, sea port					
	(Optional) other possible information for narrative discussion	All					
Throughput	Change in **annual** truck volume that can be accommodated due to improvement	Road, land port, airport	31,196,115	30,989,314	206,801	Aggregate change in truck volume on I-5 auxiliary lanes from output of Cal-BC-72 Sketch models	
	Change in **annual** rail volume that can be accommodated due to improvement	Rail, sea port					
	Change in **annual** cargo volume that can be accommodated due to improvement	Sea port, airport					
	(Optional) other possible information for narrative discussion	All					Caltrans PeMS

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
System Reliability	Truck travel time reliability index	National and State Highway System only (subcategory that falls under "Road" project type)	1.07	1.15	(0.08)	Ratio of average free flow to average peak period travel time on auxiliary lanes from output of Cal BC_Sketch models	
	Daily vehicle hours of travel time reduction	Road, sea port, land port	see above in Congestion Reduction				
	(Optional) other possible information for narrative discussion	All					
Velocity	Travel time or total cargo transport time (including dwell time in logistics facility- port, railyard etc.) if applicable for project	Road	2.80	2.34	0.46	Aggregate average peak period truck travel time in minutes from output of Cal-BC_sketch models	
	(Optional) Change in average peak period weekday speed for road facility		55	55	0	Peak-period truck speeds (mph) average output from Cal-BC_Sketch model	
	(Optional) Average peak period weekday speed for rail facility	Rail					
	(Optional) other possible information for narrative discussion	All					

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Air Quality	Particulate Matter (PM 2.5)	All	0.18	0.17	0.01	Aggregated emissions outputs from Cal-BC_Sketch models	
	Particulate Matter (PM 10)		0.24	0.23	0.01		
	Carbon Dioxide (CO_2)		20,119	19,470	649		
	Volatile Organic Compounds (VOC)		16.46	16.71	(0.25)		
	Sulphur Dioxides (SO_x)		0.20	0.19	0.010		
	Carbon Monoxide (CO)		271	275	(4)		
	Nitrogen Oxides (NO_x)		46.03	46.49	(0.46)		
Safety	Number of Fatalities (including actual reported injury and fatality collisions for the last 5 full years)	Total Accidents: 241 Injury Accidents: 95 Fatal Accidents: 3	3	3	0		TSAS OTM22130 1/1/2014 to 12/31/2018
	Rate of Fatalities per 100 Million VMT		4.11	5.13	(1.02)		Annual rate
	Number of Serious Injuries	Road, land port	95	132	(37)		
	Number of Serious Injuries per 100 Million VMT		143.9	224.9	(81.0)		Annual rate
	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries		N/A	N/A			
	(Optional) other possible information for narrative discussion	All					

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Cost Effectiveness	Cost Benefit Ratio	All	10.77	N/A	N/A	Resultant output from Cal-BC_Sketch models the same calculation of benefit/cost for the auxiliary lanes, no breakdown of costs given for the ramp meters and auxiliary lanes--$46 million total.	
	(Optional) other possible information for narrative discussion	All					
Economic Development	Jobs Created (Direct and Indirect)	All					
	(Optional) other possible information for narrative discussion	All					

39. **Attachment 4. Appendix 3: Performance Metrics Form**

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Congestion Reduction	Daily vehicle hours of travel time reduction	Road, sea port, land port	4,542	6,704	2,162	Calculated from output of Cal-BC-72-sketch model	
	Daily truck trips	Rail, sea port					
	Daily truck miles traveled	Rail, sea port					
	(Optional) other possible information for narrative discussion	All					
Throughput	Change in **annual** truck volume that can be accommodated due to improvement	Road, land port, airport	2,954,201	2,790,498	163,703	Change in truck volume on I-80 segment from output of Cal- C-72 Sketch model	
	Change in **annual** rail volume that can be accommodated due to improvement	Rail, sea port					
	Change in **annual** cargo volume that can be accommodated due to improvement	Sea port, airport					
	(Optional) other possible information for narrative discussion	All					Caltrans PeMS

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
System Reliability	Truck travel time reliability index	National and State Highway System only (subcategory that falls under "Road" project type)	1.03	2.49	1.46	Ratio of free flow to peak period travel time on I-80, output from Cal BC_Sketch	
	Daily vehicle hours of travel time reduction	Road, sea port, land port	see above in Congestion Reduction				
	(Optional) other possible information for narrative discussion	All					
Velocity	Travel time or total cargo transport time (including dwell time in logistics facility- port, railyard etc.) if applicable for project	Road	2.13	5.16	(3.03)	Peak period truck travel time output from Cal-BC_Sketch in minutes	
	(Optional) Change in average peak period weekday speed for road facility		53.5	22.1	31.4	Peak-period speeds (mph) output from Cal-BC_Sketch model	
	(Optional) Average peak period weekday speed for rail facility	Rail					
	(Optional) other possible information for narrative discussion	All					

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Air Quality	Particulate Matter (PM 2.5)	All	0.144	0.138	0.006	Emissions outputs from Cal-BC_Sketch model	
	Particulate Matter (PM 10)		0.16	0.15	0.01		
	Carbon Dioxide (CO_2)		22,806	23,699	(893)		
	Volatile Organic Compounds (VOC)		5.45	5.54	(0.09)		
	Sulphur Dioxides (SO_x)		0.225	0.233	(0.01)		
	Carbon Monoxide (CO)		102	103	(1)		
	Nitrogen Oxides (NO_x)		13.60	15.88	(2.28)		
Safety	Number of Fatalities (including actual reported injury and fatality collisions for the last 5 full years)	Total Accidents: 274 Injury Accidents: 81 Fatalities: 1	2	3	(1.00)		TSAS OTM22130 1/1/2014 to 12/31/2018
	Rate of Fatalities per 100 Million VMT	Road, land port	2.9	3.6	(0.70)		Annual rate
	Number of Serious Injuries		60	95	(35)		
	Number of Serious Injuries per 100 Million VMT		76.7	119.9	(43.20)		Annual rate
	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries		N/A	N/A			
	(Optional) other possible information for narrative discussion	All					

Measure	Metric	Project Type (All Freight)	Build	Future No Build	Change	Methodology	Data/ Assumptions
Cost Effectiveness	Cost Benefit Ratio	All	1.7	N/A	N/A	Resultant output from Cal-BC_Sketch model version 7.2	
	(Optional) other possible information for narrative discussion	All					
Economic Development	Jobs Created (Direct and Indirect)	All					
	(Optional) other possible information for narrative discussion	All					

Appendix 7: Supplemental I-5 Report

This report expands upon information in the application, specific to I-5.

Freight System Factors

Throughput, Velocity and Reliability

Heavy vehicles that travel on I-5 and I-80 at the project locations experience heavy congestion and significant delays. The bottlenecks in these areas affect the ability for both heavy vehicles, that are essential to goods movement, and light vehicles, commuting, to get to their destinations quickly and on-time. The bottlenecks in the area have intensified due to recent growth in airport use and land uses along I-5 and rapid growth in the City of Roseville and the City of Lincoln at the I-80 location.

The bottlenecks that this project resolves lead to unreliable travel time, slow speeds and low vehicle throughput. An example is along Southbound I-5 at Airport Blvd., where queues can extend for miles into Yolo County and even to the City of Woodland during extreme congestion. In his example, a six-minute travel time at the location becomes 20 minutes during the heavy congestion that occurs at the location. The addition of acceleration/deceleration and transition lanes, with ITS elements at the project locations will alleviate congestion, increase safety, support the regional economy and preserve or improve air quality in the region.

Figure 2 shows typical congestion for a weekday evening. Typical speeds at the bottleneck itself are below 35 mph with over 2,300 vehicles traveling just west of the Airport Blvd. loop on ramp during the PM peak hour. Theoretically this location should be able to handle a throughput of 3,600 meaning that the lack of a ramp meter and a transition lane cause the throughput to drop by 1,300 vehicles during the peak hour. Travel times for the whole southbound segment are roughly 6 minutes, due to congestion this time can climb north of 20 minutes during heavy congestion. INRIX was used to determine peak travel time index climbing over 3.0, causing delayed movement of goods and hampering passenger's ability to get to the airport.

Figure 2: SB I-5 congestion on a Typical Weekday Morning via INRIX

The two main causes of the bottleneck are the lack of ramp meters and lack of transition lanes. The southbound Airport Blvd. to southbound I-5 loop on ramp sees over 1,100 vehicles per hour during peak airport travel times. Merging 1,100 vehicles total during the peak hour with 14% truck volume (21% average daily) causes the freeway to completely break down at this location. There is a short acceleration lane, but it is not adequate to help the freeway maintain an acceptable level of service. Extending the transition lane to the Metro Air Parkway would give additional room for vehicles to weave from the general-purpose lanes to the transition lane or vice versa as well as it will reduce the need for heavy vehicles to slow down to allow the merge. This process is made even smoother by adding ramp meters that manage the traffic released so that the flow can remain constant. By adding ramp meters and transition lanes along southbound I-5 travel time reliability will be much better, speeds will climb, throughput will increase, goods will move faster and with better predictability, and the traveling public will have a safer facility. Furthermore, the addition of the Metro Air Park to northbound SR 99 connector transition lane will separate trucks heading north on SR 99 from entering the mainline and well eliminate any congestion associated with merging on to the northbound SR 99 connector.

There are several different reasons that bottlenecks on northbound I-5 exist, including: unmetered on ramps, lack of transition and auxiliary lanes to help facilitate easier and safer merging and weaving, and freeway to freeway connectors that increase merging and weaving. With the addition of ramp meters and transition lanes, bottlenecks on northbound I-5 would see major congestion relief or disappear entirely. Figure 3 illustrates where northbound I-5 trucks and vehicles experience heavy congestion on a typical weekday morning. Speeds at this bottleneck are roughly 30 mph with only 3,700 vehicles passing north of Del Paso Blvd. during the AM peak hour. The whole northbound segment takes about 5 minutes to drive in free flow conditions, but drivers could need to plan for as much as a 15-minute drive during extreme congestion. Third-party data software INRIX was used to determine peak travel time index of greater than 2.0, indicating movement of goods and people is unreliable.

Figure 3: NB I-5 congestion on a Typical Weekday Morning via INRIX

The first cause of congestion at the bottleneck comes from unmetered HOV preferential lanes at the Arena Blvd. slip and loop on ramps and unmetered slip and loop on ramps at Del Paso Road.

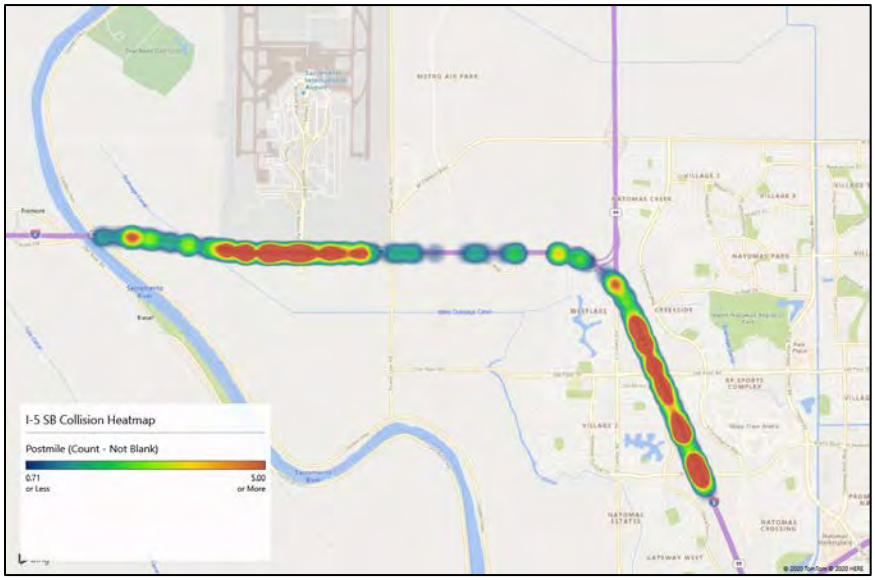
The unmetered on ramps allow platoons of vehicles to have uninterrupted flow to the mainline, causing heavy vehicles to slow down to allow vehicles to merge. The second cause for congestion is the merge from southbound 99 to northbound I-5, which should be reduced when the transition lane is built from SR 99 to the Metro Air Parkway Interchange. Adding both the ramp meters and transition lane will increase hourly throughput, increase speeds, create safer merging, cut down on weaving conflicts, and improve travel time reliability. Improving this bottleneck location which is only a few miles upstream of major warehouses and a major airport will directly influence the ability to move goods faster and more reliably

Transportation System Factors

Safety

Safety is of the utmost importance when planning, designing, and maintaining any project on the state highway system (SHS). Collision history was pulled on southbound I-5 for the most recent five years (2015-2019) of data. Over those five years, there were 357 total collisions, 126 of which were fatal or injury collisions. Figure 4 maps out the collisions and shows the intensity of collisions for southbound I-5. Many of the collisions are centered around interchanges, especially the Airport Blvd. Interchange. This southbound loop on ramp is unmetered and because of it there is a high concentration of collisions around the merge point from the on ramp. Additionally, the lack of a ramp meter and a transition lane leading to collisions causes there to be more non-recurring congestion which only further intensifies delays to motorists. The addition of ramp meters and transition lanes would help create safer merging, leading to less collisions, less non-recurring congestion, and more reliable travel times. Concentration of accidents at Arena Blvd., where the proposed transition lane will help.

Figure 4: Collision Map for Southbound I-5 (2015-2019)



Collision history was also pulled for northbound I-5 from 2015 to 2019. The intensity of collisions and their locations have been mapped in Figure 5. Over those five years, there were 291 total collisions, 117 of which were fatal or injury collisions. The collisions are centered around interchanges once again, indicating that merging from the on ramps is a factor in some collisions. There will be six different ramps in this segment of northbound I-5 that will include ramp meters which will help break up platoons and facilitate safer merging. Safer merging will help reduce collisions, cut down on non-recurring congestion, and help create more reliable travel times for passengers of Sacramento International Airport, freight movement to the Airport and Metro Air Park, and commuters staying on I-5 and heading north on SR-99.

Figure 5: Collision Map for Northbound I-5 (2015-2019)

Congestion Reduction/Mitigation

Northbound and southbound I-5 experience congestion during typical weekdays in this segment of I-5. Operational improvements could be made to the facilities to relieve congestion and help facilitate an easier, quicker, and safer experience for freight movement and daily commuters. Both directions of the freeway have locations where on ramps are unmetered or only partially metered (2 lane on ramp with a general-purpose lane metered and an HOV preferential lane unmetered). There are also locations in each direction where transition lanes would help increase throughput and create safer and easier merging and weaving movements for freight and passenger vehicles. A SACSIM model was run for “Build” and “No Build” conditions and the addition of transition lanes saw increased speeds on the mainline for Northbound and Southbound. On NB I-5 between Metro Air Parkway and Airport Blvd the mainline speeds for the “Build” 2042 condition during the AM peak hour are expected to increase by almost 15 mph when compared to the “No Build” 2042 condition. Similarly, on SB I-5 between Metro Air Parkway and SR 99 speeds are expected to increase over 25 mph during the 2042 PM peak hour.

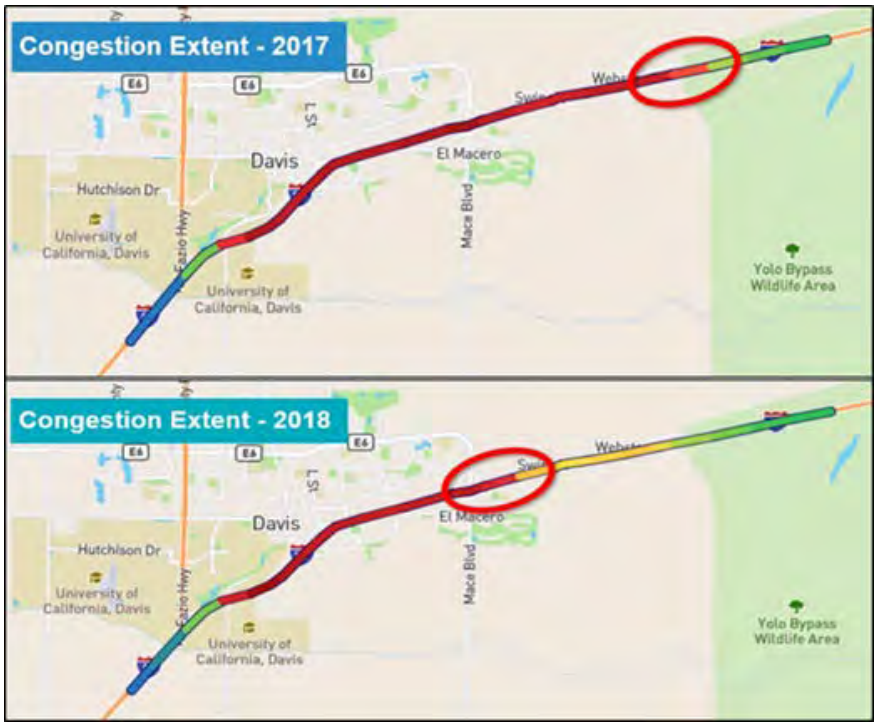
The addition of both improvements would help relieve congestion and clear up bottlenecks in the area. Congestion relief figures are shown in the "Key Transportation Bottleneck Relief" section.

Access to freight facilities such as the Sacramento International Airport and Metro Air Park and greatly improved with this project because of the transition lanes. The transition lanes give heavy vehicles a much longer dedicated lane to exit the freeway. This helps separate out freight from mainline vehicles and keeps traffic flowing and travel times predictable for freight. This will also provide much easier access for tucks going to/from the airport to/from Metro Air Park as they will never have to enter a dedicated general-purpose mainline lane. Trucks will simply enter the freeway at an on ramp, use the transition lane while on the freeway, and exit at the off-ramp, while never needing to make a lane change.

Key Transportation Bottleneck Relief

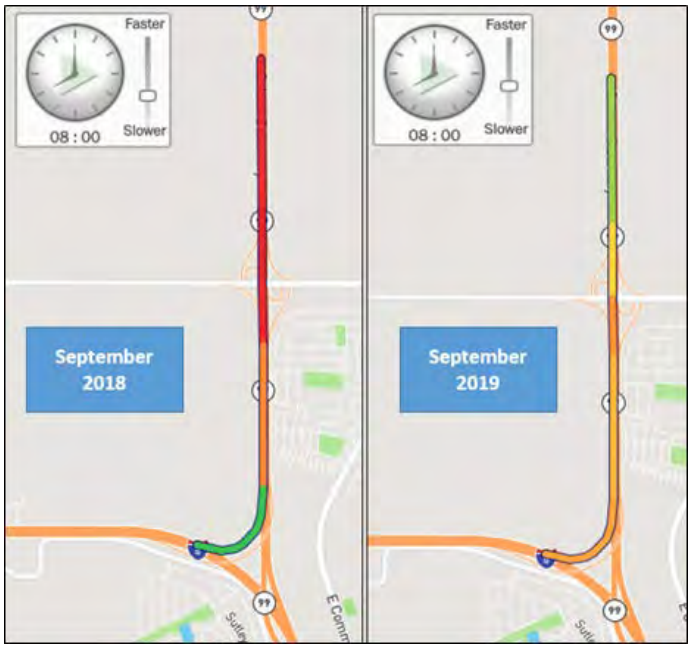
Recent projects in the district have shown that bottleneck relief can be expected with the addition of new ramp meters. In 2018 a ramp meter was installed at the Chiles Road on ramp to eastbound 80 in Yolo County just east of the City of Davis. This segment of eastbound I-80 through the City of Davis is a major bottleneck in the district, with the bottleneck starting at Chiles Road. After the installation of the ramp meter the bottleneck moved west to Mace Blvd. Figure 6 displays congestion on eastbound I-80 before and after the Chiles Road ramp meter installation. The benefits seen here could directly translate to locations northbound and southbound, specifically on southbound I-5 at Airport Blvd. where the bottleneck should disappear with the addition of ramp meters.

Figure 6: EB 80 Congestion Before and After the Chiles Road Ramp Meter



An example of a recent auxiliary lane success story is on Southbound 99 from the Elkhorn Blvd slip on ramp to the Northbound I-5 freeway to freeway connector ramp. This location used to experience heavy congestion leading to unreliable travel times, low speeds, and decreased throughput. After the implementation of the auxiliary lane in 2019, operations have greatly improved in the area. Figure 7 displays the benefits in congestion relief from the new auxiliary lane, using INRIX. The bottleneck that once existed is now gone, speeds are up, throughput has surged, and trucks and other vehicles are experiencing reliable travel times. The figure does show that the connector is more congested during this time of day, but the addition of auxiliary lane from the connector to the Metro Air Park off-ramp should solve that issue.

Figure 7: SB 99 Congestion Before and After Aux Lane from Elkhorn Slip on ramp to NB I-5



The addition of new transition lanes and ramp meters will help dissipate bottlenecks on Northbound and Southbound I-5, creating more reliable travel times and improving freight movement through the region, and to/from Metro Air Park and Sacramento International Airport.

Multi-Modal Strategy

I-5 is an important multimodal corridor that fills a critical role in California's economy by supporting high volume commuter, transit, and interregional traffic and transferring goods to destinations in and out of the State via trucks. It is the primary access route to the Sacramento International Airport and large distribution centers such as Amazon. This project reduces congestion, increases person throughput, provides multimodal access, promotes ridesharing, improves mobility, travel time reliability, and improves traffic operations while maintaining the standard twelve-foot lane width.

Caltrans is coordinating with Sacramento Regional Transit (SacRT) for preemptive coordination at ramp meter locations. Bus-on-shoulder is also being considered. This would allow buses to bypass wait time at ramp meters, improving travel time and reliability and making transit a more attractive commute option. To accommodate this need, the project will increase ramp shoulders to ten feet at key locations.

Interregional Benefits

I-5 serves as a freight conduit through the region and between regions. Trucks haul freight from the southern border with Mexico through California, Oregon and Washington, to the northern border with Canada. It is a critical link to the National Freight System, where I-80 intersects I-5 in Sacramento, linking the Port of Oakland to the region, while more locally freight north from Stockton and from the Port of West Sacramento relies on the facility for distribution to terminal access facilities. I-5 between the Sacramento River Bridge (Sacramento/Yolo county line) and the I-5/Arena Blvd. interchange is an important segment of the I-5 corridor for moving goods and people. This segment of the I-5 corridor is expanding rapidly with the addition of more passenger and cargo flights at Sacramento International Airport, the incorporation of the Metro Air Parkway Interchange, and with the growing Metro Air Park, which currently houses an Amazon distribution facility. The Metro Air Park development has made the truck percentage in this area reach greater than 20% in each direction. That number will continue to increase as more warehouses are built.

Additionally, new commercial, office, and residential developments planned in the Natomas area, such as the Natomas Arena Reuse project at the previous Sacramento Kings arena location, will contribute to the growing congestion. These factors in combination with freight growth around the Sacramento International Airport and Metro Air Park will negatively impact economic factors with goods movement as delay and congestion will increase. Transition lanes along the corridor would greatly help merging issues for the increasing number of heavy vehicles in the area. There would be six transition lanes added and one additional acceleration lane at the following locations:

- SB I-5 between the Rest Area and Airport Blvd
- SB I-5 between Airport Blvd and Metro Air Parkway
- SB I-5 between Metro Air Parkway and the SB I-5 to NB 99 connector
- NB I-5 between Metro Air Parkway and Airport Blvd
- SB I-5 between Arena Blvd. slip off-ramp to loop on ramp
- Acceleration Lane extension from the NB I-5 at Airport Blvd slip on ramp

The proposed transition lane on SB I-5 between the Arena Blvd. offramp and Arena Blvd. loop onramp, where the current number of lanes temporary drops from four to three, would help significantly reduce delay and queuing during the AM peak period. SB I-5 experiences heavy congestion during the AM peak period, which is worsened by the lane drop.

These improvements in the project area are critical to freight movement throughout California as I-5 is designated as a National Freight Network Route for trucks. It serves as the primary north-south interregional and interstate travel route in California and the west coast from the border of

Mexico to Canada. Because of north-south interregional interstate connections, I-5 has various east-west transition hubs for freight and goods movement. With the proximity to I-80 the project area is part of the most northern freight transition hub before reaching the State of Oregon. The interregional connection at the Sacramento region is the last area for freight to make east-west connections to the San Francisco Bay Area, Port of Oakland, and transcontinental destinations to the east via the I-80 corridor. The I-5 corridor within the project limits also serves daily commuters from Sacramento and surrounding cities (as of 2019 with more than 20% trucks) year-round.

Appendix 8: Supplemental I-80 Report

This report expands upon information in the application, specific to I-80.

Placer I-80 Auxiliary Lanes

Transportation Analysis Report

Placer County, CA

03-PLA-80-PM 0.1 to 2.2 and 4.1 to 6.0

EA 03-03F230
Project ID HPLUNCIIP-6158(063)

July 2015

Caltrans

PLACER COUNTY
TRANSPORTATION
PLANNING AGENCY

Transportation Analysis Report

Placer I-80 Auxiliary Lanes

03-PLA-80-PM 0.1 to 2.2 and 4.1 to 6.0

EA 03-03F230
Project ID HPLUNCIIP-6158(063)

July 2015

Prepared By: David Stanek, PE Date: _____

Phone Number 916-773-1900
Firm Name Fehr & Peers
Location Roseville, CA

Planning
Approved By: _____ Date: 7/30/15

Name Nicholas Deal
Title Senior Transportation Planner
Phone Number 530-741-5151
Office Name Travel Forecasting & Modeling
District/Region District 3 North Region

Traffic Operations
Approved By: _____ Date: July 28, 2015

Name Christine M. Zdunkiewicz
Title Transportation Engineer
Phone Number (916) 859-7949
Office Name District 3 Freeway Operations
District/Region District 3/North Region

Chapter 1. Introduction

This transportation analysis report was prepared for the Placer Interstate 80 (I-80) Auxiliary Lanes project. The report contains the results and findings of the traffic forecasts and traffic operation analysis, while the detailed analysis calculations are compiled in a separately bound appendix.

1.1. Purpose of the Transportation Analysis Report

The purpose of this report is to analyze project design alternatives and their effects on the highway and arterial transportation network. The report focuses on a comparison of alternatives that are each designed to improve future traffic operations and safety for the I-80 corridor consistent with the purpose and need statement. Portions of the analysis results will also be used to comply with environmental impact analysis requirements for the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA).

1.2. Project Description

The proposed project is located on I-80 in Placer County in the cities of Roseville and Rocklin. Figure 1 shows the project vicinity and location map. The project proposes to widen the existing I-80 by adding an eastbound auxiliary lane between State Route 65 (SR 65) and Rocklin Road and a westbound auxiliary lane between Douglas Boulevard and Riverside Avenue. An alternative is also under consideration that would convert the proposed westbound auxiliary lane into a fifth through lane from east of Douglas Boulevard to west of Riverside Avenue, where five lanes currently exist.

1.3. Project Purpose and Need

The current purpose and need statement for the Placer I-80 Auxiliary Lanes project is provided below.

The purpose of this project is to:

- Enhance through capacity on I-80 in two locations: eastbound from SR 65 through the Rocklin Road interchange and westbound from Douglas Boulevard though the Riverside Avenue interchange;
- Reduce existing congestion and operational problems on I-80 that cause back up on I-80 and on local roadways; and
- Improve safety by reducing stop and go traffic through enhanced capacity, merging and weaving facilities.

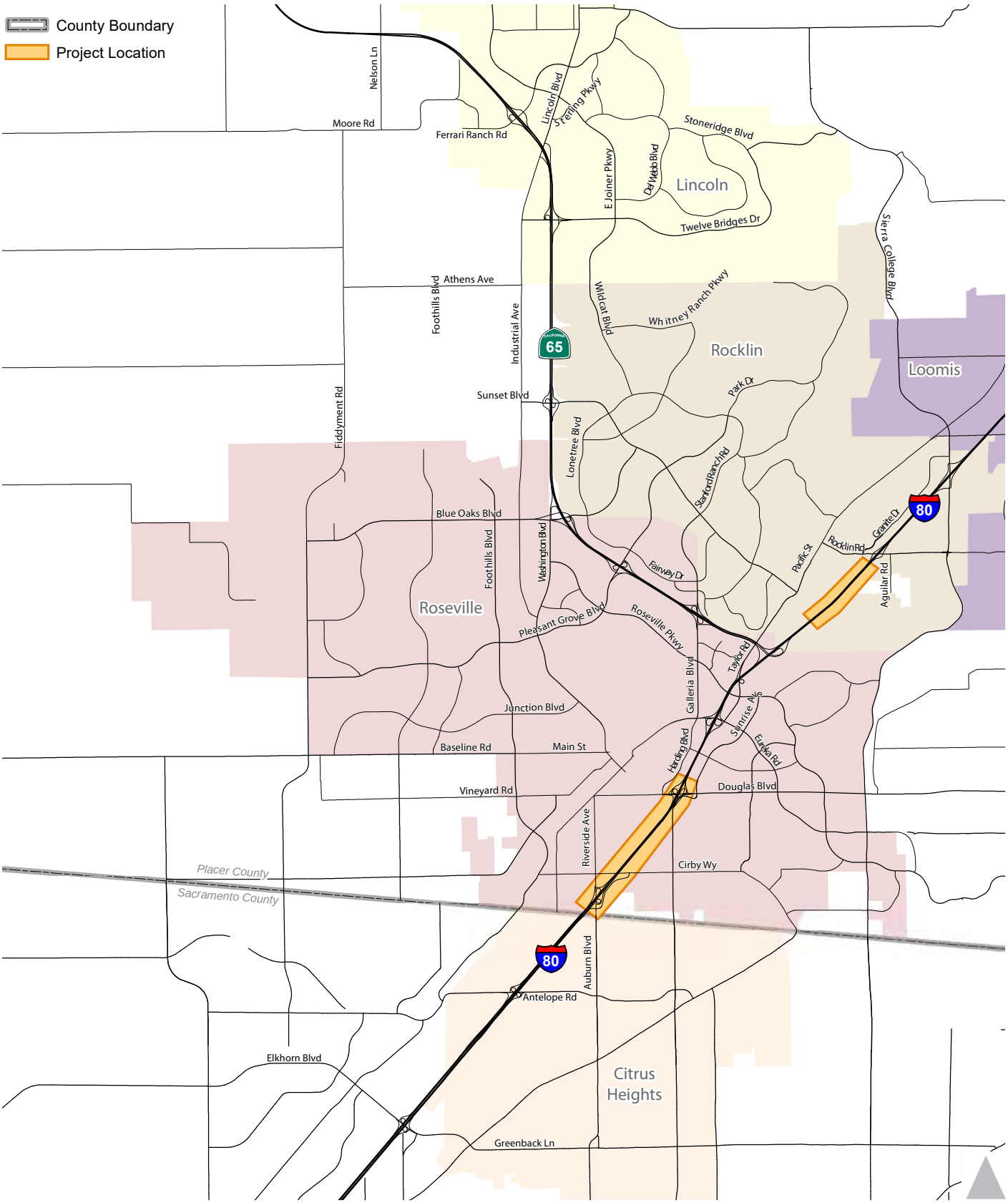


Figure 1

Project Vicinity

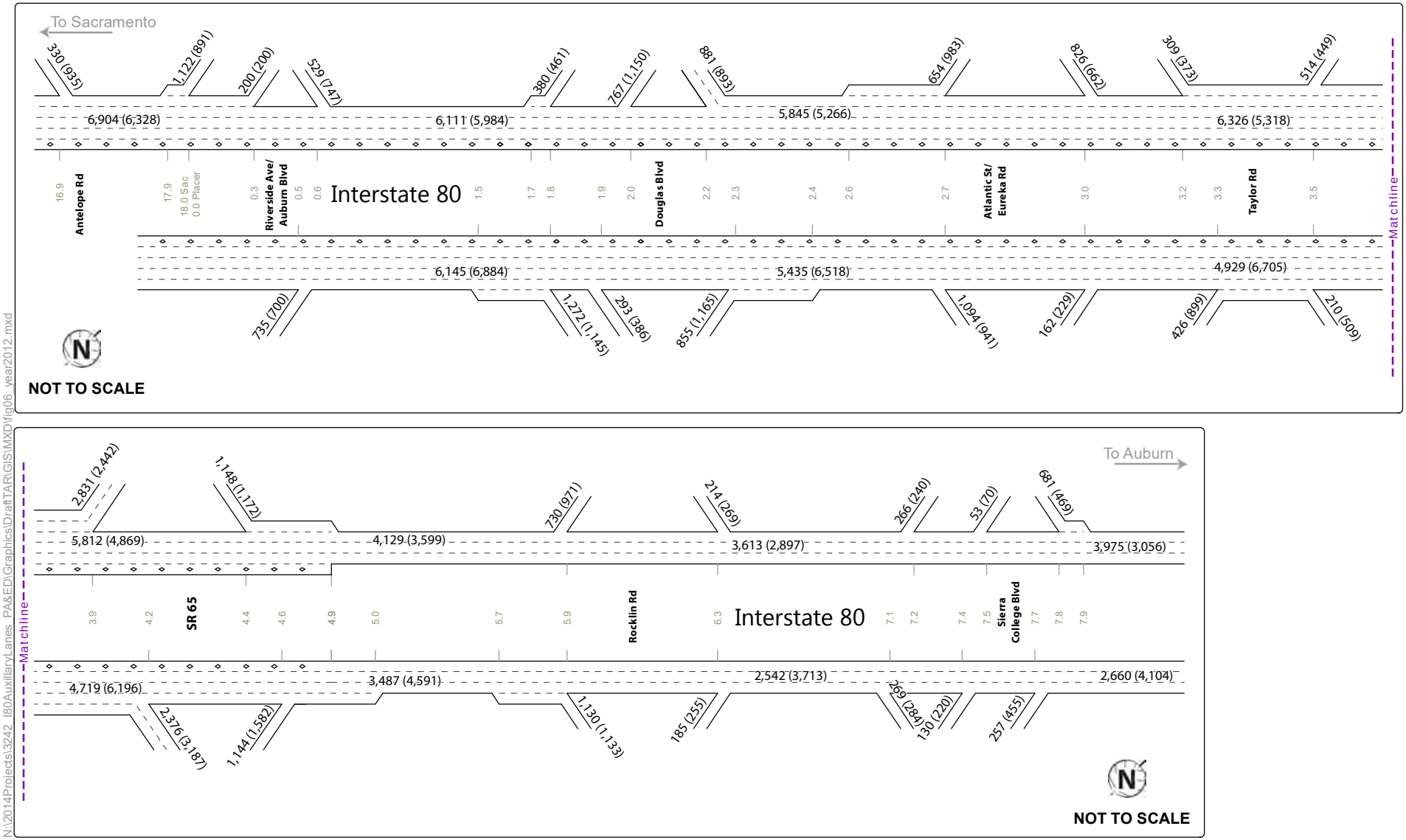
N:\2014Projects\3242_I80AuxillaryLanes_PA&ED\Graphics\FinalTAR\GIS\MXD\fig01_ProjectVicinity.mxd

TABLE 13: AVERAGE ANNUAL DAILY TRAFFIC VOLUME

Segment	Existing Conditions		Design Year Conditions					
			Alternative 1		Alternative 2		Alternative 3	
	Total	Trucks	Total	Trucks	Total	Trucks	Total	Trucks
Eastbound I-80: SR 65 to Rocklin Rd	54,300	3,020	71,100	5,400	71,300	5,440	68,900	5,370
Westbound I-80: Douglas Blvd to Riverside Ave	78,800	4,150	116,100	8,040	117,300	8,070	110,800	7,920

Note: The existing conditions total volume data is from 2009 as reported in the PeMS database. The existing truck volumes are estimated from the truck percentage reported in Caltrans' Annual Average Daily Truck Traffic publication.

Source: Fehr & Peers, 2015



N:\2014Projects\3242_I80AuxillaryLanes_PA&ED\Graphics\DraftTAR\GIS\MXD\fig06_year2012.mxd

AM (PM) Peak Hour Traffic Volume for 2020 Conditions

10.1 Postmile

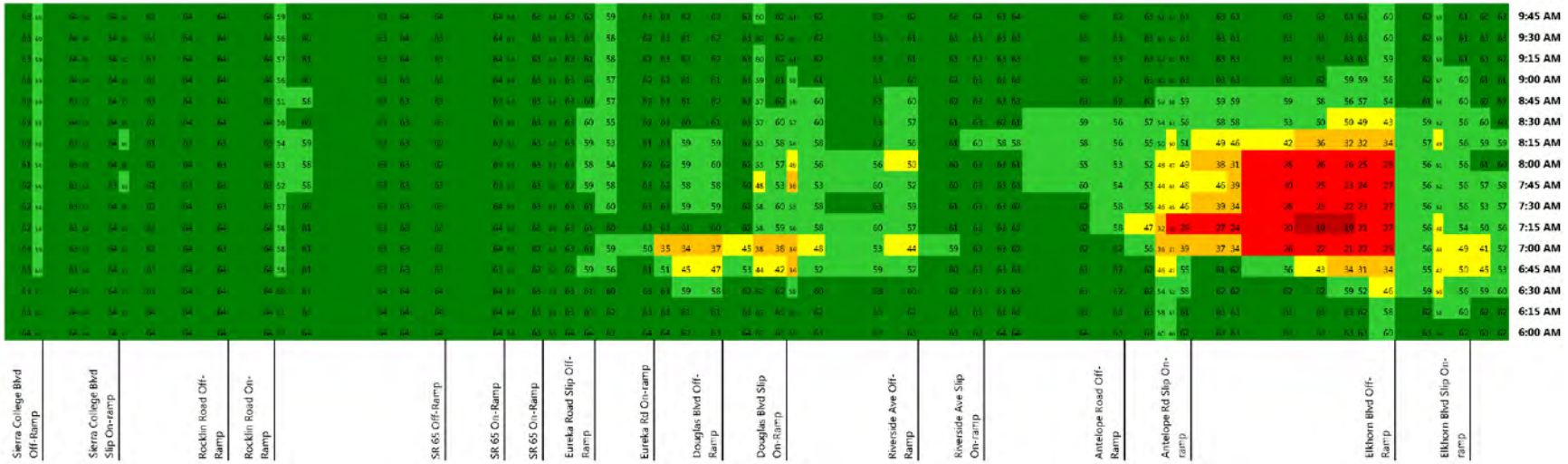
Note: Traffic volumes collected in February 2012.

Figure 6

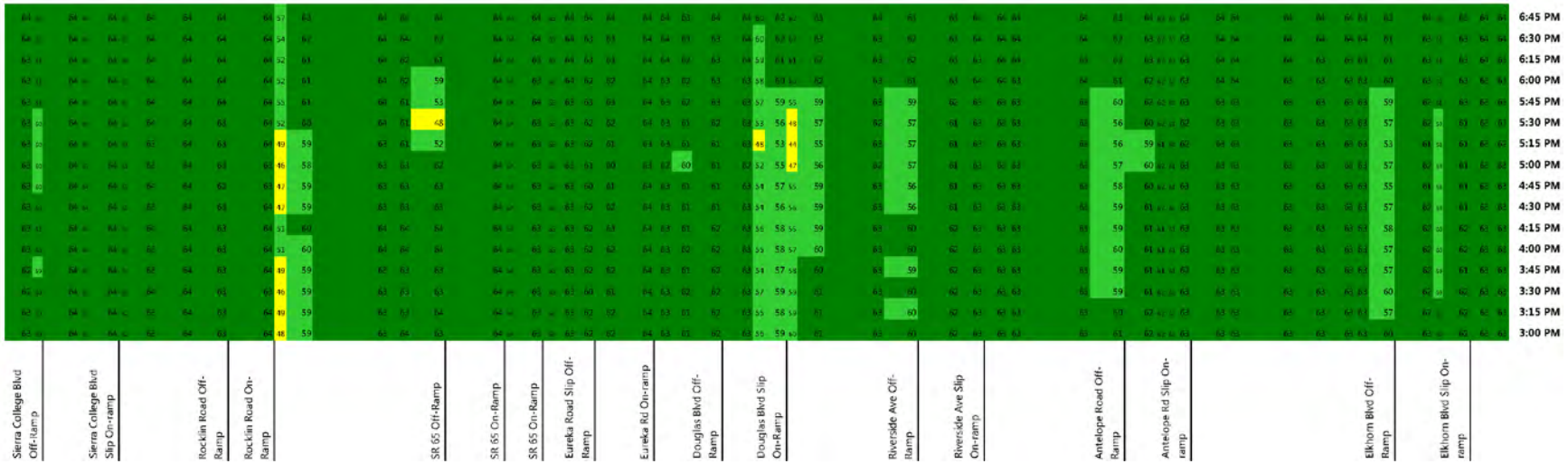
Peak Hour Traffic Volumes and Lane Configurations - Existing Conditions

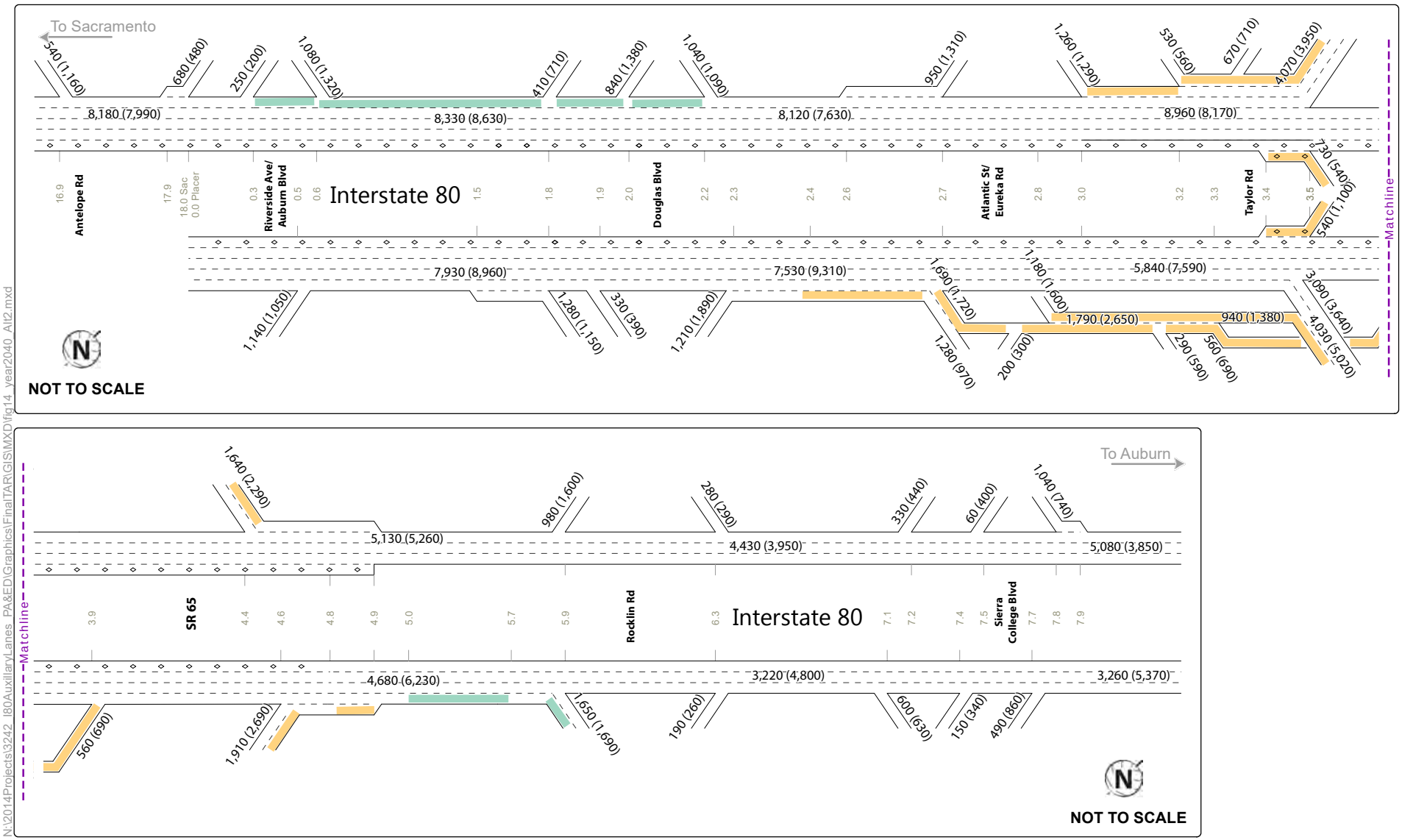
FIGURE 10 – I-80 WESTBOUND EXISTING CONDITIONS SPEED CONTOUR MAPS

AM PEAK PERIOD



PM PEAK PERIOD





N:\2014Projects\3242_I80AuxillaryLanes_PA&ED\Graphics\FinalTAR\GIS\MXD\fig14_year2040_Alt2.mxd

Figure 14

Design Year Peak Hour Traffic Volumes and Lane Configurations - Eastbound Auxiliary Lane and Westbound 5th Lane (Alternative 2)

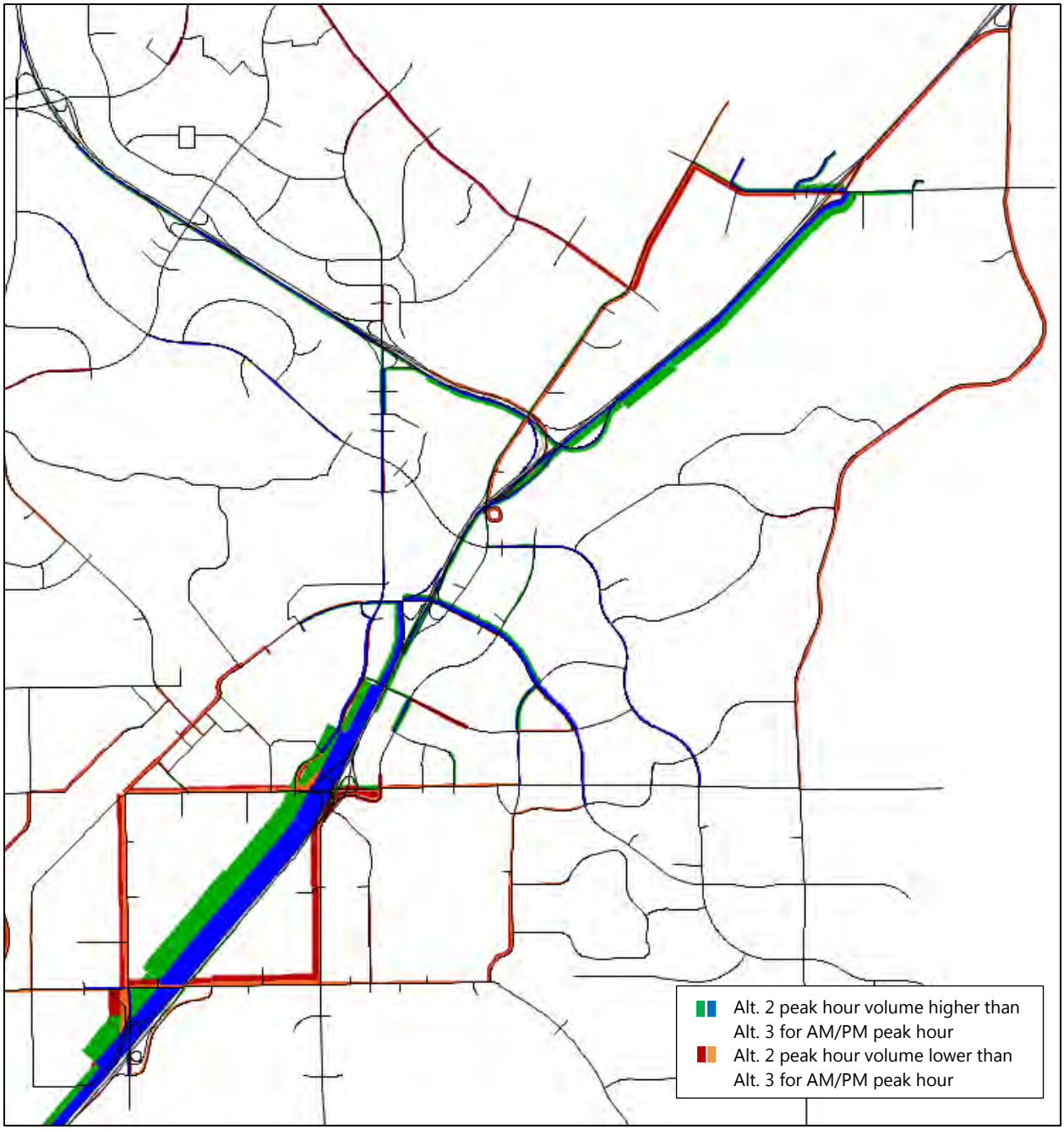
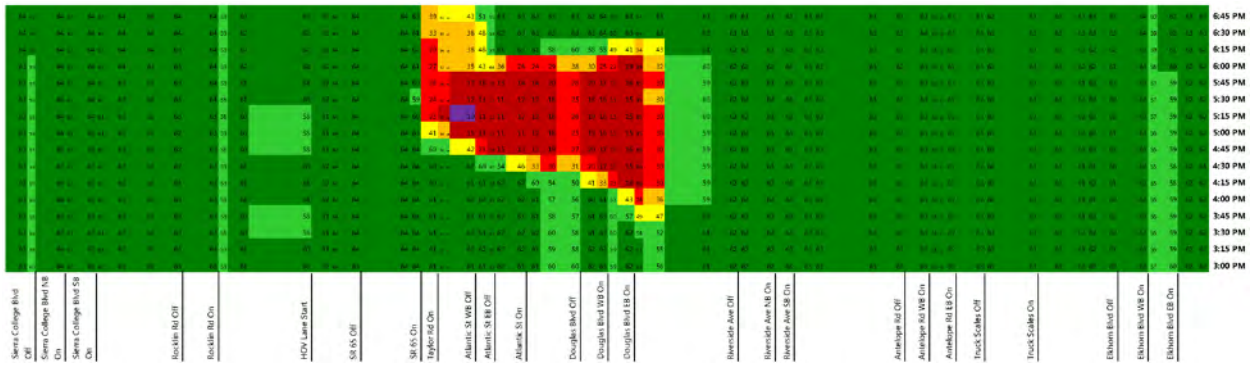
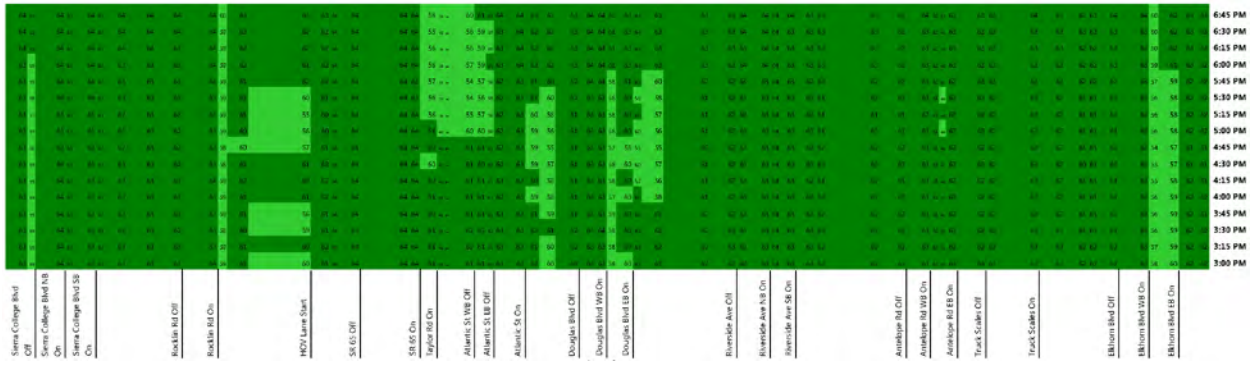


Figure 16 – Volume Comparison of Alternatives 2 and 3

EASTBOUND AND WESTBOUND AUXILIARY LANES (ALTERNATIVE 1)



EASTBOUND AUXILIARY LANE AND WESTBOUND 5TH LANE (ALTERNATIVE 2)



NO BUILD (ALTERNATIVE 3)

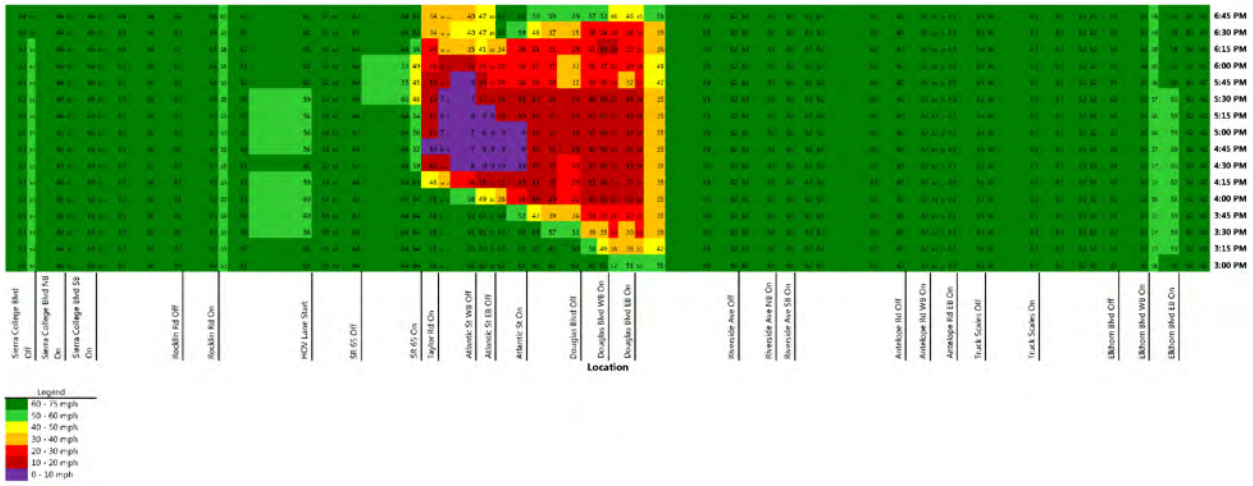


Figure 35 – Westbound I-80 Design Year PM Peak Period Speed Contour Map

Appendix 9: Supplemental Elkhorn Report

This report expands upon information in the application, specific to Elkhorn Boulevard.

Executive Summary

Elkhorn Intermodal Link	
Sponsor	Sacramento County Department of Airports
Project Cost	$26.0 million
TCEP Request	$11.0 million
Request Type	Capital
Project Location	Rural

The Elkhorn Intermodal Link is a critical missing connection in the Sacramento, California region's surface transportation network and an essential component of a collaborative, multi-agency strategy to improve freight and passenger mobility, safety, and economic competitiveness in the surrounding rural area and the region at large.

The Elkhorn Intermodal Link will connect the Sacramento International Airport (SMF) to an adjacent industrial park and beyond to State Route 99, it will provide a second access/egress route to the Airport, and will shift Airport-bound vehicles off heavily congested Interstate 5. SMF is the principal airport serving 3.3 mission people in seven counties, and is one of the top 10 cargo airports in the state. From 2013 to 2018, SMF experienced a 71% increase in cargo tonnage. There is strong demand for investment in air cargo capacity at SMF; improved surface transportation access is essential to support continued private sector investment. The Airport's proximity to the nearly 2,000-acre Metro Air Park commercial development offers significant synergies that will be enhanced by the project, improving freight mobility in the region, and creating jobs for residents. The Elkhorn Intermodal Link will result in improvements to regional and national freight mobility and safety while facilitating private investment and job growth.

The requested TCEP grant will provide the funding needed to ensure the Elkhorn Intermodal Link can be delivered without delay, despite the current disruption to domestic and international air travel due to the COVID-19 outbreak. The Project will result in benefits that align with each of the TCEP grant criteria. The Elkhorn Intermodal Link will be delivered via a unique interagency partnership between the Sacramento County Department of Airports and state and local departments of transportation and transit agencies. The Project is ready to proceed, with committed funding and a well-defined and attainable schedule for construction and completion.

Elkhorn Intermodal Link Benefits (2020)	
Safety ✓ Collision reductions ✓ Evacuation capacity and emergency access	**Environmental Sustainability** ✓ Emissions reduction
State of Good Repair ✓ Reduced wear on Interstate 5 ✓ Long-term plan for maintenance of new facility	**Quality of Life** ✓ Improved travel time reliability ✓ Enhanced transit and active transportation options **$26.2 million**
Economic Competitiveness ✓ Increased land value ✓ Increased tax revenue ✓ Reduced freight costs	**Innovative Partnership and Plan of Finance** ✓ Regional, interagency approach to transportation challenges ✓ Value capture techniques

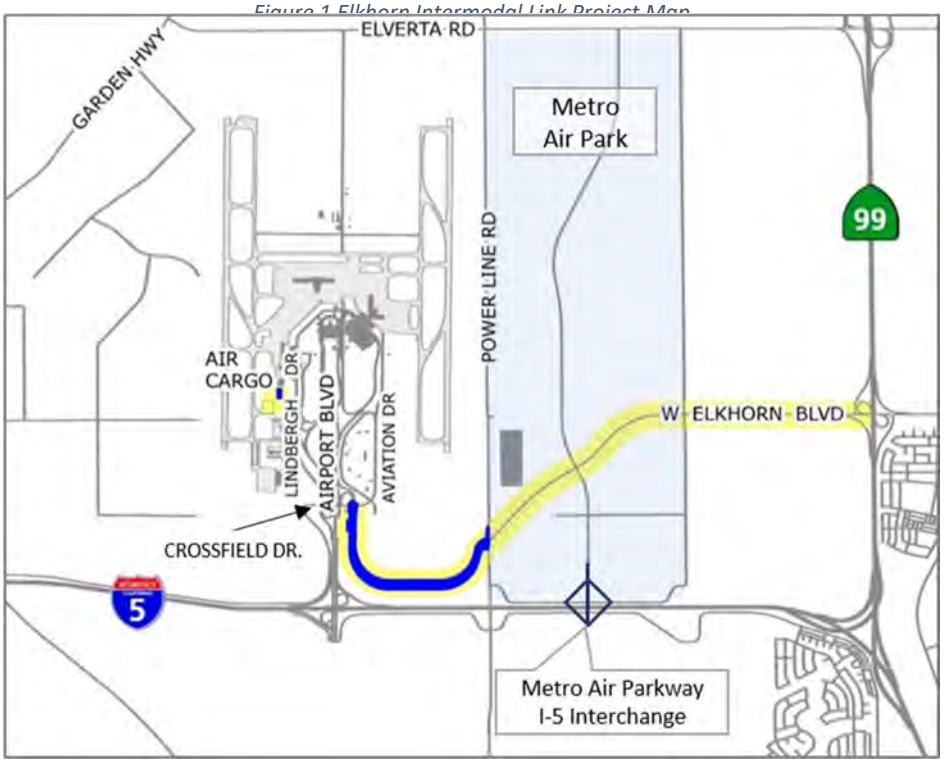
1 Project Description

1.1 Project Overview

The Sacramento County Department of Airports (SCDA), requests $11.0 million in TCEP discretionary grant funds to ensure the construction of the $26 million Elkhorn Intermodal Link (the Project) at the Sacramento County International Airport (the Airport or SMF) is not delayed as a result of the current economic downturn, including disruption to air travel, resulting from the COVID-19 pandemic. The balance of the Project's funding will be provided by SCDA. The Elkhorn Intermodal Link is one of a suite of surface transportation projects planned or under construction in the area surrounding the Airport with the goals of enhancing mobility for motorists in the region, Airport passengers and cargo, and facilitating continued economic development in the freight and logistics sector in this rural area of the County.

The Elkhorn Intermodal Link will connect SMF to an adjacent industrial park and beyond to State Route 99, it will provide a second access/egress route to the Airport, and will shift Airport-bound vehicles off heavily congested Interstate 5. SMF is the principal airport serving 3.3 mission people in seven counties, and is one of the top 10 cargo airports in the state. From 2013 to 2018, SMF experienced a 71% increase in cargo tonnage. There is strong demand for investment in air cargo capacity at SMF; improved surface transportation access is essential to support continued private sector investment. The Airport's proximity to the nearly 2,000-acre Metro Air Park commercial development offers significant synergies that will be enhanced by the project, improving freight mobility in the region, and creating jobs for residents. The Project will also provide an improved route for bus shuttles from the nearest transit station with preservation of right-of-way for future light rail extension.

Figure 1 Elkhorn Intermodal Link Project Map



The Project extends the existing Elkhorn Boulevard from its current terminus at Power Line Road to Crossfield Drive on the Airport campus, as shown in Figure 1. Sacramento International Airport borders the Metro Air Park, a development with five million square feet of industrial and commercial space. Metro Air Park is already home to two major warehouse and logistics facilities, with additional facilities in development. The Elkhorn Intermodal Link will alleviate freight traffic congestion and provide additional capacity for the continued growth of intermodal and freight logistics activity in the region.

The Elkhorn Intermodal Link is one element of a larger program of projects being undertaken by the County, Caltrans, and Sacramento Regional Transit (SacRT) to improve mobility in this corridor. I-5, from Airport Boulevard through downtown Sacramento, is a critical thoroughfare for moving goods and people and currently experiences recurring congestion during peak commute periods. This corridor is expected to see an increase of housing and commercial development in and around Natomas, expanded passenger and cargo flights at Sacramento International Airport, and substantial warehouse development within the Metro Air Park. Caltrans reports that Metro Air Park development has resulted in an increase in truck traffic in the area and expects that trend to continue as additional facilities are constructed. These factors led local agencies to seek a collaborative and partnered solution to alleviate congestion, promote freight movement, benefit local economies, and enhance equitable access to multimodal transportation options throughout the regional transportation network.

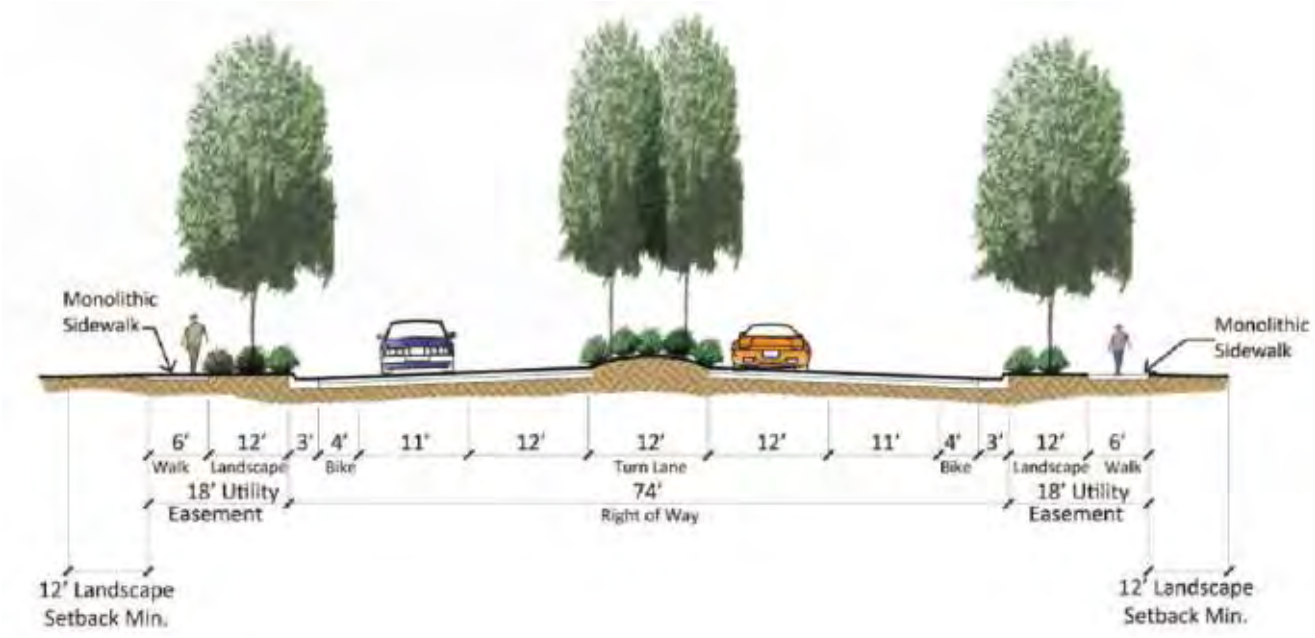
With an estimated cost of $26.0 million, the Project is considered a small project per the Department of Transportation Notice of Funding Opportunity. The Project is being sponsored by SCDA, but project management and technical support will be provided by the Sacramento County Department of Transportation (SacDOT), through a Memorandum of Understanding between the two departments included as Appendix 3 SCDA Memorandum of Understanding with SacDOT.

1.2 Scope of Work

The Elkhorn Intermodal Link scope of work includes the construction of:

- A four-lane road (approx. 1 mile long) between the existing Elkhorn Boulevard terminus at Powerline Road and Crossfield Drive, which runs perpendicular to Airport Boulevard on the Airport campus
- Extension of the utility corridor to improve development opportunities in the Project area
- Two roundabouts on Crossfield Drive to improve traffic circulation

Figure 2 Elkhorn Intermodal Link Engineering Exhibit



1.3 Project History

In 2017, the Airport master planning process analyzed several alternatives to reduce traffic congestion and mitigate a potential closure of I-5 and determined that additional airport access was required. It recognized that the relevant segment of the I-5 corridor is in a rural area and the majority of the congestion is due to Airport traffic, particularly the five miles to the east and west of Airport Boulevard. The analysis also considered the risks associated with SMF having a single access route via I-5 in the event of a closure of that facility or a situation that required the Airport to be evacuated. As a result of this analysis, the Airport Master Plan team recommended an alternative entry and exit route via the extension of Elkhorn Boulevard which provides a connection to State Route 99.

In parallel, the California Department of Transportation (Caltrans) also studied the traffic and operational safety issues associated with I-5 at the Airport Boulevard interchange. Caltrans also found that southbound I-5 from Woodland to State Route 99 experiences heavy congestion during the afternoon peak commute period due to a bottleneck created by drivers entering and exiting the Airport. Caltrans is currently undertaking several other projects aimed at addressing safety and capacity issues on I-5, such as managed lanes and ramp metering. SCDA is taking the lead on the Elkhorn Intermodal Link to ensure timely delivery of this important component of a multi-faceted state and local strategy for addressing the transportation challenges in this portion of the I-5 corridor.

SCDA has also coordinated with the other transportation agencies operating in the region to ensure the design and execution of the Elkhorn Intermodal Link will leverage transportation investments that have been made to date and complement planned future investments. A detailed discussion of the Elkhorn Intermodal Link in the broader context of other relevant projects follows in this section.

1.4 Transportation Challenges

The Project area's main thoroughfares, Interstate 5, Interstate 80, and State Route 99, are becoming increasingly congested, and this congestion will worsen in the future. Interstate 5 is the main Interstate Highway on the West Coast connecting the Mexican border to the Canadian border. In rural California, in front of the Airport, this north-south land-based transportation corridor is heavily used to transport both people and cargo along the four-lane freeway (two lanes each way) and provides no auxiliary lanes, making the drive to the Airport extremely difficult at peak hours, and impossible in the event of a closure.

Southbound I-5 from Woodland to State Route 99 experiences heavy congestion during the afternoon peak commute period due to a severe bottleneck at the southbound Airport Boulevard onramp to southbound I-5. Figures 3 and 4 show the extent of congestion on southbound I-5 during typical weekday and typical Thursday/Friday afternoon peak hours. During the PM peak hour on typical weekdays, the average speed for the corridor dropped below 40 mph. Typical Thursdays and Fridays experience even more congestion with average speeds dropping to 30 mph and travel times doubling normal free-flow conditions.

Figure 3 Southbound I-5 Typical Weekday Afternoon Congestion (Source: Caltrans)

Figure 4 Southbound I-5 Typical Thursday/ Friday Afternoon Congestion (Source: Caltrans)

The congestion maps clearly show the bottleneck location is at the southbound Airport Boulevard onramp to southbound I-5. Congestion on southbound I-5 typically extends past County Road 102 in Woodland. Caltrans analysis, using 3rd party traffic data application INRIX, indicates that mainline southbound I-5 is

operating at or near capacity during the afternoon peak period and the high volumes from the southbound Airport Boulevard on-ramp contribute significantly to the area bottleneck. Residential and commercial development in the area is exacerbating traffic congestion on I-5.

1.5 Who Will Benefit?

The numerous benefits of the Elkhorn Intermodal Link align well with the TCEP grant criteria. The proposed roadway extension helps alleviate some of the major transportation challenges in the Project area and benefits commuters, passengers, visitors, and commercial freight operators. The Project will generate regional economic, mobility, and safety benefits in this rural area by reducing travel times, emissions and congestion on I-5 by allowing a portion of motorists and freight traffic to bypass the heavily congested Interstate while accessing the Airport.

Table 1 Who Will Benefit?

Stakeholder Groups	Benefits of Elkhorn Intermodal Link
I-5 Motorists and Freight Traffic	• Improve safety outcomes • Improve travel times and reliability
Local and Regional Residents	• Improve air quality • Enhance transit and active transportation options • Facilitate continued freight-logistics related job growth
Airport Passengers	• Provide secondary access route to Airport in the event of I-5 congestion or closure • Improve travel times and reliability to the Airport • Enhance transit options
Airport-bound Freight Traffic	• Direct access route from Metro Air Park to Airport • Provide secondary access route to Airport in the event of I-5 congestion or closure • Improve reliability and reduced travel time to the Airport
Local and Regional Businesses	• Increase capacity for continued business growth in freight-logistics sector
State and Local Transportation Agencies	• Reduce transit operating costs • Improve state of good repair on I-5 and State Route 99

1.6 Broader Context of Other Infrastructure Investments

The Elkhorn Intermodal Link is a key part of a broader program of transportation improvement projects in the corridor being undertaken by SCDA, SacDOT, and Caltrans. Public funding for these improvements comes predominately from state and local sources. The project sponsors have leveraged these public funds by using innovative techniques to capture the value of the infrastructure investments to the private sector, including a special tax district as well as Airport revenues derived from airline rates and charges. The level of investment, diversity of funding sources, and coordinated leadership across modes and agencies illustrate how SCDA and its state and local partners will use all the tools in the transportation funding toolbox to effectively leverage the requested $11.0 million TCEP grant. The private investments are indicative of the multiplier effect of these important transportation improvements, which will facilitate continued growth and economic development in this rural area.

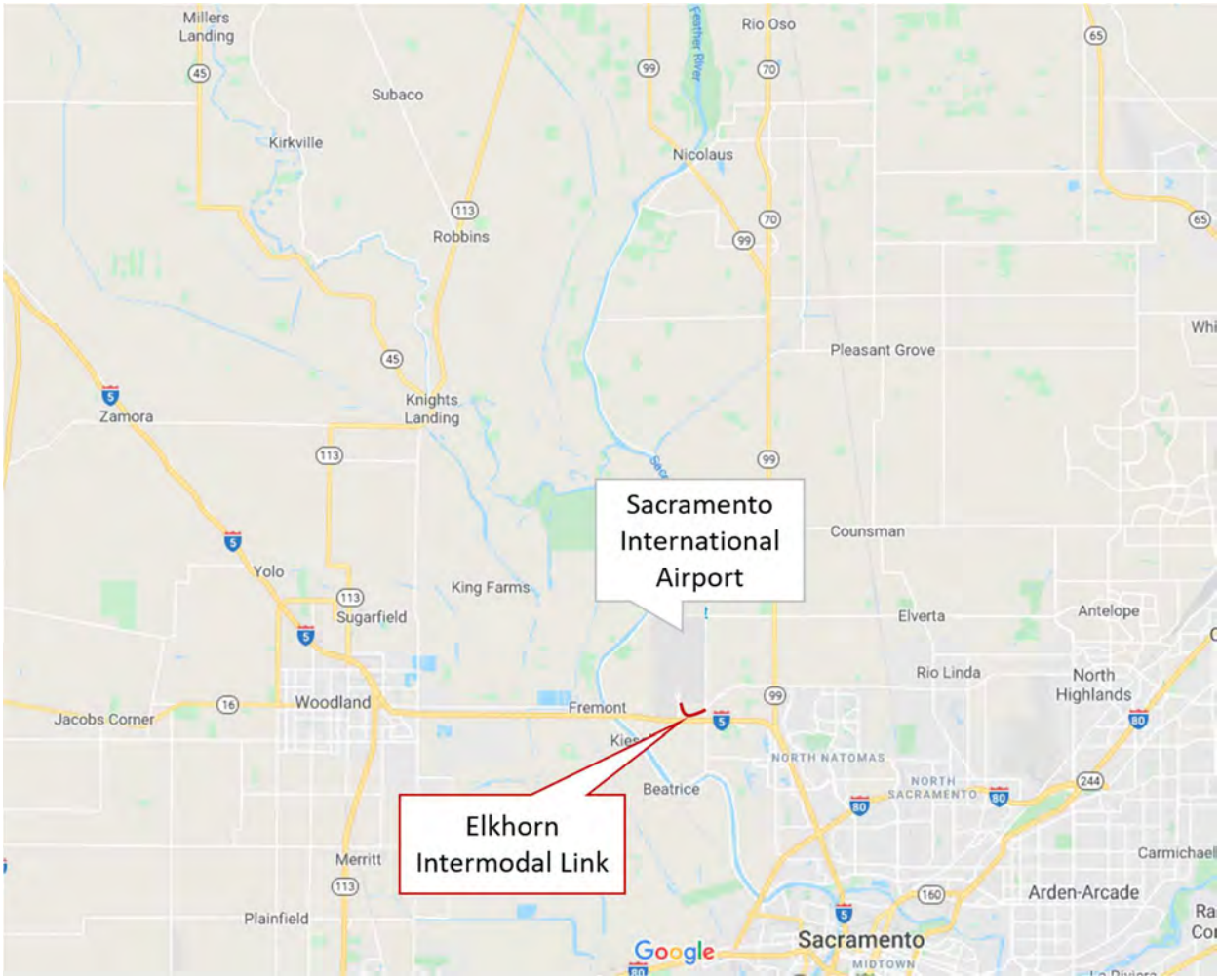
The Elkhorn Intermodal Link will greatly improve a new connection which will bring passengers from Sacramento (with stations at Old North Sacramento, Midtown, City College, and South Sacramento County which serves Elk Grove) and throughout the San Joaquin Valley to Sacramento International Airport. California is investing over $1 billion in this project. On March 31, 2020, the Draft Environmental Impact Report (DEIR) for the Valley Rail Sacramento Extension Project was released for public review.

2 Project Location

2.1 Location and Connections to Existing Transportation Infrastructure

Figure 8 shows the location of the Airport and the Elkhorn Intermodal Link relative to major highway corridors in the region. I-5 runs south and east past the Airport to downtown Sacramento. State Route 99, another major north-south corridor, lies just east of the Airport. State Route 99 currently lacks a connection to the Airport campus, forcing Airport-bound passenger and freight traffic to merge onto the congested I-5 to access the Airport. The Elkhorn Intermodal Link is a small but critical missing link in the region's surface transportation network.

Figure 8 Elkhorn Intermodal Link and Regional Highway Network

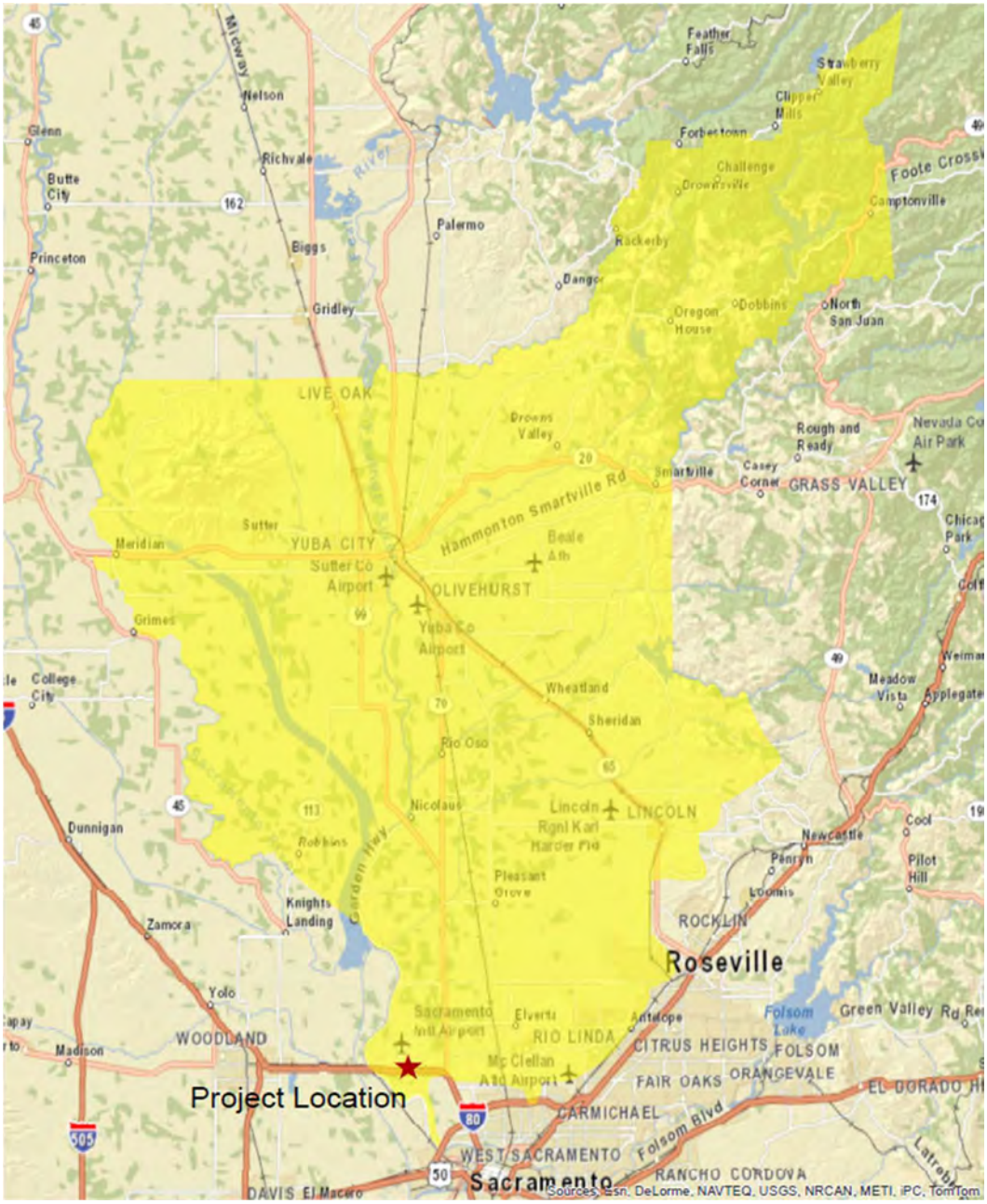


2.2 Elkhorn Intermodal Link Service Area

The Elkhorn extension provides the first part of a system of alternate routes that could help normalize Airport travel times for the region. Downtown Sacramento currently lacks a direct north-south alternative to I-5 for convenient Airport access, so even with the extension, travelers coming from the south and west will need to rely on congested parts of the I-5. However, travelers coming from the north and east could

use the new extension to avoid using I-5 altogether, bypassing and helping to alleviate the recurrent congestion on the Interstate. The yellow region in Figure 9 shows the portion of the Sacramento region that would be able to most effectively use the Elkhorn Intermodal Link as an alternative to the I-5 Airport entrance.

Figure 9 Elkhorn Intermodal Link Service Area




Auburn Blvd
Riverside Ave
1¼ MILE
EXIT 102