ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017
PROJECT BASELINE AGREEMENT
Alameda Creek Bridge Project (EA 04-16030)

Resolution SHOPP-P-1819-04B
(will be completed by CTC)

1. FUNDING PROGRAM

- ☐ Active Transportation Program
- ☐ Local Partnership Program (Competitive)
- ☐ Solutions for Congested Corridors Program
- ☒ State Highway Operation and Protection Program
- ☐ Trade Corridor Enhancement Program

2. PARTIES AND DATE

2.1 This Project Baseline Agreement (Agreement) for the *Alameda Creek Bridge Project (EA 04-16030)*, effective on, OCTOBER 17, 2018 (will be completed by CTC), is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), the Project Applicant, *Caltrans*, and the Implementing Agency, *Caltrans*, sometimes collectively referred to as the "Parties".

3. RECITAL

3.2 Whereas at its March 22, 2018 meeting the Commission approved the State Highway Operation and Protection Program, and included in this program of projects the *Alameda Creek Bridge Project (EA 04-16030)*, the parties are entering into this Project Baseline Agreement to document the project cost, schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as Exhibit A and the Project Report attached hereto as Exhibit B, as the baseline for project monitoring by the Commission.

3.3 The undersigned Project Applicant certifies that the funding sources cited are committed and expected to be available; the estimated costs represent full project funding; and the scope and description of benefits is the best estimate possible.

4. GENERAL PROVISIONS

The Project Applicant, Implementing Agency, and Caltrans agree to abide by the following provisions:

4.1 To meet the requirements of the Road Repair and Accountability Act of 2017 (Senate Bill [SB] 1, Chapter 5, Statutes of 2017) which provides the first significant, stable, and on-going increase in state transportation funding in more than two decades.

4.2 To adhere, as applicable, to the provisions of the Commission:

- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Active Transportation Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Local Partnership Program", dated
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Solutions for Congested Corridors Program", dated
- ☒ Resolution G-18-13, "Adoption of Program of Projects for the State Highway Operation and Protection Program", dated March 22, 2018
- ☐ Resolution *Insert Number*, "Adoption of Program of Projects for the Trade Corridor Enhancement Program", dated

4.3 All signatories agree to adhere to the Commission's State Highway Operation and Protection Program, Guidelines. Any conflict between the programs will be resolved at the discretion of the Commission.

4.4 All signatories agree to adhere to the Commission's SB 1 Accountability and Transparency Guidelines and policies, and program and project amendment processes.

4.5 Caltrans agrees to secure funds for any additional costs of the project.

4.6 Caltrans agrees to report on a quarterly basis; after July 2019, reports will be on a semi-annual basis on the progress made toward the implementation of the project, including scope, cost, schedule, outcomes, and anticipated benefits.

4.7 Caltrans agrees to prepare program progress reports on a quarterly basis; after July 2019, reports will be on a semi-annual basis and include information appropriate to assess the current state of the overall program and the current status of each project identified in the program report.

4.8 Caltrans agrees to submit a timely Completion Report and Final Delivery Report as specified in the Commission's SB 1 Accountability and Transparency Guidelines.

4.9 All signatories agree to maintain and make available to the Commission and/or its designated representative, all work related documents, including without limitation engineering, financial and other data, and methodologies and assumptions used in the determination of project benefits during the course of the project, and retain those records for four years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.

4.10 The Transportation Inspector General of the Independent Office of Audits and Investigations has the right to audit the project records, including technical and financial data, of the Department of Transportation, the Project Applicant, the Implementing Agency, and any consultant or sub-consultants at any time during the course of the project and for four years from the date of the final closeout of the project, therefore all project records shall be maintained and made available at the time of request. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

5. SPECIFIC PROVISIONS AND CONDITIONS

5.1 Project Schedule and Cost
See Project Programming Request Form, attached as Exhibit A.

5.2 Project Scope
See Project Report or equivalent, attached as Exhibit B. At a minimum, the attachment shall include the cover page, evidence of approval, executive summary, and a link to or electronic copy of the full document.

5.3 Other Project Specific Provisions and Conditions

Attachments:

Exhibit A: Project Programming Request Form
Exhibit B: Project Report

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT

ALA-84 Alameda Creek Bridge Project 16030

Resolution SHOPP-P-1819-04B

James E. Davis
Acting District Director
California Department of Transportation

8/1/18
Date

Laurie Berman
Director
California Department of Transportation

9-28-18
Date

Susan Bransen
Executive Director
California Transportation Commission

10/26/18
Date

Baseline agreement information was extracted from Caltrans' project data systems. Project description, funding and performance measures are from CTIPS. Project delivery milestones are from PRSM. All information is current and accurate.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

BASELINE AGREEMENT

Date:	09/25/18 11:42:42 AM

District	EA	Project ID	PPNO	Project Manager
04	16030	0400000429	0084B	SIAUW, JACK

County	Route	Begin Postmile	End Postmile	Implementing Agency	
ALA	84	13.0	13.6	PA&ED	Caltrans
				PS&E	Caltrans
				Right of Way	Caltrans
				Construction	Caltrans

Project Nickname

NILES CANYON ALAMEDA CREEK BRIDGE REPLACEMENT PROJECT

Location/Description

In Fremont, at Alameda Creek Bridge No. 33-36. Replace bridge.

Legislative Districts

Assembly:	20	Senate:	10	Congressional:	13

PERFORMANCE MEASURES

	Primary Asset	Good	Fair	Poor	New	Total	Units
Existing Condition	Bridge Health		9515			9515	Square feet of bridge deck
Programmed Condition	Bridge Health	9515				9515	Square feet of bridge deck

Project Milestone	Actual	Planned
Project Approval and Environmental Document Milestone	09/25/17	
Right of Way Certification Milestone		05/20/19
Ready to List for Advertisement Milestone		06/03/19
Begin Construction Milestone (Approve Contract)		12/08/19

FUNDING (Allocated amounts are shaded)

Component	Fiscal Year	SHOPP					Total
PA&ED	17/18	7,800					7,800
PS&E	17/18	6,500					6,500
RW Support	17/18	600					600
Const Support	18/19	5,000					5,000
RW Capital	18/19	275					275
Const Capital	18/19	24,000					24,000
Total		44,175					44,175

04 - ALA - 84 - 13.0/13.6
0724-0400000429 (04-160300)
SHOPP 201.110
September 2017

Project Report
To Provide Approval

On: State Route 84

From 0.3 mile north of Alameda Creek Bridge

To 0.3 mile south of Alameda Creek Bridge.

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

MARK L. WEAVER
DEPUTY DISTRICT DIRECTOR, RIGHT OF WAY and LAND SURVEYS

APPROVAL RECOMMENDED:

JACK SIAUW
PROJECT MANAGER

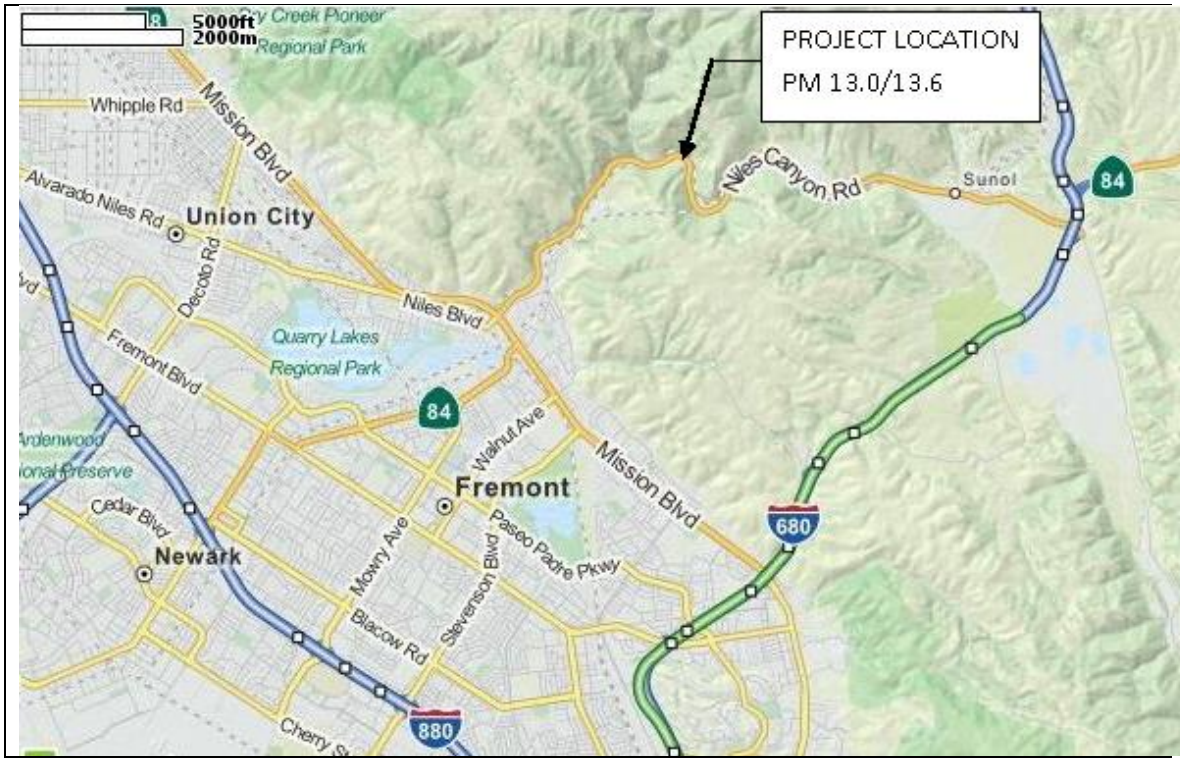
MORTEZA AZIMI
OFFICE CHIEF, DESIGN ALAMEDA

APPROVED:

HELENA "LENKA" CULIK-CARO
DEPUTY DISTRICT DIRECTOR, DESIGN

September 25, 2017
DATE

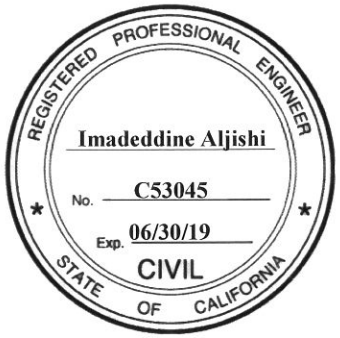
Vicinity Map



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

09/19/2017

REGISTERED CIVIL ENGINEER *DATE*



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1. INTRODUCTION

The proposed project was programmed in the 2008 SHOPP under the 110 Bridge rehab category. In 2008, the cost was estimated at $30,838,000, which included $30,588,000 for Construction and $250,000 for the Right of Way. This safety operational improvement project proposes to replace the Alameda Creek Bridge, bridge No. 33-36, located at PM13.0/13.6, within the Niles Canyon Corridor of State Route 84 in the City of Fremont. SR 84 is a scenic highway and the bridge is located in a rural, canyon-like setting. Built in 1928, the Alameda Creek Bridge is now classified as functionally obsolete, with no standard shoulder, nonstandard design speed and nonstandard bridge railing. The current speed for the existing SR 84 alignment is approximately 30 mph at the western approach and 35 mph at the eastern approach to the bridge. The posted speed limit for SR 84 is 45 mph, which is reduced to 30 mph at some curve locations. A Project Scope Summary Report (PSSR) approved in 2003 recommended the construction of a new bridge north of the existing bridge.

During the Project Approval and Environmental Document (PAED) phase, four build alternatives were proposed and studied. All build alternatives propose to remove the existing Alameda Creek Bridge as well as remove the existing footings and wall of an older bridge, located upstream of the existing Alameda Creek Bridge. These bridge footings and concrete wall act as a weir and serve as a low flow fish passage barrier. The removal of these bridge footings is proposed as part of the Alameda Creek Bridge Replacement Project to address anticipated compensatory-mitigation requirements for project impacts under the federal Endangered Species Act (ESA) consultation, CDFW 1602 and U.S. Army Corps of Engineers (USACE) and Clean Water Act Section 404 and 401.

After comparing and weighing the benefits and impacts of all feasible alternatives, the PDT identified Alternative 3B as the preferred alternative. Alternative 3B was the preferred alternative because it met the project's purpose and need while minimizing temporary and permanent impacts to natural communities and Alameda Creek. Final identification of the preferred alternative occurred after the public review and comment.

Project Limits	04-Ala-84, 13.0/13.6	
	Current Cost Estimate	**Escalated Cost Estimate**
Current Capital Outlay Support Estimate	$17,914,045	$17,914,045
Current Capital Outlay Construction Estimate	$19,059,000	$20,204,000
Current Capital Outlay Right-of-Way Estimate	$244,000	$244,000
Funding Source	SHOPP 201.110	
Funding Year	2019/2020	
Type of Facility	2 lane conventional highway	
Number of Structures	1	
Environmental Determination or Document	Environmental Impact Report/Environmental Assessment (EIR/EA)	
Legal Description	Bridge Replacement	
Project Development Category	4B	

2. RECOMMENDATION

It is recommended that this Project Report be approved and authorization be granted to continue with the preparation of Plans, Specification and Estimate (PS&E).

The proposed improvements identified herein as the Build Alternative have been developed in close cooperation and coordination with stakeholders including County of Alameda, San Francisco Public Utilities Commission, Caltrans, and other local affected agencies and stakeholders. This coordination has consisted of coordination meetings specifically to discuss project concerns. Stakeholder concerns have been considered throughout the development of the Build Alternative 3B.

3. BACKGROUND

3A. Project History

The need to upgrade the Alameda Creek Bridge railings was first identified with a February 1984 field inspection report. In accordance with the Highway Design Manual (HDM), an upgrade of the bridge railing would have to include 8-foot shoulders throughout the project area, unless a design exception was approved. The Project Development Team (PDT) determined that in the unlikely event a design exception could be secured to include a narrower shoulder on the bridge, replacing the railings alone would not address the remaining deficiencies. Those deficiencies

include the lack of shoulders and sharp curves at the approaches to the bridge, poor sight distance, and the advanced age of the structure. In addition, as stewards of public funds, Caltrans cannot support expending substantial transportation funds to replace bridge railings on an aging and functionally obsolete structure.

An alternative that includes correcting the sharp curves, in addition to upgrading the railings, also cannot be supported as it does not address the lack of shoulders. Full shoulders are important safety features that allow vehicles to take corrective action to avoid collisions, and provide room for disabled vehicles. Piecemeal improvements that do not fully address the project's purpose and need cannot be supported as the aging and functionally obsolete structure would otherwise remain as-is. The safety benefits of a new bridge on a new alignment far outweigh the minimally reduced environmental impacts of piecemeal improvement alternatives.

In an effort to determine the feasibility of widening the existing bridge to provide adequate shoulder widths, the Division of Engineering Services (DES) completed an Advance Planning Study (APS) in 1997. It was then determined that the existing bridge was not adaptable to stage removal. Staging to widen the Alameda Creek bridge would entail, 1) removal of about half of the bridge in the longitudinal direction, 2) construction of a wider replacement bridge in its place, 3) transfer of vehicular traffic to the new bridge, 4) removal of the remaining half of the existing bridge and 5) construction of the second half of the wider bridge. If portions of the existing bridge were removed, the remaining portion would not be structurally adequate to carry traffic loads and would require the complete closure of SR-84 for an extended period of time. Moreover; the existing bridge does not have the structural capacity to carry the additional weight of widening to provide standard shoulders.

In addition to the bridge not being adaptable to staged removal and not having the structural capacity to carry the additional weight of widening to provide standard shoulders, DES determined it was more cost-effective to replace rather than upgrade the existing structure, and therefore recommended the construction of a new replacement bridge with a revised alignment. The recommendation was also based on the age of the structure (69 years old at that time), the condition of the bridge (sufficiency rating of 60.3%), and functional obsolescence of the bridge (sharp curves, no shoulders and poor sight distance). These considerations are common criteria for routine bridge replacement determinations throughout the State, as well as the nation.

The new bridge will provide a facility that is consistent with current safety standards and corridor design speed, in accordance with the HDM. Accident analysis based on 1999 to 2012 traffic data shows a total of 11 collisions, 6 of which involved injuries on the bridge. The collisions on the bridge included 3 cross-into-opposite-lane, 3 head-on, 2 run-off-the-road and 4 hit-object. Vehicles hitting the side of bridge railings and the bridge approach guard railings constitute the hit-object type

accidents. The hit-object, cross-into-opposite lane and run-off-road accidents are due to lack of vehicle maneuverability on the bridge because of the lack of shoulders and poor alignment.

The actual fatality and injury rate of 1.13 within the bridge limits is more than double the state average rate (0.56) for similar facilities. In addition, the total accident rate (2.06) is significantly higher than the state average rate (1.31) for similar highway facilities. The improvement in alignment and sight distance with standard shoulders would address the specific safety concerns at the project site.

In 2003, a Project Scope Summary Report (PSSR) to replace the existing bridge was approved. The PSSR is the programming document that defines the scope, cost and funding, and schedule of the project. The Alameda Creek Bridge PSSR identified the project scope to include the realignment of the roadway and the construction of a new bridge to the north of the existing alignment.

An independent study conducted by FHWA in mid-2012 confirmed the need to replace the existing bridge with a new bridge that meets current safety standards. FHWA's Roadside Safety Audit (RSA) indicated that the number of accident rates at the Alameda Creek Bridge and eastern and western approaches are higher than they would be with a facility that meets current design standards. The RSA concluded the new bridge would improve safety of passage across the bridge for vehicles and bicyclists. Factors contributing to this assessment include poor sight distances, low design speeds, a bridge rail that does not offer structural integrity and the ability to redirect vehicles into the roadway in the event of a collision, the lack of a shoulder space to allow for maneuvers to avoid collisions, and insufficient space for bicycles to share the lanes and to maneuver to avoid collisions.

The purpose of this project is to improve the efficiency and safety of the facility for all transportation modes. The initial environmental document (EIR/CE) was circulated on February 3, 2015, but was reissued and recirculated on January 13, 2017 as an EIR/EA.

The original DPR of the EIR/CE considered build alternatives that would satisfy the project's purpose and need and was approved on January 30, 2015. The approval of the DPR was followed by two public meetings on February 23, 2015 and March 23, 2015. Extensive comments were received expressing strong concerns with extent of environmental studies. Upon review of public and stakeholder comments, the Department reassessed the appropriateness of an EIR/CE and determined the environmental document should be elevated to an Environmental Impact Report/Environmental Assessment (EIR/EA). A supplemental DPR authorizing the public circulation of EIR/EA, approved on January 6, 2017, which was followed by two public meetings on February 7, 2017 and February 21, 2017.

3B. Community Interaction

The Alameda Creek Bridge replacement project has considerable interest from the public, local agencies, and resource agencies due to the proposed improvements for SR 84 in Niles Canyon. Due to the strong community and stakeholder interest, the PDT met with representatives from Alameda County, Union City, Fremont, Dept. of Fish and Game, and the Regional Water Quality Control Board in October 2013 to review the proposed project scope. A scoping meeting was held on February 25, 2014 and a second meeting was held on March 4, 2014. Caltrans personnel presented informational boards and answered questions from the public in an open-house style format at the first meeting. Members of the public at the first scoping meeting requested a change in format for the second meeting. The second meeting at the Niles Elementary School included a project presentation given by the Caltrans Project Manager, followed by a formal question-and-answer session with a panel of project personnel.

Caltrans continued public engagement in the Draft EIR process during the ensuing years and through approval of the final EIR earlier this month. This community interaction has been accomplished by providing several avenues for public input such as open public forums, Project website, email, and conventional mail.

Early in the outreach, many concerns were raised by the public and interest groups regarding potential impacts caused by the construction of the new bridge and potential increase of motorist speed in the corridor. There were strong concerns that the smoother curve and full shoulders would introduce increased speed in the corridor. There were also concerns about the impacts the bridge would have on surrounding environment. However, by periodically providing project updates to address those concern, Caltrans personnel was able to reduce public opposition to the project.

3C. Existing Facility

The Alameda Creek Bridge (Bridge No 33-0036), constructed in 1928, is located in a rural, canyon-like setting on SR 84 between Mission Boulevard (SR 238) and I 680. SR 84 is a heavily used commuter route, with an annual average daily traffic of 13,000 vehicles. The speed limit on the Niles Canyon section of SR 84 is 45 miles per hour (mph), with an advisory speed of 30-35 mph at some curve locations. The route is designated a scenic highway between SR 238 and I 680 and is a popular bicycle corridor. The existing facility is a two-lane bridge with no shoulders and bridge railings that do not meet current standards for structural adequacy. Due to the age of the bridge, the substandard railings, the lack of shoulders, poor sight distance, and sharp curves that result in reduced design speed, the bridge was determined to be "functionally obsolete," as it is no longer adequate for the facility's intended function. The bridge was seismically retrofitted in October 1996.

Although the bridge is structurally adequate at the present time, it is currently classified as "functionally obsolete", meaning the bridge is no longer functionally adequate for its original design purpose. In addition, the bridge has exceeded its useful service life and, at 89 years old (as of 2017), it has far exceeded the original 50-year design life of the structure. The bridge exhibits signs of structural deterioration with spalling concrete exposing the underlying reinforcing steel to the elements and to rusting.

4. PURPOSE AND NEED

The purpose of the proposed Alameda Creek Bridge Replacement Project is to correct structural and geometric deficiencies of the Alameda Creek Bridge and its approaches while providing a facility that meets driver expectations of SR-84's operating speed, all of which improve the efficiency and safety of the bridge for all transportation modes.

The bridge is functionally obsolete and does not yield all the safety and efficiency benefits of a structure with current design standards. The independently conducted Roadside Safety Audit (RSA) indicated that the number of accidents at the Alameda Creek Bridge and the northern and southern approaches is higher than it would be with a facility that meets current design standards. Factors contributing to this assessment include:

- Poor sight distances
- Low design speeds
- Bridge railings that do not offer the structural integrity of a modern railing
- Bridge railings that do not provide the capability to redirect vehicles back into the roadway in the event of a collision
- Lack of space for bicycles to share the lanes
- Lack of space to allow for maneuvers to avoid collisions

4A. Problem, Deficiencies, Justification

The project scope is to upgrade the bridge railing and widen the bridge due to the following factors:

a) The existing bridge railing is nonstandard and requires replacement to meet current standards

b) Per Section 307.2 of the HDM, standard shoulders need to be provided on the structure

The Division of Engineering Services (DES) completed an Advance Planning Study (APS) in 1997 that concluded the existing bridge was not adaptable to stage removal and thus recommended the construction of a new replacement bridge with a revised

alignment. The recommendation was based on a number of considerations, including the age of the structure (69 years old at that time), the condition of the bridge (sufficiency rating of 60.3% that has since been reduced to 41.4% based on the October 2013 Structure Maintenance and Investigation Report) (Attachment A), and functional obsolescence of the bridge (sharp curves, no shoulders and poor sight distance).

This project proposes to realign the roadway and construct a new bridge to the north of the existing alignment. The design speeds on the new bridge approaches will be increased from 30 mph to 42 mph at the western bridge approach, and from 35 mph to 42 mph at the eastern bridge approach. The proposed replacement bridge is adequate for a design speed of 42 mph. The realigned roadway and bridge will thus upgrade the highway operation at the project location by increasing the design speed to closely match the standard design speed of 50 - 65 mph typically required for two-lane conventional highways in a similar terrain. In addition to the improved speed, the replacement bridge will be structurally adequate to meet the current seismic safety standards.

4B. Regional and System Planning

Corridor Overview

SR 84, between SR 238 and I 680, is a two-lane conventional highway that winds through Niles Canyon and, in 2007, was designated a Scenic Highway. The roadway parallels Alameda Creek, which is an environmentally sensitive riparian habitat. This segment has also been identified as a cross-country corridor in the Alameda County Bike Plan and a Class III Bikeway with widened shoulders has been proposed. However, its official State Bike Route status is still pending. An active rail line (owned by Union Pacific Railroad) also runs parallel to this segment of Niles Canyon Road.

State Planning

The SR 84 Corridor System Management Plan (CSMP), approved in December 2010, represents a long-range transportation planning document that analyzed the facility based on comprehensive performance assessments and evaluations. Recommended strategies from the CSMP include phasing both operational and more traditional long-range capital expansion strategies. The strategies took transit usage into account as well as projections and interactions with relevant arterial networks and connections to other State Highways. The SR 84 CSMP presents an analysis of existing and future traffic conditions and proposes traffic management strategies and capital improvements to maintain and enhance mobility within the SR 84 corridor. The long range concept for the SR 84 CSMP from SR 238 to I 680 (Niles Canyon) recommends a 2-lane conventional roadway within the project area.

Regional Planning

MTC functions as both the Regional Transportation Planning Agency (State designation) and, for federal purposes, as the region's Metropolitan Planning Organization (MPO) for the San Francisco Bay Area. As such, it is responsible for regularly updating the Regional Transportation Plan (RTP), a comprehensive and financially constrained blueprint for the development of highway, mass transit, railroad, airport, seaport, bicycle and pedestrian facilities. MTC also plays a major role in building regional consensus among the region's many transit systems. State and federal laws have also given MTC an important role in financing Bay Area transportation improvements. Under Senate Bill 375, along with an updated RTP, each metropolitan region in California must develop a Sustainable Communities Strategy (SCS) that promotes compact, mixed-use commercial and residential development that are walkable, bikeable and close to mass transit, jobs, schools, shopping, parks, recreation and other amenities. MTC's "Plan Bay Area 2040" report, adopted in July 2017, serves as the San Francisco Bay Area's RTP and SCS.

Plan Bay Area (http://www.mtc.ca.gov/planning/plan_bay_area) also lists programmed and planned projects, which includes the SR 84 Corridor, within a 28-year financially constrained planning horizon.

In addition to the Alameda Creek Bridge Replacement Project, Caltrans is also proposing the Niles Canyon Safety Improvements (Medium-Term Improvements) Project, which involves several spot safety improvements along SR 84, from Mission Boulevard (SR 238) to I 680. The Niles Canyon Safety Improvements Project (Medium-Term Improvements) involves the construction of various safety improvements including, but not limited to, the installation of two rock drapery systems, one location of curve correction, spot shoulder widening, and the signalization of the Pleasanton-Sunol intersection. Caltrans circulated the EIR/EA for this project in October 2016 and held two public open forum hearings prior to the conclusion of the 45-day comment period on December 2, 2016. Within the Alameda Creek Bridge Replacement Project area, the Niles Canyon Safety Improvements Project (Medium-Term Improvements) is proposing to add safety lighting. The DPR for this project was approved under EA 04-2A3320 on October 13, 2016.

In September 2016, Caltrans completed the Niles Canyon Safety Improvements Project (Short-Term Improvements) which involved several localized safety improvements along SR 84, from Mission Boulevard (SR-238) to I-680. These localized improvements included pavement markings (including bicycle sharrows, reflective roadside delineators, and object markings). All work associated with the Niles Canyon Safety Improvements project (Short-Term Improvements) occurred on pavement.

Local Planning

The Alameda County Transportation Commission (Alameda CTC) coordinates countywide transportation planning efforts; programs local, regional, State and federal funding; and delivers projects and programs including those approved by voters in Alameda County transportation expenditure plans. The Alameda CTC is a joint powers authority governed by a 22-member Commission comprised of elected officials from each of the 14 cities in Alameda County, all five members of the Alameda County Board of Supervisors and elected representatives from AC Transit and BART.

Transit Operator Planning

There are no existing or future bus transit facilities on Niles Canyon Road between Mission Blvd and I 680. However, the Union Pacific Railroad that runs parallel to SR 84 is shared with the Altamont Commuter Express (ACE). ACE provides commuter rail service from Stockton to San Jose. The Niles Canyon Railway (a recreational railroad operated by the Pacific Locomotive Association) also operates Sunday service throughout the year.

4C. Traffic

Traffic Data

The traffic volumes for the SR 84 have been obtained from Caltrans' website. Table 1 below tabulates the 2013 traffic volume at post mile 13.0 Palomares Road.

Table 1: 2013 Annual Average Daily Traffic (AADT)

Location	Back			Ahead		
	Peak Hour	Peak Month	AADT	Peak Hour	Peak Month	AADT
Palomares Road	1600	13800	13000	1550	13400	12600

Notes: 1. AADT - Annual Average Daily Traffic
2. All traffic volumes are two way volumes in vehicles.

Table 2: 2012 Truck AADT

Location	Vehicle AADT Total	Truck AADT Total	Truck % of Total Veh	Truck AADT (By Axle)			
				2-axle	3-axle	4-axle	5-axle
JCT. RTE. 238	14100	338	2.4	163	20	2	153

The January 2014 Safety Analysis accident data report recommended the provision of standard shoulder, bridge railing and improved design speed at bridge approaches to improve safety. There were a total of 23 traffic collisions within the project limits from 2002 to 2011. Of the 23 traffic collisions, none resulted in fatalities and 13 resulted in injuries. There were 4 (17%) cross-centerline, 3 (13%) head-on, 3 (13%) sideswipe and 7 (30%) run-off road collisions. These types of collisions were associated with most of the serious injury accidents along the corridor. Significant numbers of collisions (44%) were hit object type collisions. Object hit included bridge railing, bridge approach guard rail and other vehicles. In addition, there were DUI related accidents and one (4%) accident involved a pedestrian or bicyclist (Attachment B).

5. ALTERNATIVE 3B

The preferred alternative proposes to construct a new 450 foot long Cast-In-Place box (CIP) bridge girder with a 650' curve radius curve north of the existing bridge. Realignment of both the east and west approaches to the existing bridge is required to connect SR 84 to the new bridge. To connect the new alignment on the western approach, an embankment will be constructed to raise the roadway up to 15.4' above original ground. On the eastern approach to the bridge, a 250 foot long viaduct consisting of a series of precast slabs supported by 30" CIDH piles that hug the existing hillside over 7 spans will be constructed. Realignment of the eastern approach will require the construction of a 300 foot long rock cut covered with anchored wire mesh. The rock cut will vary in height from a minimum of 2 feet to a maximum of 17 feet. The installation of the rock cut will be located immediately south of SR 84, where the hillside to SR 84 is cut. The total width of the new bridge will be 46 feet while the new east and west bridge approach alignments will be 42 ft wide consisting of 2 foot soft median barrier rumble strip, two12 foot travel lanes with 8 foot shoulders in each direction (Attachment D). Estimated cost for this alternative is $19.0 million (Attachment E).

Road Structural Section

Four alternatives were chosen for the Life Cycle Cost Analysis (LCCA). These four sections were chosen based upon historical data and engineering judgment. Pavements were analyzed based on 20 year and 40 year traffic index (TI) of 9.5 and 10.5.

The following list are different alternatives for 20 and 40 year design life pavement:

A. 20-year Design Life Pavement

A.1 Flexible AC Pavement Structural Section

Option 1	Option 2 (W/ rubberized AC)
0.55 ft HMA-Type A	0.20 ft RHMA-G
0.80 ft AB(3)	0.35 ft HMA-Type A
1.00 ft AS(4)	0.80 ft AB(3)
2.35 ft Total Depth	1.00 ft AS(4)
	2.35 ft Total Depth

Option 2 (Full Depth AC)
1.15 ft HMA-Type A
0.5 ft AS(4)
1.65 ft Total Depth

A.2 Rigid Concrete Pavement Structural Section

0.85 ft JPCP
0.35 ft LCB
0.65 ft AS(4)
1.85 ft Total Depth

B. 40-year Design Life Pavement

B.1 Flexible AC Pavement Structural Section

0.10 ft OGFC	0.10 ft OGFC
0.20 ft RHMA-G	0.20 ft RHMA-G
0.25 ft HMA-Type A	0.25 ft HMA-Type A
SAM-F	SAM-F
0.10 ft HMA-Type A	0.10 ft HMA-Type A
0.90 ft AB(3)	1.85 ft AB(3)
1.05 ft AS(4)	2.50 ft Total Depth
2.60 ft Total Depth	

Note: 1. Provide a "Subgrade Enhancement Fabric" at the subgrade.
2. Allow a separation fabric above aggregate base.

B.2 Rigid Concrete Pavement Structural Section
Structural Section same as above for 20-year design pavement (See A.2).

Life Cycle Cost Analysis (LCCA) was performed using Real Cost software to determine the best option for the proposed project. The most ideal and cost effective for the proposed project is option 2. Option 2 is used in the project cost estimate.

Nonstandard Mandatory Design Features

A Mandatory design fact sheet that describes the mandatory design exceptions for this project was approved on September 25, 2017.

Mandatory Design Exception Nonstandard Features:

The project's new northerly alignment is located in a rolling terrain in a rural setting. The recommended design speed for SR 84, a conventional highway, is 50-60 mph. The following are the non-standard features associated with a lower design speed:

Stopping Sight Distance and Design Speed

Station	Curve Radius	HDM Standard-SSD Table 201.1 **SSD based on Design speed (Vd)** SSD=430' @ 50mph SSD=580' @ 60mph	Proposed SSD and Design Speed HDM Figure 201.6 M=Clear distance from centerline of the lane nearest the obstruction (108+09.6 to 118+40 m=34,) (118+40 to 121+52.93 m=22.5)
108+09.6 to 118+40	650'	SSD=348 @ 44mph	Design Speed 48.5 mph, SSD 425'
118+40 to 119+18.64	650'	SSD=348 @ 44mph	Design Speed 42.5 mph, SSD 340'
119+18.64 to 120+89.63	600'	SSD=330 @42.5mph	Design Speed 42mph, SSD 330'
120+89.63 to 121+52.93	400'	SSD=240 @ 34mph	Design Speed 37mph, SSD 270'

Superelevation Rates and Design Speed

Station	Curve Radius	HDM Standard Table 202.2E Superelevation Rate(e%) based on Vd	Proposed e%	Max. Comfortable Speed HDM Figure 202.2
119+60	600’	11% based on 42.35 mph	5.65%	43
120+60	600’	11% based on 42.35 mph	1.57%	39
121+40	400’	11% based on 35.5 mph	1.69%	34

Standard for Which Exception Is Requested:

The following standards are based on the Design Speed,

HDM 101.2 Highway Design Speed Standards
Table 101.2 shows appropriate ranges of design speeds that shall be used for the various types of facilities, place types, and conditions listed. According to Table 101.2, for conventional Highways in a rural rolling terrain setting, the design speed is 50-60mph.

HDM 201.1 Sight Distance
Table 201.1 shows the minimum standards for stopping sight distance related to design speed for motorist. According to Table 201.1, Sight Distance Standards, a design speed of 50 mph is 430’ SSD, and a design speed of 60mph is 580’ SSD.

HDM 202 Superelevation
Topic 202.2 Standards for Superelevation. Based on an e_{max} selected by the designer for one of the conditions above, superelevation rates from Table 202.2A through 202.2E shall be used with the minimum curve radii and design speed (V). If less than standard superelevation rates are approved (see Index 82.1), Figure 202.2 shall be used to determine superelevation based on the curve radius and maximum comfortable speed.

According to Table 202.2E, emax =12%
Curve radius 400’ e = 12.6% @ 50mph e = 13% @ 60 mph
Curve radius 600’ e = 12.1% @ 50mph e = 12.7% @ 60mph

Reason for Requesting Exception:

Higher design speed alternatives would require an alignment with larger curve radius and a larger impact footprint. Achieving a standard design proves challenging in the project's sensitive location and the project's geo-physical constraints. The Alameda Creek waterway and an adjacent railroad are additional constraints. Additional right of way will be required along with extensive structural elements-retaining walls, abutments, and a longer bridge span design.

The proposed project has been developed in close cooperation and coordination with stakeholders, including County of Alameda, SFPUC, and various permitting agencies and stakeholders. Approval of the project would not be achievable for a project with full standard design features. Overall compared to the existing condition, this project will provide a safer roadway and accommodating needs of all users.

6. CONSIDERATIONS REQUIRING DISCUSSION

6A. Hazardous Waste

Utilizing data from the nearby Niles Canyon SR 84 widening project, surface soils of the unpaved shoulders approaching the Alameda Creek Bridge can expect to have fairly low levels of aerially deposited lead. There should be no need to classify the excavated soils for the new bridge approaches as hazardous waste. However, surface soils under the existing bridge's steel elements may have very high levels of lead due to the deposition of lead-based paint flakes generated from past bridge maintenance operations that removed paint prior to re-painting the bridge. It appears unlikely that lead paint contamination will affect the proposed project because there is no surface soil removal proposed for the banks of the creek channel under the existing bridge.

A survey to identify any remaining lead-based paint on the existing Alameda Creek Bridge will be needed during the project's design phase. The survey will help identify bridge removal practices and restrictions. Also, a survey of the bridge for asbestos-containing materials will be completed to assess asbestos-mitigation requirements related to future bridge removal.

6B. Value Analysis

The Value Analysis Study (VA) was conducted in June of 2009. The Value Analysis team studied a number of criteria for further consideration, including cost impacts, design suggestions, or minimal cost impacts.

The following are the eight VA proposals:

1. Increase Cut along the eastern approach to the bridge by shifting alignment to the west to reduce import borrows.

2.1 Split Roadway and Have Separate Lane Bridges; Southbound on Existing Bridge

2.2 Construct New Alignment on the West Side; Shorten Roadway; Remove Portion of Aqueduct

3.0 Leave Existing Roadway in Place as Bike Pull Off Following Construction; Provide Redirection Loop

4.0 Widen Existing Bridge to Include Additional Lane

5.0 Use Straight, Two-Span Bulb-T Girder Bridge; Modify

6.0 Use Rock Slope Protection in lieu of Retaining Wall Constructed on Fill on the South Side of the Roadway

7.0 Shift the Soil Nail Retaining Wall to the North by 15 Feet; Reduce Import Borrow

Proposals 1 to 6 were rejected. Proposal number 7 was accepted as an alternative for further study. Proposal number 7 was ultimately rejected by the Project Development Team (PDT) because it required the removal of the Sunol aqueduct.

6C. Resource Conservation

Preserving existing materials and facilities through salvaging or incorporating previously salvaged materials will be considered during the Plans, Specifications and Estimate (PS & E) phase.

6D. Right-of-Way

It is anticipated that new right of way and a temporary construction easement are required from Niles Canyon Railway, Alameda County Water District, City and County of San Francisco Water Department, and San Francisco Public Utilities District for this project. A minimum of two utility poles are in conflict with the proposed new alignment will need to be relocated outside the shoulders.

6E. Environmental

The FEIR/EA with FONSI has been prepared in accordance with Caltrans' environmental procedures, as well as State and Federal environmental regulations. The FONSI finding was documented in the FEIR/EA which was approved on August

16, 2017. Biological Opinion was signed on May 4, 2017. The following environmental issues have been identified in the Environmental Impact Report:

Cultural Resources

Although the Alameda Creek Bridge is not considered eligible for the National Register of Historic Places (federal) or the California Register of Historical Resources (state), the Alameda Creek Bridge is considered a locally significant resource by Alameda County. As a result, Caltrans is considering it to be a historical resource under CEQA and the demolition of the Alameda Creek Bridge is considered to be a significant environmental impact.

Biological Resources

The Build Alternatives will have impacts to trees in the project vicinity. The following quantifies the approximate number of trees expected to be impacted by each Build Alternative:

Alternative 1: 415 trees
Alternative 2: 408 trees
Alternative 3A: 444 trees
Alternative 3B: 296 trees

The Build Alternatives will have impacts to wetlands in the project vicinity. The following quantifies the acreage of wetlands to be impacted by each Build Alternative:

Alternative 1: 1.2 acres
Alternative 2: 1.3 acres
Alternative 3A: 1.3 acres
Alternative 3B: 1.1 acres

Visual Impacts and Context Sensitive Solutions

SR 84, within the project limits, is classified as an Officially Designated State Scenic Highway. The build alternatives will have varying degrees of visual impacts affecting highway users and highway viewers. A Visual Impact Assessment report was completed in November 2014. Context sensitive measures were recommended for each Build Alternative to address visual impacts. To reduce the visual impact, the following measure and aesthetic feature were recommended to incorporate into the project.

- See through bridge and viaduct barrier (ST-70)
- ST-70 and metal beam guardrail should be treated with coating to reduce glare and to blend in with the surroundings
- Use appropriate context sensitive wall texture and color treatments on walls.
- Employ color staining of the concrete barrier to reduce the contrast
- Wire mesh for the rock cut shall be select to match color and value of the underlying soil to the greatest feasible extent in order to minimize visual contrast.
- Tree replanting and re-vegetating

All proposed measures and features would be implemented with concurrence of the district landscape Architect.

Consultations

The project involves consultations with the following agencies:
State Historic Preservation Officer
California Fish and Wildlife
United States Fish and Wildlife Service (USFWS)
National Marine Fisheries Service (NMFS)
United States Army Corp of Engineers

Mitigation Strategies

All Build Alternatives propose to remove the existing Alameda Creek Bridge as well as remove the existing footings and wall of an older bridge, located upstream of the existing Alameda Creek Bridge. These bridge footings and concrete wall act as a weir and serve as a low flow fish passage barrier. The removal of these bridge footings is proposed as part of the Alameda Creek Bridge Replacement Project to address anticipated compensatory-mitigation requirements for project impacts under the federal Endangered Species Act (ESA) consultation and the following permits: CDFW 1602 and, U.S. Army Corps of Engineers (USACE) Clean Water Act Section 404 and 401. The weir removal is pending approval by the resource agencies. Additionally, the project will provide tree replacement on-site to the maximum extent possible and an off-site planting strategy will be developed in coordination with CDFW and RWQCB during the permitting process to address the balance of the tree mitigation needs. The estimated cost for the mitigation is $2 million.

6F. Air Quality Conformity

This project was found to be exempt from regional and project level air conformity under 40 CFR 93.126 as a safety project to increase shoulder widths, replace barrier railing, and increase sight distance. Dust impacts from construction activities will be minimized in accordance with Caltrans Standard Specifications.

6G. Title VI Considerations

Title VI considerations are not expected to have any impact from the proposed project. The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related status, ensure that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity administered. No facilities have been identified to require Title VI consideration within the proposed project location. However, it should be noted, if this project calls for Title VI stipulation and if it is deemed necessary, action will be taken in conformance to the Title VI regulations.

6H. Noise Abatement Decision Report

In accordance with the Caltrans Traffic Noise Analysis Protocol (TNAP, 2001) and the code of federal regulations 23 CFR 772, the project does not cause traffic noise levels to increase to the level of a traffic noise impact. Therefore, noise abatement was neither required nor proposed. A Noise Abatement Decision Report is not needed.

6I. Water Quality

The project will include four different types of Best Management Practices, Construction Site BMPs, Design Pollution Prevention BMPs, Permanent Treatment BMPs and Maintenance BMPs. The Storm Water Data Report (SWDR) is still in progress and will be completed prior to the approval of the final Project Report.

The project seems to have a disturbed soil area (DSA) of more than 1 acre. To comply with the conditions of the Construction General Permit (NPDES No. CAS000002) and Caltrans NPDES Permit (NPDES No. CAS000003), and address the temporary water quality impacts resulting from the construction activities in this project, compliance with Storm Water Pollution Prevention Plan Standard specifications is required. This Standard Specification will address the preparation of Storm Water Pollution Prevention Plan (SWPPP) document and the implementation of SWPPP during construction. A risk level determination for construction activities will be performed and depending on the construction period and location, the project will be designated as risk level 1, 2 or 3. Risk level 3 would be the highest Water Quality risk.

Best Management Practices (BMPs) need to be implemented to address the temporary water quality impacts resulting from the construction activities in the project. BMPs will include the measures of soil stabilization, sediment control, wind erosion control,

tracking control, non-storm water management, and waste management/materials pollution control. Appropriate BMPs and their quantities need to be developed during the PS & E phase. In addition, depending on the project risk level, certain monitoring and reporting will be required.

Permanent Erosion Control measures will be implemented in the project to stabilize all the disturbed area as a means of source control. Permanent treatment BMPs will also be constructed to treat storm water.

Construction within the creek will encounter significant amount of groundwater in the deep excavations, dewatering will be required. Early discussion will be initiated with the Water Pollution Control Branch. As part of the Hazardous Waste Site Investigation, ground water testing is required to determine if it is contaminated to develop contract provisions for its handling and disposal during construction.

Due to construction within water bodies, creek diversion will be needed. Early discussion with Water Pollution Control Branch is required for Temporary Creek Diversion System.

7. OTHER CONSIDERATIONS AS APPROPRIATE

7A. Public Hearing Process

Three public meetings were held on February 25, 2014, February 23, 2015, and March 23, 2015. After the reissuance of the EIR/EA on January 13, 2017, two more public meetings were held. The first meeting was held on February 7, 2017 and the second, on February 21, 2017.

7B. Route Matters

The proposed project has no plans to acquire access control nor does it have any freeway to freeway connector. Freeway agreement matters are not applicable to this project.

7C. Permits

The following permits are anticipated for this project:

- 1602 Streambed Alteration Agreement (California Department of Fish and Wildlife)
- Incidental Take Permit
- Clean Water Act Section 401/404 permits (ACOE and Regional Water Quality Control Board)
- Drilling permit as required by Alameda County Water District (ACWD) Ordinance No. 2010-019

7D. Cooperative Agreements

Cooperative Agreements are not needed for this project

7E. Report on Feasibility of Providing Access to Navigable Rivers

Alameda Creek is not classified as a Navigable Waterway.

7F. Transportation Management Plan for Use during Construction

The proposed project will require detour plans, stage construction plans, construction area sign plans, a Traffic Management Plan (TMP) and special provisions. A TMP will be implemented during construction to minimize and prevent delays and inconvenience to the traveling public.

The TMP will include public information through the use of brochures, mailers and press release. The press release will notify motorists, businesses, community groups, local entities, emergency services, and politicians of upcoming closures or detours.

The TMP for use during construction includes the following: Changeable Message Signs (portable), Ground Mounted Signs, Detour Maps, and Bicycle Community information. Construction Zone Enhanced Enforcement Program (COZEEP) will be provided during lane closure. Lane closure charts will be included in the Special Provisions.

7G. Stage Construction

During construction of the new bridge, the existing bridge lanes will remain open for public use. Construction activity in the Alameda Creek is permitted only within the construction window of June 1st through October 15th. The entire project will take approximately three years to construct. Each year during the construction window, a temporary dam will be installed across the creek, upstream of the old footing, to divert the creek and create a dry creek bed for constructing the bridge footing, installing falsework and removing old footing. A drainage pipe will carry the water through the construction site. The temporary dam will be removed each year after the construction window. Once the new bridge has been constructed, the existing bridge will be demolished and the newly aligned roadway and bridge will then be accessible for public use. The dismantling of the existing Alameda Creek Bridge will involve the typical concrete removal methods, including saw cutting and jack hammering. Prior to dismantling, a platform will be installed below the existing bridge deck to catch debris. The west approach pavement of the bridge will then be removed and, where practical, the old roadway footprint will be restored and revegetated.

To maintain two lanes, the eastbound lane will be temporarily widened during construction. Temporary Construction Easements (TCE) will be acquired from the affected parcels. Stage Construction plans will be finalized during the PS&E phase.

7H. Accommodation of Oversized Loads

Oversized vehicles are not allowed along SR 84 within and beyond the project limits due to nonstandard vertical clearances at a number of railroad structures.

7I. Graffiti Control

Retaining walls and bridge columns visible to the public will be aesthetically treated with texture and/or color to reduce glare and the incidence of graffiti.

7J. Storm Water

The Storm Water Data Report (SWDR) was completed on September 8, 2017 (See Attachment I).

8. FUNDING/PROGRAMMING

It has been determined that this project is eligible for federal-aid funding. The Project was initially programmed in the 2008 SHOPP for $30,838,000 in Construction Capital costs and $250,000 for Right of Way Capital costs for delivery in the 2011/2012 FY. Prior to 2013, a streamlined PCR was approved to increase the Right of Way capital to $275,000. A subsequent PCR was approved in June 2014 to decrease the Construction Capital amount to $24,000,000, consistent with updated cost estimates.

This project is currently programmed for the 2018/2019 fiscal year for $24,000,000 Capital and $17,914,045 Support. The support cost ratio is 74%.

A recently revised R/W Data sheet provides new estimate as shown in the table below.

Capital Outlay Support and Project Estimates

Fund Source	Fiscal Year Estimate							
201.110	Prior	2013/14	2014/15	2015/16	2016/17	2017/18	Future	Total
Component	In thousands of dollars ($1,000)							
PA&ED Support	2215	215	640	738	1292	1400		6500
PS&E Support						2000	4000	6000
Right-of-Way Support	60	5	2	40	25	25	257	414
Construction Support							5000	5000
Right-of-Way	7						237	244
Construction							24000	24000
Total	2282	220	642	778	1317	3425	33494	42158

The higher than average support cost ratio is due to the additional effort the department put forth to address stakeholder concerns and minimize opposition. The project's complexity added to the increased support costs as the project is located in a highly sensitive environmental corridor with strong stakeholders involvement that has requested the study of additional alternatives to reduce speed and minimize environmental impacts. Additional effort to minimize challenges resulted in the need to reissue the environmental document and investigate additional alternatives to address stakeholder concerns.

9. SCHEDULE

Project Milestones		Scheduled Delivery Date (Month/Day/Year)	Milestone Designation (Target/Actual)
PROGRAM PROJECT	M015	07/01/08	Actual
BEGIN ENVIRONMENTAL	M020	07/01/08	Actual
NOTICE OF PREPARATION (NOP)	M030	02/18/14	Actual
CIRCULATE DPR & DED EXTERNALLY	M120	02/01/15	Actual
RECIRCULATE SDPR/DEIR/EA EXTERNALLY	M120	01/13/17	Actual
PA & ED	M200	09/29/17	Target
STRUCTURES PS&E	M378	12/08/18	Target
PROJECT PS&E	M380	02/01/19	Target
RIGHT OF WAY CERTIFICATION	M410	03/01/19	Target
READY TO LIST	M460	04/01/19	Target
AWARD	M495	11/10/19	Target
APPROVE CONTRACT	M500	12/08/19	Target
CONTRACT ACCEPTANCE	M600	12/01/22	Target
END PROJECT	M800	12/31/22	Target

10. RISKS

A preliminary risk management plan has been developed for the project (Attachment G).

11. FHWA COORDINATION

This project is considered to be a Delegated Project in accordance with the May 28, 2015 Federal Highway Administration (FHWA) and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

12. PROJECT REVIEWS

Scoping team field review		Date 8-29-03
Headquarters Design Coordinator	Gordon Brown	Date 10-22-14
Project Manager	Jack Siauw	Date 11-14-14
FHWA	Lanh Phan	Date 12-2-14
District Safety Review	Emily Tang	Date 1-15-14
Constructability Review	Taher Sarwary	Date 12-2-14
Other		Date

13. PROJECT PERSONNEL

Jack Siauw	Project Manager	510-622-8824
Morteza Azimi	Office Chief - Design Alameda	510-286-5157
Halim Mathkour	District Branch Chief - Design Alameda	510-622-8714
Imadeddine Aljishi	Project Engineer- Design Alameda	510-286-5028
Jamie Lendent	District Branch Chief – Environmental	510-622-8729
Sunnie Stanton	Branch Chief – R/W	510-286-5476
Norman Gonsalves	Branch Chief – Water Quality	510-286-5930
Emily Chen	Environmental Analyst	510-286-6170
Evan Francilisco	Structure Design	916-227-8127

14. ATTACHMENTS

A. Project Location Map
B. Structure maintenance and investigations
C. TASAS Accident Table
D. Alternative 3B
E. Alternative 3B estimate
F. Traffic Management Plan Data Sheet
G. Risk Management Plan
H. R/W Data Sheet - Alternative 3B
I. Storm Water Data Report Signature Page
J. Advance Planning Study-Alternative 3B
K. FEIR/FONSI and Summary