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OPPORTUNITY & PACKAGE DETAILS:

Opportunity Number:	NSFHP-20-INFRA20
Opportunity Title:	INFRA Grants
Opportunity Package ID:	PKG00257688
CFDA Number:	20.934
CFDA Description:	Nationally Significant Freight and Highway Projects
Competition ID:	
Competition Title:	
Opening Date:	01/13/2020
Closing Date:	02/25/2020
Agency:	69A350 Office of the Under Secretary for Policy
Contact Information:	Paul Baumer Grantor E-mail: paul.baumer@dot.gov Phone: 202-366-1092

APPLICANT & WORKSPACE DETAILS:

Workspace ID:	WS00418883
Application Filing Name:	Fix 5 Cascade Gateway Project
DUNS:	9631539810000
Organization:	SHASTA REGIONAL TRANSPORTATION AGENCY
Form Name:	Application for Federal Assistance (SF-424)
Form Version:	2.1
Requirement:	Mandatory
Download Date/Time:	Feb 25, 2020 05:10:07 PM EST
Form State:	No Errors

FORM ACTIONS:

Application for Federal Assistance SF-424

*** 1. Type of Submission:**

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

*** 2. Type of Application:**

- ☒ New
☐ Continuation
☐ Revision

*** If Revision, select appropriate letter(s):**

*** Other (Specify):**

*** 3. Date Received:**

Completed by Grants.gov upon submission.

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

*** a. Legal Name:**

Shasta Regional Transportation Agency

*** b. Employer/Taxpayer Identification Number (EIN/TIN):**

94-6027661

*** c. Organizational DUNS:**

9631539810000

d. Address:

*** Street1:**

1255 East Street

Street2:

Suite 202

*** City:**

Redding

County/Parish:

Shasta

*** State:**

CA: California

Province:

*** Country:**

USA: UNITED STATES

*** Zip / Postal Code:**

96001-0800

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Mr.

*** First Name:**

Daniel

Middle Name:

*** Last Name:**

Wayne

Suffix:

Title:

Senior Transportation Planner

Organizational Affiliation:

Shasta Regional Transportation Agency (MPO)

*** Telephone Number:**

530-262-6186

Fax Number:

*** Email:**

dwayne@srtc.ca.gov

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

E: Regional Organization

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

69A350 Office of the Under Secretary for Policy

11. Catalog of Federal Domestic Assistance Number:

20.934

CFDA Title:

Nationally Significant Freight and Highway Projects

* 12. Funding Opportunity Number:

NSFHP-20-INFRA20

* Title:

INFRA Grants

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

F5CG_I-5_Corridor_Areas_Affected.pdf

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

The Fix 5 Cascade Gateway Project

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

[Add Attachment](#)[Delete Attachment](#)[View Attachment](#)**17. Proposed Project:*** a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	65,557,000.00
* b. Applicant	4,508,000.00
* c. State	15,796,000.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	85,861,000.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☒ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☐ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

[Add Attachment](#)[Delete Attachment](#)[View Attachment](#)

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ 1,600,000.00	\$ 1,600,000.00	\$ 0.00
2. Land, structures, rights-of-way, appraisals, etc.	\$ 818,000.00		\$ 818,000.00
3. Relocation expenses and payments			
4. Architectural and engineering fees	\$ 5,033,000.00		\$ 5,033,000.00
5. Other architectural and engineering fees			
6. Project inspection fees			
7. Site work			
8. Demolition and removal			
9. Construction	\$ 78,409,000.00		\$ 78,409,000.00
10. Equipment			
11. Miscellaneous			
12. SUBTOTAL (sum of lines 1-11)	\$ 85,860,000.00	\$ 1,600,000.00	\$ 84,260,000.00
13. Contingencies			
14. SUBTOTAL	\$ 85,860,000.00	\$ 1,600,000.00	\$ 84,260,000.00
15. Project (program) income			
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ 85,860,000.00	\$ 1,600,000.00	\$ 84,260,000.00
FEDERAL FUNDING			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share.	Enter eligible costs from line 16c Multiply X %		\$ 0.00

COVER PAGE

Basic Project Information

Project Name	Fix 5 Cascade Gateway Project
Project Sponsor	Shasta Regional Transportation Agency (MPO)
Previous Submittals	No

Project Cost

Infra Request Amount	\$50,557,000 (2023 const)
Est. Federal Funding (excl. INFRA)	
Est. Non-Federal funding	\$33,704,000 (2023 const)
Future Eligible Project Costs (sum of previous three rows)	\$84,261,000 (2023 const)
Previously Incurred Project Costs	\$1,600,000
Total Project Cost (sum of previous incurred and future eligible)	\$85,861,000
Matching funds restricted to specific project component? Which one?	No

Project Eligibility

Approximately how much of est. future eligible project costs will be spent on components located on the National Highway Freight Network (NHFN)?	\$84,261,000 (100%)
Approximately how much of the estimated future eligible project costs will be spent on components of the project currently located on the National Highway System (NHS)?	\$84,261,000 (100%)
Approximately how much of the estimated future eligible project costs will be spent on components constituting railway-highway grade crossing or grade separation projects?	\$0 (0%)
Approximately how much of the estimated future eligible project costs will be spent on components constituting intermodal or freight rail projects, or freight projects within the boundaries of a public or private freight rail, water (including ports), or intermodal facility?	\$0 (0%)

Project Location

State	California
Project Size (Small or Large)	Small
Urbanized Area	Redding, CA
Population of Urbanized Area	125,129
Located in an Opportunity Zone (entirely or partially)	No
Currently programmed in the: TIP; STIP; Regional MPO Long-Range Transportation Plan; State Long-Range Transportation Plan; State Freight Plan.	Regional MPO Long-Range Transportation Plan

FIX 5



CASCADE GATEWAY PROJECT

Wildfire
Closures



Snow and Collision Closures

City of
Shasta Lake



ITS Infrastructure



Freight
Hydrogen
Fueling
Station

Indian Bridge

City of
Redding

Mountain Gate

Fawndale Rd

Enhanced
Chain Control
Install Area

SECTION I (7.3 miles)

Utilize existing paved median, create flex lanes needed to manage the corridor during northbound I-5 closures; address vulnerabilities to climate change related events; enhance access for first responders; and to minimize economic and environmental impacts to communities along the I-5 corridor and designated detour routes.

Old Oregon Trail

Shasta Dam Blvd

Pine Grove Ave

Oasis Rd

SECTION II (2.6 miles)

Remedy collision clusters and improve east-west freight mobility by connecting southbound and northbound I-5 auxiliary lanes between Route 273, 44, and 299.

Route 299

Enhanced interchange
operations and safety

Hilltop Dr Overcrossing

Class I Bicycle &
Pedestrian connector

Route 44

Enhanced interchange
operations and safety

I-5 Detour Route

273

299



299

273

44

SECTION B: PROJECT NARRATIVE

PROJECT SUMMARY

Project Description – The Fix 5 Cascade Gateway Project will convert the existing paved median on I-5 to flexible lanes for 7.3 miles north of SR 299, with ITS elements to manage their usage. Auxiliary lanes will also be extended for 2.6 miles south of 299 to improve the I-5 connection to/from SR 44. These improvements are shown as ‘Section I’ and ‘Section II’ respectively in attached Project Overview Map.



I-5 Looking North in Section I (see attached Project Overview Map)

Major project components include the following:

1. Seven bridges will be widened, upgraded with new railings for long-term state of good repair and safety. Six of these bridges will be overlaid with polyester concrete.
2. The on ramp from Route 299/Lake Boulevard to southbound I-5 will be extended to address the two main causes of collisions at this location: 1) differential in speed (the on ramp is uphill and curved); and 2) lane weaving (southbound I-5 traffic is simultaneously vying to merge right in preparation for Route 299 West/Route 44 East off ramps).
3. Southbound I-5 at the Route 299 West/Route 44 East interchange will receive a buffered exit/entry lane with a reduced speed limit to address the two main causes of collisions at this location: 1) differential in speed (on and off ramps have a tight 25 mph radius) and lane weaving (the transition zone between Route 299 West/Route 44 East on and off ramps is less than 500 feet).
4. Overhead and on-pavement signage will replace ground signage for more predictable driver behavior and safer traffic operations near the Route 299 West/Route 44 East interchange.
5. A pavement edge-to-edge overlay of open graded rubber asphalt surface course, and maintenance plan will ensure long-term state of good repair.
6. Culverts and drainage retention/detention facilities will be added to address the increased impervious area and safeguard the facility against more frequent and severe weather events.
7. Cable barrier will be installed in unpaved depressed areas where the median width is less than 60 foot to prevent errant vehicles from crossing over the median. Medians with a width of 36' or less will have a concrete barrier.
8. Traffic controls and ITS elements, including census loops on ramps, traffic monitoring stations, and the installation of new fiber optic lines will be replaced or added for enhanced traffic management.

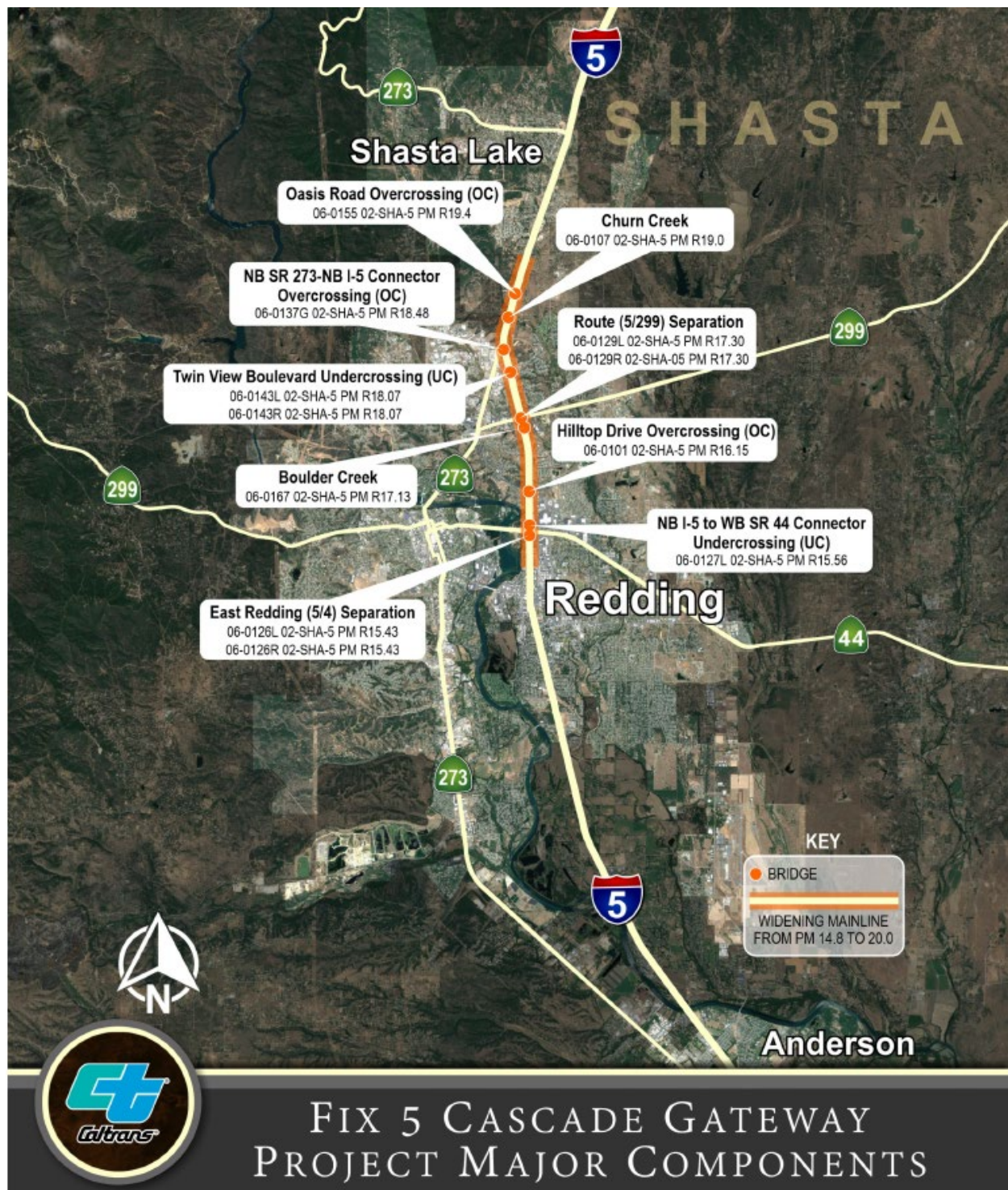


Exhibit 1: Fix 5 Cascade Gateway Project major components

Project History and Investment – I-5 through California’s North State was completed in the 1960s. Local growth, increased through traffic, and a higher proportion of heavy freight trucks require more capacity than the original four-lane facility is able to provide. According to the Caltrans I-5 Transportation Concept Report, the I-5 corridor through the Shasta Region has the highest traffic volumes in the Sacramento Valley; largest population centers (including the only urban area); greatest traffic congestion; highest concentration of interchanges; and greatest potential for future growth. Traffic volumes are projected to

nearly double between 2020 to 2040, resulting in reduced level of service, increased travel times, unreliable travel times, and peak hour speeds as low as 20 mph¹.

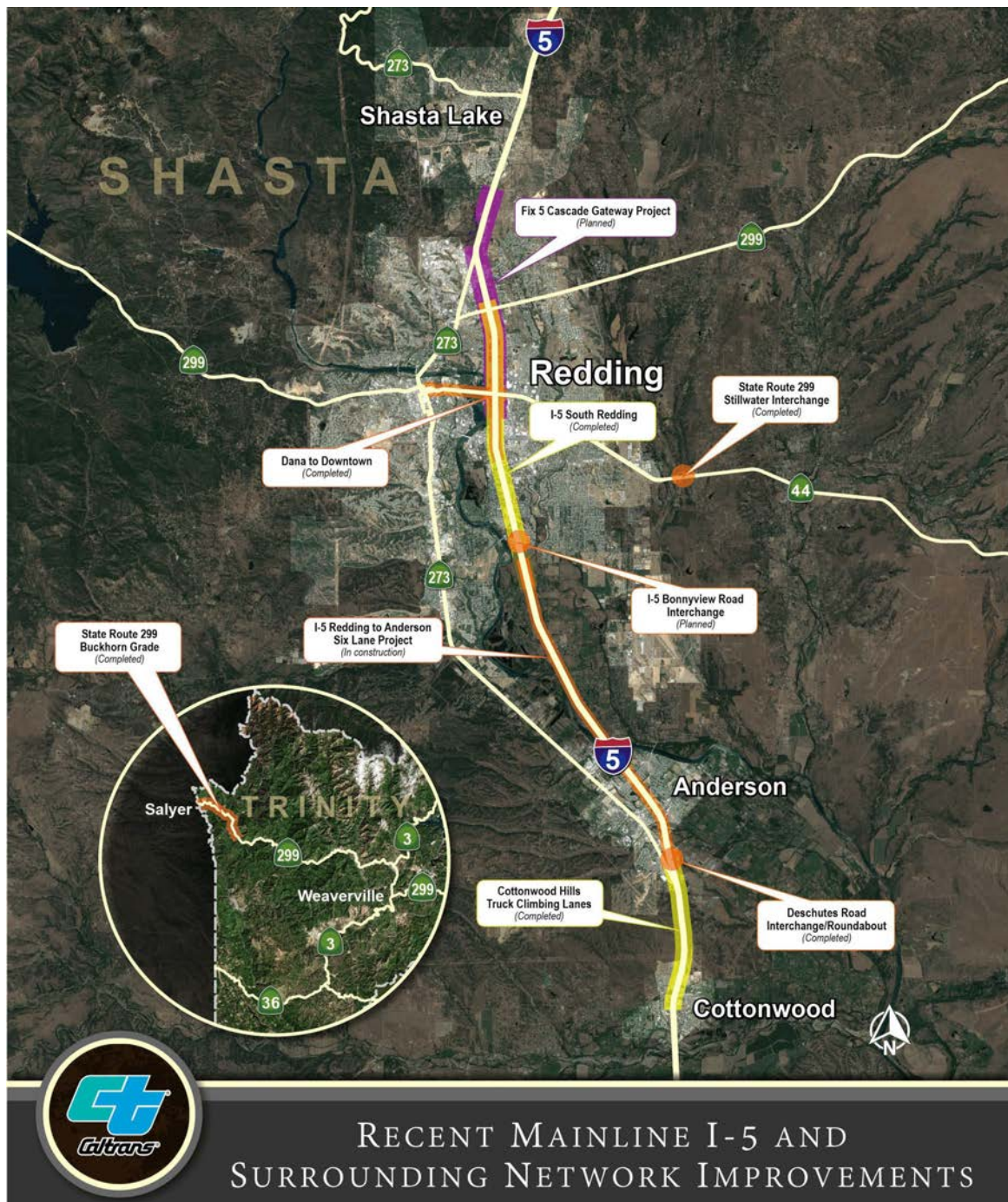


Exhibit 2: Recent Complementary Mainline I-5 and Surrounding Network Improvements

Over the past decade, SRTA, Caltrans, and local agency partners have worked together to systematically plan, design, and construct 17.2 additional lane miles on mainline I-5 through the Redding Urbanized Area. Additional improvements have been completed on interchanges, parallel corridors, and east-west connections to further enhance mobility for freight and people. Major investments are illustrated in

¹ Source: 2015 California Interregional Transportation Strategic Plan

Exhibit 2. The Fix 5 Cascade Gateway project is the culmination and capstone to decades of local/regional/state commitment to maintaining a state of good repair on I-5 and enhancing its efficiency, safety, and reliability.

Summary of Recent Complementary Mainline I-5 Improvements			
Project		Cost	Local/Regional/State Share
1	I-5 Redding to Anderson Six Lane Project (in construction)	\$132,859,000	\$24,000,000 Regional TCEP \$19,311,567 STIP \$50,044,600 SHOPP \$39,177,833 STATE TCEP \$325,000 Co-Op
2	I-5 South Redding (completed 2012)	\$24,255,000	\$1,419,000 RIP \$336,000 IIP \$22,500,000 CMIA
3	Dana to Downtown (completed 2013)	\$78,943,000	\$35,561,000 RIP \$1,500,000 RIP TE \$36,560,000 IIP
4	Cottonwood Hills Truck Climbing Lanes (completed 2011)	\$18,203,000	\$13,662,000 CMIA \$4,541,000 IIP
TCEP = California Trade Corridor Enhancement Program STIP = State Transportation Improvement Program SHOPP = State Highway Operations and Protection Program			RIP = Regional Improvement Program IIP = Interregional Improvement Program CMIA = California Corridor Mobility Improvement Account

In addition to mainline I-5 improvements, the following recent improvements to the surrounding interregional network extend the benefits of the NR6 Project to surrounding regions and destinations.

Relevant Non-I-5 Network Improvements		
Project (w/ map reference #)		Project Benefit
5	Deschutes Road Interchange/Roundabout (completed 2013)	New northbound off ramp from I-5 to Deschutes Road and new roundabout. Provides enhanced access to industrial land at project site.
6	State Route 299 Buckhorn Grade (completed 2016)	Provides enhanced operations, STAA access, and safety for trips beginning/ending west of I-5.
7	State Route 44 Stillwater Interchange (completed 2018)	Provides enhanced operations, STAA access, and safety for trips beginning/ending east of I-5.

Other efforts directly benefiting the Fix 5 Cascade Gateway project's performance and long-term resilience include:

- The Salmon Runner zero-emission intercity bus, which was awarded capital funds through California's Transit and Intercity Rail Program, will operate hydrogen-fueled coaches for 160 miles on I-5 to/from Sacramento, four round trips per day. This service will help manage mainline I-5 travel demand, reduce emissions, and provide hydrogen fueling infrastructure for freight vehicles on the California Hydrogen Highway Network (Executive Order S-07—04).
- Caltrans District 2's Vulnerability Assessment and Climate Adaptation Plan will assess the vulnerability of I-5, SR 299, SR 44, and other Caltrans assets to climate change. The plan will identify weather-related events that are likely occur with greater frequency and intensity in future years and longer-term climate change impacts. Based on these findings, a prioritized project list will be developed to systematically address the most likely and most disruptive threats to transportation infrastructure and mobility.
- The ShastaReady Climate Adaptation Plan (currently underway) will help ensure coordinated, multi-agency responsiveness to climate change events, such as the safe evacuation from wildfires that have impacted both property and lives in the North State in recent years.

Previously incurred expenses include \$1,600,000 in State Transportation Improvement Program (STIP) funds for Environmental Review and the environmental document.

Project Need – Proposed improvements, together with various other coordinated strategies, will be deployed to manage the I-5 freight corridor during extreme events, including snow, flooding, wildfires, landslides, and traffic collisions. These once exceptional events are increasing in frequency due to climate change and increased traffic volumes. Since 2016, I-5 has been closed between 18-23 times per year. The duration of closures is also increasing due to the severity of events. In 2017, for example, I-5 was closed to all traffic for five consecutive days and was not cleared for all freight vehicles for an additional three days. The 111-mile detour route (via State Routes 299 and 89) added an additional 53 miles to each vehicle trip through mountainous rural two-lane corridors and small main street highway towns. The impacts of wildfires, major storms, and other exceptional events extend well beyond the initial closure. In the case of the aforementioned wildfire, for example, extensive lane restrictions were required over the ensuing 12-18 months for cleanup, guardrail replacement, and atypical storm damage to culverts and other infrastructure caused by post-wildfire debris flows.

Under current traffic volumes, northbound I-5 closures now consistently back up I-5 for 10+ miles through the city of Redding and sometimes to the city of Anderson. In addition to rendering I-5 unusable for intraregional trips, traffic spills over onto local roadways and rural state routes through small towns that were never designed to accommodate interstate volumes and heavy-duty freight trucks. The adverse impacts to public health and safety are



2017 Wildfire Season

disproportionately felt by disadvantaged communities and schools in adjacent neighborhoods and rural towns located along detour routes.



Exhibit 3: Interstate 5 during a winter storm closure. The increasing frequency and duration of closures routinely backup I-5 for 10+ miles through the Redding Urbanized Area

When corridors such as I-5 shut down, impacts reverberate across larger freight systems. The impact of each closure can be felt in a number of ways, including:

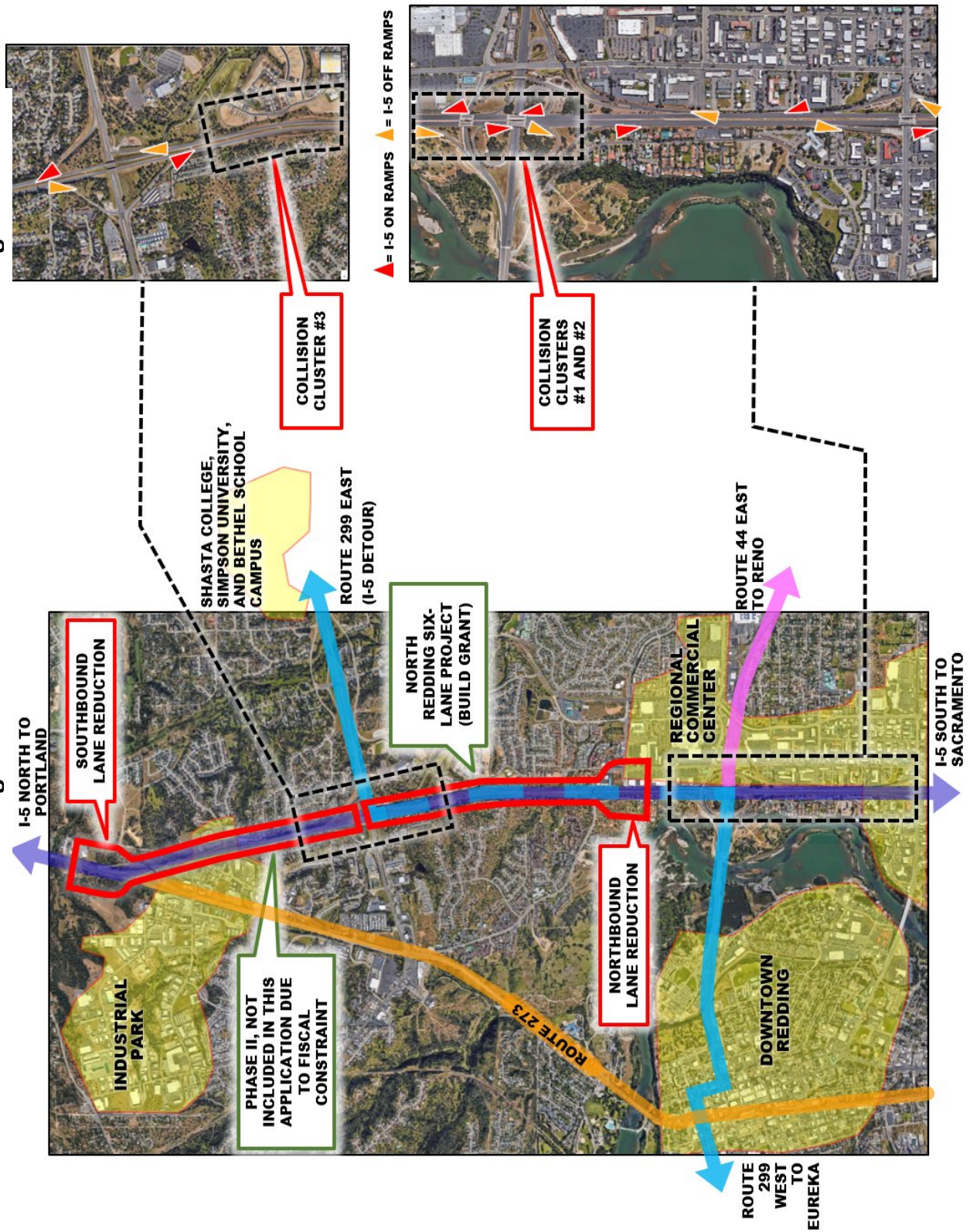
- **Mainline operations** – Direct and indirect costs are experienced in the form of lost productivity and increased travel costs for freight and people.
- **Local operations** – I-5 backups spill over onto local streets and roads, causing local congestion and consuming limited vehicle parking in commercial areas.
- **Environmental impacts** – Idling vehicles – particularly heavy-duty freight trucks – generate carbon emission which exacerbate climate change.
- **Public health and safety** – During I-5 closures, idling vehicles – particularly heavy-duty freight trucks – degrade air quality, including fine particulate matter linked to asthma and cardiovascular diseases. These impacts are disproportionately felt by disadvantaged communities.
- **Local/regional economic activity** – Closures result in lost economic activity, lost income, lost productivity, and lost property value due to reduced productivity, increased collisions, and restricted access to local businesses.

The Fix 5 Cascade Gateway Project is also needed to improve safety on mainline I-5. The NR6 Project is located at the confluence of I-5 and two state routes. Multiple entry and exit points over a short distance is combined with a reduction in travel lanes. This has led to a high number of collisions related to merging, changing lanes, and stop-and-go traffic. Increasing traffic volumes and intensifying congestion in this area have compounded these issues. Historic (10 year) and projected (20 year) collisions are provided below:

SUMMARY OF HISTORIC AND PROJECTED COLLISIONS AT THE NR6 PROJECT LOCATION (Source: Caltrans Office of Traffic Investigations)		
	HISTORIC (10 year)	
	<u>All Vehicles</u>	<u>Trucks</u>
<u>Total Number of Collisions</u>	364 total	84 total
	122 involving injury or fatality	16 involving injury or fatality
<u>Relevant Collisions</u> (i.e. those related to merging conflicts, lane changes, and stop-and-go traffic)	101 total	32 total
	31 involving injury or fatality	7 involving injury or fatality
	PROJECTED (20 year)	
	<u>All Vehicles</u>	<u>Trucks</u>
<u>Total Projected Relevant Collisions</u>	202 total	64 total
<u>Number of Collisions Forecast To Be Reduced as a Result of the NR6 Project</u>	51 collisions reduced	14 collisions reduced

Three collision clusters have been identified and their causes statistically evaluated. As shown in the following exhibits, the NR6 Project addresses the primary causes of collisions at each location.

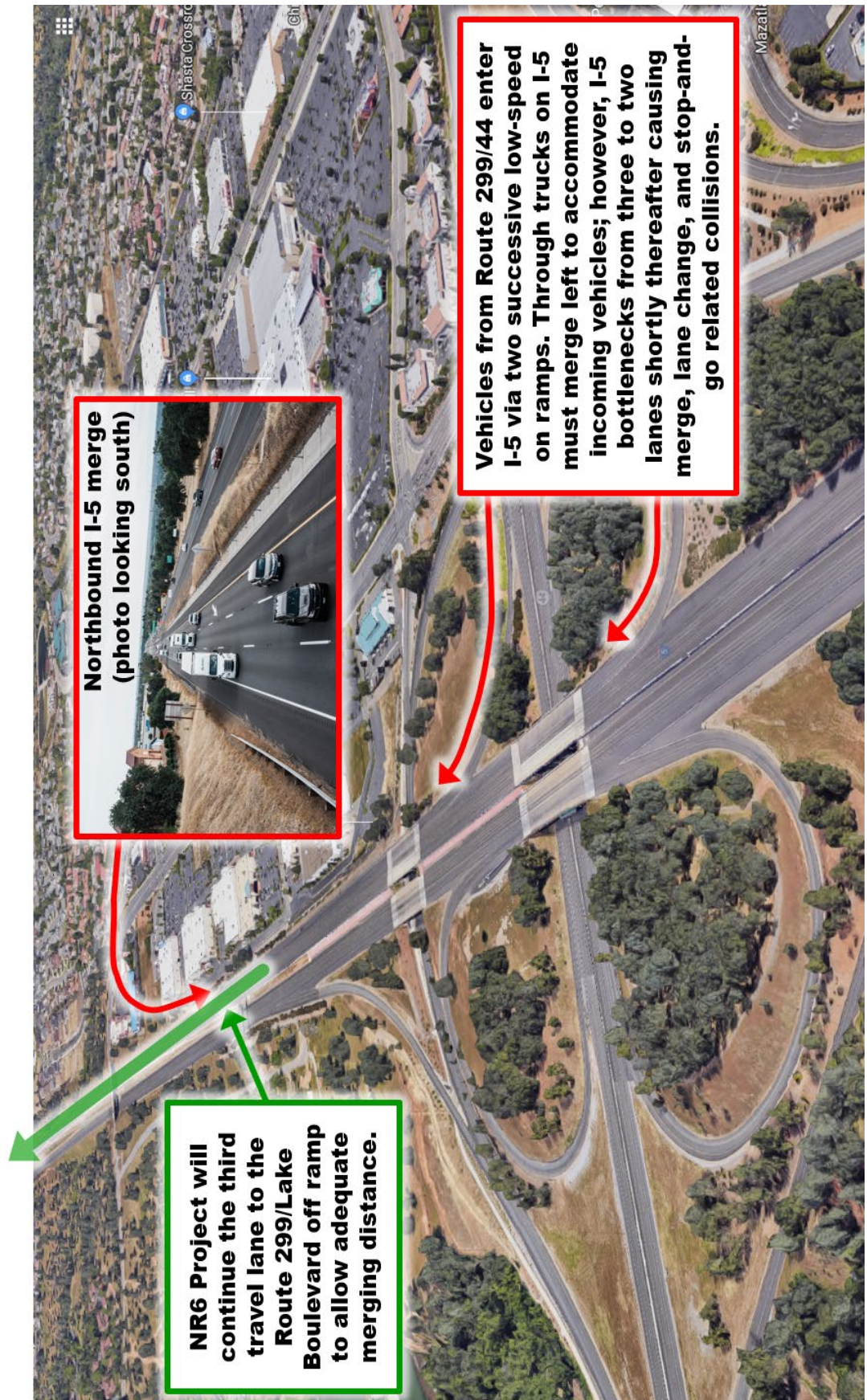
Contributing Factors to Collisions in the I-5 North Redding Six-Lane



Collision Cluster #1: Southbound I-5 at Route 44/299



Collision Cluster #2: Northbound I-5 at Route 299/44 Interchange



Collision Cluster #3: Southbound I-5 at Route 299/Lake Boulevard On Ramp



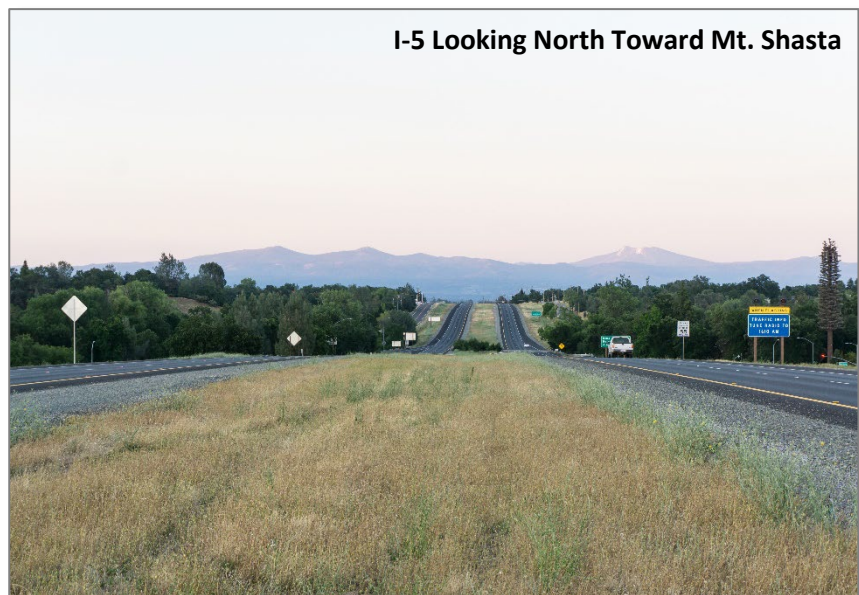
Looking into the future these impacts are expected to worsen considerably. Travel on I-5 north of Sacramento is forecast to increase by 66.8% between 2010 and 2040 to over 8.8 million vehicle miles traveled² – 37.5% of which will be freight traffic. The effect of future traffic demand combined with the growing number and severity of climate change-related events will hinder the region’s economy and reverse decades of progress toward public health and safety goals.

Project Benefits – If selected for funding, the Fix 5 Cascade Gateway solution will provide the following benefits:

- **Adaptability** – Makes the best and highest use of existing underutilized pavement assets to address a variety of situations and needs. Also improves access to detour routes (State Routes 299 and 44) for additional network redundancy.
- **Innovation** – Adds innovative ‘flex lanes’ that, with the help of ITS traffic control, shift corridor capacity to where and when it is most needed during high-demand periods, emergency response/evacuation, and northbound closures. Connections and access to hydrogen fueling infrastructure will also be made accessible to freight trucks as part of the Salmon Runner zero emission intercity bus project (funded through California’s Transit and Intercity Rail Capital Program (TIRCP)). Installation of fiber optic cable along the project will help ensure that the corridor is ready for automation of vehicles and vehicle-to-infrastructure communications.
- **Safety** – Improves safety by remedying a concentration of collision clusters caused by the confluence of multiple state routes, the close proximity of many on/off ramps, and differentials in speed due to current roadway geometries. The project will also reduce user vulnerability to wildfire and other threats by providing turnarounds and enhanced access for first responders and maintenance vehicles.
- **Multimodality** – Completes a critical gap in the region’s nascent active transportation trunk line network where the I-5 corridor has constrained east-west mobility.

PROJECT LOCATION

The Fix 5 Cascade Gateway Project is located at the geographic center and transportation crossroads of California’s sixteen-county North State Region. The east-west State Routes 299 and 44 corridors connect via I-5. From a national perspective, it is the midpoint to the longest contiguous transportation and trade corridor in the nation, connecting two international borders, the nation’s west coast ports, and the Cascadia



² Source: 2015 California Interregional Transportation Strategic Plan

and Northern California Mega-Regions.



Exhibit 4: Fix 5 Cascade Gateway Project Location

The Fix 5 Cascade Gateway Project is contained entirely within the existing I-5 right of way. The southern project boundary is located 0.3 miles north of the Cypress Ave overcrossing (northbound I-5 Exit 677) in the city of Redding. The Fawndale Drive overcrossing (northbound I-5 Exit 689) serves as the northern project boundary, just north of the city of Shasta Lake. See attached project map for geographic extent.

This segment of I-5 is at the extreme northern end of the California’s Central Valley. To the north, I-5 rises in elevation toward Mt. Shasta and Oregon. To the east and west, the I-5 corridor is flanked by the Cascade and Klamath mountain ranges, which limit alternative routes – particularly for freight. The State Route 299/89 corridor – a twisty, mountainous two-lane corridor through several rural communities – is the only freight alternative for north-south freight traffic, adding an additional 53 miles to each vehicle trip.

The Fix 5 Cascade Gateway Project is considered a rural project for INFRA. It is located partially in an Urbanized Area of less than 200,000 population and partially in a non-urbanized rural area.

PROJECT PARTIES

The Shasta Regional Transportation Agency (MPO) is the lead agency for this grant application. The California Department of Transportation is the implementing agency.

GRANT FUNDS, SOURCES, AND USES OF ALL PROJECT FUNDING

INFRA	Other (e.g. State SHOPP, Trade Corridors Enhancement Program, STIP)	Total
\$50,557,000	\$35,304,000	\$85,861,000

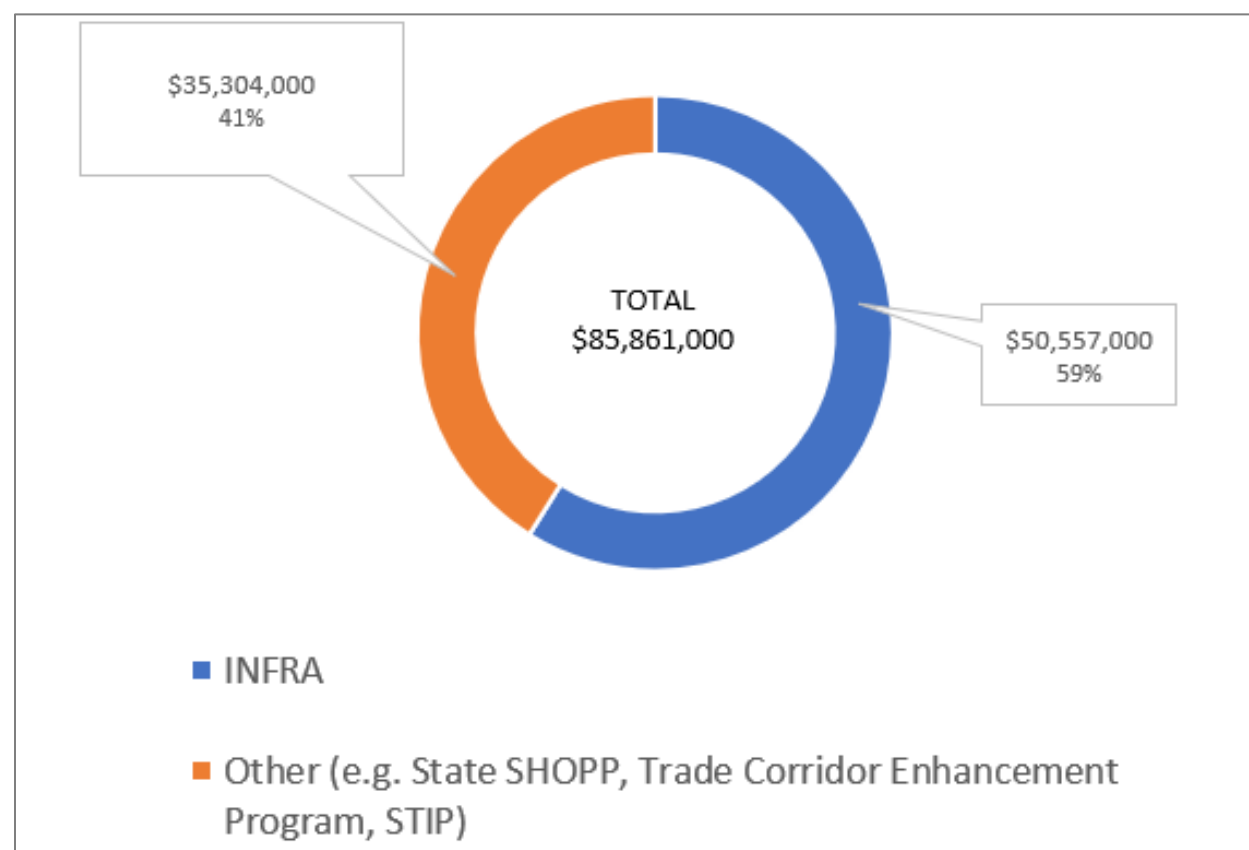


Exhibit 5: Fix 5 Cascade Gateway Funding Sources

Exhibit 6: Fix 5 Cascade Gateway Funding by Project Element

Unescalated Cost Estimates (Thousands)

PHASE	TOTAL
0 - PA&ED	\$1,600
1 - PS&E	\$4,752
2 - RW SUP	\$71
3 - CON SUP	\$6,859
4 - CON CAP	\$62,100
9 - RW CAP	\$725
TOTAL	\$76,107

Escalated Costs (Thousands, 2023 const)

PHASE	INFRA	OTHER	TOTALS	FY
0 - PA&ED	\$0	\$1,600	\$1,600	19/20
1 - PS&E	\$3,020	\$2,013	\$5,033	20/21
2 - RW SUP	\$46	\$30	\$76	20/21
3 - CON SUP	\$4,574	\$3,049	\$7,623	22/23
4 - CON CAP	\$42,472	\$28,314	\$70,786	22/23
9 - RW CAP	\$445	\$297	\$742	21/22
TOTALS	\$50,557	\$35,304	\$85,861	

1. PS&E and RW Support escalated to 20/21.

2. CON Support and CON Capital escalated for construction in 2023 and 2024.

3. RW CAP escalated only estimated utility relocation costs, not permit fees or mitigation.

Previously incurred expenses – Environmental Review and the environmental document - \$1,600,000 State Transportation Improvement Program funds.

Future eligible costs, including the source and amount of those funds and funding commitments for non-Federal contributions – \$35,304,000 in other funds, such as: State Senate Bill 1 gas tax funding, Trade Corridor Enhancement Program (TCEP) funds, and State Transportation Improvement Program (STIP) funds.

Future federal funds, the amount, nature, and source of those funds – The region may seek Better Utilizing Investments to Leverage Development (BUILD) funds to supplement future funding needs.

Project Budget, showing how each funding source (non-federal, INFRA, and other Federal) will share in each major construction activity – See Exhibit 6.

Sufficient contingency amounts for budgeted for unanticipated cost increases – The Fix 5 Cascade Gateway budget includes a 10% contingency plus escalation.

Conditions, terms, and authorities related to funds – Other funds are unsecured. SRTA and Caltrans anticipate applying for funding through several grant programs in upcoming grant cycles to complete the budget, as has been done with previously funded projects (see summary of past successfully funded projects on page four of this narrative).

MERIT CRITERIA

Criterion #1: Support for National or Regional Economic Vitality

The California Department of Transportation's "California Life-Cycle Benefit/Cost Analysis Model INFRA 2020 version was used to run the benefit/cost analysis for the Fix 5 Cascade Gateway Project. Results of the analysis are displayed in the Investment Analysis below. See the attached documentation for complete Benefit Cost Analysis worksheets, parameters and formulas.

3

INVESTMENT ANALYSIS

SUMMARY RESULTS

Life-Cycle Costs (mil. \$)	\$73.4
Life-Cycle Benefits (mil. \$)	\$221.7
Net Present Value (mil. \$)	\$148.3
Benefit / Cost Ratio: 3.0	
Rate of Return on Investment: 22.9%	
Payback Period: 4 years	

ITEMIZED BENEFITS (mil. \$)	Passenger Benefits	Freight Benefits	Total Over 20 Years	Average Annual
Travel Time Savings	\$1.4	\$0.0	\$1.4	\$0.1
Veh. Op. Cost Savings	\$0.0	\$0.0	\$0.0	\$0.0
Accident Cost Savings	\$185.0	\$35.2	\$220.3	\$11.0
Emission Cost Savings	\$0.0	\$0.0	\$0.0	\$0.0
TOTAL BENEFITS	\$186.5	\$35.2	\$221.7	\$11.1
Person-Hours of Time Saved			281,773	14,089

Should benefit-cost results include:

1) Induced Travel? (y/n) Y
Default = Y

2) Vehicle Operating Costs? (y/n) Y
Default = Y

3) Accident Costs? (y/n) Y
Default = Y

4) Vehicle Emissions? (y/n) Y
includes value for CO₂e
Default = Y

EMISSIONS REDUCTION	Tons		Value (mil. \$)	
	Total Over 20 Years	Average Annual	Total Over 20 Years	Average Annual
CO Emissions Saved	0	0	\$0.0	\$0.0
CO ₂ Emissions Saved	0	0	\$0.0	\$0.0
NO _x Emissions Saved	0	0	\$0.0	\$0.0
PM ₁₀ Emissions Saved	0	0	\$0.0	\$0.0
PM _{2.5} Emissions Saved	0	0	\$0.0	\$0.0
SO _x Emissions Saved	0	0	\$0.0	\$0.0
VOC Emissions Saved	0	0	\$0.0	\$0.0

Exhibit 7: Benefit-Cost Analysis

The Fix 5 Cascade Gateway (F5CG) Project has a benefit/cost ratio of 3.0. One criterion that the Cal B/C model does not convey is the SRTA-Caltrans partnership over the years. The partner agencies worked on multiple projects throughout the North State and have also included local county and city partners where appropriate. Another partnership and proponent of the project is the North State Super Region. SRTA and Caltrans District 2 have been dedicated over the last decade in pursuing planning, funding and implementing projects on the I-5 corridor. The F5CG Project is a legacy project completing a 9.9-mile section of the I-5 corridor that connects into previous and current projects. Past projects include the Cottonwood Hill Truck Climbing Project, South Redding Six-Lane Project, and Redding-to-Anderson Six-Lane Project. Each represents partnerships between SRTA and Caltrans to secure state and federal funds furthering the goal for increased capacity for the interregional and regional travel. Cal B/C model results

give a snapshot of the potential benefits regarding F5CG's immediate and future benefit, but do not fully convey the importance of this project as a legacy I-5 corridor project and the value of the partnerships and relationships used to secure funding and implement earlier projects that have culminated in the Fix 5 Cascade Gateway Project.

From a national economic development perspective, the I-5 corridor supports commerce and freight movement from California to Oregon and Washington State as well as Canada and Mexico. It is a vital component of interstate and international commerce on the West Coast. While this gives the corridor national significance, it also serves as a backbone for regional access. In addition, any disruption to I-5 bridges and structures could have dramatic negative consequences on the region's quality of life and economy, due to the necessarily circuitous nature of detour routes available through the region³.



Exhibit 8: Third lane on I-5 Northbound at Hilltop Overcrossing discontinues rather than connecting to State Route 299

Criterion #2: Leveraging of Federal Funding

Total project cost is \$85,861,000, of which \$35,304,000 will be leveraged funds.

INFRA	Leveraged State Funds	Percentage Non-Federal Funds Leveraged
\$50,557,000	\$35,304,000	41%

The following factors affect the region's ability to generate or draw upon additional non-federal contributions from project beneficiaries:

- o No local funds - The jurisdictions located within the F5CG project limits are not California 'self-help' entities, meaning they have no local sales or other tax revenue that may fund the proposed transportation project.
- o Low income – Low-income communities surround the Fix 5 Cascade Gateway Project (see Exhibit 9), limiting the ability of local governments to raise capital necessary for large-scale infrastructure projects such as the Fix 5 Cascade Gateway Project.

³ Source: North State Transportation for Economic Development Study (2013)

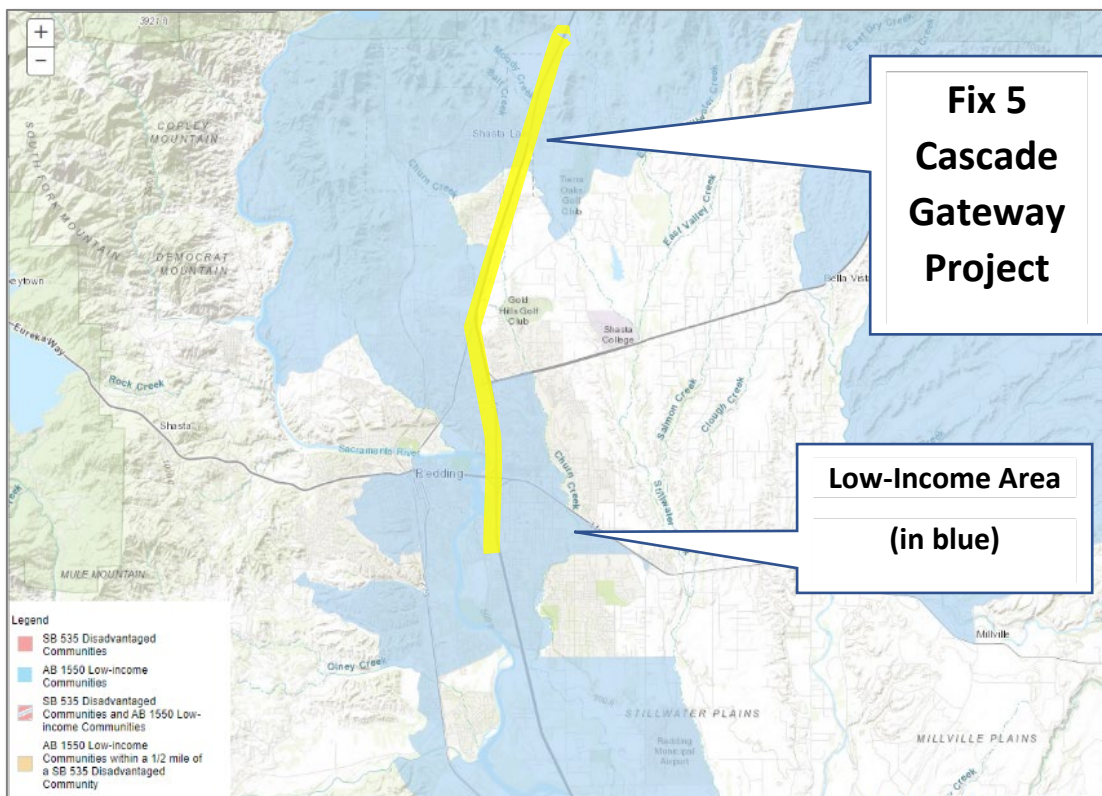


Exhibit 9: Low-Income Households

Criterion #3: Potential for Innovation

Innovative Technologies - Within the F5CG Project there will be a multitude of different technological pieces of equipment and systems installed directly within the project limits and or connecting to existing systems outside of the project. Examples of some of these are traffic monitoring detection stations. These stations are electronic data acquisition systems used to collect real time traffic volumes, speed, occupancy and origin and destination information. This data supports Traffic Management Applications such as incident detection, traffic analysis, freeway mainline and ramp metering control. Real-time data from the traffic monitoring detection stations can be used to detect traffic congestion and relay that information to the Transportation Management Center (TMC) operators. This collected data is instrumental for efficient incident response by local Caltrans offices, California Highway Patrol and other Emergency Services, if needed.

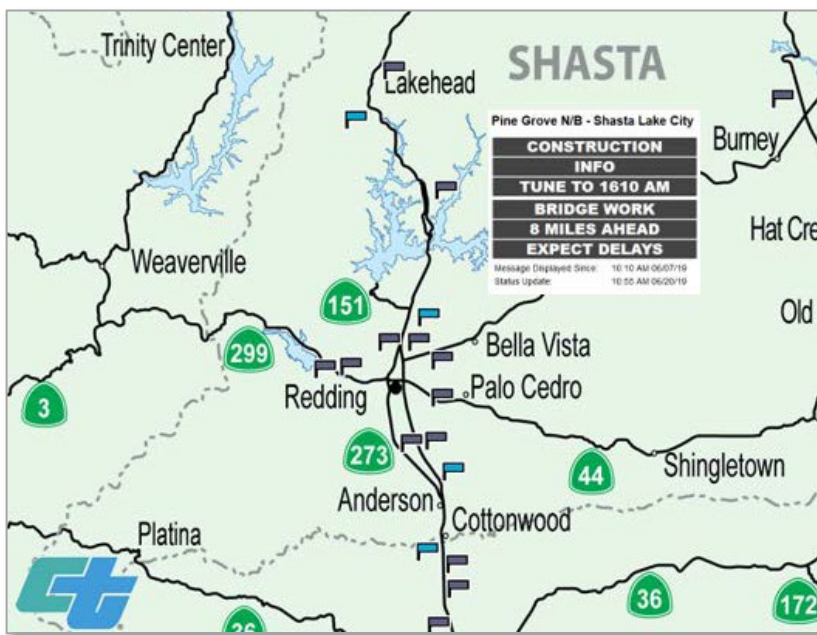


Exhibit 10: Location of CCTV Cameras

Traffic monitoring detection stations also provide mainline traffic flow data that can be utilized in the near future for potential ramp metering purposes. The potential of ramp metering operation can use mainline traffic flow rates and occupancies to determine proper metering rates to prevent congestion from forming at identified bottlenecks on the freeway system. This information could also be routed to future autonomous vehicles for more efficient routes and potential collision avoidance. Within the project limits of the F5CG Project, microwave vehicle detector systems will be installed to help provide vital information not only for Caltrans operations, but for use by Highway Patrol, emergency services and future autonomous vehicles and systems on the State Highway System. Microwave detectors emit, receive, and analyze traffic flow data, including volume, speed, presence and occupancy. This information can then be routed to different agencies and entities for a more efficient transportation system operation. There will be an installation of Closed-Circuit Television (CCTV) at the Hilltop Drive overcrossing, and construction of a fiber hub at PM R18.47. The primary uses for the CCTVs are to collect visual data to provide motorists visual verification of weather and traffic conditions to make informed travel decisions, and to provide Caltrans visual information to improve response to traffic and/or weather-related incidences on the highways. The fiber hub is a vault which houses fiber terminations and communications electronics that will provide high-speed and reliable communications for Intelligent Transportation Systems (ITS) elements within the Redding area. Also included are changeable Message Signs (CMS) at the northbound and southbound lanes at Oasis Road and upgraded Highway Advisory Radio (HAR) at Hilltop Drive to meet current District 2 standards and technology practices.

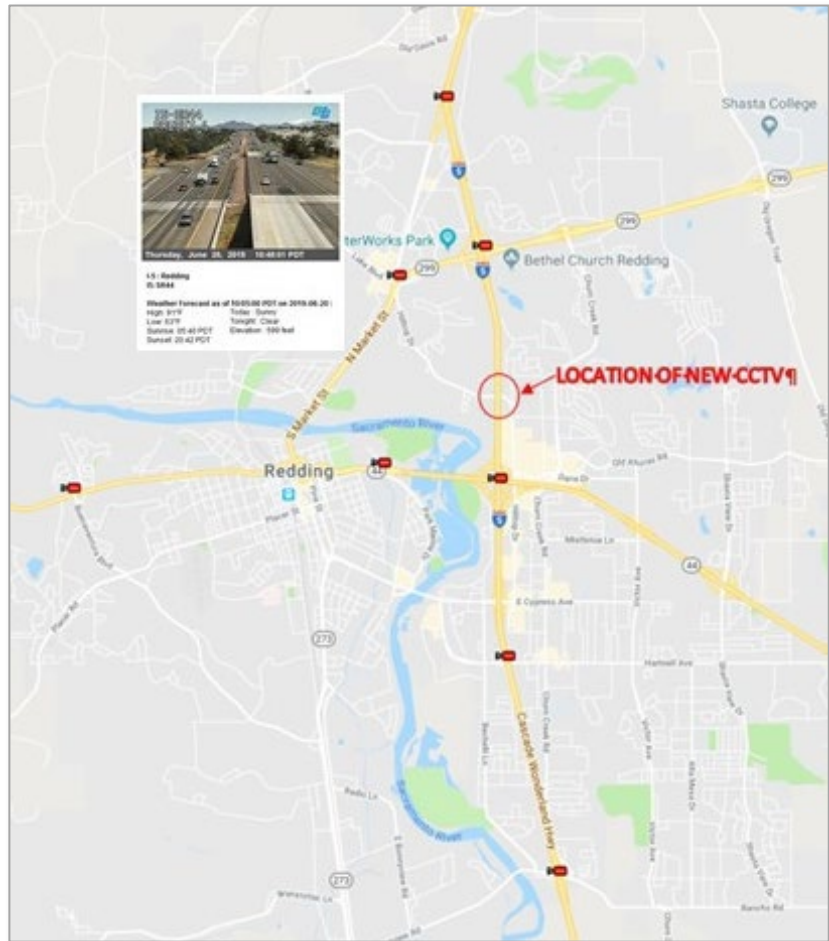


Exhibit 11: Location of new ITS element

Criterion #4: Performance and Accountability

The region is planning for full life-cycle cost for operations and maintenance, and such funds will not be diverted. As referenced in Exhibit 7 the Benefit-Cost model results show there is a life cycle cost to the Fix 5 Cascade Gateway Project of \$73.4 million. Once completed the Fix 5 Cascade Gateway Project would fall under the maintenance of the State Highway Operations and Protection Program (SHOPP) – the State Highway System’s “fix-it-first” program that funds the repair and preservation, emergency repairs, safety improvements, and some highway operational improvements on the State Highway System (SHS).

By continuously repairing and rehabilitating the State Highway System (SHS), the SHOPP protects the enormous investment that has been made over many decades to create and manage the approximately 50,000 lane-mile SHS. The SHS includes statutorily designated state-owned roads, highways (including the Interstate system) and bridges (including associated bicycle and pedestrian facilities) and their supporting infrastructure such as culverts, transportation management systems (TMS), safety roadside rest areas, and maintenance stations. The SHOPP also funds mandated project categories such as retrofitting existing SHS facilities to comply with the Americans with Disabilities Act and storm water control requirements.

Other Criteria:

The I-5 corridor through Shasta's urbanized area includes four Opportunity Zones. Access to these Opportunity Zones is compromised when I-5 backs-up during increasingly frequent and longer closures.

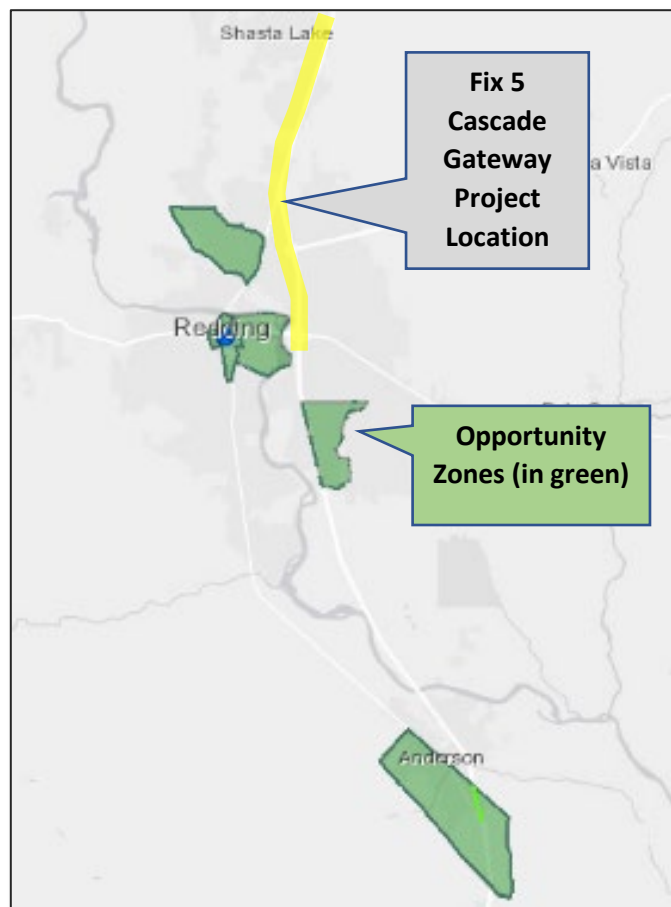


Exhibit 12: Proximity to Opportunity Zones

PROJECT READINESS

Technical Feasibility - The Fix 5 Cascade Gateway (F5CG) Project is an extension of the previously designed and implemented South Redding Six-Lane Project and the previously designed and under construction Redding-to-Anderson Six Lane Project. As such, the technical feasibility of the proposed design is well-established. Furthermore, the F5CG Project is located on one of the easiest segments of the greater six-lane corridor. By comparison, to the current Redding to Anderson Six-Lane Project, there are no bridge replacements, railroad involvement, major horizontal or vertical alignment changes, or other features with the potential to introduce unanticipated challenges and delays.

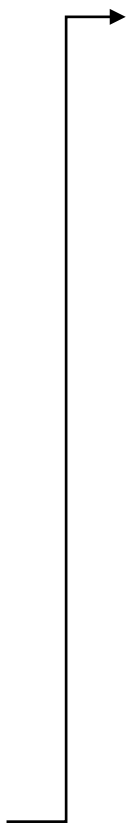
The F5CG Project widens to the median on NB I-5 from PM R16.5 to R18.6 and widens SB I-5 from PM 16.1 to R18.6. Widening to the median will provide a new 12-foot lane and 10-foot median shoulder. In the northbound direction from PM R18.6 to R19.2 roadway widening will occur to the outside providing a 12-foot lane functioning as an auxiliary lane from the NB 273 on-ramp to the NB Oasis Rd off-ramp. The existing open-graded hot mix asphalt surface course will be replaced from pavement edge to edge. Where the median is less than 36-feet wide, a concrete barrier will be constructed. Grade differentials between the NB and SB roadway prisms will be handled with a standard concrete retaining barrier or a special retaining wall and barrier as height differences require. Where the median will remain wider than 36-feet, a high-tension cable median barrier will be constructed.

Six structures will be widened towards the median: The East Redding (5/44) Separation will be widened by approximately 15'-3", and the NB I-5 to WB SR 44 Connector Undercrossing will be widened by 19'-3".

The two pairs of structures at the Route 5/299 separation and Twin View Blvd will be widened by approximately 17'-10" (right and left structures). In addition, one structure will be widened towards the outside: Churn Creek Bridge will be widened by approximately 12'-4" (right structure). Bridge rails will be built to current design standards and the decks will receive a protective polyester concrete overlay. Drainage systems will be added, adjusted and modified as necessary to accommodate the roadway widening. Existing outfall characteristics will be perpetuated using a combination of detention vaults, detention basins, and retention features to mitigate for the increased runoff from the widening. Existing signing and striping will be upgraded to accommodate the widening. Erosion control features will stabilize slopes, and biostrips will provide appropriate water quality treatment measures. The cost estimate includes all the work necessary to build the F5CG Project, based on many specific contract items: Hot Mix Asphalt, Aggregate Base, Median Barriers, and the Advanced Planning Study level construction prices for the planned bridge widening work. The cost estimate includes cost information from functional specialists in Electrical Design, Intelligent Transportation Systems, Traffic Operations, Landscape/Erosion Control and Hydraulics.

The cost estimate was reviewed and validated in collaboration among the project development team (PDT). The PDT identified some known risks and placed them in an estimation matrix measuring the probability and cost severity of each risk. For one example, there is a potential need for additional right of way or sound walls. Although a very low risk, the cost would be significant and must be considered in the budget. A portion of the total construction funding is similarly committed to the management of all such risks. In all, a project contingency of 10% has been factored in.

Project Schedule

Proposed PROJECT SCHEDULE						
M000	ID Need	1/6/2015		M377	P & E to R.O.E.	7/6/2022
M010	Approve PID/PIF	2/14/2017		M378	Draft Struct. PS&E	6/28/2022
M015	Program Project	3/22/2018		M380	Final Struct. PS&E	9/28/2022
M020	Begin Environmental	4/5/2019		M410	Right of Way Cert.	11/3/2022
M030	NOP	-		M430	Draft Contract Ready	8/17/2022
M035	NOI	-		M460	Ready to List	12/1/2022
M040	Begin Project	1/7/2019		M470	Allocate	1/31/2023
M120	Circ. Draft ED	3/30/2020		M480	Advertise	1/10/2023
M200	PA & ED	7/6/2020		M490	Bid Opening	2/28/2023
M221	Bridge Site Submit	9/1/2020		M495	Award	3/28/2023
M224	Right of Way Maps	10/5/2020		M500	Approve Contract	4/25/2023
M225	Reg. Right of Way	11/9/2020		M600	Accept Contract	4/21/2025
M275	General Plans	4/28/2021		M800	End Project	4/21/2027
M300	Draft P&E	5/11/2022		M900	Final Project Closeout	1/22/2029

Required Approvals

Environmental technical studies and reviews to obtain both State and Federal Environmental approvals for the Project are being prepared, with the final California Environmental Quality Act approval scheduled to be signed by June 15, 2020. The final NEPA approval is anticipated to be a Categorical Exclusion under 23 United States Code of Regulations 327.

Regulatory permits from the US Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board are anticipated for culvert extensions and bridge widening over Churn Creek. Consultation with the National Marine Fisheries Service has been completed for approval to work in Churn Creek. Permits will be obtained after final environmental approvals are complete, but prior to advertisement of the construction contract. Since 2007, Caltrans has performed federal responsibilities for environmental decisions and approvals under NEPA for highway projects in California that are funded by FHWA. These responsibilities have been assigned to Caltrans by FHWA pursuant to two Memoranda of Understanding (MOU) signed by FHWA. The 23 USC 326 MOU allows Caltrans to approve 326 Categorical Exclusions (CEs). The 23 USC 327 MOU allows Caltrans to approve Environmental Assessments (EA) and Environmental Impact Statements (EIS) as well as Categorical Exclusions that cannot be approved as 326 CEs. In reviewing and approving projects under NEPA, Caltrans is responsible for complying with all applicable federal environmental laws and with FHWA NEPA regulations, policies, and guidance, and is legally responsible and liable for the environmental decisions made on projects under NEPA Assignment

The environmental document will be circulated to the public, associated agencies, and a public meeting will be held to discuss the project, the project alternatives, environmental impacts, and obtain public comments prior to finalizing the environmental approvals. Over the last several years similar projects along the I-5 corridor have had widespread community support.

Assessment of Risks

RISK	Response Strategy
If matching funds for the INFRA grant are not identified, the project will not have secured all necessary funding to complete PS&E and Construction, delaying project development.	SRTA and Caltrans D2 continually pursue grant opportunities and coordinate with Caltrans HQ to secure a complete funding plan.
If the California Air Resources Board challenges the forthcoming environmental document in court, a potential injunction could delay project delivery beyond the INFRA funds obligation date.	Additional studies required by SB743 are being included in the current environmental clearance to produce a more robust environmental document that can withstand criticism.
If the general public or other agencies express strong opposition to the project during DED circulation, there may not be adequate time to satisfactorily respond and still meet PA&ED on schedule.	The project is well supported in the community. Thorough studies for the Initial Study will allow the DED to adequately anticipate and respond to potential objections.

Large/Small Project Requirements

As per Section C.3.ii of the INFRA NOFO, the F5CG is categorized as a small project. For cost effectiveness, there is a life cycle benefit of \$221.7 million and a total life cycle project cost of \$73.4 million (see Benefit Cost Analysis, Exhibit 7). As shown in the attached model, this project offers a benefit/cost ratio of 3.0. Over the long term, the Fix Five Cascade Gateway Project is a cost-effective project for the northern California region, and provides a variety of co-benefits.



February 20, 2020

Daniel S. Little, Executive Director
Shasta Regional Transportation Agency
1255 East Street, Suite 202
Redding, CA 96001

Subject: Recommend INFRA Funding for the Interstate 5 Fix 5 Cascade Gateway Project

Dear Mr. Little:

Our organization, Shasta VOICES, is a strong private-sector business group with 1,300 members and supporters who live and work in the Shasta County area, advocating for a stable and sustainable economic future in our community. We are pleased to support the Fix 5 Cascade Gateway Project application for funding under the 2020 Infrastructure for Rebuilding America (INFRA) program.

The project will improve freight and regional mobility along Interstate 5 (I-5) for ten miles north of State Route 44 and the city of Redding. The project will help address all too frequent snow, collision and wildfire closures in this strategic freight corridor by adding auxiliary lanes, updating a fixed median barrier with a moveable one to create flex lanes, and incorporating Intelligent Transportation System (ITS) and hydrogen fueling infrastructure. These proposed improvements are focused on corridor management for which a north-south safe and feasible detour alternative does not exist.

The project is the culmination of a larger legacy of enhancing freight and regional movement along I-5 in this critical corridor, funded primarily with state and regional funds. The project has a long history of coordinated local, regional, state, and federal investment to maximize corridor mobility.

Key project benefits include:

- Less severe I-5 closure impacts to national freight movement and regional traffic;
- Preservation of traffic operations to support economic growth, including enhanced access to designated Opportunity Zones, industrial parks, and three institutions of higher education;

- Reduced lane weave-related collisions by providing southbound freight trucks additional time to merge from inside lanes (as a result of vehicles entering I-5 at three locations near the Route 44 junction) to the Route 299 offramp.

This project would create a long-term, significant benefit to our community and those who travel through it on Interstate 5. There is support for this project locally by construction, real estate, business, and those who live and work in the community.

Please do not hesitate to contact me if Shasta VOICES can assist you in any way as you move this project forward. Thank you for your efforts.

Sincerely,

Mary B. Machado
Executive Director
On Behalf of the Board of Directors
Phone: (530) 222-5251
Email: mary@shastavoices.com

February 24, 2020

Daniel S. Little, Executive Director
Shasta Regional Transportation Agency
1255 East Street, Suite 202
Redding, CA 96001

Subject: Recommend INFRA Funding for the Interstate 5 Fix 5 Cascade Gateway Project

Dear Mr. Little:

The City of Shasta Lake is pleased to support the Fix 5 Cascade Gateway Project application for funding under the 2020 Infrastructure for Rebuilding America (INFRA) program. The project will improve freight and regional mobility along Interstate 5 (I-5) for ten miles north of State Route 44 and the city of Redding. The project will help address all too frequent snow, collision and wildfire closures in this strategic freight corridor by adding auxiliary lanes, updating a fixed median barrier with a moveable one to create flex lanes, and incorporating Intelligent Transportation System (ITS) and hydrogen fueling infrastructure. These proposed improvements are focused on corridor management for which a north-south safe and feasible detour alternative does not exist.

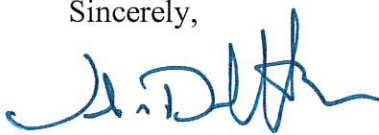
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- Preservation of traffic operations to support economic growth, including enhanced access to designated Opportunity Zones, industrial parks, and three institutions of higher education;
- Reduced lane weave-related collisions by providing southbound freight trucks additional time to merge from inside lanes (as a result of vehicles entering I-5 at three locations near the Route 44 junction) to the Route 299 offramp.

With every snowstorm that shuts down I-5, the City of Shasta Lake directly experiences the impacts of these closures and the safety issues to our residents trying to get to their homes. With very little truck parking within the City, we believe this project would benefit our area by keeping the lanes open for both normal day-to-day traffic/commerce as well as open for emergency vehicle response if needed.

Sincerely,



John N. Duckett, Jr.
City Manager



Shasta County

DEPARTMENT OF PUBLIC WORKS

1855 PLACER STREET
REDDING, CA 96001-1759
530.225.5661 530.225.5667 FAX
800.479.8022 California Relay Service at 700 or 800.735.2922

PATRICK J. MINTURN, DIRECTOR
C. TROY BARTOLOMEI, DEPUTY
KEN D. CRISTOBAL, DEPUTY
ALFRED V. CATHEY, DEPUTY

February 19, 2020

Daniel S. Little, Executive Director
Shasta Regional Transportation Agency
1255 East Street, Suite 202
Redding, CA 96001

Subject: Recommend INFRA Funding for the Interstate 5 Fix 5 Cascade Gateway Project

Dear Mr. Little:

The Shasta County Department of Public Works is pleased to support the Fix 5 Cascade Gateway Project application for funding under the 2020 Infrastructure for Rebuilding America (INFRA) program. The project will improve freight and regional mobility along Interstate 5 (I-5) for ten miles north of State Route 44 and the city of Redding. The project will help address all too frequent snow, collision and wildfire closures in this strategic freight corridor by adding auxiliary lanes, updating a fixed median barrier with a moveable one to create flex lanes, and incorporating Intelligent Transportation System (ITS) and hydrogen fueling infrastructure. These proposed improvements are focused on corridor management for which a north-south safe and feasible detour alternative does not exist.

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Key project benefits include:

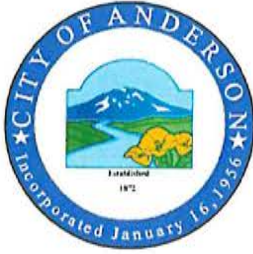
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- Reduced lane weave-related collisions by providing southbound freight trucks additional time to merge from inside lanes (as a result of vehicles entering I-5 at three locations near the Route 44 junction) to the Route 299 offramp.

Sincerely,

Patrick J. Minturn, Director

By 
Alfred V. Cathey
Deputy Director – Engineering

AVC/ldr
Sent via Email



RECEIVED
FEB 21 2020
SHASTA REGIONAL
TRANSPORTATION AGENCY

February 18, 2020

Daniel S. Little, Executive Director
Shasta Regional Transportation Agency
1255 East Street, Suite 202
Redding, CA 96001

RE: Recommend INFRA Funding for the Interstate 5 Fix 5 Cascade Gateway Project

Dear Mr. Little:

The City of Anderson is pleased to support the Fix 5 Cascade Gateway Project application for funding under the 2020 Infrastructure for Rebuilding America (INFRA) program. The project will improve freight and regional mobility along Interstate 5 (I-5) for ten miles north of State Route 44 and the city of Redding. The project will help address all too frequent snow, collision and wildfire closures in this strategic freight corridor by adding auxiliary lanes, updating a fixed median barrier with a moveable one to create flex lanes, and incorporating Intelligent Transportation System (ITS) and hydrogen fueling infrastructure. These proposed improvements are focused on corridor management for which a north-south safe and feasible detour alternative does not exist.

The project is the culmination of a larger legacy of enhancing freight and regional movement along I-5 in this critical corridor, funded primarily with state and regional funds. The project has a long history of coordinated local, regional, state, and federal investment to maximize corridor mobility.

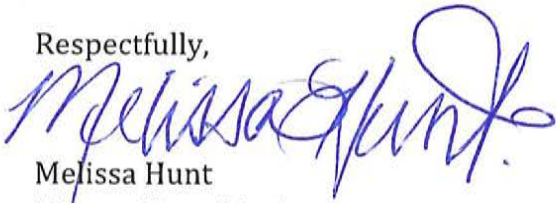
Key project benefits include:

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- Preservation of traffic operations to support economic growth, including enhanced access to designated Opportunity Zones, industrial parks, and three institutions of higher education;

- Reduced lane weave-related collisions by providing southbound freight trucks additional time to merge from inside lanes (as a result of vehicles entering I-5 at three locations near the Route 44 junction) to the Route 299 offramp.

The proposed project would be the third and final to the improve the I-5 corridor within the urban areas of Shasta County. This would work in alignment with the City's goals of safety while also incentivizing more growth within the City's opportunity zones. This project would reduce "bottle-necking" along the on-ramps and create a more efficient and pleasant driving experience for all citizens.

Respectfully,



Melissa Hunt
Mayor, City of Anderson
1887 Howard Street
Anderson, California 9607
530-378-6646



CITY OF REDDING

777 CYPRESS AVENUE, REDDING, CA 96001

P.O. BOX 496071, REDDING, CA 96049-6071

**PUBLIC WORKS
ENGINEERING DIVISION**

530.225.4170

530.245.7024

February 25, 2020

Daniel S. Little, Executive Director
Shasta Regional Transportation Agency
1255 East Street, Suite 202
Redding, CA 96001

Subject: Recommend INFRA Funding for the Interstate 5 Fix 5 Cascade Gateway Project

Dear Mr. Little:

The City of Redding is pleased to support the Fix 5 Cascade Gateway Project application for funding under the 2020 Infrastructure for Rebuilding America (INFRA) program. The project will improve freight and regional mobility along Interstate 5 (I-5) for ten miles north of State Route 44 and the city of Redding. The project will help address all too frequent snow, collision and wildfire closures in this strategic freight corridor by adding auxiliary lanes, updating a fixed median barrier with a moveable one to create flex lanes, and incorporating Intelligent Transportation System (ITS) and hydrogen fueling infrastructure. These proposed improvements are focused on corridor management for which a north-south safe and feasible detour alternative does not exist.

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- Reduced lane weave-related collisions by providing southbound freight trucks additional time to merge from inside lanes (as a result of vehicles entering I-5 at three locations near the Route 44 junction) to the Route 299 offramp.

The proposed project aligns well with the City's General Plan Transportation Element regarding development in the City's northeast quadrant and will be a welcome addition to the community. Thank you for your consideration in this beneficial Northstate project.

Sincerely,

Chuck Aukland, P.E.
Director of Public Works