ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017
PROJECT BASELINE AGREEMENT

Bridge Preservation Maintenance Project (04-4J860)

Resolution SHOPP-P-2526-05B
*(to 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) effective on March 19, 2026 (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

3.1 Whereas at its 3/20/2026 meeting the Commission approved the State Highway Operation and Protection Program and included in this program of projects the Bridge Preservation Maintenance Preject(04-4J860) and 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***, the Project Report attached hereto as ***Exhibit B***, the Performance Metrics Form, if applicable, attached hereto as ***Exhibit C***, as the baseline for project monitoring by the Commission.

3.2 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 _____, "Adoption of Program of Projects for the Active Transportation Program", dated _____
- ☐ Resolution _____, "Adoption of Program of Projects for the Local Partnership Program", dated _____
- ☐ Resolution _____, "Adoption of Program of Projects for the Solutions for Congested Corridors Program", dated _____
- ■ Resolution G-26-33, "Adoption of Program of Projects for the State Highway Operation and Protection Program", dated 3/20/2026
- ☐ Resolution _____, "Adoption of Program of Projects for the Trade Corridor Enhancement Program", dated _____

4.3 All signatories agree to adhere to the Commission's 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 to Caltrans on a quarterly basis; on the progress made toward the implementation of the project, including scope, cost, schedule, and anticipated benefits/performance metric outcomes.

4.7 Caltrans agrees to prepare program progress reports on a 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 Caltrans agrees to submit a timely Project Performance Analysis as specified in the Commission's SB 1 Accountability and Transparency Guidelines.

4.10 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 and performance metric outcomes during the course of the project, and retain those records for six years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.

4.11 The 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 six 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 Performance Metrics
See Performance Metrics Form, if applicable, attached as Exhibit C.

5.4 Additional Provisions and Conditions *(Please attach an additional page if additional space is needed.)*

**Attachments:**

Exhibit A: Project Programming Request Form
Exhibit B: Project Report
Exhibit C: Performance Metrics Form *(if applicable)*

SIGNATURE PAGE
TO
PROJECT BASELINE AGREEMENT

Project Name: Bridge Preservation Maintenance Project (04-4J860)

Resolution:

*(to be completed by CTC)*

Ronald Sangalang — Digitally signed by Ronald Sangalang Date: 2026.01.21 17:01:33 -08'00' — 1/21/2026

Date

Ronald Sangalang

Regional Project Manager

Project Applicant

Date

Implementing Agency

David Ambuehl — David Ambuehl (Jan 27, 2026 16:53:11 PST) — 01/27/2026

Date

David Ambuehl (Acting)

District Director

California Department of Transportation

Dina El-Tawansy (Mar 4, 2026 16:54:54 PST) — 03/04/2026

Date

Dina El-Tawansy

Director

California Department of Transportation

Tan Ty — 03/23/2026

Date

Tanisha Taylor

Executive Director

California Transportation Commission

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: | 01/16/26 06:23:15 PM |
|---|---|

| District | EA | Project ID | PPNO | Project Manager |
|---|---|---|---|---|
| 04 | 4J860 | 0416000042 | 1493E | SANGALANG, RONALD TJ |

| County | Route | Begin Postmile | End Postmile | Implementing Agency | |
|---|---|---|---|---|---|
| MRN | 101 | 7.37 | | PA&ED | Caltrans |
| | | | | PS&E | Caltrans |
| | | | | Right of Way | Caltrans |
| | | | | Construction | Caltrans |

**Project Nickname**

Bridge Preservation Maintenance Project (04-4J860)

**Location/Description**

In Corte Madera, at Tamalpais Drive Overcrossing No. 27-0072. Bridge seismic restoration, upgrade facilities to Americans with Disabilities Act (ADA) standards, and modify pedestrian access ramps. (Additional contribution of $3,000,000 for RW Sup, RW Cap, and Con Cap from the Town of Corte Madera.) (Additional contribution of $1,100,000 for Con Cap from the Transportation Authority of Marin (TAM).)

**Legislative Districts**

| Assembly: | 12 | Senate: | 02 | Congressional: | 02 |
|---|---|---|---|---|---|

**PERFORMANCE MEASURES**

| | Primary Asset | Good | Fair | Poor | New | Total | Units |
|---|---|---|---|---|---|---|---|
| Existing Condition | Bridge Seismic Restoration | 0.0 | 0.0 | 61570.0 | | 61570 | Square feet |
| Programmed Condition | Bridge Seismic Restoration | 92439.0 | 0.0 | 0.0 | 0.0 | 92439 | Square feet |

| Project Milestone | Actual | Planned |
|---|---|---|
| Project Approval and Environmental Document Milestone | 06/30/23 | |
| Right of Way Certification Milestone | | 07/05/27 |
| Ready to List for Advertisement Milestone | | 07/30/27 |
| Begin Construction Milestone (Approve Contract) | | 04/03/28 |

**FUNDING (Allocated amounts are shaded)**

| Component | Fiscal Year | SHOPP | | | | | Total |
|---|---|---|---|---|---|---|---|
| PA&ED | | 0 | | | | | 0 |
| PS&E | 25/26 | 3,000 | | | | | 3,000 |
| RW Support | 25/26 | 965 | | | | | 965 |
| Const Support | 26/27 | 6,000 | | | | | 6,000 |
| RW Capital | 26/27 | 6,692 | | | | | 6,692 |
| Const Capital | 26/27 | 39,242 | | | | | 39,242 |
| Total | | 55,899 | | | | | 55,899 |

All values per concurrent 2026 SHOPP

State of California
**DEPARTMENT OF TRANSPORTATION**

California State Transportation Agency

# Memorandum

**To:** RICHARD J. STONE
SHOPP SB-1 Baseline Agreement
HQ Program Management

**Date:** January 22, 2026

**File:** EA 04-4J860
EFIS 0416000042
MRN-101-7.37/7.37

**From:** RONALD TJ SANGALANG
REGIONAL PROJECT MANAGER - MARIN
DISTRICT 04

**Subject:** **PROJECT STATUS UPDATE**

This memorandum is provided to accompany the Baseline Agreement for the referenced project.

The Project was programmed into the 2024 SHOPP Program for FY 27/28 RTL delivery. Location of the project is In Corte Madera, at Tamalpais Drive Overcrossing No. 27-0072. Postmiles MRN-101- 7.37/7.37.
The referenced project's performance measures are (1 Bridge).

Since the Project Report was approved, the schedule has been revised to reflect the currently proposed major milestones as a result of the 2026 SHOPP rebalance exercise:

**Project Milestones**

| Milestone | Date |
|---|---|
| Right of Way (R/W) Certificate M410 | 07/05/2027 Target |
| Ready To List (RTL) M460 | 07/30/2027 Target |
| Approve Contract (AC) M500 | 04/03/2028 Target |

The total project cost of $55.899M in the CTIPs/PPR Equivalent/SPR Fact Sheet is lower than the $58.339M in the Fact Sheet because the PA&ED phase was completed before the project was reprogrammed. Thus, the PA&ED cost was not included in the $55.899M reprogrammed amount.

If you have any questions, please contact me at (510) 407-9476.

cc: D. Nguyen,
R. Effinger

04-MRN-101 – PM 7.37
4J8600 – Project Number 0416000042 – PPNO 1493E – AMT ID 14050
Program Code 20.10.201.113 – Bridge Preventive Maintenance and ADA Improvements
August 2025

# Supplemental Project Report

## *To Provide Project Approval*

On Route 101 in Marin County

In Town of Corte Madera

At Tamalpais Drive Overcrossing (Bridge #27-0072)

I have reviewed the right-of-way information contained in this report and the right-of-way data sheet attached hereto, and find the data to be complete, current and accurate:

**JULIE MCDANIEL**
DEPUTY DISTRICT DIRECTOR
RIGHT OF WAY AND LAND SURVEYS

APPROVAL RECOMMENDED:

**RONALD SANGALANG**
REGIONAL PROJECT MANAGER

Naga Adibhatla

**NAGA ADIBHATLA**
OFFICE CHIEF, OFFICE OF DESIGN NAPA & MARIN

PROJECT APPROVED:

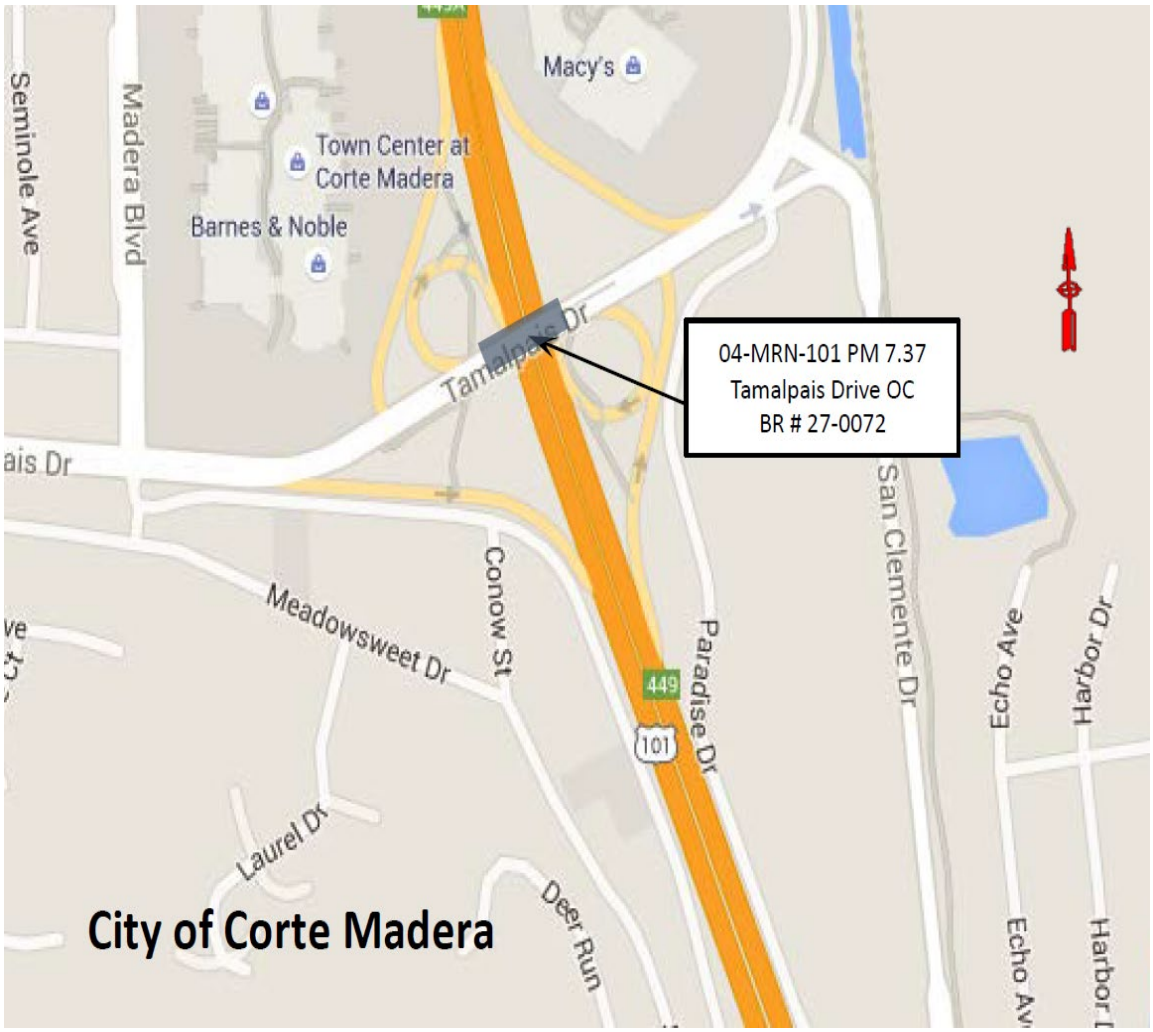
Wajahat.

**WAJAHAT NYAZ**
DEPUTY DISTRICT DIRECTOR, DESIGN

08/28/2025

*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.

Emarnan Pongpairoj 08/27/2025

*REGISTERED CIVIL ENGINEER* *DATE*

# Table of Contents

## 1. INTRODUCTION

Project Description:

The proposed work on United States (US) 101 in Marin County, Postmile (PM) 7.37, at Tamalpais Drive (Dr.) Overcrossing (OC), bridge No. 27-0072, consists of addressing current seismic structural deficiencies, constructing American with Disabilities Act (ADA) compliant infrastructure for pedestrians and bicyclists, new sidewalk, and intersection reconfiguration, roadside safety improvements and bus bypass improvements. A Project Report (PR) was approved on June 30, 2023 (Attachment F).

This Supplemental Project Report (SPR) is prepared to update the Traffic Data, Right of Way Data Sheet (Attachment D), Highway Planting and Irrigation, SHOPP Performance Measures (Attachment E), Cost Estimate (Attachment C), and Schedule.

| | | |
|---|---|---|
| **Project Limits** | 04-MRN-101 PM 7.37 | |
| **Number of Alternatives** | 6 Build Alternatives | |
| | **Current Cost Estimate:** | **Escalated Cost Estimate:** |
| **Capital Outlay Support** | $9,965,000 | $9,965,000 |
| **Capital Outlay Construction** | $35,947,000 | $39,242,000 |
| **Capital Outlay Right of Way** | $10,013,000 | $10,223,000 |
| **Funding Source** | SHOPP 201.113 | |
| **Funding Year** | 2026/2027 | |
| **Type of Facility** | US 101: 8-Lane Freeway<br>Tamalpais Drive Overcrossing: 4-Lane Bridge | |
| **SHOPP Project Output** | • 92,439 SQFT - Bridge Seismic Restoration<br>• 12 curb ramps – ADA Improvements<br>• 3,000 LF sidewalks - ADA Improvements<br>• 6 locations – Gore/Narrow Pavement<br>• 4 Locations – Relocate Signs<br>• 2,000 FT – Class II Bike Lanes | |
| **Environmental Determination or Document** | CEQA – Initial Study / Negative Declaration (IS/ND)<br>NEPA – Categorical Exclusion (CE) | |
| **Legal Description** | On US 101 in Marin County at Tamalpais Drive Overcrossing (Bridge No. 27-0072) | |
| **Project Development Category** | Category 5 | |

Notes:
ADA = Americans with Disabilities Act
CEQA = California Environmental Quality Act
NEPA = National Environmental Policy Act
MRN = Marin
SHOPP = State Highway Operation and Protection Program

## 2. REASON FOR CHANGE

A 16-month time extension for Construction Capital and Support was approved at the August 2024 CTC meeting. This extension is scheduled to lapse in October 2025. Reprogramming of the project is required to continue the preparation of Plans, Specifications, and Estimates (PS&E), as well as to secure all necessary environmental permits, facilitate PG&E utility relocation, and complete the acquisition of Right of Way essential for the project. The relocation plan for external utilities, specifically PG&E gas facilities, is anticipated to require several months, necessitating a schedule revision in addition to an adjustment in project costs. The total project capital cost has increased accordingly. No other modifications have been made to the Project Report

## 3. RECOMMENDATION

It is recommended that this Supplemental Project Report be approved to reprogram the project and finalize the PS&E.

## 4. TRAFFIC

Table 4-1 lists the current and forecasted traffic information. Table 4-2 includes the calculated and recommended traffic index.

**Table 4-1: Current and Forecasted Traffic Information**

| | |
|---|---|
| Count Year ADT (2019) | 129,000 |
| Construction Year ADT (2026) | 133,600 |
| Design Year ADT (2046) | 147,600 |
| DHV_2046 | 10,700 |
| D% | 54.9% |
| Truck % | 2.40% |

Notes:
ADT = Average Daily Traffic
DHV= Design Hourly Volume
D% = directional distribution (% of traffic moving in the peak travel direction)

**Table 4-2: Calculated and Recommended Traffic Index**

| TI and ESAL | Calculated Median Lanes | Recommended TI[2] for Median Lanes | Calculated 2-Right Lanes | Recommended TI[1] for Right Lanes |
|---|---|---|---|---|
| 5-year TI | 8.00 | | 9.00 | |
| 5-year ESAL | 305,000 | | 1,223,000 | |
| 10-year TI | 8.50 | | 10.00 | |
| 10-year ESAL | 620,000 | | 2,478,000 | |
| 20-year TI | 9.50 | 9.50 | 11.00 | 11.00 |
| 20-year ESAL | 1,270,000 | | 5,081,000 | |
| 40-year TI | 10.00 | 10.00 | 12.00 | 12.00 |
| 40-year ESAL | 2,665,000 | | 10,660,000 | |

Notes:
ESAL = Equivalent Single Axle Load TI = Traffic Index

1. November 20, 2017 Highway Design Manual **613.5**(b) **Freeway and Expressway Lanes.** TI for all freeway and expressway lanes, including widening and auxiliary lanes, must be the greater of either the calculated value, or 11.0 for a 20-year pavement design life, or 12.0 for a 40-ye.ar pavement design life. For roadway rehabilitation projects, use the calculated TI.
2. November 20, 2017 Highway Design Manual **613.3**(b) **Lane Distribution Factors for Multi-lane Highways.** TI for non-truck permitted lanes must not exceed 11 for 20-year pavement design life and 12 for 40-year pavement design life.

Table 4-3 lists the current and forecasted traffic information for ramps. Table 4-4 includes the calculated and recommended traffic index for ramps.

**Table 4-3: Current and Forecasted Traffic Information for Ramps**

| | |
|---|---|
| Count Year ADT (2020) | 13,300 |
| Construction Year ADT (2026) | 13,600 |
| Design Year ADT (2046) | 15,000 |
| DHV_2046 | 1,400 |
| D% | 100.0% |
| Truck % | 2.00% |

Notes:
ADT = Average Daily Traffic
DHV= Design Hourly Volume
D% = directional distribution (% of traffic moving in the peak travel direction)

**Table 4-4: Calculated and Recommended Traffic Index for Ramps**

| TI and ESAL | Calculated TI for Ramps | Recommended TI* for all Lanes |
|---|---|---|
| 5-year TI | 7.50 | |
| 5-year ESAL | 248,000 | |
| 10-year TI | 8.50 | |
| 10-year ESAL | 502,000 | |
| 20-year TI | 9.00 | 10.00 |
| 20-year ESAL | 1,030,000 | |
| 40-year TI | 10.00 | 11.00 |
| 40-year ESAL | 2,162,000 | |

Notes:
ESAL = Equivalent Single Axle Load TI = Traffic Index

Collision Data:

The Table B report identified in Table 4-5 was generated on August 20, 2025, and it depicts collision rates per million vehicle miles for the most recent 60-month period from October 1, 2019 to September 30, 2024 from the Traffic Accident Surveillance and Analysis System (TASAS).

**Table 4-5: TASAS Table B Collision Rates (October 1, 2019 - September 30, 2024)**

| Segment | No. of Collision | | | | | ACTUAL Rates (per million vehicle miles) | | | AVERAGE Rates (per million vehicle miles) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | FAT | Serious INJ | Other INJ | PDO | Fatal Collision | Fatal+ Injury Collision | Total (1) | Fatal Collision | Fatal + Injury Collision | Total (1) |
| Mrn-101-PM 7.12/7.62 | 86 | 0 | 3 | 24 | 59 | 0.00 | 0.20 | 0.65 | 0.004 | 0.35 | 1.07 |

*(1) All reported collisions (includes Property Damage Only (PDO) Collisions)*

Table 1 (TASAS Table B Collision Rates (October 1, 2019 – September 30, 2024)) summarizes and compares the actual collision rates to the average rates for similar facilities throughout the state. The total collision rates include all reported collision: Fatal, Injury, and Property Damage.

**MRN-101 PM 7.12/7.62**

Detailed analysis per the TASAS Selective Accident Retrieval (TSAR) generated on February 3, 2022, shows that the primary collision factors in the segment on MRN 101 PM 7.32/7.42 were:

- 11 (12.8 percent) influence alcohol
- 1 (1.2 percent) follow too close
- 10 (11.6 percent) improper turn
- 45 (52.3 percent) speeding
- 16 (18.6 percent) other violations
- 3 (3.5 percent) other than driver

The type of collision included:

- 42 (48.8 percent) rear end
- 22 (25.6 percent) sideswipe
- 1 (1.2 percent) broadside
- 19 (22.1 percent) hit-object
- 2 (2.3 percent) other

In addition, this segment was not flagged in TASAS Table C for this period. Table C identifies high collision frequency spot locations with ether Type ‘W’ (Wet) collisions or Type ‘A’ (All) collisions, where four or more significant collisions within a 12-month, 6-month, or a 3-month period have occurred. Four type ’A’ traffic investigations & four type ‘W’ traffic investigations with a recommendation of no action.

## 5. CONSIDERATIONS REQUIRING DISCUSSION

### Right of Way

A Right of Way Data Sheet (RWDS) has been prepared based on the proposed scope of work described and the maps provided by the Division of Design. Estimated cost information is contained in the RWDS (Attachment D). The RWDS cost is higher than programmed amount and will be addressed during the continuation of the PSE phase either through a redesign of the abutment and staircase location, or Greater than 120 request.

The project anticipates needing a 3,210 SQFT. Permit to Enter and Construct (PEC) for three locations to construct sidewalk and remove crosswalk stripping.

Railroad

Railroad involvement in this project is not anticipated.

Utilities

There is an existing 16-inch high-pressure gas transmission pipeline owned by Pacific Gas and Electric Company (PG&E) located approximately 100 feet from the edge of the southbound US 101 shoulder. Potholing was conducted during the PS&E phase, and the pipeline was confirmed to be within the project limits. The 16-inch PG&E gas line has been identified as a utility conflict and will require relocation to accommodate the proposed improvements.

### Highway Planting and Irrigation

There are extensive State plantings and irrigation facilities within and near most locations of proposed work, and replacement planting will be required in various locations throughout the interchange. The Office of Landscape Architecture (OLA) has conducted a preliminary evaluation of the work required for the project referenced above. These recommendations address items related to visual resources, planting and irrigation, and erosion control. This information is preliminary and will require revision as the design is advanced.

Under the preferred alternative, impacts are such that replacement planting costs are estimated to exceed the amount of highway planting work allowed to be included as part of a roadway project. The Project Development Procedures Manual, Chapter 29, Section 2, Separate Contract Requirement for Highway Planting Work on Roadway Construction Projects, states:

“Highway planting with an estimated cost of $300,000 or more, in conjunction with or resulting from a roadway construction project, must be accomplished by separate contract and must include three years of plant establishment. This policy applies to all highway planting projects within the State operational right of way regardless of the funding source. The estimated cost of highway planting is the total sum of the bid

items for planting and irrigation work and does not include the cost of traveler and worker safety features, or storm water pollution prevention plan (SWPPP) items."

Because the estimated cost of required highway planting work, as detailed above, exceeds $300,000, it is necessary to program a "child" follow-up highway planting project to implement that planting this work. this work will be funded by this "parent" roadway project. The highway planting cost of $2,249,561 is included in the overall project estimate.

**Asset Management**

Director's Policy 35 (DP-35) calls for maximizing the effectiveness of transportation investments through a performance-driven asset management in conformance with Title 23, Part 515 of the Code of Federal Regulations and Section 14526 of the California Government Code. Per this policy, Caltrans is required to determine the most effective way to apply the available resources to benefit the condition and performance of the State Highway System (SHS) and its assets. This is achieved by a robust Asset Management program and is implemented through the Asset Management plans, such as the State Highway System Management Plan (SHSMP) and the District Performance Plans (DPP).

This project has been initiated, developed, and programmed in alignment with the departmental asset management plans. In the PS&E phase of the project, all efforts have been made to meet or surpass the performance of the project at the programming milestone (Milestone 015). The programmed performance measures and Programming Performance Summary are presented in Table 5-1 and Table 5-2. For detailed performance measures, see attachment E.

**Table 5-1: Proposed Programmed Performance Measures of the Project**

| Activity Detail | Unit of Measurement | Quantity | Pre-Good | Pre-Fair | Pre-Poor | New | Post-Good |
|---|---|---|---|---|---|---|---|
| Bridge Rail | Linear Feet | 1,684 | 1,684 | | | | 1,684 |
| Bridge Rehabilitation | Square Feet | 76,346 | | | 61,570 | 14,776 | 61,570 |
| ADA-Repair/upgrade Curb Ramp | Each | 12 | | | 12 | | 12 |
| ADA Deficient Elements | Deficient Elements | 12 | | | 12 | | 12 |
| Bike Boxes | Each | 2 | | | | 2 | |
| Class II Bike Lanes | Linear Feet | 160 | | | | 160 | |
| Conflict Zone Green Paint | Each | 6 | | | | 6 | |
| Transit Stop Improvements | Each | 2 | | | | 2 | |

**Table 5-2: Programming Performance Summary (All Location)**

| Program Code | Activity Category | Asset Class | Asset | Performance Value | Performance Measure | Unit | Post-Good | Post-Fair | Pre-Poor | Pre-Total | Post Good | New | Post Good + New |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 201.113 | Bridge - Seismic | Primary | Bridge | 3 | Bridge(s) | Square Feet | 0 | 0 | 61,570 | 61,570 | 61,570 | 30,859 | 92,439 |

There was a change compared to original performance measures listed in the scoping document:

1. The original performance measures table was missing a column for new bridge deck area. The new programming performance summary is included two additional bridge deck areas.

## 6. FUNDING AND ESTIMATE

### Funding

It has been determined that this project is eligible for Federal-aid funding.

### Programming

This project is proposed to be funded under SHOPP program code 20.10.201.113 (Bridge Rehabilitation Program).

| Component | Fund Source | Fiscal Year Estimate for the Programmable Alternative | | | | | |
|---|---|---|---|---|---|---|---|
| | | 23/24 | 24/25 | 25/26 | 26/27 | 27/28 | Total |
| | | In thousands of dollars ($1,000) | | | | | |
| PS&E Support | 20.10.201.113 | | | 3,000 | | | 3,000 |
| Right of Way Support | 20.10.201.113 | | | 965 | | | 965 |
| Construction Support | 20.10.201.113 | | | | 6,000 | | 6,000 |
| Right of Way | 20.10.201.113 | | | | 6,692 | | 6,692 |
| Construction | 20.10.201.113 | | | | 39,242 | | 39,242 |
| Total | | | | 3,965 | 51,934 | | 55,899 |

The support cost ratio range is 22% (all support costs/construction capital plus Right of Way capital costs).

### Estimate

The current total project capital cost for the preferred alternative (escalated to mid-year construction), is estimated at $39,241,569 for construction and $10,223,000 for right of way items. The Right of Way Data Sheet cost is higher than programmed amount of $6,692,000 and will be addressed during the continuation of the PSE phase either through a redesign of the abutment and staircase location, or Greater than 120 request. Please see Attachment C for the Project Cost estimate.

## 7. DELIVERY SCHEDULE

| Project Milestones | | Milestone Date (Month/Day/Year) |
|---|---|---|
| PIR SIGNED | M010 | 6/27/2019 (A) |
| PROGRAM PROJECT | M015 | 5/20/2020 (A) |
| BEGIN ENVIRONMENTAL | M020 | 10/2/2020 (A) |
| DED | M120 | 6/30/2022 (A) |
| PA&ED | M200 | 6/30/2023 (A) |
| STRUCTURES PS&E | M378 | 8/13/2025 A) |
| PS&E TO DOE | M377 | 7/11/2025 (A) |
| PROJECT PS&E | M380 | 2/15/2027 (T) |
| RIGHT OF WAY CERTIFICATION | M410 | 3/1/2027 (T) |
| READY TO LIST | M460 | 4/1/2027 (T) |
| FUND ALLOCATION | M470 | 6/24/2027 (T) |
| HEADQUARTERS ADVERTISE | M480 | 7/24/2027 (T) |
| BID OPENING | M490 | 8/24/2027 (T) |
| AWARD | M495 | 9/24/2027 (T) |
| APPROVE CONTRACT | M500 | 10/24/2027 (T) |
| CONTRACT ACCEPTANCE | M600 | 1/24/2030 (T) |
| END PROJECT | M800 | 09/24/2034 (T) |

## 8. PROJECT PERSONNEL

Table 8-1 lists the project personnel by name, unit, and telephone number.

**Table 8-1: Project Personnel**

| Name | Unit | Phone |
|---|---|---|
| Ronald Sangalang | Project Management | 510-407-9476 |
| Hubert Wong | D4 Bridge Program Advisor | 510-506-3963 |
| Ghulam Popal | Senior Engineer, Design Marin & Napa | 510-418-0725 |
| Emarnan Pongpairoj | Project Engineer, Design Marin & Napa | 510-807-1481 |
| Kimbery Mori | Structure Design Engineer | 916-227-8856 |
| Christopher Pincetich | Senior Environmental Planner | 510-925-0604 |
| Deepthi Madabushi | Asset Manager | 510-708-5586 |
| Ganga Tripathi | Storm Water Coordinator | 510-704-3830 |

| | | |
|---|---|---|
| Mark Morancy | Hydraulic Engineer | 510-418-8338 |
| Rick D'Onofrio | Materials Design Engineer | 510-622-1776 |
| Shella Orson | R/W Project Coordinator | 510-908-9183 |
| William Woolery | Traffic Manager (TMP) | 925-250-5596 |
| Mikiyas Hailu | D4 QMP Team Lead | 510-807-1440 |

## 9. ATTACHMENTS (Number of Pages)

A. NEPA/CEQA Re-Validation dated August 19, 2025 (3)
B. Project Layout Plans (2)
C. Cost Estimate (10)
D. Right of Way Data Sheet (7)
E. Performance Measures (1)
F. Approved Project Report dated June 30, 2023 (36)

# ATTACHMENT A

# NEPA/CEQA RE-VALIDATION

# NEPA/CEQA RE-VALIDATION FORM (rev. 09/2024)

| |
|---|
| **DIST-CO-RTE:** 04-MRN-101 |
| **PM/PM:** 7.4 |
| **EA or Fed-Aid Project No.:** 04-4J860/0416000042 |
| **Other Project No. (specify):** N/A |
| **Project Title:** Multi-asset Interchange Improvement |
| **Environmental Approval Type:** Initial Study with Mitigation Negative Declaration/Categorical Exclusion |
| **Date Approved:** CEQA: 06/28/2023 NEPA:06/28/23 |
| **Reason for Consultation (23 CFR 771.129)**:<br>☐ Project proceeding to next major federal approval<br>☒ Change in scope, setting, effects, mitigation measures, requirements<br>☐ 3-year timeline (EIS only)<br>☐ **N/A** (Re-Validation for CEQA only) |
| **Description of Changed Conditions:**<br>The project is going to be unparred and reprogrammed for the 26/27 FY. |

## NEPA CONCLUSION - VALIDITY

Based on an examination of the changed conditions and supporting information: (*Check ONE of the three statements below, regarding the validity of the original document/determination (23 CFR 771.129). If document is no longer valid, indicate whether additional public review is warranted and whether the type of environmental document will be elevated.* ***NOTE:*** *If applicable, remember to check conformity status. See the SER Vol. 1, Chapter 11 and contact the District Air Quality Specialist for additional information.)*

☒ **The original environmental document or CE remains valid. No further documentation will be prepared.**

☐ **The original environmental document or CE is in need of updating; further documentation has been prepared and ☐ is included on the continuation sheet(s) or ☐ is attached. With this additional documentation, the original ED or CE remains valid.**
**Additional public review is warranted (23 CFR 771.111(h)(3)) ☐ Yes ☐ No**

☐ **The original environmental document or CE is no longer valid.**
**Additional public review is warranted (23 CFR 771.111(h)(3)) ☐ Yes ☐ No**
**Supplemental environmental document is needed. ☐ Yes ☐ No**
**New environmental document is needed. ☐ Yes ☐ No (If "Yes," specify type: )**

## CONCURRENCE WITH NEPA CONCLUSION

I concur with the NEPA conclusion above.

Nicholas Pucci (Acting) — 08/19/2025
Signature: Environmental Branch Chief — Date

— 8/19/2025
Signature: Project Manager/DLAE — Date

## NEPA/CEQA RE-VALIDATION FORM

**CEQA CONCLUSION** (Only mandated for projects on the State Highway System.)

Based on an examination of the changed conditions and supporting information, the following conclusion has been reached regarding appropriate CEQA documentation: (*Check ONE of the five statements below, indicating whether any additional documentation is or will be prepared, and if so, what kind. If additional documentation is prepared, attach a copy of this signed form and any continuation sheets.*)

☒ **Original document remains valid. No further documentation is necessary but may be included on continuation sheets.**

☐ **An Addendum was prepared for minor technical changes or additions to the project and is:**

- ☐ **included on the continuation sheets or**
- ☐ **attached.**

**It need not be circulated for public review (CEQA Guidelines, §15164). The addendum must include a brief explanation of why the decision was made to not prepare a subsequent or supplemental environmental document as well as a summary statement explaining the changes to the project.**

☐ **Changes are substantial, but only minor additions or changes are necessary to make the previous document adequate. A Supplemental environmental document will be prepared, and it will be circulated for public review (CEQA Guidelines, §15163).**

☐ **Changes are substantial, and major revisions to the current document are necessary. A Subsequent environmental document will be prepared, and it will be circulated for public review (CEQA Guidelines, §15162).**
(Specify type of subsequent document, e.g., Subsequent FEIR):

☐ **The CE is no longer valid. New CE is needed. ☐ Yes ☐ No**

**CONCURRENCE WITH CEQA CONCLUSION**

I concur with the CEQA conclusion above.

Nicholas Piucci (Acting) — 08/19/2025

Signature: Environmental Branch Chief — Date

[signature] — 8/19/2025

Signature: Project Manager/DLAE — Date

## NEPA/CEQA RE-VALIDATION FORM

**CONTINUATION SHEET(S)**

This Revalidation addresses the change in construction capital cost and project delivery schedule that is necessary to obtain R/W acquisition and to finishes project design.

The project was originally programmed for Fiscal Year (FY) 2024/2025, and a 20-month time extension for Construction Capital and Construction Support was rejected. Reprogramming of the project is necessary to complete Plans, Specifications, and Estimate (PS&E) and secure all environmental permits and R/W requirements.

The project is going to be reprogrammed for the 2026/2027 Fiscal Year, some of the studies for this project might still apply.

**Changes in project design, e.g., scope change; a new alternative; change in project alignment.**

The project is going to be reprogrammed for the 2026/2027 FY, some of the studies for this project still might apply.

**Changes in environmental setting, e.g., new development affecting traffic or air quality.**

The project is going to be reprogrammed for the 2026/2027 FY, some of the studies for this project still might apply.

**Changes in environmental circumstances, e.g., a new law or regulation; change in the status of a listed species.**

The project is going to be reprogrammed for the 2026/2027 FY some of the studies for this project still might apply.

**Changes to environmental impacts of the project, e.g., a new type of impact, or a change in the magnitude of an existing impact.**

The project is going to be reprogrammed for the 2026/2027 Fiscal, some of the studies for this project still might apply.

**Changes to avoidance, minimization, and/or mitigation measures since the environmental document was approved.**

The project is going to be reprogrammed for the 2026/2027 Fiscal, some of the studies for this project still might apply.

**Changes to environmental commitments since the environmental document was approved, e.g., the addition of new conditions in permits or approvals. When this applies, append a revised Environmental Commitments Record (ECR) as one of the Continuation Sheets.**

There have been no changes to the Environmental Commitments Record.

# ATTACHMENT B

# Layout Plan

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 04 | Mrn | 101 | 7.4 | | |

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

Emarnan Pongpairoj No. 78551 Exp. 9-30-25 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA



NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

**LEGEND:**

- 0.55′HMA (TYPE A) 1.65′ CL 2 AB
- 0.33′ PCC 0.50′ CL 2 AB
- REMOVE BASE AND SURFACING
- 0.15′ COLD PLANE AC PAVEMENT 0.15′-0.5′ HMA(A)
- No. — STRUCTURAL SECTION NUMBER
- PEC — PERMIT TO ENTER AND CONSTRUCT

"SR" 17+00 EC
"SR" 16+23.57 BC
"CN" 20+00 EC
"CN" 20+00 END REMOVE BASE AND SURFACING
"SL" 15+05 END MVP
"CN" 17+55 Beg REMOVE BASE AND SURFACING
"R2" 14+85 END REMOVE BASE AND SURFACING
"SL" 14+20 Beg MVP
443.67′ N 21° 18′ 48" E
"SR" LINE
"SL" LINE
"R2" LINE
"R2" 14+59.37 END HMA DIKE (TYPE C) END SIDEWALK Beg PEDESTRIAN OVERCROSSING (SEE STRUCTURE PLANS)
"R2" 14+61.73 BC
6.05′ N 60° 50′ 26" W
"R2" 14+55.68 EC
"SL" 16+00 EC
"R2" 13+16.63 PRC
"R2" 12+63.58 PRC
"R2" 19+02.80 EC
"R2" 19+99.39 POT
"SR" 11+81 EC
"R2" 9+85 Beg REMOVE BASE AND SURFACING Beg SIDEWALK CURB RAMP #4 (SEE C-SHEETS)
1.56′ S 60° 34′ 46" E
"R2" 17+42.56 EC
"R2" 17+44.12 BC
"R2" 11+70.11 PRC
"R2" 11+50.83 BC
"R2" 14+02 Beg HMA DIKE (TYPE C)
"R2" 13+62 BENCH PULLOUT
"R2" 12+67 BENCH PULLOUT
"R2" 10+28 BENCH PULLOUT
N 2 165 717.72
E 5 980 208.56
"R2" 9+85 POT
"SR" 10+00 BC = "F" 19+47.21 POT
"F" 16+75 Beg REMOVE CONCRETE CURB AND SIDEWALK
N 2 165 554.30
E 5 979 910.36
"S" 10+00 POT
"F" 19+10 CURB RAMP #3 (SEE C-SHEETS)
"SB" 10+00 POT = "F" 19+47.21 POT
"F" 19+03 Beg REMOVE BASE AND SURFACING
N 2 165 582.85
E 5 979 761.84
"F" 14+90 BC
"F" 15+70 Beg REMOVE CHAIN LINK FENCE Beg SIDEWALK (SEE C-SHEETS) Beg CURB (TYPE A2-6) CONFORM
"F" 19+10 CURB RAMP #1 (SEE C-SHEETS)
5.97′ S 30°46′57" E
"F" 18+29.07 EC
R/W
PEC
"F" 15+80 END REMOVE CHAIN LINK FENCE
"F" 15+85 Beg HMA (TYPE A)
"S" 10+55 Beg REMOVE BASE AND SURFACING
"F" 19+20 END SIDEWALK END CURB (TYPE A2-6)
"SB" 10+50 Beg SIDEWALK CURB RAMP #2 (SEE C-SHEETS)
BUS SHELTER (SEE C-SHEETS)
CASA BUENA DR
"S" LINE
554′ S 85°10′13" E
"SB" 13+00 Beg COLD PLANE AC PAVEMENT
"S" 15+54 BC
"S" 15+65 END REMOVE BASE AND SURFACING
"SB" 14+36 POT END COLD PLANE AC PAVEMENT CONFORM
"S" 18+00 EC
"SB" LINE
356.82′ S 65°46′27" E
"SB" 10+05.97 BC
"F" 20+92 Beg REMOVE CHAIN LINK FENCE
"F" 19+78 END HMA (TYPE A) END REMOVE CONCRETE CURB AND SIDEWALK ALTERNATIVE CRASH CUSHION TL-2 CONFORM
"SB" 10+79.26 EC
"SB" 11+68 END SIDEWALK
"SB" 12+50 Beg MVP
"SB" 13+35 END MVP
166.83′ N 64° 58′ 52" E
1153.84′ N 64° 58′ 52" E
"F" 21+12 END REMOVE CHAIN LINK FENCE
"F" 22+49 END REMOVE BASE AND SURFACING
96.59′ N 64° 58′ 54" E
TAMALPAIS DRIVE
"F" LINE
MATCH LINE
"CN" 15+33.56 POC = "F" 24+28.71 POT
N 2 165 812.43
E 5 980 427.03
"SL" 10+00 BC
"F" 21+84 REMOVE CRASH CUSHION QUADGUARD II SYSTEM (QG27090) CRASH CUSHION
"CN" LINE
ROUTE 101
"CN" 12+05.03 BC
105.03′ N 22°8′10" W
N 2,165,477.745
E 5,980,789.377
"CN" 11+00 POT

## CURVE DATA

| No. ⊛ | R | Δ | T | L | N | E |
|---|---|---|---|---|---|---|
| 1 | 554 | 35° 02′ 10" | 175.02 | 339.07 | 2166129.75 | 5979853.25 |
| 2 | 120 | 34° 59′ 30" | 37.83 | 73.29 | 2165735.72 | 5980305.58 |
| 3 | 79 | 13° 59′ 08" | 9.69 | 19.28 | 2165716.26 | 5980392.24 |
| 4 | 66 | 81° 08′ 17" | 56.51 | 93.46 | 2165858.58 | 5980364.48 |
| 5 | 49 | 62° 02′ 16" | 29.46 | 53.06 | 2165862.94 | 5980479.40 |
| 6 | 66 | 120° 42′ 25" | 115.96 | 139.04 | 2165962.40 | 5980421.67 |
| 7 | 410 | 34° 21′ 01" | 126.82 | 246.00 | 2165098.60 | 5980430.07 |
| 8 | 5172 | 08° 48′ 22" | 398.27 | 794.97 | 2167524.04 | 5985540.95 |
| 9 | 134 | 256° 02′ 24" | 171.73 | 600.00 | 2165945.25 | 5980407.34 |
| 10 | 239 | 43° 44′ 22" | 95.77 | 182.14 | 2165774.43 | 5980418.30 |
| 11 | 629 | 06° 57′ 39" | 38.26 | 76.43 | 2166485.74 | 5979764.61 |
| 12 | 90 | 179°12′21" | 12954.91 | 280.83 | 2165944.58 | 5980404.79 |
| 13 | 167 | 54°14′04" | 85.52 | 158.08 | 2166011.48 | 5980443.36 |

**LAYOUT**
SCALE: 1" = 50′

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN — Caltrans®
FUNCTIONAL SUPERVISOR: GHULAM POPAL
CALCULATED-DESIGNED BY: EMARNAN PONGPAIROJ
CHECKED BY: GHULAM POPAL
REVISED BY: EP
DATE REVISED: 5-15-20
LAST REVISION DATE PLOTTED => 8-JUL-2025
TIME PLOTTED => 0:41
07-07-25

BORDER LAST REVISED 1/4/2023
USERNAME => s129144
DGN FILE => 0416000042ea001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0708
PROJECT NUMBER & PHASE 04160000421

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

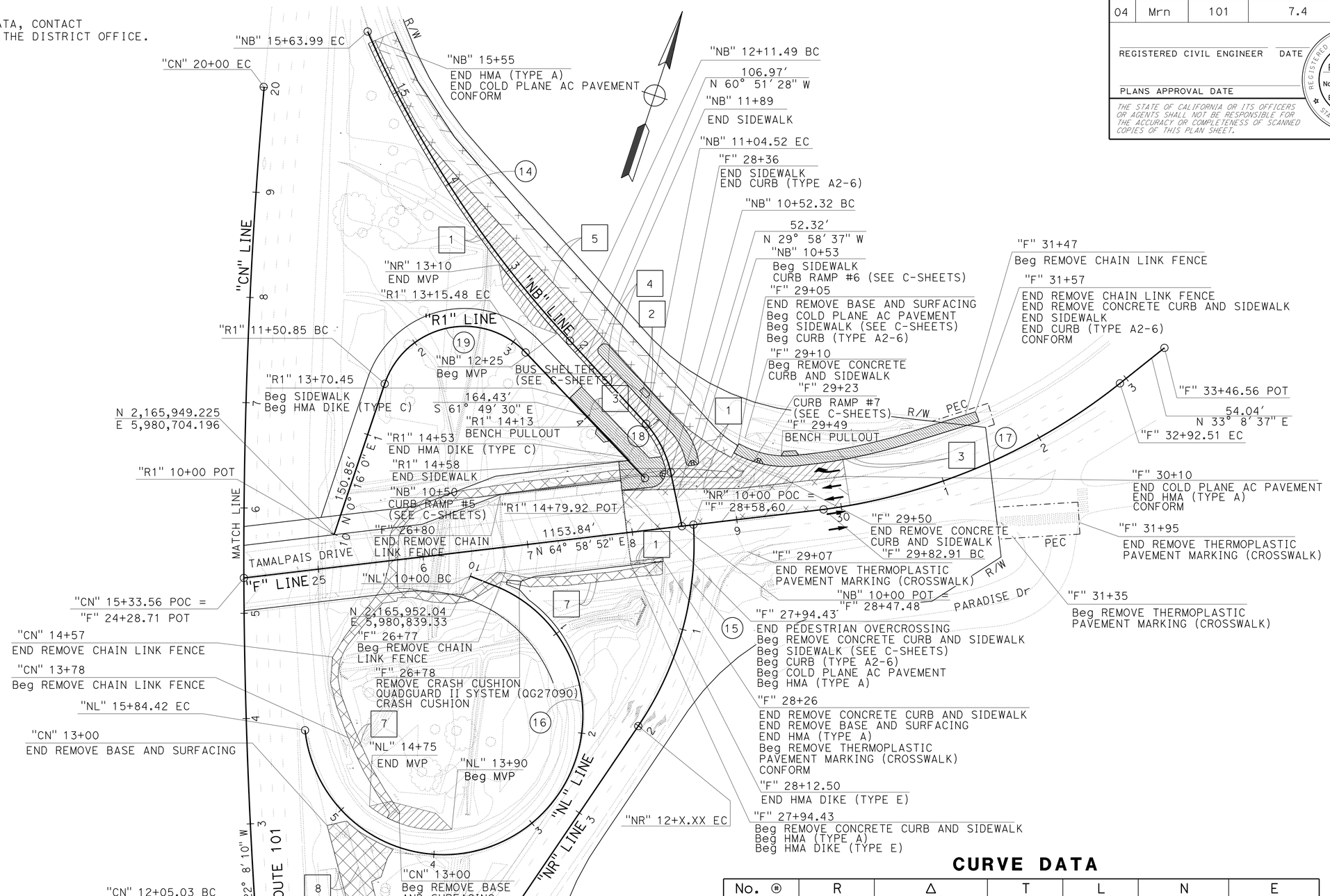
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 04 | Mrn | 101 | 7.4 | | |

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Emarnan Pongpairoj
No. 78551
Exp. 9-30-25
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.




## CURVE DATA

| No. ℗ | R | Δ | T | L | N | E |
|---|---|---|---|---|---|---|
| 14 | 1043 | 19° 21' 40" | 177.95 | 352.50 | 2167107.63 | 5981362.51 |
| 15 | 309 | 37° 29' 41" | 104.73 | 201.92 | 2165950.98 | 5980738.52 |
| 16 | 132 | 241° 33' 05" | 222.12 | 557.70 | 2165818.64 | 5980856.71 |
| 17 | 571 | 31° 04' 01" | 158.71 | 309.61 | 2166631.58 | 5980889.52 |
| 18 | 104 | 28° 46' 31" | 26.66 | 52.20 | 2166052.34 | 5980899.78 |
| 19 | 80 | 117° 54' 30" | 132.90 | 164.63 | 2166099.70 | 5980784.90 |

# LAYOUT

SCALE: 1" = 50'

L-2

| REVISED BY | DATE REVISED | CALCULATED-DESIGNED BY | CHECKED BY |
|---|---|---|---|
| EP | 5-15-20 | EMARNAN PONGPAIROJ | GHULAM POPAL |

FUNCTIONAL SUPERVISOR: GHULAM POPAL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION DATE PLOTTED => 8-JUL-2025
TIME PLOTTED => 10:31
07-08-25

BORDER LAST REVISED 1/4/2023 | USERNAME => s129144 | DGN FILE => 0416000042ea002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0708 | PROJECT NUMBER & PHASE 04160000421

# ATTACHMENT C

# Project Cost Estimate

# PROJECT

# PLANNING COST ESTIMATE©

***EA: 04-4J8600 PID: 416000042***

**EA: 04-4J8600**

**PID: 416000042**

**District-County-Route:** 04-MRN-101

**PM:** 7.37

**Type of Estimate :** SPR

**Program Code :** SHOPP 20.10.201.113 – Bridge Rehabilitation

**Project Limits :** On US 101 in Marin County at Tamalpais Drive Overcrossing (Bridge No. 27-0072)

**Project Description:** Bridge Preventive Maintenance and ADA improvements

**Scope :** This project proposes removing the two existing pedestrian spiral walkway ramps and constructing two new pedestrian ramps. ADA improvements also include bridge widening and a new pedestrian/bike sidewalk at the SW intersection on Tamalpais Drive to Casa Buena Drive. Proposed work at the SB 101 off-ramp intersection includes ramp widening for a new bus stop and bus pullout. This option will reconfigure the NB and SB 101 on-ramps, and NB and SB 101 loop-ramps to signalized intersections. All existing bus bypasses/stops will be removed with this option. Seismic retrofit. See Attachment B, Design Option 4B.

**Alternative :** Alternative 4B

## SUMMARY OF PROJECT COST ESTIMATE

| | | Current Year Cost | | Escalated Cost |
|---|---|---|---|---|
| **TOTAL ROADWAY COST** | $ | 19,037,400 | $ | 20,782,170 |
| **TOTAL STRUCTURES COST** | $ | 16,909,637 | $ | 18,459,399 |
| **SUBTOTAL CONSTRUCTION COST** | $ | 35,947,037 | $ | 39,241,569 |
| **TOTAL RIGHT OF WAY COST** | $ | 10,013,000 | $ | 10,223,000 |
| **TOTAL CAPITAL OUTLAY COSTS** | $ | 45,961,000 | $ | 49,965,000 |
| **PA/ED SUPPORT** | $ | - | $ | - |
| **PS&E SUPPORT** | $ | 3,000,000 | $ | 3,000,000 |
| **RIGHT OF WAY SUPPORT** | $ | 965,000 | $ | 965,000 |
| **CONSTRUCTION SUPPORT** | $ | 6,000,000 | $ | 6,000,000 |
| **TOTAL SUPPORT COST** | $ | 9,965,000 | $ | 9,965,000 |
| **TOTAL PROJECT COST** | $ | 56,000,000 | $ | 59,500,000 * |
| | | Programmed Amount | $ | 26,205,000 |

| | Month | / | Year |
|---|---|---|---|
| Date of Estimate (Month/Year) | 8 | / | 25 |
| Estimated Construction Start (Month/Year) | 12 | / | 27 |

Number of Working Days = 540

| | | | |
|---|---|---|---|
| Estimated Mid-Point of Construction (Month/Year) | 1 | / | 29 |
| Estimated Construction End (Month/Year) | 3 | / | 30 |

Number of Plant Establishment Days

***Estimated Project Schedule***

| | |
|---|---|
| *PID Approval* | 6/27/2019 |
| *PA/ED Approval* | 6/27/2023 |
| *PS&E* | 2/15/2027 |
| *RTL* | 5/1/2027 |
| *Begin Construction* | 12/15/2027 |

| | | | |
|---|---|---|---|
| Reviewed by District O.E. or Cost Estimate Certifier | Ghulam Popal | 8/15/2025 | 510-418-0725 |
| | **Office Engineer / Cost Estimate Certifier** | **Date** | **Phone** |
| Approved by Project Manager | Ronald Sangalang | 8/15/2025 | 510-407-9476 |
| | **Project Manager** | **Date** | **Phone** |

*EA: 04-4J8600 PID: 416000042*

# I. ROADWAY ITEMS SUMMARY

| | Section | | Cost |
|---|---|---|---|
| 1 | **Earthwork** | $ | 847,000 |
| 2 | **Pavement Structural Section** | $ | 3,336,000 |
| 3 | **Drainage** | $ | 450,000 |
| 4 | **Specialty Items** | $ | 189,500 |
| 5 | **Environmental** | $ | 1,902,900 |
| 6 | **Traffic Items** | $ | 3,442,800 |
| 7 | **Detours** | $ | - |
| 8 | **Minor Items** | $ | 1,525,300 |
| 9 | **Roadway Mobilization** | $ | 1,169,400 |
| 10 | **Supplemental Work** | $ | 1,241,000 |
| 11 | **State Furnished** | $ | 1,526,600 |
| 12 | **Time-Related Overhead** | $ | 2,500,300 |
| 13 | **Total Roadway Contingency** | $ | 906,600 |
| | **TOTAL ROADWAY ITEMS** | **$** | **19,037,400** |

| | | | |
|---|---|---|---|
| **Estimate Prepared By :** | Emarnan Pongpairoj, Transportation Engineer | 5/19/2022 | 510-807-1481 |
| | Name and Title | Date | Phone |
| **Estimate Reviewed By :** | Ghulam Popal, Senior Transportation Engineer | 5/16/2022 | 510-418-0725 |
| | Name and Title | Date | Phone |

**By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.**

## SECTION 1: EARTHWORK

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost |
|---|---|---|---|---|---|---|---|---|
| 190101 | Roadway Excavation | CY | | x | | = | $ | - |
| 19010X | Roadway Excavation (Insert Type) ADL | CY | 1,130 | x | 500.00 | = | $ | 565,000 |
| 198010 | Imported Borrow | CY | 2,320 | x | 100.00 | = | $ | 232,000 |
| 194001 | Ditch Excavation | CY | | x | | = | $ | - |
| 192037 | Structure Excavation (Retaining Wall) | CY | | x | | = | $ | - |
| 193013 | Structure Backfill (Retaining Wall) | CY | | x | | = | $ | - |
| 193031 | Pervious Backfill Material (Retaining Wall) | CY | | x | | = | $ | - |
| 17010X | Clearing & Grubbing | LS/ACRE | 1 | x | 50,000.00 | = | $ | 50,000 |
| 100100 | Develop Water Supply | LS | | x | | = | $ | - |
| 21012X | Duff | \CRE/SQFT | | x | | = | $ | - |
| XXXXXX | Some Item | Unit | | x | | = | $ | - |

| TOTAL EARTHWORK SECTION ITEMS | $ | 847,000 |
|---|---|---|

## SECTION 2: PAVEMENT STRUCTURAL SECTION

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost |
|---|---|---|---|---|---|---|---|---|
| 401050 | Jointed Plain Concrete Pavement | CY | 140 | x | 1,500.00 | = | $ | 210,000 |
| 400050 | Continuously Reinforced Concrete Pavement | CY | | x | | = | $ | - |
| 390132 | Hot Mix Asphalt (Type A) | TON | 1,820 | x | 500.00 | = | $ | 910,000 |
| 26020X | Class 2 Aggregate Base | TON/CY | 2,770 | x | 300.00 | = | $ | 831,000 |
| 250401 | Class 4 Aggregate Subbase | CY | | x | | = | $ | - |
| 414240 | Isolation Joint Seal (Asphalt Rubber) | LF | | x | | = | $ | - |
| 414241 | Isolation Joint Seal (Silicone) | LF | | x | | = | $ | - |
| 280010 | Rapid Strength Concrete Base | CY | | x | | = | $ | - |
| 410096 | Drill and Bond (Dowel Bar) | EA | | x | | = | $ | - |
| 390137 | Rubberized Hot Mix Asphalt (Gap Graded) | TON | | x | | = | $ | - |
| 391006 | Asphalt Binder (Geosynthetic Pavement Interlayer) | TON | | x | | = | $ | - |
| 290201 | Asphalt Treated Permeable Base | CY | | x | | = | $ | - |
| 374002 | Asphaltic Emulsion (Fog Seal Coat) | TON | | x | | = | $ | - |
| 397005 | Tack Coat | TON | 30 | x | 1,500.00 | = | $ | 45,000 |
| 377501 | Slurry Seal | TON | | x | | = | $ | - |
| 374493 | Polymer Asphaltic Emulsion (Seal Coat) | TON | | x | | = | $ | - |
| 370001 | Sand Cover (Seal) | TON | | x | | = | $ | - |
| 731530 | Minor Concrete (Textured Paving) | CY | | x | | = | $ | - |
| 731502 | Minor Concrete (Miscellaneous Construction) | CY | 250 | x | 2,000.00 | = | $ | 500,000 |
| 39407X | Place Hot Mix Asphalt Dike (Insert Type) | LF | | x | | = | $ | - |
| 398100 | Remove Asphalt Concrete Dike | LF | | x | | = | $ | - |
| 420201 | Grind Existing Concrete Pavement | SQYD | | x | | = | $ | - |
| 398300 | Remove Base and Surfacing | CY | 1,390 | x | 300.00 | = | $ | 417,000 |
| 390095 | Replace Asphalt Concrete Surfacing | CY | | x | | = | $ | - |
| 15312X | Remove Concrete | CY | 1,000 | x | 200.00 | = | $ | 200,000 |
| 41800X | Remove Concrete Pavement | SQYD/CY | | x | | = | $ | - |
| 394090 | Place Hot Mix Asphalt (Miscellaneous Area) | SQYD | | x | | = | $ | - |
| 398200 | Cold Plane Asphalt Concrete Pavement | SQYD | 2,230 | x | 100.00 | = | $ | 223,000 |
| 846046 | 6" Rumble Strip (Asphalt Concrete Pavement) | STA | | x | | = | $ | - |
| 846049 | 6" Rumble Strip (Concrete Pavement) | STA | | x | | = | $ | - |
| 846051 | 12" Rumble Strip (Asphalt Concrete Pavement) | STA | | x | | = | $ | - |
| 846052 | 12" Rumble Strip (Concrete Pavement) | STA | | x | | = | $ | - |
| 420102 | Groove Existing Concrete Pavement | SQYD | | x | | = | $ | - |
| 394095 | Roadside Paving (Miscellaneous Areas) | SQYD | | x | | = | $ | - |
| 390136 | Minor Hot Mix Asphalt | TON | | x | | = | $ | - |
| XXXXXX | Some Item | Unit | | x | | = | $ | - |

| TOTAL PAVEMENT STRUCTURAL SECTION ITEMS | $ | 3,336,000 |
|---|---|---|

EA: 04-4J8600 PID: 416000042

## SECTION 3: DRAINAGE

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost |
|---|---|---|---|---|---|---|---|---|
| 71013X | Remove Culvert | EA/LF | | x | | = | $ | - |
| 710240 | Modify Inlet | EA | | x | | = | $ | - |
| 710370 | Sand Backfill | CY | | x | | = | $ | - |
| 71010X | Abandon Culvert | EA/LF | | x | | = | $ | - |
| 710196 | Adjust Inlet | LF | | x | | = | $ | - |
| 710262 | Cap Inlet | EA | | x | | = | $ | - |
| 510501 | Minor Concrete | CY | | x | | = | $ | - |
| 510502 | Minor Concrete (Minor Structure) | CY | | x | | = | $ | - |
| 731627 | Minor Concrete (Curb, Sidewalk, and Curb Ramp) | CY | | x | | = | $ | - |
| 6101XX | XX" Alternative Pipe Culvert (Insert Type) | LF | | x | | = | $ | - |
| 6411XX | XX" Plastic Pipe | LF | | x | | = | $ | - |
| 65XXXX | XX" Reinforced Concrete Pipe (Insert Type) | LF | | x | | = | $ | - |
| 6811XX | XX" Plastic Pipe (Edge Drain) | LF | | x | | = | $ | - |
| 6901XX | XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi | LF | | x | | = | $ | - |
| 7006XX | XX" Corrugated Steel Pipe Inlet (0.XXX" Thick) | LF | | x | | = | $ | - |
| 7032XX | XX" Corrugated Steel Pipe Riser (0.XXX" Thick) | LF | | x | | = | $ | - |
| 7050XX | XX" Steel Flared End Section | EA | | x | | = | $ | - |
| 703233 | Grated Line Drain | LF | | x | | = | $ | - |
| 72XXXX | Rock Slope Protection (Type and Method) | CY/TON | | x | | = | $ | - |
| 72901X | Rock Slope Protection Fabric (Insert Class) | SQYD | | x | | = | $ | - |
| 721420 | Concrete (Ditch Lining) | CY | | x | | = | $ | - |
| 721430 | Concrete (Channel Lining) | CY | | x | | = | $ | - |
| 750001 | Miscellaneous Iron and Steel | LB | | x | | = | $ | - |
| XXXXXX | Additional Drainage | LS | 1 | x | 450,000.00 | = | $ | 450,000 |

| | | |
|---|---|---|
| **TOTAL DRAINAGE ITEMS** | **$** | **450,000** |

## SECTION 4: SPECIALTY ITEMS

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost | |
|---|---|---|---|---|---|---|---|---|---|
| 520103 | Bar Reinforced Steel (Retaining Wall) | LB | | x | | = | $ | - | PRSM quantity input for Look Ahead report. |
| 5100XX | Structural Concrete | CY | | x | | = | $ | - | PRSM quantity input for Look Ahead report. |
| 510060 | Structural Concrete, Retaining Wall | CY | | x | | = | $ | - | PRSM quantity input for Look Ahead report. |
| 5201XX | Bar Reinforcing Steel | LB | | x | | = | $ | - | PRSM quantity input for Look Ahead report. |
| 080050 | Progress Schedule (Critical Path Method) | LS | | x | | = | $ | - | |
| 582001 | Sound Wall (Masonry Block) | SQFT | | x | | = | $ | - | |
| 510530 | Minor Concrete (Wall) | CY | | x | | = | $ | - | |
| 60005X | Remove Sound Wall | LF/LS/SQFT | | x | | = | $ | - | |
| 70030 | Lead Compliance Plan | LS | 1 | x | 7,000.00 | = | $ | 7,000 | |
| 141120 | Treated Wood Waste | LB | | x | | = | $ | - | |
| 839750 | Remove Barrier | LF | | x | | = | $ | - | |
| 839752 | Remove Guardrail | LF | | x | | = | $ | - | |
| 710167 | Remove Flared End Section | EA | | x | | = | $ | - | |
| 8000XX | Chain Link Fence (Insert Type) | LF | | x | | = | $ | - | |
| 80XXXX | XX" Chain Link Gate (Type CL-X) | EA | | x | | = | $ | - | |
| 8320XX | Midwest Guardrail System (Insert Type) | LF | | x | | = | $ | - | |
| 839301 | Single Thrie Beam Barrier | LF | | x | | = | $ | - | |
| 839310 | Double Thrie Beam Barrier | LF | | x | | = | $ | - | |
| 839521 | Cable Railing | LF | | x | | = | $ | - | |
| 839566 | Terminal System (Type CAT) | EA | | x | | = | $ | - | |
| 839584 | Alternative In-line Terminal System | EA | | x | | = | $ | - | |
| 839585 | Alternative Flared Terminal System | EA | | x | | = | $ | - | |
| 4906XX | XX" Cast-In-Drilled-Hole Concrete Piling | LF | | x | | = | $ | - | |
| 8396XX | Crash Cushion (Insert Type) | EA | 3 | x | 50,000.00 | = | $ | 150,000 | |
| 8331XX | Concrete Barrier (Insert Type) | LF | | x | | = | $ | - | |
| 475010 | Retaining Wall (Masonry Wall) | SQFT | | x | | = | $ | - | |
| 511035 | Architectural Treatment | SQFT | | x | | = | $ | - | |
| 780460 | Anti-Graffiti Coating | SQFT | | x | | = | $ | - | |
| 780450 | Rock Stain | SQFT | | x | | = | $ | - | |
| 4730XX | Reinforced Concrete Crib Wall (Insert Type) | SQFT | | x | | = | $ | - | |
| 83954X | Transition Railing (Insert Type) | EA | | x | | = | $ | - | |
| 780440 | Prepare and Stain Concrete | SQFT | | x | | = | $ | - | |
| xxxxx | Bench | LS | | x | 1.00 | = | $ | 17,500 | |
| 17088 | Bus Shelter | EA | | | 2.00 | | $ | 15,000 | |

| | | |
|---|---|---|
| **TOTAL SPECIALTY ITEMS** | **$** | **189,500** |

Effective immediately, districts must input estimated item quantities in blue text above in the PRSM database for the pay items listed in the Design Memo, dated April 9, 2018, when Project Report is approved (Milestone 200). Link to Desgin Memo.

## SECTION 5: ENVIRONMENTAL

### 5A - ENVIRONMENTAL MITIGATION

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost |
|---|---|---|---|---|---|---|---|---|
| | Biological Mitigation (on-site) | LS | | x | | = | $ | - |
| | Biological & Environmental Mitigation | LS | 1 | x | 200,000.00 | = | $ | 200,000 |
| 80010X | Temporary Fence (Insert Type) | LF | | x | | = | $ | - |
| 130670 | Temporary Reinforced Silt Fence | LF | | x | | = | $ | - |
| | | | | | | *Subtotal Environmental Mitigation* | *$* | *200,000* |

### 5B - LANDSCAPE AND IRRIGATION

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost |
|---|---|---|---|---|---|---|---|---|
| 20XXXX | Highway Planting | LS | | x | | = | $ | - |
| 20XXXX | Irrigation System | LS | | x | | = | $ | - |
| 20XXXX | Maintain Existing Irrigation/Planted Areas | LS | 1 | x | 40,000.00 | = | $ | 40,000 |
| 20XXXX | Follow-up Landscape Project | LS | 1 | x | 1,000,000.00 | = | $ | 1,000,000 |
| 204099 | Plant Establishment Work | LS | | x | | = | $ | - |
| 20XXXX | Follow-up Landscape Project | LS | | x | | = | $ | - |
| 150685 | Remove Irrigation Facility | LS | 1 | x | 10,000.00 | = | $ | 10,000 |
| 20XXXX | Capping existing irrigation conponents | LS | 1 | x | 2,500.00 | = | $ | 2,500 |
| 204096 | Maintain Existing Planted Areas | LS | | x | | = | $ | - |
| 206400 | Check and Test Existing Irrigation Facilities | LS | 1 | x | 25,000.00 | = | $ | 25,000 |
| 21011X | Imported Topsoil | CY/TON | | x | | = | $ | - |
| 200114 | Rock Blanket | SQFT/SQYD | | x | | = | $ | - |
| 200122 | Weed Germination | SQYD | | x | | = | $ | - |
| 995100 | Water Meter Charges | LS | | x | | = | $ | - |
| 2087XX | XX" Conduit (Use for Irrigation x-overs) | LF | | x | | = | $ | - |
| 20890X | Extend X" Conduit (Use for Extension of | LF | | | | | | |
| XXXXX | Misc | LS | 1 | x | 150,000.00 | = | $ | 150,000 |
| | | | | | | *Subtotal Landscape and Irrigation* | *$* | *1,227,500* |

### 5C - EROSION CONTROL

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost |
|---|---|---|---|---|---|---|---|---|
| 211111 | Permanent Erosion Control Establishment Work | LS | | x | | = | $ | - |
| 210010 | Move In/Move Out (Erosion Control) | EA | 4 | x | 1,100 | = | $ | 4,400 |
| 210350 | Fiber Rolls | LF | 2,000 | x | 5.00 | = | $ | 10,000 |
| 210360 | Compost Sock | LF | | x | | = | $ | - |
| 2102XX | Rolled Erosion Control Product (X) | SQFT | 7,500 | x | 1.5 | = | $ | 11,250 |
| 21025X | Bonded Fiber Matrix | SQFT/ACRE | 1 | x | 20000.00 | = | $ | 20,000 |
| 210300 | Hydromulch | SQFT | 60,000 | x | 0.25 | = | $ | 15,000 |
| 210420 | Straw | SQFT | | x | | = | $ | - |
| 210430 | Hydroseed | SQFT | 60,000 | x | 0.50 | = | $ | 30,000 |
| 210610 | Compost | CY | | x | | = | $ | - |
| 210630 | Incorporate Materials | SQFT | | | | | | |
| 210XXX | Other Erosion Control | LS | 1 | x | 17250 | = | $ | 17,250 |
| | | | | | | *Subtotal Erosion Control* | *$* | *107,900* |

### 5D - NPDES

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost |
|---|---|---|---|---|---|---|---|---|
| 130300 | Prepare SWPPP | LS | 1 | x | 12,500.00 | = | $ | 12,500 |
| 130200 | Prepare WPCP | LS | | x | | = | $ | - |
| 130100 | Job Site Management | LS | | x | | = | $ | - |
| 130330 | Storm Water Annual Report | EA | | x | | = | $ | - |
| 130310 | Rain Event Action Plan | EA | | x | | = | $ | - |
| 130320 | Storm Water Sampling and Analysis Day | EA | | x | | = | $ | - |
| 130520 | Temporary Hydraulic Mulch | SQYD | | x | | = | $ | - |
| 130550 | Temporary Hydroseed | SQYD | | x | | = | $ | - |
| 130505 | Move-In/Move-Out (Temporary Erosion Control) | EA | | x | | = | $ | - |
| 130640 | Temporary Fiber Roll | LF | | x | | = | $ | - |
| 130900 | Temporary Concrete Washout | LS | | x | | = | $ | - |
| 130710 | Temporary Construction Entrance | EA | | x | | = | $ | - |
| 130610 | Temporary Check Dam | LF | | x | | = | $ | - |
| XXXXX | Temporary Construction Site BMPs | LS | 1 | x | 110,000 | = | $ | 110,000 |
| XXXXX | Stormwater Treatment BMPs | LS | 1 | x | 190,000 | = | $ | 190,000 |
| XXXXX | Full Trash Capture Device | LS | 1 | x | 55,000 | = | $ | 55,000 |
| 130620 | Temporary Drainage Inlet Protection | EA | | x | | = | $ | - |
| 130730 | Street Sweeping | LS | | x | | = | $ | - |
| | | | | | | *Subtotal NPDES* | *$* | *367,500* |

| | | |
|---|---|---|
| **TOTAL ENVIRONMENTAL** | **$** | **1,902,900** |

**Supplemental Work for NPDES**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 066595 | Water Pollution Control Maintenance Sharing* | LS | | x | | = | $ | - |
| 066596 | Additional Water Pollution Control** | LS | | x | | = | $ | - |
| 066597 | Storm Water Sampling and Analysis*** | LS | | x | | = | $ | - |
| XXXXXX | Some Item | LS | | x | | = | $ | - |
| | | | | | | *Subtotal Supplemental Work for NDPS* | *$* | *-* |

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

## SECTION 6: TRAFFIC ITEMS

### 6A - Traffic Electrical

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost |
|---|---|---|---|---|---|---|---|---|
| 870200 | Lighting System | LS | 1 | x | 100,000.00 | = | $ | 100,000 |
| 860201 | Signal and Lighting | LS | 1 | x | 900,000.00 | = | $ | 900,000 |
| 870300 | Sign Illumination System | LS | | x | | = | $ | - |
| 870400 | Signal and Lighting System | LS | | x | | = | $ | - |
| 860460 | Lighting and Sign Illumination | LS | | x | | = | $ | - |
| 870510 | Ramp Metering System | LS | | x | | = | $ | - |
| 87181X | Interconnection Conduit and Cable | LF/LS | | x | | = | $ | - |
| 5602XX | Furnish Sign Structure (Insert Type) | LB | | x | | = | $ | - |
| 5602XX | Install Sign Structure (Insert Type) | LB | | x | | = | $ | - |
| 4980XX | XX" CIDHC Pile (Sign Foundation) | LF | | x | | = | $ | - |
| 87011X | Inductive Loop Detector | EA/LS | | x | | = | $ | - |
| 870600 | Traffic Monitoring Station System | LS | | x | | = | $ | - |
| 56804X | Remove Sign Structure | EA/LS | | x | | = | $ | - |
| 568054 | Reconstruct Sign Structure | EA | | x | | = | $ | - |
| 568060 | Modify Sign Structure | EA | | x | | = | $ | - |
| 872134 | Modifying Ramp Metering System | LS | 1 | x | 720,000.00 | = | $ | 720,000 |
| 870009 | Maintaining Existing Traffic Management System | LS | | x | | = | $ | - |
| 86XXXX | Lighting (City Street) | LS | 1 | x | 300,000.00 | = | $ | 300,000 |
| 066871 | Electrical Service Connections | LS | | x | | = | $ | - |

*Subtotal Traffic Electrical* *$* *2,020,000*

### 6B - Traffic Signing and Striping

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost |
|---|---|---|---|---|---|---|---|---|
| 566011 | Roadside Sign - One Post | EA | 4 | x | 200.00 | = | $ | 800 |
| 820850 | Roadside Sign - Two Post | EA | | x | | = | $ | - |
| 5602XX | Furnish Sign Structure (Insert Type) | SQFT | | x | | = | $ | - |
| 820890 | Install Sign Panel on Existing Frame | SQFT | | x | | = | $ | - |
| 150711 | Remove Painted Traffic Stripe | LF | 1,500 | x | 1.50 | = | $ | 2,250 |
| 141101 | Remove Yellow Painted Traffic Stripe | LF | 3,000 | x | 6.00 | = | $ | 18,000 |
| 141102 | Remove Yellow Painted Traffic Stripe (Hazardous \ | LF | | x | | = | $ | - |
| 846025 | Remove Painted Pavement Marking | SQFT | | x | | = | $ | - |
| 820250 | Remove Roadside Sign | EA | | x | | = | $ | - |
| 820530 | Reset Roadside Sign | EA | | x | | = | $ | - |
| 820610 | Relocate Roadside Sign | EA | | x | | = | $ | - |
| 8101XX | Delineator (Insert Class) | EA | | x | | = | $ | - |
| 840502 | Thermoplastic Traffic Stripe (Enhanced Wet Night \ | LF | 20,000 | x | 2.00 | = | $ | 40,000 |
| 846012 | Thermoplastic Crosswalk and Pavement Marking | SQFT | 2,000 | x | 18.00 | = | $ | 36,000 |
| 120090 | Construction Area Signs | LS | 1 | x | 10,000.00 | = | $ | 10,000 |
| 84XXXX | Permanent Pavement Delineation | LS | 1 | x | 100,000.00 | = | $ | 100,000 |

*Subtotal Traffic Signing and Striping* *$* *207,050*

### 6C - Traffic Management Plan

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost |
|---|---|---|---|---|---|---|---|---|
| 12865X | Portable Changeable Message Sign | EA/LS | 10 | x | $ 15,000 | = | $ | 150,000 |

*Subtotal Traffic Management Plan* *$* *150,000*

### 6C - Stage Construction and Traffic Handling

| Item code | | Unit | Quantity | | Unit Price ($) | | | Cost |
|---|---|---|---|---|---|---|---|---|
| 120198 | Plastic Traffic Drums | EA | | x | | = | $ | - |
| 12016X | Channelizer (Insert Type) | EA | 20 | x | 50.00 | = | $ | 1,000 |
| 120116 | Type II Barricade | EA | | x | | = | $ | - |
| 120120 | Type III Barricade | EA | | x | | = | $ | - |
| 129100 | Temporary Crash Cushion Module | EA | 51 | x | 350.00 | = | $ | 17,850 |
| 120100 | Traffic Control System | LS | 1 | x | 300,000.00 | = | $ | 300,000 |
| 129110 | Temporary Crash Cushion | EA | 17 | x | 5,000.00 | = | $ | 85,000 |
| 129000 | Temporary Railing (Type K) | LF | 11,500 | x | 50.00 | = | $ | 575,000 |
| 120149 | Temporary Pavement Marking (Paint) | SQFT | 1,030 | x | 30.00 | = | $ | 30,900 |
| 120152 | Temporary Pavement Marking (Tape) | SQFT | 11,200 | x | 5.00 | = | $ | 56,000 |
| 8101XX | Delineator (Insert Class) | EA | | x | | = | $ | - |

*Subtotal Stage Construction and Traffic Handling* *$* *1,065,750*

**TOTAL TRAFFIC ITEMS** **$** **3,442,800**

## SECTION 7: DETOURS

Includes constructing, maintaining, and removal

| Item code | | Unit | Quantity | | Unit Price ($) | | Cost |
|---|---|---|---|---|---|---|---|
| 190101 | Roadway Excavation | CY | | x | | = $ | - |
| 19801X | Imported Borrow | CY/TON | | x | | = $ | - |
| 390132 | Hot Mix Asphalt (Type A) | TON | | x | | = $ | - |
| 26020X | Class 2 Aggregate Base | CY/TON | | x | | = $ | - |
| 250401 | Class 4 Aggregate Subbase | CY | | x | | = $ | - |
| 130620 | Temporary Drainage Inlet Protection | EA | | x | | = $ | - |
| 129000 | Temporary Railing (Type K) | LF | | x | | = $ | - |
| 128601 | Temporary Signal System | LS | | x | | = $ | - |
| 120149 | Temporary Pavement Marking (Paint) | SQFT | | x | | = $ | - |
| 80010X | Temporary Fence (Insert Type) | LF | | x | | = $ | - |
| XXXXXX | Some Item | LS | | x | | = $ | - |

**TOTAL DETOURS $ -**

SUBTOTAL SECTIONS 1 through 7 $ 10,168,200

## SECTION 8: MINOR ITEMS

| | | | | | |
|---|---|---|---|---|---|
| **8A - Americans with Disabilities Act Items** | | | | | |
| ADA Items | | | 5.0% | $ | 508,410 |
| **8B - Bike Path Items** | | | | | |
| Bike Path Items | | | | $ | - |
| **8C - Other Minor Items** | | | | | |
| Other Minor Items | | | 10.0% | $ | 1,016,820 |
| Total of Section 1-7 | $ 10,168,200 | x | 15.0% | = $ | 1,525,230 |

**TOTAL MINOR ITEMS $ 1,525,300**

## SECTIONS 9: ROADWAY MOBILIZATION *

| Item code | | | | | | | |
|---|---|---|---|---|---|---|---|
| 999990 | Total Section 1-8 | $ 11,693,500 | x | 10% | = $ | 1,169,350 | |

**TOTAL ROADWAY MOBILIZATION $ 1,169,400**

## SECTION 10: SUPPLEMENTAL WORK

| Item code | | Unit | Quantity | | Unit Price ($) | | Cost |
|---|---|---|---|---|---|---|---|
| 066670 | Payment Adjustments For Price Index Fluctuations | LS | 1 | x | 1,000.00 | = $ | 1,000 |
| 066094 | Value Analysis | LS | 1 | x | 10,000.00 | = $ | 10,000 |
| 066070 | Maintain Traffic | LS | 1 | x | 1,000,000.00 | = $ | 1,000,000 |
| 066919 | Dispute Resolution Board | LS | 12 | x | 6,000.00 | = $ | 72,000 |
| 066921 | Dispute Resolution Advisor | LS | 40 | x | 200.00 | = $ | 8,000 |
| 066015 | Federal Trainee Program | LS | | x | | = $ | - |
| 066610 | Partnering | LS | 1 | x | 80,000.00 | = $ | 80,000 |
| 066204 | Remove Rock and Debris | LS | 1 | x | 50,000.00 | = $ | 50,000 |
| 066222 | Locate Existing Crossover | LS | | x | | = $ | - |
| XXXXXX | Some Item | Unit | 1 | x | 20,000.00 | = $ | 20,000 |

*Cost of **NPDES** Supplemental Work specified in Section 5D* = $ -

Total Section 1-8 $ 11,693,500 = $ -

**TOTAL SUPPLEMENTAL WORK $ 1,241,000**

## SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

| Item code | | Unit | Quantity | | Unit Price ($) | | Cost |
|---|---|---|---|---|---|---|---|
| 066105 | Resident Engineers Office | LS | 1 | x | 300,100.00 | = | $300,100 |
| 066063 | Traffic Management Plan - Public Information | LS | 1 | x | 200,000.00 | = | $200,000 |
| 066901 | Water Expenses | LS | | x | | = | $0 |
| 8609XX | Traffic Monitoring Station (X) | LS | | x | | = | $0 |
| 066841 | Traffic Controller Assembly | LS | | x | | = | $0 |
| 066840 | Traffic Signal Controller Assembly | LS | 1 | x | 15,000.00 | = | $15,000 |
| 066062 | COZEEP Contract | LS | 1 | x | 1,000,000.00 | = | $1,000,000 |
| 066838 | Reflective Numbers and Edge Sealer | LS | | x | | = | $0 |
| 066065 | Tow Truck Service Patrol | LS | | x | | = | $0 |
| 066916 | Annual Construction General Permit Fee | LS | 1 | x | 1,500.00 | = | $1,500 |
| XXXXXX | Safety Items | LS | 1 | x | 10,000.00 | = | $10,000 |

Total Section 1-8 $ 11,693,500 = $ -

**TOTAL STATE FURNISHED $1,526,600**

## SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $25,002,935 (used to calculate total TRO)

Estimated Time-Related Overhead (TRO) Percentage (0% to 10%) = **10%**

| Item code | | Unit | Quantity | | Unit Price ($) | | Cost |
|---|---|---|---|---|---|---|---|
| 090100 | Time-Related Overhead | WD | 540 | X | $2,750 | = | $2,500,300 |

**TOTAL TIME-RELATED OVERHEAD $2,500,300**

## SECTION 13: ROADWAY CONTINGENCY*

| | | | | | | |
|---|---|---|---|---|---|---|
| Risk Amount from Risk Register | (for Known Risks) | | | 0% | | |
| Additional or Residual Contingency | (for Unknown/Undefined Risks) | | | | | $0 |
| Total Section 1-12 | $ | 18,130,800 | x | **5%** | = | $906,540 |

**TOTAL CONTINGENCY* $906,600**

EA: 04-4J8600 PID: 416000042

# II. STRUCTURE ITEMS

| | Bridge 1 | | Bridge 2 | | |
|---|---|---|---|---|---|
| DATE OF ESTIMATE | 00/00/00 | | 00/00/00 | | 00/00/00 |
| Bridge Name | xxxxxxxxxxxxxxxxxx | | xxxxxxxxxxxxxxxxxx | | xxxxxxxxxxxxxxxxxx |
| Bridge Number | 57-XXX | | 57-XXX | | 57-XXX |
| Structure Type | xxxxxxxxxxxxxxxxxx | | xxxxxxxxxxxxxxxxxx | | xxxxxxxxxxxxxxxxxx |
| Width (Feet) [out to out] | 0 LF | | 0 LF | | 0 LF |
| Total Bridge Length (Feet) | 0 LF | | 0 LF | | 0 LF |
| Total Area (Square Feet) | 0 SQFT | | 0 SQFT | | 0 SQFT |
| Structure Depth (Feet) | 0 LF | | 0 LF | | 0 LF |
| Footing Type (pile or spread) | xxxxxxxxxxxxxxxxxx | | xxxxxxxxxxxxxxxxxx | | xxxxxxxxxxxxxxxxxx |
| Cost Per Square Foot | $150 | | $150 | | $0 |
| **COST OF EACH** | **$0** | | **$0** | | **$0** |

| | Building 1 | | | | |
|---|---|---|---|---|---|
| DATE OF ESTIMATE | 00/00/00 | | 00/00/00 | | 00/00/00 |
| Building Name | Tamalpais Drive OC | | xxxxxxxxxxxxxxxxxx | | xxxxxxxxxxxxxxxxxx |
| Bridge Number | 27-0072 | | 57-XXX | | 57-XXX |
| Structure Type | xxxxxxxxxxxxxxxxxx | | xxxxxxxxxxxxxxxxxx | | xxxxxxxxxxxxxxxxxx |
| Width (Feet) [out to out] | 0 LF | | 0 LF | | 0 LF |
| Total Building Length (Feet) | 0 LF | | 0 LF | | 0 LF |
| Total Area (Square Feet) | 0 SQFT | | 0 SQFT | | 0 SQFT |
| Structure Depth (Feet) | 0 LF | | 0 LF | | 0 LF |
| Footing Type (pile or spread) | xxxxxxxxxxxxxxxxxx | | xxxxxxxxxxxxxxxxxx | | xxxxxxxxxxxxxxxxxx |
| Cost Per Square Foot | $300 | | $0 | | $0 |
| **COST OF EACH** | **$13,309,435** | | **$0** | | **$0** |

| | | |
|---|---|---|
| **TOTAL COST OF BRIDGES** | | **$0** |
| **TOTAL COST OF BUILDINGS** | | **$13,309,435** |
| **Time-Related Overhead** | 5% | **$1,330,944** |
| **STRUCTURES MOBILIZATION** | 10% | **$1,464,038** |
| **STRUCTURES CONTINGENCY*** | 5% | **$805,221** |
| **TOTAL COST OF STRUCTURES** | | **$16,909,637** |

Estimate Prepared By: Marc Friedheim — 8/13/2025

XXXXXXXXXXXXXXXX ------ Division of Structures — Date

EA: 04-4J8600 PID: 416000042

# III. RIGHT OF WAY

Fill in all of the available information from the Right of Way Data Sheet.

| | | | | Current Value Future Use | | Escalated Value |
|---|---|---|---|---|---|---|
| A) | A1) | Acquisition, including Excess Land, Fees, Damages, Goodwill | $ | 0 | $ | 0 |
| | A2) | Acquisition of Offsite Mitigation | $ | 0 | $ | 0 |
| | A3) | Railroad Acquisition | $ | 0 | $ | 0 |
| | A4) | Environmental Mitigation | $ | 200,000 | $ | 200,000 |
| B) | B1) | Utility Relocation (State Share) | $ | 6,492,000 | $ | 6,492,000 |
| | B2) | Potholing (Design Phase) | $ | 0 | $ | 0 |
| C) | | Utility - Advance Engineering Estimate (Encumber with State Only Funds) | $ | 0 | $ | 0 |
| D) | | RAP and/or Last Resort Housing | $ | 0 | $ | 0 |
| E) | | Clearance & Demolition | $ | 0 | $ | 0 |
| F) | | Relocation Assistance (RAP and/or Last Resort Housing Costs) | $ | 0 | $ | 0 |
| G) | | Title and Escrow | $ | 0 | $ | 0 |
| H) | | Environmental Review | $ | 0 | $ | 0 |
| I) | | Condemnation Settlements 0% | $ | 0 | $ | 0 |
| J) | | Design Appreciation Factor 0% | $ | 0 | $ | 0 |
| K) | | Utility Relocation (Construction Cost) | $ | 0 | $ | 0 |
| L) | | **TOTAL RIGHT OF WAY ESTIMATE** | | | | **$6,692,000** |
| M) | | **TOTAL R/W ESTIMATE: Escalated** | | | | **$6,692,000** |
| N) | | **RIGHT OF WAY SUPPORT** | | | | **$965,000** |

| | | |
|---|---|---|
| Support Cost Estimate Prepared By | Lynn White<br>Project Coordinator[1] | 510-286-5444<br>Phone |
| Utility Estimate Prepared By | Latorya Young<br>Utility Coordinator[2] | (510) 960-0152<br>Phone |
| R/W Acquisition Estimate Prepared By | n/a<br>Right of Way Estimator[3] | n/a<br>Phone |

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

# ATTACHMENT D

# Right of Way Data Sheet

To: THE OFFICE OF DESIGN NAPA AND MARIN

Attention: Ghulam Popal
Title: District Branch Chief

**Date:** 08/25/2025
04-Mrn-101-PM 7.37

From: MONA POON
Right of Way Resource Manager

Project ID: 0416000042
**D.S. 7946 E.A** 4J860
**Proj. Descr. Bridge Preventive Maintenance and ADA Improvements**

Subject: Current Estimated Right of Way Costs

We have completed an estimate of the right of way costs for the above referenced project based on maps we received from you on July 23rd 2025, and the following assumptions and limiting conditions.

[ ] 1. The mapping did not provide sufficient detail to determine the limits of the right of way required.
[ ] 2. The transportation facilities have not been sufficiently designed so our estimator could determine the damages to any of the remainder parcels affected by the project.
[ ] 3. Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the early design requirements.
[ ] 4. This estimate does not include $_____right of way costs previously incurred on the project, which may affect the total project right of way costs for programming purposes.
[ ] 5. We have determined there are no right of way functional involvements in the proposed project at this time, as designed.
[ ] 6. This Data Sheet is being completed without an estimate for Environmental Permit Fees or Mitigation Costs.

Right of Way Lead Time will require a minimum of 18 months after we begin receiving final right of way requirements, necessary environmental clearance has been obtained, and freeway agreements have been approved. From the date of receipt of final right of way requirements, we will require a minimum of 15 months prior to the date of certification of the project. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be filed. Either of these actions may reflect adversely on the District's other programs or our public image generally.

Right of Way Resource Manager

Attachments:

[ ] Right of Way Data Sheet – Page One (always required)
[☑] Right of Way Data Sheet – All Pages (required when interest in real property is being acquired)
[☑] Utility Information Sheet
[ ] Railroad Information Sheet

# RIGHT OF WAY DATA SHEET

TO: Office of Design
Napa & Marin

Date 08/25/2025 D.S. # 7946
Dist. 04 Co. Mrn Rte 101 PM 7.37
EA 4J860 (04-1600-0042)

ATTN: Ghulam Popal
District Branch Chief

Project Description: Bridge Preventive Maintenance and ADA Improvements

SUBJECT: Right of Way Data - Alternate No.

1. Right of Way Cost Estimate:

| | | Current Value (Future Use) | Escalation Rate | | Escalated Value |
|---|---|---|---|---|---|
| A. | Acquisition, including Excess Lands, Damages, and Goodwill | $0.00 | | %/yr | $0.00 |
| | Permits | | | | $10,000.00 |
| | Environmental Mitigation | | | | $200,000.00 |
| | Grantor's Appraisal Cost | $0.00 | | | $0.00 |
| B. | Utility Relocation (State Share) | $10,013,000.00 | | % | $10,013,000.00 |
| C. | Railroad (from page 6) | | | | $0.00 |
| D. | Relocation Assistance | $0.00 | | % | $0.00 |
| E. | Clearance Demolition | $0.00 | | % | $0.00 |
| F. | Title and Escrow Fees | $0.00 | | % | $0.00 |
| G. | TOTAL ESCALATED VALUE | | | | $10,223,000.00 |
| H. | Construction Contract Work | $0.00 | | | |
| I. | Railroad Phase 4 Costs | $0.00 | | | |
| J. | Utility Phase 4 Costs | $0.00 | | | |

2. Anticipated Date of Right of Way Certification 7/31/2026

3. Parcel Data:

| | Type | Dual/Appr |
|---|---|---|
| X | | |
| A | | |
| B | | |
| C | | |
| D | | |
| E | XXXX | |
| F | XXXX | |

Total 0

| Utilities Involvements | |
|---|---|
| Utility Verification | 7 |
| Positive Identification | 34 |
| Utility Relocation | 1 |
| Other (Specify) | 0 |

| RR Involvements | |
|---|---|
| None | x |
| C&M Agrmt | |
| R/W Agrmt | |
| Design | |
| Const. | |
| Lic/RE/Clauses | |
| Misc R/W Work | |
| RAP Displ | 0 |
| Clear Demo | 0 |
| Const. Permits | 0 |
| Condemnation | 0 |

Areas: Right of Way ____ No. Excess Parcels ___ Excess ____

4. Are there any major items of construction contract work?
Yes ☐ No ☑ (If yes, explain)

5. Provide a general description of the right of way and excess lands required(zoning, use, major improvements critical or sensitive parcels, etc.).
No right of way required. ☑
3,210 SQFT Permit to Enter and Construct (PTEC) for three locations.

6. Is there an effect on assessed valuation? (If yes explain)
Yes ☐ Not Significant ☐ No ☑

7. Are utility facilities or rights of way affected? Yes ☑ No ☐
(If yes, attach Utility Information Sheet Exhibit 01-01-05)

8. Are railroad facilities or rights of way affected? Yes ☐ No ☑
(If yes, attach Railroad Information Sheet Exhibit 01-01-06)

9. Were any previously unidentified sites with hazardous waste and/or material found?
Yes ☐ None evident ☑
(If yes, attach memorandum per Procedural Handbook Volume 1, Section 101.011)

10. Are RAP displacements required? Yes ☐ No ☑
(If yes, provide the following information)

No. of personal property relocations _____

No. of single family _____ No. of business/non profit _____

No. of multi-family _____ No. of farms _____

Based on Draft / Final Relocation Impact Statement / Study dated _____, it is anticipated that sufficient replacement housing will / will not be available without Last Resort Housing.

11. Are material borrow and / or disposal sites required? Yes ☐ No ☑
(If yes, explain)

12. Are there potential relinquishments / abandonments? Yes ☐ No ☑
(If yes, explain)

13. Are there any existing and/or potential Airspace sites? Yes ☐ No ☑
(If yes, explain)

14. Are there Permit Fees? Yes ☑ No ☐
(If yes, explain)
Per email/updated datasheet request on 8/25/25 from Emarnan Pongpairoj, $10,000 ($2,764 already paid per Mona Poon).

15. Are there Environmental Mitigation Costs? Yes ☑ No ☐
(If yes, explain)
Per email from Project Engineer, Emarnan Pongpairoj, $200,000

16. Indicate the anticipated Right of Way schedule and lead time requirements.
Based on the R/W Requirements on Page 1 of this Data Sheet, R/W will require a lead time of 18 months from the date regular appraisals can begin to project certification.

17. Is it anticipated that all Right of Way work be performed by CALTRANS staff?
Yes ☑ No ☐ (If no, discuss)

**Assumptions and Limiting Conditions**

- This data sheet was completed without a hazardous waste/materials report.

- Information on this data sheet was based on maps provided by Ghulam Popal on 8/13/2025

Evaluation Prepared By: Kuyik Akpan

Right of Way: Name _____ Date 08/25/2025

Railroad: Name Alden Chalk Date 08/25/2025

Utilities: Name Latorya Young Date 08/25/2025

Recommended for Approval:

_____
Right of Way Capital Cost Coordinator

I have personally reviewed this Right of Way Data Sheet and all supporting information. It is my opinion that the probable Highest and Best Use, estimated values, escalation rates, and assumptions are reasonable and proper subject to the limiting conditions set fourth, and find this Data Sheet complete and current.

_____
Chief, R/W Appraisal Services

08/25/2025
Date

cc: Program Manager
Project Manger

## UTILITY INFORMATION SHEET

1. Utility owners located within project limits:
PG&E, AT&T, Central Marin Saitation Agency, Comcast, Marin Municipal WD, MCI WorldCom/Verizon

2. Facilities potentially impacted by project (if known, include Owners(s) & facility type(s)):
PG&E 16" gas line, 525' ($10M)

3. Anticipated Workload:

| | |
|---|---|
| 7 | Utility Verification Required |
| 34 | Positive Identification |
| 1 | Utility Relocation |
| 0 | Other (Specify) |

4. Additional information concerning anticipated utility involvements (include limiting conditions and a narative addressing likelihood that conflicts will occur);

_____ Involves possible relocation of electric transmission facilities
(If X'd, Data sheet should be forwarded to environmental)

_____ Utility agreements will be required for this project due to CCW on public utility facilities for all public utility relocations and adjustments, including but not limited to, manhole cover adjustments to grade (unless determined & specified in writing by the Utility Engineering Workgroup (UEW) that none are required for this project). A minimum lead-time of 12 months from PA&ED to RWC is needed to secure the utility agreement(s) and specifications as required for the RWC and PS&E milestones. Leadtime requires that UEW provide RW Utilities with a conflict memo and maps no later than the PA&ED milestone.

5. Estimated Costs:

Positive Identification $ 13,000.00

34 POS-LOC

Utility Relocation $ 10,000,000.00

PG&E 16" gas line, 525' ($10M)

Phase 4* $ 0.00

None anticipated.

*not apart of page 1 total

**ESTIMATED STATE SHARE OF COSTS $ 10,013,000.00**

Prepared by: Latorya Young

Latorya Young
Right of Way Utility Coordinator

08/25/2025
Date

California Department of Transportation

Date: 8/25/25

Project ID No: 0416000042
Project Manager: Ron Sangalang
Programmed RW Support: 169,000
PA&ED Date (not complete): 7/19/23
RWC Date: 7/31/26
Prepared by: Sean Disse
DS# / EA 7946 4J860

# Right of Way Workplan

| 150 | Start Date: |
|---|---|
| Phase K | End Date: |

| (Data Sheet & PID) | | Hours Needed |
|---|---|---|
| 0849 | DDD R/W | 0 |
| 0850 | Acq/P&M O.C. | 0 |
| 0852 | Utilities O.C. | 0 |
| 0851 | Appraisals O.C. | 0 |
| 0856 | Proj. Coord. | 0 |
| 0859 | Capital Mgmt. | 0 |
| 0860 | Appraisals | 0 |
| 0867 | Railroad | 0 |
| 0869 | Utilities | 0 |

| 160 | Start Date: |
|---|---|
| Phase 0 | End Date: |

| (Util. Verifications, RR study, PR, &/or Updated Datasheet ) | | Hours Needed |
|---|---|---|
| 0849 | DDD R/W | 8 |
| 0850 | Acq./P&M O.C. | 0 |
| 0851 | Appraisals O.C. | 0 |
| 0852 | Utilities O.C. | 0 |
| 0856 | Proj. Coord. | 0 |
| 0859 | Capital Mgmt. | 0 |
| 0860 | Appraisals | 0 |
| 0865 | Acquisitions | |
| 0867 | Railroad | 0 |
| 0869 | Utilities | 0 |
| 0876 | Rap | |
| 0882 | Clerical | |

| 185 | Start Date: |
|---|---|
| Phase 1 | End Date: |

| (Updated datasheet, if needed) | | Hours Needed |
|---|---|---|
| 0850 | Acq/P&M O.C. | |
| 0851 | Appraisals O.C. | |
| 0856 | Proj. Coord. | |
| 0859 | Capital Mgmt. | |
| 0860 | Appraisals | |
| 0867 | Railroad | |
| 0869 | Utilities | |

| 255 | Start Date: |
|---|---|
| Phase 1 | End Date: |

| (Certification - PSE) | | Hours Needed |
|---|---|---|
| 0850 | Acq./P&M O.C. | 0 |
| 0851 | Appraisals O.C. | 0 |
| 0852 | Utilities O.C. | 0 |
| 0856 | Proj. Coord. | 0 |
| 0860 | Appraisals | |
| 0865 | Acquisitions | |
| 0867 | Railroad | 0 |
| 0869 | Utilities | |

| 100.25 | Start Date: | 7/19/2023 |
|---|---|---|
| Phase 2 | End Date: | 8/1/2027 |

| (Project Mgmt) | | Hours Needed |
|---|---|---|
| 0849 | DDD R/W | 8 |
| 0850 | Acq /P&M O.C. | 30 |
| 0856 | Proj. Coord. | 100 |
| 0859 | Capital Mgmt | 10 |
| 0854 | Data Mgmt O.C. | 8 |
| 0763 | Data Mgmt Staff | 24 |

| 195 | Start Date: |
|---|---|
| Phase 2 | End Date: |

| (Prop Mgmt & Excess Land) | | Hours Needed |
|---|---|---|
| 0851 | Appraisals O.C. | |
| 0856 | Proj. Coord. | |
| 0860 | Appraisals | |
| 0872 | Prop Mgmt | |
| 0875 | Excess Lands | |
| 0874 | Airspace | |
| 0882 | Clerical | |

| 200 | Start Date: | 7/19/2023 |
|---|---|---|
| Phase 2 | End Date: | 8/1/2027 |

| (Utilities) | | Hours Needed |
|---|---|---|
| 0849 | DDD R/W | 8 |
| 0852 | Utilites O.C. | 40 |
| 0856 | Proj. Coord. | |
| 0859 | Capital Mgmt | |
| 0869 | Utilities | 700 |
| 0882 | Clerical | 10 |

| 225 | Start Date: | 7/19/2023 |
|---|---|---|
| Phase 2 | End Date: | 7/31/2026 |

| (Pre-Cert Work) | | Hours Needed |
|---|---|---|
| 0849 | DDD R/W | 8 |
| 0850 | Acq /P&M O.C. | 8 |
| 0851 | Appraisals O.C. | 8 |
| 0856 | Proj. Coord. | |
| 0859 | Capital Mgmt | 10 |
| 0860 | Appraisals | 10 |
| 0865 | Acquisitions | 30 |
| 0867 | Railroad | 0 |
| 0868 | Acq. Spec. (R.A.) | |
| 0873 | Demolition | |
| 0876 | RAP | |
| 0882 | Clerical | 8 |

| 245 | Start Date: | 8/1/2026 |
|---|---|---|
| Phase 2 | End Date: | 8/1/2027 |

| (Post-Cert Work) | | Hours Needed |
|---|---|---|
| 0849 | DDD R/W | 8 |
| 0850 | Acq /P&M O.C. | 0 |
| 0851 | Apprasisals O.C. | 0 |
| 0859 | Capital Mgmt | 0 |
| 0860 | Appraisals | 0 |
| 0865 | Acquisitions | 0 |
| 0867 | Railroad | |
| 0868 | Acq. Spec. (R.A.) | |
| 0873 | Demolition | |
| 0876 | RAP | |
| 0882 | Clerical | 0 |

**The workplan is an internal document and should not be attached to the PR.**

Total hours required (RW Agents Only): **1036**

Total RW COS (RW Agents Only): **$139,860**

Phase 2 only COS (RW Agents Only): **$138,780**

Approved By:

Shella Orson (Aug 25, 2025 21:14:47 PDT)

Shella Orson
District Branch Chief
R/W Project Coordination

**Please note that this estimate only contains the hours needed by RW Agents. You must also obtain an estimate from Land Surveys for a complete support cost total for the Office of Right of Way.**

**Please contact Douglas.Wright@dot.ca.gov for RWE/Surveys Support Cost Estimates**

# ATTACHMENT E

# SHOPP Performance Measures

# SHOPP Project - Accomplishment - Performance Measures - Benefits

**District:** 04 **Tool ID:** 25704 **Project ID:** 0416000042 **EA:** 4J860 **Co-Rte-PM:** MRN-101-7.4/7.4 (Primary Location) View/Print PIR (Performance) Report

**Multi-Objective Worksheet** MO ☑ Bridge B ☐ Pavement ☐ Drainage ☐ Facilities ☑ Signs and Lighting ☑ Mobility ☑ Roadside ☑ Bicycle and Pedestrian Infrastructure ☐ Sustainability /Climate Change ☐ Advance Mitigation /Mitigation ☐ Major Damage & Betterments ☑ Green-house Gases ☐ Relinquishment

Performance & Accomplishments (PRG)

| | ActID | Activity Detail | Performance Objective | Unit of Measurement | Quantity | Pre-Good | Pre-Fair | Pre-Poor | New | Post-Good | Post-Fair | Post-Poor | HQ Program Review - Agree with District? | HQ Comment | Review Date | Performance Change Date After Review | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | A03 | Bridge Rail | Bridge Rail Replacement and Upgrade | Linear Feet | 1684.000 | 1684.000 | | | | 1684.000 | | | | | | | |
| 2 | A04 | Bridge Rehabilitation | Bridge Seismic Restoration | Square Feet | 76346.000 | | | 61570.000 | 14776.000 | 61570.000 | | | | | | | |
| 3 | A08 | Number of Bridges | No Performance Objective in the SHSMP | Each | 3.000 | | | | | | | | | | | | |
| 4 | E02 | Crash Cushions | No Performance Objective in the SHSMP | Each | 5.000 | | 5.000 | | | 5.000 | | | | | | | |
| 5 | E23 | Collisions Reduced | Collision Severity Reduction | Fatal/Serious Injury Collisions | 0.120 | | | 0.120 | | 0.120 | | | | | | | Updated: 08/08/2025 |
| 6 | E55 | Proactive Safety Vehicles | Proactive Safety | Annual Fatal & Serious Injury Collisions | 0.012 | | | 0.012 | | 0.012 | | | | | | | Updated: 08/08/2025 |
| 7 | F24 | ADA - Repair/Upgrade Curb Ramp | No Performance Objective in the SHSMP | Each | 12.000 | | | 12.000 | | 12.000 | | | | | | | |
| 8 | F43 | ADA - Deficient Elements | ADA Pedestrian Infrastructure | Deficient Elements | 12.000 | | | 12.000 | | 12.000 | | | | | | | |
| 9 | G09 | Worker Safety - Miscellaneous Paving/Treatment | Roadside Safety Improvements | Locations | 6.000 | | | 6.000 | | 6.000 | | | | | | | |
| 10 | H01 | Bike Boxes | No Performance Objective in the SHSMP | Each | 2.000 | | | | 2.000 | | | | Yes | | 08/16/25 | | |
| 11 | H06 | Bikeway Class II | No Performance Objective in the SHSMP | Linear Feet | 160.000 | | | | 160.000 | | | | Yes | | 08/16/25 | | |
| 12 | H10 | Conflict Zone Green Paint | No Performance Objective in the SHSMP | Each | 6.000 | | | | 6.000 | | | | Yes | | 08/16/25 | | |
| 13 | H27 | Transit Stop Improvements | No Performance Objective in the SHSMP | Each | 1.000 | | | | 1.000 | | | | Yes | | 08/16/25 | | |
| 14 | H32 | Is any Location Within the Project Limits Ped/Bike Accessible? | No Performance Objective in the SHSMP | Yes/No | Yes | | | | | | | | Yes | | 08/16/25 | | |
| 15 | H63 | Bicycle and Pedestrian Infrastructure | Bicycle and Pedestrian Infrastructure | Linear Feet | 160.000 | | | | 160.000 | | | | | | | | |
| 16 | N04 | Defer | No Performance Objective in the SHSMP | - | | | | | | | | | | | | | Not CE/CE |

(Last Saved - 08/16/25 @ 12:34 PM by Joshua Davis)

## Programming Performance Summary (All Locations)

| Program Code | Activity Category | Asset Class | Asset | Performance Value | Performance Measure | Unit | Pre-Good | Pre-Fair | Pre-Poor | Pre-Total | Post Good | New | Post Good+New | Post-Fair | Post-Poor | Post-Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 201.113 | Bridge - Seismic | Primary | Bridge | 3.0 | Bridge(s) | Square Feet | 0.0 | 0.0 | 61,570.0 | 61,570.0 | 61,570.0 | 30,869.0 | 92,439.0 | 0.0 | 0.0 | 92,439.0 |

| Bridge/Tunnel Number | Pre-Health | Post-Health | Area |
|---|---|---|---|
| 27 0072 | Fair | Fair | 61570 |
| NYA | | | |
| NYA | | | |

**Notes:**

1. The crosswalk for reporting performance in the "Programming Performance Summary" was developed to assist the districts on performance reporting requirements for CTC and PCRs. For discrepancies or errors, please notify AM Tool admins via e-mail at CT-TAM@dot.ca.gov.
2. The data summarized in the table represents the performance reported or to be reported in CTIPS.
3. Programming only requires the breakdown of Good, Fair and Poor for Primary and Supplementary Asset Classes.
4. Reporting of bridge pre and post conditions may contain errors if the project RTL is before 2024/25.
5. Reporting drainage pre-total and post good may differ whenever projects contain abandoned/removed culverts as the culvert no longer exists at post construction, is deleted from the pre-total value for posting of the post good value, and gets deleted from the statewide CIP inventory database.
6. Reactive Safety projects will temporally use the same performance outputs of Safety Improvement projects. When the reporting requirements for CTC changes, the logic in the AM Tool will change.
7. During the transition to the new Proactive Safety objective, the performance output for projects with a primary activity category of Proactive Safety (under program codes 015, 112, or 235) will continue to be presented here in the units of measure corresponding to the activities historically reported to date. A change in units to "Annual Fatal and Serious Injury Collisions" for future programming requests is being planned.

# ATTACHMENT F

# Project Report dated June 30, 2023

# Project Report

## *To Provide Project Approval*

On Route 101 in Marin County

In Town of Corte Madera

At Tamalpais Drive Overcrossing (Bridge #27-0072)

I have reviewed the right-of-way information contained in this report and the right-of-way data sheet attached hereto, and find the data to be complete, current, and accurate:

**JULIE MCDANIEL**
DEPUTY DISTRICT DIRECTOR
RIGHT OF WAY AND LAND SURVEYS

APPROVAL RECOMMENDED:

Daniel Cuellar

**DANIEL CUELLAR VITE**
PROJECT MANAGER

Naga Adibhatla

**NAGA ADIBHATLA**
OFFICE CHIEF, DESIGN NAPA & MARIN

APPROVED:

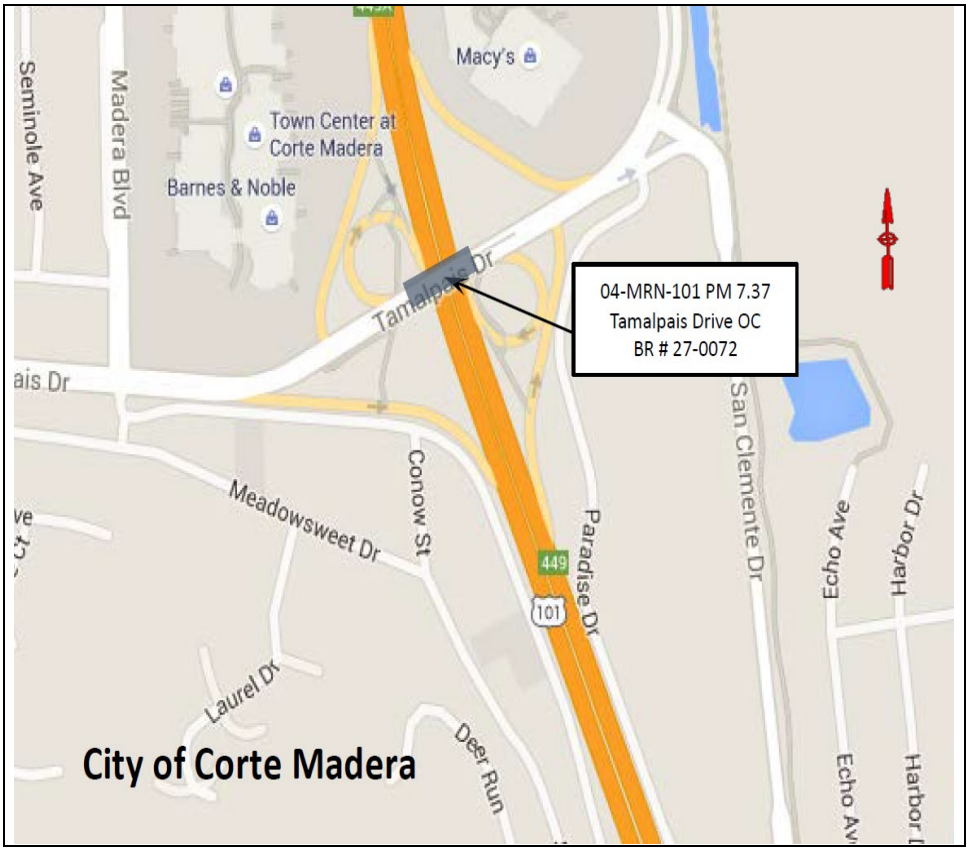
Betcy Joseph

For **HELENA (LENKA) CULIK-CARO**
DEPUTY DISTRICT DIRECTOR, DESIGN

June 30, 2023

*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.

Emarnan Pongpairoj 06-30-2023

*REGISTERED CIVIL ENGINEER* *DATE*

# Table of Contents

# 1. INTRODUCTION

## Project Description

The proposed work on United States (US) 101 in Marin County, Postmile (PM) 7.37, at Tamalpais Drive (Dr.) Overcrossing (OC), bridge No. 27-0072, consists of addressing current seismic structural deficiencies, constructing American with Disabilities Act (ADA) compliant infrastructure for pedestrians and bicyclists, new sidewalk, and intersection reconfiguration, roadside safety improvements and bus bypass improvements. This project also replaces the cable restrainers with concrete seat extensions at Abutment1, Bent 2 and Abutment 10; repairs spalls on the bridge soffit; cleans the deck drains; and removes all ivy growing on the concrete surface of the structure. The access doors will be replaced under project 04-3Q550 prior to this project. See Attachment B for a Project Location Map, and Attachment C for Alternatives Section for more detailed information on each alternative.

| | | |
|---|---|---|
| **Project Limits** | 04-MRN-101 PM 7.37 | |
| **Number of Alternatives** | 6 Build Alternatives | |
| | **Current Cost Estimate:** | **Escalated Cost Estimate:** |
| **Capital Outlay Support** | $10,747k | $11,193k |
| **Capital Outlay Construction** | $25,883k | $28,256k |
| **Capital Outlay Right of Way** | $810k | $810k |
| **Funding Source** | SHOPP 201.113 | |
| **Funding Year** | 2023/2024 | |
| **Type of Facility** | US 101: 8-Lane Freeway<br>Tamalpais Drive Overcrossing: 4-Lane Bridge | |
| **SHOPP Project Output** | • 61,570 SQFT - Bridge Seismic Restoration<br>• 12 curb ramps – ADA Improvements<br>• 3,000 LF sidewalks - ADA Improvements<br>• 6 locations – Gore/Narrow Pavement<br>• 4 Locations – Relocate Signs<br>• 2,000 FT – Class II Bike Lanes | |
| **Environmental Determination or Document** | CEQA – Initial Study / Negative Declaration (IS/ND)<br>NEPA – Categorical Exclusion (CE) | |
| **Legal Description** | On US 101 in Marin County at Tamalpais Drive Overcrossing (Bridge No. 27-0072) | |
| **Project Development Category** | Category 5 | |

Notes:
ADA = Americans with Disabilities Act
CEQA = California Environmental Quality Act
NEPA = National Environmental Policy Act
MRN = Marin
SHOPP = State Highway Operation and Protection Program

## 2. RECOMMENDATION

It is recommended that this Project Report be approved, and authorization granted for the preparation of the plans, specifications, and estimate (PS&E).

## 3. BACKGROUND

This project was originally initiated by a Project Initiation Report (EA 4J860K), with a project scope to preserve the structural integrity of the Tamalpais Dr. OC (Bridge No. 27-0072, PM 7.37) and the southbound (SB) US 101 to eastbound (EB) State Route (SR) 37 Connector (Bridge No. 27-0085F, PM 18.88) on US 101 in Marin County. The PIR was approved on June 27, 2019, and the total estimated capital cost was $14,542,000.

The proposed work under 4J860K at Tamalpais Dr. OC (Bridge No. 27-0072) consists of replacing the cable restrainer system with concrete seat extensions at Abutment 1, Bent 2, and Abutment 10; replacing access doors at closure wall; repairing spalled surface area on the bridge deck soffit; cleaning the deck drains; and removing all ivy growing on the concrete surface of the structure.

The proposed work under 4J860K at SB US 101 to EB SR 37 Connector (Bridge No. 27-0085F) consists of cleaning and painting the existing column casing that has several small, rusted areas at Bent 4. Also, the bridge identification will be painted, and a missing spacer block at Bent 4 will be installed. There was an existing project (2G700K) for the same OC bridge No. 27-0072 to bring existing curb ramps and pedestrian paths to standard. At a Caltrans District 4 Project Nomination Meeting, the Project Nomination team decided to combine the scope of both seismic retrofit and ADA Pedestrian Infrastructure into a multi-asset project for bridge No 27-0072.

A Project Change Request was approved by the California Transportation Commission to combine the two projects under a new EA (4J860) and was approved in September of 2017.

### Existing Facility

The existing Tamalpais Dr. OC was built in 1957 and was designed for H20-S16-44 (H20) live loading. The bridge was widened in 1985 and is 56 feet wide. There are two 11-foot lanes and 4-foot shoulder in each direction and speed limit is 35 miles per hour. The widening was designed for HS20-44 and permit load using Load Factor (LFD) method. This bridge was seismically retrofitted in 1997. The original structure was previously rated in 1977 using Allowable Stress (AS) method. The support and span numbering on the as-built plans are different from the statewide convention established by Caltrans Structure Maintenance and Investigations (SM&I). Spans 1

through 5 are designated as Abutment 1 and span 15 through 19 are called Abutment 10 in original as-built plans.

The bridge consists of continuous RC slabs in Spans 1 through 8 and Spans 13 through 19. Spans 9 through12 consist of simple composite steel plate girders (8) on RC column bents with infill walls and diaphragm abutments. There is a hinge in Span 7. Widening was only done on both sides of Spans 1 through 7 and Spans 15 through 19 and consists of RC slabs. All are founded on RC piles.

The existing interchange is a partial cloverleaf interchange, consisting of two loop on-ramps as well as four diamond-type ramps. There are two existing signalized intersections, at the western and eastern end of Tamalpais Dr. OC. The Tamalpais Dr. OC structure is on a centerline alignment consisting of a tangent with two curves located at both ends of the bridge. The minimum vertical clearance in the SB US 101 direction is 17 feet, 9 inches, and the minimum vertical clearance in the northbound (NB) US 101 direction is 17 feet, 10 inches. On the bridge traveling from west to east, the profile of the bridge is +8.5 percent and -8.5 percent. On the bridge, the pavement cross slope of 1.5 percent flows from the median curb flow line to the outside curb flow line in both directions. On the bridge, there is an existing 3-foot striped median. The existing concrete bridge railings are type 26 and type 27 with chain-link fences along the bridge railings. There are two bus stops located on the NB and SB on-ramps connected to US 101 through a bus bypass. There are also two existing EB and WB bus stops on Tamalpais Dr. OC. There are existing traffic signal facilities at the two intersections and there are existing lights at the bus stops and other locations within the interchange. There are maintenance vehicle pullouts on the NB and SB ramps and mainline.

There is an existing sidewalk on the EB side of the bridge. There are two spiral walkways to provide access to existing pathways under the OC and bus stops that are currently at the loop ramps. There is no designated bike lane; bicyclists either have to share the right lane or ride on the sidewalk when travelling on the bridge. There are Marin Transit and Golden Gate Transit within the project limits.

## 4. PURPOSE AND NEED

### Purpose:

The purpose of this project is to address current seismic structural deficiencies, improve resistance to seismic events, and reduce potential for failure. An additional purpose of this project is to upgrade pedestrian infrastructure within state right of way, bring the State pedestrian infrastructure to current standards, and improve safety, access, and connectivity across Tamalpais Dr. OC.

**Need:**

The Project is needed because Tamalpais Dr. OC is at an unknown risk for failure because the existing system cannot be fully inspected, as noted in the Bridge Inspection Report for bridge No. 27-0072 (Tamalpais Dr. OC), dated May 2016. Additionally, the project is needed because current pedestrian infrastructure within the Project limits, including sidewalks and curb ramps, is not ADA compliant for pedestrian access across Tamalpais Dr. OC, requiring upgrade or reconstruction as mandated by the ADA.

**4A. Problem, Deficiencies, Justification**

The bridge inspection condition assessment was performed on May 10, 2016, and it was recommended that the restrainer cables in the slab portion of the bridge be replaced with a system that can be fully inspected during each routine investigation. The restrainer system at Bent 2 cannot be fully inspected and has been shown to have failed. The condition of the restrainer cables on the "H3" Line and Mainline at Abutment 10 and the "H2" Line at Abutment 1 is unknown. The Bridge Inspection Report also recommended removing all vegetation (ivy) growing on the concrete surfaces of the structure.

**4B. Regional and System Planning**

Corridor Overview

The US 101 North corridor is a north-south route starting at the northern end of the Golden Gate Bridge and ending at the State Route (SR) 128 interchange in Sonoma County. At a length of 82 miles, the corridor is mainly a freeway with a section of expressway between Novato and Petaluma. This corridor serves as the lifeline for local, regional, and statewide commute and goods movement through Marin and Sonoma counties.

In Marin County, US 101 travels through major urban centers in Sausalito, Corte Madera, San Rafael, and Novato, and intersects SR 128, SR 1, SR 37, SR 131, and Interstate 580. There are existing NB and SB high-occupancy vehicle (HOV) lanes between SR 37 and Highway 1, and from Old Redwood Highway in Windsor to North Petaluma Boulevard in Petaluma. To address the HOV gap between Petaluma and Novato, HOV lanes are currently being planned and constructed in the Marin-Sonoma Narrows Project. Transit is provided by an extensive network of express buses, local transit, ferries, and a nearly operational commuter railway, Sonoma Marin Area Rail Transit (SMART), which is a passenger rail that will parallel US 101 from Larkspur to Cloverdale. Pedestrian and bicycle trails are being constructed in conjunction with SMART.

Future Projects

The following projects within the vicinity of EA 4J860 are included in the State Highway Operation and Protection Program (SHOPP). The projects are listed in Table 4-1. SHOPP is the State's "fix-it-first" program that funds the repair and preservation of the State Highway System (SHS), safety improvements, and some highway operational improvements.

**Table 4-1: Future Projects in the Vicinity of 4J860**

| Project ID | EA | County Route | Post Mile | Description | Program Year | Current Phase |
|---|---|---|---|---|---|---|
| 0400021174 | 2G700 | MRN 101 | 7.4 / 7.4 | Upgrade existing curb ramps in Corte Madera, on US 101 at postmile 7.36 | SHOPP Year NA | 0 (PA&ED) |
| 0414000446 | 15161 | MRN 101 | 0 / 9 | Install ramp metering and traffic operations (TOS) elements in/near Sausalito, Mill Valley, Corte Madera, Larkspur and Marin City from north of the Golden Gate Bridge to 0.3 miles north of Sir Francis Drake Boulevard. | SHOPP 2019 | 3 (CONSTR) |
| 0414000521 | 2J480 | MRN 101 | 10.1 / 10.1 | Repair sinking pavement and drainage system in San Rafael, at the route 101/580 Interchange | SHOPP 2017 | 3 (CONSTR) |
| 0415000291 | 1A661 | MRN 101 | 8.2 / 8.7 | Multimodal improvements at southbound and northbound 101, including construction of multi-use bike path from Tamalpais Dr. Interchange in Corte Madera to Sir Francis Drake Boulevard in Larkspur | NON-SHOPP Year NA | 1 (PS&E) |

Notes:
SHOPP = State Highway Operation and Protection Program
MRN = Marin
PA&ED = Project Approval and Environmental Document
PS&E = Plans, Specifications, and Estimate
CONSTR = Construction
EA = Expenditure Authorization

The Metropolitan Transportation Commission (MTC) is responsible for the Bay Area's Regional Transportation Plan (RTP), a financially constrained long-range programming report for the region. MTC's Plan Bay Area (PBA), adopted in 2013. PBA was updated as PBA 2040 in 2017, and again as PBA 2050 in 2021. PBA 2050 serves as the region's RTP and Sustainable Communities Strategy that promotes walk- and bike-friendly mixed-use commercial and residential development.

Table 4-2 lists the project in PBA 2050 is in the vicinity of EA 4J860.

**Table 4-2: Project in PBA 2050 in the Vicinity of 4J860**

| County Route | Sponsor | RTPID | Description | Cost | Completion Date |
|---|---|---|---|---|---|
| MRN 101, 131 | N/A | 17-10-0050 | Planning and environmental assessment of alternatives to improve the US 101/Tiburon Boulevard Interchange. | $12M | N/A |

Notes:
RTPID = Regional Transportation Project ID
M = Million
N/A = Not Applicable
MRN = Marin

## 4C. Traffic

Table 4-3 lists the current and forecasted traffic information. Table 4-4 includes the calculated and recommended traffic index.

**Table 4-3: Current and Forecasted Traffic Information**

| | |
|---|---|
| Count Year ADT (2019) | 129,000 |
| Construction Year ADT (2026) | 133,600 |
| Design Year ADT (2046) | 147,600 |
| DHV_2046 | 10,700 |
| D% | 54.9% |
| Truck % | 2.40% |

Notes:
ADT = Average Daily Traffic
DHV= Design Hourly Volume
D% = directional distribution (% of traffic moving in the peak travel direction)

**Table 4-4: Calculated and Recommended Traffic Index**

| TI and ESAL | Calculated Median Lanes | Recommended TI[2] for Median Lanes | Calculated 2-Right Lanes | Recommended TI[1] for Right Lanes |
|---|---|---|---|---|
| 5-year TI | 8.00 | | 9.00 | |
| 5-year ESAL | 305,000 | | 1,223,000 | |
| 10-year TI | 8.50 | | 10.00 | |
| 10-year ESAL | 620,000 | | 2,478,000 | |
| 20-year TI | 9.50 | 9.50 | 11.00 | 11.00 |
| 20-year ESAL | 1,270,000 | | 5,081,000 | |
| 40-year TI | 10.00 | 10.00 | 12.00 | 12.00 |
| 40-year ESAL | 2,665,000 | | 10,660,000 | |

Notes:
ESAL = Equivalent Single Axle Load
TI = Traffic Index

1. November 20, 2017 Highway Design Manual **613.5**(b) **Freeway and Expressway Lanes.** TI for all freeway and expressway lanes, including widening and auxiliary lanes, must be the greater of either the calculated value, or 11.0 for a 20-year pavement design life, or 12.0 for a 40-ye.ar pavement design life. For roadway rehabilitation projects, use the calculated TI.
2. November 20, 2017 Highway Design Manual **613.3**(b) **Lane Distribution Factors for Multi-lane Highways.** TI for non-truck permitted lanes must not exceed 11 for 20-year pavement design life and 12 for 40-year pavement design life.

Table 4-5 lists the current and forecasted traffic information for ramps. Table 4-6 includes the calculated and recommended traffic index for ramps.

**Table 4-5: Current and Forecasted Traffic Information for Ramps**

| | |
|---|---|
| Count Year ADT (2020) | 13,300 |
| Construction Year ADT (2026) | 13,600 |
| Design Year ADT (2046) | 15,000 |
| DHV_2046 | 1,400 |
| D% | 100.0% |
| Truck % | 2.00% |

Notes:
ADT = Average Daily Traffic
DHV= Design Hourly Volume
D% = directional distribution (% of traffic moving in the peak travel direction)

**Table 4-6: Calculated and Recommended Traffic Index for Ramps**

| TI and ESAL | Calculated TI for Ramps | Recommended TI* for all Lanes |
|---|---|---|
| 5-year TI | 7.50 | |
| 5-year ESAL | 248,000 | |
| 10-year TI | 8.50 | |
| 10-year ESAL | 502,000 | |
| 20-year TI | 9.00 | 10.00 |
| 20-year ESAL | 1,030,000 | |
| 40-year TI | 10.00 | 11.00 |
| 40-year ESAL | 2,162,000 | |

Notes:
ESAL = Equivalent Single Axle Load
TI = Traffic Index

Collision Data:

The Table B report identified in Table 4-7 was generated on February 3, 2022, and it depicts collision rates per million vehicle miles for the 36-month period from January 1, 2018 to December 31, 2020 from the Traffic Accident Surveillance and Analysis System (TASAS). The Total collision rates include all reported collisions: Fatal, Injury, and Property Damage.

**Table 4-7: TASAS Table B Collision Rates (January 1, 2018 - December 31, 2020)**

| Segment | No. of Collision | | | | ACTUAL Rates (per million vehicle miles) | | | AVERAGE Rates (per million vehicle miles) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Total | FAT | INJ | PDO | Fatal Collision | Fatal+ Injury Collision | Total (1) | Fatal Collision | Fatal + Injury Collision | Total (1) |
| Mrn-101-PM 7.32/7.42 | 13 | 2 | 4 | 7 | **0.023** | 0.07 | 0.15 | 0.004 | 0.29 | 0.89 |

*(1) All reported collisions (includes Property Damage Only (PDO) Collisions)*

Detailed analysis per the TASAS Selective Accident Retrieval (TSAR) generated on February 3, 2022 shows that the primary collision factors in the segment on MRN 101 PM 7.32/7.42 were:

- 1 (7.7 percent) influence alcohol
- 4 (30.8 percent) improper turn
- 7 (53.8 percent) speeding
- 1 (7.7 percent) other violations

The type of collision included:

- 3 (23.1 percent) sideswipe
- 8 (61.5 percent) rear end
- 2 (15.4 percent) hit object

The fatal plus injury and total collision rates at this location are below Statewide average. The fatal collision rate for this location is above Statewide average. However, this segment was not flagged in TASAS Table C. Table C identifies high collision frequency spot locations with ether Type 'W' (Wet) collisions or Type 'A' (All) collisions, where four or more significant collisions within a 12-month, 6-month, or a 3-month period have occurred. The ramp and bicycle/pedestrian facility improvements proposed for this project are expected to improve overall safety at the interchange, but geometric improvements specifically to address collision rates higher than expected averages are beyond the scope of this Bridge Preventive Maintenance and ADA Improvement Project.

## 5. ALTERNATIVES

Seven design alternatives were considered: the six Build Alternatives and the No-Build Alternative. The No-Build alternative does not fulfill the purpose and needs of the project. It would leave the existing facility in place, no upgrades or replacement would be made to Tamalpais Dr. OC. This would leave the OC at risk of seismic damage, and fail to provide ADA-compliant access across the OC.

### 5A. Preferred Alternative

Under the build alternatives, six alternatives were considered for the combination of intersection configuration. After the circulation of the environmental document and the evaluation of different aspects, including the environmental impacts, traffic impacts, construction cost, and schedule of each alternative, Alternative 4B is recommended as the Preferred Alternative because this alternative serves the purpose of needs of the project. The City of Corte Madera passed a motion also selecting 4B as alternative of their choice (City Council meeting of 08/16/2022). The PDT voted to select Alternative 4B as the Preferred Alternative.

Highway Work Description - Alternative 4B (Attachment C)

- Remove the two existing pedestrian spiral walkway ramps and construct two new pedestrian paths, mostly on structures.
- Widen bridge widening to add a new 15-foot-wide pedestrian/bike path at the Northern side of Tamalpais Dr. OC Structure.
- Reconfigure SB on-ramp to align it to signalized interstation at the Western side of Tamalpais Dr.
- Work at the reconfigured SB US 101 on-ramp intersection to build for a new bus stop and bus pullout area.
- The NB on-ramp will include 16 feet widening for a 12-foot lane and 4-foot shoulder. A new bus stop and bus pullout will be constructed on the right side at the terminus with the intersection. The slip ramp configuration will be removed, and the ramp will be reconstructed across from the off-ramp terminus forming a four-legged 90-degree intersection.
- All existing bus bypasses and stops along the ramps will be removed.
- Ramp metering, HOV preferential lanes, maintenance vehicle pullouts, and potentially bus metering designed under project 15160 and waiting implementation will be considered as described in the Ramp Metering and TOS Recommendation memo found in Attachment H.
- Drainage improvements as described in the Drainage Recommendations memo found in Attachment L.
- Pavement, sidewalk and path sections will be constructed in accordance with the Materials Recommendations memo found in Attachment M.

Structure Work Description - Alternative 4B:

It is proposed to construct two pedestrian path structures on the north side of the existing bridge to replace the existing spiral loop structures. The west structure will be 466 feet in length and comprise six spans. The east structure will be 450 feet in length and comprise six spans. The maximum longitudinal gradient will be 5 percent.

The superstructure is proposed to be a cast-in-place reinforced-concrete voided slab section. Each of the bents will be single column with a pile cap and driven Class 90 piles.

The existing sidewalk on the south side of the bridge will be removed along with the existing circular pedestrian ramps. To compensate for the removal of the sidewalk, it is proposed to widen the existing bridge with a 17.42-foot maximum width precast, prestressed box girder structure. This widening will be adjacent to the existing bridge,

but structurally separate. The widening will vary in width as it approaches Abutment 10, and transition into a reinforced-concrete slab structure.

The pedestrian path structures will tee into this widening structure with a short cantilever span and expansion joint. Part of the existing SB on-ramp will be removed to align it to the intersection at Tamalpais Dr.

Portions of the of two loop on-ramps will be reconfigured to make them diagonal and aligned to signalized intersections of both sides of Tamalpais Dr. The NB 101 ramp will be 245 feet long. The SB 101 ramp will be 270 feet long. The width will be 25 feet, 5 inches, and each bent will be composed of 5 columns (Class 90 pile extensions). Type 742 concrete barriers will be placed on one side of each ramp bridge. As the ramp elevations touch down to existing ground elevation, the structure will transition to a reinforced-concrete cantilever retaining wall on one side of the ramp only. This retaining wall will have a reinforced-concrete pile cap foundation on Class 90 driven piles. Additionally, the existing bridge cable restrainers will be removed, and replaced with steel support brackets at the abutments and the in-span hinge locations. A total of eight steel brackets will be installed at each location. The Structures APS may be found in Attachment D.

Design Standards and Deviations from Design Standards (DSDD)

The existing structure has nonstandard design features including shoulder widths, superelevation, and horizontal stopping sight distance. The preliminary proposed alternatives and the project scope has been reviewed and concurred by the Caltrans Headquarters Project Delivery Coordinator and District Design Office Chief. A DSDD was approved on 06/30/2023. Table 5-1 displays the nonstandard features that will remain with the preferred alternative.

**Table 5-1: Design Standards Risk Assessment Matrix**

| Standard | Nonstandard Features to Remain | Existing Condition | Proposed Condition | Justification for Keeping Nonstandard Features Unchanged |
|---|---|---|---|---|
| HDM 7th Edition Index 308.1 | Shoulder Width | 4 feet | 4 feet | Does not affect the general safety of the facility. |
| HDM 7th Edition Index 202.2 | Superelevation | 3.9% & varies | 3.9% & varies | Upgrading to standard would require realignment of the ramp, significant R/W acquisition, and utility relocation. |
| HDM 7th Edition Index 203.1 and 201.1 | Horizontal Sight Stopping Distance | 211 feet | 211 feet | Upgrading to standard would require widening of the ramp, significant R/W acquisition, and utility relocation. |

Notes: HDM = Highway Design Manual R/W = Right of Way

Complete Streets

The intent of Caltrans Deputy Directive DD-64-R2 on Complete Streets is to ensure that travelers of all ages and abilities can move safely and efficiently along and across

a network of "complete streets." Opportunities to include Complete Streets elements were evaluated to improve safety, access, and mobility for all travelers. For this project, the complete street elements are discussed below.

Pedestrian and Bicycle facilities

The District 4 Bike Plan, completed in 2018, identified and prioritized bicycling improvements along and across the State Transportation Network in the nine-county Bay Area. The US 101/Tamalpais Dr. interchange was identified as a Top Tier priority to improve bicycle connectivity across the freeway.

The District 4 Pedestrian Plan, completed in 2021, studied existing conditions for walking along and across the State Transportation Network in the nine-county Bay Area, and prioritized location-based needs for pedestrian improvements. Within the project limits, the Pedestrian Plan identified the Tamalpais Dr. interchange as a Tier 2 need, scoring high in pedestrian safety and mobility needs.

The District 4 Pedestrian Plan and the Bicycle Plan within the project limits are summarized in Table 5-2.

**Table 5-2: District 4 Pedestrian Plan and Bicycle Plan within the Project Limits**

| County | Route | Program | Location | Description |
|---|---|---|---|---|
| Marin | 101 | District 4 Pedestrian Plan | Tamalpais Dr. and Highway 101 | Crossing Improvement |
| Marin | 101 | District 4 Bicycle Plan | Casa Buena Dr. and Highway 101 | New Separated Crossing |
| Marin | 101 | District 4 Bicycle Plan | Tamalpais Dr. and Highway 101 | Interchange reconstruction - Ramp Only - Class I |

The preferred alternative will have the pedestrian infrastructure upgraded to current Caltrans Design Information Bulletin (DIB) 82-06 standards, and improve safety, access, and mobility for all users. The project proposes the construction of a new structure for bicycles and pedestrians. Additionally, the project will install upgraded crosswalks, curb ramps, sidewalks and traffic signals.

Transit facilities

The transit facilities will be removed and reconstructed to current Caltrans DIB 82-06 standards and improve safety, access, and mobility for pedestrians. Marin Transit (MT) and Golden Gate Transit (GGT) were involved in the project development process to address their concerns regarding relocation of bus stops.

## 5B. Rejected Alternatives

Alternative 1A and 1B

These two alternatives are like alternatives 2A and 2B, but, have less structural work. However, they require pedestrians on the OC to cross the US 101 NB on-ramp instead of using the existing spiral pedestrian structure. Because the on-ramp has nonstandard pedestrian features, these alternatives introduced a pedestrian route with new unresolved ADA and safety issues, and do not address the purpose and need of the project. Therefore, these alternatives are not considered as build alternatives.

Alternative 2A, 2B, 3A, 3B, and 4A

Alternative 2A, 2B, 3A, 3B, and 4A were not selected because these alternatives would remove existing loop ramps which are two of the main access points to US 101 which result in delays during commute hours.

Cantilevered Steel Truss Multi-use Deck

A structural analysis was done by Caltrans Office of Bridge Design for a steel truss frame cantilevered widening concept, suggested by the Town of Corte Madera to minimize the design complexity and structure-related cost. It was concluded that it is structurally unfeasible to add a 17-foot wide pedestrian/bike deck on the side of the existing OC bridge deck by connecting steel truss members to the existing exterior steel girder. This is because the loading from the widening will have to be resisted solely by the adjacent exterior girder, and the exterior girder, adjacent to the proposed widening, cannot carry the additional loadings from the widening. Steel girder bridges are not rigid enough to distribute loading to other (multiple) girders by adding braces between the girders. Additionally, the extra loading from the widening cannot be supported by the existing substructure and foundation directly below the affected exterior girder.

See Attachment F and Attachment N for the analysis of the existing girder's flexural moment capacity at midpoint, which shows that the stress at the bottom flange far exceeds its capacity.

No Build Alternative:

No upgrades or replacement would be made to Tamalpais Drive OC. This would leave the OC at risk of seismic damage, and fail to provide ADA-compliant access across the OC.

## 6. CONSIDERATIONS REQUIRING DISCUSSION

### 6A. Hazardous Waste

Based on the final alternative chosen, a bridge survey for asbestos-containing material and lead-based paint will need to be conducted during the design phase. In addition, a site investigation for aerially deposited lead will be conducted in areas of unpaved soil proposed to be excavated for the project.

### 6B. Value Analysis

A virtual Value Analysis (VA) study, sponsored by the California Department of Transportation (Caltrans) District 4 and facilitated by Value Management Strategies, Inc. (VMS), was conducted.

The workshop was facilitated January 9-12, 2023, using the WebEx virtual meeting platform.

The VA team developed six VA alternatives for improvement of the project. The following are the alternatives identified, along with their associated potential initial cost savings, potential change in schedule, performance change, and a brief discussion of each.

- Implement a self-driving vehicle to transport ADA individuals across the bridge and eliminate the northside ADA ramp.
- Reduce width of pedestrian ramp structure by 5 feet and prohibit bicycle usage.
- Reduce width of the pedestrian ramp structure by 4 feet.
- Increase the workday from eight hours to 10 hours
- Use cost + time contract to incentivize the contractor to finish the project early.

An implementation meeting was held on March 28, 2023, to discuss VA Team's recommendation. The PDT accepted only two recommendations. These are increasing workday hours from 8 to 10 and use of cost-time (A+B) provisions for the project. Implementation self-driving vehicle to transport was rejected because of increased costs and requirement of additional R/W for the system and stations at two ends of Tamalpais Dr. OC. Other recommendations to reduce width of pedestrian ramps and prohibition of cyclists were rejected because they are not in line with Caltrans complete streets policy.

### 6C. Resource Conservation

Any clean, intact, reusable material from the demolition of the spiral pedestrian ramps and portion of the loop ramps shall be salvaged, loaded onto pallets, and delivered to

the Napa Maintenance Facility. In addition, any other items deemed feasibly recyclable during the construction phases will be considered.

**6D. Right of Way**

General

A Right of Way Data Sheet has been prepared for the project based on its scope of work. The Right of Way Data Sheet also provides estimated cost information (see Attachment G). The project anticipates needing environmental mitigation, relocations of utilities, and protection in place for existing utilities. The preferred alternative, 4B, does not require any permanent right of way acquisition or temporary construction easements (TCEs). The right of way process is expected to take up to 18 months to complete.

Railroad

Railroad involvement is not anticipated.

Utilities

Underground utility verification, if necessary, will be done in the next phase of the project. There is existing Pacific Gas and Electric Company 16-inch high pressure gas pipeline along the freeway SB side, embedded approximate 100 feet away from the edge of the SB US 101 shoulder. The project site has water meters, backflow preventers, and electrical service that serve the existing irrigation system. There are light poles on the bridge and pull boxes on the downstream side of the sidewalk near the curb ramps. Also, there are traffic lights and poles at the two intersections of the two ends of the bridge.

**6E. Environmental Compliance**

In compliance with the California Environmental Quality Act (CEQA), an Initial Study with Proposed Negative Declaration (IS/ND) was prepared for the Project and approved on June 28, 2023. See Attachment A for cover, general information and signature pages. The CEQA document describes why the Project is being proposed, how the existing environment could be affected by the Project, potential environmental impacts, the proposed Project features, and avoidance and minimization measures.

The IS/ND evaluated the following environmental resources: aesthetics, air quality, biological resources, energy, geology/soils/ greenhouse gas emissions, hazards and hazardous materials, hydrology/water quality, noise, recreation, transportation/traffic, utilities/service systems and wildfire. Caltrans proposes that the Project would not

have a significant effect on the environment and recommends that a Negative Declaration be adopted.

Table 6-1 lists the required permits and approvals for the Project.

**Table 6-1: Required Permits and Approvals**

| Agency | Permit/Approval |
|---|---|
| U.S. Fish and Wildlife Service (USFWS) | LOC or BO |
| U.S. Army Corps of Engineers | Section 404 Permit |
| State Water Resources Control Board | Section 401 Water Quality Certification |
| California Department of Fish and Wildlife | Section 1602 Lake and Streambed Alteration Agreement |

Under the National Environmental Policy Act (NEPA), a Categorical Exclusion (CE) was completed and approved on 06/28/2023.

Scenic Resources

The project location is within the PM 7.18/7.46 segment of US 101 listed as a Classified Landscaped Freeway, per the list of such freeways published November 16, 2020. (https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-b-classified-landscaped-freeways). This listing recognizes that intact State landscape plantings are present and affords the area certain protections from the introduction of outdoor advertising displays. Caltrans policy is both to replace plantings damaged or removed by State highway construction activities and for designers to retain Classified Landscape Freeway status where it exists.

Although this portion of US 101 is landscaped, it is not listed as an Officially Designated State Scenic Highway, nor is it listed as eligible for such status. The visual character of this portion of the highway is business/suburban, with extensive plantings within and beyond the State right of way. There are commercial establishments on both sides of the highway as well as nearby residences. It is important that construction impacts to the visual environment, during and post-construction, are minimized.

Caltrans policy requires that scenic resources are protected to the extent possible while meeting project requirements. Vegetation will be protected unless its removal is unavoidable for implementation of the project. A Visual Impact Assessment (VIA) was done on December 20, 2021. Visual resources of the project area were analyzed and addressed in a VIA written the Office of Landscape Architecture. To avoid or minimize visual impacts, the following measures need to be incorporated into project design and construction:

- To the greatest extent possible, constructed elements of the project will be selected to blend visually with the project area and its surroundings, including the materials used, colors, and construction methods. These factors advance the goals of visual harmony while integrating and balancing issues of safety, mobility, and maintenance goals with environmental values consistent with the project's purpose and need.

- Vegetation removal due to construction will be minimized to the greatest extent feasible.

- Trees and other vegetation outside of the clearing and grubbing limits will be protected from the contractor's operations, equipment, and materials storage.

- Allowances must be made for the programming and funding of a "child" highway planting project with 3-year Plant Establishment Period (PEP) to follow construction of this roadway project. Following construction, all disturbed areas will be seeded using a seed mix appropriate to the location.

Erosion Control

In addition to temporary construction site measures designed to limit erosion and stormwater pollution, a range of permanent erosion control measures will be required to prevent the erosion of soil and its transport off site. Measures employed are likely to include hydroseeding, hydromulch, fiber rolls, rolled erosion control product, decompaction, and bonded fiber matrix. Additionally, all disturbed areas will be hydroseeded with a seed mix appropriate to the location. Detailed erosion control plans will be developed during the Plans, Specifications, and Estimate (PS&E) stage of design, and the cost estimate refined. A preliminary estimate of $110,650 is included in the project estimate for erosion control.

**6F. Air Quality Conformity**

Transportation Conformity applies in areas that are "nonattainment" or "attainment-maintenance" for the NAAQS, and only for the standards that are, or previously were, violated. Conformity analysis and determinations are done at both a regional and project-level scale.

Regional Conformity

Regional conformity requires planned and programmed transportation projects be included in a regional emissions analysis. This project is exempt from regional conformity analysis per 40 CFR 93.127. Therefore, a separate listing of the Project in Plan Bay Area 2050, MTC's 2021 TIP, and their associated regional emissions analyses, is not necessary. Despite being exempt, the Project is listed in the Plan Bay

Area 2050 financially constrained RTP and MTC's financially constrained 2021 TIP as project TIP ID VAR170010.

Project Level Conformity

The San Francisco Bay Area Air Basin was designated as a nonattainment area for the PM2.5 NAAQS and an attainment/maintenance area for CO NAAQS. Thus, a project-level conformity analysis applies to the Project for both pollutants under 40 CFR 93.109. However, current guidance from FHWA and Caltrans states that a project-level CO hot-spot analysis is no longer required to demonstrate project-level conformity. Similarly, hot-spot analysis for PM2.5 is only required for projects found to meet the definition of a POAQC by the MPO's Air Quality Conformity Task Force (AQCTF). The Project was found not to be a POAQC by MTC's AQCTF on March 31, 2022, after the consultation meeting. Therefore, a PM2.5 hot-spot analysis is not required.

40 CFR 93.123(c)(5) states that: "CO, PM10, and PM2.5 hot-spot analyses are not required to consider construction-related activities which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site." Since construction of the Project is expected to last less than five years, an evaluation of CO, PM10, and PM2.5 emissions during Project construction is not required for project-level conformity determination.

**6G. Title VI Considerations**

The California Department of Transportation under Title VI of the Civil Rights Act of 1964 and related studies ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, and age, be excluded in participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers. The proposed project will comply with this Title VI statement.

**6H. Noise Abatement Decision Report**

The project does not qualify as either a Type I or Type II project under 23 CFR 772. Noise abatement need not be considered, and a Noise Study Report is not required.

**6I. Transportation Management Plan**

A Transportation Management Plan (TMP) will be developed for this proposed project during the PS&E phase. The construction duration is currently estimated between 360 and 480 working days. Work will be completed using a combination of day shifts and night shifts, depending on specific operations. Elements currently

proposed in the TMP include, but are not limited to, providing notification to the public and impacted groups via a public information program, the use of temporary concrete railing and crash cushions, employing portable changeable message signs, providing flaggers for traffic control, and providing funds for a California Highway Patrol Construction Zone Enhanced Enforcement Program (COZEEP) to enhance safety at project locations during construction that require temporary lane and ramp closures.

The preliminary estimated TMP cost is $865,000. See Attachment I for TMP Data Sheet.

**6J. Construction Staging**

Staged construction is anticipated for this project. The construction duration is currently estimated up to 480 working days. It is proposed work will be completed using a combination of day shifts and night shifts, depending on specific operations. It is expected that all work can be completed using lane and shoulder closures, temporary ramp closures and detours, or the use of temporary concrete barriers and crash cushions. There are no prolonged ramp closures required for this project. Due to the scattered nature and distribution of the project locations, concurrent work at multiple locations by multiple work forces will be allowed based on approval by the Highway Operations Branch.

Water Quality

The project site is located within San Francisco Bay (Region 2) Regional Water Quality Control Board and Marin County Municipal Separate Storm Sewer Systems (MS4) limits. Because the disturbed soil area (DSA) will be more than 1 acre and Stormwater Risk Level will be 2, the project must comply with the conditions of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Permit (No. CAS000002) or Construction General Permit (No. 2009-0009- DWQ), or San Francisco Bay Regional Water Quality Control Board Municipal NPDES Permit (No. R2-2009-0074).

To address the temporary water quality impacts resulting from the construction activities at the job site, the project would require preparation and adoption of a Storm Water Pollution Prevention Program (SWPPP). Additionally, the project would be required to file a Notice of Intent (NOI) before commencing any construction activities at the job site. Best Management Practices (BMPs) need to be implemented to address the temporary water quality impacts resulting from the project construction activities. BMPs will include the soil stabilization, sediment control, wind erosion control, tracking control, non-stormwater management, and waste management/ materials pollution control. Appropriate BMPs and their quantities need to be developed during the PS&E phase. Incorporation of the BMP measures outlined in

the SWPPP would ensure that neither action alternative would adversely affect water quality in local waterways, or groundwater quality.

Office of Environmental Maintenance will pursue a Section 404 permit, because none of the scoped alternatives would involve in-water works or wetlands. If a Section 404 permit is not being pursued, Section 401 Certification may not be required. Temporary Creek Diversion System and Temporary Dewatering System are not expected. A hazardous waste investigation will be performed and will be examined during the PS&E phase with Site Investigation Report.

This project may require a full trash capture system because the job site is in a "Moderate" significant trash generating area (STGA). Stormwater treatment BMPs, hydromodification measures, and a full trash capture device will be designed after selecting a preferred alternative, or in the PS&E phase.

**6L. Highway Planting and Irrigation**

There are extensive State plantings and irrigation facilities within and near most locations of proposed work, and replacement planting will be required in various locations throughout the interchange. The Office of Landscape Architecture (OLA) has conducted a preliminary evaluation of the work required for the project referenced above. These recommendations address items related to visual resources, planting and irrigation, and erosion control. This information is preliminary and will require revision as the design is advanced.

Under the preferred alternative, impacts are such that replacement planting costs are estimated to exceed the amount of highway planting work allowed to be included as part of a roadway project. The Project Development Procedures Manual, Chapter 29, Section 2, Separate Contract Requirement for Highway Planting Work on Roadway Construction Projects, states:

"Highway planting with an estimated cost of $300,000 or more, in conjunction with or resulting from a roadway construction project, must be accomplished by separate contract and must include three years of plant establishment. This policy applies to all highway planting projects within the State operational right of way regardless of the funding source. The estimated cost of highway planting is the total sum of the bid items for planting and irrigation work and does not include the cost of traveler and worker safety features, or storm water pollution prevention plan (SWPPP) items."

Because the estimated amount of required highway planting work, as described above, exceeds $300,000, it will be necessary that a "child" follow-up highway planting project be programmed to implement that planting work; the work funded by this "parent" roadway project. The highway planting cost of $1,257,000 is included in the estimate.

## 7. OTHER CONSIDERATIONS AS APPROPRIATE

### Context-Sensitive Solutions

The Department of Transportation applies Context-Sensitive Solutions (CSS) to achieve transportation goals in harmony with community goals and natural environments. These solutions are reached through a collaborative interdisciplinary approach involving all stakeholders, and the project team is coordinating closely with Corte Madera and transit agencies to incorporate design features appropriate to the location and address transit agencies concerns.

### Accommodation of Oversize Loads

This project involves new intersection and relocation of termini. The geometry of the interchange modifications has been prepared to not restrict the movements of oversized loads.

### Constructability Issues

District 4 Constructability Review Team reviewed the Draft Project Report on June 2, 2022, and no constructability issues have been identified. Further Constructability Reviews will be performed at the 65% and 95% of PS&E phase. Comments and recommendations from those reviews will be incorporated into the final PS&E.

### Environmental Justice (Title VI Considerations)

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development of this project and the implementation of environmental regulations and policies are always a department priority. Equitable distribution of environmental risks and benefits, fair and meaningful public involvement in environmental decision-making was strong during the public meetings. Comments from the diverse community were collected, studied, and considered as much as the project scope, purpose, and need allowed.

public involvement in environmental decision-making was strong during the public meetings. Comments from community from all walks of life were collected during the meeting and each one was studied and efforts were made to address them as much as the scope and purpose and needs of the projects allowed us to do so.

### Broadband and Advanced Technologies

As outlined in California Streets and Highways Code, Chapter 2, 2030(d), where feasible, Caltrans shall use advanced technologies and communications systems in transportation infrastructure that recognize and accommodate advanced automotive technologies. Pursuant to Assembly Bill (AB) 1549 (2016) and Caltrans Deputy

Directive (DD)- 116, collaboration between Caltrans and agencies working on broadband deployment is encouraged, and when feasible plans for additional wired broadband facilities are accommodated.

The following accommodations were considered:

- Wired broadband facilities: The new concrete bridge barrier will include conduits to allow for the future installation of broadband cable. The cost for those conduits is covered by the barrier and are negligible.

- Fueling opportunities for zero-emission vehicles (ZEVs): Due to the project site, scope, and purpose, deployment of ZEV-charging infrastructure is not feasible.

- Provision of infrastructure-to-vehicle communications for transitional or full-autonomous vehicles: Opportunities to incorporate infrastructure-to-vehicle communications are to be evaluated in the next phase, but currently there is no plan for such infrastructure.

- The project limits fall in the Middle Mile Broadband Initiative, but the project is not considered viable to include in the Middle Mile network since additional funding has not been allocated to cover this extra scope of work.

**California Climate Investment Priority Populations**

According to SB 535, disadvantaged communities are disproportionately affected by environmental pollution, low income, high unemployment, low levels of home ownership, high rent burden, sensitive populations, and low levels of educational attainment. In AB 1550, low-income communities are defined as census tracts with median household incomes at or below 80 percent of the statewide median income or with median incomes at or below the threshold designated as low income by the US Department of Housing and Urban Development. Both SB 535 and AB 1550 direct a percentage of State GHG-reduction funds to be invested in disadvantaged and low-income communities.

Caltrans identified no SB 535 or AB 1550 communities in or near the project area.

**Caltrans Equality Statement**

State departments of transportation are bound by law to consider the needs of residents with low incomes, communities of color, people with limited English proficiency, seniors, the disabled, other communities, and individuals when developing transportation plans. Caltrans acknowledges that communities of color and underserved communities have experienced fewer of the benefits and more of the negative impacts associated with the California State Transportation System. Some of

these disparities reflect a history of transportation decision-making, policy, processes, planning, design, and construction that put up barriers, divided communities, and amplified racial inequities, particularly in our Black and Brown neighborhoods. Caltrans recognizes its leadership role and unique responsibility to eliminate barriers and provide more equitable transportation for all Californians. This understanding is the foundation for intentional decision-making that recognizes past, stops current, and prevents future harms from our actions. Furthermore, Caltrans is developing public outreach methodologies to increase participation by disadvantaged community members and local community-based organizations to ensure that they have a voice on the projects that affect their communities.

**Environmental Justice**

Information that can be used to identify potential environmental justice issues is documented in corridor plans so that transportation projects can ensure the fair treatment and meaningful involvement of all people in project development regardless of race, color, national origin or income. This involvement applies to the scope of the project, from the early stages of transportation planning and investment decision making through construction, operations, and maintenance. Title VI of the Civil Rights Act of 1964 states that "[no] person in the United States shall, on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Executive Order 12898, issued in 1994, gave a renewed emphasis to Title VI and added low-income populations to those protected by the principles of environmental justice. There are three fundamental principles at the core of environmental justice:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations

- To ensure the full and fair participation of all potentially affected communities in the transportation decision-making process

- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations

The project complies with Caltrans policies regarding Title VI considerations; it will not disproportionately affect any disadvantaged community within the project limits.

**Equity Priority Communities**

The MTC's Equity Priority Communities (EPCs) index is based on eight American Community Survey (ACS) 2014–2018 tract-level variables. The development of MTC's EPCs index was a part of the Equity Framework within the RTP. The

framework includes equity measures to analyze scenarios and define disadvantaged communities. These variables included minority populations, low-income areas, less-English-proficient populations, seniors (age 75 and older), zero-vehicle households, single-parent households, people with disabilities, and rent-burdened households. The EPCs within the RTP area are rated at high and highest levels of concern, meaning that these communities are burdened by multiple socioeconomic factors.

Using the PBA 2050 data, Caltrans identified no EPCs in or near the project area.

**Sea Level Rise (SLR)**

Sea level rise maps from the National Oceanic and Atmospheric Administration (NOAA) (available at https://coast.noaa.gov/slr) show the project location is affected by projected future sea level rise. Federal Emergency Management Agency (FEMA) Flood Insurance Study Maps indicate a current Base Flood (1 percent annual chance of occurrence) elevation of 10' (NAVD 88 datum.) This Base Flood Elevation encompasses the entire low-lying US 101 and interchange area, with the exception of higher elevations of the OC. Areas surrounding the project area beyond Caltrans right of way will also be affected by sea level rise, and are currently inundated by the FEMA Base Flood.

As noted in the Caltrans Guidance on Incorporating Sea Level Rise, dated May 16, 2011, there are instances where adaptive measures and mitigation for sea level rise cannot be accommodated due to cost or the creation of new impacts. Therefore, although this project is susceptible to future sea level rise, the adaptive measures such as raising the highway grade would create additional impacts, and cannot be included in the project due to the project's limited purpose, scope, and budget.

**Material and/or Disposal Site**

Material and/or disposal sites, if required, will be identified in PS&E phase according to DIB 85.

**Reversible Lanes AB2542**

Because this project is pedestrian access and bridge seismic restoration project, it does not qualify as a capacity increasing or a major street or highway realignment project. Therefore, reversible lanes have not been considered.

**Maintenance and Cooperative Agreements**

The existing Maintenance Agreement will need to be modified due to the interchange and intersection control modifications. There is an existing Delegated Maintenance Agreement with Corte Madera effective July 1, 1968; a Freeway Maintenance Agreement with Marin County from PM 6.0-8.3 effective July 9, 1958; and another

from PM 6.0-8.8 effective December 3, 1957. Modification of the Freeway Agreement is required because the details of the interchange will change as a result of the project.

Cooperative Agreements will be needed with the Town of Corte Madera and Transportation Authority of Marin for funding contributions. A Cooperative agreement will be prepared between Caltrans and Town of Corte Madera for R/W Capital, R/W Support, and Construction Capital. Cooperative agreement will be prepared between Caltrans and Transportation Authority of Marin for Construction Capital. When approved, the Project Report will be the authorizing document for preparation of Cooperative Agreements in the PS&E phase.

**Public Meeting Process**

Public meeting was held on August 16, 2022. The meeting was held online using the Zoom webinar format. Caltrans staff and consultants gave a presentation that lasted approximately 45 minutes. During the presentation, participants were encouraged to enter questions or comments using the Zoom Chat feature. Following the presentation, the meeting moderator provided an overview of questions and comments that had been received and the Caltrans team verbally addressed them. The meeting moderator then encouraged participants to ask verbal questions, to which the team responded.

**Graffiti Control**

This project location is susceptible to graffiti. Graffiti control may be considered on vertical surfaces such as structures. Use of special graffiti control coatings may be considered during the PS&E phase.

**Climate Change Considerations**

Greenhouse Gas Emissions

Although the proposed project will result in greenhouse gas (GHG) emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The project will implement measures to reduce construction emissions, such as maintenance of the construction equipment and vehicles, limiting of construction vehicle idling time, and scheduling and routing of construction traffic to reduce engine emissions.

## Asset Management

Director's Policy 35 (DP-35) calls for maximizing the effectiveness of transportation investments through a performance-driven asset management in conformance with Title 23, Part 515 of the Code of Federal Regulations and Section 14526 of the California Government Code. Per this policy, Caltrans is required to determine the most effective way to apply the available resources to benefit the condition and performance of the State Highway System (SHS) and its assets. This is achieved by a robust Asset Management program and is implemented through the Asset Management plans, such as the State Highway System Management Plan (SHSMP) and the District Performance Plans (DPP).

This project has been initiated, developed, and programmed in alignment with the departmental asset management plans. In the PA&ED phase of the project, all efforts have been made to meet or surpass the performance of the project at the programming milestone (Milestone 015). For SHOPP performance measures of this project, see Attachment P. The programmed performance measures are presented in Table 7-1 and the proposed performance measures are presented in Table 7-2.

**Table 7-1: Currently Programmed Performance Measures of the Project**

| Activity Detail | Unit of Measurement | Quantity | Assets in Good Cond | Assets in Fair Cond | Assets in Poor Cond | New Asset Added |
|---|---|---|---|---|---|---|
| Bridge Rehabilitation | Square Feet | 61,570 | | | 61,570 | |
| Fish Passage | Yes/No | No | | | | |
| Number of Bridges | Each | 1 | | | | |
| Crash Cushions | Each | 5 | | 5 | | |
| ADA New Sidewalk | Linear Feet | 1,925 | | | | 1,925 |
| ADA-Repair Existing Sidewalk | Linear Feet | 1,075 | | | 1,075 | |
| ADA-Repair/upgrade Curb Ramp | Each | 12 | | | 12 | |
| ADA Deficient Elements | Deficient Elements | 112 | | | 48 | 64 |
| Work Safety - Miscellaneous Paving/Treatment | Locations | 6 | | | 6 | |
| Work Safety - Miscellaneous Facilities and Equipment | Locations | 4 | | | 4 | |
| Bike Boxes | Each | 2 | | | | 2 |
| Bridge Access for Pedestrians and Bicyclists | Each | 2 | | | | 2 |
| Class II Bike Lanes | Linear Feet | 1,848 | | | | 1,848 |

| Activity Detail | Unit of Measurement | Quantity | Assets in Good Cond | Assets in Fair Cond | Assets in Poor Cond | New Asset Added |
|---|---|---|---|---|---|---|
| Conflict Zone Green Paint | Each | 6 | | | | 6 |
| Transit Stop Improvements | Each | 1 | | | | 1 |
| Is any Location Within the Project Limit PED/BIKE Accessible? | Yes/No | Yes | | | | |
| Complete Street Build New | Linear Feet | 1,848 | | | 1,848 | |

Notes: ADA = Americas with Disabilities Act

**Table 7-2: Proposed Programmed Performance Measures of the Project**

| Activity Detail | Unit of Measurement | Quantity | Assets in Good Cond | Assets in Fair Cond | Assets in Poor Cond | New Asset Added |
|---|---|---|---|---|---|---|
| Bridge Rehabilitation | Square Feet | 61,570 | | | 61,570 | |
| Fish Passage | Yes/No | No | | | | |
| Number of Bridges | Each | 1 | | | | |
| Crash Cushions | Each | 5 | | 5 | | |
| ADA New Sidewalk | Linear Feet | 1,925 | | | | 1,925 |
| ADA-Repair Existing Sidewalk | Linear Feet | 1,075 | | | 1,075 | |
| ADA-Repair/upgrade Curb Ramp | Each | 12 | | | 12 | |
| ADA Deficient Elements | Deficient Elements | 112 | | | 48 | 64 |
| Work Safety - Miscellaneous Paving/Treatment | Locations | 6 | | | 6 | |
| Work Safety - Miscellaneous Facilities and Equipment | Locations | 4 | | | 4 | |
| Bike Boxes | Each | 2 | | | | 2 |
| Bridge Access for Pedestrians and Bicyclists | Each | 2 | | | | 2 |
| Class II Bike Lanes | Linear Feet | 1,848 | | | | 1,848 |
| Conflict Zone Green Paint | Each | 6 | | | | 6 |

| Activity Detail | Unit of Measurement | Quantity | Assets in Good Cond | Assets in Fair Cond | Assets in Poor Cond | New Asset Added |
|---|---|---|---|---|---|---|
| Transit Stop Improvements | Each | 2 | | | | 2 |
| Is any Location Within the Project Limit PED/BIKE Accessible? | Yes/No | Yes | | | | |
| Complete Street Build New | Linear Feet | 1,848 | | | 1,848 | |

Notes: ADA = Americas with Disabilities Act

There were two changes compared to original performance measures listed in the scoping document:

1. Two Transit Bus Stop Improvements instead of one. This exceeds original performance measures. This was necessary to make the bus stop more accessible to the general public and areas of population concentration.

## 8. FUNDING, PROGRAMMING, AND ESTIMATE

### Funding

It has been determined that this project is eligible for Federal-aid funding.

### Programming

A summary of support costs and capital outlay costs are shown in the following table. The Project is funded by Infrastructure Investment and Jobs Act (IIJA) augmented SHOPP 20.10.201.113 – Bridge Rehabilitation Program ($11,214,900 from IIJA Complete Street and $1,246,100 from IIJA Safety programs), local funds from Town of Corte Madera ($3,000,000), local funds from Transportation Authority of Marin ($1,100,000), and other uncommitted local funds ($1,198,324).

| Component | Fund Source | Fiscal Year Estimate for the Programmable Alternative | | | | | |
|---|---|---|---|---|---|---|---|
| | | 20/21 | 21/22 | 22/23 | 23/24 | 24/25 | Total |
| | | In thousands of dollars ($1,000) | | | | | |
| PA&ED Support | 20.XX.201.113 | 2,115 | | | | | 2,115 |
| PS&E Support | 20.XX.201.113 | | | 3,462 | | | 3,462 |
| | 20.XX.201.113 | | | 169 | | | 920 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Right of Way Support | Town of Corte Madera | | | | 751 | | |
| Construction Support | 20.XX.201.113 | | | | 5,041 | | 5,041 |
| Right of Way | 20.XX.201.113 | | | | 692 | | 3,768 |
| | Town of Corte Madera | | | | 1,877 | | |
| | Other Local Funds | | | | 1,199 | | |
| Construction | 20.XX.201.113 | | | | 27,187 | | 28,659 |
| | Town of Corte Madera | | | | 372 | | |
| | TAM | | | | 1,100 | | |
| Total | | 2,115 | | 3,631 | 38,219 | | 43,965 |

Notes: TAM = Transportation Authority of Marin
PA&ED = Project Approval & Environmental Document
PS&E = Plans, Specifications, & Estimate

The support cost ratio range is 36% (all support costs/construction capital plus Right of Way capital costs).

**Estimate**

The current total project capital cost for the preferred alternative (escalated to mid-year construction), is estimated at $28,256,119 for construction and $810,000 for right of way items. Please see Attachment E for the Project Cost estimate.

## 9. DELIVERY SCHEDULE

| Project Milestones | | Milestone Date (Month/Day/Year) |
|---|---|---|
| PIR SIGNED | M010 | 6/27/2019 (A) |
| PROGRAM PROJECT | M015 | 5/20/2020 (A) |
| BEGIN ENVIRONMENTAL | M020 | 10/2/2020 (A) |
| DED | M120 | 6/30/2022 (A) |
| PA&ED | M200 | 6/30/2023 (T) |
| STRUCTURES PS&E | M378 | 6/1/2024 (T) |
| PS&E TO DOE | M377 | 10/1/2024 (T) |
| PROJECT PS&E | M380 | 12/1/2024 (T) |
| RIGHT OF WAY CERTIFICATION | M410 | 2/15/2025 (T) |
| READY TO LIST | M460 | 3/1/2025 (T) |
| FUND ALLOCATION | M470 | 6/1/2025 (T) |
| HEADQUARTERS ADVERTISE | M480 | 7/15/2025 (T) |
| BID OPENING | M490 | 8/15/2025 (T) |

| Project Milestones | | Milestone Date (Month/Day/Year) |
|---|---|---|
| AWARD | M495 | 9/15/2025 (T) |
| APPROVE CONTRACT | M500 | 10/15/2025 (T) |
| CONTRACT ACCEPTANCE | M600 | 12/7/2026 (T) |
| END PROJECT | M800 | 12/29/2028 (T) |

## 10. RISKS

A Risk Management Plan has been prepared and is included in this report as Attachment K. The following risks are considered medium to high risk:

- Transit Agency Opposition: As a result of the planned relocation of the bus pads from its existing location off of US 101, transit agency requests to address service concerns may not be feasible in the design of Alternative 4B.

- As a result of the project encountering unidentified utility conflicts during construction, required relocation of unidentified utilities may occur, which would lead to extra work and schedule delays.

## 11. EXTERNAL AGENCY COORDINATION

### Federal Highway Administration (FHWA)

This project is a delegated project in accordance with the current Stewardship and Oversight Agreement signed between FHWA and Caltrans on May 28, 2015.

### Local Agencies

U.S. Fish and Wildlife Service (USFWS)

Biological and Natural Environment Study

Transportation Agency of Marin (TAM) and Town of Corte Madera

Cooperative agreement with TAM and/or the Town of Corte Madera regarding possible fund contribution. Maintenance Agreement may need to be updated as a result of the proposed intersection control modifications.

Marin Transit and Golden Gate Transit

The transit agency will be contacted to coordinate relocate bus stop and potential transit detours/delays during construction.

## 12. PROJECT REVIEWS

Table 12-1 lists the name/title of the reviewer and the date of the review.

**Table 12-1: Project Personnel**

| Title of Reviewer | Name | Date of Review |
|---|---|---|
| District Program Advisor | Hubert Wong | 06/22/23 |
| HQ Bridge Program Advisor | Summer Silveria | 06/22/23 |
| District Maintenance | Danilo Amora | 06/21/23 |
| District Safety Review | Hai Xu | 06/21/23 |
| Constructability Review | Jeffrey Hupe | 06/21/23 |
| Project Manager | Daniel Cuellar Vite | 06/21/23 |
| HQ Project Delivery Coordinator | Robert Effinger | 06/21/23 |
| District Design Liaison | Solomon Tesfe | 06/21/23 |

## 13. PROJECT PERSONNEL

Table 13-1 lists the project personnel by name, unit, and telephone number.

**Table 13-1: Project Personnel**

| Name | Unit | Phone |
|---|---|---|
| Daniel Cuellar Vite | Project Management | 510-385-6936 |
| Hubert Wong | D4 Bridge Program Advisor | 510-506-3963 |
| Ghulam Popal | Senior Engineer, Design Marin & Napa | 510-418-0725 |
| Emarnan Pongpairoj | Project Engineer, Design Marin & Napa | 510-807-1481 |
| Marc Friedheim | Structure Design Engineer | 916-227-8480 |
| Arnica MacCarthy | Senior Environmental Planner | 510-506-0481 |
| Deepthi Madabushi | Asset Manager | 510-708-5586 |
| Mojgan Osooli | Storm Water Coordinator | 510-925-0380 |
| Mark Morancy | Hydraulic Engineer | 510-418-8338 |
| Rick D'Onofrio | Materials Design Engineer | 510-622-1776 |
| Shella Orson | R/W Project Coordinator | 510-908-9183 |
| Ganesh Karkee | Traffic Manager (TMP) | 510-907-1526 |
| Rafael Ravelo | D4 QMP Team Lead | 510-506-9265 |

## 14. ATTACHMENTS (Number of Pages)

A. Final Environmental Document (Cover Sheet) (2)
B. Project Location Map (1)
C. Layout Plan & Typical Cross Section (2)
D. Structure Advance Planning Study (APS) (4)
E. Project Cost Estimate (10)
F. Bridge Inspection Report (55)
G. Right of Way Data Sheet (7)
H. Ramp Metering and TMS Recommendation (2)
I. Transportation Management Plan Data Sheet (2)
J. Traffic Operation Analysis (19)

K. Risk Management Plan (2)
L. Drainage Recommendation (8)
M. Materials Recommendations (3)
N. Preliminary Foundation Report (59)
O. Storm Water Data Report (Cover Sheet) (1)
P. SHOPP Performance Measures (2)